

The background of the cover is a photograph of the Washington State Capitol building. The building is a large, classical-style structure with a prominent central dome and a portico supported by several columns. The scene is framed by the branches of cherry blossom trees in full bloom, with white and light pink flowers scattered across the image. The sky is a clear, pale blue.

# **Washington State Economic and Revenue Forecast**

November 2015  
Volume XXXVIII, No. 4



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# **Washington State Economic and Revenue Forecast**

Prepared by the  
Economic and Revenue Forecast Council

November 2015  
Volume XXXVIII, No. 4

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# Preface

## **ERFC forecasting structure and schedule**

The Economic and Revenue Forecast Council is required by Chapter 231, Section 34, Laws of 1992 (RCW 82.33.020) to prepare a quarterly state economic and revenue forecast and submit it to the Forecast Council. This report presents the state's economic and General Fund-State revenue forecast. It is issued four times a year. The Washington State GF-S revenue forecast is prepared quarterly in conjunction with the state economic forecast for the Economic and Revenue Forecast Council. The Council consists of six members, two appointed by the Governor and four appointed by the Legislature – one from each caucus of the Senate and House of Representatives. Current members of the Economic and Revenue Forecast Council are listed inside the front cover of this publication. The GF-S revenue forecast is updated four times per year: March (February in even-numbered years), June, September, and November. The staff of the Economic and Revenue Forecast Council is responsible for the preparation of the state's economic forecast and the forecast of the Department of Revenue's GF-S revenue sources as well as GF-S revenue from fines and forfeitures collected by the Administrative Office of the Courts. The staff is also responsible for review and coordination of the revenue forecasts of other agencies that collect relatively large amounts of GF-S revenue. These are the Department of Licensing, the Office of the Insurance Commissioner, the Lottery Commission, the State Treasurer, the Liquor Control Board and the Office of Financial Management. The Office of Financial Management is responsible for summarizing the forecasts of all other state agencies that collect relatively smaller amounts of GF-S revenue.

## **Forecast Procedure**

For each quarterly update, the staff of the Economic and Revenue Forecast Council, under the direction of the Executive Director, reviews (and if warranted, modifies) a national economic forecast prepared by Global Insight, Inc. A state economic forecast is then prepared using an econometric model that links Washington's economy to the national economy. After review by forecast workgroups; the Governor's Council of Economic Advisors; and the Economic and Revenue Forecast Council in public; this state economic forecast (updated for newly released data) is used to prepare a baseline revenue forecast for GF-S and the related funds. The forecasts are based on current law and administrative practices and do not reflect pending legal challenges to GF-S receipts until they are resolved. Additionally, at least two alternative forecasts are prepared for all GF-S and related fund sources and presented to the Forecast Council for approval. Once the Council approves the forecast, it becomes the official forecast of GF-S and related fund revenues.

Data in this publication are accurate through December 1, 2015.

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## Executive Summary

- **The national economy has continued to expand at a solid pace. After growing 3.9% (SAAR) in the second quarter of the year, real GDP slowed, growing at a 2.1% rate in the third quarter.**
- **U.S. employment growth has been weaker this year, averaging 206,000 net new jobs per month. Last year the economy added 260,000 jobs per month.**
- **After consistent weak growth since the end of last year, the U.S. manufacturing sector is now declining.**
- **The Blue Chip Consensus GDP forecast calls for real GDP growth of 2.4% in 2015, down from 2.5% in the previous forecast. After increasing to 2.6% in 2016, we expect growth to moderate as the recovery matures.**
- **Washington employment growth has been slightly weaker than expected in September and historical estimates were revised lower..**
- **Washington exports and manufacturing activity have weakened.**
- **Washington home prices and housing construction continue to improve.**
- **The forecasts for Washington employment growth and income growth are similar to the September forecast.**
- **Revenue collections since the September forecast have come in \$44 million over the forecasted amount.**
- **Once again, small changes in the economic forecast have led to small changes in the revenue forecast.**
- **The forecast of General Fund-State (GF-S) revenue for the 2015-17 biennium was increased by \$113 million and the forecast for the 2017-19 biennium was increased by \$30 million.**
- **The final tally of total GF-S revenue for the 2013-15 biennium, which ended June 30th, was unchanged from September.**

## U.S. Economic Forecast

*The national economy has continued to expand at a solid pace*

The national economy has continued to expand at a solid pace. After growing 3.9% (SAAR) in the second quarter of the year, real GDP slowed, growing at a 2.1% rate in the third quarter. Job gains have continued, but have been at a slower pace so far this year than in 2014. Unemployment continues to fall and is approaching pre-recession levels. The housing market continues

to improve at a slow pace. Federal fiscal policy is stable as any point so far in the recovery. Global economic growth remains weak, and geopolitical events have added to risks abroad. As the current recovery has reached five years in the making, the duration alone has caused skepticism as to whether the recovery will continue. Despite the uncertainty, the underlying trend in the economic recovery remains solid.

*GDP growth is slightly lower than anticipated in September*

U.S. real GDP rose 2.1% (SAAR) in the third quarter of 2015 after growing 3.9% (SAAR) in the second quarter. The slowdown in growth was due in large part to a sizeable inventory correction, which reduced overall GDP growth by 0.6 percentage points. Through the first three quarters of the year, the economy grew at a 2.2% pace, slightly weaker than the 2.4% growth for all of last year. The Blue Chip Consensus GDP forecast, our starting point each forecast cycle, calls for real GDP growth of 2.4% in 2015, down from 2.5% in the September forecast. GDP growth is expected to increase from the weak third quarter to 2.7% (SAAR) in the fourth quarter. Real GDP growth is expected to be 2.6% (SAAR) in 2016, down slightly from the 2.7% (SAAR) growth expected in the previous forecast. We expect growth to moderate as the recovery matures. The forecast calls for growth of 2.5%, 2.4%, and 2.2% in 2017 through 2019 (see Figure 1.5). In September, we expected slightly higher real GDP growth rates of 2.7% in 2017, 2.6% in 2018, and 2.4% in 2019.

*The forecast for employment growth is only minimally changed*

The forecast for employment is only minimally changed since the September forecast. Growth in payrolls is expected to be 2.1% this year after growing 1.9% in 2014. We expect employment growth to slow to 1.6% in 2016, down slightly from the 1.7% growth forecasted in September. The forecast then calls for job growth to trend down through 2019, reaching 0.8% as the economy nears full employment. As a result of the steady job growth, we expect the unemployment rate to drop to 5.3% in 2015 from 6.2% the year before. We expect the unemployment rate to average 4.9% for the rest of the forecast.

*U.S. exports are suffering from weak global growth*

Due to the modest economic growth of U.S. trading partners, foreign trade is not likely to provide a substantial boost to the U.S. economy. GDP growth in U.S. trading partners is the weakest since the recession. The forecast calls for GDP growth in U.S. trading partners to slow further this year before picking up modestly throughout the forecast. We expect real U.S. export growth of just 1.6% this year due both to weak economic growth abroad and a strong U.S. dollar. The forecast calls for real export growth to remain modest. Export growth is more than offset by increased imports in each year of the forecast.

## **Washington Economic Forecast**

The Washington economy is expanding at a solid pace. In recent months Washington employment has grown slightly less than

*The Washington economy is expanding at a solid pace*

expected in the September forecast and historical estimates were revised slightly lower. Washington has been outpacing the nation in personal income growth but Washington exports and manufacturing activity have weakened. Home prices and housing construction activity are improving but construction employment has been flat since the beginning of the year. Seattle area consumer price inflation remains moderate thanks mainly to lower energy costs but shelter costs are rising rapidly.

*The November Washington forecast is similar to September's*

Overall, our November forecast for Washington State is similar to the September forecast. Our November forecast for Washington employment growth in 2015, 2016, and 2017 is slightly weaker than assumed in September due mainly to a slowdown in construction employment growth, but growth in the final two years is higher. We now expect Washington employment to grow 2.8% this year compared to the 3.0% growth rate we assumed in the September forecast. Our forecast for average annual employment growth for 2016 through 2019 is 1.5% per year, the same rate as expected in September. As in the September forecast we expect growth to continue but to gradually slow down as the recovery matures. Our November forecast for nominal personal income growth this year of 5.4% is slightly higher than the 5.1% rate in the September forecast, however, our new forecast for nominal personal income growth from 2016 through 2019 averages 5.2% per year, down slightly from 5.3% in the September forecast. We expect total housing units authorized by building permits to rise 21.1% to 41,000 units in 2015 due to first quarter surge. We expect a 5.2% decline in 2016 to 38,900 followed by growth of 9.4% to 42,600 units in 2017, 3.7% to 44,100 in 2018, and 1.1% to 44,600 in 2019. Thanks to the drop in oil prices compared to last year, we expect the all-items Seattle CPI to rise only 1.4% this year, down from 1.8% in 2014. We expect all-items Seattle area inflation rates of 2.1% in 2016, 2.4% in 2017, 2.3% in 2018, and 2.1% in 2019.

## **Revenue Forecast**

*Changes to the economic forecast were very small, resulting in small changes to the revenue forecast*

Revenue collections since the September forecast have been slightly higher than expected, coming in at \$44 million (1.7%) more than the forecasted amount. The economic outlook, however, is very similar to that of September. While many of the aspects of the new forecast were slightly weaker than the previous forecast, the net change in revenue turned out to be positive, but just barely. The slight increases in forecasted revenue, which amounted to less than half of one percent per biennium, stemmed mainly from increases in forecasted auto sales and service-providing industries.

The final tally of total revenue for the 2013-15 biennium was \$33,666.0 million, the same as estimated in September. Since the September forecast, revenue sources that are tracked monthly came in \$43.9 million higher than forecasted. Expected

*GF-S forecast  
change by  
biennium  
(millions):*

*13-15: \$0  
15-17: +\$113  
17-19: +\$30*

revenue from non-economic sources, in this case large expected audit payments, added a further \$14.7 million to the forecast. Changes to the economic forecast resulted in a \$54.8 million increase to projected collections for the rest of the biennium. The total of these three components was a \$113.4 million increase in projected revenue for the current 2015-17 biennium. The forecast for the 2017-19 biennium has been increased by \$29.6 million. GF-S revenue is now forecasted to total \$37,204.4 million in the 2015-17 biennium and \$40,567.5 million in the 2017-19 biennium.



## Chapter 1: U.S. Economy – Current Conditions and Forecast

- **The national economy has continued to expand at a solid pace. After growing 3.9% (SAAR) in the second quarter of the year, real GDP slowed, growing at a 2.1% rate in the third quarter.**
- **Employment growth has been weaker this year, averaging 206,000 net new jobs per month. Last year the economy added 260,000 jobs per month.**
- **The labor market continues to tighten and the number of job openings has continued to trend upward since the beginning of last year.**
- **After consistent but weak growth since the end of last year, the manufacturing sector is now declining.**
- **The modest housing market recovery has continued although recent data have generally been weak. We expect growth to resume in the forecast.**
- **Monetary policy remains accommodative, but a rate increase is expected in December.**
- **Weak foreign GDP growth remains a threat to the U.S. economy.**
- **The Blue Chip Consensus GDP forecast calls for real GDP growth of 2.4% in 2015, down from 2.5% in the previous forecast. After increasing to 2.6% in 2016, we expect growth to moderate as the recovery matures.**
- **A more robust recovery in housing remains the most significant upside risk. A slowdown in global growth is the major downside risk.**

### Current Conditions

*The national economy has continued to expand at a solid pace*

The national economy has continued to expand at a solid pace. After growing 3.9% (SAAR) in the second quarter of the year, real GDP slowed, growing at a 2.1% rate in the third quarter. Job gains have continued, but have been at a slower pace so far this year than in 2014. Unemployment continues to fall and is approaching pre-recession levels. The housing market continues to improve at a slow pace. Federal fiscal policy is as stable as at any point so far in the recovery. Global economic growth remains weak, and geopolitical events have added to risks abroad. As the current recovery has reached five years in the making, the duration alone has caused skepticism as to whether the recovery

will continue. Despite the uncertainty, the underlying trend in the economic recovery remains solid.

*U.S. real GDP rose 2.1% (SAAR) in the third quarter*

U.S. real GDP rose 2.1% (SAAR) in the third quarter of 2015 after growing 3.9% (SAAR) in the second quarter. The slowdown in growth was due in large part to a sizeable inventory correction, which reduced overall GDP growth by 0.6 percentage points. Consumer spending made the largest contribution to growth in the third quarter, increasing 3.0% (SAAR) and adding 2.05 percentage points to overall GDP growth. Spending growth was positive for both goods and services, with each adding about 1 percentage point to GDP. Fixed investment slowed to 3.4% (SAAR) growth due primarily to a 7.1% (SAAR) contraction in nonresidential construction. Investment in equipment was strong with 9.5% (SAAR) growth. Residential construction slowed slightly but maintained its strong growth at 7.3% (SAAR). Fixed investment added 0.5 percentage points to overall GDP growth. Net exports subtracted from overall growth by 0.2 percentage points as exports grew just 0.9% and imports grew 2.1%. Both the strong U.S. dollar and weak economic growth abroad are weighing heavily on exports. Government spending remained positive in the third quarter, growing 1.7% (SAAR) and adding 0.3 percentage points to GDP growth. Federal government increased 0.1% (SAAR), while state and local government increased 2.6% (SAAR). Through the first three quarters of the year, the economy grew at a 2.2% pace, slightly weaker than the 2.4% growth for all of last year.

*Spending growth has been inconsistent despite gains in income*

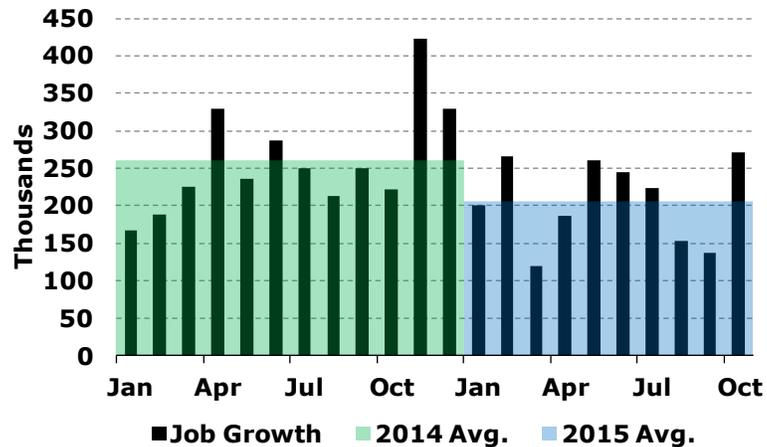
Rising personal income is essential for consumer spending to continue to improve. Personal income growth improved to 5.4% (SAAR) in October after growing 2.2% (SAAR) the month before. Personal income is now up 4.6% from a year ago. Income growth was led by dividends, which increased 11.0% (SAAR) in October. Rental income was also strong, growing 9.8% (SAAR). Wage growth increased 7.0% (SAAR) in October led by 8.1% (SAAR) growth in the private sector. Wages and salaries are now up 4.9% year over year. Weighing down income growth was a sharp drop in unemployment insurance benefits and a decline in interest income. Real disposable personal income growth (income after taxes and adjusted for inflation) was again strong in October, growing 4.4% (SAAR). Real disposable income is now up 3.9% over the year. Even with real income growth remaining strong in recent months, spending growth has lagged. Consumption increased just 1.5% (SAAR) in October following a 0.9% (SAAR) increase in September. Spending on goods was up just 1.0% (SAAR) while spending on services was up 1.7% (SAAR). Some of the slowdown in spending was due to a sharp drop in utility spending that took close to 0.2 percentage points off growth. The personal saving rate rose to 5.6% from 5.3% in September. The saving rate is up over a full percentage point since October of last year. Retail sales were again weak in October, growing just 0.6% (SAAR) and are now up 1.7% over the year. Weighing down growth were declines in gasoline

stations, motor vehicles, and food and beverage stores. Nonstore retailers, food and drinking places, and building materials all had strong growth.

*Employment growth has been slower than last year*

Employment growth has been weaker this year than in 2014, averaging 206,000 net new jobs per month. Last year, the average net employment gain per month was 260,000 (see Figure 1.1). Employment growth exceeded expectations in October, with employers adding 271,000 new jobs. Almost all of the gain came from the private sector which added 268,000 jobs while government payrolls gained 3,000. Job gains were spread across industries. Professional and business services gained 78,000 with strong growth in temporary help of 24,500. Employment growth was also strong in education and health services (+57,000), retail trade (+43,800), and leisure and hospitality (+41,000). Employment growth in construction accelerated, with 31,000 net new jobs in October. Energy-related industries continue to cut back with a 4,000 job decline in natural resources and mining. Export-dependent industries have also been struggling due to the strong dollar. The manufacturing sector in particular has been weak, with no change in employment in October after declining in each of the past two months.

**Figure 1.1: U.S. Employment Growth**



Source: Bureau of Labor Statistics, data through October 2015

*The labor market is improving*

The ongoing labor market recovery is absorbing unemployed workers and bringing some new entrants into the labor force. The unemployment rate has fallen from 5.7% in October 2014 to 5.0% in October 2015. During this time, the labor force increased by 785,000 people although the labor force participation rate has continued to slowly trend downward. Labor force participation for October was 62.4%, unchanged from September but down from 62.8% a year ago. Previously discouraged workers are re-entering the labor force now that they believe they have a chance at employment. Joblessness,

while still elevated at 7.9 million people, has dropped by 1.075 million people since last year. The most comprehensive measure of underemployment, which includes those marginally attached to the labor force plus workers employed part time for economic reasons, has declined from 11.5% to 9.8% since last year.

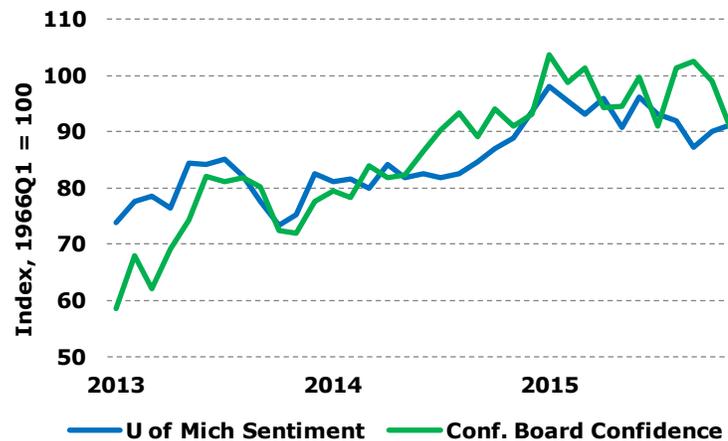
*Job openings continue to trend upward*

The number of job openings has continued to trend upward since the beginning of last year. In July, job openings reached 5.7 million, their highest level since tracking started in 2000. Openings have since come down, but remain close to the July peak at 5.5 million in September. Despite the upward trend in openings, hiring has remained fairly steady in the 5.0 to 5.2 million range since last year. This could suggest that companies are having a hard time filling positions. The gap between hiring and job openings started in February of this year and has been growing recently, indicating a tightening labor market, and is a good indication that wage pressures are building.

*Consumer attitudes are diverging*

Consumer attitudes have been mixed recently. Two of the most prominent measures of confidence have given diverging indications the past six months (see Figure 1.2). The University of Michigan Consumer Sentiment Index rose 1.3 points to 91.3 in November. This was the second consecutive month of increase after trending down since the beginning of the year. Both the current conditions and expectations components increased. Workers are still waiting on wage gains and a lot of people remain skeptical about current gas prices. The Conference Board Consumer Confidence measure indicates much different consumer attitudes. This index fell sharply in November, declining 8.7 points to 90.4, the second consecutive decline. Confidence as measured by the Conference Board is now at the lowest level since July 2014. Feelings about current conditions were down and people were more pessimistic about the economy over the next six months. Respondents continue to say jobs are hard to get and that business conditions are unlikely to improve in the near term.

**Figure 1.2: Consumer Confidence and Sentiment**



Source: University of Michigan, Conference Board; data through November 2015

*Small business confidence remains weak*

Small business confidence appears to have stabilized after deteriorating since the beginning of the year. After reaching a post-recession high of 100.4 in December 2014, the National Federation of Independent Business (NFIB) small business optimism index trended down, reaching a trough of 94.1 in June. Since then, confidence has slowly moved higher, reaching 96.1 in September and remaining there in October. This is the same reading as a year ago. The index is consistent with a slowly expanding economy. The survey continues to indicate that small businesses are having a hard time finding qualified labor. While government regulation and taxes continue to be cited as the most important problem for small businesses, labor quality has now supplanted sales as the next most important issue.

*Oil prices remain low*

Oil prices have remained low since reaching a trough in August. With weak global demand, oil prices dropped by over half since last summer. West Texas Intermediate (WTI) was \$41 per barrel for the week ending November 20<sup>th</sup> while the Brent price was \$42 per barrel. In response to the low prices, U.S. oil production fell by about 500,000 barrels per day since peaking in June. U.S. production has since stabilized. U.S. crude production is on pace for 9.2 million barrels per day. The strong U.S. dollar has also kept oil prices contained. Internationally, OPEC won't fight the drop in prices in hopes that some of the more expensive drilling techniques being deployed in the U.S. will no longer be profitable and shut down. Amidst the recent drop in energy prices, geopolitical conflict has continued. Even with the conflict in the Middle East intensifying, energy markets have been able to digest the turmoil. Disruptions related to the unrest have been viewed as temporary and are no longer causing large price swings. An agreement between the U.S. and Iran regarding Iran's nuclear capabilities has the potential to boost Iranian oil production by up to 700,000 barrels per day, putting further downward pressure on prices.

*Inflation remains low*

Headline inflation has been virtually nonexistent the past year as energy prices have fallen and remained low. In October the Consumer Price Index (CPI) increased 0.2% over the month (SA) pushing up the year-over-year change in the Consumer Price Index (CPI) to 0.1%. Energy prices inched up as well in October, increasing 0.3%, although they remain 17.3% lower than a year ago. Gasoline prices increased 0.4% in October, but remain 27.8% lower than last year. Food price inflation remains tame, at 0.1% over the month and 1.6% over the year. Shelter costs increased 0.3% in October and are now up 3.2% year over year. Core inflation, which excludes food and energy, was 0.2% in October and 1.9% since last year.

The modest housing market recovery has continued. Recent data have generally been weak although there remains a great deal of upside in the housing recovery. The excess stock of distressed properties has largely been worked through and fewer are

*The modest housing recovery has continued, although recent data have been weak*

available for sale at deep discounts. Distressed sales made up only 6.3% of the market of existing home sales in October. While the trend in home sales has generally been positive, the recovery remains uneven. Sales of existing homes declined 3.4% in October to 5.36 million units (SAAR). Single-family home sales decreased 3.7% while condo and co-op sales decreased 1.6%. The market for existing homes remains tight. Total inventory in October fell 2.3% to 2.14 million and remains 4.5% lower than a year ago. Inventory is at a 4.8-month supply at the current sales pace, up from 4.7 in September. New home sales have been trending down since the beginning of the year. The number of new home sales increased in October by 10.7% to 495,000 units (SAAR), but remains below sales earlier in the year. Due partially to weak sales, the supply of new homes is steadily increasing. Inventory dropped by 0.5 months from September, but is above last year by 0.2 months at a 5.5-month supply. Mortgage rates remain at historically low levels. The rate for a conventional 30-year mortgage in November was 3.94%, up from 3.80% in September.

*New construction has stalled*

New home construction has stalled and remains at levels normally only seen in recession. Housing starts declined in October to 1.060 million units (SAAR) from 1.191 million units (SAAR) in September. Total housing starts for calendar year 2014 were 1.001 million units, up 7.8% from 2013. This ended six consecutive years where housing starts were fewer than 1.0 million units annually. Prior to the recession, the number of housing starts were never fewer than 1.0 million units annually in the post World War II era. The decline in October came primarily from the multi-family segment which declined 25.1% over the month. Single-family starts also declined, dropping by 2.4% from September. Housing permits show a similar trend to starts over the past year, although they were much better in October, increasing 5.1%. Single-family permits increased 3.0% while multi-family permits increased 8.5%. The stall in the housing market has caused the rise in homebuilder confidence to pause as well. The National Association of Homebuilders (NAHB) housing market index, which measures confidence of homebuilders, fell to 62 in November from a post-recession high of 65 in October (readings above 50 indicate a positive view of conditions).

*Home values are once again increasing*

The pause in home price appreciation over the summer has ended and values are once again increasing. The seasonally adjusted Case-Shiller 20-city home price index increased 0.6% over-the-month in September, the second consecutive increase. Home prices are now 5.5% higher than a year ago, the highest annual increase in over a year. Home prices appear to be settling into a more sustainable growth pattern. Prices have increased 27.7% since the trough of the recession, but remain 13.0% below their previous peak. Rising prices encourage new construction and enable previously underwater homeowners to sell their homes and trade up for more expensive houses.

Housing remains relatively affordable by historic standards, although affordability is down sharply from the past two years. Stronger wage growth and easier access to credit will help growth going forward.

*The manufacturing sector is now declining*

After consistently weaker growth since the end of last year, the manufacturing sector is now declining. The Institute of Supply Management (ISM) Report on Business indicated that activity in the manufacturing sector contracted in November for the first time in three years (see Figure 1.3). The ISM index declined to 48.6 from 50.1 in October (index levels above 50 indicate expansion). Details from the report were generally negative in comparison to the month before. New orders declined 4.0 points to 48.9 and production fell 3.7 points to 49.2. The employment component rebounded to positive territory in October, increasing 3.7 points to 51.3. The latest G-17 report from the Federal Reserve, which measures manufacturing output, indicated an increase in October of 0.4% after declining in each of the past two months. Both durable and nondurable goods manufacturing had slight increases. Manufacturing output is now 1.9% above last year. New orders for core capital goods (nondefense capital goods excluding aircraft) increased 1.3% in October. Even with the recent growth, however, new orders remain 3.8% below year ago levels.

**Figure 1.3: Institute for Supply Management Manufacturing Index**



Source: Institute of Supply Management; data through November 2015

*The Federal Reserve is setting the stage for rate increases*

Monetary policy remains accommodative, but the nontraditional policies of the last few years employed by the Federal Reserve have essentially come to an end. Policymakers are now shifting their focus to determining when and how rapidly the fed funds rate should be raised. Even with inflation hovering around 1%, it is very likely that rates will be raised in December. Concerns related to recent global economic weakness and volatility in

financial markets have abated. It is likely that the Federal Reserve will take a gradual approach to raising rates. The Summary of Economic Projections showed the median estimate of the target fed funds rate implied a 25-basis point hike every other meeting for next year.

*U.S. exports have been impacted by weak global growth and a strong dollar*

Weakness in economic growth abroad remains a threat to the U.S. recovery and has caused U.S. exports to fall. Canada, the largest U.S. export market in terms of value, is just emerging from a recession. Economic activity in China has continued to weaken to the slowest rate in decades. The Japanese economy continues to languish and is hovering around zero growth. European economies remain weak as well. Real GDP in the Eurozone is still lower than in 2008. In addition to the weak global growth, the dollar has continued to strengthen, making U.S. exports more expensive to the rest of the world. Measured against major U.S. trading partners, the dollar is the strongest it has been in a decade. U.S. exports have declined in each of the past three quarters. In the third quarter of 2015, exports were down 7.8% year-over-year, a post-recession low. Declines were present in almost all sectors, with each of our 10 largest sectors posting annual declines.

## Forecast

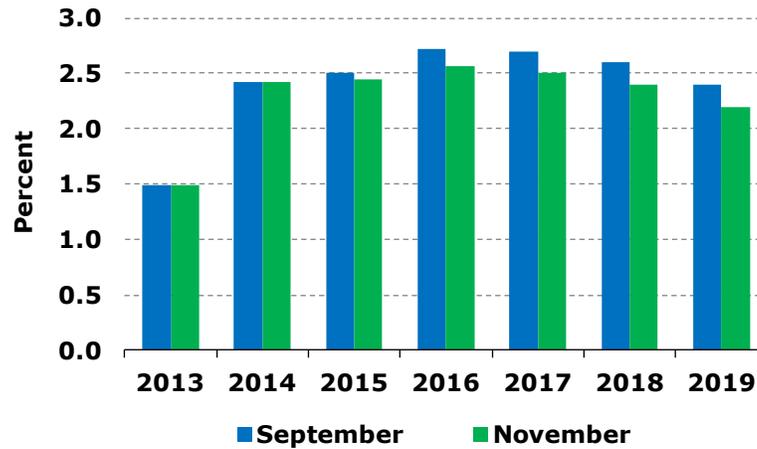
*Our forecast is based on the November Blue Chip Consensus forecast*

The economic forecast was based on a modified version of Global Insight's November 2015 Control forecast for the U.S. economy. Consistent with our standard practice, the U.S. real GDP forecast was adjusted to match the November Blue Chip Consensus GDP forecasts for 2015 and 2016. We also incorporated the latest long term Blue Chip GDP forecast for 2017 through 2019. Our oil price forecast was adjusted to incorporate futures prices for both Brent crude oil and for West Texas Intermediate crude.

*Real GDP growth is slightly lower*

The Blue Chip Consensus GDP forecast, our starting point each forecast cycle, calls for real GDP growth of 2.4% in 2015, down from 2.5% in the September forecast. GDP growth is expected to increase from 2.1% (SAAR) in the third quarter to 2.7% (SAAR) in the fourth quarter. Real GDP growth is expected to be 2.6% (SAAR) in 2016, down slightly from the 2.7% (SAAR) growth expected in the previous forecast. We expect growth to moderate as the recovery matures. The forecast calls for growth of 2.5%, 2.4%, and 2.2% in 2017 through 2019 (see Figure 1.5). In September, we expected slightly higher real GDP growth rates of 2.7% in 2017, 2.6% in 2018, and 2.4% in 2019.

**Figure 1.5: U.S. Real GDP Growth, SAAR**



Source: U.S. Bureau of Economic Analysis, ERFC November 2015 forecast; historical data through 2014

*This recovery will be the longest on record*

The positive GDP growth throughout the forecast will make the recovery from the 2007-09 recession the longest on record. From the second quarter of 2009 through the end of our forecast in 2019, the recovery is forecasted to be at least 126 months. Prior to this, the longest recovery was from the 1990-91 recession, lasting 120 months. The primary reason for the exceptional length of the current recovery has been the depth of the recession. Despite positive GDP growth, the labor market remained weak for an extended period. It took 58 months of recovery just to reach the previous peak in employment. When comparing recoveries in the duration since reaching the previous employment peak, this expansion appears more in line with other post war expansionary periods. The average post war expansion has had 43 months of additional employment growth since reaching its previous peak. We expect growth to continue throughout the end of the forecast in 2019, which would result in 68 months of employment gains after reaching the previous peak.

*Oil prices remain low*

The forecast for oil prices has remained essentially unchanged since the September forecast. The refiner's acquisition price of crude oil fell to \$48 per barrel in the third quarter, just above the \$47 expected in the September forecast. We expect the price to reach a trough of \$46 per barrel in the fourth quarter of this year. The refiner's acquisition price of crude oil in 2016 is expected to average \$51 per barrel, unchanged since the previous forecast. While oil prices are expected to rise starting in 2016, they will remain well below the levels seen earlier in the recovery. By the end of 2019, the refiner's acquisition price is expected to increase to \$59. Low oil prices continue to affect U.S. oil production, although output is no longer falling. Oil production is up 153,000 barrels per day since last year after

falling over the summer months. U.S. oil production still remains about 400,000 barrels per day below its previous peak. Weak economic growth in China and Europe has lowered the demand for oil. The strong dollar has kept downward pressure on oil prices recently. With low oil prices, inflation (as measured by the implicit price deflator) is forecasted to be just 0.3% in 2015. We expect low inflation throughout the forecast ranging from 1.4% to 1.9%.

*Spending growth has been revised slightly higher*

Real consumer spending was slightly stronger than expected in the third quarter, contributing to a slight upward revision to the forecast for 2015. We now expect real consumer spending to grow 3.2% this year compared to 3.0% in the September forecast. Low energy prices will continue to help consumers' purchasing power. Consumers remain much more optimistic than earlier in the recovery and there are indications that wage growth is increasing. Unemployment continues to fall and more part-time workers are finding full-time jobs. We expect real spending growth to continue to outpace overall real GDP growth next year. The forecast calls for real consumption growth to slow from the 3.2% this year to 2.9% in 2016. We expect growth in real consumption to continue to slow as the recovery matures and gradually reach 2.3% in 2019. We expect consumer spending to contribute 2.2 percentage points to real GDP growth this year followed by a 1.9 percentage point contribution on average for each year of the forecast through 2019.

*Personal income growth will pick up*

Real disposable personal income growth rebounded to 2.7% in 2014 after declining to 1.4% in 2013. Lower energy prices will keep inflation low this year, providing a boost to real incomes. We expect growth to accelerate to 3.2% in 2015 before moderating to 2.9% in 2016. Growth is expected to remain solid through 2019, averaging 3.0% per year. Nominal disposable income is expected to grow 3.6% this year, led by strong growth in dividend income of 6.5% and rental income of 7.4%. Wages and salaries are expected to grow 4.0% this year after increasing 5.1% in 2014. The forecast then calls for growth in wages and salaries to average 4.4% per year for the remainder of the forecast. Wage growth will continue to be led by the private sector, with growth of 4.3% this year and an average of 4.6% annually for the remainder of the forecast. Income will also be boosted in the latter part of the forecast by interest income as interest rates rise and return to pre-recession rates.

*The outlook for employment is essentially unchanged*

The forecast for employment is only minimally changed since the September forecast. Growth in payrolls is expected to be 2.1% this year after growing 1.9% in 2014. We expect employment growth to slow to 1.6% in 2016, down slightly from the 1.7% growth forecasted in September. The forecast then calls for job growth to trend down through 2019, reaching 0.8% as the economy nears full employment. As a result of the steady job growth, we expect the unemployment rate to average 5.3% in

2015, down from 6.2% the year before. We expect the unemployment rate to average 4.9% for the rest of the forecast. The continued strengthening of the labor market and corresponding fall in the unemployment rate will create an incentive for more and more marginally attached workers to begin looking for a job. Older people are also staying in the workforce longer. These two factors will push the labor force participation rate up from a trough of 61.3% this year to 62.0% in 2019.

*Private sector hiring will continue to outpace public sector hiring*

Employment growth in nonfarm payrolls has been led by private sector hiring throughout the recovery as the public sector has been weighed down by budget concerns. While state and local governments have largely worked through their budgetary issues and have started hiring again, the federal government continues to shed jobs. We expect the drag from weak government job growth to continue through 2017. Private sector employment is estimated to have reached 116.0 million in the first quarter of last year, making up all of the jobs lost during the recession. We do not expect the job losses in the public sector to be made up until after 2019. Federal government employment will continue to decline throughout the forecast, with an exception of slight growth this year. This will be more than offset by modest gains in state and local government employment keeping total government employment growth positive. The forecast calls for total government employment to increase 0.5% this year after no growth in 2014. Government payrolls are expected to increase another 0.6% in 2016. We then expect growth in overall government employment to average 0.9% through 2019. We expect private sector job growth of 2.4% this year, which would mark the fastest growth since 1999. The forecast calls for private sector job growth to gradually slow throughout the remainder of the forecast to just 0.8% in 2019.

*Business investment will be slower this year*

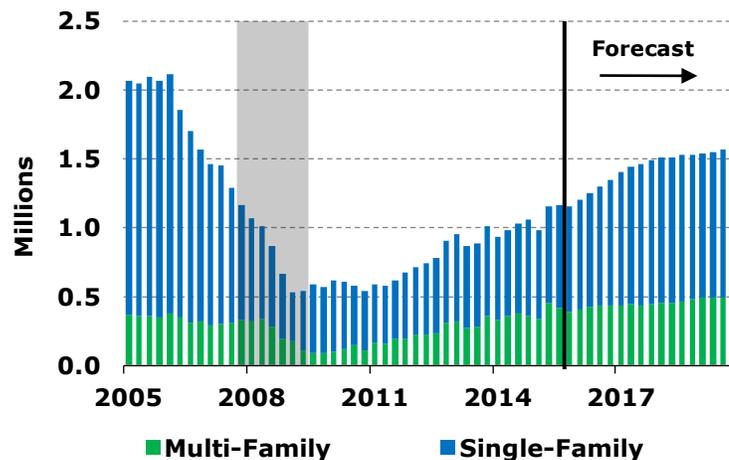
Business investment continues to grow despite lingering headwinds. The drop in oil prices, which is good for overall growth, lowers the incentive for additional investment by energy companies. The strong U.S. dollar has resulted in a drop in exports and brought the capital-intensive manufacturing sector to a standstill. Plunging agricultural prices have led to a collapse in spending on agricultural related equipment. The weak economic outlook abroad has also given businesses pause. On the plus side, vacancy rates for office buildings fell to 16.5% in the third quarter, from 16.6% for the second quarter. We expect real nonresidential construction to contract this year by -0.7%, after growing 8.1% in 2014. The slowdown is due to a decline in mining and petroleum structures caused by the recent plunge in oil prices. The forecast calls for growth to rebound to 5.6% in 2016 as the drag of low oil prices diminishes. The forecast then calls for growth to average 3.4% per year through 2019. Equipment investment is expected to have strong growth throughout the forecast as businesses expand and improve productivity. Although we do not expect to see the double-digit

growth experienced early in the recovery, we do expect capital equipment to remain an important driver of GDP growth. Investment in equipment and software is expected to grow 3.3% this year. The forecast then calls for growth to reach 6.4% in 2017 before declining to 3.3% in 2019. We expect overall real nonresidential fixed investment to grow 3.4% this year and accelerate to 5.2% in 2016. We then expect growth to gradually moderate throughout the forecast and reach 3.6% in 2019.

*The modest housing recovery will continue*

The housing recovery so far has been modest, although we expect growth to pick up throughout the forecast. Some of the barriers facing the housing sector have receded. Lending standards for homebuyers and developers continue to ease. Much of the surplus of distressed properties caused by the recession has been worked through. Continued improvement in the housing market remains dependent on job growth and access to financing. The forecast calls for growth in housing starts of 11.4% for this year, up from 7.8% in 2014. The forecast expects the robust growth in housing starts to continue over the next two years at 14.5% and 13.7%. Growth in single-family starts is expected to be 10.7% this year, up from 4.3% in 2014. Growth will accelerate to 19.2% in 2016 and 18.5% in 2017. The forecast then calls for single family housing growth to slow in 2018 and 2019 at 4.8% and 0.9%. The forecast calls for this year to be the end of exceptional growth in the multi-family housing segment after growing at double-digit rates in each of the past four years. We expect 12.6% growth this year and then another solid year of growth in 2016 at 6.1%. We expect the multi-family segment to grow 4.0%, 4.9%, and 7.4% in 2017 through 2019. The forecast calls for total housing starts to continue to grow throughout the forecast and reach 1.5 million in 2018 (see Figure 1.5).

**Figure 1.5: U.S. Housing Starts**



Source: U.S. Census Bureau, ERFC November 2015 forecast; historical data through 2014 Q3

*The housing market will continue to improve*

The housing market will continue to improve, particularly while interest rates remain low and inventories are lean. The Federal Reserve has worked to keep mortgage rates low and stimulate the housing market throughout the recovery. This support is starting to diminish and will continue to do so moving forward. Mortgage rates for a conventional 30-year fixed rate mortgage are expected to gradually rise from 3.9% this year to 5.7% in 2019. Population remains on an upward trend and employment continues to increase at a solid pace. The number of housing units remains at a historically low level and we expect rising demand as household formation returns to more typical levels. The forecast calls for total housing starts to reach 1.56 million in 2019, still 25% below the peak in 2005.

*Weak foreign demand has weighed down export growth*

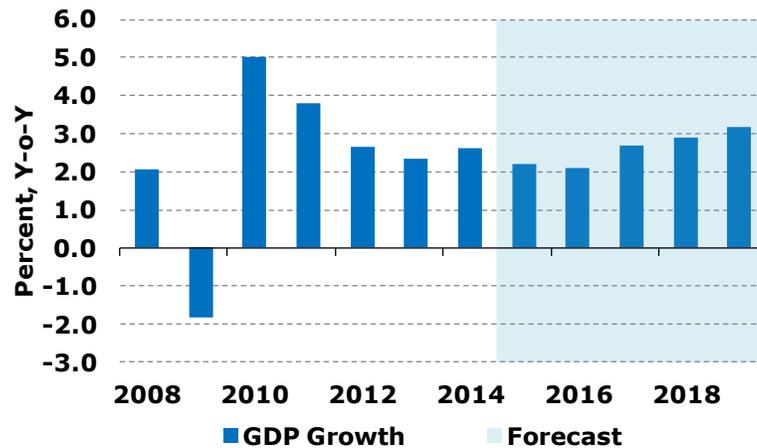
Economic growth of major foreign economies remains weak. Canada is just emerging from a recession in the first half of the year. Much of the recent weakness has been attributed to low oil prices. The recovery in the Eurozone has lost momentum with real GDP growth falling to 0.3% in the third quarter. The latest Blue Chip forecast calls for 1.5% growth this year for the Eurozone followed by 1.7% growth in 2016. Economic growth in Mexico, the United State's third largest trading partner, has slowed as well. Real GDP growth in the first half of 2015 was 2.3% year over year compared to 2.5% in the second half of 2014. Low oil prices have led to a cut in government spending over the next year and a half. China, which is our largest export market outside of North America, continues to slow. Weak export demand for Chinese goods has added to the struggle the Chinese have had transitioning to a more domestic consumer driven economy. Chinese GDP growth in 2014 was 7.3% (SAAR), well below the 2005-11 average of 11%. The most recent Blue Chip forecast calls for Chinese growth to slow further, with growth of 6.8% (SAAR) this year and 6.4% (SAAR) in 2016. Japan has once again slipped into a recession in the third quarter. The most recent Blue Chip forecasts expect slow growth in the near term of 0.6% this year followed by 1.1% in 2016.

*Export growth will remain positive, but will be outweighed by import growth*

Due to the modest economic growth of U.S. trading partners, foreign trade is not likely to provide a substantial boost to the U.S. economy. GDP growth in U.S. trading partners is the weakest since the recession (see Figure 1.6). After growing 2.6% in 2014, the forecast calls for GDP growth in U.S. trading partners to slow to 2.2% this year. We expect growth to slow further to 2.1% in 2016. The forecast then calls for GDP growth in U.S. trading partners to grow 2.7%, 2.9%, and 3.2% in 2017 through 2019. We expect real U.S. export growth of just 1.6% this year due both to weak economic growth abroad and a strong U.S. dollar. The forecast calls for real export growth to remain modest at 2.5% in 2016 as global growth remains weak. Exports are expected to rebound in 2017 to 4.3%. We then expect real export growth to moderate to 2.0% and 3.9% in 2018 and 2019. Export growth is more than offset by increased imports in each year of the forecast. Net exports are expected to reduce overall

GDP growth by 0.6 percentage points this year. Beyond 2015, net exports are expected to reduce GDP growth by 0.5 percentage points on average through 2019.

**Figure 1.6: Real GDP Growth of Important U.S. Trading Partners**



Source: Global Insight, ERFC November 2015 forecast; historical data through 2014

*Fiscal policy uncertainty remains low*

Uncertainty surrounding fiscal policy remains low without any real push for dramatic deficit reduction or spending in the near term. The U.S. Senate recently passed a two year budget deal that would prevent a U.S. default and lowers the risk of a government shutdown. After peaking at \$1,329 billion in 2010, the federal budget deficit has shrunk each year. The forecast calls for 2015 to be the trough in the deficit at \$597 billion. We expect the sharp cuts in real defense spending that started in 2011 to end this year with another \$9.2 billion reduction. The forecast then calls for a \$20.1 billion increase in 2016 to reach \$700 billion and remain there in 2017. We then expect minimal declines in real defense spending through 2019. Real nondefense purchases are expected to grow this year and next before declining slowly through 2019. Combined, federal government spending will peak in 2016 then decline slowly throughout the forecast. State and local governments, having worked through the majority of their budget constraints, will more than offset the decline at the federal level. The forecast assumes 2014 was the trough in total real government purchases. We expect total real government spending to grow 0.8% this year and pick up to 2.1% in 2016. We then expect growth to average 0.4% per year from 2017 through 2019.

*The Fed is normalizing its monetary policy*

The Federal Reserve is now moving to normalize monetary policy after years of measures aimed at supporting the economy. With recent stock market volatility and international headwinds the Federal Reserve has delayed raising the federal funds rate as

anticipated. The forecast calls for the Federal Reserve to begin increasing the federal funds rate in December. Recent data point to a solid labor market but also indicate the Federal Reserve failed to achieve its price stability mandate as inflation remains below the target rate of 2%. Federal Reserve policymakers remain data driven, and there are a number of risks that could delay the rise in rates. They have avoided committing to any particular timing or pace of rate increases in order to maintain as much flexibility as possible. While the forecast still assumes inflation will be low, it is still anticipated that the Fed will be comfortable raising rates. We expect rates to rise gradually before leveling off at the end of 2018.

Table 1.1 provides a fiscal year summary of the U.S. economic indicators. For calendar year tables, see the appendix.

## Risks to the Forecast

*Downside  
outweigh  
upside risks*

Our view of the risks to the forecast is unchanged since the September forecast. The recovery is forecasted to be the longest on record, creating some angst. The outlook for Chinese economic growth continues to be revised down and other U.S. trading partners continue to have weak or negative growth. The level of uncertainty in the baseline remains elevated, and downside risks once again outweigh upside risks.

