

Economic Review

June 7, 2017



Washington State
Economic and Revenue Forecast Council

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WASHINGTON STATE
ECONOMIC AND REVENUE FORECAST COUNCIL

AGENDA

ECONOMIC REVIEW MEETING

June 7, 2017
10:00 a.m.

- Approval of meeting minutes:
 - ✓ March 16, 2017
- Presentation of economic outlook and revenue collection experience

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STATE OF WASHINGTON

ECONOMIC AND REVENUE FORECAST COUNCIL

Capitol Plaza Building, PO Box 40912 □ Olympia, Washington 98504-0912 □ (360) 534-1560

Meeting Minutes

Revenue Review

March 16, 2017

John A. Cherberg, Hearing Room 3

Economic and Revenue Forecast Council

Members Present

Kevin Ranker, Senator, Chair
John Braun, Senator
Terry Nealey, House of Representatives (via phone)
Timm Ormsby, House of Representatives
Vikki Smith, Department of Revenue
David Schumacher, Office of Financial Management
Duane Davidson, Treasurer

Staff

Steve Lerch, Executive Director,
ERFC

Call to Order

Senator Ranker called the meeting to order at 