### Downside Risks

- Chinese economy experiences a “hard landing” (annual growth under 5%); growth is weaker in emerging market economies
- Weaker than expected employment growth
- Real wage growth stagnates, leading to slower consumer spending
- Slower household formation
- Breakdown in Greek debt, budget negotiations leads to default and exit from Eurozone
- Increasing geopolitical tensions negatively impact consumer confidence
- Weak global growth persists, further impacting exports

### Upside Risks

- The housing sector improves faster than anticipated
- Oil prices decline further than expected
- Labor productivity returns to higher levels seen in 1995-2005
- Employment growth expands faster than in the baseline
- China successfully transitions to a more consumption based economy
- European and emerging market economies grow faster than expected

Table 1.1  
**U.S. Economic Forecast Summary**  
 Forecast 2016 to 2019

Fiscal Years

	2012	2013	2014	2015	2016	2017	2018	2019
<b>Real National Income Accounts (Billions of Chained 2009 Dollars)</b>								
Real Gross Domestic Product	15,216.2	15,430.6	15,750.6	16,182.8	16,557.7	16,986.8	17,394.7	17,800.7
% Ch	2.0	1.4	2.1	2.7	2.3	2.6	2.4	2.3
Real Consumption	10,343.7	10,487.4	10,710.1	11,053.0	11,393.7	11,694.7	11,978.6	12,260.7
% Ch	1.7	1.4	2.1	3.2	3.1	2.6	2.4	2.4
Real Nonresidential Fixed Investment	1,908.9	1,987.8	2,081.3	2,188.9	2,272.5	2,395.6	2,508.3	2,621.5
% Ch	10.6	4.1	4.7	5.2	3.8	5.4	4.7	4.5
Real Residential Fixed Investment	408.3	461.8	479.7	506.3	551.8	609.1	663.8	675.7
% Ch	9.1	13.1	3.9	5.5	9.0	10.4	9.0	1.8
Real Personal Income	12,878.9	13,123.5	13,241.5	13,738.6	14,194.1	14,594.3	15,040.2	15,489.8
% Ch	2.7	1.9	0.9	3.8	3.3	2.8	3.1	3.0
Real Per Capita Income (\$/Person)	41,064	41,535	41,601	42,845	43,919	44,793	45,792	46,786
% Ch	2.0	1.1	0.2	3.0	2.5	2.0	2.2	2.2
<b>Price and Wage Indexes</b>								
U.S. Implicit Price Deflator, PCE (2009=1.0)	1.052	1.069	1.084	1.092	1.101	1.120	1.141	1.161
% Ch	2.4	1.5	1.4	0.8	0.8	1.7	1.9	1.8
U.S. Consumer Price Index (1982-84=1.0)	2.276	2.314	2.350	2.367	2.386	2.436	2.493	2.545
% Ch	2.9	1.7	1.6	0.7	0.8	2.1	2.4	2.1
Employment Cost Index (Dec. 2005=1.0)	1.150	1.171	1.193	1.221	1.247	1.280	1.317	1.356
% Ch	1.7	1.8	1.9	2.3	2.2	2.6	2.9	3.0
<b>Current Dollar National Income (Billions of Dollars)</b>								
Gross Domestic Product	15,867.1	16,373.2	16,984.9	17,675.3	18,344.3	19,204.5	20,084.5	20,933.3
% Ch	4.1	3.2	3.7	4.1	3.8	4.7	4.6	4.2
Personal Income	13,555.6	14,025.1	14,350.8	15,007.4	15,633.0	16,348.7	17,167.4	17,991.7
% Ch	5.2	3.5	2.3	4.6	4.2	4.6	5.0	4.8
<b>Employment (Millions)</b>								
U.S. Civilian Labor Force	154.3	155.3	155.5	156.6	158.3	160.8	162.9	164.6
Total U.S. Employment	141.2	143.3	145.0	147.7	150.3	152.8	154.8	156.4
Unemployment Rate (%)	8.53	7.77	6.76	5.68	5.02	4.90	4.89	4.95
Nonfarm Payroll Employment	133.00	135.18	137.60	140.56	143.12	145.02	146.65	148.02
% Ch	1.6	1.6	1.8	2.1	1.8	1.3	1.1	0.9
Manufacturing	11.83	11.98	12.09	12.28	12.33	12.42	12.54	12.62
% Ch	1.8	1.2	0.9	1.6	0.4	0.7	1.0	0.6
Durable Manufacturing	7.38	7.51	7.60	7.77	7.79	7.87	7.98	8.04
% Ch	3.1	1.7	1.2	2.2	0.3	1.0	1.5	0.7
Nondurable Manufacturing	4.45	4.47	4.49	4.51	4.54	4.55	4.56	4.58
% Ch	-0.2	0.4	0.5	0.6	0.5	0.4	0.1	0.3
Construction	5.60	5.74	5.99	6.28	6.46	6.80	7.14	7.41
% Ch	2.0	2.4	4.4	4.8	2.9	5.4	5.0	3.8
Service-Providing	114.74	116.61	118.65	121.11	123.55	125.02	126.17	127.17
% Ch	1.5	1.6	1.7	2.1	2.0	1.2	0.9	0.8
<b>Miscellaneous Indicators</b>								
Oil-WTI (\$ per barrel)	95.0	92.3	101.2	69.2	48.7	53.4	55.6	57.5
Personal Saving/Disposable Income (%)	6.5	6.5	4.8	4.8	4.8	5.1	5.7	6.4
Auto Sales (Millions)	6.6	7.4	7.6	7.6	7.6	7.6	7.8	7.6
% Ch	11.7	11.8	2.2	0.7	-0.9	0.7	2.3	-2.4
Housing Starts (Millions)	0.684	0.877	0.953	1.055	1.194	1.374	1.495	1.538
% Ch	20.1	28.1	8.7	10.7	13.1	15.1	8.8	2.8
Federal Budget Surplus (Billions)	-1,159.0	-866.9	-624.1	-612.5	-617.2	-635.4	-665.2	-745.3
Net Exports (Billions)	-591.5	-531.0	-509.3	-532.7	-509.5	-544.9	-602.8	-621.6
3-Month Treasury Bill Rate (%)	0.05	0.08	0.04	0.02	0.33	1.31	2.33	3.01
10-Year Treasury Note Yield (%)	2.08	1.82	2.71	2.23	2.42	2.75	2.99	3.62
Bond Index of 20 G.O. Munis. (%)	3.97	3.75	4.54	3.83	4.05	4.53	4.72	5.16
30-Year Fixed Mortgage Rate (%)	4.01	3.53	4.33	3.92	4.12	4.58	4.87	5.59

Table 1.2

**Forecast Analysis**

Comparison of Forecasts for 2013-15

<b>U.S.</b>	Average Annual Rate of Growth (Percent)		Average Rate (Percent)	
	<b>Real GDP</b>	<b>Implicit Price Deflator</b>	<b>3 Month T-Bill Rate</b>	<b>Mortgage Rate</b>
2012				
February	2.9	2.1	0.27	5.17
June	3.0	2.2	0.50	4.97
September	3.0	1.9	0.17	4.45
November	2.9	1.7	0.16	4.16
2013				
March	2.9	1.7	0.12	3.99
June	2.9	1.5	0.08	4.15
September	2.8	1.5	0.09	4.63
November	2.7	1.5	0.07	4.56
2014				
February	3.0	1.3	0.06	4.61
June	2.7	1.6	0.07	4.48
September	2.7	1.4	0.06	4.40
November	2.8	1.3	0.08	4.33
2015				
February	2.9	0.9	0.07	4.13
June	2.6	0.9	0.04	4.12
September	2.6	1.0	0.03	4.12
November	2.7	1.0	0.03	4.12

Table 1.3

**Forecast Analysis**

Comparison of Forecasts for 2015-17

<b>U.S.</b>	Average Annual Rate of Growth (Percent) 2015:2-2017:2		Average Rate (Percent) 2015:3 to 2017:2	
	<b>Real GDP</b>	<b>Implicit Price Deflator</b>	<b>3 Month T-Bill Rate</b>	<b>Mortgage Rate</b>
<b>2012</b>				
September	2.9	1.9	2.17	5.92
November	2.9	1.6	2.56	6.08
<b>2013</b>				
March	2.9	1.6	1.71	5.68
June	2.8	1.5	1.98	5.63
September	2.9	1.5	2.13	5.66
November	2.7	1.5	2.12	5.67
<b>2014</b>				
February	2.7	1.3	2.13	5.75
June	2.8	1.4	2.13	5.78
September	2.8	1.5	1.96	5.59
November	2.8	1.6	1.72	5.48
<b>2015</b>				
February	2.8	1.7	1.69	5.19
June	2.8	1.7	1.29	4.73
September	2.7	1.5	0.84	4.38
November	2.5	1.6	0.82	4.35

Table 1.4

Fiscal Years

**Forecast Comparison**

Forecast 2015 to 2019

	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>U.S.</b>							
<b>Real GDP</b>							
November Baseline	15430.6	15750.6	16182.8	16557.7	16986.8	17394.7	17800.7
% Ch	1.4	2.1	2.7	2.3	2.6	2.4	2.3
September Baseline	15430.6	15750.6	16180.5	16583.7	17036.5	17486.9	17921.0
% Ch	1.4	2.1	2.7	2.5	2.7	2.6	2.5
<b>Implicit Price Deflator</b>							
November Baseline	1.069	1.084	1.092	1.101	1.120	1.141	1.161
% Ch	1.5	1.4	0.8	0.8	1.7	1.9	1.8
September Baseline	1.069	1.084	1.092	1.102	1.119	1.139	1.159
% Ch	1.5	1.4	0.8	0.9	1.5	1.8	1.7
<b>Unemployment Rate</b>							
November Baseline	7.77	6.76	5.68	5.02	4.90	4.89	4.95
September Baseline	7.77	6.76	5.68	5.14	5.09	5.11	5.08
<b>Mortgage Rate</b>							
November Baseline	3.53	4.33	3.92	4.12	4.58	4.87	5.59
September Baseline	3.53	4.33	3.92	4.18	4.57	4.89	5.43
<b>3 Month T-Bill Rate</b>							
November Baseline	0.08	0.04	0.02	0.33	1.31	2.33	3.01
September Baseline	0.08	0.04	0.02	0.37	1.32	2.32	3.00

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## Chapter 2: Washington Economy – Current Conditions and Forecast

- **The Washington economy continues to expand at a solid pace.**
- **Employment growth has been slightly weaker than expected in September and historical estimates were revised lower.**
- **Washington has been outpacing the nation in personal income growth.**
- **Washington exports and manufacturing activity have weakened.**
- **Home prices and housing construction continue to improve.**
- **The forecasts for Washington employment growth and income growth are similar to the September forecast.**
- **As in September, we expect the Washington economy to continue to outperform the U.S. economy.**

### Current Conditions

*The Washington economy is expanding at a solid pace*

The Washington economy is expanding at a solid pace. In recent months Washington employment has grown slightly less than expected in the September forecast and historical estimates were revised slightly lower. Washington has been outpacing the nation in personal income growth but Washington exports and manufacturing activity have weakened. Home prices and housing construction activity are improving but construction employment has been flat since the beginning of the year. Seattle area consumer price inflation remains moderate thanks mainly to lower energy costs but shelter costs are rising rapidly.

*Employment growth has been weaker than expected*

We have two months of new Washington employment data since the September forecast was released. Total nonfarm payroll employment rose 9,100 (seasonally adjusted) in September and October, 2,400 less than the 11,500 expected in the September forecast. The shortfall in job growth was in private, service-providing sectors which added only 7,800 jobs in the last two months. The September forecast predicted an increase of

10,600. The construction sector added 600 jobs in September and October but the manufacturing sector subtracted 1,300 jobs thanks mostly to a reduction of 800 in aerospace. Government payrolls expanded by 2,100 jobs in September and October.

*Historical employment estimates were revised lower*

We have also incorporated another quarter of benchmark employment data from the Quarterly Census of Employment and Wages (QCEW). The new QCEW data and other revisions lowered the estimated level of total employment in August 2015 by 2,300 jobs. As a result of the downward revision to history and weaker-than-expected growth, the total effect is 4,700 (0.1%) fewer jobs in September 2015 than expected in the September forecast.

*Initial claims are up from earlier this year*

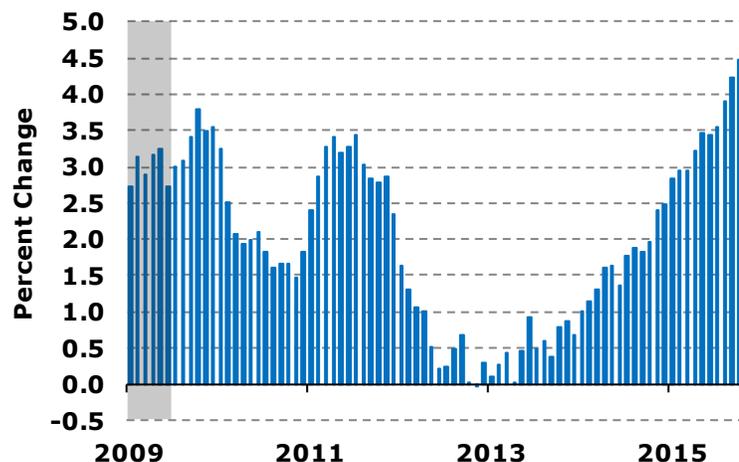
Initial claims for unemployment insurance reached new post-recession lows in early 2015 but have moved higher since then. The four-week moving average declined to 7,680 in the week ending November 28 from 7,738 in the previous week. While slightly higher than earlier this year, claims have fallen 54% since the peak and remain lower than before the onset of the recession.

*Average hourly earnings were up 4.1% over the previous year*

Recent hours and earnings data for Washington are improving. Private sector average hourly earnings in the twelve months ending in October 2015 were up 4.1% over the previous twelve month period. A year ago the comparable rate of increase was only 2.3%. Average weekly hours were up 0.4% in the most recent twelve month period. A year ago average weekly hours declined 0.3%. As a result of the improvement in average hourly earnings growth and average weekly hours growth, average weekly earnings growth improved to 4.5% compared to 1.9% a year ago (see Figure 2.1).

*Washington hours and earnings are improving*

**Figure 2.1: Hours and Earnings Growth**



Source: Bureau of Labor Statistics; data through October, 2015

*Exports are down on strong dollar and weak global growth*

Third quarter exports were down 5.8% from the third quarter of 2014. Transportation equipment exports (mostly Boeing planes) declined 1.9% over the year. Exports other than transportation equipment were 12.4% lower than a year ago. The drop likely reflects the negative influence of a stronger dollar and weak growth abroad.

*Washington housing permits edged up in the third quarter*

Washington housing permits edged up to 37,400 units (SAAR) in the third quarter of 2015 from 36,800 units in the second quarter. This is slightly better than the 35,500 units expected in the September forecast. Single-family permits totaled 19,700 units in the third quarter compared to the forecast of 19,300 units and 17,700 multi-family units were permitted compared to the forecast of 16,200 units. Permits are slightly weaker so far in the fourth quarter. Permits totaled 35,900 units (SAAR) in October consisting of 21,500 single-family units and 14,300 multi-family units. The single-family figure was the highest since November 2007.

*Seattle area home prices have recovered to just 4.7% below the May 2007 peak*

Seattle home prices surged in August and September after three months of essentially no change. According to the S&P/Case-Shiller Home Price Indices, seasonally adjusted Seattle area home prices jumped 0.6% in August and 0.9% in September following changes of -0.1%, 0.2%, and 0.0% in May, June, and July. Seattle home prices are up 8.2% over the previous September and are 37.2% higher than the November 2011 trough. Seattle area home prices have recovered to just 4.7% below the May 2007 peak.

*Manufacturing activity declined in August, September, and October*

For the third month in a row, the Institute of Supply Management - Western Washington Index (ISM-WW) signaled contraction in the manufacturing sector. The index fell to 46.1 in October from 48.0 in both August and September (index values above 50 indicate positive growth while values below 50 indicate contractions). The production, orders, and employment components worsened but the inventory and deliveries components improved. Prior to August 2015, the index had been above 50 in every month since July 2009.

*Washington car and truck sales reached a new a post-recession high*

Washington car and truck sales continue to trend upward, reaching a new a post-recession high in October. Washington new vehicle registrations rose 4.3% to 316,400 (SAAR) in October following a 1.9% increase in September. Registrations are up 9.9% over the year.

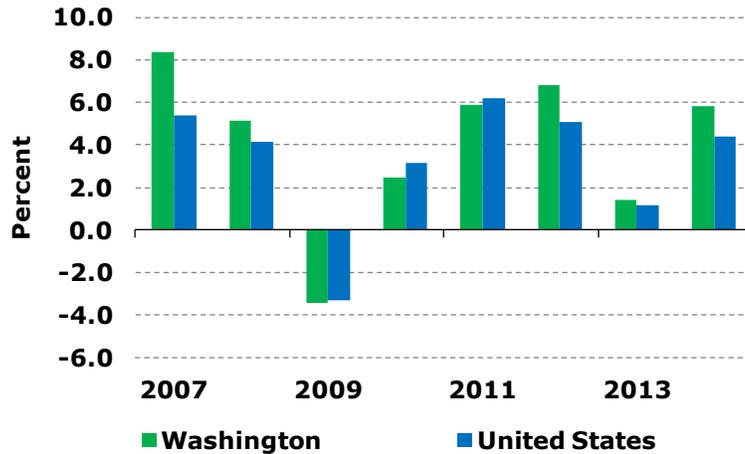
*Washington personal income growth ranked third in the nation in 2014*

In September, the BEA released revised annual state personal income estimates through 2014. Washington personal income grew 5.8% in 2014 which ranked third among the states and District of Columbia and was also well above the U.S. rate of 4.4% (see Figure 2.2). The September BEA release also included estimates of quarterly state personal income through the second quarter of 2015. Washington personal income grew at a 6.1%

rate (SAAR) in the second quarter which ranked first among the states (including the District of Columbia). The national average personal income growth rate was 3.8%. Washington's higher-than-average income growth in the second quarter was mostly due to strong earnings growth in a wide range of sectors.

**Figure 2.2: Personal Income Growth**

*Washington personal income growth is outperforming the national average*



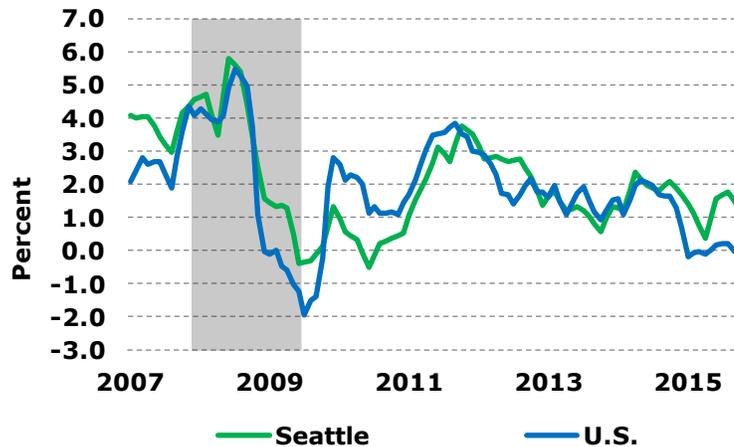
Source: Bureau of Economic Analysis; data through 2014

*Declining energy costs are holding down headline inflation*

Seattle area consumer price inflation remains tame thanks to declining energy costs. Over the last year, from October 2014 to October 2015, consumer prices in the Seattle area rose 1.2% compared to 0.1% for the U.S. city average (see Figure 2.3). Core prices, which exclude food and energy, were up 2.6% in Seattle compared to 1.9% for the nation. The higher Seattle inflation is largely due to more rapid growth in shelter costs. During the year, shelter costs in Seattle rose 5.1% compared to 3.2% for the nation. However, even with shelter excluded, Seattle inflation was higher at -0.9% compared to -1.3% for the nation.

**Figure 2.3: Consumer Price Inflation**

*Seattle consumer price inflation exceeds the U.S. city average*



Source: Bureau of Labor Statistics; data through October, 2015

## Washington State Forecast

*The November Washington forecast reflects a new U.S. forecast*

The November Washington State forecast is based on a new national forecast that is very similar to the forecast adopted in September. The new forecast for GDP growth is slightly weaker in every year. Our November forecast calls for real GDP growth rates in 2015 through 2019 of 2.4%, 2.6%, 2.5%, 2.4%, and 2.2% compared to 2.5%, 2.7%, 2.7%, 2.6%, and 2.4% expected in the September forecast. Employment growth is also slightly weaker, averaging 1.3% per year in 2015 through 2019 compared to 1.4% assumed in September. Real personal income growth averages 3.1% per year in the November forecast which is also slightly lower than the 3.3% rate assumed in the September forecast. Personal consumption expenditure inflation averages 1.4% per year, the same rate as in the September forecast. These relatively minor revisions in the national forecast feed through to the state economic forecast.

*The November Washington forecast is similar to September's*

Overall, our November forecast for Washington State is similar to the September forecast. Our November forecast for Washington employment growth in 2015, 2016, and 2017 is slightly weaker than assumed in September due mainly to a slowdown in construction employment growth, but growth in the final two years is higher. We now expect Washington employment to grow 2.8% this year compared to the 3.0% growth rate we assumed in the September forecast. Our forecast for average annual employment growth for 2016 through 2019 is 1.5% per year, the same rate as expected in September. As in the September forecast we expect growth to continue but to gradually slow down as the recovery matures. Our November forecast for nominal personal income growth this year of 5.4% is slightly higher than the 5.1% rate in the September forecast, however, our new forecast for nominal personal income growth from 2016 through 2019 averages 5.2% per year, down slightly from 5.3% in the September forecast. We expect total housing units authorized by building permits to rise 21.1% to 41,000 units in 2015 due to first quarter surge. We expect a 5.2% decline in 2016 to 38,900 followed by growth of 9.4% to 42,600 units in 2017, 3.7% to 44,100 in 2018, and 1.1% to 44,600 in 2019. Thanks to the drop in oil prices compared to last year, we expect the all-items Seattle CPI to rise only 1.4% this year, down from 1.8% in 2014. We expect all-items Seattle area inflation rates of 2.1% in 2016, 2.4% in 2017, 2.3% in 2018, and 2.1% in 2019.

## Washington Payroll Employment

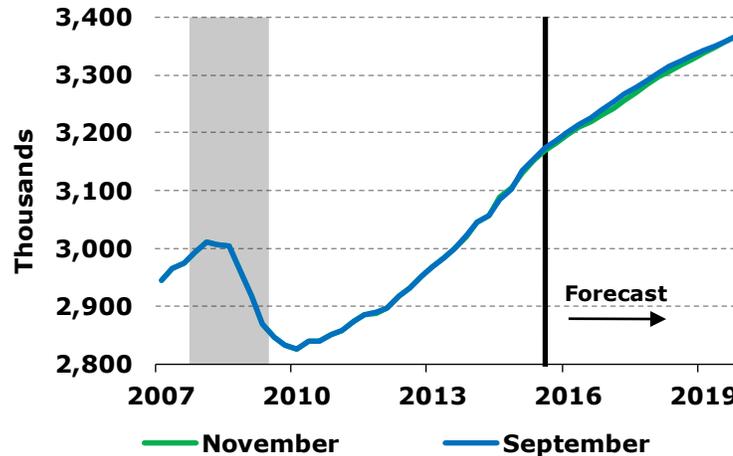
Our November forecast for Washington employment growth in 2015, 2016, and 2017 is slightly weaker than assumed in September due mainly to a slowdown in construction employment growth, but growth in the final two years is higher (see Figure 2.4). We now expect Washington employment to

*Washington employment growth will slow down as the recovery matures*

grow 2.8% this year compared to the 3.0% growth rate we assumed in the September forecast. If so, growth in 2015 will be the strongest since 2006. Our forecast for average annual employment growth for 2016 through 2019 is 1.5% per year, the same rate as expected in September. As in the September forecast we expect employment growth to gradually slow down as the recovery matures. We expect employment to grow 1.8% in 2016, 1.5% in 2017, 1.5% in 2018, and 1.3% in 2019.

**Figure 2.4: Nonfarm Payroll Employment**

*Washington employment is slightly lower than assumed in September*



Source: Bureau of Labor Statistics, ERFC November 2015 Forecast; historical data through 2015Q3

*Aerospace employment is slowly declining*

As in September, we assume a gradual decline in aerospace employment throughout the forecast. We continue to believe that this downturn will be relatively mild due to the large and increasing backlog of orders. The current reductions are due to improvements in productivity and restructuring rather than reductions in production. On an annual average basis, we expect aerospace employment to decline 1.3% in 2015, 2.9% in 2016, 2.5% in 2017, 2.2% in 2018, and 2.0% in 2019.

*More software layoffs are coming but they should be minimal*

In July Microsoft announced layoffs of up to 7,800 employees company-wide, mostly related to its phone business. This is much smaller than last year's announcement of 18,000 which were completed by last December. As was the case last year, we expect most of the cuts will be outside of Washington State. As a result of the latest announcement, we expect software employment to decline by 400 between the fourth quarter of this year and the fourth quarter of 2016. On an annual average basis, software employment rose 3.2% in 2014 which was the highest growth rate since 2008. We expect a 0.3% decline in 2015 mainly as a result of the 2014 layoffs. Growth is expected to return to a positive 0.9% in 2016 before slowing again to 0.3% in 2017 as the second round of layoffs takes effect. Software employment growth will recover to 1.1% in 2018 and 1.2% in 2019.

*Construction employment growth has slowed*

Construction employment grew 6.9% in 2014, down slightly from 7.1% in 2013 but still very strong. Construction employment growth was very strong from June 2014 through January 2015 but has slowed down sharply since January. We expect weak construction employment growth to continue through the middle of next year. The result is that annual average employment growth should still be very strong in 2015 but relatively weak in 2016. We expect a construction employment growth rate of 8.5% in 2015 but only 0.8% in 2016. We expect growth to pick up to 4.2% in 2017, 4.8% in 2018, and 2.9% in 2019. Even with these impressive growth rates, construction employment will still be 14,400 below its previous peak at the end of 2019.

*Financial activities employment will decline in 2017-19*

Credit intermediation has not recovered at all since the recession but other financial sectors have improved, particularly insurance carriers and related activities. On a calendar year basis, financial activities employment grew 0.2% in 2011, 2.4% in 2012, 3.9% in 2013, and 1.6% in 2014. We expect growth of 1.3% this year and 0.1% in 2016. We expect a declining trend in financial activities employment due to productivity growth and outsourcing. Employment will decline 1.8% in 2017, 1.6% in 2018, and 1.0% in 2019.

*Retail trade employment is benefitting from strong growth in electronic shopping*

Washington retail trade employment growth has been much stronger than the national average during the recovery thanks to our outsized and rapidly growing electronic shopping sector. Retail trade employment grew 1.5% in 2011, 2.1% in 2012, and 3.4% in 2013 and 2014. Growth this year is also expected to be strong, at 3.8%. The forecast assumes weaker growth in the next four years as the recovery matures. We expect growth rates of 1.7%, 0.4%, 0.2%, and 0.1% in 2016, 2017, 2018, and 2019.

*Employment services and IT are driving professional and business services growth*

As is typical during recoveries, professional and business services is one of Washington's fastest growing sectors. During a recovery, growth in this sector is boosted by gains in employment services, mainly temporary help services. As businesses gauge whether the increase in demand will continue, they typically hire temporary staff before they hire permanent employees. Employment services employment has grown 51% since the recession ended. IT employment growth has also been very strong during the recovery. Computer systems design and related services employment grew 61% since the end of the recession. We expect professional and business services employment growth to remain very strong 2015 through 2017 with growth rates of 4.8% in 2015, 3.9% in 2016, and 4.2% in 2017. We expect professional and business services employment growth to slow to 2.9% and 2.2% in 2018 and 2019.

*State and local government employment will grow moderately*

State and local government employment was a drag on the overall jobs recovery long after most other sectors turned around. State and local government employment peaked in the fourth quarter of 2008 and declined through the first quarter of

2012. Since then, employment levels have risen steadily but slowly. On an annual average basis, state and local government employment rose 0.8% in calendar 2013 and 1.7% in 2014 following three years of decline. We expect moderate employment growth in the next five years with growth rates of 2.0% in 2015, 1.4% in 2016, 1.5% in 2017, 1.7% in 2018, and 1.4% in 2019.

## Washington Personal Income

*Washington personal income is currently slightly higher than believed in September*

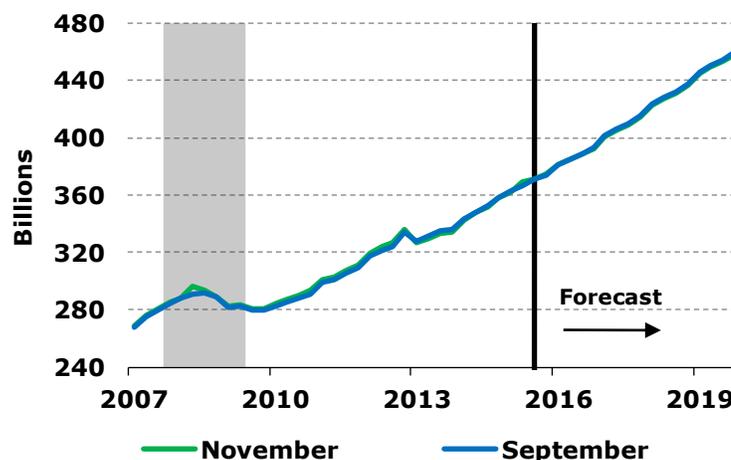
In September, the Bureau of Economic Analysis (BEA) released estimates for state personal income through the second quarter of 2015. The September release also incorporated the annual revision of the National Income and Product Accounts. We have incorporated the new BEA estimates as well as additional Washington Quarterly Census of Employment and Wages and other wage data also through the second quarter. Our current estimate of Washington personal income in the second quarter of 2015 is \$369.1 billion which is \$2.1 billion (0.6%) higher than assumed in the September forecast. However, we estimate that \$1.4 billion of that \$2.1 billion variance is due to unusually strong stock option redemptions in the second quarter which are not expected to be repeated in the future. As a result, we believe the current level of income is only slightly higher than predicted in the September forecast.

*Income growth this year is slightly higher than expected in September*

Our November forecast for nominal personal income growth this year of 5.4% is slightly higher than the 5.1% rate in the September forecast, however, our new forecast for nominal personal income growth from 2016 through 2019 averages 5.2% per year, down slightly from 5.3% in the September forecast (see Figure 2.5). The upward revision to growth this year is

**Figure 2.5: Washington Personal Income**

*Personal income grows slightly less in 2016 through 2019 than expected in September*



Source: Bureau of Economic Analysis, ERFC November 2015 Forecast; historical data through 2015Q3

mostly due to stronger growth of proprietors' income, property income (dividends, interest, and rent), and transfer payments. The lower growth from 2016 through 2019 reflects weaker wage growth partially than forecasted in September.

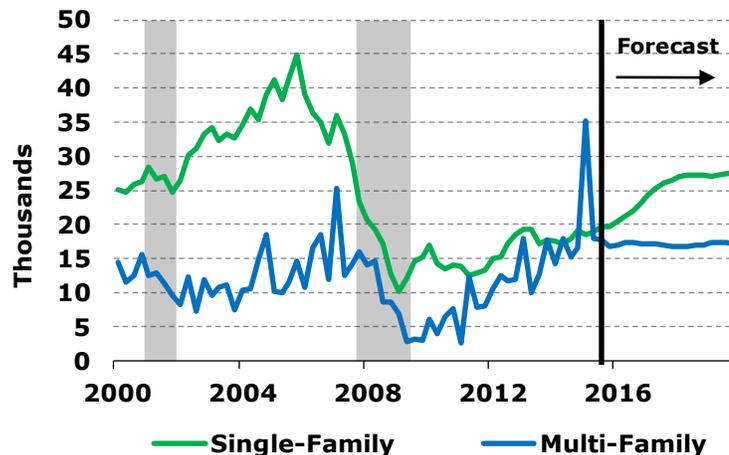
## Washington Building Permits

*The housing recovery to date has been mostly in the multi-family segment*

The housing recovery to date has been mostly in the multi-family segment. Multi-family housing recovered from a low of only 4,000 units in 2009 to 16,000 in 2014. We believe multi-family permits will peak at 21,900 in 2015, driven by the spike that occurred in the first quarter, then decline to 17,200 in 2016. We do not expect much change from this already high level during the remainder of the forecast. The recovery in single-family construction has been much less robust, from 13,000 units in 2009 to 17,900 in 2014. We expect single-family construction to continue to strengthen with the number of units rising from 19,200 this year to 27,300 in 2019 see (see Figure 2.6). We expect total housing units authorized by building permits to rise 21.1% to 41,000 units in 2015 due to first quarter surge. We expect a 5.2% decline in 2016 to 38,900 followed by growth of 9.4% to 42,600 units in 2017, 3.7% to 44,100 in 2018, and 1.1% to 44,600 in 2019.

**Figure 2.6: Washington Housing Permits**

*Single-family construction will continue to strengthen*



Source: Bureau of the Census, ERFC November 2015 Forecast; historical data through 2015Q3

## Seattle Consumer Price Index

*Energy costs temporarily reduce headline inflation*

Thanks to the drop in oil prices compared to last year, we expect the all-items Seattle CPI to rise only 1.4% this year, down from 1.8% in 2014. Nationally we expect only 0.1% headline inflation in 2015. While the drop in energy costs reduces inflation in 2015 and 2016, rising energy costs add to inflation in 2017 through

2019. We expect all-items Seattle area inflation rates of 2.1% in 2016, 2.4% in 2017, 2.3% in 2018, and 2.1% in 2019.

*Rents are driving Seattle core inflation higher*

Core inflation (excluding food and energy) in Seattle increased to 2.0% in 2014 from 1.5% in 2013 while national core inflation slowed from 1.8% to 1.7%. The reason for the divergence is shelter costs which were rising much faster in Seattle. Recent data suggest that while shelter costs continue to rise much faster in Seattle than in the U.S. city average, other prices are also rising faster. We expect Seattle core inflation to rise to 2.6% in 2015 compared to 1.8% for the nation. We expect core Seattle CPI inflation to decline to 2.3% in 2016, 2.2% in 2017, and 2.1% per year in 2018 and 2019.

Table 2.1 provides a fiscal year summary of the state economic indicators. For calendar year tables, see the appendix.

## Alternative Scenarios

*Alternate forecasts are prepared in accordance with state law*

In accordance with state law, the Washington State Economic and Revenue Forecast Council adopted a forecast based on optimistic assumptions and a forecast based on pessimistic assumptions.

### Optimistic

*The optimistic scenario features a pickup in productivity growth, an increase in household formation, and stronger global growth*

In the optimistic scenario, a pickup in productivity growth, an increase in household formation, and stronger global growth help the US economy gain momentum. As a result of increased household formation, residential construction picks up and housing starts rise rapidly, reaching 1.3-million units (annual rate) by the start of 2016. As credit conditions ease, nonresidential fixed investment rises 7.5%. Meanwhile, with the help of structural reforms implemented by some struggling economies and the European Central Bank's quantitative easing, foreign growth strengthens. With a stronger outlook and less fiscal uncertainty, both consumer and business confidence rise sharply and the stock market continues to recover from the recent correction. The labor market continues to heat up, and by the end of 2016 the economy is adding almost 300,000 jobs per month. The unemployment rate drops below 5.0% by 2016 and reaches 3.9% in 2018.

*The optimistic scenario also assumes a much stronger Washington economy*

In addition to reflecting the impact of the stronger U.S. forecast on the state economy, the optimistic Washington forecast assumes that aerospace employment falls much less than in the baseline through mid 2016 and rises in 2017 and 2018 rather than continuing to fall as in the baseline. Software employment growth is also much stronger than in the baseline forecast. In the optimistic scenario, the stronger regional economy drives Seattle consumer price inflation above the baseline. Washington average

wage growth is also higher in the optimistic scenario than in the baseline. Washington population growth is also higher in the optimistic scenario as migrants from other states are attracted by the strong local economy. The recovery in construction employment is much stronger than in the baseline forecast with employment in the sector exceeding the previous peak in the second quarter of 2018. By the end of 2019, Washington nonfarm payroll employment is higher by 168,200 jobs than in the baseline forecast and Washington personal income is \$50.1 billion higher.

### **Pessimistic**

*Global growth slows in the pessimistic scenario*

In the pessimistic scenario, the recent stabilization of local and global equities markets turns out to be a temporary respite. Under pressure from the continued slump in commodity prices, developing markets see their balance sheets go into the red. This and other poor international news sends sets off a major stock market correction. Consumer confidence declines in reaction to the stock market slump and remains pessimistic. Young people choose not to take the risky step of moving out. New single-family home sales growth slows in 2016, increasing just 1.6%. The economy stalls, and real GDP increases a paltry 0.3% and 0.4% (annualized) in the first two quarters of 2016. Nonfarm payroll employment rises by only 22,000 per month on average in 2016. Unemployment resumes its increase and remains elevated. Fiscal policy fails to ride to the rescue, as the final quarters of the Obama administration and the successive administration are marked by political paralysis and a congressional preference for austerity.

*This scenario also assumes a weaker local economy*

In addition to reflecting the impact of the weaker U.S. forecast on the state economy, aerospace employment declines much more rapidly than assumed in the baseline forecast. Software employment continues to decline after the upcoming layoffs rather than turning positive as in the baseline forecast. Population growth is also weaker than in the baseline forecast as migration into Washington drops. Construction employment drifts lower in 2016 through 2019 in the pessimistic alternative rather than rising as in the baseline. The Seattle CPI is lower than in the baseline forecast, as are Washington wage rates, further depressing personal income. By the end of 2019, Washington nonfarm payroll employment is 148,800 lower than in the baseline forecast and Washington personal income is \$32.3 billion lower.

Table 2.2 compares the optimistic and pessimistic forecasts with the baseline forecast.

## **Governor’s Council of Economic Advisors (GCEA)**

In the GCEA scenario, the U.S. and state forecasts were adjusted to match the average view of the Council members.

*The Governor’s Council of Economic Advisors’ national forecast is similar to the baseline*

At the national level, the GCEA outlook for real GDP growth is slightly higher than the baseline forecast in 2015 and 2016 but lower in 2017 through 2019. Average GDP growth over the entire five-year period is almost exactly the same in the two scenarios. The GCEA forecast of real consumer spending growth is lower or the same in each year, however. The Governor’s Council members expect higher inflation than predicted in the baseline forecast in 2015 and 2016 but lower inflation in 2017 through 2019. Average inflation over the five-year period is almost exactly the same in the two scenarios. The GCEA oil price forecast is slightly lower than the baseline in each year. The Council members’ mortgage rate forecast is higher than the baseline forecast except in 2019 when it is lower.

*The GCEA members expect slightly weaker Washington income growth*

The GCEA scenario for Washington is also very similar to the baseline forecast. Their real personal income growth forecast averages 3.6% per year in 2015 through 2019 compared to the baseline forecast of 3.7%. At an average rate of 1.8% per year, the Council members’ forecast for total employment growth over the five-year period is also the same as the baseline forecast. The GCEA forecast for manufacturing employment growth is also the same as the baseline over the five-year period at an average rate of 0.2% per year but their construction forecast is slightly weaker at an average rate of 4.0% per year compared to 4.2% in the baseline. The Council members’ housing permit forecast is slightly lower, averaging 41,600 units per year through 2019 compared to 42,300 in the baseline forecast. At the end of 2019, the GCEA forecast for Washington nonfarm payroll employment is 6,400 higher than in the baseline forecast but Washington personal income is \$4.0 billion lower.

Table 2.3 compares the GCEA forecast with the baseline forecast.

Table 2.1  
**Washington Economic Forecast Summary**  
 Forecast 2016 to 2019

Fiscal Years

	2012	2013	2014	2015	2016	2017	2018	2019
<b>Real Income (Billions of Chained 2009 Dollars)</b>								
Real Personal Income	299.618	308.552	313.475	329.765	343.149	354.151	366.695	379.428
% Ch	3.7	3.0	1.6	5.2	4.1	3.2	3.5	3.5
Real Wage and Salary Disb.	151.528	156.463	162.331	171.692	177.931	183.501	188.862	194.239
% Ch	2.7	3.3	3.8	5.8	3.6	3.1	2.9	2.8
Real Nonwage Income	148.091	152.089	151.144	158.073	165.218	170.651	177.833	185.189
% Ch	4.7	2.7	-0.6	4.6	4.5	3.3	4.2	4.1
Real Per Capita Income (\$/Person)	43,620	44,431	44,598	46,320	47,542	48,404	49,470	50,530
% Ch	2.5	1.9	0.4	3.9	2.6	1.8	2.2	2.1
<b>Price and Wage Indexes</b>								
U.S. Implicit Price Deflator, PCE (2009=1.0)	1.052	1.069	1.084	1.092	1.101	1.120	1.141	1.161
% Ch	2.4	1.5	1.4	0.8	0.8	1.7	1.9	1.8
Seattle Cons. Price Index (1982-84=1.0)	2.360	2.404	2.437	2.473	2.520	2.578	2.639	2.697
% Ch	3.1	1.8	1.4	1.5	1.9	2.3	2.4	2.2
Average Nonfarm Annual Wage	52,758	54,147	55,772	57,926	59,217	61,244	63,250	65,341
% Ch	3.7	2.6	3.0	3.9	2.2	3.4	3.3	3.3
Avg. Hourly Earnings-Mfg. (\$/Hour)	24.04	24.19	24.75	25.28	26.22	26.88	27.56	28.29
% Ch	1.2	0.6	2.3	2.1	3.7	2.5	2.5	2.6
<b>Current Dollar Income (Billions of Dollars)</b>								
Personal Income	315.367	329.746	339.735	360.210	377.934	396.730	418.564	440.721
% Ch	6.2	4.6	3.0	6.0	4.9	5.0	5.5	5.3
Disposable Personal Income	280.999	292.115	299.138	315.451	330.029	346.685	366.028	385.983
% Ch	5.8	4.0	2.4	5.5	4.6	5.0	5.6	5.5
Per Capita Income (\$/Person)	45,912	47,482	48,334	50,596	52,361	54,223	56,467	58,692
% Ch	5.0	3.4	1.8	4.7	3.5	3.6	4.1	3.9
<b>Employment (Thousands)</b>								
Washington Civilian Labor Force	3,458.9	3,456.9	3,463.3	3,525.7	3,555.8	3,624.7	3,691.3	3,752.0
Total Washington Employment	3,160.2	3,201.0	3,237.7	3,313.7	3,369.9	3,436.9	3,501.2	3,556.8
Unemployment Rate (%)	8.63	7.40	6.52	6.02	5.23	5.18	5.15	5.20
Nonfarm Payroll Employment	2,896.4	2,957.9	3,030.5	3,118.7	3,189.7	3,237.2	3,288.5	3,332.8
% Ch	1.4	2.1	2.5	2.9	2.3	1.5	1.6	1.3
Manufacturing	274.7	284.9	287.5	288.9	287.8	287.7	289.2	290.5
% Ch	4.8	3.7	0.9	0.5	-0.4	0.0	0.5	0.5
Durable Manufacturing	199.1	208.6	209.4	209.9	207.5	206.6	207.5	208.2
% Ch	6.2	4.7	0.4	0.2	-1.1	-0.4	0.5	0.4
Aerospace	90.8	96.4	94.7	93.6	91.4	88.9	86.8	85.0
% Ch	10.0	6.2	-1.8	-1.1	-2.3	-2.7	-2.4	-2.0
Nondurable Manufacturing	75.6	76.3	78.1	79.1	80.3	81.1	81.6	82.3
% Ch	1.5	1.0	2.4	1.2	1.6	1.0	0.7	0.8
Construction	136.6	144.0	153.8	167.4	173.3	176.9	186.6	192.7
% Ch	-1.1	5.4	6.8	8.9	3.5	2.1	5.5	3.3
Service-Providing	2,479.1	2,522.9	2,583.0	2,656.0	2,722.3	2,766.3	2,806.3	2,842.9
% Ch	1.2	1.8	2.4	2.8	2.5	1.6	1.4	1.3
Software Publishers	52.1	52.9	55.0	55.3	55.9	55.8	56.3	57.0
% Ch	1.7	1.6	3.8	0.6	1.1	-0.1	0.9	1.2
Nonfarm Payroll Employment, EOP*	2,917.7	2,982.8	3,056.0	3,151.8	3,209.1	3,255.4	3,306.3	3,348.5
% Ch*	1.6	2.2	2.5	3.1	1.8	1.4	1.6	1.3
<b>Housing Indicators (Thousands)</b>								
Housing Units Authorized by Bldg. Permit	23.887	31.402	33.057	39.788	37.415	40.938	43.555	44.416
% Ch	15.5	31.5	5.3	20.4	-6.0	9.4	6.4	2.0
Single-Family	14.152	18.552	17.398	18.593	20.224	23.761	26.728	27.244
% Ch	4.9	31.1	-6.2	6.9	8.8	17.5	12.5	1.9
Multi-Family	9.736	12.850	15.659	21.195	17.192	17.177	16.828	17.172
% Ch	35.2	32.0	21.9	35.4	-18.9	-0.1	-2.0	2.0
30-Year Fixed Mortgage Rate (%)	4.01	3.53	4.33	3.92	4.12	4.58	4.87	5.59

\*End of Period, for use in the Budget Stabilization Account calculation

Table 2.2  
**Comparison of Alternative Forecasts**

Fiscal Years

	2014	2015	2016	2017	2018	2019
<b>U.S.</b>						
<b>Real GDP, Percent Change</b>						
Optimistic	2.1	2.7	2.9	4.3	3.3	3.0
Baseline	2.1	2.7	2.3	2.6	2.4	2.3
Pessimistic	2.1	2.7	1.6	1.3	2.6	1.9
<b>Implicit Price Deflator, Percent Change</b>						
Optimistic	1.4	0.8	1.0	2.2	1.5	1.5
Baseline	1.4	0.8	0.8	1.7	1.9	1.8
Pessimistic	1.4	0.8	0.4	1.4	2.3	2.4
<b>Mortgage Rate, Percent</b>						
Optimistic	4.33	3.92	4.31	5.56	6.13	6.50
Baseline	4.33	3.92	4.12	4.58	4.87	5.59
Pessimistic	4.33	3.92	3.89	3.86	3.87	5.34
<b>3 Month T-Bill Rate, Percent</b>						
Optimistic	0.04	0.02	0.64	2.34	3.27	3.71
Baseline	0.04	0.02	0.33	1.31	2.33	3.01
Pessimistic	0.04	0.02	0.04	0.07	0.32	1.84
<b>Washington</b>						
<b>Real Personal Income, Percent Change</b>						
Optimistic	1.6	5.2	5.4	5.9	6.7	5.7
Baseline	1.6	5.2	4.1	3.2	3.5	3.5
Pessimistic	1.6	5.2	2.9	0.6	1.5	1.9
<b>Personal Income, Percent Change</b>						
Optimistic	3.0	6.0	6.5	8.3	8.4	7.3
Baseline	3.0	6.0	4.9	5.0	5.5	5.3
Pessimistic	3.0	6.0	3.3	1.9	3.7	4.3
<b>Employment, Percent Change</b>						
Optimistic	2.5	2.9	2.6	2.8	2.9	2.5
Baseline	2.5	2.9	2.3	1.5	1.6	1.3
Pessimistic	2.5	2.9	1.7	0.0	0.6	0.5
<b>Housing Permits, Thousands of Authorized Units</b>						
Optimistic	33.1	39.8	38.9	44.3	48.5	51.3
Baseline	33.1	39.8	37.4	40.9	43.6	44.4
Pessimistic	33.1	39.8	36.0	36.7	37.4	36.6

Table 2.3

Calendar Years

**Governor's Council of Economic Advisor's Forecast**

	2015	2016	2017	2018	2019
<b>U.S.</b>					
<b>Real GDP</b>					
<i>Growth</i>					
ERFC	2.4	2.6	2.5	2.4	2.2
GCEA Average	2.5	2.7	2.4	2.3	2.1
<b>Real Consumption</b>					
<i>Growth</i>					
ERFC	3.2	2.9	2.5	2.4	2.3
GCEA Average	3.1	2.8	2.5	2.4	2.2
<b>Implicit Price Deflator, PCE</b>					
<i>Growth</i>					
ERFC	0.3	1.4	1.9	1.8	1.7
GCEA Average	0.4	1.5	1.7	1.7	1.7
<b>Mortgage Rate</b>					
<i>Percent</i>					
ERFC	3.9	4.4	4.7	5.2	5.7
GCEA Average	4.0	4.6	5.0	5.3	5.4
<b>Oil Price (Brent)</b>					
<i>Dollars per barrel</i>					
ERFC	54.8	54.9	59.8	62.3	63.9
GCEA Average	52.1	53.9	58.1	60.8	63.2
<b>Washington State</b>					
<b>Real Personal Income</b>					
<i>Growth</i>					
ERFC	5.0	3.4	3.3	3.6	3.3
GCEA Average	4.7	3.5	3.5	3.3	3.0
<b>Wage and Salary Employment</b>					
<i>Growth</i>					
ERFC	2.8	1.8	1.5	1.5	1.3
GCEA Average	2.8	1.9	1.7	1.4	1.2
<b>Manufacturing Employment</b>					
<i>Growth</i>					
ERFC	0.4	-0.8	0.5	0.5	0.5
GCEA Average	0.6	-0.1	0.1	0.2	0.1
<b>Construction Employment</b>					
<i>Growth</i>					
ERFC	8.5	0.8	4.2	4.8	2.9
GCEA Average	8.9	2.7	3.3	2.9	2.2
<b>Housing Permits</b>					
<i>Thousands of authorized units</i>					
ERFC	41.0	38.9	42.6	44.1	44.6
GCEA Average	39.7	40.2	42.5	42.6	42.7
<b>Washington Average Annual Wage</b>					
<i>Growth</i>					
ERFC	2.6	2.9	3.4	3.3	3.3
GCEA Average	2.5	3.0	3.3	3.3	3.3

Table 2.4

**Forecast Analysis**

Comparison of Forecasts for 2013-15

<b>Washington</b>	Average Annual Rate of Growth (Percent) 2013:2-2015:2			Average Annual Rate (Thousands) 2013:3 to 2015:2
	<b>Employment</b>	<b>Personal Income</b>	<b>Real Personal Income</b>	<b>Housing Units Authorized</b>
<b>2012</b>				
February	1.8	5.6	3.4	32.1
June	1.8	5.5	3.3	30.9
September	2.1	5.6	3.7	31.8
November	2.1	5.3	3.6	32.2
<b>2013</b>				
March	1.9	5.4	3.6	35.1
June	1.8	5.2	3.6	36.3
September	1.8	5.2	3.7	34.5
November	1.8	5.1	3.6	33.0
<b>2014</b>				
February	2.1	4.9	3.6	33.5
June	2.2	4.8	3.2	33.9
September	2.4	4.8	3.3	34.1
November	2.6	4.6	3.3	33.9
<b>2015</b>				
February	2.8	4.6	3.7	33.6
June	2.7	5.0	4.0	36.2
September	2.9	5.3	4.2	36.4
November	2.8	5.8	4.8	36.4

Table 2.5

**Forecast Analysis**

Comparison of Forecasts for 2015-17

<b>Washington</b>	Average Annual Rate of Growth (Percent) 2015:2-2017:2			Average Annual Rate (Thousands) 2015:3 to 2017:2
	<b>Employment</b>	<b>Personal Income</b>	<b>Real Personal Income</b>	<b>Housing Units Authorized</b>
2012				
September	1.7	5.1	3.1	38.5
November	1.7	4.9	3.2	38.4
2013				
March	1.7	5.1	3.5	41.6
June	1.7	5.0	3.5	42.2
September	1.6	5.1	3.5	40.6
November	1.7	5.1	3.6	40.6
2014				
February	1.8	5.2	3.9	40.8
June	1.7	5.7	4.3	40.5
September	1.7	5.9	4.3	40.4
November	1.8	6.1	4.4	38.8
2015				
February	2.0	6.1	4.2	38.8
June	1.8	5.5	3.7	40.2
September	1.8	5.2	3.6	39.1
November	1.6	4.8	3.2	39.2

Table 2.6  
**Forecast Comparison**  
 Forecast 2015 to 2017

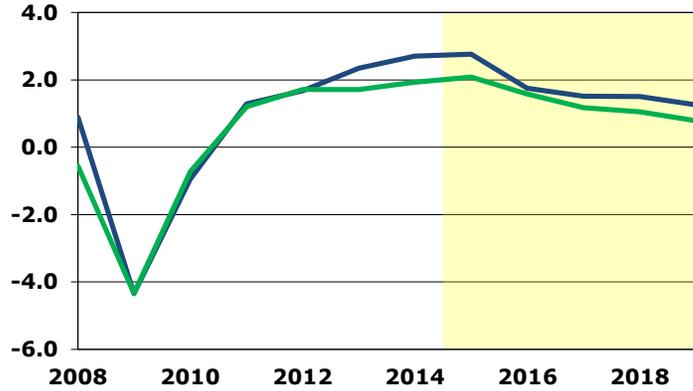
Fiscal Years

	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
<b>Washington</b>							
<b>Real Personal Income</b>							
November Baseline	308.552	313.475	329.765	343.149	354.151	366.695	379.428
% Ch	3.0	1.6	5.2	4.1	3.2	3.5	3.5
September Baseline	308.267	314.404	329.722	342.600	354.951	367.904	381.079
% Ch	3.5	2.0	4.9	3.9	3.6	3.6	3.6
<b>Personal Income</b>							
November Baseline	329.746	339.735	360.210	377.934	396.730	418.564	440.721
% Ch	4.6	3.0	6.0	4.9	5.0	5.5	5.3
September Baseline	329.448	340.738	360.156	377.700	397.231	419.187	441.726
% Ch	5.0	3.4	5.7	4.9	5.2	5.5	5.4
<b>Employment</b>							
November Baseline	2957.9	3030.5	3118.7	3189.7	3237.2	3288.5	3332.8
% Ch	2.1	2.5	2.9	2.3	1.5	1.6	1.3
September Baseline	2957.9	3030.5	3118.8	3194.2	3246.7	3297.7	3338.2
% Ch	2.1	2.5	2.9	2.4	1.6	1.6	1.2
<b>Housing Permits</b>							
November Baseline	31.402	33.057	39.788	37.415	40.938	43.555	44.416
% Ch	31.5	5.3	20.4	-6.0	9.4	6.4	2.0
September Baseline	31.402	33.057	39.788	36.921	41.235	43.454	44.305
% Ch	31.5	5.3	20.4	-7.2	11.7	5.4	2.0

Figure 2.7: Comparison of Washington and U.S. Economic Forecasts  
(Percent change)

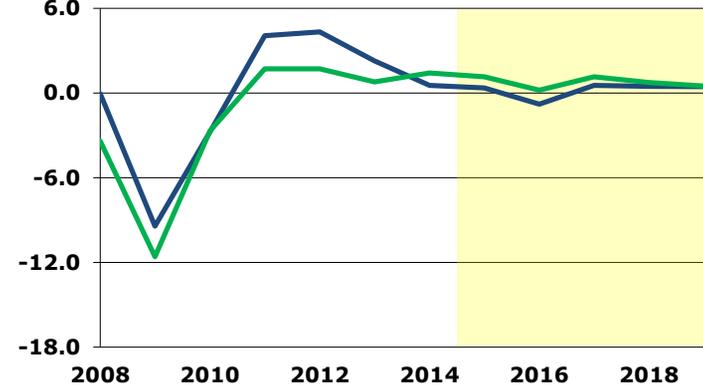
Forecast

Total nonfarm payroll employment



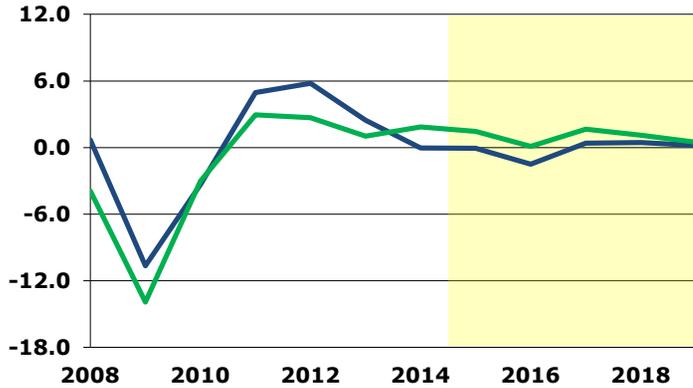
Source: WA State Employment Security Dept. 2014, ERFC 2019

Manufacturing employment



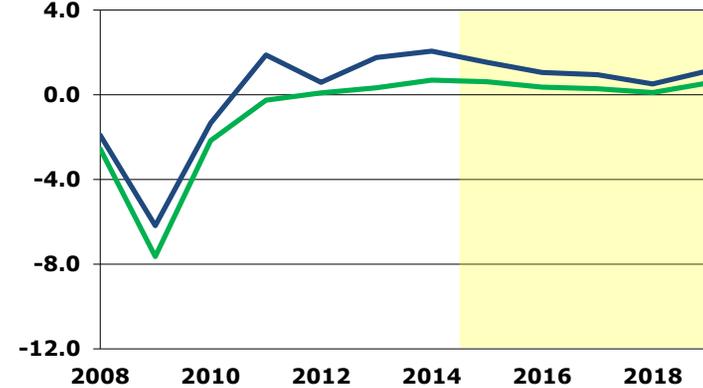
Source: WA State Employment Security Dept. 2014, ERFC 2019

Durable manufacturing employment



Source: WA State Employment Security Dept. 2014, ERFC 2019

Nondurable manufacturing employment



Source: WA State Employment Security Dept. 2014, ERFC 2019

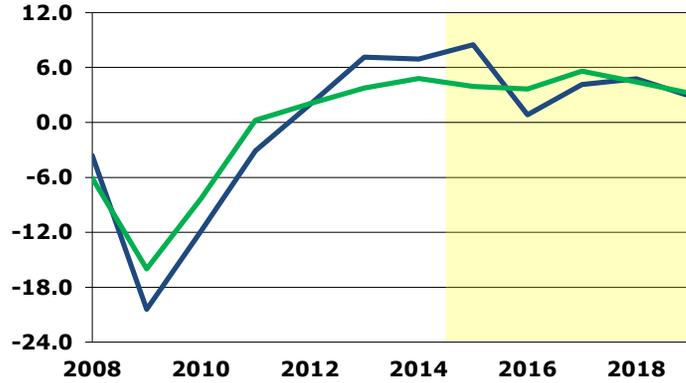
Washington

U.S.

Figure 2.7: Comparison of Washington and U.S. Economic Forecasts (continued)  
 (Percent change)

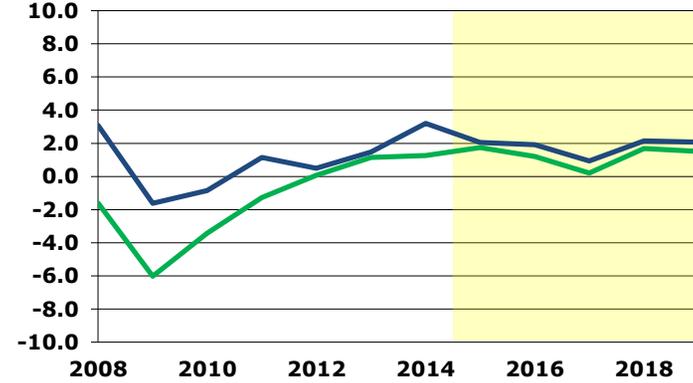
Forecast

Construction employment



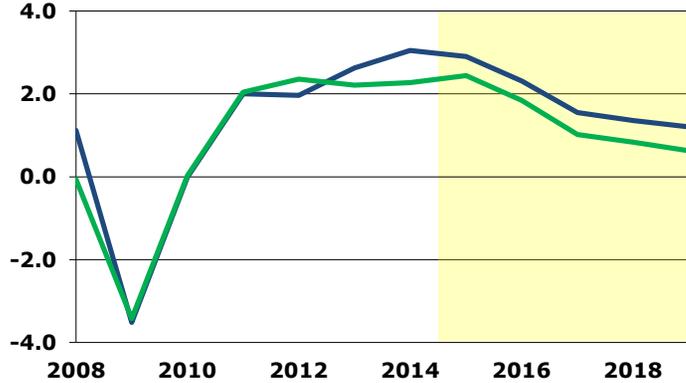
Source: WA State Employment Security Dept. 2014, ERFC 2019

Information employment



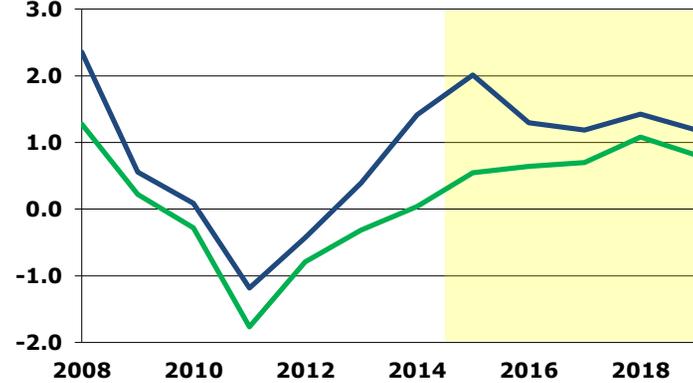
Source: WA State Employment Security Dept. 2014, ERFC 2019

Other private employment



Source: WA State Employment Security Dept. 2014, ERFC 2019

Government employment



Source: WA State Employment Security Dept. 2014, ERFC 2019

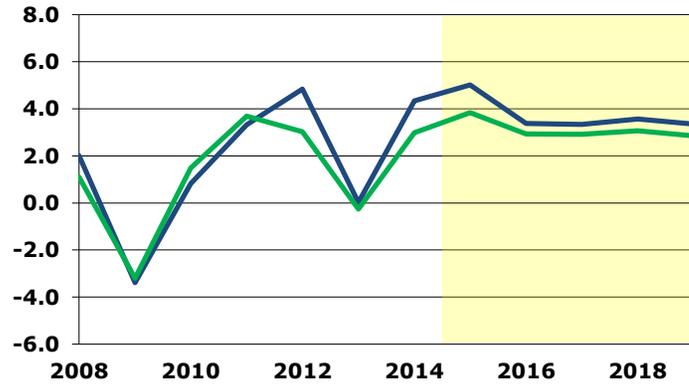
Washington

U.S.

Figure 2.7: Comparison of Washington and U.S. Economic Forecasts (continued)  
 (Percent change)

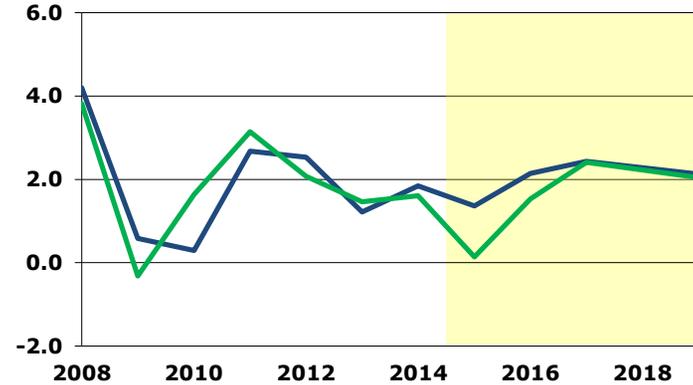
Forecast

Real personal income



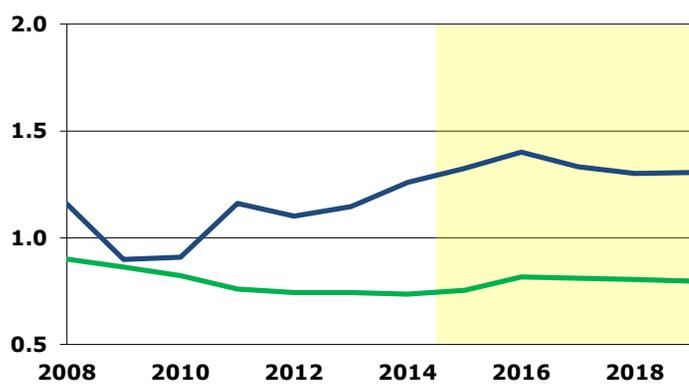
Source: Bureau of Economic Analysis 2014, ERFC 2019

Consumer price indices



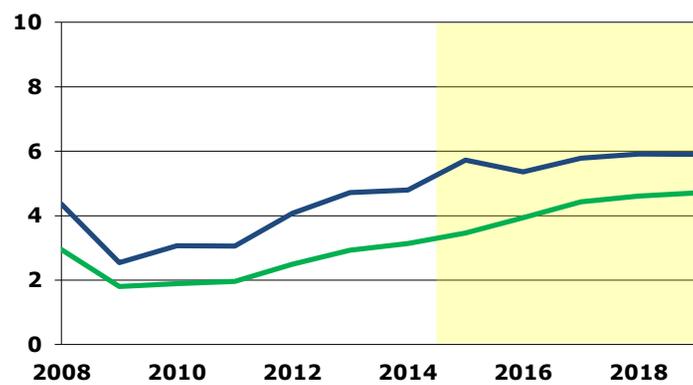
Source: Bureau of Labor Statistics 2014, ERFC 2019

Population



Source: Office of Financial Management/Census Bureau 2014, ERFC 2019

New Housing Units Per 1,000 population (level)



Source: Census Bureau 2014, ERFC 2019

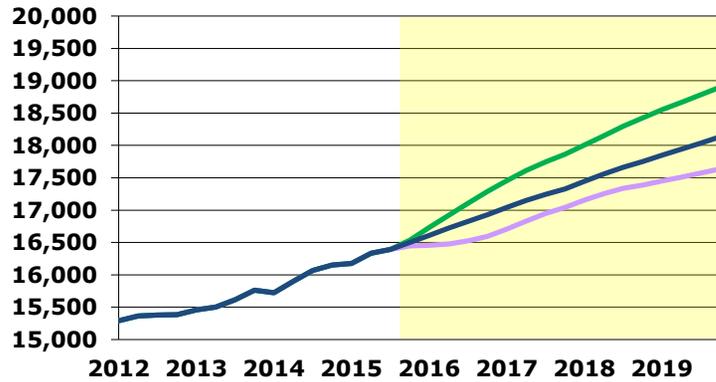
Washington

U.S.

Figure 2.8: Comparison of Alternative U.S. Economic Forecasts

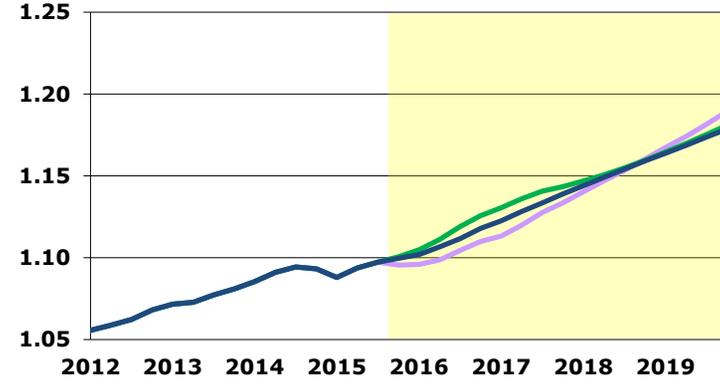
Forecast

Real GDP, billions of chained 2009 dollars



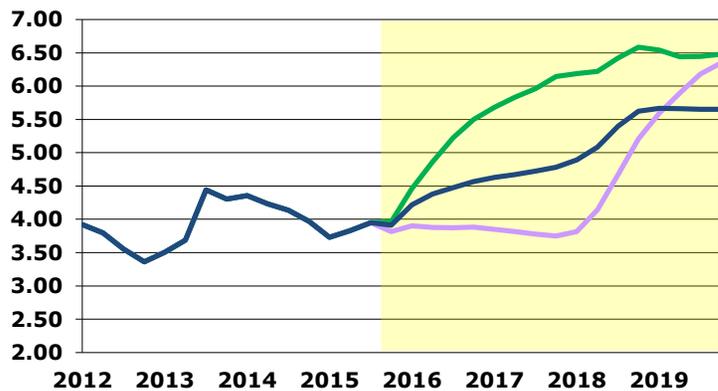
Source: Bureau of Economic Analysis 2015 Q3, ERFC 2019

Implicit price deflator, index 2009 = 1.0



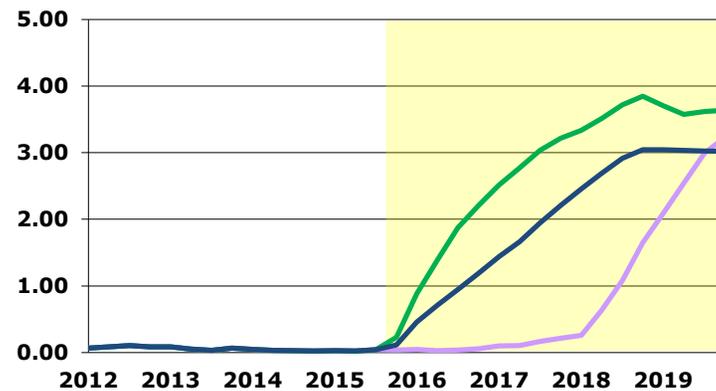
Source: Bureau of Economic Analysis 2015 Q3, ERFC 2019

Mortgage rate, percent



Source: Freddie Mac 2015 Q3, ERFC 2019

Three month T-bill rate, percent



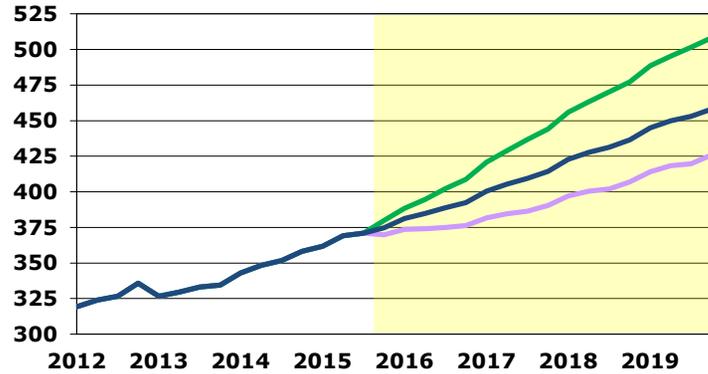
Source: Federal Reserve Board 2015 Q3, ERFC 2019

■ Baseline      ■ Optimistic      ■ Pessimistic

Figure 2.9: Comparison of Alternative Washington Economic Forecasts

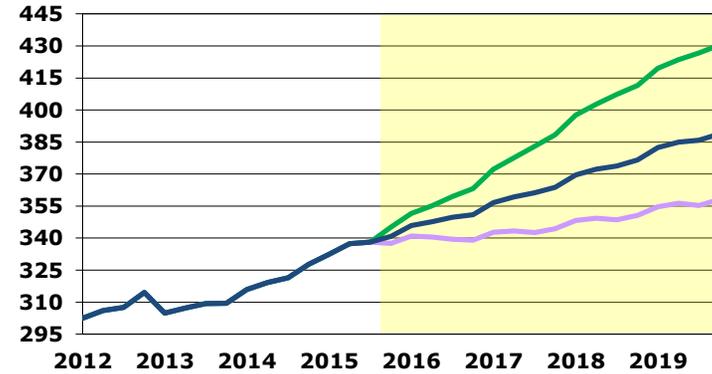
Forecast

Personal income, billions of dollars



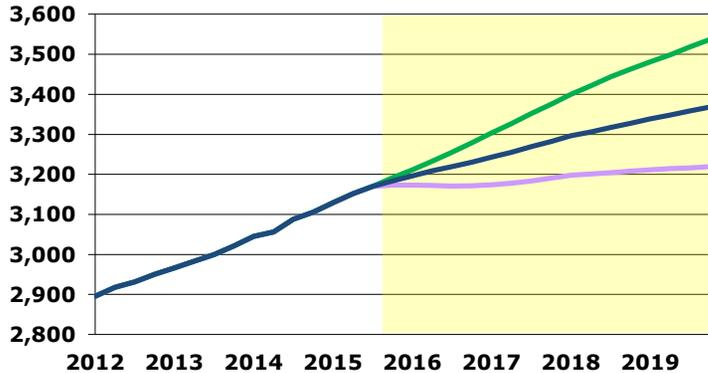
Source: Bureau of Economic Analysis 2014 Q4, ERFC 2019

Real personal income, billions of chained 2009 dollars



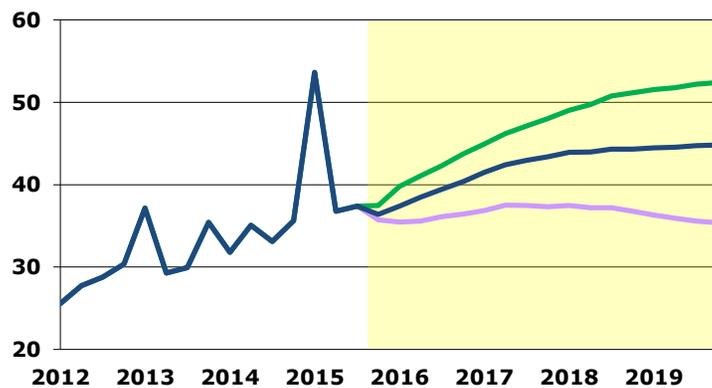
Source: Bureau of Economic Analysis 2014 Q4, ERFC 2019

Total nonfarm payroll employment, thousands



Source: WA State Employment Security 2015 Q3, ERFC 2019

Housing permits, thousands



Source: Census Bureau 2015 Q3, ERFC 2019

■ Baseline      ■ Optimistic      ■ Pessimistic

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## Chapter 3: Washington State Revenue Forecast Summary

- **Revenue collections since the September forecast have come in \$44 million over the forecasted amount.**
- **Once again, small changes in the economic forecast have led to small changes in the revenue forecast.**
- **The forecast of General Fund-State (GF-S) revenue for the 2015-17 biennium was increased by \$113 million and the forecast for the 2017-19 biennium was increased by \$30 million.**
- **The final tally of total GF-S revenue for the 2013-15 biennium, which ended June 30<sup>th</sup>, was unchanged from September.**

### Overview

*Changes to the economic forecast were very small, resulting in small changes to the revenue forecast*

Revenue collections since the September forecast have been slightly higher than expected, coming in at \$44 million (1.7%) more than the forecasted amount. The economic outlook, however, is very similar to that of September. While many of the aspects of the new forecast were slightly weaker than the previous forecast, the net change in revenue turned out to be positive, but just barely. The slight increases in forecasted revenue, which amounted to less than half of one percent per biennium, stemmed mainly from increases in forecasted auto sales and service-providing industries.

*GF-S forecast change by biennium (millions):*

13-15: \$0  
15-17: +\$113  
17-19: +\$30

Table 3.1 summarizes the changes to the forecasts of GF-S revenue for the 2013-15 through 2017-19 biennia. The final tally of total revenue for the 2013-15 biennium was \$33,666.0 million, the same as estimated in September. Since the September forecast, revenue sources that are tracked monthly came in \$43.9 million higher than forecasted. Expected revenue from non-economic sources, in this case large expected audit payments, added an additional \$14.7 million to the forecast. Changes to the economic forecast resulted in a \$54.8 million increase to projected collections for the rest of the biennium. The total of these three components was a \$113.4 million increase in projected revenue for the current 2015-17 biennium. The forecast for the 2017-19 biennium has been increased by \$29.6

million. GF-S revenue is now forecasted to total \$37,204.4 million in the 2015-17 biennium and \$40,567.5 million in the 2017-19 biennium.

GF-S forecast  
(\$millions):

2013-15:  
\$33,666

2015-17:  
\$37,204

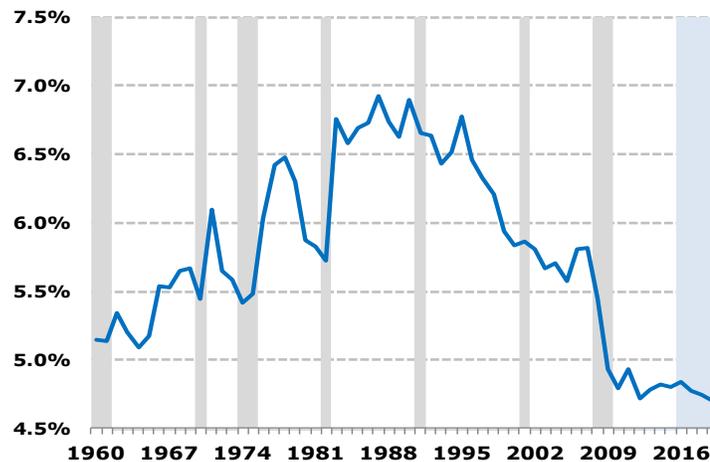
2017-19:  
\$40,568

**Table 3.1: Revisions to the General Fund-State forecast (cash basis, millions of dollars)**

	<b>2013-15 Biennium</b>	<b>2015-17 Biennium</b>	<b>2017-19 Biennium</b>
Collection Experience	\$0.0	\$43.9	NA
Non-Economic Change	\$0.0	\$14.7	\$0.0
Forecast Change	\$0.0	\$54.8	\$29.6
<b>Total Change</b>	<b>\$0.0</b>	<b>\$113.4</b>	<b>\$29.6</b>

**Figure 3.1: GF-S Revenue (Current Definition) as a Percentage of State Personal Income (Fiscal Years)**

GF-S revenue relative to state personal income has been on a declining trend since 1995



Source: ERFC, data through fiscal year 2015

The ratio of collections to income is at historical lows

As can be seen in Figure 3.1, the amount of GF-S revenue that is collected relative to state personal income is forecasted to reach its lowest levels in ERFC records. The ratio of revenue to income has been on a downward trend since 1995, broken only by the housing boom that raised the ratio from 2005 to mid-2008, and by temporary taxes and transfers of funds from non-GF-S sources into the GF-S that again boosted the ratio in fiscal years 2011 and 2013. The ratio for FY 2014 is slightly higher than that of FY 2013, but the increase was due mainly to slow income growth in that fiscal year. The current personal income estimate indicates the FY 2015 ratio declined just slightly. The forecast, as shown in the light blue shaded area, has the ratio increasing in FY 2016 due to the revenue increases resulting from legislative changes but then trending downward through the end of the

forecast period in FY 2019. In FY 2019, GF-S revenues are projected to be 4.70% of personal income.

*Forecast details are at the end of the chapter*

The history of nominal and real GF-S revenue by biennium can be found in Table 3.3. GF-S forecast changes by agency and major revenue classification for the 2013-15 biennium can be found in Table 3.5 (cash) and Table 3.6 (GAAP). Forecast changes for the 2015-17 biennium can be found in Table 3.7 (cash) and Table 3.8 (GAAP). The GF-S forecast by fiscal year and major source category through FY 2019 can be found in Table 3.9.

## Recent Collection Experience

*Cumulative receipts from major sources that are tracked monthly were \$44 million (1.7%) more than the September forecast*

Revenue collections from the Department of Revenue (DOR), Department of Licensing, and Administrative Office of the Courts are tracked monthly. In the period since the September forecast, total revenue from the above sources came in \$43.9 million (1.7%) higher than expected (see Table 3.2). Revenue Act collections reported by the DOR were \$34.1 million (1.5%) above the forecast. Revenue from other DOR tax sources from September and October was \$10.6 million (3.0%) above the forecast.

**Table 3.2: Pre-Forecast Collection Variance of Major General Fund-State Taxes by Agency (relative to the September 2015 forecast, cash basis, millions of dollars)**

<u>Agency/Source</u>	<u>Collection Variance</u>	<u>Percent of Estimate</u>
Department of Revenue		
Revenue Act	\$34.1	1.5%
Non Revenue Act	\$10.6	3.0%
Subtotal	\$44.7	1.7%
Department of Licensing		
	(\$0.2)	-16.5%
Administrative Office of the Courts		
	(\$0.6)	-4.4%
<b>Total*</b>	<b>\$43.9</b>	<b>1.7%</b>

\* Detail may not add to total due to rounding.

Source: ERFC; Period: September 11 - November 10, 2015

*Real estate excise taxes once again came in higher than forecasted*

Most of the positive variance in DOR taxes came from real estate excise taxes (REET), which came in \$13.1 million (9.8%) higher than forecasted. Transfers of unclaimed property into the GF-S were \$2.6 million (7.1%) higher than forecasted. Liquor sales and liter tax receipts came in \$2.9 million (7.4%) higher than forecasted, while cigarette tax receipts came in \$1.7 million (2.6%) lower than forecasted. Property tax receipts came in \$1.5 million (2.9%) lower than forecasted. All other DOR revenue

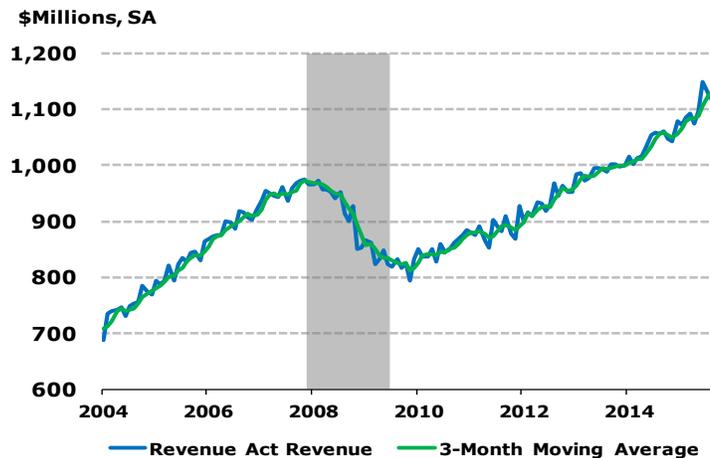
sources came in \$4.8 million (16.7%) lower than forecasted. Revenue from the Department of Licensing was \$0.2 million (16.5%) lower than forecasted and revenue from the Administrative Office of the Courts was \$0.6 million (4.4%) lower than forecasted.

*Adjusted Revenue Act collections were up 5.8% year over year in the most recent collection period and up 4.3% in the previous period*

Figure 3.2 shows seasonally adjusted Revenue Act receipts excluding payments received under the tax amnesty program in early 2011 and other large payments. It is also adjusted for some changes in payment patterns. As shown in the figure, collections have been on an upward trend since November 2009. Growth was aided by a temporary increase in the business and occupation tax rate paid by service industries that took effect in May 2010. This temporary increase expired on July 1, 2013. As can be seen in the chart, collections spiked in the July 11 – August 10 collection period, with year-over-year growth of 10.9% after adjustment for large payments and refunds. This spike brought adjusted growth for second quarter activity (May 11 – August 10 collections) to 7.3% year over year, the same as first quarter growth. Collections growth for third quarter activity (August 11 - November 10 collections) slowed to 5.5%. Year-over-year collections growth for the October 11 – November 10 collection period, which mainly represents September activity, was 5.8% after 4.3% growth in the previous period.

**Figure 3.2: Revenue Act Collections\***

*Growth in seasonally adjusted Revenue Act collections slowed in the third quarter*



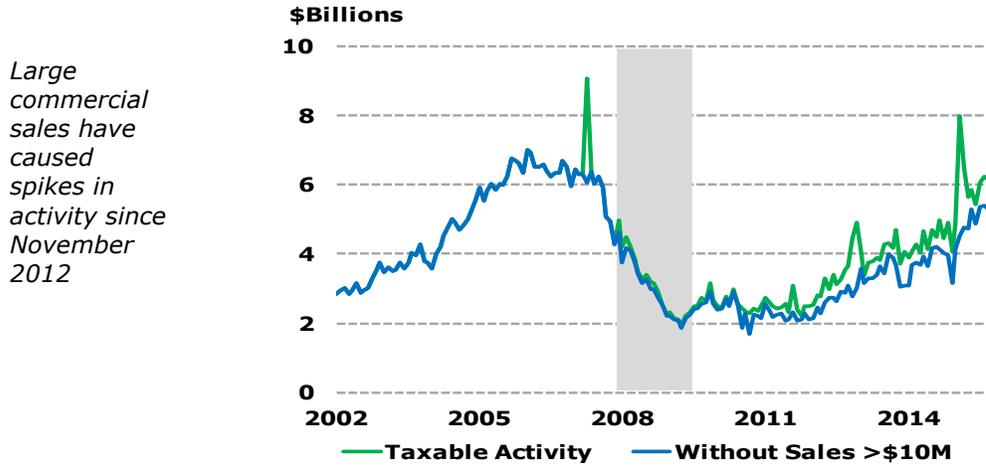
Source: ERFC; Data through November 10, 2015 preliminary allocation  
\*Adjusted for large payments/refunds and payment pattern change

*Sales of large commercial properties remained strong and were joined by higher residential sales as well*

While large commercial property sales remain strong, much of the large positive variance in REET collections was due to stronger-than-expected residential sales. Sales of property worth \$10 million or more totaled \$1.6 billion in the two months since the last forecast, only slightly higher than expected. Large commercial sales have been responsible for much of the increase in taxable activity since November 2012 (see Figure 3.3). The

most recent spike in February 2015 was due mainly to large transfers of controlling interest resulting from a corporate merger, but activity since has remained elevated.

**Figure 3.3: Taxable Real Estate Excise Activity, SA**



Source: ERFC; data through October 2015

## Revenue Forecasts by Source

### Department of Revenue

*Taxes collected by DOR are most of GF-S taxes*

The Department of Revenue (DOR) collects and administers the majority of Washington’s GF-S revenue, accounting for 95% of total GF-S revenue in FY 2015. The largest tax sources administered by the DOR are the retail sales tax, business and occupation tax, property tax, use tax, cigarette tax and real estate excise tax. The revenue forecasts discussed below can be found in Tables 3.5-3.8.

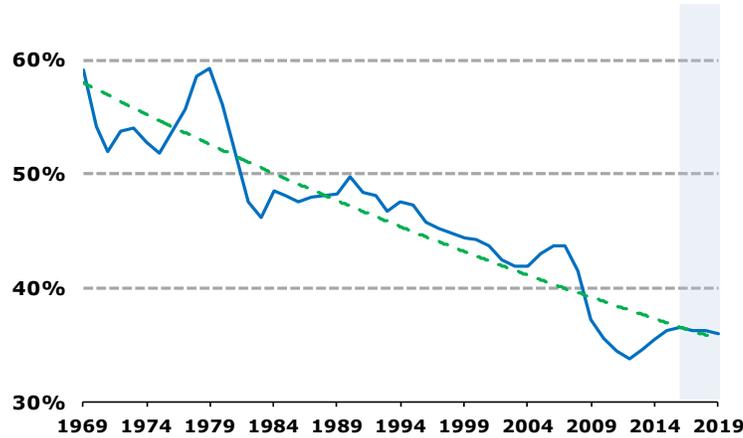
*Retail sales taxes are the largest source of GF-S revenue*

The retail sales tax is the largest source of GF-S revenue, accounting for 47.5% of GF-S revenue in FY 2015. The state’s share of the tax is 6.5% of the sales price. While construction labor, repair services, and some other services are taxed, the tax does not apply to most services. Taxable sales as a share of personal income have been declining. Their share fell sharply during the recession and continued to fall through FY 2012. In that year, 33.8% of personal income was spent on taxable items, the lowest percentage on record. Increased spending on construction and autos caused the share to grow through FY 2015, reaching an estimated 36.2% of personal income. Recent legislative changes that will tax some online sales and eliminate some exemptions are expected to increase taxable sales’ share of personal income to 36.5% in FY 2016 before declining through FY 2019, reaching 36.0% in that year. The historical and

forecasted relationship between taxable sales and income is illustrated in Figure 3.4.

**Figure 3.4: Taxable Sales\* as Percentage of State Personal Income**

*The ratio of taxable sales to state personal income is on a declining trend*



\*Past tax base adjusted to represent current base. Shaded area indicates forecast

Source: ERFC; forecast through FY 2019

*Retail sales tax receipt growth forecast:*

FY16: 7.2%  
 FY17: 4.2%  
 FY18: 5.4%  
 FY19: 4.6%

The growth rate of taxable retail activity improved from 4.1% in FY 2012 to 6.7% in FY 2013, due mainly to increasing construction activity. Continued growth in construction, along with the newly-revoked sales tax exemption on wired home phone lines, brought growth in taxable activity of 6.4% in FY 2014. Construction and auto sales brought growth to 8.1% in FY 2015. Despite the legislative changes in the last session that will bring in additional tax revenue, growth in FY 2016 taxable activity is forecasted to slow to 5.8% due to slowing growth in construction and auto sales. The slowdown of growth continues through the end of the forecast period, reaching 4.5% growth in FY 2019 (see Table 3.4). Due to the lag between taxable activity and collections and the presence of tax deferrals, credits, refunds, and payments of past due taxes, the growth in actual collections differs from the growth in taxable activity. Growth in collections for FY 2015 was 6.9%. Forecasted FY 2016 growth is 7.2%. Growth is forecasted at 4.2% in FY 2017, 5.4% in FY 2018 and 4.6% in FY 2019.

*Business and Occupation taxes are the second largest source of GF-S revenue*

The business and occupation (B&O) tax is the second largest source of GF-S revenue, accounting for 19.6% of GF-S revenue in FY 2015. It is a tax on the gross receipts of all businesses operating in Washington. The state portion of the tax applies ten different rates according to various classifications of business activities. In FY 2015, the largest contributor to total state B&O tax was the services sector, which had a gross tax rate of 1.5% and represented an estimated 43% of B&O taxes due. The next largest sector was retailing, which is taxed at 0.471% and represented an estimated 25% of taxes due, followed by the

wholesaling sector, which is taxed at 0.484% and represented an estimated 21% of taxes due.

*B&O tax growth forecast:*

*FY16: 7.3%*  
*FY17: 4.9%*  
*FY18: 6.0%*  
*FY19: 5.5%*

In FY 2013, B&O tax receipts grew by 5.8%. The expiration of a temporary increase in the B&O service tax rate on July 1, 2013, in addition to several large refunds, caused receipts to shrink by 1.8% in FY 2014. Growth in FY 2015, also affected by large refunds, was 4.5%. Growth in FY 2016 is forecasted at 7.3%, due largely to legislative changes from the most recent session. Growth is then forecasted to decrease to 4.9% in FY 2017, 6.0% in FY 2018 and 5.5% in FY 2019.

*State property taxes are the third largest source of GF-S revenue*

The state property tax levy is the third largest source of GF-S revenue, accounting for 11.6% of total revenue in FY 2015. Although the tax goes into the GF-S, it is dedicated to the funding of basic education. By law, the total state tax levy on existing property can only increase by the lesser of 1% per year or the rate of inflation as measured by the year-over-year change in the U.S. Implicit Price Deflator in the second quarter of the year preceding the levy, unless a greater increase is approved by the voters. The year-to-year growth in the total amount levied, however, can exceed the aforementioned limits due to the value of new construction, property improvements, and other additions to real property assessed by the state. Collections can also grow faster or slower than the rate of assessment growth due to the payment of past due taxes or nonpayment of current taxes.

*Property tax growth forecast:*

*FY16: 2.1%*  
*FY17: 2.3%*  
*FY18: 2.6%*  
*FY19: 2.6%*

Property tax collections grew by 2.3% in FY 2015. Forecasted second quarter 2015 year-over-year inflation of less than 1% restrains the growth rate of the calendar year 2016 levy, keeping forecasted collections growth at 2.1% in FY 2016 and 2.3% in FY 2017 despite healthy forecasted levels of new construction. Property tax receipts are forecasted to grow by 2.6% in FY 2018 and FY 2019.

*REET was the fourth largest GF-S source in FY 2015*

The real estate excise tax (REET) was the fourth largest DOR source of GF-S revenue in FY 2015, accounting for 4.3% of total revenue. The state portion of REET is 1.28% of the sales price. The tax is divided between the GF-S (92.3%), a fund for local public works (2.0%), a fund for assistance of cities and counties (1.6%) and, as of July 1, 2013, the Education Legacy Trust Account (4.1%). The tax is applied to both residential and commercial real estate, including purchases of vacant land.

*REET growth forecast:*

*FY16: 3.9%*  
*FY17: -6.2%*  
*FY18: 3.6%*  
*FY19: 2.8%*

Due to a high number of large sales of commercial property, REET receipts grew by 34.0% in FY 2013. FY 2014 receipts were also boosted by large commercial sales, resulting in growth of 15.2%. Even higher commercial sales coupled with strengthening residential sales boosted FY 2015 growth to 20.4%. Further strengthening in residential sales is expected to allow FY 2016 sales to grow another 3.9% despite lower

commercial sales. Commercial sales are expected to decline to more normal levels in FY 2017, resulting in a 6.2% decrease in collections despite continued but slowing residential sales growth. Growth is forecasted at 3.6% in FY 2018 and 2.8% in FY 2019.

*Use tax was the fifth largest GF-S source in FY 2015*

The state use tax was the fifth largest GF-S revenue source in FY 2015 at 3.4% of total receipts. The state portion of the tax is 6.5% of the purchase price for items used in the state that were not subject to the state retail sales tax. Examples of items subject to the state use tax are goods purchased out-of-state; online and mail-order purchases, where sales tax was not collected; or purchases of used vehicles from private individuals.

*Use tax growth forecast:*

*FY16: 6.8%  
FY17: 2.0%  
FY18: 6.2%  
FY19: 5.0%*

Use tax receipts grew by 7.8% in FY 2014, boosted by strong sales of used vehicles and a temporary increase in payments from the manufacturing sector in the 4<sup>th</sup> quarter of 2013. Despite a reduction in collections from the manufacturing sector, increases in construction and used vehicle sales brought growth to 4.9% in FY 2015. An expected large audit payment plus the legislated elimination of certain tax exemptions is expected to boost growth to 6.8% in FY 2016. Coming off of FY 2016's high level, growth is forecasted to slow to 2.0% in FY 2017. Growth is then expected to occur at more normal levels of 6.2% in FY 2018 and 5.0% in FY 2019.

*The cigarette tax was the sixth largest GF-S source in FY 2015*

The state tax on cigarettes was the sixth largest DOR GF-S revenue source in FY 2015 at 2.3% of total receipts. Prior to FY 2010, the tax made up a much smaller portion of GF-S revenue because much of the tax was dedicated to non-GF-S accounts. In FY 2010, all of the tax except the portion dedicated to the Education Legacy Trust account was redirected to the GF-S, and in FY 2011 all of the cigarette tax was redirected to the GF-S. The current tax rate, which took effect May 1, 2010, is \$3.025 per pack of 20 cigarettes.

*Cigarette tax growth forecast:*

*FY16: -4.9%  
FY17: -0.2%  
FY18: -2.9%  
FY19: -2.7%*

The total number of taxed cigarettes has been on a downward trend due to a continuing decline in the number of smokers. Recently, the rate of decline has been increasing further due to increased consumption of e-cigarettes, which are not subject to the cigarette tax but are subject to retail sales taxes. FY 2014 receipts decreased by 3.6%. The decline in collections paused in FY 2015, bringing revenues to a level 1.7% above that of FY 2014. Despite a planned increase in tax enforcement established in the most recent legislative session, collections are expected to decrease by 4.9% in FY 2016. Further ramp-up of the enforcement efforts in FY 2017 is forecasted to temporarily slow the long-term decline in collections, leading to a 0.2% decline in that year. Collections are then forecasted to decline by 2.9% in FY 2018 and 2.7% in FY 2019.

*Public utility taxes were the seventh largest GF-S source in FY 2015*

Public utility taxes were the seventh largest DOR source of GF-S revenue in FY 2015, bringing in 2.2% of total receipts. The tax applies to the gross income of sales to consumers by public and privately owned utilities and is in lieu of the B&O tax. The largest source of public utility taxes is the 3.873% tax on the distribution and generation of electrical power, followed by the 3.852% tax on the distribution of natural gas.

*Growth forecast:*

*FY16: 7.3%  
FY17: 0.9%  
FY18: 5.7%  
FY19: 4.7%*

Public utility tax receipts decreased by 3.3% in FY 2015 due to low and declining natural gas and electricity prices and moderate weather. Higher-than-expected collections through November 10<sup>th</sup> plus forecasted growth in construction brings expected growth of 7.3% in FY 2016. FY 2017 growth then slows to 0.9% from FY 2016's elevated level. Increases in projected utility prices bring expected growth of 5.7% in FY 2018 and 4.7% in FY 2019.

## **Forecasted Revenue from Cannabis-Related Sales**

*Sales of cannabis products in state-licensed stores began in July 2014*

Initiative 502, approved by voters in the November 2012 election, legalized the sale and use of recreational cannabis and cannabis products in Washington. The first legal sales of cannabis products in state-licensed stores occurred in July 2014. During the 2015 regular and special sessions, legislation was passed that substantially altered the market rules set up by the initiative. 2SSB 5052, passed during the regular session, brought previously unregulated medical marijuana dispensaries into the same regulatory regime as licensed recreational cannabis outlets. This legislation was outlined in our June forecast publication. Subsequent to the June forecast, 2E2SHB 2136, passed in the second special session, changed the cannabis excise tax from a 25 percent tax collected from growers, processors and retailers to a 37 percent tax on retail sales only. The law also made changes to the distribution of tax and fee revenue. Cannabis taxes and license fees are still collected by the Liquor and Cannabis Board and placed into a dedicated fund and appropriated annually.

*Change in GF-S forecast of total cannabis-related revenue by biennium (millions):  
13-15: \$0.0  
15-17: +\$7.9  
17-19: -\$3.5*

Distributions of cannabis excise taxes to the GF-S totaled \$15.3 million in the 2013-15 biennium, the same as expected in the September forecast. Forecasted GF-S distributions and fees for the 2015-17 biennium are now expected to total \$133.2 million, \$7.9 million more than forecasted in September. GF-S distributions are forecasted at \$230.2 million in the 2017-19 biennium, a decrease of \$3.5 million from the September forecast. Details of the forecasted distributions from the account can be found in Table 3.18.

## Department of Licensing

*Forecast  
change by  
biennium  
(millions):*

15-17: \$0.5  
17-19: \$0.5

The majority of GF-S revenue collected by the Department of Licensing is from firearm and event licenses, watercraft excise tax, and boat registration fees. The final tally of GF-S revenue for the 2013-15 biennium is \$36.5 million, the same as estimated in September. The department's forecast for the 2015-17 biennium has been increased \$0.5 million to \$36.6 million and the forecast of revenue for the 2017-19 biennium has been increased \$0.5 million to \$37.2 million.

## The Office of Financial Management (Other Agencies)

*Forecast  
change by  
biennium  
(millions):*

15-17: \$6.0  
17-19: \$10.5

The Office of Financial Management (OFM) is responsible for preparing General Fund-State revenue and transfer forecasts for all agencies excluding the Department of Revenue, the Department of Licensing, the Liquor and Cannabis Board, the Insurance Commissioner, the Washington State Lottery, and the State Treasurer. The office's final estimate of revenue for the 2013-15 biennium is \$223.0 million, the same as estimated in September. The office's forecast for the 2015-17 biennium was increased \$6.0 million to \$207.2 million. The forecast for the 2017-19 biennium was increased \$10.5 million to \$205.9 million. Forecast increases for both biennia were mainly the result of higher expected Medicare subsidies from the Federal government.

## State Treasurer

*Forecast  
change by  
biennium  
(millions):*

15-17: -\$3.0  
17-19: -\$4.7

The Office of the State Treasurer generates GF-S revenue by investing state short-term cash reserves. The office's final estimate of earnings from the 2013-15 biennium is negative \$0.7 million, the same as estimated in September. The biennial revenue was negative because the average daily balance of accounts that earn interest that goes into the GF-S was negative. When this occurs, the GF-S effectively pays interest to the other funds managed by the office. The forecast for the 2015-17 biennium has been decreased \$3.0 million to \$10.0 million and the forecast for the 2017-19 biennium has been decreased \$4.7 million to \$42.2 million. The forecast decreases in both biennia were due to lower expected interest rates.

## Insurance Commissioner

*Forecast  
change by  
biennium  
(millions):*

15-17: \$0.0  
17-19: \$0.0

The Office of the Insurance Commissioner collects premium taxes on most classes of insurance sold in Washington State. These taxes are distributed to the GF-S and various accounts in support of fire services. The office's final tally of GF-S revenue for the 2013-15 biennium is \$985.9 million, the same as estimated in September. The forecast of revenue for the 2015-17 biennium is

unchanged at \$1,096.9 million and the forecast for the 2017-19 biennium is unchanged at \$1,183.3 million.

## Liquor and Cannabis Board

*Forecast  
change by  
biennium  
(millions):*

15-17: *-\$5.3*  
17-19: *-\$5.8*

The recently renamed Liquor and Cannabis Board (LCB) collects fees from distributors and retailers on sales of spirits and surtaxes on sales of beer and wine (sales and liter taxes on spirits are collected by the DOR). The LCB is also responsible for the collection of excise taxes and fees associated with the legalized sale and use of recreational and medicinal cannabis. The final estimate of total GF-S revenue collected by the LCB for the 2013-15 biennium is \$275.0 million, the same as estimated in September. The forecast of LCB GF-S revenue for the 2015-17 biennium has been decreased \$5.3 million to \$343.2 million. The forecast of revenue for the 2017-19 biennium has been decreased \$5.8 million to \$470.6 million.

## Lottery Commission

*GF-S forecast  
change by  
biennium  
(millions):*

15-17: *-\$4.4*  
17-19: *-\$3.5*

While most of the proceeds from sales of lottery games go to the Washington Opportunity Pathways Account (OPA), distributions are also made to programs such as Problem Gambling, Economic Development and the Stadium/Exhibition Center. Details of the forecast of the distribution of Lottery earnings can be found in Table 3.15 on a cash basis and Table 3.16 on a GAAP basis. When total profits from all Washington-only games plus the Powerball game exceed \$102 million per year, the amount above \$102 million gets transferred to the GF-S. In FY 2013, large Powerball jackpots pushed sales above the threshold, resulting in a \$9.3 million payment to the GF-S in FY 2014. Profits just exceeded the threshold again in FY 2014, resulting in a total GF-S transfer of \$9.9 million for the 2013-15 biennium. GF-S transfers totaling \$4.9 million are forecasted for the 2015-17 biennium, a decrease of \$4.4 million from the September forecast, and \$21.2 million for the 2017-19 biennium, a decrease of \$3.5 million.

*OPA forecast  
change by  
biennium  
(millions):*

15-17: *-\$11.5*  
17-19: *-\$6.7*

The OPA receives all profits (excluding statutory transfers) from Washington-only lottery games plus all profits from the Mega Millions game. The final tally of transfers for the 2013-15 biennium is \$233.9 million, the same as estimated in September. The forecast for the 2015-17 biennium has been decreased \$11.5 million to \$265.2 million. The forecast for the 2017-19 biennium has been decreased \$6.7 million to \$254.9 million.

## Administrative Office of the Courts

The Administrative Office of the Courts collects surcharges on certain filing fees, fines, and infraction penalties and transfers

*Forecast change by biennium (millions):*

15-17: *-\$1.9*  
17-19: *-\$2.5*

this revenue to the GF-S on a monthly basis. The final estimate of transfers to the GF-S for the 2013-15 biennium is \$170.0 million, the same as estimated in September. The forecast for the 2015-17 biennium has been decreased \$1.9 million to \$167.3 million and the forecast of transfers for the 2017-19 biennium has been decreased \$2.5 million to \$176.8 million.

## **Track Record for the 2013-15 Biennium**

*The November 2015 final tally is \$1.2 billion (3.8%) higher than the initial February 2012 forecast*

Table 3.10 summarizes the historical changes to the GF-S revenue forecast for the 2013-15 biennium. The February 2012 forecast was the initial forecast for the biennium. The November 2015 final revenue estimate for the biennium is \$1.24 billion (3.8%) higher than the initial forecast. Non-economic changes have increased the forecast by \$386 million (1.2%). Excluding non-economic changes, the current forecast is \$851 million (2.6%) higher than the initial forecast. The current forecast is \$881 million (2.7%) higher than the sum of the June 2013 forecast and the \$123 million in legislated revenue increases from the June 2013 second special session that were the basis of the initial budget for the 2013-15 biennium.

## **Track Record for the 2015-17 Biennium**

*The forecast is \$1.7 billion (4.7%) higher than the initial September 2012 forecast*

Table 3.11 summarizes the historical changes to the GF-S revenue forecast for the 2015-17 biennium. The September 2012 forecast was the initial forecast for the biennium. The November 2015 forecast for the biennium is \$1.69 billion (4.7%) higher than the initial forecast. Non-economic changes have increased the forecast by \$504 million (1.4%). Excluding non-economic changes, the current forecast is \$1.18 billion (3.3%) higher than the initial forecast. The June 2015 forecast, coupled with the \$193 million in legislative and budget-driven revenue changes passed in the 2015 special legislative sessions, was the basis for the initial budget for the 2015-17 biennium. The November 2015 forecast is \$253 million (0.7%) higher than that sum.

## **The Relationship between the Cash and GAAP General Fund-State Revenue Forecasts**

*GAAP forecasts are based on the period in which the revenue is earned rather than received*

Legislation enacted in 1987 requires that the state's biennial budget be in conformance with Generally Accepted Accounting Principles (GAAP). It also requires a GF-S revenue forecast on both a cash and GAAP basis. The GAAP forecasts of GF-S revenue for the 2013-15 and 2015-17 biennia are presented in Tables 3.6 and 3.8 and the GAAP forecast of Lottery revenue transfers for both biennia is in Table 3.15. The primary difference between the cash and GAAP forecasts is the timing of the receipt of revenue. On a GAAP basis, revenue is credited to the biennium

in which it is earned even though it may not have been received. The cash forecast, on the other hand, reflects expected cash receipts during a fiscal period. The forecast on a GAAP, or accrual, basis is primarily used for financial reporting. The cash forecast is used for cash flow management and revenue tracking. The cash forecast is also the forecast used in the state's budgetary balance sheet, which is the principal tool for assessing the General Fund's current surplus or deficit position. References to the GF-S forecast in the text of this chapter refer to the cash forecast unless otherwise noted. Likewise, figures from revenue tables other than Tables 3.6, 3.8 and 3.16 are projected on a cash basis.

## Budgetary Balance Sheet for the 2013-15 and 2015-17 Biennia

*The forecast implies GF-S reserves of \$1.60 billion at the end of the 2015-17 biennium and \$1.62 billion in reserves for GF-S, ELTA and OPA*

Table 3.12 shows the budgetary balance sheet for the 2013-15 and 2015-17 biennia as prepared by the Office of Financial Management and the House and Senate fiscal committees. The balance sheet shows not only projected GF-S spending and resources but also total projected spending and resources for the GF-S plus the other main non-transportation state-funded accounts: the Education Legacy Trust Account (ELTA) and the Washington Opportunity Pathways Account (OPA). As shown in the table, the final tally of the GF-S ending fund balance for the 2013-15 biennium is \$990.9 million and the total estimated balance for GF-S, ELTA and OPA is \$1,011.2 million. Based on the November 2015 revenue forecast and currently enacted budgets, unrestricted GF-S reserves are projected to be \$707.2 million at the end of the 2015-17 biennium and GF-S, ELTA and OPA reserves are projected to be \$726.7 million. In addition, the Budget Stabilization Account is projected to have a balance of \$891.4 million, bringing total projected GF-S reserves to \$1,598.5 million. Projected combined reserves for the ELTA and OPA are \$19.6 million, for total projected reserves of \$1,618.1 million for GF-S, ELTA and OPA at the end of the 2015-17 biennium.

## Alternative Forecasts for the 2015-17 and 2017-19 Biennia

*Optimistic scenario (billions):*

15-17: +\$1.9  
17-19: +\$4.1

*Pessimistic scenario:*

15-17: -\$1.9  
17-19: -\$3.9

Chapter 2 outlines optimistic and pessimistic economic scenarios relative to the baseline economic forecast. The forecast assigns a probability of 55% to the baseline forecast, 15% to a scenario based on the upside risks and 30% to a scenario based on the downside risks. The revenue implications of these alternative scenarios for the 2015-17 biennium are shown in Table 3.13 and those of the 2017-19 biennium are shown in Table 3.14. For the 2015-17 biennium, the optimistic forecast generates \$39,093.8 million in GF-S revenue, \$1,889.4 million (5.1%) more than the baseline scenario, while the pessimistic forecast produces \$35,341.1 million in revenue, \$1,863.4 million (5.0%) less than the baseline. For the 2017-19 biennium, the optimistic forecast

generates \$44,630.6 million in GF-S revenue, \$4,063.1 million (10.0%) more than the baseline scenario, while the pessimistic forecast produces \$36,638.6 million in revenue, \$3,928.9 million (9.7%) less than the baseline.

## **Near General Fund Forecasts for the 2013-15 - 2017-19 Biennia**

*Near General  
Fund  
Forecast  
(millions):*

*2013-15:  
\$34,070.8*

*2015-17:  
\$37,650.4*

*2017-19:  
\$41,072.5*

“Near General Fund” accounts are those included in the GF-S plus the Education Legacy Trust Account (ELTA). The ELTA was previously funded by a portion of the state tax on cigarettes and a tax on estates of over \$2 million. Legislation from the 2011 session, however, requires the cigarette taxes that formerly went into the account to instead be deposited into the GF-S. The final tally of Near General Fund revenue for the 2013-15 biennium is \$34,070.8 million, the same as estimated in September. The forecast for the 2015-17 biennium is \$37,650.4 million, \$112.8 million more than the September forecast. The forecast of Near General Fund revenue for the 2017-19 biennium is \$41,072.5 million, \$31.4 million more than the September forecast. The Near General Fund forecast and recent history by fiscal year are presented in Table 3.17. The table also includes projected revenue for the OPA and the sum of Near General Fund plus OPA revenues by fiscal year.

Table 3.3  
**General Fund-State collections\***  
(millions of dollars, cash basis)

<b>Biennium</b>	<b>Current Dollars</b>	<b>Percent Change</b>	<b>2009 Chained Dollars</b>	<b>Percent Change</b>
1961-63	\$817.1		\$4,300.0	
1963-65	866.2	6.0%	4,439.3	3.2%
1965-67	1,128.6	30.3%	5,565.5	25.4%
1967-69	1,440.5	27.6%	6,658.6	19.6%
1969-71	1,732.7	20.3%	7,767.2	16.6%
1971-73	1,922.1	10.9%	7,971.8	2.6%
1973-75	2,372.4	23.4%	8,500.2	6.6%
1975-77	3,395.0	43.1%	10,580.8	24.5%
1977-79	4,490.0	32.3%	12,284.4	16.1%
1979-81	5,356.4	19.3%	12,197.3	-0.7%
1981-83	6,801.4	27.0%	13,492.7	10.6%
1983-85	8,202.4	20.6%	15,008.4	11.2%
1985-87	9,574.6	16.7%	16,528.2	10.1%
1987-89	10,934.1	14.2%	17,618.6	6.6%
1989-91	13,309.0	21.7%	19,772.8	12.2%
1991-93	14,862.2	11.7%	20,789.0	5.1%
1993-95	16,564.6	11.5%	22,140.3	6.5%
1995-97	17,637.7	6.5%	22,629.9	2.2%
1997-99	19,620.1	11.2%	24,520.3	8.4%
1999-01	21,262.1	8.4%	25,587.4	4.4%
2001-03	21,140.7	-0.6%	24,595.4	-3.9%
2003-05	23,388.5	10.6%	26,077.7	6.0%
2005-07	27,772.0	18.7%	29,316.2	12.4%
2007-09	27,703.0	-0.2%	27,888.3	-4.9%
2009-11	28,218.1	1.9%	27,704.7	-0.7%
2011-13	30,657.0	8.6%	28,905.6	4.3%
2013-15	33,666.0	9.8%	30,942.4	7.0%
2015-17 <sup>F</sup>	37,204.4	10.5%	33,494.9	8.2%
2017-19 <sup>F</sup>	40,567.5	9.0%	35,232.3	5.2%

<sup>F</sup> November 2015 Forecast

\*Total General Fund-State revenue and transfers. Cash basis; includes rate base and administrative changes. Modified cash basis: 1985-87 and prior; pure cash basis: 1987-89 and after. May not be comparable because the collection totals include the impact of rate, base and administrative changes.

Source: Department of Revenue, the Office of Financial Management and the Economic and Revenue Forecast Council 's November 2015 forecast.

Table 3.4  
**Taxable retail sales\***  
(millions of dollars)

<b>Fiscal Year</b>	<b>Amount</b>	<b>Percent Change</b>
1979	22,309	5.6%
1980	24,057	7.8%
1981	25,197	4.7%
1982	26,097	3.6%
1983	29,368	12.5%
1984	29,156	-0.7%
1985	30,687	5.3%
1986	32,158	4.8%
1987	34,647	7.7%
1988	37,452	8.1%
1989	41,429	10.6%
1990	47,183	13.9%
1991	49,812	5.6%
1992	53,189	6.8%
1993	55,319	4.0%
1994	59,009	6.7%
1995	61,927	4.9%
1996	62,817	1.4%
1997	66,748	6.3%
1998	72,059	8.0%
1999	77,197	7.1%
2000	83,335	8.0%
2001	85,633	2.8%
2002	84,418	-1.4%
2003	86,165	2.1%
2004	90,139	4.6%
2005	97,253	7.9%
2006	107,071	10.1%
2007	115,527	7.9%
2008	118,676	2.7%
2009	106,379	-10.4%
2010	99,983	-6.0%
2011	101,825	1.8%
2012	106,036	4.1%
2013	113,173	6.7%
2014	120,453	6.4%
2015	130,168	8.1%
2016 <sup>F</sup>	137,771	5.8%
2017 <sup>F</sup>	143,952	4.5%
2018 <sup>F</sup>	151,633	5.3%
2019 <sup>F</sup>	158,438	4.5%

<sup>F</sup> November 2015 forecast  
Source: ERFC

\* Actual Base. Includes statutory and administrative changes to the tax base. Historical fiscal year data are from quarterly taxable sales reported by taxpayers on the state's Combined Excise tax return. Reported totals affected by enacted legislation. Major base changes include: exemption of off-premises food, beginning 1978:3 (fiscal 1979); extension of the sales tax base to off premises food (1982:2 to 1983:2); food again exempt 1983:3 (fiscal 1984); extension of the sales tax base to candy, gum and bottled water (June 1 - December 2, 2010); elimination of sales tax exemption for residential phone service (July 1, 2013).

Table 3.5

**Comparison of the General Fund-State forecast by agency**

2013-15 biennium; cash basis

(millions of dollars)

<b>Forecast by Agency</b>	<b>Sept. 2015 Forecast<sup>1</sup></b>	<b>Non- Economic Changes</b>	<b>Forecast Revision</b>	<b>Nov. 2015 Forecast<sup>2</sup></b>	<b>Total Change</b>
<b>Department of Revenue</b>					
Retail Sales	\$15,887.2	\$0.0	(\$0.8)	\$15,886.4	(\$0.8)
Business & Occupation	6,627.5	0.0	10.4	6,637.9	10.4
Use	1,152.0	0.0	(8.3)	1,143.7	(8.3)
Public Utility	779.1	0.0	(0.1)	779.0	(0.1)
Liquor Sales/Liter	499.3	0.0	0.0	499.3	0.0
Cigarette	791.1	0.0	0.0	791.1	0.0
Property (State Levy)	3,963.1	0.0	0.0	3,963.1	0.0
Real Estate Excise	1,356.9	0.0	0.0	1,356.9	0.0
Timber Excise	5.1	0.0	0.0	5.1	0.0
Other	905.2	0.0	(1.2)	903.9	(1.2)
Subtotal	31,966.4	0.0	0.0	31,966.4	0.0
<b>Department of Licensing</b>					
Boat excise, licenses, fees & other	36.5	0.0	0.0	36.5	0.0
<b>Insurance Commissioner</b>					
Insurance Premiums	985.9	0.0	0.0	985.9	0.0
<b>Liquor Control Board</b>					
Fees, Cannabis Excise Tax	218.8	0.0	0.0	218.8	0.0
Beer & Wine Surtax	56.1	0.0	0.0	56.1	0.0
<b>Lottery Commission</b>					
Lottery Revenue	9.9	0.0	0.0	9.9	0.0
<b>State Treasurer</b>					
Interest Earnings	(0.7)	0.0	0.0	(0.7)	0.0
<b>Office of Financial Management</b>					
Other	223.0	0.0	(0.0)	223.0	(0.0)
<b>Administrative Office of the Courts</b>					
Fines and Forfeitures	170.0	0.0	0.0	170.0	0.0
<b>Total General Fund-State *</b>	<b>\$33,666.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$33,666.0</b>	<b>\$0.0</b>

<sup>1</sup> Preliminary estimate for the 2013-15 biennium adopted by the Economic and Revenue Forecast Council September 14, 2015.<sup>2</sup> Final total for the 2013-15 biennium, adopted November 18, 2015.

\*Detail may not add to totals because of rounding.

Source: ERFC, Department of Licensing, Insurance Commissioner, Lottery Commission, Office of the State Treasurer, Liquor Control Board, Office of Financial Management

Table 3.6

**Comparison of the General Fund-State forecast by agency**

2013-15 biennium; GAAP basis

(millions of dollars)

<b>Forecast by Agency</b>	<b>Sept. 2015 Forecast<sup>1</sup></b>	<b>Non- Economic Changes</b>	<b>Forecast Revision</b>	<b>Nov. 2015 Forecast<sup>2</sup></b>	<b>Total Change</b>
<b>Department of Revenue</b>					
Retail Sales	\$15,901.6	\$0.0	\$152.1	\$16,053.7	\$152.1
Business & Occupation	6,597.2	0.0	30.0	6,627.3	30.0
Use	1,154.9	0.0	(1.0)	1,153.8	(1.0)
Public Utility	777.7	0.0	2.9	780.6	2.9
Liquor Sales/Liter	498.4	0.0	1.3	499.7	1.3
Cigarette	760.2	0.0	38.1	798.4	38.1
Property (State Levy)	3,943.0	0.0	19.0	3,961.9	19.0
Real Estate Excise	1,354.3	0.0	(1.3)	1,353.0	(1.3)
Timber Excise	5.1	0.0	0.0	5.1	0.0
Other	901.0	0.0	10.8	911.8	10.8
Subtotal	31,893.4	0.0	251.8	32,145.3	251.8
<b>Department of Licensing</b>					
Boat excise, licenses, fees & other	36.5	0.0	0.0	36.5	0.0
<b>Insurance Commissioner</b>					
Insurance Premiums	985.9	0.0	0.0	985.9	0.0
<b>Liquor Control Board</b>					
Fees, Cannabis Excise Tax	218.8	0.0	0.0	218.8	0.0
Beer & Wine Surtax	56.1	0.0	0.0	56.1	0.0
<b>Lottery Commission</b>					
Lottery Revenue	0.6	0.0	0.0	0.6	0.0
<b>State Treasurer</b>					
Interest Earnings	(1.0)	0.0	0.0	(1.0)	0.0
<b>Office of Financial Management</b>					
Other	221.0	0.0	(0.0)	220.9	(0.0)
<b>Administrative Office of the Courts</b>					
Fines and Forfeitures	170.0	0.0	0.0	170.0	0.0
<b>Total General Fund-State *</b>	<b>\$33,581.4</b>	<b>\$0.0</b>	<b>\$251.9</b>	<b>\$33,833.2</b>	<b>\$251.9</b>

<sup>1</sup> Preliminary estimate for the 2013-15 biennium adopted by the Economic and Revenue Forecast Council September 14, 2015.<sup>2</sup> Final total for the 2013-15 biennium, adopted November 18, 2015.

\*Detail may not add to totals because of rounding.

Source: ERFC, Department of Licensing, Insurance Commissioner, Lottery Commission, Office of the State Treasurer, Liquor Control Board, Office of Financial Management

Table 3.7

**Comparison of the General Fund-State forecast by agency**

2015-17 biennium; cash basis

(millions of dollars)

<b>Forecast by Agency</b>	<b>Sept. 2015 Forecast<sup>1</sup></b>	<b>Non- Economic Changes</b>	<b>Forecast Revision</b>	<b>Nov. 2015 Forecast<sup>2</sup></b>	<b>Total Change</b>
<b>Department of Revenue</b>					
Retail Sales	\$17,918.8	\$7.0	\$50.8	\$17,976.6	\$57.8
Business & Occupation Use	7,475.0	3.8	(20.3)	7,458.6	(16.5)
Public Utility	1,248.3	3.9	10.7	1,262.9	14.6
Liquor Sales/Liter	797.2	0.0	28.3	825.5	28.3
Cigarette	500.6	0.0	4.0	504.5	4.0
Property (State Levy)	756.3	0.0	1.2	757.5	1.2
Real Estate Excise	4,139.0	0.0	1.8	4,140.7	1.8
Timber Excise	1,470.2	0.0	22.0	1,492.2	22.0
Other	6.0	0.0	(0.5)	5.5	(0.5)
Subtotal	905.2	0.0	8.9	914.2	8.9
	35,216.7	14.7	106.9	35,338.2	121.6
<b>Department of Licensing</b>					
Boat excise, licenses, fees & other	36.1	0.00	0.5	36.6	0.5
<b>Insurance Commissioner</b>					
Insurance Premiums	1,096.9	0.0	0.0	1,096.9	0.0
<b>Liquor Control Board</b>					
Fees, Cannabis Excise Tax	293.1	0.0	(6.0)	287.1	(6.0)
Beer & Wine Surtax	55.4	0.0	0.7	56.1	0.7
<b>Lottery Commission</b>					
Lottery Revenue	9.4	0.0	(4.4)	4.9	(4.4)
<b>State Treasurer</b>					
Interest Earnings	13.0	0.0	(3.0)	10.0	(3.0)
<b>Office of Financial Management</b>					
Other Agencies	201.2	0.0	6.0	207.2	6.0
<b>Administrative Office of the Courts</b>					
Fines and Forfeitures	169.2	0.0	(1.9)	167.3	(1.9)
<b>Total General Fund-State *</b>	<b>\$37,091.0</b>	<b>\$14.7</b>	<b>\$98.7</b>	<b>\$37,204.4</b>	<b>\$113.4</b>

<sup>1</sup> Forecast for the 2015-17 biennium adopted by the Economic and Revenue Forecast Council September 14, 2015.<sup>2</sup> Forecast for the 2015-17 biennium, adopted November 18, 2015.

\*Detail may not add to totals because of rounding.

Source: ERFC, Department of Licensing, Insurance Commissioner, Lottery Commission, Office of the State Treasurer, Liquor Control Board, Office of Financial Management

Table 3.8

**Comparison of the General Fund-State forecast by agency**

2015-17 biennium; GAAP basis

(millions of dollars)

<b>Forecast by Agency</b>	<b>Sept. 2015 Forecast<sup>1</sup></b>	<b>Non- Economic Changes</b>	<b>Forecast Revision</b>	<b>Nov. 2015 Forecast<sup>2</sup></b>	<b>Total Change</b>
<b>Department of Revenue</b>					
Retail Sales	\$17,918.8	\$7.0	\$50.8	\$17,976.6	\$57.8
Business & Occupation Use	7,475.0	3.8	(20.3)	7,458.6	(16.5)
Public Utility	1,248.3	3.9	10.7	1,262.9	14.6
Liquor Sales/Liter	797.2	0.0	28.3	825.5	28.3
Cigarette	500.6	0.0	4.0	504.5	4.0
Property (State Levy)	756.3	0.0	1.2	757.5	1.2
Real Estate Excise	4,136.1	0.0	4.6	4,140.7	4.6
Timber Excise	1,470.2	0.0	22.0	1,492.2	22.0
Other	6.1	0.0	(0.6)	5.5	(0.6)
Subtotal	905.2	0.0	8.9	914.2	8.9
	35,213.9	14.7	109.7	35,338.2	124.4
<b>Department of Licensing</b>					
Boat excise, licenses, fees & other	36.1	0.00	0.5	36.6	0.5
<b>Insurance Commissioner</b>					
Insurance Premiums	1,096.9	0.0	0.0	1,096.9	0.0
<b>Liquor Control Board</b>					
Fees, Cannabis Excise Tax	293.1	0.0	(6.0)	287.1	(6.0)
Beer & Wine Surtax	55.4	0.0	0.7	56.1	0.7
<b>Lottery Commission</b>					
Lottery Revenue	18.9	0.0	(3.9)	15.0	(3.9)
<b>State Treasurer</b>					
Interest Earnings	13.0	0.0	(3.3)	9.8	(3.3)
<b>Office of Financial Management</b>					
Other	201.2	0.0	6.0	207.2	6.0
<b>Administrative Office of the Courts</b>					
Fines and Forfeitures	169.2	0.0	(1.9)	167.3	(1.9)
<b>Total General Fund-State *</b>	<b>\$37,097.7</b>	<b>\$14.7</b>	<b>\$101.8</b>	<b>\$37,214.3</b>	<b>\$116.5</b>

<sup>1</sup> Forecast for the 2015-17 biennium adopted by the Economic and Revenue Forecast Council September 14, 2015.<sup>2</sup> Forecast for the 2015-17 biennium, adopted November 18, 2015.

\*Detail may not add to totals because of rounding.

Source: ERFC, Department of Licensing, Insurance Commissioner, Lottery Commission, Office of the State Treasurer, Liquor Control Board, Office of Financial Management

Table 3.9

**November 2015 General Fund-State history and forecast****2013-15 to 2017-19 biennia; cash basis**

(Millions of Dollars)

<b>Forecast by Source</b>	<b>Fiscal 2014</b>	<b>Fiscal 2015</b>	<b>2013-15 Biennium</b>	<b>Fiscal 2016</b>	<b>Fiscal 2017</b>	<b>2015-17 Biennium</b>	<b>Fiscal 2018</b>	<b>Fiscal 2019</b>	<b>2017-19 Biennium</b>
<b>State Taxes</b>									
Retail sales**	\$7,678.6	\$8,207.8	\$15,886.4	\$8,802.7	\$9,173.9	\$17,976.6	\$9,666.1	\$10,108.6	\$19,774.7
Business & occupation	3,246.4	3,391.5	6,637.9	3,639.4	3,819.2	7,458.6	4,048.7	4,271.2	8,319.9
Use**	558.3	585.4	1,143.7	625.2	637.7	1,262.9	677.0	710.6	1,387.7
Public Utility	395.9	383.1	779.0	410.9	414.6	825.5	438.1	458.5	896.7
Liquor sales/liter	246.3	253.0	499.3	250.5	254.0	504.5	259.9	266.1	526.1
Beer & wine surtax	27.7	28.5	56.1	28.2	28.0	56.1	28.1	28.1	56.2
Cigarette	400.5	406.9	807.4	387.7	386.5	774.2	375.5	365.6	741.1
Tobacco products	46.5	46.5	93.0	48.5	47.8	96.3	48.2	48.7	96.9
Cannabis Excise Taxes	0.0	14.3	14.3	49.0	80.2	129.2	105.1	120.7	225.8
Property (state school levy)	1,958.9	2,004.3	3,963.1	2,047.0	2,093.7	4,140.7	2,147.8	2,203.9	4,351.7
Leasehold Excise Tax	27.7	28.6	56.3	29.3	29.9	59.2	30.4	30.9	61.4
Public utility district	49.3	50.9	100.3	52.1	53.2	105.2	54.2	55.3	109.5
Brokered Natural Gas	34.4	28.1	62.5	26.6	26.7	53.3	27.4	28.2	55.6
Real estate excise***	615.6	741.2	1,356.9	769.9	722.3	1,492.2	748.2	768.8	1,517.0
Timber excise	2.7	2.4	5.1	2.6	2.8	5.5	3.1	3.4	6.4
Estate/inheritance	0.4	(0.8)	(0.4)	0.3	0.0	0.3	0.0	0.0	0.0
Boat excise	13.0	13.7	26.7	13.3	13.3	26.6	13.3	13.3	26.6
Insurance premiums	456.7	529.2	985.9	538.9	558.0	1,096.9	579.5	603.8	1,183.3
Penalties and interest on past due taxes	133.8	119.7	253.5	145.4	142.5	287.8	147.9	153.6	301.5
Other	72.3	74.2	146.5	56.5	57.4	113.9	58.7	38.2	96.9
<b>Total Taxes</b>	<b>15,965.1</b>	<b>16,908.3</b>	<b>32,873.4</b>	<b>17,923.8</b>	<b>18,541.8</b>	<b>36,465.6</b>	<b>19,457.3</b>	<b>20,277.7</b>	<b>39,734.9</b>
<b>State Non-Tax Sources</b>									
Licenses, permits, fees	127.9	137.3	265.2	138.9	142.0	280.9	145.3	147.5	292.9
Liquor & Cannabis fees	123.0	81.6	204.6	72.5	85.4	157.9	92.1	96.5	188.7
Earnings on investments	(3.0)	2.4	(0.7)	3.6	6.4	10.0	16.9	25.4	42.2
Administrative Office of the Courts	85.6	84.4	170.0	83.0	84.3	167.3	87.0	89.8	176.8
Transfers of unclaimed property	60.5	56.4	116.9	58.4	57.1	115.5	58.2	59.3	117.6
Other revenue & transfers	23.5	13.1	36.6	1.0	6.2	7.2	6.1	8.3	14.4
<b>Total Non-Tax</b>	<b>417.4</b>	<b>375.2</b>	<b>792.6</b>	<b>357.4</b>	<b>381.4</b>	<b>738.8</b>	<b>405.7</b>	<b>426.9</b>	<b>832.5</b>
<b>Total General Fund-State *</b>	<b>\$16,382.5</b>	<b>\$17,283.4</b>	<b>\$33,666.0</b>	<b>\$18,281.2</b>	<b>\$18,923.2</b>	<b>\$37,204.4</b>	<b>\$19,862.9</b>	<b>\$20,704.5</b>	<b>\$40,567.5</b>

\* Detail may not add to totals due to rounding

\*\*GFS portion after Initiative 900 transfer

\*\*\*Includes penalties and interest

Table 3.10

**Track Record for the 2013-15 General Fund-State Cash Forecast**

February 2012 through November 2015

Cash Basis - Millions of Dollars

<b><u>Date of Forecast</u></b>	<b><u>Department of Revenue*</u></b>	<b><u>Other Agencies</u></b>	<b><u>Subtotal*</u></b>	<b><u>Non-Economic Changes**</u></b>	<b><u>Total Change</u></b>	<b><u>Total General Fund-State Cash Basis#</u></b>
<b>February 2012 #</b>	\$31,110	\$1,319				\$32,428
<b>Changes to Forecast</b>						
June 2012	(120)	(13)	(133)	330 #1	197	32,626
September 2012	39	(15)	23	0	23	32,649
November 2012	(113)	25	(88)	0	(88)	32,561
March 2013	(38)	18	(19)	0	(19)	32,541
June 2013	156	20	176	(55) #2	121	32,662
September 2013	224	(2)	222	123 #3	345	33,007
November 2013	(22)	27	6	(30) #4	(25)	32,982
February 2014	21	10	30	0	30	33,013
June 2014	160	(5)	156	1 #5	157	33,169
September 2014	144	19	163	0	163	33,332
November 2014	111	(3)	108	0	108	33,440
February 2015	65	10	75	31 #6	107	33,547
June 2015	83	46	129	(23) #7	106	33,653
September 2015	(4)	9	5	8 #8	13	33,666
November 2015	0	(0)	0	0	0	33,666
<b>Total change***:</b>						
From February 2012	705	147	851	386	1,238	
Percent change	2.3	11.1	2.6	1.2	3.8	

\* Excludes legislative, judicial, statutorily required or other major non-economic changes.

\*\* Includes legislative, judicial, statutorily required or other major non-economic changes.

\*\*\* Detail may not add to total due to rounding.

# First official forecast for the 2011-13 biennium.

#1 Effects of legislation from 2012 special sessions subsequent to February forecast

#2 Expected refunds: -\$55 million; effects of legislation from 2013 regular and first special sessions: -\$29,000

#3 Legislative and budget-driven revenue changes from 2013 second special session

#4 Reclassification of biennial recoveries of prior expenditures from revenue to non-revenue resources, MSA arbitration payment

#5 Sum of legislative and budget-driven revenue changes from the 2014 regular legislative session

#6 Payment from legal settlement plus expected large audit payment

#7 Large expected refunds

#8 Legislative and budget driven revenue changes from 2015 special legislative sessions

Table 3.11

**Track Record for the 2015-17 General Fund-State Cash Forecast**

September 2012 through November 2015

Cash Basis - Millions of Dollars

<u>Date of Forecast</u>	<u>Department of Revenue*</u>	<u>Other Agencies</u>	<u>Subtotal*</u>	<u>Non-Economic Changes**</u>	<u>Total Change</u>	<u>Total General Fund-State Cash Basis</u>
<b>September 2012<sup>#</sup></b>	\$34,102	\$1,416				\$35,518
<b>Changes to Forecast</b>						
November 2012	(196)	33	(163)	0	(163)	35,355
March 2013	(92)	44	(49)	0	(49)	35,306
June 2013	56	2	58	(7) <sup>#1</sup>	51	35,357
September 2013	95	(2)	93	249 <sup>#2</sup>	342	35,699
November 2013	(47)	3	(44)	(41) <sup>#3</sup>	(85)	35,615
February 2014	5	26	31	51 <sup>#4</sup>	82	35,697
June 2014	194	40	233	5 <sup>#5</sup>	238	35,935
September 2014	168	(25)	143	0	143	36,078
November 2014	239	3	241	0	241	36,319
February 2015	108	22	129	0	129	36,449
June 2015	201	70	270	39 <sup>#6</sup>	309	36,758
September 2015	80	60	139	193 <sup>#7</sup>	333	37,091
November 2015	107	(8)	99	15 <sup>#8</sup>	113	37,204
<b>Total change***:</b>						
From September 2012	916	266	1,182	504	1,686	
Percent change	2.7	18.8	3.3	1.4	4.7	

\* Excludes legislative, judicial, statutorily required or other major non-economic changes.

\*\* Includes legislative, judicial, statutorily required or other major non-economic changes.

\*\*\* Detail may not add to total due to rounding.

<sup>#</sup> First official forecast for the 2015-17 biennium.<sup>#1</sup> Transfer of GF-S funds to Child and Family Reinvestment Account<sup>#2</sup> Legislative and budget-driven revenue changes from 2013 second special session<sup>#3</sup> Re-classification of prior period adjustments as non-revenue resources<sup>#4</sup> Cannabis excise taxes and fees plus retail sales and B&O taxes on cannabis production and sales resulting from Initiative 502<sup>#5</sup> Sum of legislative and budget-driven revenue changes from the 2014 regular legislative session<sup>#6</sup> Legislative revenue changes from 2015 regular legislative session<sup>#7</sup> Legislative and budget driven revenue changes from 2015 special legislative sessions<sup>#8</sup> Sum of large expected audit payments

Table 3.12

**2013-15 with Enacted Supplementals and 2015-17 Enacted Budget Balance Sheet**  
**General Fund-State (GFS), Education Legacy Trust Account (ELTA), Washington Opportunity Pathways Account (OPA)**  
**and Budget Stabilization Account**  
**Dollars in Millions**

	2013-15			2015-17		
	GFS	ELTA and OPA	TOTAL	GFS	ELTA and OPA	TOTAL
<b>RESOURCES</b>						
<b>Beginning Fund Balance</b>	<b>167.5</b>	<b>(11.1)</b>	<b>156.4</b>	<b>990.9</b>	<b>20.3</b>	<b>1,011.2</b>
September 2015 Revenue Forecast	33,666.0	638.7	34,304.7	37,091.0	723.3	37,814.3
November 2015 Change	0.0	-	0.0	113.4	(12.1)	101.3
<b>Current Revenue Totals</b>	<b>33,666.0</b>	<b>638.7</b>	<b>34,304.7</b>	<b>37,204.4</b>	<b>711.2</b>	<b>37,915.6</b>
Transfer to Budget Stabilization Account (BSA)	(318.5)		(318.5)	(372.2)		(372.2)
Previously Enacted Fund Transfers	136.9	293.3	430.3	178.0	-	178.0
Prior Period Adjustments	105.5	-	105.5	40.8		40.8
CAFR Adjustment	(16.2)	(7.3)	(23.6)			-
<b>2015 Legislative Sessions</b>						
Extraordinary Revenue Growth transfer to BSA	(37.9)		(37.9)	(53.4)		(53.4)
Transfer back from BSA	37.9		37.9	53.4		53.4
<b>Total Resources (including beginning fund balance)</b>	<b>33,741.2</b>	<b>913.6</b>	<b>34,654.8</b>	<b>38,042.0</b>	<b>731.5</b>	<b>38,773.4</b>
<b>EXPENDITURES</b>						
<b>Enacted Budgets</b>						
Enacted 2013-15 Budgets including 2015 Supplementals	33,005.3	894.4	33,899.7	-	-	-
Enacted 2015-17 Budget			-	37,507.3	711.9	38,219.2
Actual and Assumed Reversions	(255.0)	(1.1)	(256.1)	(172.5)		(172.5)
<b>Total Expenditures</b>	<b>32,750.3</b>	<b>893.3</b>	<b>33,643.7</b>	<b>37,334.8</b>	<b>711.9</b>	<b>38,046.7</b>
<b>RESERVES</b>						
<b>Projected Ending GFS, ELTA &amp; OPA Balances</b>	<b>990.9</b>	<b>20.3</b>	<b>1,011.2</b>	<b>707.2</b>	<b>19.6</b>	<b>726.7</b>
<b>Budget Stabilization Account</b>						
Budget Stabilization Account Beginning Balance	269.7		269.7	513.1		513.1
Transfer from General Fund and Interest Earnings	358.5		358.5	431.7		431.7
Transfer to General Fund	(37.9)		(37.9)	(53.4)		(53.4)
Less Expenditures in Enacted 2015 Early Supplemental	(77.2)		(77.2)	-		-
Actual reversions	0.1		0.1	-		-
<b>Projected Budget Stabilization Account Ending Balance</b>	<b>513.1</b>		<b>513.1</b>	<b>891.4</b>		<b>891.4</b>
<b>Total Reserves (Including Budget Stabilization)</b>	<b>1,504.0</b>	<b>20.3</b>	<b>1,524.3</b>	<b>1,598.5</b>	<b>19.6</b>	<b>1,618.1</b>

Table 3.13

**Alternative forecasts compared to the baseline forecast  
2015-17 biennium**

(cash basis, millions of dollars)

<b>Forecast by Source</b>	<b>Optimistic Forecast</b>	<b>Baseline Forecast</b>	<b>Pessimistic Forecast</b>
<b>Department of Revenue</b>			
Retail Sales	\$19,051.4	\$17,976.6	\$16,952.5
Business & Occupation	7,901.3	7,458.6	7,033.8
Use	1,348.6	1,262.9	1,186.8
Public Utility	867.8	825.5	786.9
Property (school levy)	4,156.7	4,140.7	4,118.8
Real Estate Excise	1,649.8	1,492.2	1,347.4
Other	2,173.8	2,181.6	2,117.9
Subtotal	37,149.3	35,338.2	33,544.1
<b>Department of Licensing</b>	37.4	36.6	35.9
<b>Insurance Commissioner<sup>1</sup></b>	1,124.3	1,096.9	1,069.5
<b>Lottery Commission</b>	5.2	4.9	4.7
<b>State Treasurer - Interest earnings</b>	29.3	10.0	(0.6)
<b>Liquor and Cannabis Surtaxes &amp; Fees<sup>2</sup></b>	358.3	343.2	328.4
<b>Office of Financial Management</b>			
Other agencies	217.6	207.2	196.9
<b>Administrative Office of the Courts</b>			
Fines and Forfeitures	172.4	167.3	162.3
<b>Total General Fund - State*</b>	<b>\$39,093.8</b>	<b>\$37,204.4</b>	<b>\$35,341.1</b>
<b>Difference from November 2015 Baseline</b>	<b>\$1,889.4</b>		<b>(\$1,863.4)</b>

1 Insurance premiums, General Fund-State portion.

2 Includes beer and wine surtax, cannabis excise tax, distributor fees, retailer fees, licensing fees.

\* Detail may not add to total due to rounding.

Source: ERFC, Department of Licensing, Insurance Commissioner, Lottery Commission, Office of the State Treasurer, Liquor Control Board, Office of Financial Management

Table 3.14

**Alternative forecasts compared to the baseline forecast  
2017-19 biennium**

(cash basis, millions of dollars)

<b>Forecast by Source</b>	<b>Optimistic Forecast</b>	<b>Baseline Forecast</b>	<b>Pessimistic Forecast</b>
<b>Department of Revenue</b>			
Retail Sales	\$22,185.7	\$19,774.7	\$17,531.6
Business & Occupation Use	9,273.1	8,319.9	7,482.2
Public Utility	1,519.7	1,387.7	1,252.4
Property (school levy)	967.9	896.7	821.3
Real Estate Excise	4,375.0	4,351.7	4,301.8
Other	1,742.7	1,517.0	1,187.2
Subtotal	2,294.0	2,182.3	2,042.4
	42,358.1	38,430.1	34,618.9
<b>Department of Licensing</b>			
	38.0	37.2	36.5
<b>Insurance Commissioner<sup>1</sup></b>			
	1,212.9	1,183.3	1,153.7
<b>Lottery Commission</b>			
	22.3	21.2	20.2
<b>State Treasurer - Interest earnings</b>			
	88.7	42.2	4.4
<b>Liquor and Cannabis Surtaxes &amp; Fees<sup>2</sup></b>			
	502.5	470.6	443.7
<b>Office of Financial Management</b>			
Other agencies	216.2	205.9	195.6
<b>Administrative Office of the Courts</b>			
Fines and Forfeitures	192.0	176.8	165.4
<b>Total General Fund - State*</b>	<b>\$44,630.6</b>	<b>\$40,567.5</b>	<b>\$36,638.6</b>
<b>Difference from November 2015 Baseline</b>	<b>\$4,063.1</b>		<b>(\$3,928.9)</b>

1 Insurance premiums, General Fund-State portion.

2 Includes beer and wine surtax, cannabis excise tax, distributor fees, retailer fees, licensing fees.

\* Detail may not add to total due to rounding.

Source: ERFC, Department of Licensing, Insurance Commissioner, Lottery Commission, Office of the State Treasurer, Liquor Control Board, Office of Financial Management

Table 3.15

**Lottery transfers by fund**

November 2015 Forecast

(cash basis, millions of dollars)

	<b>Lottery: Total Transfers:*</b>	<b>Mariners General Fund</b>	<b>Mariners Stadium</b>	<b>Exhibition Center &amp; Stadium</b>	<b>Student Achievement Account</b>	<b>School Construction Account</b>	<b>Problem Gambling Account</b>	<b>Economic Development Account</b>	<b>Opportunity Pathways Account</b>	<b>Veteran's VIP Account</b>	<b>Education Legacy Trust Account</b>
2008	124.1	0.0	4.7	8.5	0.0	106.9	0.3	3.7	0.0	0.0	0.0
2009	122.2	11.1	4.9	8.9	0.0	94.4	0.2	2.7	0.0	0.0	0.0
2007-09 Biennium	246.4	11.1	9.6	17.4	0.0	201.3	0.5	6.4	0.0	0.0	0.0
2010	126.4	12.9	5.1	9.2	0.0	95.6	0.3	3.3	0.0	0.0	0.0
2011	137.2	8.6	5.3	9.6	0.0	9.4	0.3	4.5	99.5	0.0	0.0
2009-11 Biennium	263.6	21.5	10.4	18.8	0.0	105.0	0.5	7.9	99.5	0.0	0.0
2012	135.1	0.0	2.7	10.0	0.0	0.0	0.3	3.3	118.5	0.2	0.0
2013	139.7	0.0	0.0	10.4	0.0	0.0	0.3	3.5	125.5	0.0	0.0
2011-13 Biennium	274.8	0.0	2.7	20.4	0.0	0.0	0.6	6.9	244.0	0.2	0.0
2014	147.9	9.3	0.0	10.8	0.0	0.0	0.3	3.7	113.7	0.0	10.1
2015	143.1	0.6	0.0	11.2	0.0	0.0	0.3	4.7	120.2	0.0	6.1
2013-15 Biennium	291.0	9.9	0.0	22.0	0.0	0.0	0.6	8.4	233.9	0.0	16.1
2016	150.4	0.0	0.0	11.7	0.0	0.0	0.4	4.7	133.2	0.0	0.0
2017	153.8	4.9	0.0	12.2	0.0	0.0	0.3	3.8	132.0	0.0	0.0
2015-17 Biennium	304.2	4.9	0.0	23.8	0.0	0.0	0.7	8.5	265.2	0.0	0.0
2018	155.6	10.7	0.0	12.6	0.0	0.0	0.3	3.8	127.6	0.0	0.0
2019	155.6	10.5	0.0	13.1	0.0	0.0	0.3	3.8	127.3	0.0	0.0
2017-19 Biennium	311.2	21.2	0.0	25.8	0.0	0.0	0.6	7.6	254.9	0.0	0.0

Table 3.16

**Lottery transfers by fund**

November 2015 Forecast

(GAAP basis, millions of dollars)

	<b>Lottery: Total Transfers:*</b>	<b>Mariners General Fund</b>	<b>Mariners Stadium</b>	<b>Exhibition Center &amp; Stadium</b>	<b>Student Achievement Account</b>	<b>School Construction Account</b>	<b>Problem Gambling Account</b>	<b>Economic Development Account</b>	<b>Opportunity Pathways Account</b>	<b>Veteran's VIP Account</b>	<b>Education Legacy Trust Account</b>
2008	124.1	0.0	4.7	8.5	0.0	106.9	0.3	3.7	0.0	0.0	0.0
2009	122.2	11.1	4.9	8.9	0.0	94.4	0.2	2.7	0.0	0.0	0.0
2007-09 Biennium	246.4	11.1	9.6	17.4	0.0	201.3	0.5	6.4	0.0	0.0	0.0
2010	129.4	12.9	5.1	9.2	0.0	97.4	0.3	4.6	0.0	0.0	0.0
2011	138.2	7.0	5.3	9.6	0.0	0.0	0.3	3.7	112.3	0.0	0.0
2009-11 Biennium	267.6	19.9	10.4	18.8	0.0	97.4	0.5	8.3	112.3	0.0	0.0
2012	138.0	0.0	2.7	10.0	0.0	0.0	0.3	3.0	121.8	0.2	0.0
2013	139.2	9.3	0.0	10.4	0.0	0.0	0.3	3.6	115.5	0.0	0.0
2011-13 Biennium	277.2	9.3	2.7	20.4	0.0	0.0	0.6	6.6	237.4	0.2	0.0
2014	147.7	0.6	0.0	10.8	0.0	0.0	0.3	4.0	121.9	0.0	10.1
2015	141.3	0.0	0.0	11.2	0.0	0.0	0.3	4.7	119.0	0.0	6.1
2013-15 Biennium	288.9	0.6	0.0	22.0	0.0	0.0	0.6	8.7	240.9	0.0	16.1
2016	152.0	4.9	0.0	11.7	0.0	0.0	0.3	3.8	130.7	0.0	0.0
2017	154.0	10.1	0.0	12.2	0.0	0.0	0.3	3.8	127.2	0.0	0.0
2015-17 Biennium	305.9	15.0	0.0	23.8	0.0	0.0	0.6	7.6	257.9	0.0	0.0
2018	155.7	11.2	0.0	12.6	0.0	0.0	0.3	3.8	127.3	0.0	0.0
2019	157.7	12.6	0.0	13.1	0.0	0.0	0.3	3.8	127.3	0.0	0.0
2017-19 Biennium	313.4	23.7	0.0	25.8	0.0	0.0	0.6	7.6	254.6	0.0	0.0

\* Total Transfers are equal to total sales less total expenses (prizes, cost of sales, administration etc.)

Source: Lottery Commission, ERFC

Table 3.17

**General Fund-State, Education Legacy Trust Account and Opportunity Pathways Account**

History and Forecast by Fiscal Year (Cash basis)

November 2015 - Millions of Dollars

	General Fund-State (GF-S) (current definition)		Education Legacy Trust Fund* (ELTA)		Total GF-S plus ELTA		WA Opportunity Pathways Account (OPA)		Total GF-S plus ELTA and OPA	
	Level	% Chg.	Level	% Chg.	Level	% Chg.	Level	% Chg.	Level	% Chg.
History:										
FY 1995	\$8,799				\$8,799				\$8,799	
FY 1996	\$8,934	1.5%			\$8,934	1.5%			\$8,934	1.5%
FY 1997	\$9,449	5.8%			\$9,449	5.8%			\$9,449	5.8%
FY 1998	\$10,057	6.4%			\$10,057	6.4%			\$10,057	6.4%
FY 1999	\$10,414	3.6%			\$10,414	3.6%			\$10,414	3.6%
FY 2000	\$11,068	6.3%			\$11,068	6.3%			\$11,068	6.3%
FY 2001	\$11,560	4.4%			\$11,560	4.4%			\$11,560	4.4%
FY 2002	\$11,632	0.6%			\$11,632	0.6%			\$11,632	0.6%
FY 2003	\$11,721	0.8%			\$11,721	0.8%			\$11,721	0.8%
FY 2004	\$12,358	5.4%			\$12,358	5.4%			\$12,358	5.4%
FY 2005	\$13,036	5.5%			\$13,036	5.5%			\$13,036	5.5%
FY 2006	\$14,318	9.8%	\$115		\$14,432	10.7%			\$14,432	10.7%
FY 2007	\$15,467	8.0%	\$266	132.2%	\$15,734	9.0%			\$15,734	9.0%
FY 2008	\$15,659	1.2%	\$213	-20.1%	\$15,872	0.9%			\$15,872	0.9%
FY 2009	\$14,158	-9.6%	\$224	5.4%	\$14,382	-9.4%			\$14,382	-9.4%
FY 2010	\$13,571	-4.1%	\$157	-29.9%	\$13,728	-4.6%			\$13,728	-4.6%
FY 2011	\$14,648	7.9%	\$112	-29.0%	\$14,759	7.5%	\$99		\$14,859	8.2%
FY 2012	\$14,874	1.5%	\$114	2.3%	\$14,988	1.6%	\$118	19.1%	\$15,107	1.7%
FY 2013	\$15,783	6.1%	\$101	-11.5%	\$15,884	6.0%	\$126	5.9%	\$16,009	6.0%
FY 2014	\$16,383	3.8%	\$197	95.3%	\$16,580	4.4%	\$114	-9.4%	\$16,694	4.3%
FY 2015	\$17,283	5.5%	\$207	5.0%	\$17,491	5.5%	\$120	5.7%	\$17,611	5.5%
Forecast:										
FY 2016	\$18,281	5.8%	\$213	2.6%	\$18,494	5.7%	\$133	10.8%	\$18,627	5.8%
FY 2017	\$18,923	3.5%	\$233	9.6%	\$19,156	3.6%	\$132	-0.9%	\$19,288	3.5%
FY 2018	\$19,863	5.0%	\$239	2.5%	\$20,102	4.9%	\$128	-3.4%	\$20,229	4.9%
FY 2019	\$20,705	4.2%	\$266	11.4%	\$20,971	4.3%	\$127	-0.2%	\$21,098	4.3%
<b>Biennial Totals</b>										
<b>03-05 Biennium</b>	<b>\$25,395</b>	<b>8.7%</b>	<b>\$0</b>	<b>NA</b>	<b>\$25,395</b>	<b>8.7%</b>	<b>\$0</b>	<b>NA</b>	<b>\$25,395</b>	<b>8.7%</b>
<b>05-07 Biennium</b>	<b>\$29,785</b>	<b>17.3%</b>	<b>\$381</b>	<b>NA</b>	<b>\$30,166</b>	<b>18.8%</b>	<b>\$0</b>	<b>NA</b>	<b>\$30,166</b>	<b>18.8%</b>
<b>07-09 Biennium</b>	<b>\$29,817</b>	<b>0.1%</b>	<b>\$437</b>	<b>14.8%</b>	<b>\$30,254</b>	<b>0.3%</b>	<b>\$0</b>	<b>NA</b>	<b>\$30,254</b>	<b>0.3%</b>
<b>09-11 Biennium</b>	<b>\$28,218</b>	<b>-5.4%</b>	<b>\$269</b>	<b>-38.5%</b>	<b>\$28,487</b>	<b>-5.8%</b>	<b>\$99</b>	<b>NA</b>	<b>\$28,586</b>	<b>-5.5%</b>
<b>11-13 Biennium</b>	<b>\$30,657</b>	<b>8.6%</b>	<b>\$215</b>	<b>-19.9%</b>	<b>\$30,872</b>	<b>8.4%</b>	<b>\$244</b>	<b>145.2%</b>	<b>\$31,116</b>	<b>8.8%</b>
<b>13-15 Biennium</b>	<b>\$33,666</b>	<b>9.8%</b>	<b>\$405</b>	<b>88.0%</b>	<b>\$34,071</b>	<b>10.4%</b>	<b>\$234</b>	<b>-4.1%</b>	<b>\$34,305</b>	<b>10.2%</b>
<b>15-17 Biennium</b>	<b>\$37,204</b>	<b>10.5%</b>	<b>\$446</b>	<b>10.2%</b>	<b>\$37,650</b>	<b>10.5%</b>	<b>\$265</b>	<b>13.4%</b>	<b>\$37,916</b>	<b>10.5%</b>
<b>17-19 Biennium</b>	<b>\$40,567</b>	<b>9.0%</b>	<b>\$505</b>	<b>13.2%</b>	<b>\$41,072</b>	<b>9.1%</b>	<b>\$255</b>	<b>-3.9%</b>	<b>\$41,327</b>	<b>9.0%</b>

\*Education legacy trust fund excluding FY 14 and FY 15 lottery fund transfers. Includes pension stabilization fund interest in FY 08 and FY 09.

Table 3.18

**Forecasted distribution of excise tax and license fees from cannabis sales**

November 2015

Thousands of dollars

Forecasted Distribution of Remaining Funds										
Biennium	<b>Total of Cannabis Excise Taxes plus License Fees</b>	Total Pre-Distribution Allotments	<b>Total to Distribute</b>	DSHS Substance Abuse Program	Dept. of Health Cannabis Education Program	UW/WSU Research	Basic Health Plan Trust Account	Health Care Authority Community Health Centers	OSPI Dropout Prevention	<b>General Fund-State</b>
2013-15	<b>\$53,897</b>	\$7,350	<b>\$46,547</b>	\$5,166	\$1,000	\$0	\$22,706	\$2,271	\$135	<b>\$15,269</b>
2015-17	<b>\$432,968</b>	\$16,723	<b>\$416,245</b>	\$40,600	\$15,000	\$690	\$208,123	\$17,871	\$762	<b>\$133,199</b>
2017-19	<b>\$705,281</b>	\$17,082	<b>\$688,199</b>	\$55,572	\$19,500	\$3,404	\$344,100	\$34,410	\$1,022	<b>\$230,191</b>

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## Detail Components of the Washington State Economic and Revenue Forecast

Calendar Years

*Note: The economic data discussed in these tables were current at the time the forecast was prepared. Many concepts have changed since then due to new releases and data revisions.*

Table A1.1  
**U.S. Economic Forecast Summary**  
Forecast 2015 to 2019

	2012	2013	2014	2015	2016	2017	2018	2019
<b>Real National Income Accounts (Billions of Chained 2009 Dollars)</b>								
Real Gross Domestic Product	15,354.6	15,583.3	15,961.7	16,352.0	16,772.2	17,191.5	17,604.1	17,991.4
% Ch	2.2	1.5	2.4	2.4	2.6	2.5	2.4	2.2
Real Consumption	10,413.2	10,590.4	10,875.7	11,220.9	11,548.2	11,836.9	12,120.9	12,399.6
% Ch	1.5	1.7	2.7	3.2	2.9	2.5	2.4	2.3
Real Nonresidential Fixed Investment	1,964.2	2,023.8	2,148.3	2,220.3	2,335.4	2,450.3	2,569.5	2,663.2
% Ch	9.0	3.0	6.2	3.4	5.2	4.9	4.9	3.6
Real Residential Fixed Investment	436.5	478.0	486.4	528.2	578.5	640.9	674.2	680.1
% Ch	13.5	9.5	1.8	8.6	9.5	10.8	5.2	0.9
Real Personal Income	13,111.8	13,077.9	13,467.6	13,984.5	14,393.8	14,813.3	15,266.3	15,700.2
% Ch	3.0	-0.3	3.0	3.8	2.9	2.9	3.1	2.8
Real Per Capita Income (\$/Person)	41,652	41,238	42,156	43,447	44,357	45,282	46,295	47,235
% Ch	2.3	-1.0	2.2	3.1	2.1	2.1	2.2	2.0
<b>Price and Wage Indexes</b>								
U.S. Implicit Price Deflator, PCE (2009=1.0)	1.061	1.076	1.091	1.095	1.110	1.131	1.152	1.171
% Ch	1.9	1.4	1.4	0.3	1.4	1.9	1.8	1.7
U.S. Consumer Price Index (1982-84=1.0)	2.296	2.330	2.367	2.370	2.407	2.465	2.520	2.571
% Ch	2.1	1.5	1.6	0.1	1.5	2.4	2.2	2.0
Employment Cost Index (Dec. 2005=1.0)	1.160	1.182	1.206	1.233	1.263	1.298	1.336	1.376
% Ch	1.8	1.9	2.0	2.2	2.4	2.8	3.0	3.0
<b>Current Dollar National Income (Billions of Dollars)</b>								
Gross Domestic Product	16,155.3	16,663.2	17,348.1	17,961.7	18,759.5	19,649.9	20,517.2	21,341.8
% Ch	4.1	3.1	4.1	3.5	4.4	4.7	4.4	4.0
Personal Income	13,915.1	14,068.4	14,694.2	15,309.0	15,971.1	16,752.9	17,580.6	18,389.1
% Ch	5.0	1.1	4.4	4.2	4.3	4.9	4.9	4.6
<b>Employment (Millions)</b>								
U.S. Civilian Labor Force	155.0	155.4	155.9	157.3	159.7	161.9	163.8	165.3
Total U.S. Employment	142.5	143.9	146.3	149.0	151.7	153.9	155.7	156.9
Unemployment Rate (%)	8.07	7.37	6.15	5.29	4.94	4.89	4.91	5.03
Nonfarm Payroll Employment	134.10	136.39	139.02	141.92	144.16	145.85	147.38	148.54
% Ch	1.7	1.7	1.9	2.1	1.6	1.2	1.1	0.8
Manufacturing	11.93	12.02	12.19	12.33	12.35	12.49	12.58	12.65
% Ch	1.7	0.8	1.4	1.1	0.2	1.1	0.7	0.5
Durable Manufacturing	7.47	7.55	7.69	7.80	7.80	7.93	8.02	8.06
% Ch	2.7	1.0	1.8	1.5	0.1	1.6	1.1	0.5
Nondurable Manufacturing	4.46	4.47	4.50	4.53	4.55	4.56	4.56	4.59
% Ch	0.1	0.3	0.7	0.6	0.4	0.3	0.1	0.5
Construction	5.65	5.86	6.14	6.38	6.61	6.98	7.29	7.52
% Ch	2.1	3.7	4.8	3.9	3.6	5.6	4.4	3.2
Service-Providing	115.68	117.66	119.80	122.38	124.43	125.59	126.71	127.56
% Ch	1.7	1.7	1.8	2.1	1.7	0.9	0.9	0.7
<b>Miscellaneous Indicators</b>								
Oil-WTI (\$ per barrel)	94.2	98.0	93.0	50.1	51.6	54.6	56.6	58.2
Personal Saving/Disposable Income (%)	7.6	4.8	4.8	4.8	4.9	5.4	6.1	6.7
Auto Sales (Millions)	7.2	7.6	7.7	7.6	7.5	7.7	7.7	7.5
% Ch	19.0	4.7	1.4	-1.5	-0.7	2.9	0.1	-2.8
Housing Starts (Millions)	0.784	0.928	1.001	1.114	1.276	1.450	1.520	1.564
% Ch	28.1	18.4	7.8	11.4	14.5	13.7	4.8	2.9
Federal Budget Surplus (Billions)	-1,090.1	-641.0	-631.5	-597.6	-627.1	-637.8	-711.0	-772.5
Net Exports (Billions)	-565.7	-508.4	-530.0	-521.7	-522.4	-572.0	-621.7	-612.7
3-Month Treasury Bill Rate (%)	0.09	0.06	0.03	0.05	0.82	1.81	2.78	3.03
10-Year Treasury Note Yield (%)	1.80	2.35	2.54	2.15	2.66	2.84	3.33	3.67
Bond Index of 20 G.O. Munis. (%)	3.73	4.26	4.25	3.68	4.40	4.62	4.95	5.19
30-Year Fixed Mortgage Rate (%)	3.66	3.98	4.17	3.86	4.41	4.70	5.25	5.66

Table A1.2  
**U.S. Economic Forecast Summary**  
Forecast 2015 to 2019

	2014:1	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4
<b>Real National Income Accounts (Billions of Chained 2009 Dollars)</b>								
Real Gross Domestic Product	15,724.9	15,901.5	16,068.8	16,151.4	16,177.3	16,333.6	16,394.2	16,502.7
% Ch , Annual Rate	-0.9	4.6	4.3	2.1	0.6	3.9	1.5	2.7
Real Consumption	10,724.7	10,826.3	10,918.6	11,033.3	11,081.2	11,178.9	11,268.6	11,354.8
% Ch , Annual Rate	1.3	3.8	3.5	4.3	1.8	3.6	3.2	3.1
Real Nonresidential Fixed Investment	2,106.9	2,129.8	2,176.3	2,180.0	2,188.6	2,210.6	2,222.1	2,260.0
% Ch , Annual Rate	8.3	4.4	9.0	0.7	1.6	4.1	2.1	7.0
Real Residential Fixed Investment	472.6	484.4	488.5	500.2	512.4	524.0	531.8	544.8
% Ch , Annual Rate	-2.7	10.4	3.4	9.9	10.1	9.4	6.1	10.1
Real Personal Income	13,297.9	13,391.9	13,500.2	13,680.4	13,860.7	13,912.8	14,026.9	14,137.4
% Ch , Annual Rate	4.4	2.9	3.3	5.4	5.4	1.5	3.3	3.2
Real Per Capita Income (\$/Person)	41,745	41,963	42,214	42,702	43,195	43,269	43,535	43,789
% Ch , Annual Rate	3.8	2.1	2.4	4.7	4.7	0.7	2.5	2.4
<b>Price and Wage Indexes</b>								
U.S. Implicit Price Deflator, PCE (2009=1.0)	1.085	1.091	1.094	1.093	1.088	1.094	1.097	1.100
% Ch , Annual Rate	1.6	2.1	1.2	-0.4	-1.9	2.2	1.2	0.9
U.S. Consumer Price Index (1982-84=1.0)	2.354	2.368	2.375	2.370	2.352	2.369	2.379	2.381
% Ch , Annual Rate	2.1	2.4	1.2	-0.9	-3.1	3.0	1.6	0.5
Employment Cost Index (Dec. 2005=1.0)	1.194	1.203	1.211	1.217	1.226	1.228	1.236	1.242
% Ch , Annual Rate	1.0	3.0	2.7	2.0	3.0	0.7	2.6	2.1
<b>Current Dollar National Income (Billions of Dollars)</b>								
Gross Domestic Product	16,984.3	17,270.0	17,522.1	17,615.9	17,649.3	17,913.7	18,034.8	18,248.9
% Ch , Annual Rate	0.6	6.9	6.0	2.2	0.8	6.1	2.7	4.8
Personal Income	14,433.5	14,612.8	14,774.8	14,955.7	15,079.8	15,219.4	15,391.0	15,545.8
% Ch , Annual Rate	6.1	5.1	4.5	5.0	3.4	3.8	4.6	4.1
<b>Employment (Millions)</b>								
U.S. Civilian Labor Force	155.8	155.6	156.0	156.3	157.0	157.2	157.0	158.0
Total U.S. Employment	145.4	145.9	146.5	147.3	148.3	148.7	148.9	150.0
Unemployment Rate (%)	6.63	6.20	6.07	5.70	5.57	5.40	5.17	5.02
Nonfarm Payroll Employment	137.84	138.64	139.38	140.23	141.01	141.62	142.23	142.81
% Ch , Annual Rate	1.6	2.3	2.2	2.5	2.2	1.7	1.7	1.6
Manufacturing	12.12	12.16	12.20	12.27	12.32	12.33	12.33	12.32
% Ch , Annual Rate	1.7	1.3	1.5	2.3	1.6	0.3	0.0	-0.2
Durable Manufacturing	7.61	7.66	7.71	7.76	7.80	7.80	7.79	7.79
% Ch , Annual Rate	1.6	2.4	2.5	3.0	1.9	0.1	-0.4	0.1
Nondurable Manufacturing	4.51	4.50	4.50	4.51	4.52	4.53	4.54	4.53
% Ch , Annual Rate	2.0	-0.6	-0.2	1.2	1.1	0.7	0.6	-0.6
Construction	6.03	6.11	6.17	6.24	6.33	6.37	6.39	6.42
% Ch , Annual Rate	6.7	5.4	3.8	4.3	6.4	2.6	1.0	2.1
Service-Providing	118.81	119.48	120.10	120.81	121.46	122.07	122.69	123.28
% Ch , Annual Rate	1.3	2.3	2.1	2.4	2.2	2.0	2.1	1.9
<b>Miscellaneous Indicators</b>								
Oil-WTI (\$ per barrel)	98.7	103.0	97.1	73.2	48.7	58.0	46.4	47.3
Personal Saving/Disposable Income (%)	5.0	4.8	4.7	4.7	5.2	4.6	4.7	4.7
Auto Sales (Millions)	7.4	7.8	7.8	7.8	7.4	7.5	7.6	7.7
% Ch , Annual Rate	-9.7	21.8	1.9	0.9	-19.1	6.7	4.0	7.5
Housing Starts (Millions)	0.934	0.984	1.029	1.055	0.978	1.158	1.163	1.158
% Ch , Annual Rate	-27.3	23.2	19.6	10.6	-26.2	96.3	2.0	-1.9
Federal Budget Surplus (Billions)	-619.2	-630.0	-650.1	-626.7	-579.3	-593.9	-629.7	-587.4
Net Exports (Billions)	-529.4	-530.9	-514.6	-545.2	-551.6	-519.3	-523.2	-492.7
3-Month Treasury Bill Rate (%)	0.05	0.03	0.03	0.02	0.03	0.02	0.04	0.11
10-Year Treasury Note Yield (%)	2.76	2.62	2.50	2.28	1.97	2.17	2.22	2.23
Bond Index of 20 G.O. Munis. (%)	4.49	4.33	4.24	3.95	3.48	3.66	3.78	3.81
30-Year Fixed Mortgage Rate (%)	4.36	4.23	4.14	3.97	3.73	3.83	3.95	3.91

Table A1.2 (continued)  
**U.S. Economic Forecast Summary**  
 Forecast 2015 to 2019

	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2017:4
<b>Real National Income Accounts (Billions of Chained 2009 Dollars)</b>								
Real Gross Domestic Product	16,611.7	16,722.3	16,826.5	16,928.2	17,041.2	17,151.4	17,244.8	17,328.5
% Ch , Annual Rate	2.7	2.7	2.5	2.4	2.7	2.6	2.2	2.0
Real Consumption	11,436.0	11,515.3	11,587.2	11,654.4	11,732.0	11,805.3	11,872.4	11,938.0
% Ch , Annual Rate	2.9	2.8	2.5	2.3	2.7	2.5	2.3	2.2
Real Nonresidential Fixed Investment	2,285.4	2,322.3	2,352.6	2,381.4	2,410.9	2,437.5	2,461.3	2,491.4
% Ch , Annual Rate	4.6	6.6	5.3	5.0	5.1	4.5	4.0	5.0
Real Residential Fixed Investment	558.3	572.2	583.3	600.1	618.4	634.6	649.4	661.3
% Ch , Annual Rate	10.3	10.3	8.0	12.0	12.8	10.8	9.7	7.6
Real Personal Income	14,264.2	14,348.1	14,441.2	14,521.6	14,653.4	14,760.7	14,867.3	14,971.7
% Ch , Annual Rate	3.6	2.4	2.6	2.2	3.7	3.0	2.9	2.8
Real Per Capita Income (\$/Person)	44,092	44,261	44,458	44,616	44,930	45,167	45,402	45,630
% Ch , Annual Rate	2.8	1.5	1.8	1.4	2.8	2.1	2.1	2.0
<b>Price and Wage Indexes</b>								
U.S. Implicit Price Deflator, PCE (2009=1.0)	1.102	1.107	1.112	1.118	1.123	1.128	1.134	1.139
% Ch , Annual Rate	0.8	1.7	1.9	2.2	1.7	2.0	1.9	1.9
U.S. Consumer Price Index (1982-84=1.0)	2.387	2.398	2.412	2.430	2.442	2.458	2.472	2.487
% Ch , Annual Rate	0.9	1.9	2.5	2.9	2.1	2.6	2.4	2.4
Employment Cost Index (Dec. 2005=1.0)	1.250	1.259	1.267	1.275	1.284	1.293	1.302	1.312
% Ch , Annual Rate	2.5	2.7	2.6	2.6	2.8	2.9	2.9	2.9
<b>Current Dollar National Income (Billions of Dollars)</b>								
Gross Domestic Product	18,442.2	18,651.1	18,855.7	19,088.9	19,320.8	19,552.8	19,763.9	19,962.0
% Ch , Annual Rate	4.3	4.6	4.5	5.0	4.9	4.9	4.4	4.1
Personal Income	15,718.3	15,876.9	16,055.5	16,233.6	16,450.7	16,654.9	16,853.5	17,052.4
% Ch , Annual Rate	4.5	4.1	4.6	4.5	5.5	5.1	4.9	4.8
<b>Employment (Millions)</b>								
U.S. Civilian Labor Force	158.8	159.4	160.0	160.5	161.1	161.6	162.2	162.7
Total U.S. Employment	150.8	151.4	152.0	152.5	153.1	153.6	154.2	154.6
Unemployment Rate (%)	4.97	4.94	4.92	4.92	4.90	4.87	4.87	4.90
Nonfarm Payroll Employment	143.45	144.00	144.38	144.81	145.25	145.63	146.08	146.45
% Ch , Annual Rate	1.8	1.5	1.1	1.2	1.2	1.1	1.3	1.0
Manufacturing	12.34	12.32	12.33	12.42	12.46	12.47	12.50	12.54
% Ch , Annual Rate	0.4	-0.5	0.1	3.0	1.4	0.4	0.8	1.2
Durable Manufacturing	7.80	7.78	7.78	7.86	7.90	7.92	7.94	7.97
% Ch , Annual Rate	0.3	-1.1	0.1	4.2	2.1	0.7	1.1	1.8
Nondurable Manufacturing	4.54	4.54	4.54	4.56	4.56	4.56	4.56	4.56
% Ch , Annual Rate	0.7	0.6	0.0	1.0	0.1	0.0	0.3	0.1
Construction	6.46	6.55	6.67	6.76	6.85	6.94	7.03	7.11
% Ch , Annual Rate	2.6	5.7	7.1	5.8	5.2	5.6	5.1	4.5
Service-Providing	123.88	124.36	124.61	124.86	125.16	125.43	125.77	126.02
% Ch , Annual Rate	2.0	1.5	0.8	0.8	1.0	0.9	1.1	0.8
<b>Miscellaneous Indicators</b>								
Oil-WTI (\$ per barrel)	49.6	51.4	52.2	53.1	53.8	54.3	54.8	55.4
Personal Saving/Disposable Income (%)	4.8	4.8	4.9	4.9	5.2	5.3	5.4	5.6
Auto Sales (Millions)	7.5	7.4	7.5	7.6	7.7	7.7	7.8	7.8
% Ch , Annual Rate	-12.3	-3.3	5.0	5.0	2.9	0.9	4.2	2.2
Housing Starts (Millions)	1.202	1.251	1.301	1.350	1.402	1.444	1.466	1.489
% Ch , Annual Rate	16.2	17.4	16.9	15.8	16.5	12.4	6.4	6.5
Federal Budget Surplus (Billions)	-623.5	-628.0	-630.8	-626.1	-649.0	-635.9	-631.0	-635.3
Net Exports (Billions)	-505.6	-516.4	-531.6	-535.8	-549.0	-563.3	-581.2	-594.6
3-Month Treasury Bill Rate (%)	0.46	0.71	0.95	1.19	1.44	1.66	1.95	2.21
10-Year Treasury Note Yield (%)	2.56	2.66	2.71	2.73	2.76	2.81	2.86	2.92
Bond Index of 20 G.O. Munis. (%)	4.21	4.41	4.48	4.51	4.55	4.58	4.64	4.69
30-Year Fixed Mortgage Rate (%)	4.22	4.38	4.48	4.56	4.63	4.67	4.72	4.78

Table A1.2 (continued)  
**U.S. Economic Forecast Summary**  
Forecast 2015 to 2019

	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4
<b>Real National Income Accounts (Billions of Chained 2009 Dollars)</b>								
Real Gross Domestic Product	17,448.4	17,557.1	17,660.4	17,750.4	17,849.7	17,942.4	18,038.1	18,135.2
% Ch , Annual Rate	2.8	2.5	2.4	2.1	2.3	2.1	2.1	2.2
Real Consumption	12,018.4	12,085.7	12,155.6	12,224.0	12,298.2	12,364.9	12,432.6	12,502.8
% Ch , Annual Rate	2.7	2.3	2.3	2.3	2.5	2.2	2.2	2.3
Real Nonresidential Fixed Investment	2,523.7	2,556.9	2,586.3	2,611.2	2,633.8	2,654.5	2,672.6	2,692.0
% Ch , Annual Rate	5.3	5.4	4.7	3.9	3.5	3.2	2.8	2.9
Real Residential Fixed Investment	670.6	674.1	676.0	676.2	675.1	675.7	681.9	687.8
% Ch , Annual Rate	5.7	2.1	1.1	0.1	-0.6	0.4	3.8	3.5
Real Personal Income	15,107.0	15,214.9	15,319.1	15,424.3	15,558.1	15,657.7	15,746.8	15,838.2
% Ch , Annual Rate	3.7	2.9	2.8	2.8	3.5	2.6	2.3	2.3
Real Per Capita Income (\$/Person)	45,950	46,186	46,409	46,635	46,946	47,154	47,328	47,510
% Ch , Annual Rate	2.8	2.1	2.0	2.0	2.7	1.8	1.5	1.5
<b>Price and Wage Indexes</b>								
U.S. Implicit Price Deflator, PCE (2009=1.0)	1.144	1.149	1.154	1.159	1.164	1.169	1.174	1.179
% Ch , Annual Rate	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7
U.S. Consumer Price Index (1982-84=1.0)	2.500	2.513	2.526	2.539	2.552	2.564	2.578	2.590
% Ch , Annual Rate	2.1	2.1	2.2	2.1	2.0	2.0	2.1	2.0
Employment Cost Index (Dec. 2005=1.0)	1.322	1.331	1.341	1.351	1.361	1.371	1.381	1.390
% Ch , Annual Rate	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.8
<b>Current Dollar National Income (Billions of Dollars)</b>								
Gross Domestic Product	20,196.1	20,416.1	20,630.5	20,826.1	21,040.1	21,236.7	21,441.8	21,648.8
% Ch , Annual Rate	4.8	4.4	4.3	3.8	4.2	3.8	3.9	3.9
Personal Income	17,282.0	17,481.7	17,680.1	17,878.8	18,108.5	18,299.5	18,482.3	18,666.1
% Ch , Annual Rate	5.5	4.7	4.6	4.6	5.2	4.3	4.1	4.0
<b>Employment (Millions)</b>								
U.S. Civilian Labor Force	163.1	163.6	164.1	164.5	164.8	165.1	165.5	165.7
Total U.S. Employment	155.0	155.5	155.9	156.2	156.5	156.7	157.1	157.2
Unemployment Rate (%)	4.90	4.90	4.90	4.93	4.97	5.01	5.05	5.08
Nonfarm Payroll Employment	146.85	147.23	147.58	147.88	148.18	148.42	148.66	148.90
% Ch, Annual Rate	1.1	1.0	1.0	0.8	0.8	0.6	0.6	0.7
Manufacturing	12.56	12.58	12.59	12.61	12.64	12.64	12.65	12.66
% Ch, Annual Rate	0.9	0.5	0.4	0.7	0.8	0.1	0.5	0.2
Durable Manufacturing	8.00	8.02	8.03	8.04	8.06	8.05	8.06	8.07
% Ch, Annual Rate	1.5	0.7	0.4	0.7	0.9	-0.2	0.5	0.2
Nondurable Manufacturing	4.56	4.56	4.56	4.57	4.58	4.59	4.59	4.60
% Ch, Annual Rate	-0.2	0.1	0.4	0.6	0.7	0.6	0.5	0.3
Construction	7.18	7.26	7.33	7.39	7.44	7.49	7.55	7.60
% Ch, Annual Rate	4.3	4.2	4.2	3.2	2.8	2.8	3.0	2.9
Service-Providing	126.31	126.59	126.85	127.07	127.29	127.48	127.64	127.81
% Ch, Annual Rate	0.9	0.9	0.8	0.7	0.7	0.6	0.5	0.6
<b>Miscellaneous Indicators</b>								
Oil-WTI (\$ per barrel)	55.9	56.3	56.8	57.4	57.7	58.1	58.4	58.8
Personal Saving/Disposable Income (%)	5.9	6.1	6.2	6.3	6.6	6.7	6.7	6.7
Auto Sales (Millions)	7.8	7.8	7.7	7.6	7.6	7.5	7.5	7.5
% Ch, Annual Rate	0.3	-0.8	-3.4	-5.7	-1.8	-3.9	-0.1	-0.2
Housing Starts (Millions)	1.514	1.512	1.526	1.530	1.541	1.553	1.573	1.588
% Ch, Annual Rate	6.7	-0.5	3.7	1.0	3.1	3.2	5.1	3.9
Federal Budget Surplus (Billions)	-687.4	-707.2	-717.2	-732.1	-756.5	-775.5	-775.9	-781.9
Net Exports (Billions)	-614.2	-621.2	-625.1	-626.3	-618.6	-616.7	-608.8	-606.8
3-Month Treasury Bill Rate (%)	2.46	2.69	2.91	3.05	3.04	3.03	3.03	3.02
10-Year Treasury Note Yield (%)	3.01	3.18	3.47	3.66	3.69	3.67	3.66	3.65
Bond Index of 20 G.O. Munis. (%)	4.72	4.83	5.05	5.17	5.20	5.19	5.19	5.19
30-Year Fixed Mortgage Rate (%)	4.89	5.08	5.40	5.62	5.67	5.66	5.65	5.65

Table A1.3  
**Washington Economic Forecast Summary**  
Forecast 2015 to 2019

	2012	2013	2014	2015	2016	2017	2018	2019
<b>Real Income (Billions of Chained 2009 Dollars)</b>								
Real Personal Income	307.650	307.732	321.086	337.195	348.583	360.207	373.046	385.527
% Ch	4.8	0.0	4.3	5.0	3.4	3.3	3.6	3.3
Real Wage and Salary Disb.	154.715	158.588	166.791	175.073	180.804	186.089	191.512	196.934
% Ch	4.0	2.5	5.2	5.0	3.3	2.9	2.9	2.8
Real Nonwage Income	152.935	149.144	154.295	162.123	167.779	174.119	181.533	188.594
% Ch	5.7	-2.5	3.5	5.1	3.5	3.8	4.3	3.9
Real Per Capita Income (\$/Person)	44,545	44,053	45,392	47,047	47,964	48,911	50,004	51,011
% Ch	3.7	-1.1	3.0	3.6	2.0	2.0	2.2	2.0
<b>Price and Wage Indexes</b>								
U.S. Implicit Price Deflator, PCE (2009=1.0)	1.061	1.076	1.091	1.095	1.110	1.131	1.152	1.171
% Ch	1.9	1.4	1.4	0.3	1.4	1.9	1.8	1.7
Seattle Cons. Price Index (1982-84=1.0)	2.387	2.416	2.460	2.494	2.547	2.609	2.669	2.725
% Ch	2.5	1.2	1.8	1.4	2.1	2.4	2.3	2.1
Average Nonfarm Annual Wage	53,768	54,677	56,965	58,471	60,187	62,227	64,268	66,402
% Ch	4.1	1.7	4.2	2.6	2.9	3.4	3.3	3.3
Avg. Hourly Earnings-Mfg. (\$/Hour)	24.14	24.34	25.16	25.62	26.57	27.21	27.92	28.65
% Ch	0.7	0.8	3.4	1.8	3.7	2.4	2.6	2.6
<b>Current Dollar Income (Billions of Dollars)</b>								
Personal Income	326.497	331.031	350.322	369.127	386.778	407.369	429.596	451.553
% Ch	6.8	1.4	5.8	5.4	4.8	5.3	5.5	5.1
Disposable Personal Income	291.033	291.671	307.877	322.461	337.827	355.998	376.046	395.575
% Ch	7.0	0.2	5.6	4.7	4.8	5.4	5.6	5.2
Per Capita Income (\$/Person)	47,274	47,388	49,525	51,501	53,219	55,314	57,583	59,746
% Ch	5.7	0.2	4.5	4.0	3.3	3.9	4.1	3.8
<b>Employment (Thousands)</b>								
Washington Civilian Labor Force	3,462.6	3,456.5	3,486.7	3,542.2	3,590.6	3,658.5	3,722.3	3,780.6
Total Washington Employment	3,184.7	3,216.9	3,268.5	3,346.8	3,403.9	3,469.8	3,530.1	3,581.7
Unemployment Rate (%)	8.03	6.93	6.26	5.52	5.20	5.16	5.16	5.26
Nonfarm Payroll Employment	2,923.8	2,992.6	3,073.7	3,158.6	3,213.9	3,262.6	3,311.7	3,353.4
% Ch	1.7	2.4	2.7	2.8	1.8	1.5	1.5	1.3
Manufacturing	280.3	286.7	288.2	289.2	287.0	288.5	289.8	291.2
% Ch	4.3	2.3	0.5	0.4	-0.8	0.5	0.5	0.5
Durable Manufacturing	204.5	209.6	209.5	209.4	206.3	207.1	208.0	208.4
% Ch	5.8	2.5	0.0	-0.1	-1.5	0.4	0.4	0.2
Aerospace	94.2	96.1	93.9	92.7	90.1	87.8	85.9	84.2
% Ch	8.8	2.0	-2.2	-1.3	-2.9	-2.5	-2.2	-2.0
Nondurable Manufacturing	75.7	77.1	78.7	79.9	80.7	81.5	81.9	82.8
% Ch	0.6	1.8	2.1	1.5	1.1	0.9	0.5	1.1
Construction	139.1	149.0	159.3	172.8	174.2	181.5	190.1	195.5
% Ch	2.0	7.1	6.9	8.5	0.8	4.2	4.8	2.9
Service-Providing	2,498.6	2,550.8	2,620.0	2,690.2	2,746.5	2,786.2	2,825.1	2,860.0
% Ch	1.4	2.1	2.7	2.7	2.1	1.4	1.4	1.2
Software Publishers	52.4	53.9	55.6	55.4	55.9	56.0	56.7	57.4
% Ch	1.4	2.8	3.2	-0.3	0.9	0.3	1.1	1.2
<b>Housing Indicators (Thousands)</b>								
Housing Units Authorized by Bldg. Permit	28.118	32.962	33.898	41.045	38.924	42.569	44.135	44.635
% Ch	34.8	17.2	2.8	21.1	-5.2	9.4	3.7	1.1
Single-Family	16.508	18.396	17.905	19.154	21.722	25.597	27.221	27.343
% Ch	25.5	11.4	-2.7	7.0	13.4	17.8	6.3	0.5
Multi-Family	11.610	14.566	15.993	21.891	17.201	16.972	16.915	17.291
% Ch	50.7	25.5	9.8	36.9	-21.4	-1.3	-0.3	2.2
30-Year Fixed Mortgage Rate (%)	3.66	3.98	4.17	3.86	4.41	4.70	5.25	5.66

Table A1.4  
**Washington Economic Forecast Summary**  
Forecast 2015 to 2019

	2014:1	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4
<b>Real Income (Billions of Chained 2009 Dollars)</b>								
Real Personal Income	315.927	319.195	321.484	327.740	332.456	337.380	338.149	340.797
% Ch, Annual Rate	8.6	4.2	2.9	8.0	5.9	6.1	0.9	3.2
Real Wage and Salary Disb.	164.034	165.262	166.956	170.913	172.801	176.099	175.284	176.108
% Ch, Annual Rate	9.1	3.0	4.2	9.8	4.5	7.9	-1.8	1.9
Real Nonwage Income	151.893	153.932	154.529	156.826	159.655	161.281	162.865	164.689
% Ch, Annual Rate	8.1	5.5	1.6	6.1	7.4	4.1	4.0	4.6
Real Per Capita Income (\$/Person)	44,879	45,202	45,375	46,114	46,634	47,156	47,098	47,300
% Ch, Annual Rate	7.3	2.9	1.5	6.7	4.6	4.6	-0.5	1.7
<b>Price and Wage Indexes</b>								
U.S. Implicit Price Deflator, PCE (2009=1.0)	1.085	1.091	1.094	1.093	1.088	1.094	1.097	1.100
% Ch, Annual Rate	1.6	2.1	1.2	-0.4	-1.9	2.2	1.2	0.9
Seattle Cons. Price Index (1982-84=1.0)	2.440	2.463	2.465	2.472	2.467	2.488	2.506	2.514
% Ch, Annual Rate	2.4	3.8	0.3	1.1	-0.7	3.3	3.0	1.2
Average Nonfarm Annual Wage	56,197	56,747	56,941	57,975	57,883	58,905	58,467	58,629
% Ch, Annual Rate	7.8	4.0	1.4	7.5	-0.6	7.3	-2.9	1.1
Avg. Hourly Earnings-Mfg. (\$/Hour)	24.82	25.13	25.33	25.36	25.08	25.36	25.83	26.20
% Ch, Annual Rate	0.5	5.2	3.2	0.4	-4.2	4.4	7.8	5.8
<b>Current Dollar Income (Billions of Dollars)</b>								
Personal Income	342.898	348.285	351.825	358.280	361.685	369.052	371.023	374.748
% Ch, Annual Rate	10.4	6.4	4.1	7.5	3.9	8.4	2.2	4.1
Disposable Personal Income	301.655	306.477	309.150	314.227	316.114	322.315	324.179	327.236
% Ch, Annual Rate	9.9	6.5	3.5	6.7	2.4	8.1	2.3	3.8
Per Capita Income (\$/Person)	48,710	49,321	49,657	50,411	50,734	51,583	51,677	52,012
% Ch, Annual Rate	9.0	5.1	2.8	6.2	2.6	6.9	0.7	2.6
<b>Employment (Thousands)</b>								
Washington Civilian Labor Force	3,464.3	3,471.9	3,493.8	3,516.9	3,543.6	3,548.6	3,531.6	3,545.1
Total Washington Employment	3,244.0	3,257.6	3,277.4	3,295.1	3,325.1	3,357.1	3,345.4	3,359.7
Unemployment Rate (%)	6.36	6.17	6.19	6.31	6.17	5.40	5.27	5.23
Nonfarm Payroll Employment	3,045.3	3,056.0	3,087.8	3,105.7	3,129.6	3,151.8	3,169.7	3,183.4
% Ch, Annual Rate	3.3	1.4	4.2	2.3	3.1	2.9	2.3	1.7
Manufacturing	287.8	288.5	288.4	288.1	289.7	289.6	289.8	287.9
% Ch, Annual Rate	1.1	1.0	-0.1	-0.5	2.3	-0.1	0.3	-2.6
Durable Manufacturing	209.4	209.4	209.9	209.5	210.2	209.9	209.6	207.8
% Ch, Annual Rate	0.1	0.0	1.0	-0.7	1.3	-0.5	-0.5	-3.5
Aerospace	94.0	93.8	94.3	93.7	93.4	93.0	93.0	91.5
% Ch, Annual Rate	-3.2	-1.1	2.4	-2.5	-1.4	-1.5	-0.2	-6.3
Nondurable Manufacturing	78.4	79.1	78.5	78.6	79.5	79.7	80.2	80.1
% Ch, Annual Rate	3.9	3.6	-3.0	0.2	4.9	1.0	2.5	-0.5
Construction	156.1	156.1	160.1	164.9	171.8	173.0	172.9	173.5
% Ch, Annual Rate	10.1	0.1	10.4	12.5	18.0	2.7	-0.1	1.4
Service-Providing	2,595.2	2,605.2	2,633.2	2,646.5	2,661.6	2,682.9	2,700.6	2,715.7
% Ch, Annual Rate	3.1	1.6	4.4	2.0	2.3	3.2	2.7	2.3
Software Publishers	55.3	55.7	56.0	55.2	54.8	55.1	55.6	56.1
% Ch, Annual Rate	4.7	2.8	2.3	-5.5	-3.2	2.4	3.5	3.8
<b>Housing Indicators (Thousands)</b>								
Housing Units Authorized by Bldg. Permit	31.778	35.065	33.120	35.628	53.623	36.781	37.385	36.393
% Ch, Annual Rate	-35.4	48.2	-20.4	33.9	413.1	-77.9	6.7	-10.2
Single-Family	17.459	17.108	17.974	19.079	18.456	18.863	19.705	19.594
% Ch, Annual Rate	-7.1	-7.8	21.8	27.0	-12.4	9.1	19.1	-2.2
Multi-Family	14.320	17.957	15.146	16.549	35.168	17.918	17.680	16.799
% Ch, Annual Rate	-56.8	147.3	-49.4	42.5	1,939.2	-93.3	-5.2	-18.5
30-Year Fixed Mortgage Rate (%)	4.36	4.23	4.14	3.97	3.73	3.83	3.95	3.91

Table A1.4 (continued)  
**Washington Economic Forecast Summary**  
Forecast 2015 to 2019

	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2017:4
<b>Real Income (Billions of Chained 2009 Dollars)</b>								
Real Personal Income	345.959	347.691	349.735	350.947	356.688	359.236	361.178	363.729
% Ch, Annual Rate	6.2	2.0	2.4	1.4	6.7	2.9	2.2	2.9
Real Wage and Salary Disb.	179.737	180.595	181.375	181.508	185.161	185.960	186.213	187.022
% Ch, Annual Rate	8.5	1.9	1.7	0.3	8.3	1.7	0.5	1.8
Real Nonwage Income	166.222	167.097	168.360	169.439	171.527	173.276	174.965	176.706
% Ch, Annual Rate	3.8	2.1	3.1	2.6	5.0	4.1	4.0	4.0
Real Per Capita Income (\$/Person)	47,849	47,922	48,040	48,046	48,671	48,859	48,964	49,151
% Ch, Annual Rate	4.7	0.6	1.0	0.0	5.3	1.6	0.9	1.5
<b>Price and Wage Indexes</b>								
U.S. Implicit Price Deflator, PCE (2009=1.0)	1.102	1.107	1.112	1.118	1.123	1.128	1.134	1.139
% Ch, Annual Rate	0.8	1.7	1.9	2.2	1.7	2.0	1.9	1.9
Seattle Cons. Price Index (1982-84=1.0)	2.524	2.538	2.554	2.572	2.586	2.602	2.617	2.632
% Ch, Annual Rate	1.7	2.2	2.6	2.8	2.1	2.5	2.4	2.4
Average Nonfarm Annual Wage	59,731	60,041	60,405	60,571	61,823	62,180	62,291	62,615
% Ch, Annual Rate	7.7	2.1	2.4	1.1	8.5	2.3	0.7	2.1
Avg. Hourly Earnings-Mfg. (\$/Hour)	26.34	26.50	26.64	26.79	26.95	27.12	27.30	27.47
% Ch, Annual Rate	2.1	2.4	2.3	2.3	2.4	2.5	2.6	2.6
<b>Current Dollar Income (Billions of Dollars)</b>								
Personal Income	381.226	384.738	388.829	392.320	400.435	405.337	409.430	414.277
% Ch, Annual Rate	7.1	3.7	4.3	3.6	8.5	5.0	4.1	4.8
Disposable Personal Income	332.816	335.885	339.727	342.879	349.984	354.149	357.803	362.058
% Ch, Annual Rate	7.0	3.7	4.7	3.8	8.5	4.8	4.2	4.8
Per Capita Income (\$/Person)	52,726	53,029	53,410	53,710	54,641	55,129	55,505	55,982
% Ch, Annual Rate	5.6	2.3	2.9	2.3	7.1	3.6	2.8	3.5
<b>Employment (Thousands)</b>								
Washington Civilian Labor Force	3,564.7	3,581.8	3,599.7	3,616.3	3,633.2	3,649.6	3,667.7	3,683.7
Total Washington Employment	3,378.9	3,395.7	3,412.8	3,428.3	3,445.1	3,461.6	3,478.9	3,493.7
Unemployment Rate (%)	5.21	5.20	5.19	5.20	5.18	5.15	5.15	5.16
Nonfarm Payroll Employment	3,196.6	3,209.1	3,219.2	3,230.8	3,243.3	3,255.4	3,269.2	3,282.4
% Ch, Annual Rate	1.7	1.6	1.3	1.4	1.6	1.5	1.7	1.6
Manufacturing	286.9	286.6	286.5	287.8	288.2	288.3	288.6	289.0
% Ch, Annual Rate	-1.3	-0.5	0.0	1.8	0.5	0.1	0.4	0.6
Durable Manufacturing	206.6	205.9	205.8	206.7	206.9	206.9	207.1	207.4
% Ch, Annual Rate	-2.3	-1.2	-0.3	1.7	0.4	0.0	0.3	0.6
Aerospace	90.9	90.4	89.8	89.2	88.7	88.1	87.5	87.0
% Ch, Annual Rate	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5
Nondurable Manufacturing	80.3	80.6	80.7	81.1	81.3	81.4	81.5	81.6
% Ch, Annual Rate	1.3	1.4	0.5	2.1	0.7	0.4	0.8	0.5
Construction	173.5	173.3	174.3	175.8	177.5	180.0	182.7	185.8
% Ch, Annual Rate	0.0	-0.4	2.4	3.5	3.9	5.7	6.2	6.9
Service-Providing	2,729.9	2,743.1	2,752.1	2,760.9	2,771.3	2,780.7	2,791.4	2,801.2
% Ch, Annual Rate	2.1	1.9	1.3	1.3	1.5	1.4	1.5	1.4
Software Publishers	56.0	55.9	55.9	55.7	55.8	55.9	56.1	56.3
% Ch, Annual Rate	-0.7	-0.6	-0.2	-1.0	0.6	0.9	1.2	1.1
<b>Housing Indicators (Thousands)</b>								
Housing Units Authorized by Bldg. Permit	37,401	38,481	39,435	40,377	41,502	42,437	42,958	43,380
% Ch, Annual Rate	11.6	12.1	10.3	9.9	11.6	9.3	5.0	4.0
Single-Family	20,399	21,196	22,087	23,208	24,412	25,337	26,081	26,557
% Ch, Annual Rate	17.5	16.6	17.9	21.9	22.4	16.0	12.3	7.5
Multi-Family	17,002	17,285	17,348	17,169	17,090	17,100	16,877	16,823
% Ch, Annual Rate	4.9	6.8	1.5	-4.1	-1.8	0.2	-5.1	-1.3
30-Year Fixed Mortgage Rate (%)	4.22	4.38	4.48	4.56	4.63	4.67	4.72	4.78

Table A1.4 (continued)  
**Washington Economic Forecast Summary**  
Forecast 2015 to 2019

	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4
<b>Real Income (Billions of Chained 2009 Dollars)</b>								
Real Personal Income	369.650	372.226	373.732	376.576	382.381	385.024	385.888	388.816
% Ch, Annual Rate	6.7	2.8	1.6	3.1	6.3	2.8	0.9	3.1
Real Wage and Salary Disb.	190.677	191.537	191.357	192.478	196.042	197.079	196.554	198.060
% Ch, Annual Rate	8.0	1.8	-0.4	2.4	7.6	2.1	-1.1	3.1
Real Nonwage Income	178.973	180.688	182.375	184.097	186.339	187.945	189.334	190.756
% Ch, Annual Rate	5.2	3.9	3.8	3.8	5.0	3.5	3.0	3.0
Real Per Capita Income (\$/Person)	49,790	49,976	50,016	50,234	50,843	51,028	50,977	51,197
% Ch, Annual Rate	5.3	1.5	0.3	1.8	4.9	1.5	-0.4	1.7
<b>Price and Wage Indexes</b>								
U.S. Implicit Price Deflator, PCE (2009=1.0)	1.144	1.149	1.154	1.159	1.164	1.169	1.174	1.179
% Ch, Annual Rate	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7
Seattle Cons. Price Index (1982-84=1.0)	2.647	2.661	2.676	2.690	2.704	2.718	2.733	2.747
% Ch, Annual Rate	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.1
Average Nonfarm Annual Wage	63,857	64,239	64,253	64,724	65,979	66,408	66,310	66,913
% Ch, Annual Rate	8.2	2.4	0.1	3.0	8.0	2.6	-0.6	3.7
Avg. Hourly Earnings-Mfg. (\$/Hour)	27.65	27.83	28.01	28.20	28.38	28.56	28.75	28.92
% Ch, Annual Rate	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.5
<b>Current Dollar Income (Billions of Dollars)</b>								
Personal Income	422.869	427.681	431.333	436.501	445.066	449.985	452.924	458.239
% Ch, Annual Rate	8.6	4.6	3.5	4.9	8.1	4.5	2.6	4.8
Disposable Personal Income	369.946	374.306	377.643	382.290	389.778	394.221	396.812	401.490
% Ch, Annual Rate	9.0	4.8	3.6	5.0	8.1	4.6	2.7	4.8
Per Capita Income (\$/Person)	56,959	57,421	57,725	58,228	59,178	59,638	59,832	60,338
% Ch, Annual Rate	7.2	3.3	2.1	3.5	6.7	3.1	1.3	3.4
<b>Employment (Thousands)</b>								
Washington Civilian Labor Force	3,699.6	3,714.2	3,730.2	3,745.0	3,759.5	3,773.3	3,788.5	3,801.2
Total Washington Employment	3,509.2	3,522.9	3,537.7	3,550.7	3,563.4	3,575.3	3,588.6	3,599.6
Unemployment Rate (%)	5.15	5.15	5.16	5.19	5.22	5.25	5.28	5.30
Nonfarm Payroll Employment	3,296.3	3,306.3	3,316.9	3,327.2	3,338.4	3,348.5	3,358.3	3,368.3
% Ch, Annual Rate	1.7	1.2	1.3	1.3	1.4	1.2	1.2	1.2
Manufacturing	289.4	289.7	289.9	290.4	290.8	291.0	291.3	291.5
% Ch, Annual Rate	0.5	0.4	0.4	0.6	0.6	0.2	0.5	0.3
Durable Manufacturing	207.7	207.9	208.0	208.2	208.4	208.3	208.4	208.4
% Ch, Annual Rate	0.7	0.4	0.2	0.4	0.3	-0.2	0.1	-0.1
Aerospace	86.6	86.1	85.7	85.2	84.8	84.4	84.0	83.5
% Ch, Annual Rate	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Nondurable Manufacturing	81.7	81.8	81.9	82.1	82.4	82.7	82.9	83.2
% Ch, Annual Rate	0.2	0.5	0.7	1.1	1.3	1.3	1.3	1.1
Construction	188.6	189.3	190.6	191.9	193.4	194.8	196.3	197.7
% Ch, Annual Rate	6.2	1.6	2.8	2.7	3.1	3.1	3.0	2.9
Service-Providing	2,811.8	2,820.7	2,829.7	2,838.3	2,847.6	2,856.1	2,864.0	2,872.4
% Ch, Annual Rate	1.5	1.3	1.3	1.2	1.3	1.2	1.1	1.2
Software Publishers	56.4	56.6	56.8	57.0	57.1	57.3	57.5	57.6
% Ch, Annual Rate	1.1	1.2	1.3	1.4	1.3	1.2	1.2	1.1
<b>Housing Indicators (Thousands)</b>								
Housing Units Authorized by Bldg. Permit	43.923	43.960	44.332	44.325	44.480	44.527	44.721	44.810
% Ch, Annual Rate	5.1	0.3	3.4	-0.1	1.4	0.4	1.8	0.8
Single-Family	27.118	27.155	27.325	27.284	27.143	27.224	27.452	27.553
% Ch, Annual Rate	8.7	0.5	2.5	-0.6	-2.1	1.2	3.4	1.5
Multi-Family	16.806	16.805	17.007	17.041	17.338	17.303	17.269	17.256
% Ch, Annual Rate	-0.4	0.0	4.9	0.8	7.2	-0.8	-0.8	-0.3
30-Year Fixed Mortgage Rate (%)	4.89	5.08	5.40	5.62	5.67	5.66	5.65	5.65

Table A2.1

**U.S. Nonagricultural Employment by Industry (Millions)**

Forecast 2015 to 2019

	2012	2013	2014	2015	2016	2017	2018	2019
Nonfarm Payroll Employment	134.10	136.39	139.02	141.92	144.16	145.85	147.38	148.54
% Ch	1.7	1.7	1.9	2.1	1.6	1.2	1.1	0.8
Manufacturing	11.93	12.02	12.19	12.33	12.35	12.49	12.58	12.65
% Ch	1.7	0.8	1.4	1.1	0.2	1.1	0.7	0.5
Durable Manufacturing	7.47	7.55	7.69	7.80	7.80	7.93	8.02	8.06
% Ch	2.7	1.0	1.8	1.5	0.1	1.6	1.1	0.5
Wood Products	0.34	0.35	0.37	0.38	0.40	0.43	0.46	0.47
% Ch	0.7	4.2	5.3	1.8	4.7	9.2	5.5	1.8
Primary and Fabricated Metals	1.81	1.83	1.86	1.86	1.85	1.87	1.89	1.91
% Ch	4.3	0.8	1.6	0.5	-0.6	0.9	1.2	1.2
Computer and Electronic Products	1.09	1.07	1.05	1.05	1.08	1.12	1.13	1.13
% Ch	-1.3	-2.2	-1.4	0.4	2.3	3.5	0.9	0.6
Machinery and Electrical Equipment	1.47	1.48	1.50	1.50	1.47	1.47	1.50	1.52
% Ch	3.5	0.5	1.7	-0.1	-2.3	0.2	1.7	1.6
Transportation Equipment	1.46	1.51	1.56	1.61	1.61	1.63	1.63	1.60
% Ch	5.8	3.3	3.6	3.3	-0.1	1.2	-0.2	-1.5
Other Durables	1.30	1.31	1.34	1.38	1.40	1.41	1.42	1.42
% Ch	0.3	1.3	2.1	3.1	1.0	1.1	0.8	0.0
Nondurable Manufacturing	4.46	4.47	4.50	4.53	4.55	4.56	4.56	4.59
% Ch	0.1	0.3	0.7	0.6	0.4	0.3	0.1	0.5
Food Manufacturing	1.47	1.47	1.48	1.49	1.51	1.54	1.55	1.57
% Ch	0.7	0.3	0.5	0.7	1.0	1.8	1.1	1.5
Paper and Paper Products	0.38	0.38	0.37	0.37	0.37	0.37	0.36	0.36
% Ch	-1.9	-0.5	-1.7	-1.2	0.4	-0.9	-0.6	0.2
Other Nondurables	2.61	2.62	2.65	2.67	2.67	2.66	2.65	2.65
% Ch	0.0	0.5	1.1	0.8	0.0	-0.4	-0.4	0.1
Natural Resources and Mining	0.85	0.86	0.90	0.84	0.77	0.78	0.80	0.82
% Ch	7.6	1.8	3.8	-6.6	-8.2	2.1	2.4	1.9
Construction	5.65	5.86	6.14	6.38	6.61	6.98	7.29	7.52
% Ch	2.1	3.7	4.8	3.9	3.6	5.6	4.4	3.2
Trade, Transportation, and Utilities	25.47	25.86	26.38	26.92	27.28	27.45	27.55	27.57
% Ch	1.6	1.5	2.0	2.1	1.3	0.6	0.4	0.0
Wholesale Trade	5.67	5.73	5.83	5.91	5.96	6.04	6.12	6.18
% Ch	2.2	1.2	1.6	1.4	0.8	1.4	1.2	1.0
Retail Trade	14.84	15.07	15.36	15.67	15.89	15.86	15.79	15.70
% Ch	1.1	1.6	1.9	2.0	1.4	-0.2	-0.4	-0.5
Trans., Warehousing, and Utilities	4.97	5.05	5.19	5.34	5.42	5.55	5.65	5.69
% Ch	2.3	1.6	2.8	2.9	1.7	2.3	1.8	0.6
Information	2.68	2.71	2.74	2.79	2.82	2.83	2.88	2.92
% Ch	0.1	1.2	1.3	1.7	1.2	0.2	1.7	1.5
Publishing Industries	0.74	0.73	0.72	0.72	0.71	0.68	0.67	0.66
% Ch	-1.3	-0.9	-1.1	-0.9	-0.8	-4.2	-1.7	-1.3
Other Information	1.94	1.97	2.02	2.07	2.11	2.14	2.20	2.26
% Ch	0.6	1.9	2.1	2.7	1.9	1.7	2.8	2.4
Financial Activities	7.78	7.89	7.98	8.12	8.16	8.05	7.93	7.86
% Ch	1.1	1.3	1.2	1.8	0.5	-1.4	-1.5	-0.8
Professional and Business Services	17.93	18.52	19.09	19.74	20.40	21.14	21.62	21.93
% Ch	3.5	3.3	3.1	3.4	3.3	3.7	2.3	1.4
Education and Health Services	20.70	21.10	21.47	22.04	22.58	22.77	22.96	23.20
% Ch	2.3	1.9	1.8	2.7	2.4	0.8	0.8	1.1
Leisure and Hospitality	13.77	14.26	14.71	15.15	15.47	15.58	15.78	15.93
% Ch	3.2	3.5	3.2	3.0	2.1	0.7	1.3	1.0
Other Services	5.43	5.48	5.57	5.64	5.60	5.51	5.48	5.45
% Ch	1.3	1.0	1.6	1.1	-0.6	-1.7	-0.6	-0.5
Federal Government	2.82	2.77	2.73	2.73	2.72	2.68	2.64	2.60
% Ch	-1.3	-1.8	-1.6	0.3	-0.5	-1.5	-1.5	-1.3
State and Local Government	19.10	19.08	19.13	19.24	19.40	19.59	19.87	20.09
% Ch	-0.7	-0.1	0.3	0.6	0.8	1.0	1.4	1.1

Table A2.2

**U.S. Nonagricultural Employment by Industry (Millions)**

Forecast 2015 to 2019

	2014:1	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4
Nonfarm Payroll Employment	137.84	138.64	139.38	140.23	141.01	141.62	142.23	142.81
% Ch, Annual Rate	1.6	2.3	2.2	2.5	2.2	1.7	1.7	1.6
Manufacturing	12.12	12.16	12.20	12.27	12.32	12.33	12.33	12.32
% Ch, Annual Rate	1.7	1.3	1.5	2.3	1.6	0.3	0.0	-0.2
Durable Manufacturing	7.61	7.66	7.71	7.76	7.80	7.80	7.79	7.79
% Ch, Annual Rate	1.6	2.4	2.5	3.0	1.9	0.1	-0.4	0.1
Wood Products	0.37	0.37	0.37	0.38	0.38	0.38	0.38	0.38
% Ch, Annual Rate	6.6	5.7	4.0	2.4	2.3	-2.5	2.7	1.6
Primary and Fabricated Metals	1.84	1.85	1.86	1.87	1.88	1.87	1.86	1.85
% Ch, Annual Rate	1.5	1.4	1.9	3.4	1.8	-1.9	-3.5	-1.8
Computer and Electronic Products	1.05	1.05	1.05	1.05	1.06	1.06	1.05	1.05
% Ch, Annual Rate	-2.3	-1.3	0.6	1.6	1.5	-0.2	-1.1	-0.7
Machinery and Electrical Equipment	1.49	1.50	1.51	1.52	1.51	1.51	1.50	1.49
% Ch, Annual Rate	2.1	2.9	1.9	2.0	-0.4	-2.1	-2.2	-2.1
Transportation Equipment	1.54	1.55	1.57	1.59	1.60	1.61	1.62	1.63
% Ch, Annual Rate	2.8	4.7	4.7	3.5	3.1	2.1	2.6	4.1
Other Durables	1.33	1.34	1.35	1.36	1.37	1.38	1.39	1.39
% Ch, Annual Rate	1.4	2.7	2.8	4.1	3.6	3.8	1.8	0.6
Nondurable Manufacturing	4.51	4.50	4.50	4.51	4.52	4.53	4.54	4.53
% Ch, Annual Rate	2.0	-0.6	-0.2	1.2	1.1	0.7	0.6	-0.6
Food Manufacturing	1.49	1.48	1.47	1.48	1.49	1.49	1.49	1.49
% Ch, Annual Rate	2.9	-2.9	-1.5	1.3	3.7	0.2	0.0	-1.1
Paper and Paper Products	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.37
% Ch, Annual Rate	-1.2	-1.4	-4.0	-1.7	-1.3	-1.1	1.2	2.2
Other Nondurables	2.64	2.65	2.65	2.66	2.66	2.67	2.68	2.67
% Ch, Annual Rate	2.0	0.8	1.1	1.6	0.0	1.2	1.0	-0.8
Natural Resources and Mining	0.88	0.89	0.90	0.91	0.89	0.85	0.82	0.78
% Ch, Annual Rate	3.4	5.1	7.2	3.4	-8.5	-17.9	-13.0	-16.3
Construction	6.03	6.11	6.17	6.24	6.33	6.37	6.39	6.42
% Ch, Annual Rate	6.7	5.4	3.8	4.3	6.4	2.6	1.0	2.1
Trade, Transportation, and Utilities	26.16	26.31	26.44	26.60	26.75	26.86	26.98	27.08
% Ch, Annual Rate	1.3	2.2	2.0	2.5	2.2	1.7	1.8	1.5
Wholesale Trade	5.79	5.82	5.84	5.86	5.90	5.91	5.92	5.92
% Ch, Annual Rate	2.2	2.1	1.6	1.7	2.3	0.7	0.7	0.2
Retail Trade	15.25	15.33	15.39	15.48	15.56	15.63	15.71	15.79
% Ch, Annual Rate	0.7	2.0	1.6	2.3	2.1	1.9	1.9	2.1
Trans., Warehousing, and Utilities	5.12	5.16	5.21	5.26	5.29	5.32	5.36	5.37
% Ch, Annual Rate	2.2	3.2	3.5	4.2	2.4	2.4	2.7	1.2
Information	2.72	2.73	2.75	2.76	2.78	2.79	2.79	2.79
% Ch, Annual Rate	-0.3	0.9	3.2	1.6	2.4	1.6	0.9	-0.2
Publishing Industries	0.73	0.73	0.72	0.72	0.72	0.72	0.72	0.72
% Ch, Annual Rate	-1.1	-1.1	-0.7	-1.2	-1.0	-0.6	-0.5	-0.8
Other Information	1.99	2.00	2.03	2.04	2.06	2.07	2.08	2.08
% Ch, Annual Rate	0.0	1.7	4.6	2.6	3.6	2.4	1.4	0.0
Financial Activities	7.93	7.95	8.00	8.04	8.08	8.11	8.15	8.16
% Ch, Annual Rate	0.8	1.3	2.1	2.0	2.2	1.6	2.0	0.4
Professional and Business Services	18.83	19.01	19.18	19.36	19.50	19.68	19.82	19.97
% Ch, Annual Rate	2.5	3.9	3.6	3.8	3.0	3.7	2.8	3.1
Education and Health Services	21.28	21.40	21.54	21.67	21.81	21.98	22.12	22.26
% Ch, Annual Rate	1.2	2.4	2.6	2.3	2.8	3.0	2.6	2.7
Leisure and Hospitality	14.53	14.66	14.75	14.90	15.01	15.09	15.19	15.30
% Ch, Annual Rate	2.6	3.6	2.6	3.9	3.2	2.0	2.6	2.9
Other Services	5.54	5.57	5.58	5.60	5.62	5.64	5.64	5.64
% Ch, Annual Rate	1.9	2.0	0.8	1.6	1.5	1.1	0.3	-0.3
Federal Government	2.73	2.73	2.73	2.73	2.73	2.73	2.74	2.74
% Ch, Annual Rate	-1.9	-0.5	-0.1	0.2	0.5	0.6	0.0	0.0
State and Local Government	19.09	19.12	19.14	19.17	19.17	19.19	19.27	19.34
% Ch, Annual Rate	0.0	0.6	0.5	0.5	0.2	0.2	1.7	1.6

Table A2.2 (continued)

**U.S. Nonagricultural Employment by Industry (Millions)**

Forecast 2015 to 2019

	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2017:4
Nonfarm Payroll Employment	143.45	144.00	144.38	144.81	145.25	145.63	146.08	146.45
% Ch, Annual Rate	1.8	1.5	1.1	1.2	1.2	1.1	1.3	1.0
Manufacturing	12.34	12.32	12.33	12.42	12.46	12.47	12.50	12.54
% Ch, Annual Rate	0.4	-0.5	0.1	3.0	1.4	0.4	0.8	1.2
Durable Manufacturing	7.80	7.78	7.78	7.86	7.90	7.92	7.94	7.97
% Ch, Annual Rate	0.3	-1.1	0.1	4.2	2.1	0.7	1.1	1.8
Wood Products	0.39	0.39	0.40	0.41	0.42	0.43	0.44	0.45
% Ch, Annual Rate	8.3	4.0	6.0	10.9	10.8	10.3	8.6	6.7
Primary and Fabricated Metals	1.85	1.85	1.85	1.86	1.86	1.86	1.87	1.88
% Ch, Annual Rate	1.4	-0.7	-1.0	3.1	0.7	0.4	1.1	1.6
Computer and Electronic Products	1.06	1.07	1.08	1.10	1.11	1.12	1.12	1.12
% Ch, Annual Rate	3.4	3.5	5.4	6.3	3.8	2.0	0.9	0.5
Machinery and Electrical Equipment	1.48	1.46	1.46	1.47	1.47	1.47	1.47	1.47
% Ch, Annual Rate	-3.8	-3.4	-0.4	2.3	0.2	-0.3	0.0	1.6
Transportation Equipment	1.62	1.61	1.60	1.62	1.63	1.63	1.63	1.64
% Ch, Annual Rate	-2.4	-4.4	-2.0	6.3	2.8	-1.6	0.2	2.4
Other Durables	1.40	1.40	1.39	1.40	1.41	1.41	1.41	1.42
% Ch, Annual Rate	1.9	-0.3	-0.7	2.1	1.5	1.1	1.0	1.2
Nondurable Manufacturing	4.54	4.54	4.54	4.56	4.56	4.56	4.56	4.56
% Ch, Annual Rate	0.7	0.6	0.0	1.0	0.1	0.0	0.3	0.1
Food Manufacturing	1.50	1.50	1.51	1.52	1.53	1.53	1.54	1.54
% Ch, Annual Rate	1.8	2.3	1.3	3.2	1.7	1.3	1.7	1.1
Paper and Paper Products	0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.36
% Ch, Annual Rate	0.5	-0.4	-0.9	-0.3	-1.1	-1.4	-0.6	-0.8
Other Nondurables	2.67	2.67	2.67	2.67	2.66	2.66	2.66	2.65
% Ch, Annual Rate	0.1	-0.1	-0.6	-0.1	-0.7	-0.6	-0.4	-0.3
Natural Resources and Mining	0.77	0.76	0.77	0.77	0.78	0.78	0.79	0.79
% Ch, Annual Rate	-8.5	-2.4	2.6	3.7	1.4	1.6	3.5	2.5
Construction	6.46	6.55	6.67	6.76	6.85	6.94	7.03	7.11
% Ch, Annual Rate	2.6	5.7	7.1	5.8	5.2	5.6	5.1	4.5
Trade, Transportation, and Utilities	27.21	27.26	27.29	27.34	27.39	27.43	27.48	27.49
% Ch, Annual Rate	1.8	0.8	0.4	0.8	0.7	0.5	0.7	0.1
Wholesale Trade	5.93	5.95	5.97	5.99	6.01	6.03	6.05	6.06
% Ch, Annual Rate	0.3	1.7	1.1	1.5	1.7	1.3	1.3	0.9
Retail Trade	15.89	15.91	15.89	15.89	15.88	15.86	15.86	15.83
% Ch, Annual Rate	2.7	0.4	-0.4	-0.1	-0.2	-0.5	-0.1	-0.7
Trans., Warehousing, and Utilities	5.39	5.41	5.44	5.47	5.50	5.53	5.57	5.59
% Ch, Annual Rate	1.1	1.3	2.3	2.5	2.5	2.3	2.4	1.9
Information	2.80	2.83	2.84	2.81	2.83	2.82	2.81	2.85
% Ch, Annual Rate	1.2	4.6	1.6	-5.0	3.4	-2.3	-0.3	5.4
Publishing Industries	0.72	0.72	0.71	0.69	0.69	0.68	0.68	0.68
% Ch, Annual Rate	4.1	-1.4	-5.9	-8.6	-3.6	-2.5	-1.5	-1.9
Other Information	2.08	2.11	2.13	2.11	2.14	2.13	2.13	2.17
% Ch, Annual Rate	0.2	6.7	4.3	-3.8	5.7	-2.2	0.1	7.9
Financial Activities	8.19	8.19	8.15	8.12	8.10	8.06	8.03	7.99
% Ch, Annual Rate	1.4	0.2	-2.0	-1.2	-1.3	-1.7	-1.5	-1.9
Professional and Business Services	20.10	20.28	20.50	20.72	20.92	21.07	21.24	21.36
% Ch, Annual Rate	2.5	3.8	4.3	4.5	3.8	2.9	3.3	2.2
Education and Health Services	22.42	22.60	22.64	22.66	22.70	22.77	22.79	22.83
% Ch, Annual Rate	2.7	3.3	0.6	0.5	0.7	1.1	0.4	0.6
Leisure and Hospitality	15.43	15.45	15.49	15.50	15.51	15.55	15.62	15.65
% Ch, Annual Rate	3.6	0.5	1.1	0.2	0.2	0.9	1.8	1.0
Other Services	5.65	5.63	5.59	5.55	5.53	5.51	5.50	5.49
% Ch, Annual Rate	0.6	-1.3	-2.9	-2.3	-1.4	-1.4	-1.1	-1.0
Federal Government	2.73	2.73	2.72	2.70	2.69	2.68	2.67	2.66
% Ch, Annual Rate	-0.4	-0.8	-1.7	-1.9	-1.3	-1.4	-1.5	-1.7
State and Local Government	19.37	19.38	19.40	19.44	19.48	19.55	19.63	19.71
% Ch, Annual Rate	0.5	0.3	0.4	0.8	0.9	1.4	1.7	1.5

Table A2.2 (continued)

**U.S. Nonagricultural Employment by Industry (Millions)**

Forecast 2015 to 2019

	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4
Nonfarm Payroll Employment	146.85	147.23	147.58	147.88	148.18	148.42	148.66	148.90
% Ch, Annual Rate	1.1	1.0	1.0	0.8	0.8	0.6	0.6	0.7
Manufacturing	12.56	12.58	12.59	12.61	12.64	12.64	12.65	12.66
% Ch, Annual Rate	0.9	0.5	0.4	0.7	0.8	0.1	0.5	0.2
Durable Manufacturing	8.00	8.02	8.03	8.04	8.06	8.05	8.06	8.07
% Ch, Annual Rate	1.5	0.7	0.4	0.7	0.9	-0.2	0.5	0.2
Wood Products	0.45	0.46	0.46	0.46	0.46	0.46	0.47	0.47
% Ch, Annual Rate	5.0	3.9	3.8	2.3	0.3	0.4	2.8	3.6
Primary and Fabricated Metals	1.88	1.89	1.89	1.90	1.91	1.91	1.92	1.92
% Ch, Annual Rate	1.6	0.9	0.7	1.2	2.2	0.7	1.1	0.7
Computer and Electronic Products	1.12	1.12	1.13	1.13	1.13	1.13	1.13	1.13
% Ch, Annual Rate	0.8	0.7	1.0	1.5	0.3	0.1	0.3	0.3
Machinery and Electrical Equipment	1.49	1.49	1.50	1.50	1.51	1.52	1.52	1.53
% Ch, Annual Rate	2.8	2.1	1.5	1.6	1.9	1.2	1.8	0.8
Transportation Equipment	1.64	1.63	1.62	1.62	1.61	1.60	1.60	1.60
% Ch, Annual Rate	0.5	-1.6	-2.0	-1.7	-1.1	-2.0	-0.9	-1.0
Other Durables	1.42	1.42	1.42	1.43	1.43	1.42	1.42	1.42
% Ch, Annual Rate	0.9	0.4	-0.1	0.7	0.9	-1.3	-0.8	-1.1
Nondurable Manufacturing	4.56	4.56	4.56	4.57	4.58	4.59	4.59	4.60
% Ch, Annual Rate	-0.2	0.1	0.4	0.6	0.7	0.6	0.5	0.3
Food Manufacturing	1.55	1.55	1.55	1.56	1.57	1.57	1.58	1.58
% Ch, Annual Rate	0.7	0.9	1.2	1.5	1.4	1.7	1.6	1.5
Paper and Paper Products	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
% Ch, Annual Rate	-1.0	-0.4	0.0	0.3	0.4	0.2	0.3	0.2
Other Nondurables	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65
% Ch, Annual Rate	-0.6	-0.4	-0.1	0.2	0.4	0.0	-0.1	-0.4
Natural Resources and Mining	0.80	0.80	0.81	0.81	0.81	0.82	0.82	0.82
% Ch, Annual Rate	1.8	2.4	2.9	1.9	1.4	1.3	2.3	2.1
Construction	7.18	7.26	7.33	7.39	7.44	7.49	7.55	7.60
% Ch, Annual Rate	4.3	4.2	4.2	3.2	2.8	2.8	3.0	2.9
Trade, Transportation, and Utilities	27.52	27.55	27.57	27.57	27.57	27.56	27.57	27.57
% Ch, Annual Rate	0.6	0.4	0.2	0.1	-0.1	-0.1	0.1	0.1
Wholesale Trade	6.09	6.11	6.13	6.14	6.16	6.17	6.18	6.20
% Ch, Annual Rate	1.5	1.3	1.2	1.0	1.2	0.9	0.8	0.8
Retail Trade	15.81	15.79	15.78	15.76	15.73	15.71	15.69	15.68
% Ch, Annual Rate	-0.3	-0.6	-0.3	-0.4	-0.8	-0.6	-0.3	-0.3
Trans., Warehousing, and Utilities	5.62	5.65	5.66	5.67	5.68	5.68	5.69	5.69
% Ch, Annual Rate	1.9	2.1	0.8	0.7	0.5	0.4	0.3	0.3
Information	2.86	2.87	2.88	2.89	2.91	2.92	2.92	2.92
% Ch, Annual Rate	2.0	0.2	1.6	2.2	2.2	1.5	0.4	0.3
Publishing Industries	0.67	0.67	0.67	0.67	0.67	0.66	0.66	0.66
% Ch, Annual Rate	-1.9	-1.6	-1.2	-0.9	-1.2	-1.6	-1.5	-1.7
Other Information	2.19	2.19	2.21	2.22	2.24	2.26	2.26	2.27
% Ch, Annual Rate	3.2	0.8	2.4	3.2	3.2	2.4	1.0	0.9
Financial Activities	7.98	7.94	7.91	7.88	7.86	7.86	7.86	7.86
% Ch, Annual Rate	-0.8	-1.6	-1.8	-1.6	-0.8	0.0	0.0	0.0
Professional and Business Services	21.47	21.59	21.69	21.75	21.83	21.89	21.96	22.05
% Ch, Annual Rate	2.2	2.1	2.0	1.1	1.5	1.1	1.3	1.6
Education and Health Services	22.90	22.94	22.97	23.03	23.13	23.18	23.22	23.27
% Ch, Annual Rate	1.4	0.6	0.6	1.1	1.8	0.9	0.6	0.9
Leisure and Hospitality	15.67	15.74	15.82	15.88	15.89	15.92	15.95	15.97
% Ch, Annual Rate	0.4	1.9	2.0	1.6	0.1	0.9	0.7	0.5
Other Services	5.48	5.48	5.47	5.47	5.46	5.45	5.44	5.43
% Ch, Annual Rate	-0.1	-0.5	-0.3	-0.4	-0.4	-0.7	-0.7	-0.7
Federal Government	2.65	2.64	2.63	2.63	2.62	2.61	2.60	2.59
% Ch, Annual Rate	-1.4	-1.5	-1.3	-1.4	-1.2	-1.3	-1.3	-1.3
State and Local Government	19.77	19.84	19.91	19.97	20.03	20.08	20.11	20.14
% Ch, Annual Rate	1.3	1.5	1.4	1.3	1.1	0.9	0.7	0.6

Table A2.3

**Washington Nonagricultural Employment by Industry (Thousands)**

Forecast 2015 to 2019

	2012	2013	2014	2015	2016	2017	2018	2019
Nonfarm Payroll Employment	2,923.8	2,992.6	3,073.7	3,158.6	3,213.9	3,262.6	3,311.7	3,353.4
% Ch	1.7	2.4	2.7	2.8	1.8	1.5	1.5	1.3
Manufacturing	280.3	286.7	288.2	289.2	287.0	288.5	289.8	291.2
% Ch	4.3	2.3	0.5	0.4	-0.8	0.5	0.5	0.5
Durable Manufacturing	204.5	209.6	209.5	209.4	206.3	207.1	208.0	208.4
% Ch	5.8	2.5	0.0	-0.1	-1.5	0.4	0.4	0.2
Wood Products	12.4	13.1	13.4	13.5	14.0	14.8	15.3	15.3
% Ch	-1.5	4.9	2.7	0.9	3.3	6.2	3.0	-0.2
Primary and Fabricated Metals	24.2	25.0	25.5	25.5	24.3	24.4	24.9	25.4
% Ch	6.0	3.1	2.1	0.0	-4.7	0.4	2.1	1.8
Computer and Electronic Products	20.2	20.2	20.0	19.8	20.6	21.9	22.4	22.8
% Ch	2.4	0.0	-1.0	-0.8	3.9	6.3	2.3	1.9
Machinery and Electrical Equipment	18.4	19.9	20.8	20.8	20.7	21.4	22.6	23.9
% Ch	6.5	7.7	4.8	0.1	-0.8	3.6	5.6	5.6
Aerospace	94.2	96.1	93.9	92.7	90.1	87.8	85.9	84.2
% Ch	8.8	2.0	-2.2	-1.3	-2.9	-2.5	-2.2	-2.0
Other Transportation Equip.	10.0	9.7	9.6	9.9	9.6	9.3	9.0	8.7
% Ch	8.6	-3.0	-1.4	3.3	-3.1	-3.3	-3.5	-2.7
Other Durables	25.0	25.7	26.3	27.0	27.1	27.4	27.9	28.1
% Ch	0.1	2.5	2.2	3.0	0.0	1.3	1.8	0.8
Nondurable Manufacturing	75.7	77.1	78.7	79.9	80.7	81.5	81.9	82.8
% Ch	0.6	1.8	2.1	1.5	1.1	0.9	0.5	1.1
Food Manufacturing	34.8	35.7	36.4	36.7	36.8	37.3	37.5	37.8
% Ch	0.5	2.4	2.1	0.8	0.3	1.4	0.4	0.9
Paper and Paper Products	8.2	8.1	8.1	8.1	8.0	7.8	7.7	7.6
% Ch	-8.7	-0.8	-0.8	0.0	-1.2	-1.9	-1.7	-0.8
Other Nondurables	32.7	33.3	34.2	35.1	35.9	36.3	36.7	37.3
% Ch	3.3	1.7	2.7	2.6	2.4	1.1	1.1	1.7
Natural Resources and Mining	5.9	6.1	6.2	6.4	6.2	6.4	6.6	6.7
% Ch	-1.1	3.5	1.8	2.3	-2.0	2.6	3.1	1.4
Construction	139.1	149.0	159.3	172.8	174.2	181.5	190.1	195.5
% Ch	2.0	7.1	6.9	8.5	0.8	4.2	4.8	2.9
Trade, Transportation, and Utilities	536.0	551.0	569.4	587.1	594.5	599.9	604.6	607.7
% Ch	2.1	2.8	3.3	3.1	1.3	0.9	0.8	0.5
Wholesale Trade	124.0	126.9	130.5	133.3	134.1	136.2	138.5	140.5
% Ch	1.9	2.3	2.8	2.2	0.6	1.6	1.7	1.4
Retail Trade	319.3	330.1	341.2	354.1	360.1	361.5	362.1	362.5
% Ch	2.1	3.4	3.4	3.8	1.7	0.4	0.2	0.1
Trans., Warehousing, and Utilities	92.7	94.0	97.8	99.7	100.3	102.2	103.9	104.7
% Ch	2.2	1.5	4.0	2.0	0.6	2.0	1.7	0.8
Information	104.7	106.2	109.6	111.9	114.0	115.1	117.5	120.0
% Ch	0.5	1.5	3.2	2.1	1.9	0.9	2.1	2.1
Software Publishers	52.4	53.9	55.6	55.4	55.9	56.0	56.7	57.4
% Ch	1.4	2.8	3.2	-0.3	0.9	0.3	1.1	1.2
Other Publishing Industries	7.5	6.9	6.6	6.4	6.2	5.6	5.3	5.0
% Ch	-4.4	-7.0	-4.8	-3.9	-1.8	-9.5	-5.9	-5.6
Other Information	44.8	45.4	47.5	50.1	51.9	53.4	55.5	57.6
% Ch	0.3	1.3	4.5	5.7	3.5	2.9	4.0	3.6
Financial Activities	144.9	150.6	153.0	154.9	155.1	152.2	149.7	148.2
% Ch	2.4	3.9	1.6	1.3	0.1	-1.8	-1.6	-1.0
Professional and Business Services	349.9	361.1	372.8	390.7	406.1	423.0	435.4	444.9
% Ch	3.1	3.2	3.3	4.8	3.9	4.2	2.9	2.2
Education and Health Services	433.8	440.1	453.2	459.7	474.3	482.2	490.0	499.0
% Ch	0.6	1.5	3.0	1.4	3.2	1.7	1.6	1.8
Leisure and Hospitality	277.2	287.3	297.0	307.6	315.3	319.3	324.3	328.8
% Ch	2.4	3.6	3.4	3.6	2.5	1.3	1.6	1.4
Other Services	110.9	111.3	113.9	116.2	117.9	118.4	119.3	120.3
% Ch	2.2	0.4	2.4	2.0	1.4	0.4	0.8	0.8
Federal Government	73.2	71.6	71.3	72.9	73.2	72.6	72.0	71.5
% Ch	-1.1	-2.1	-0.5	2.3	0.4	-0.8	-0.8	-0.7
State and Local Government	468.0	471.6	479.7	489.1	496.1	503.5	512.3	519.7
% Ch	-0.3	0.8	1.7	2.0	1.4	1.5	1.7	1.4

Table A2.4

**Washington Nonagricultural Employment by Industry (Thousands)**

Forecast 2015 to 2019

	2014:1	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4
Nonfarm Payroll Employment	3,045.3	3,056.0	3,087.8	3,105.7	3,129.6	3,151.8	3,169.7	3,183.4
% Ch, Annual Rate	3.3	1.4	4.2	2.3	3.1	2.9	2.3	1.7
Manufacturing	287.8	288.5	288.4	288.1	289.7	289.6	289.8	287.9
% Ch, Annual Rate	1.1	1.0	-0.1	-0.5	2.3	-0.1	0.3	-2.6
Durable Manufacturing	209.4	209.4	209.9	209.5	210.2	209.9	209.6	207.8
% Ch, Annual Rate	0.1	0.0	1.0	-0.7	1.3	-0.5	-0.5	-3.5
Wood Products	13.4	13.4	13.4	13.4	13.6	13.5	13.4	13.6
% Ch, Annual Rate	4.2	1.4	-2.0	1.3	4.2	-2.3	-1.4	5.7
Primary and Fabricated Metals	25.5	25.5	25.5	25.5	25.8	25.6	25.4	25.3
% Ch, Annual Rate	5.6	-0.2	-0.9	0.6	4.2	-2.7	-3.3	-0.8
Computer and Electronic Products	20.1	20.0	20.0	19.9	19.9	19.9	19.8	19.7
% Ch, Annual Rate	-2.0	-1.4	-0.5	-0.8	-0.8	0.1	-2.0	-1.5
Machinery and Electrical Equipment	20.4	20.8	21.0	21.0	20.9	20.9	20.8	20.7
% Ch, Annual Rate	3.4	6.3	4.8	0.3	-1.5	-1.5	-1.2	-2.0
Aerospace	94.0	93.8	94.3	93.7	93.4	93.0	93.0	91.5
% Ch, Annual Rate	-3.2	-1.1	2.4	-2.5	-1.4	-1.5	-0.2	-6.3
Other Transportation Equip.	9.8	9.7	9.4	9.5	9.7	10.0	10.0	10.0
% Ch, Annual Rate	8.8	-6.7	-9.0	1.1	9.4	13.4	0.6	-0.5
Other Durables	26.1	26.2	26.3	26.5	27.0	27.0	27.2	26.9
% Ch, Annual Rate	1.3	2.1	1.5	2.3	7.8	1.2	3.0	-4.2
Nondurable Manufacturing	78.4	79.1	78.5	78.6	79.5	79.7	80.2	80.1
% Ch, Annual Rate	3.9	3.6	-3.0	0.2	4.9	1.0	2.5	-0.5
Food Manufacturing	36.0	36.7	36.4	36.6	36.5	36.9	37.0	36.5
% Ch, Annual Rate	2.7	7.1	-2.9	2.1	-0.8	4.8	0.5	-5.3
Paper and Paper Products	8.0	8.1	8.1	8.1	8.1	8.0	8.1	8.0
% Ch, Annual Rate	-3.5	4.3	-1.7	-1.5	3.2	-3.8	3.1	-3.5
Other Nondurables	34.4	34.3	34.0	33.9	34.9	34.7	35.1	35.6
% Ch, Annual Rate	7.0	-0.2	-3.4	-1.5	11.7	-1.8	4.4	5.5
Natural Resources and Mining	6.3	6.2	6.2	6.2	6.5	6.4	6.3	6.2
% Ch, Annual Rate	2.7	-8.7	2.7	3.5	16.4	-5.3	-4.4	-5.1
Construction	156.1	156.1	160.1	164.9	171.8	173.0	172.9	173.5
% Ch, Annual Rate	10.1	0.1	10.4	12.5	18.0	2.7	-0.1	1.4
Trade, Transportation, and Utilities	563.0	566.1	572.3	576.2	581.8	586.2	590.0	590.3
% Ch, Annual Rate	3.1	2.2	4.4	2.8	3.9	3.1	2.6	0.2
Wholesale Trade	129.0	129.0	131.7	132.1	132.6	133.5	133.6	133.5
% Ch, Annual Rate	2.8	0.2	8.6	1.0	1.6	2.7	0.4	-0.4
Retail Trade	337.9	339.8	342.2	345.0	349.4	353.6	356.2	357.2
% Ch, Annual Rate	3.1	2.3	2.9	3.3	5.3	4.9	2.9	1.2
Trans., Warehousing, and Utilities	96.1	97.3	98.4	99.2	99.7	99.1	100.2	99.6
% Ch, Annual Rate	3.4	4.9	4.5	3.3	2.2	-2.3	4.5	-2.6
Information	108.3	109.1	110.8	110.3	110.3	111.5	112.5	113.2
% Ch, Annual Rate	3.7	3.2	6.3	-1.8	0.0	4.4	3.6	2.6
Software Publishers	55.3	55.7	56.0	55.2	54.8	55.1	55.6	56.1
% Ch, Annual Rate	4.7	2.8	2.3	-5.5	-3.2	2.4	3.5	3.8
Other Publishing Industries	6.7	6.7	6.5	6.5	6.4	6.3	6.3	6.4
% Ch, Annual Rate	-5.5	-2.7	-9.6	-3.7	-4.4	-6.4	1.9	5.1
Other Information	46.2	46.7	48.3	48.6	49.1	50.1	50.6	50.7
% Ch, Annual Rate	4.0	4.5	13.6	2.9	4.5	8.1	4.0	0.9
Financial Activities	152.2	152.7	153.2	153.7	154.2	154.8	155.2	155.6
% Ch, Annual Rate	1.4	1.3	1.3	1.3	1.3	1.6	0.9	1.0
Professional and Business Services	366.6	368.4	375.6	380.8	384.5	389.3	392.8	396.1
% Ch, Annual Rate	2.4	2.0	8.0	5.6	3.9	5.2	3.6	3.3
Education and Health Services	449.9	451.2	455.6	456.3	455.2	457.6	460.6	465.6
% Ch, Annual Rate	4.0	1.2	4.0	0.6	-0.9	2.1	2.6	4.4
Leisure and Hospitality	295.3	295.5	297.3	299.8	303.3	306.2	309.2	311.6
% Ch, Annual Rate	5.6	0.2	2.4	3.4	4.8	3.8	4.1	3.1
Other Services	113.3	113.4	114.4	114.6	115.1	115.9	116.6	117.3
% Ch, Annual Rate	3.9	0.3	3.5	0.5	1.9	2.8	2.5	2.5
Federal Government	71.0	71.2	71.6	71.4	72.3	72.8	73.3	73.4
% Ch, Annual Rate	0.2	1.3	2.0	-0.9	4.8	3.3	2.7	0.2
State and Local Government	475.4	477.4	482.4	483.5	485.0	488.4	490.4	492.7
% Ch, Annual Rate	2.0	1.7	4.2	0.9	1.3	2.9	1.6	1.9

Table A2.4 (continued)

**Washington Nonagricultural Employment by Industry (Thousands)**

Forecast 2015 to 2019

	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2017:4
Nonfarm Payroll Employment	3,196.6	3,209.1	3,219.2	3,230.8	3,243.3	3,255.4	3,269.2	3,282.4
% Ch, Annual Rate	1.7	1.6	1.3	1.4	1.6	1.5	1.7	1.6
Manufacturing	286.9	286.6	286.5	287.8	288.2	288.3	288.6	289.0
% Ch, Annual Rate	-1.3	-0.5	0.0	1.8	0.5	0.1	0.4	0.6
Durable Manufacturing	206.6	205.9	205.8	206.7	206.9	206.9	207.1	207.4
% Ch, Annual Rate	-2.3	-1.2	-0.3	1.7	0.4	0.0	0.3	0.6
Wood Products	13.8	13.9	14.0	14.2	14.5	14.8	15.0	15.1
% Ch, Annual Rate	5.4	1.6	3.3	7.7	7.7	7.2	5.7	4.0
Primary and Fabricated Metals	24.5	24.3	24.1	24.3	24.3	24.3	24.4	24.6
% Ch, Annual Rate	-12.3	-3.3	-3.3	3.1	0.2	0.2	1.8	3.0
Computer and Electronic Products	20.0	20.3	20.8	21.3	21.6	21.8	22.0	22.1
% Ch, Annual Rate	5.9	6.2	9.1	10.5	6.7	4.0	2.3	1.8
Machinery and Electrical Equipment	20.6	20.5	20.6	20.9	21.1	21.3	21.4	21.7
% Ch, Annual Rate	-2.2	-1.7	2.5	6.5	3.4	2.8	3.3	5.6
Aerospace	90.9	90.4	89.8	89.2	88.7	88.1	87.5	87.0
% Ch, Annual Rate	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5
Other Transportation Equip.	9.7	9.6	9.5	9.6	9.5	9.3	9.2	9.2
% Ch, Annual Rate	-10.1	-6.4	-1.4	3.1	-5.5	-7.9	-2.4	-0.5
Other Durables	27.0	27.0	27.0	27.1	27.2	27.3	27.5	27.6
% Ch, Annual Rate	1.3	0.3	-0.3	1.2	1.5	1.9	2.1	2.3
Nondurable Manufacturing	80.3	80.6	80.7	81.1	81.3	81.4	81.5	81.6
% Ch, Annual Rate	1.3	1.4	0.5	2.1	0.7	0.4	0.8	0.5
Food Manufacturing	36.6	36.8	36.8	37.1	37.2	37.3	37.4	37.4
% Ch, Annual Rate	1.2	2.0	0.6	3.3	1.2	0.6	1.2	0.4
Paper and Paper Products	8.0	8.0	8.0	7.9	7.9	7.8	7.8	7.8
% Ch, Annual Rate	-0.5	-1.4	-2.0	-1.4	-2.2	-2.5	-1.7	-1.9
Other Nondurables	35.7	35.9	35.9	36.1	36.2	36.2	36.3	36.4
% Ch, Annual Rate	1.9	1.3	1.0	1.6	0.9	0.9	1.0	1.0
Natural Resources and Mining	6.3	6.2	6.2	6.3	6.3	6.4	6.4	6.5
% Ch, Annual Rate	0.9	-3.2	0.1	4.8	2.3	3.6	3.8	3.3
Construction	173.5	173.3	174.3	175.8	177.5	180.0	182.7	185.8
% Ch, Annual Rate	0.0	-0.4	2.4	3.5	3.9	5.7	6.2	6.9
Trade, Transportation, and Utilities	592.6	594.0	595.0	596.4	597.9	599.2	600.8	601.7
% Ch, Annual Rate	1.6	1.0	0.6	1.0	1.0	0.8	1.1	0.7
Wholesale Trade	133.5	133.9	134.2	134.7	135.3	135.9	136.5	137.1
% Ch, Annual Rate	0.2	1.2	0.9	1.5	1.8	1.7	1.8	1.7
Retail Trade	359.3	360.1	360.3	360.8	361.2	361.3	361.8	361.7
% Ch, Annual Rate	2.3	0.9	0.2	0.5	0.4	0.2	0.5	-0.1
Trans., Warehousing, and Utilities	99.7	100.0	100.4	100.9	101.4	102.0	102.5	103.0
% Ch, Annual Rate	0.6	0.9	1.8	2.0	2.1	2.0	2.1	1.8
Information	113.3	114.2	114.7	113.9	114.7	114.6	114.8	116.1
% Ch, Annual Rate	0.4	3.1	1.8	-2.8	3.1	-0.5	0.8	4.5
Software Publishers	56.0	55.9	55.9	55.7	55.8	55.9	56.1	56.3
% Ch, Annual Rate	-0.7	-0.6	-0.2	-1.0	0.6	0.9	1.2	1.1
Other Publishing Industries	6.5	6.4	6.2	5.9	5.8	5.7	5.6	5.5
% Ch, Annual Rate	3.8	-4.8	-11.7	-16.1	-8.7	-7.1	-5.5	-6.2
Other Information	50.9	51.9	52.6	52.2	53.1	53.0	53.1	54.3
% Ch, Annual Rate	1.3	8.3	5.7	-3.0	7.2	-1.3	1.2	9.5
Financial Activities	156.0	155.7	154.6	153.9	153.2	152.5	151.9	151.2
% Ch, Annual Rate	1.2	-0.7	-3.0	-1.8	-1.7	-1.9	-1.6	-1.8
Professional and Business Services	399.2	403.5	408.3	413.2	417.6	421.2	425.2	428.2
% Ch, Annual Rate	3.2	4.3	4.8	4.9	4.3	3.5	3.8	2.9
Education and Health Services	469.5	474.1	475.9	477.5	479.3	481.6	483.1	484.8
% Ch, Annual Rate	3.4	3.9	1.5	1.4	1.5	1.9	1.3	1.4
Leisure and Hospitality	313.9	314.8	316.0	316.7	317.5	318.5	320.0	321.1
% Ch, Annual Rate	3.0	1.2	1.5	0.9	1.0	1.4	1.9	1.4
Other Services	117.8	118.0	117.9	118.0	118.1	118.3	118.4	118.6
% Ch, Annual Rate	1.4	0.7	0.0	0.1	0.5	0.5	0.6	0.6
Federal Government	73.4	73.4	73.2	73.0	72.9	72.7	72.6	72.4
% Ch, Annual Rate	0.2	-0.2	-0.9	-1.1	-0.7	-0.7	-0.9	-1.0
State and Local Government	494.2	495.4	496.6	498.3	500.0	502.2	504.7	507.0
% Ch, Annual Rate	1.2	1.0	1.0	1.3	1.4	1.8	2.0	1.8

Table A2.4 (continued)

**Washington Nonagricultural Employment by Industry (Thousands)**

Forecast 2015 to 2019

	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4
Nonfarm Payroll Employment	3,296.3	3,306.3	3,316.9	3,327.2	3,338.4	3,348.5	3,358.3	3,368.3
% Ch, Annual Rate	1.7	1.2	1.3	1.3	1.4	1.2	1.2	1.2
Manufacturing	289.4	289.7	289.9	290.4	290.8	291.0	291.3	291.5
% Ch, Annual Rate	0.5	0.4	0.4	0.6	0.6	0.2	0.5	0.3
Durable Manufacturing	207.7	207.9	208.0	208.2	208.4	208.3	208.4	208.4
% Ch, Annual Rate	0.7	0.4	0.2	0.4	0.3	-0.2	0.1	-0.1
Wood Products	15.2	15.3	15.3	15.3	15.3	15.2	15.2	15.3
% Ch, Annual Rate	2.6	1.6	1.5	0.2	-1.6	-1.5	0.6	1.3
Primary and Fabricated Metals	24.8	24.9	24.9	25.1	25.3	25.3	25.4	25.5
% Ch, Annual Rate	3.0	1.4	1.1	2.0	3.2	0.9	1.5	0.9
Computer and Electronic Products	22.2	22.3	22.4	22.6	22.7	22.8	22.9	22.9
% Ch, Annual Rate	2.2	2.1	2.5	3.3	1.5	1.1	1.5	1.4
Machinery and Electrical Equipment	22.1	22.5	22.8	23.1	23.4	23.7	24.1	24.3
% Ch, Annual Rate	7.2	6.3	5.4	5.6	6.2	5.1	5.9	4.5
Aerospace	86.6	86.1	85.7	85.2	84.8	84.4	84.0	83.5
% Ch, Annual Rate	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Other Transportation Equip.	9.1	9.0	8.9	8.9	8.8	8.8	8.7	8.6
% Ch, Annual Rate	-6.1	-3.0	-2.7	-2.3	-2.3	-2.6	-3.3	-3.5
Other Durables	27.8	27.9	28.0	28.0	28.1	28.1	28.2	28.2
% Ch, Annual Rate	2.3	1.5	0.8	1.0	1.1	0.4	0.4	0.3
Nondurable Manufacturing	81.7	81.8	81.9	82.1	82.4	82.7	82.9	83.2
% Ch, Annual Rate	0.2	0.5	0.7	1.1	1.3	1.3	1.3	1.1
Food Manufacturing	37.4	37.4	37.5	37.6	37.7	37.8	37.9	38.0
% Ch, Annual Rate	-0.2	0.2	0.5	1.0	0.9	1.3	1.2	1.0
Paper and Paper Products	7.7	7.7	7.7	7.7	7.6	7.6	7.6	7.6
% Ch, Annual Rate	-2.1	-1.5	-1.1	-0.8	-0.6	-0.8	-0.7	-0.8
Other Nondurables	36.5	36.6	36.8	36.9	37.1	37.3	37.4	37.6
% Ch, Annual Rate	1.1	1.2	1.3	1.6	2.2	1.7	1.8	1.6
Natural Resources and Mining	6.5	6.6	6.6	6.7	6.7	6.7	6.7	6.7
% Ch, Annual Rate	3.1	2.9	3.1	1.1	0.3	1.7	1.4	0.9
Construction	188.6	189.3	190.6	191.9	193.4	194.8	196.3	197.7
% Ch, Annual Rate	6.2	1.6	2.8	2.7	3.1	3.1	3.0	2.9
Trade, Transportation, and Utilities	603.3	604.1	605.1	605.9	606.5	607.2	608.1	608.9
% Ch, Annual Rate	1.0	0.6	0.6	0.5	0.4	0.5	0.6	0.6
Wholesale Trade	137.8	138.3	138.7	139.2	139.8	140.3	140.7	141.2
% Ch, Annual Rate	2.1	1.3	1.4	1.4	1.7	1.4	1.3	1.3
Retail Trade	362.0	362.0	362.2	362.4	362.2	362.3	362.5	362.8
% Ch, Annual Rate	0.3	0.0	0.3	0.1	-0.2	0.1	0.3	0.3
Trans., Warehousing, and Utilities	103.4	103.9	104.1	104.3	104.5	104.6	104.8	104.9
% Ch, Annual Rate	1.9	1.7	0.8	0.8	0.7	0.6	0.5	0.5
Information	116.8	117.1	117.7	118.5	119.2	119.8	120.2	120.6
% Ch, Annual Rate	2.3	1.2	2.1	2.6	2.5	2.0	1.3	1.2
Software Publishers	56.4	56.6	56.8	57.0	57.1	57.3	57.5	57.6
% Ch, Annual Rate	1.1	1.2	1.3	1.4	1.3	1.2	1.2	1.1
Other Publishing Industries	5.4	5.3	5.3	5.2	5.1	5.1	5.0	4.9
% Ch, Annual Rate	-6.2	-5.9	-5.2	-4.8	-5.3	-6.1	-6.1	-6.5
Other Information	54.9	55.2	55.7	56.3	56.9	57.5	57.8	58.0
% Ch, Annual Rate	4.5	1.9	3.7	4.5	4.5	3.6	2.1	2.0
Financial Activities	150.9	150.1	149.2	148.5	148.2	148.2	148.2	148.2
% Ch, Annual Rate	-0.7	-2.2	-2.2	-1.9	-0.8	0.0	0.0	0.0
Professional and Business Services	431.3	434.2	437.1	439.1	441.5	443.6	445.9	448.5
% Ch, Annual Rate	2.9	2.8	2.6	1.8	2.2	1.9	2.1	2.3
Education and Health Services	487.3	489.0	490.7	492.9	496.0	498.1	499.8	502.0
% Ch, Annual Rate	2.1	1.4	1.4	1.8	2.5	1.7	1.4	1.7
Leisure and Hospitality	322.0	323.5	325.1	326.5	327.2	328.4	329.4	330.3
% Ch, Annual Rate	1.1	1.9	2.0	1.7	0.9	1.4	1.2	1.1
Other Services	118.9	119.2	119.4	119.7	120.0	120.2	120.4	120.7
% Ch, Annual Rate	1.0	0.8	0.9	0.9	0.9	0.8	0.8	0.8
Federal Government	72.2	72.1	72.0	71.8	71.7	71.6	71.5	71.4
% Ch, Annual Rate	-0.8	-0.8	-0.7	-0.8	-0.6	-0.7	-0.7	-0.6
State and Local Government	509.0	511.3	513.4	515.4	517.3	519.0	520.6	521.9
% Ch, Annual Rate	1.6	1.8	1.7	1.6	1.5	1.3	1.2	1.1

Table A3.1

**U.S. Personal Income by Component (Billions of Dollars)**

Forecast 2015 to 2019

	2012	2013	2014	2015	2016	2017	2018	2019
Personal Income	13,915.1	14,068.4	14,694.2	15,309.0	15,971.1	16,752.9	17,580.6	18,389.1
% Ch	5.0	1.1	4.4	4.2	4.3	4.9	4.9	4.6
Total Wage and Salary Disbursements	6,930.3	7,114.4	7,477.8	7,777.1	8,116.3	8,489.6	8,863.4	9,234.4
% Ch	4.5	2.7	5.1	4.0	4.4	4.6	4.4	4.2
Nonwage Personal Income	6,984.9	6,954.0	7,216.5	7,531.9	7,854.7	8,263.3	8,717.2	9,154.7
% Ch	5.5	-0.4	3.8	4.4	4.3	5.2	5.5	5.0
Supplements to Wages and Salaries	1,679.6	1,725.3	1,771.2	1,827.9	1,897.5	1,980.1	2,055.9	2,130.6
% Ch	2.7	2.7	2.7	3.2	3.8	4.3	3.8	3.6
Proprietor's Income	1,241.4	1,285.1	1,346.7	1,389.8	1,464.4	1,538.7	1,600.1	1,654.0
% Ch	8.5	3.5	4.8	3.2	5.4	5.1	4.0	3.4
Farm	61.6	88.8	78.1	61.8	59.7	60.7	62.5	63.1
% Ch	...	...	...	...	...	...	...	...
Nonfarm	1,179.8	1,196.3	1,268.5	1,328.1	1,404.6	1,478.1	1,537.5	1,591.0
% Ch	10.5	1.4	6.0	4.7	5.8	5.2	4.0	3.5
Less: Contribution For Govt. Soc. Ins.	951.6	1,106.8	1,159.0	1,196.1	1,247.3	1,307.2	1,370.1	1,439.9
% Ch	3.7	16.3	4.7	3.2	4.3	4.8	4.8	5.1
Dividends/Int./Rent	2,649.1	2,623.8	2,728.4	2,845.3	2,953.1	3,131.1	3,375.9	3,605.3
% Ch	10.4	-1.0	4.0	4.3	3.8	6.0	7.8	6.8
Transfer Payments	2,366.4	2,426.7	2,529.2	2,664.9	2,787.0	2,920.5	3,055.4	3,204.7
% Ch	0.2	2.5	4.2	5.4	4.6	4.8	4.6	4.9

Table A3.2

**U.S. Personal Income by Component (Billions of Dollars)**

Forecast 2015 to 2019

	2014:1	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4
Personal Income	14,433.5	14,612.8	14,774.8	14,955.7	15,079.8	15,219.4	15,391.0	15,545.8
% Ch, Annual Rate	6.1	5.1	4.5	5.0	3.4	3.8	4.6	4.1
Total Wage and Salary Disbursements	7,350.0	7,414.5	7,513.9	7,632.6	7,682.4	7,730.2	7,814.2	7,881.8
% Ch, Annual Rate	7.2	3.6	5.5	6.5	2.6	2.5	4.4	3.5
Nonwage Personal Income	7,083.5	7,198.3	7,260.9	7,323.1	7,397.4	7,489.2	7,576.8	7,664.0
% Ch, Annual Rate	5.0	6.6	3.5	3.5	4.1	5.1	4.8	4.7
Supplements to Wages and Salaries	1,753.6	1,762.7	1,776.0	1,792.3	1,805.5	1,818.9	1,835.9	1,851.3
% Ch, Annual Rate	2.7	2.1	3.0	3.7	3.0	3.0	3.8	3.4
Proprietor's Income	1,304.7	1,346.3	1,357.8	1,377.8	1,369.4	1,377.0	1,400.9	1,412.0
% Ch, Annual Rate	6.5	13.4	3.5	6.0	-2.4	2.2	7.1	3.2
Farm	71.7	88.8	77.2	74.8	60.5	56.9	64.8	64.9
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	1,233.0	1,257.5	1,280.6	1,303.0	1,308.9	1,320.1	1,336.1	1,347.2
% Ch, Annual Rate	8.8	8.2	7.6	7.2	1.8	3.5	4.9	3.4
Less: Contribution For Govt. Soc. Ins.	1,144.5	1,151.2	1,162.9	1,177.2	1,185.8	1,190.6	1,200.3	1,207.6
% Ch, Annual Rate	8.3	2.4	4.1	5.0	3.0	1.6	3.3	2.5
Dividends/Int./Rent	2,693.7	2,727.4	2,733.3	2,759.0	2,782.6	2,832.4	2,864.7	2,901.5
% Ch, Annual Rate	7.4	5.1	0.9	3.8	3.5	7.4	4.6	5.2
Transfer Payments	2,476.0	2,513.1	2,556.5	2,571.0	2,625.8	2,651.3	2,675.6	2,706.8
% Ch, Annual Rate	4.9	6.1	7.1	2.3	8.8	3.9	3.7	4.8

Table A3.2 (continued)

**U.S. Personal Income by Component (Billions of Dollars)**

Forecast 2015 to 2019

	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2017:4
Personal Income	15,718.3	15,876.9	16,055.5	16,233.6	16,450.7	16,654.9	16,853.5	17,052.4
% Ch, Annual Rate	4.5	4.1	4.6	4.5	5.5	5.1	4.9	4.8
Total Wage and Salary Disbursements	7,977.5	8,069.1	8,162.5	8,256.3	8,350.7	8,444.1	8,537.2	8,626.4
% Ch, Annual Rate	4.9	4.7	4.7	4.7	4.7	4.6	4.5	4.2
Nonwage Personal Income	7,740.8	7,807.8	7,893.0	7,977.3	8,100.0	8,210.8	8,316.3	8,426.0
% Ch, Annual Rate	4.1	3.5	4.4	4.3	6.3	5.6	5.2	5.4
Supplements to Wages and Salaries	1,868.9	1,885.0	1,907.5	1,928.7	1,951.4	1,971.1	1,989.5	2,008.3
% Ch, Annual Rate	3.9	3.5	4.9	4.5	4.8	4.1	3.8	3.8
Proprietor's Income	1,431.7	1,459.2	1,473.7	1,492.9	1,512.4	1,533.1	1,547.1	1,562.4
% Ch, Annual Rate	5.7	7.9	4.0	5.3	5.3	5.6	3.7	4.0
Farm	61.0	59.8	59.3	58.9	59.9	59.2	60.6	63.1
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	1,370.7	1,399.4	1,414.4	1,434.0	1,452.5	1,473.9	1,486.5	1,499.3
% Ch, Annual Rate	7.2	8.6	4.4	5.7	5.3	6.0	3.5	3.5
Less: Contribution For Govt. Soc. Ins.	1,226.0	1,240.0	1,254.4	1,268.8	1,287.5	1,301.9	1,313.4	1,325.9
% Ch, Annual Rate	6.2	4.7	4.7	4.7	6.0	4.6	3.6	3.9
Dividends/Int./Rent	2,924.6	2,928.9	2,963.2	2,995.9	3,043.1	3,100.5	3,159.6	3,221.1
% Ch, Annual Rate	3.2	0.6	4.8	4.5	6.5	7.8	7.8	8.0
Transfer Payments	2,741.5	2,774.7	2,803.0	2,828.6	2,880.6	2,908.0	2,933.6	2,960.0
% Ch, Annual Rate	5.2	4.9	4.1	3.7	7.5	3.9	3.6	3.7

Table A3.2 (continued)

**U.S. Personal Income by Component (Billions of Dollars)**

Forecast 2015 to 2019

	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4
Personal Income	17,282.0	17,481.7	17,680.1	17,878.8	18,108.5	18,299.5	18,482.3	18,666.1
% Ch, Annual Rate	5.5	4.7	4.6	4.6	5.2	4.3	4.1	4.0
Total Wage and Salary Disbursements	8,723.3	8,817.2	8,910.9	9,002.3	9,098.9	9,189.4	9,279.7	9,369.6
% Ch, Annual Rate	4.6	4.4	4.3	4.2	4.4	4.0	4.0	3.9
Nonwage Personal Income	8,558.7	8,664.5	8,769.3	8,876.5	9,009.7	9,110.1	9,202.6	9,296.5
% Ch, Annual Rate	6.5	5.0	4.9	5.0	6.1	4.5	4.1	4.1
Supplements to Wages and Salaries	2,031.9	2,048.2	2,063.5	2,080.1	2,107.3	2,122.7	2,137.9	2,154.5
% Ch, Annual Rate	4.8	3.3	3.0	3.2	5.3	3.0	2.9	3.1
Proprietor's Income	1,577.7	1,594.8	1,607.1	1,620.8	1,634.5	1,648.2	1,659.9	1,673.6
% Ch, Annual Rate	4.0	4.4	3.1	3.5	3.4	3.4	2.9	3.4
Farm	63.1	62.1	61.8	63.2	63.7	63.3	62.7	62.6
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	1,514.6	1,532.7	1,545.3	1,557.6	1,570.8	1,584.9	1,597.1	1,611.1
% Ch, Annual Rate	4.1	4.9	3.3	3.2	3.4	3.6	3.1	3.5
Less: Contribution For Govt. Soc. Ins.	1,352.1	1,364.1	1,375.6	1,388.5	1,422.7	1,434.1	1,445.1	1,457.7
% Ch, Annual Rate	8.1	3.6	3.4	3.8	10.2	3.3	3.1	3.6
Dividends/Int./Rent	3,281.4	3,343.0	3,407.5	3,471.6	3,530.5	3,584.0	3,630.5	3,676.3
% Ch, Annual Rate	7.7	7.7	7.9	7.7	7.0	6.2	5.3	5.1
Transfer Payments	3,019.9	3,042.6	3,066.7	3,092.5	3,160.1	3,189.3	3,219.4	3,249.9
% Ch, Annual Rate	8.3	3.0	3.2	3.4	9.0	3.7	3.8	3.8

Table A3.3

**Washington Personal Income by Component (Billions of Dollars)**

Forecast 2015 to 2019

	2012	2013	2014	2015	2016	2017	2018	2019
Personal Income	326.497	331.031	350.322	369.127	386.778	407.369	429.596	451.553
% Ch	6.8	1.4	5.8	5.4	4.8	5.3	5.5	5.1
Total Wage and Salary Disbursements	164.188	170.598	181.978	191.650	200.613	210.449	220.540	230.658
% Ch	5.9	3.9	6.7	5.3	4.7	4.9	4.8	4.6
Manufacturing	19.576	20.555	21.781	21.799	21.980	22.745	23.523	24.337
% Ch	6.3	5.0	6.0	0.1	0.8	3.5	3.4	3.5
Durable Manufacturing	15.715	16.597	17.664	17.640	17.678	18.251	18.850	19.448
% Ch	7.5	5.6	6.4	-0.1	0.2	3.2	3.3	3.2
Nondurable Manufacturing	3.861	3.958	4.117	4.159	4.302	4.495	4.672	4.889
% Ch	1.9	2.5	4.0	1.0	3.4	4.5	4.0	4.6
Nonmanufacturing	137.636	143.077	153.326	162.894	171.460	180.278	189.316	198.340
% Ch	5.7	4.0	7.2	6.2	5.3	5.1	5.0	4.8
Other Private Wages	1.061	1.082	1.116	1.246	1.303	1.345	1.388	1.430
% Ch	9.7	1.9	3.2	11.7	4.5	3.3	3.2	3.0
Farm Wages	1.521	1.574	1.624	1.676	1.741	1.827	1.915	2.003
% Ch	32.2	3.5	3.1	3.2	3.9	4.9	4.8	4.6
Military Wages	4.394	4.310	4.131	4.035	4.129	4.253	4.397	4.548
% Ch	2.6	-1.9	-4.1	-2.3	2.3	3.0	3.4	3.4
Nonwage Personal Income	162.309	160.433	168.343	177.477	186.165	196.920	209.056	220.896
% Ch	7.7	-1.2	4.9	5.4	4.9	5.8	6.2	5.7
Supplements to Wages and Salaries	40.183	40.611	41.754	43.297	45.074	47.190	49.216	51.235
% Ch	3.9	1.1	2.8	3.7	4.1	4.7	4.3	4.1
Proprietor's Income	24.253	25.103	25.979	27.358	29.078	30.663	31.943	33.071
% Ch	7.8	3.5	3.5	5.3	6.3	5.4	4.2	3.5
Farm	1.631	1.620	1.253	0.814	0.937	1.024	1.077	1.100
% Ch	...	...	...	...	...	...	...	...
Nonfarm	22.622	23.483	24.726	26.544	28.141	29.638	30.866	31.971
% Ch	9.7	3.8	5.3	7.4	6.0	5.3	4.1	3.6
Less: Contribution For Govt. Soc. Ins.	24.781	28.972	30.320	31.398	32.814	34.462	36.210	38.127
% Ch	3.4	16.9	4.7	3.6	4.5	5.0	5.1	5.3
Plus: Residence Adjustment	3.379	3.391	3.353	3.544	3.728	3.922	4.113	4.304
% Ch	1.4	0.4	-1.1	5.7	5.2	5.2	4.9	4.6
Dividends/Int./Rent	69.148	69.348	72.149	75.356	78.740	83.920	90.932	97.607
% Ch	15.1	0.3	4.0	4.4	4.5	6.6	8.4	7.3
Transfer Payments	50.127	50.953	55.427	59.320	62.358	65.687	69.063	72.806
% Ch	0.3	1.6	8.8	7.0	5.1	5.3	5.1	5.4
State U.I. Benefits	2.379	1.724	1.062	0.988	0.943	0.917	0.918	0.979
% Ch	-23.1	-27.5	-38.4	-7.0	-4.6	-2.7	0.1	6.7
Other Transfers	47.748	49.229	54.365	58.333	61.416	64.770	68.145	71.827
% Ch	1.8	3.1	10.4	7.3	5.3	5.5	5.2	5.4

Table A3.4

**Washington Personal Income by Component (Billions of Dollars)**

Forecast 2015 to 2019

	2014:1	2014:2	2014:3	2014:4	2015:1	2015:2	2015:3	2015:4
Personal Income	342.898	348.285	351.825	358.280	361.685	369.052	371.023	374.748
% Ch, Annual Rate	10.4	6.4	4.1	7.5	3.9	8.4	2.2	4.1
Total Wage and Salary Disbursements	178.038	180.324	182.712	186.840	187.993	192.630	192.325	193.652
% Ch, Annual Rate	10.9	5.2	5.4	9.3	2.5	10.2	-0.6	2.8
Manufacturing	22.086	21.614	21.280	22.143	21.983	21.828	21.723	21.661
% Ch, Annual Rate	31.1	-8.3	-6.0	17.2	-2.9	-2.8	-1.9	-1.1
Durable Manufacturing	17.996	17.497	17.166	17.997	17.847	17.672	17.561	17.480
% Ch, Annual Rate	34.7	-10.6	-7.3	20.8	-3.3	-3.9	-2.5	-1.8
Nondurable Manufacturing	4.090	4.117	4.114	4.146	4.136	4.156	4.162	4.181
% Ch, Annual Rate	16.3	2.7	-0.3	3.1	-1.0	2.0	0.6	1.8
Nonmanufacturing	149.053	151.802	154.542	157.909	159.168	163.831	163.602	164.977
% Ch, Annual Rate	8.7	7.6	7.4	9.0	3.2	12.2	-0.6	3.4
Other Private Wages	1.079	1.116	1.149	1.121	1.163	1.272	1.272	1.278
% Ch, Annual Rate	15.0	14.4	12.5	-9.2	15.8	43.1	-0.2	2.0
Farm Wages	1.582	1.618	1.641	1.653	1.662	1.673	1.677	1.692
% Ch, Annual Rate	-3.9	9.3	5.9	2.9	2.2	2.7	0.9	3.5
Military Wages	4.238	4.174	4.100	4.014	4.017	4.025	4.051	4.045
% Ch, Annual Rate	-0.4	-5.9	-7.0	-8.1	0.3	0.9	2.6	-0.6
Nonwage Personal Income	164.860	167.961	169.113	171.440	173.691	176.422	178.699	181.096
% Ch, Annual Rate	9.8	7.7	2.8	5.6	5.4	6.4	5.3	5.5
Supplements to Wages and Salaries	41.322	41.536	41.776	42.381	42.511	43.126	43.588	43.963
% Ch, Annual Rate	5.7	2.1	2.3	5.9	1.2	5.9	4.4	3.5
Proprietor's Income	25.158	26.124	26.106	26.530	26.869	27.109	27.573	27.882
% Ch, Annual Rate	4.1	16.3	-0.3	6.7	5.2	3.6	7.0	4.6
Farm	1.175	1.674	1.155	1.008	0.797	0.734	0.840	0.887
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	23.983	24.450	24.951	25.522	26.072	26.375	26.733	26.995
% Ch, Annual Rate	5.5	8.0	8.5	9.5	8.9	4.7	5.6	4.0
Less: Contribution For Govt. Soc. Ins.	29.991	30.125	30.326	30.837	30.926	31.289	31.589	31.788
% Ch, Annual Rate	9.1	1.8	2.7	6.9	1.2	4.8	3.9	2.5
Plus: Residence Adjustment	3.295	3.325	3.379	3.414	3.496	3.510	3.567	3.603
% Ch, Annual Rate	-16.9	3.7	6.8	4.1	10.0	1.6	6.6	4.1
Dividends/Int./Rent	71.598	72.254	72.035	72.711	73.310	75.030	75.996	77.087
% Ch, Annual Rate	8.8	3.7	-1.2	3.8	3.3	9.7	5.3	5.9
Transfer Payments	53.479	54.848	56.142	57.241	58.431	58.937	59.564	60.349
% Ch, Annual Rate	19.4	10.6	9.8	8.1	8.6	3.5	4.3	5.4
State U.I. Benefits	1.184	1.087	1.011	0.966	1.048	0.983	0.960	0.960
% Ch, Annual Rate	-58.6	-28.9	-25.1	-16.6	38.2	-22.5	-9.2	0.0
Other Transfers	52.295	53.761	55.131	56.275	57.383	57.954	58.604	59.389
% Ch, Annual Rate	22.7	11.7	10.6	8.6	8.1	4.0	4.6	5.5

Table A3.4 (continued)

**Washington Personal Income by Component (Billions of Dollars)**

Forecast 2015 to 2019

	2016:1	2016:2	2016:3	2016:4	2017:1	2017:2	2017:3	2017:4
Personal Income	381.226	384.738	388.829	392.320	400.435	405.337	409.430	414.277
% Ch, Annual Rate	7.1	3.7	4.3	3.6	8.5	5.0	4.1	4.8
Total Wage and Salary Disbursements	198.060	199.837	201.649	202.905	207.871	209.824	211.090	213.013
% Ch, Annual Rate	9.4	3.6	3.7	2.5	10.2	3.8	2.4	3.7
Manufacturing	21.737	21.858	22.036	22.290	22.471	22.653	22.834	23.024
% Ch, Annual Rate	1.4	2.2	3.3	4.7	3.3	3.3	3.2	3.4
Durable Manufacturing	17.509	17.582	17.715	17.907	18.044	18.181	18.315	18.463
% Ch, Annual Rate	0.7	1.7	3.0	4.4	3.1	3.1	3.0	3.3
Nondurable Manufacturing	4.227	4.276	4.322	4.383	4.427	4.472	4.518	4.561
% Ch, Annual Rate	4.5	4.7	4.4	5.8	4.1	4.1	4.2	3.8
Nonmanufacturing	169.198	170.821	172.418	173.402	178.036	179.765	180.805	182.507
% Ch, Annual Rate	10.6	3.9	3.8	2.3	11.1	3.9	2.3	3.8
Other Private Wages	1.288	1.297	1.308	1.318	1.330	1.340	1.351	1.362
% Ch, Annual Rate	3.0	3.1	3.3	3.2	3.5	3.2	3.2	3.2
Farm Wages	1.711	1.731	1.752	1.772	1.795	1.816	1.838	1.860
% Ch, Annual Rate	4.6	4.7	4.9	4.8	5.2	4.9	4.8	4.9
Military Wages	4.127	4.130	4.135	4.124	4.239	4.250	4.263	4.261
% Ch, Annual Rate	8.3	0.3	0.5	-1.1	11.6	1.1	1.2	-0.2
Nonwage Personal Income	183.167	184.901	187.180	189.415	192.564	195.513	198.340	201.264
% Ch, Annual Rate	4.7	3.8	5.0	4.9	6.8	6.3	5.9	6.0
Supplements to Wages and Salaries	44.373	44.767	45.321	45.837	46.446	46.953	47.424	47.938
% Ch, Annual Rate	3.8	3.6	5.0	4.6	5.4	4.4	4.1	4.4
Proprietor's Income	28.361	28.963	29.287	29.703	30.107	30.560	30.842	31.141
% Ch, Annual Rate	7.1	8.8	4.5	5.8	5.6	6.2	3.7	3.9
Farm	0.901	0.926	0.951	0.972	0.997	1.009	1.032	1.059
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	27.460	28.037	28.336	28.731	29.110	29.550	29.810	30.082
% Ch, Annual Rate	7.1	8.7	4.3	5.7	5.4	6.2	3.6	3.7
Less: Contribution For Govt. Soc. Ins.	32.248	32.616	33.005	33.387	33.913	34.309	34.628	34.996
% Ch, Annual Rate	5.9	4.6	4.9	4.7	6.5	4.8	3.8	4.3
Plus: Residence Adjustment	3.655	3.703	3.752	3.802	3.850	3.898	3.946	3.991
% Ch, Annual Rate	5.9	5.4	5.4	5.4	5.2	5.1	5.0	4.6
Dividends/Int./Rent	77.815	78.042	79.063	80.041	81.409	83.047	84.735	86.491
% Ch, Annual Rate	3.8	1.2	5.3	5.0	7.0	8.3	8.4	8.5
Transfer Payments	61.211	62.042	62.762	63.419	64.665	65.364	66.020	66.698
% Ch, Annual Rate	5.8	5.5	4.7	4.3	8.1	4.4	4.1	4.2
State U.I. Benefits	0.950	0.941	0.939	0.941	0.929	0.914	0.909	0.917
% Ch, Annual Rate	-4.1	-3.7	-0.8	0.8	-5.0	-6.4	-1.9	3.3
Other Transfers	60.261	61.101	61.823	62.478	63.737	64.450	65.111	65.781
% Ch, Annual Rate	6.0	5.7	4.8	4.3	8.3	4.6	4.2	4.2

Table A3.4 (continued)

**Washington Personal Income by Component (Billions of Dollars)**

Forecast 2015 to 2019

	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4
Personal Income	422.869	427.681	431.333	436.501	445.066	449.985	452.924	458.239
% Ch, Annual Rate	8.6	4.6	3.5	4.9	8.1	4.5	2.6	4.8
Total Wage and Salary Disbursements	218.129	220.073	220.849	223.108	228.179	230.330	230.699	233.423
% Ch, Annual Rate	10.0	3.6	1.4	4.2	9.4	3.8	0.6	4.8
Manufacturing	23.222	23.421	23.619	23.829	24.038	24.233	24.441	24.636
% Ch, Annual Rate	3.5	3.5	3.4	3.6	3.5	3.3	3.5	3.2
Durable Manufacturing	18.621	18.775	18.925	19.081	19.234	19.373	19.524	19.664
% Ch, Annual Rate	3.5	3.4	3.2	3.4	3.2	2.9	3.2	2.9
Nondurable Manufacturing	4.601	4.646	4.695	4.748	4.804	4.861	4.918	4.973
% Ch, Annual Rate	3.6	4.0	4.2	4.6	4.8	4.8	4.8	4.5
Nonmanufacturing	187.270	188.970	189.502	191.522	196.228	198.135	198.248	200.747
% Ch, Annual Rate	10.9	3.7	1.1	4.3	10.2	3.9	0.2	5.1
Other Private Wages	1.374	1.383	1.393	1.403	1.415	1.425	1.435	1.445
% Ch, Annual Rate	3.6	2.9	2.9	2.8	3.3	2.9	2.9	2.8
Farm Wages	1.884	1.905	1.926	1.947	1.971	1.993	2.014	2.036
% Ch, Annual Rate	5.3	4.5	4.5	4.4	5.0	4.5	4.4	4.3
Military Wages	4.380	4.394	4.409	4.407	4.529	4.544	4.560	4.559
% Ch, Annual Rate	11.6	1.3	1.4	-0.2	11.5	1.3	1.4	-0.1
Nonwage Personal Income	204.740	207.608	210.484	213.394	216.887	219.655	222.225	224.816
% Ch, Annual Rate	7.1	5.7	5.7	5.6	6.7	5.2	4.8	4.7
Supplements to Wages and Salaries	48.614	49.013	49.405	49.831	50.600	51.024	51.436	51.878
% Ch, Annual Rate	5.8	3.3	3.2	3.5	6.3	3.4	3.3	3.5
Proprietor's Income	31.471	31.837	32.098	32.366	32.648	32.945	33.200	33.491
% Ch, Annual Rate	4.3	4.7	3.3	3.4	3.5	3.7	3.1	3.6
Farm	1.069	1.071	1.076	1.091	1.098	1.100	1.100	1.102
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	30.402	30.766	31.022	31.275	31.549	31.845	32.100	32.390
% Ch, Annual Rate	4.3	4.9	3.4	3.3	3.6	3.8	3.2	3.7
Less: Contribution For Govt. Soc. Ins.	35.735	36.048	36.356	36.703	37.643	37.968	38.274	38.622
% Ch, Annual Rate	8.7	3.5	3.5	3.9	10.7	3.5	3.3	3.7
Plus: Residence Adjustment	4.040	4.090	4.138	4.186	4.235	4.281	4.327	4.372
% Ch, Annual Rate	5.0	5.0	4.9	4.7	4.7	4.4	4.4	4.3
Dividends/Int./Rent	88.219	89.988	91.838	93.682	95.394	96.965	98.349	99.720
% Ch, Annual Rate	8.2	8.3	8.5	8.3	7.5	6.8	5.8	5.7
Transfer Payments	68.131	68.729	69.360	70.032	71.653	72.408	73.187	73.976
% Ch, Annual Rate	8.9	3.6	3.7	3.9	9.6	4.3	4.4	4.4
State U.I. Benefits	0.909	0.912	0.917	0.934	0.950	0.970	0.990	1.007
% Ch, Annual Rate	-3.6	1.6	2.1	7.6	7.1	8.7	8.4	7.1
Other Transfers	67.222	67.817	68.443	69.098	70.703	71.438	72.198	72.969
% Ch, Annual Rate	9.1	3.6	3.7	3.9	9.6	4.2	4.3	4.3

Table A4.1  
**Selected Inflation Indicators**  
(Deflator 2009=1; CPI 1982-84=1)

	Price Deflator*		U.S. CPI#		Seattle CPI+	
	Index	Percent Change	Index	Percent Change	Index	Percent Change
1971	0.233	4.2	0.405	4.2	0.382	2.1
1972	0.241	3.4	0.418	3.3	0.393	2.9
1973	0.254	5.4	0.444	6.3	0.418	6.4
1974	0.280	10.4	0.493	11.0	0.464	11.0
1975	0.303	8.3	0.538	9.1	0.511	10.2
1976	0.320	5.5	0.569	5.8	0.540	5.5
1977	0.341	6.5	0.606	6.5	0.583	8.0
1978	0.365	7.0	0.652	7.6	0.640	9.9
1979	0.397	8.9	0.726	11.3	0.709	10.8
1980	0.440	10.7	0.824	13.5	0.827	16.7
1981	0.478	8.8	0.909	10.4	0.916	10.8
1982	0.505	5.5	0.965	6.2	0.978	6.7
1983	0.526	4.3	0.996	3.2	0.993	1.5
1984	0.546	3.8	1.039	4.4	1.030	3.8
1985	0.566	3.5	1.076	3.5	1.056	2.5
1986	0.578	2.2	1.097	1.9	1.066	1.0
1987	0.596	3.2	1.136	3.6	1.092	2.4
1988	0.620	3.9	1.183	4.1	1.128	3.3
1989	0.646	4.3	1.239	4.8	1.181	4.7
1990	0.674	4.3	1.307	5.4	1.268	7.3
1991	0.696	3.3	1.362	4.2	1.341	5.8
1992	0.715	2.6	1.403	3.0	1.390	3.7
1993	0.733	2.5	1.445	3.0	1.429	2.8
1994	0.748	2.1	1.482	2.6	1.478	3.4
1995	0.764	2.1	1.524	2.8	1.522	3.0
1996	0.780	2.1	1.569	2.9	1.575	3.4
1997	0.793	1.7	1.605	2.3	1.630	3.5
1998	0.799	0.8	1.630	1.5	1.677	2.9
1999	0.811	1.5	1.666	2.2	1.728	3.0
2000	0.831	2.5	1.722	3.4	1.792	3.7
2001	0.847	1.9	1.770	2.8	1.857	3.6
2002	0.859	1.3	1.799	1.6	1.893	2.0
2003	0.876	2.0	1.840	2.3	1.924	1.6
2004	0.897	2.4	1.889	2.7	1.947	1.2
2005	0.923	2.9	1.953	3.4	2.002	2.8
2006	0.947	2.7	2.016	3.2	2.076	3.7
2007	0.971	2.5	2.073	2.9	2.157	3.9
2008	1.001	3.1	2.153	3.8	2.247	4.2
2009	1.000	-0.1	2.146	-0.3	2.260	0.6
2010	1.016	1.7	2.181	1.6	2.267	0.3
2011	1.041	2.5	2.249	3.1	2.328	2.7
2012	1.061	1.9	2.296	2.1	2.387	2.5
2013	1.076	1.4	2.330	1.5	2.416	1.2
2014	1.091	1.4	2.367	1.6	2.460	1.8
Forecast						
2015	1.095	0.3	2.370	0.1	2.494	1.4
2016	1.110	1.4	2.407	1.5	2.547	2.1
2017	1.131	1.9	2.465	2.4	2.609	2.4
2018	1.152	1.8	2.520	2.2	2.669	2.3
2019	1.171	1.7	2.571	2.0	2.725	2.1

\* Chain-Weight Implicit Price Deflator for Personal Consumption Expenditures

# Consumer Price Index for all Urban Consumers

+ Consumer Price Index for the Seattle-Tacoma-Bremerton, WA CMSA

Consumer Price Index and Implicit Price Deflator values shown here are annual averages of seasonally adjusted quarterly data and may differ slightly from the annual values published by the Bureau of Labor Statistics and Bureau of Economic Analysis.

Table A4.2  
**Chain-Weighted Price Indices**  
 (2009=100)

	Services		Food		Fuels		Gasoline	
	Index	Percent Change	Index	Percent Change	Index	Percent Change	Index	Percent Change
1971	17.9	5.5	22.8	2.3	7.4	6.4	14.0	0.7
1972	18.7	4.2	23.9	4.8	7.5	0.6	14.2	1.3
1973	19.6	4.8	26.9	12.7	8.6	14.6	15.5	9.6
1974	21.3	8.5	31.0	15.2	13.6	58.9	21.0	35.1
1975	23.1	8.6	33.3	7.5	14.8	8.5	22.4	6.7
1976	24.7	6.9	34.0	1.9	15.9	7.3	23.3	4.2
1977	26.6	7.5	36.0	5.9	17.9	13.2	24.7	5.8
1978	28.6	7.8	39.4	9.6	19.0	5.7	25.8	4.3
1979	31.0	8.4	43.3	9.8	26.2	37.9	34.5	34.0
1980	34.2	10.3	46.9	8.4	36.7	40.4	47.9	38.8
1981	37.7	10.2	50.3	7.1	44.9	22.3	53.3	11.3
1982	40.6	7.8	51.6	2.6	44.1	-1.9	50.6	-5.1
1983	43.2	6.2	52.2	1.1	40.6	-7.8	48.9	-3.3
1984	45.4	5.2	53.7	3.0	41.5	2.2	48.2	-1.5
1985	47.7	5.0	54.3	1.1	39.9	-3.9	48.6	0.8
1986	49.6	4.1	55.6	2.4	31.2	-21.7	38.2	-21.5
1987	51.1	2.9	57.4	3.2	32.1	2.6	39.6	3.8
1988	53.5	4.8	59.1	3.0	32.0	0.0	40.0	0.8
1989	56.0	4.6	62.2	5.3	34.0	6.0	43.7	9.2
1990	58.5	4.5	65.2	4.9	40.9	20.4	49.7	13.8
1991	60.7	3.8	67.3	3.1	38.9	-4.8	49.1	-1.3
1992	62.8	3.5	67.8	0.8	37.3	-4.1	48.9	-0.4
1993	65.0	3.5	68.7	1.4	37.1	-0.7	48.4	-1.0
1994	66.8	2.7	69.9	1.7	36.4	-1.8	48.6	0.5
1995	68.6	2.7	71.4	2.2	36.1	-0.9	49.4	1.6
1996	70.5	2.7	73.6	3.1	40.9	13.3	52.4	6.1
1997	72.4	2.8	75.0	1.9	41.0	0.2	52.4	0.0
1998	73.9	2.1	75.9	1.3	36.3	-11.4	45.6	-12.9
1999	75.4	2.0	77.2	1.6	36.9	1.7	49.6	8.9
2000	77.5	2.8	79.0	2.3	54.1	46.6	63.4	27.8
2001	79.9	3.1	81.3	2.9	53.1	-2.0	61.2	-3.6
2002	82.0	2.6	82.5	1.5	47.3	-10.8	57.5	-6.0
2003	84.5	3.1	84.1	1.9	57.2	20.9	67.0	16.5
2004	87.1	3.0	86.7	3.1	66.6	16.4	78.8	17.6
2005	89.9	3.3	88.2	1.7	88.6	33.0	95.8	21.6
2006	93.0	3.4	89.7	1.7	100.7	13.7	108.0	12.8
2007	96.0	3.2	93.2	3.9	107.7	6.9	117.1	8.4
2008	98.9	3.1	98.9	6.1	146.0	35.6	136.6	16.6
2009	100.0	1.1	100.0	1.2	100.0	-31.5	100.0	-26.8
2010	101.7	1.7	100.3	0.3	117.0	17.0	118.2	18.2
2011	103.5	1.8	104.3	4.0	148.8	27.2	149.3	26.3
2012	105.8	2.2	106.7	2.3	150.7	1.3	154.7	3.6
2013	108.3	2.3	107.8	1.0	149.0	-1.2	150.4	-2.7
2014	110.8	2.3	109.8	1.9	148.9	-0.1	144.7	-3.8

Forecast

2015	112.9	1.9	111.1	1.2	107.3	-27.9	107.6	-25.6
2016	115.2	2.1	113.1	1.8	100.7	-6.1	102.2	-5.0
2017	118.0	2.4	115.7	2.3	106.2	5.4	109.7	7.3
2018	120.8	2.4	117.7	1.8	110.4	3.9	112.9	3.0
2019	123.7	2.3	119.4	1.4	114.1	3.4	115.0	1.9

Table A5.1

**Washington Resident Population and Components of Change\***  
(Thousands)

	<u>Population</u>	<u>Change</u>	<u>Percent Change</u>	<u>Births</u>	<u>Deaths</u>	<u>Net Migration</u>
1970	3413.2	16.2	0.5	59.9	30.0	-13.7
1971	3436.3	23.1	0.7	60.0	29.8	-7.1
1972	3430.3	-6.0	-0.2	53.1	30.4	-28.7
1973	3444.3	14.0	0.4	47.7	30.4	-3.3
1974	3508.7	64.4	1.9	48.2	29.9	46.1
1975	3567.9	59.2	1.7	50.1	30.3	39.4
1976	3634.9	67.0	1.9	51.4	30.2	45.8
1977	3715.4	80.5	2.2	54.2	29.1	55.4
1978	3836.2	120.8	3.3	57.3	30.4	93.9
1979	3979.2	143.0	3.7	60.2	30.2	113.0
1980	4132.2	153.0	3.8	65.4	31.3	118.9
1981	4229.3	97.1	2.4	68.2	31.8	60.8
1982	4276.5	47.3	1.1	70.1	31.7	8.9
1983	4307.2	30.7	0.7	69.5	32.5	-6.2
1984	4354.1	46.8	1.1	68.5	33.2	11.6
1985	4415.8	61.7	1.4	69.1	34.0	26.6
1986	4462.2	46.4	1.1	70.2	34.0	10.2
1987	4527.1	64.9	1.5	69.3	34.4	30.0
1988	4616.9	89.8	2.0	71.0	36.0	54.8
1989	4728.1	111.2	2.4	73.0	36.0	74.2
1990	4866.7	138.6	2.9	76.4	36.2	98.5
1991	5021.3	154.6	3.2	79.1	36.6	112.1
1992	5141.2	119.8	2.4	80.2	37.2	76.8
1993	5265.7	124.5	2.4	79.1	39.4	84.8
1994	5364.3	98.7	1.9	78.2	39.5	60.0
1995	5470.1	105.8	2.0	77.5	40.0	68.3
1996	5567.8	97.7	1.8	77.0	41.2	61.8
1997	5663.8	96.0	1.7	78.0	42.6	60.6
1998	5750.0	86.3	1.5	78.8	41.6	49.0
1999	5830.8	80.8	1.4	79.8	43.1	44.2
2000	5894.1	63.3	1.1	79.9	43.7	27.2
2001	5970.5	76.4	1.3	80.7	43.9	39.6
2002	6059.7	89.2	1.5	79.3	44.9	54.8
2003	6126.9	67.2	1.1	79.1	44.7	32.9
2004	6208.5	81.6	1.3	81.0	46.0	46.7
2005	6298.8	90.3	1.5	81.8	45.6	54.1
2006	6420.3	121.4	1.9	83.2	45.3	83.6
2007	6525.1	104.8	1.6	87.8	46.2	63.2
2008	6608.2	83.2	1.3	89.6	47.9	41.5
2009	6672.2	63.9	1.0	89.8	48.1	22.2
2010	6724.5	52.4	0.8	88.4	47.7	11.6
2011	6767.9	43.4	0.6	86.4	48.8	5.8
2012	6817.8	49.9	0.7	87.1	49.2	12.0
2013	6882.4	64.6	0.9	87.3	51.1	28.5
2014	6968.2	85.8	1.2	87.0	50.7	49.5
2015	7061.4	93.2	1.3	88.5	52.8	57.6
<b>Forecast</b>						
2016	7155.3	93.9	1.3	89.0	53.3	58.3
2017	7247.6	92.2	1.3	90.6	53.9	55.5
2018	7334.5	86.9	1.2	91.5	54.7	50.2
2019	7417.7	83.1	1.1	92.2	55.6	46.5

\* As of April 1 of Each Year

Source: Office of Financial Management

Table A5.2  
**Washington Population\***  
 (Thousands)

	<u>2010</u>	<u>2011</u>	<u>Actual</u> <u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Total Population	6724.5	6767.9	6817.8	6882.4	6968.2	7061.4	7155.3	7247.6	7334.5	7417.7
Percent Change	0.8	0.6	0.7	0.9	1.2	1.3	1.3	1.3	1.2	1.1
Age 17 and Under	1581.4	1574.3	1572.6	1577.2	1588.4	1602.7	1616.9	1631.2	1643.7	1655.9
Percent of Total	23.5	23.3	23.1	22.9	22.8	22.7	22.6	22.5	22.4	22.3
Age 6-18	1149.6	1142.6	1137.5	1141.1	1151.0	1162.2	1173.2	1182.8	1192.1	1200.1
Percent of Total	17.1	16.9	16.7	16.6	16.5	16.5	16.4	16.3	16.3	16.2
Age 18 and Over	5143.2	5193.6	5245.2	5305.2	5379.8	5458.7	5538.4	5616.4	5690.9	5761.7
Percent of Total	76.5	76.7	76.9	77.1	77.2	77.3	77.4	77.5	77.6	77.7
Age 21 and Over	4860.6	4911.1	4965.3	5029.2	5107.4	5187.1	5266.0	5342.0	5414.1	5483.5
Percent of Total	72.3	72.6	72.8	73.1	73.3	73.5	73.6	73.7	73.8	73.9
Age 20-34	1395.3	1403.5	1413.1	1426.9	1445.8	1458.8	1471.4	1481.5	1489.3	1497.5
Percent of Total	20.7	20.7	20.7	20.7	20.7	20.7	20.6	20.4	20.3	20.2
Age 18-64	4315.5	4341.2	4349.5	4365.7	4396.9	4431.0	4465.8	4496.6	4520.1	4540.2
Percent of Total	64.2	64.1	63.8	63.4	63.1	62.7	62.4	62.0	61.6	61.2
Age 65 and Over	827.7	852.4	895.6	939.5	982.8	1027.7	1072.6	1119.8	1170.7	1221.5
Percent of Total	12.3	12.6	13.1	13.7	14.1	14.6	15.0	15.5	16.0	16.5

\* As of April 1 of Each Year

Source: Office of Financial Management

Table A6.1

**Summary of National and State Indicators**

<b>Indicator</b>	<b>Latest Data</b>	<b>Indication*</b>
U.S. Leading Index	October 2015	+
U.S. Real GDP Growth	3rd quarter 2015	-
U.S. ISM Index	November 2015	-
U.S. Employment YoY%Δ	October 2015	unchanged
U.S. Unemployment Rate	October 2015	+
U.S. Fed Funds Target	November 2015	unchanged
U.S. Consumer Confidence	November 2015	-
U.S. Consumer Sentiment	November 2015	+
U.S. Light Vehicle Sales	November 2015	unchanged
U.S. CPI YoY%Δ	October 2015	neutral
U.S. Home Prices	September 2015	+
S&P 500 Index	November 2015	+
WA Leading Index	October 2015	+
WA ISM-WW Index	October 2015	-
WA Employment YoY%Δ	October 2015	+
WA Aerospace Empl. YoY%Δ	October 2015	-
WA Unemployment Rate	October 2015	unchanged
WA Help Wanted Index	October 2015	+
WA Business Cycle Indicator	October 2015	+
WA Initial Unemploy. Claims	October 2015	+
WA Housing Permits	October 2015	-
WA Weekly Hours in Mfg.	October 2015	-
WA New Vehicle Registration	October 2015	+
WA In-Migration	October 2015	+
WA Exports-Total YoY%Δ	3rd quarter 2015	-
WA Exports- w/o Trans. Equip. YoY%Δ	3rd quarter 2015	+
Seattle CPI YoY%Δ	October 2015	+
Seattle Home Prices	September 2015	+
WA Construction Activity Index	October 2015	+

\*Change from the previous reading

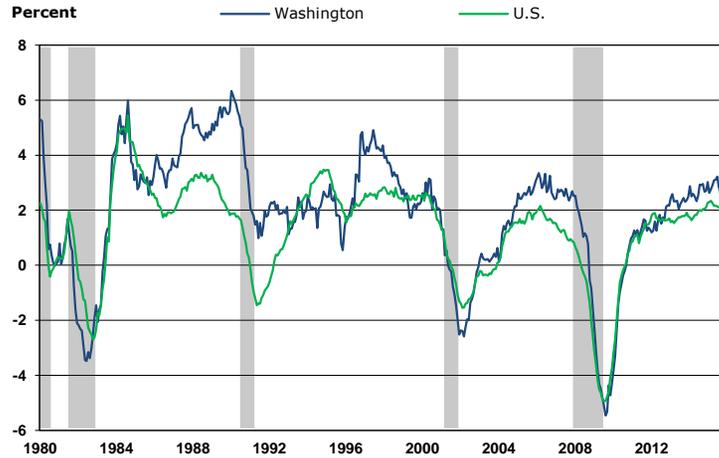
Table A6.2  
**Washington Business Indicators**  
 Historical Data

	<b>WA Index of Leading Indicators</b>	<b>U.S. Index of Leading Indicators</b>	<b>WA State Business Cycle Indicator</b>	<b>WA State Construction Index</b>	<b>WA State Help Wanted Index</b>	<b>WA Purchasing Management Index</b>	<b>U.S. Purchasing Management Index</b>
<b>2013:01</b>	114.6	109.1	39.8	94.1	128.7	60.2	52.3
<b>2013:02</b>	114.7	109.5	39.0	95.8	127.2	56.3	53.1
<b>2013:03</b>	114.1	109.2	39.2	96.0	118.8	65.4	51.5
<b>2013:04</b>	114.2	110.0	38.2	92.9	120.2	59.5	50.0
<b>2013:05</b>	114.3	110.2	39.4	93.1	120.0	53.7	50.0
<b>2013:06</b>	114.3	110.4	40.0	92.7	121.0	61.0	52.5
<b>2013:07</b>	114.5	110.8	41.8	96.2	118.6	60.3	54.9
<b>2013:08</b>	115.0	111.6	42.3	94.6	118.7	53.8	56.3
<b>2013:09</b>	115.1	112.5	41.6	92.4	116.6	52.7	56.0
<b>2013:10</b>	114.5	112.8	42.5	94.4	112.7	54.2	56.6
<b>2013:11</b>	116.2	113.8	42.0	93.8	118.2	61.1	57.0
<b>2013:12</b>	116.3	113.8	42.8	97.2	118.2	62.3	56.5
<b>2014:01</b>	116.0	113.7	44.0	95.4	118.2	63.5	51.8
<b>2014:02</b>	115.5	114.3	43.2	93.5	118.5	68.7	54.3
<b>2014:03</b>	116.5	115.4	43.8	95.0	118.6	63.6	54.4
<b>2014:04</b>	117.1	115.8	46.6	96.7	120.6	53.7	55.3
<b>2014:05</b>	117.3	116.5	47.3	95.9	118.7	59.6	55.6
<b>2014:06</b>	118.5	117.2	48.1	97.2	121.0	67.0	55.7
<b>2014:07</b>	118.7	118.4	49.8	97.4	121.3	50.1	56.4
<b>2014:08</b>	118.7	118.5	49.6	97.5	121.6	62.9	58.1
<b>2014:09</b>	118.4	119.2	49.6	98.1	114.3	60.3	56.1
<b>2014:10</b>	119.1	119.9	48.6	100.2	119.0	57.6	57.9
<b>2014:11</b>	119.8	120.5	49.3	100.3	128.0	63.1	57.6
<b>2014:12</b>	119.4	121.0	49.8	101.2	122.0	53.3	55.1
<b>2015:01</b>	119.4	121.2	51.8	98.3	127.6	66.6	53.5
<b>2015:02</b>	120.2	120.9	57.0	108.4	137.2	65.9	52.9
<b>2015:03</b>	119.9	121.5	57.0	101.2	138.8	64.1	51.5
<b>2015:04</b>	120.1	122.2	57.1	98.9	135.7	60.4	51.5
<b>2015:05</b>	120.5	122.8	57.4	98.7	139.0	60.3	52.8
<b>2015:06</b>	120.9	123.5	57.8	98.4	136.0	51.4	53.5
<b>2015:07</b>	120.4	123.5	59.8	98.3	141.0	53.6	52.7
<b>2015:08</b>	119.9	123.4	59.2	97.6	139.1	48.0	51.1
<b>2015:09</b>	118.6	123.3	59.0	92.1	126.6	48.0	50.2
<b>2015:10</b>	119.8	124.1	60.0	96.8	132.4	46.1	50.1
<b>2015:11</b>					134.3		48.6

# Figure A7.1: Washington State Economic Indicators

## Year-over-Year Employment Growth

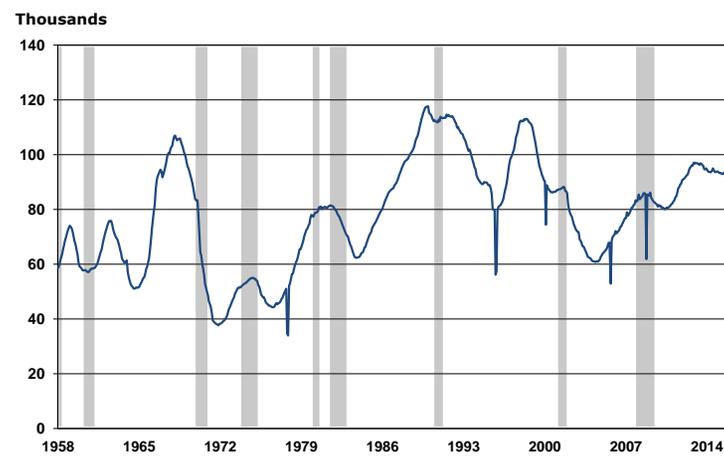
January 1980 to October 2015



\* Bureau of Labor Statistics, WA State Employment Security, ERFC Kalman Filtered Data

## Washington Aircraft and Parts Employment

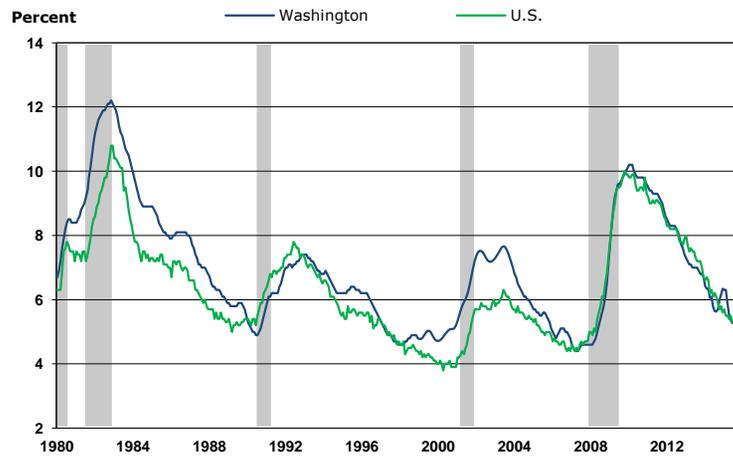
January 1958 to October 2015



\* Source: Bureau of Labor Statistics, ERFC

## Unemployment Rate, S.A.

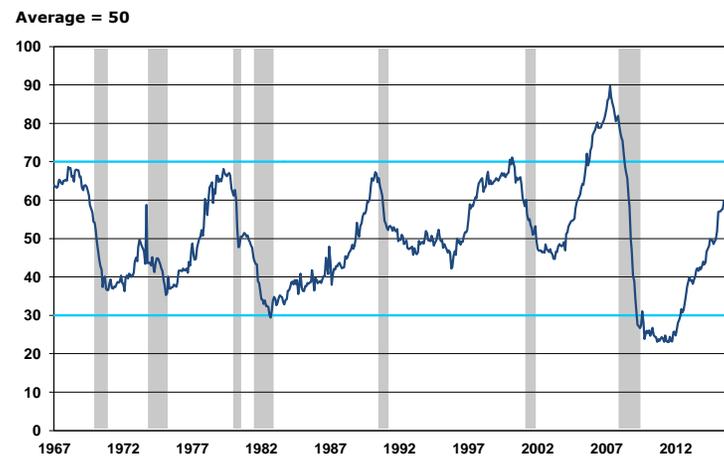
January 1980 to October 2015



\* Source: Bureau of Labor Statistics

## Washington Business Cycle Indicator

January 1968 to October 2015



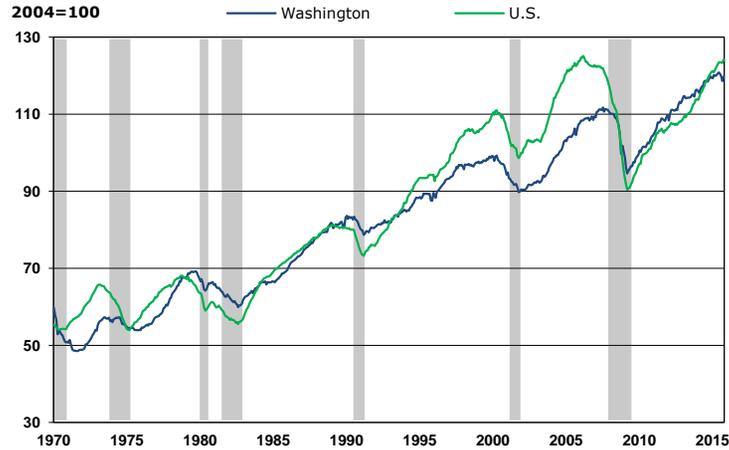
\* Source: ERFC

\* Shaded areas correspond with national recessions.  
Appendix

# Figure A7.2: Washington State Leading Indicators

## The Washington and U.S. Indexes of Leading Indicators

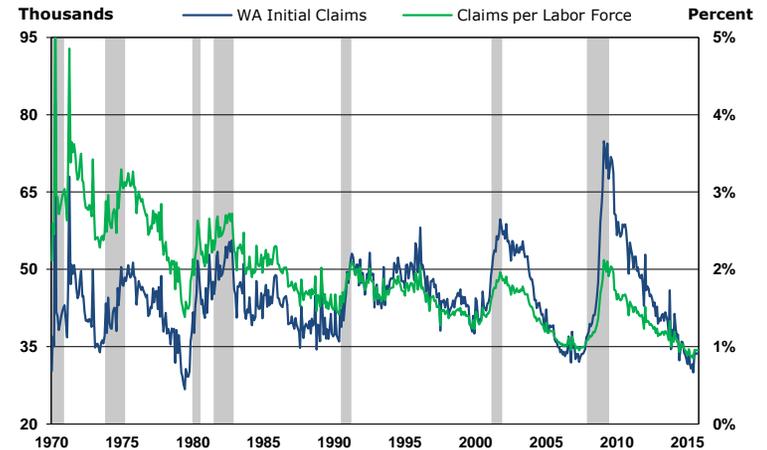
January 1970 to October 2015



\* The Conference Board, ERFC

## Washington Initial Claims for Unemployment Insurance

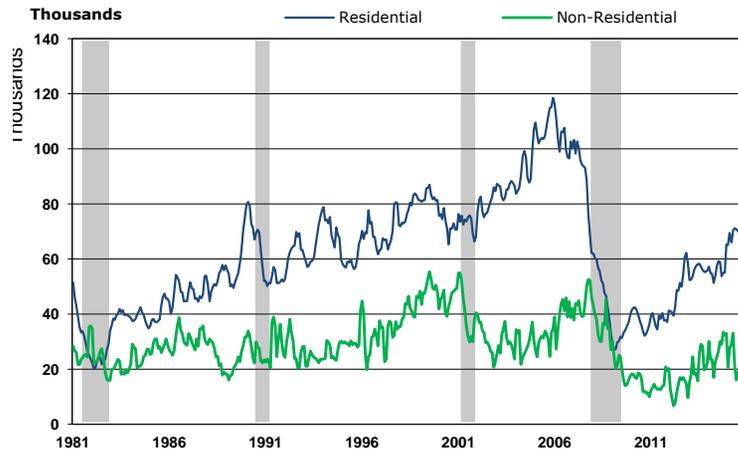
January 1970 to October 2015, S.A.



\* Source: WA State Employment Security, ERFC

## Square Footage of Construction Projects in WA State

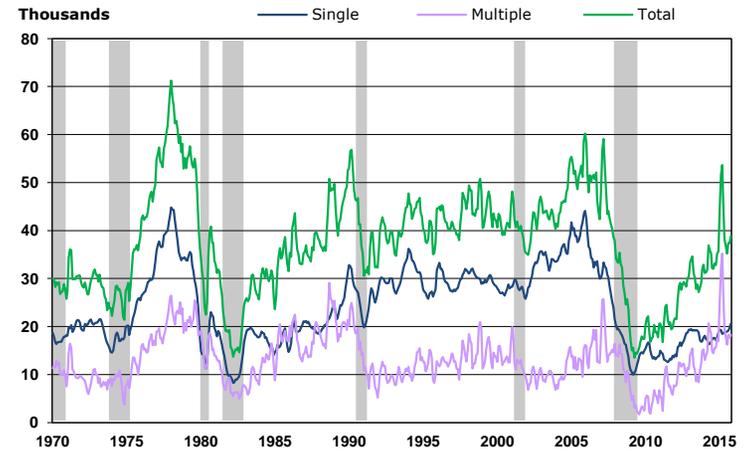
January 1981 to October 2015, 3mma, SAAR



\* Source: McGraw-Hill Construction, ERFC

## Housing Units Authorized in Washington State

January 1970 to October 2015, 3mma, SAAR



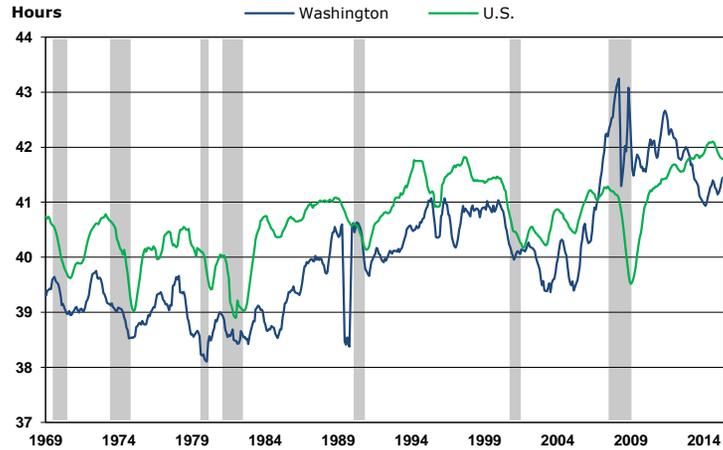
\* Source: Census Bureau, ERFC

\* Shaded areas correspond with national recessions.  
Appendix

# Figure A7.3: Other State Economic Indicators

## Average Weekly Hours in Manufacturing

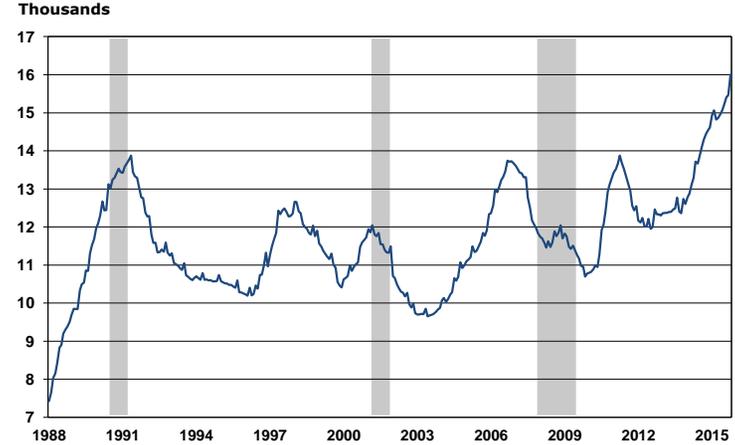
June 1969 to October 2015, 6-Mo. Moving Average, S.A.



\* Bureau of Labor Statistics, ERFC

## Washington Driver's License In-Migration

January 1988 to October 2015, 12-Month Moving Average



\* Source: WA State Department of Licensing, ERFC

## New Car and Truck Registrations in Washington

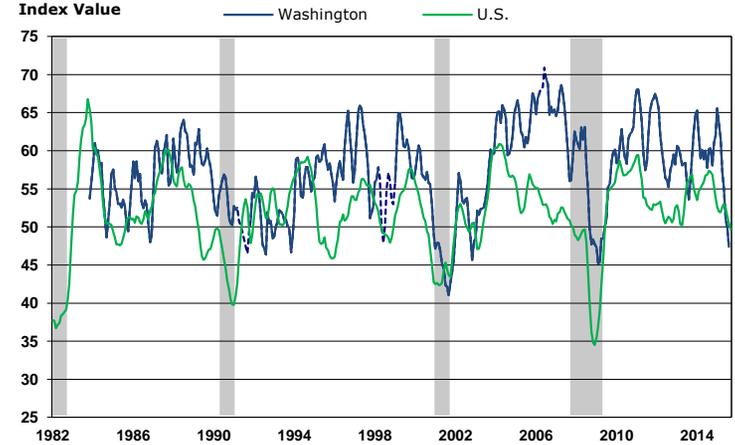
September 1970 to October 2015, 3-Month Moving Average, S.A.



\* Source: WA State Department of Licensing, ERFC

## Institute for Supply Management Index

March 1982 to November 2015, 3-Month Moving Average, S.A.



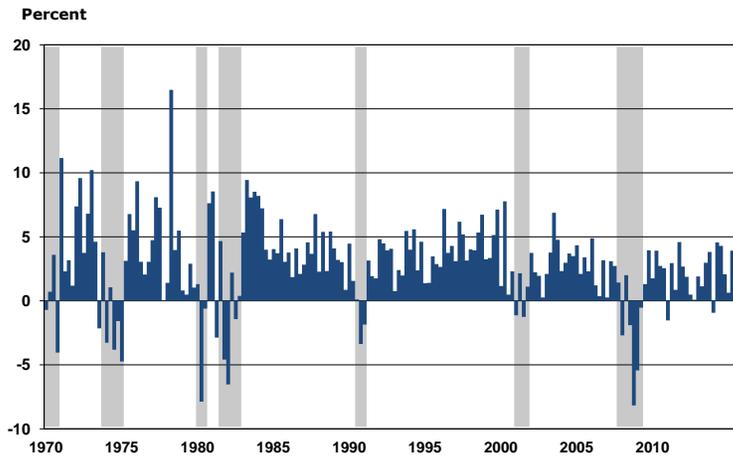
\* Source: Institute for Supply Management, ISM-WW, ERFC

\* Shaded areas correspond with national recessions.  
Appendix

# Figure A7.4: Other Economic Indicators

## Quarterly U.S. Real GDP Growth

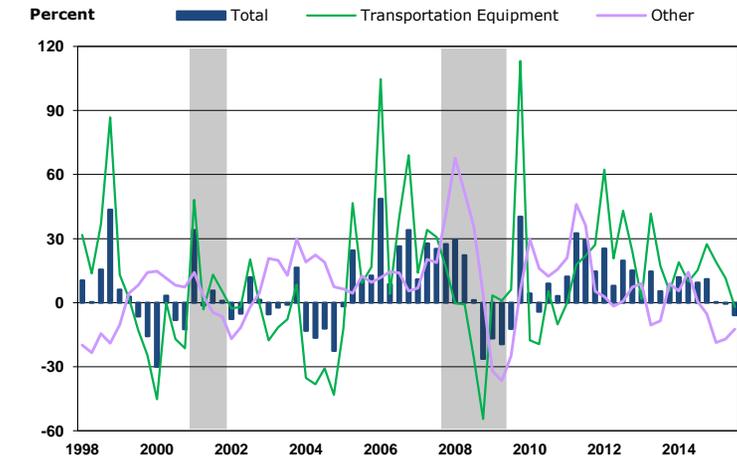
1970Q1 to 2015Q3, SAAR



\* Source: Bureau of Economic Analysis

## Washington State Export Composition

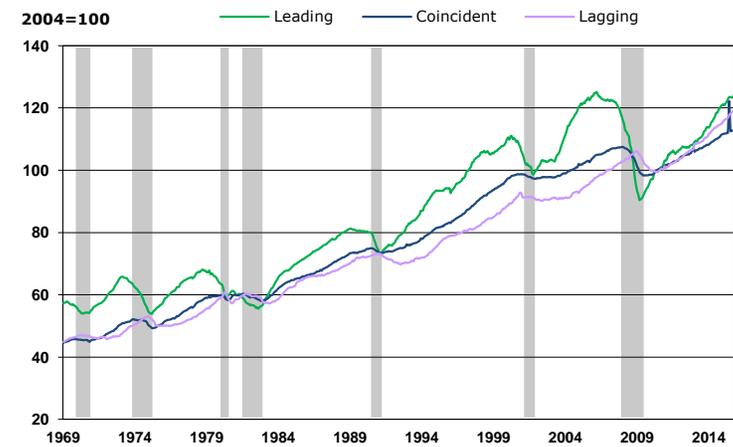
1998Q1 to 2015Q3, Year-over-year percent change



\* Source: WISER

## U.S. Economic Indicators

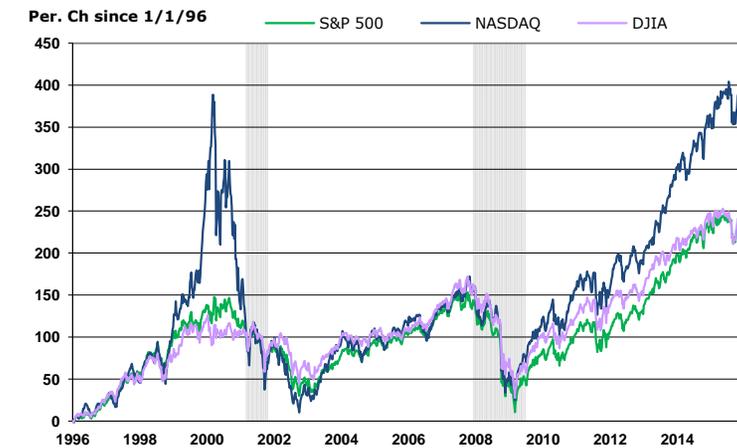
January 1969 to October 2015



\* Source: The Conference Board

## National Stock Indexes

January 1, 1996 to November 27, 2015

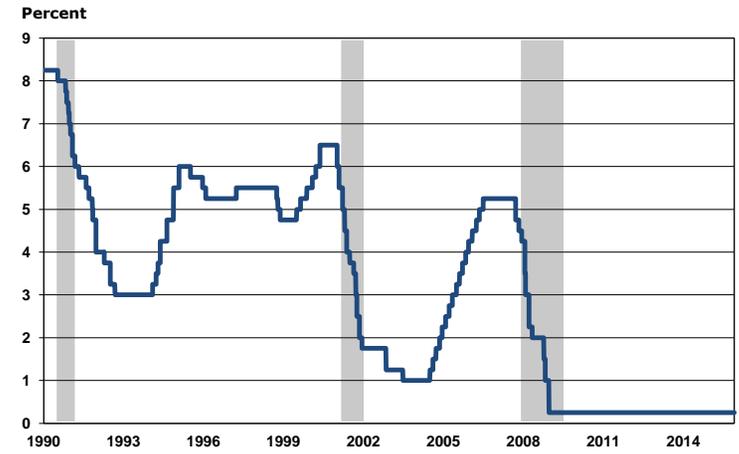


\* Source: ERFC

\* Shaded areas correspond with national recessions.

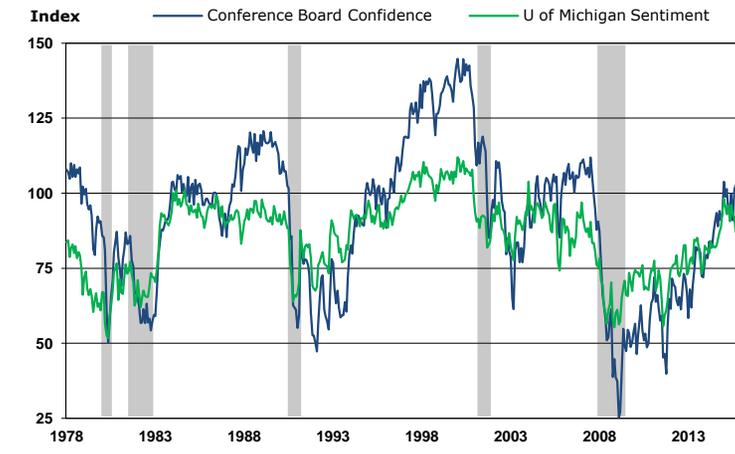
# Figure A7.4: Other Economic Indicators (continued...)

**Federal Funds Target Rate**  
January 1, 1990 to November 30, 2015



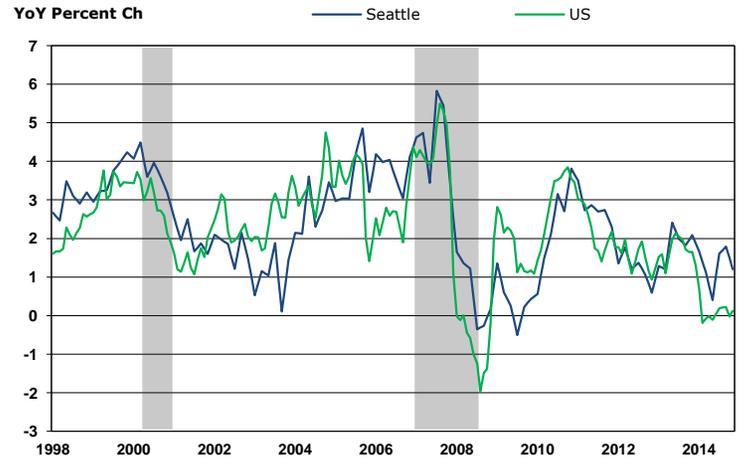
\* Federal Reserve

**Consumer Confidence**  
March 1978 to November 2015



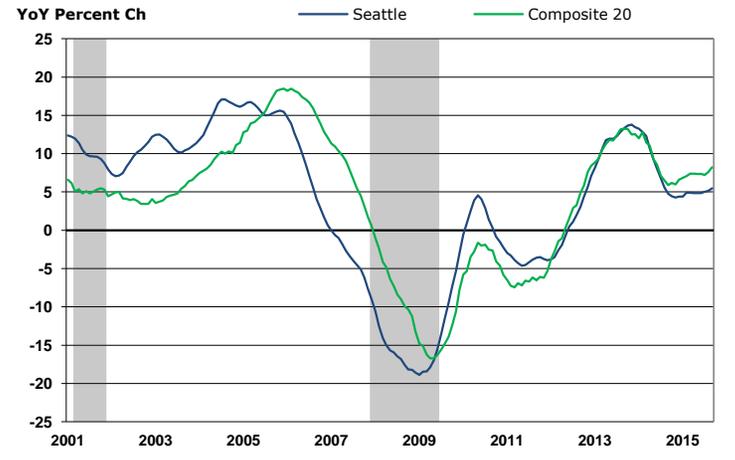
\* Source: The Conference Board, University of Michigan

**Seattle vs U.S. CPI (All Urban Consumers)**  
December 1998 to October 2015



\* Source: Bureau of Labor Statistics

**Case Shiller Home Price Index**  
January 2001 to September 2015, SA



\* Source: Case Shiller, ERFC

\* Shaded areas correspond with national recessions.  
Appendix



## Glossary

**Biennium:** The state's two years budget cycle.

**Cash Basis:** Cash receipts received during a period. The Forecast Council forecasts revenues on a Cash and GAAP (Generally Accepted Accounting Principles) basis.

**CPI:** The Consumer Price Index for All Urban Consumers. The Bureau of Labor Statistics (BLS) updates the CPI monthly, surveying over 60,000 goods in 85 urban areas.

**Tax Elasticity:** A measure of how tax revenues respond to changes in personal income. If tax revenue elasticity is greater than one, a one percent change in personal income will be associated with more than a one percent increase in tax revenues. If elasticity is less than one, a one percent increase in personal income will be associated with less than a one percent increase in tax revenues.

**Fiscal Year:** The state's budget year. Washington State's fiscal year runs from July 1 through June 30. Fiscal year 2014, for example, ran from July 1, 2013 through June 30, 2014.

**GAAP Basis:** Generally Accepted Accounting Principles measure revenue in the period during which they accrue rather than the period in which they are received.  
General Fund: Accounts for all financial resources and transactions not accounted for in another fund.

**General Fund-State (GF-S) Revenue:** Resources from state sources only, excludes federal monies. The general fund is the principal state fund supporting the operation of the state.

**Implicit Price Deflator, PCE (IPD):** The IPD for consumption is a by-product of the National Income and Product Accounts. It is derived by dividing current dollar (nominal) consumer expenditures by constant dollar (real) consumer expenditures.

**Mortgage Rate:** The average interest rate on 30 year conventional loan (as reported by Freddie Mac).

**Near General Fund:** All accounts included in the General Fund - State plus the Education Legacy Trust Account.

**Non-Wage Income:** Personal income other than from wages and salaries. The major components are: proprietor's income, transfer payments, and dividends, interest and rent.

**Real GDP:** Gross Domestic Production adjusted for the price level.

**Revenue Act:** Revenue Act taxes consist of the retail sales tax, use tax, business and occupation tax, public utility tax and tobacco products tax, plus penalty and interest payments associated with those taxes.

**Personal Income:** Income from wages and salaries; other labor income; proprietor's income; dividends, interest and rent; transfer payments; and a residence adjustment. It is reduced by employee contributions for social insurance.

**Seasonally Adjusted:** Adjusted for normal seasonal variations. Monthly statistics, such as the unemployment rate, are seasonally adjusted to make month-to-month comparisons possible.

**Seasonally Adjusted Annual Rate:** A rate for a given period that is typically less than one year, but that is computed as if the rate were for a full year and seasonally adjusted.

**Nonfarm Payroll Employment:** Civilian non-farm payroll employees. The self-employed, farm workers, members of the armed forces, private household employees, and workers on strike are excluded.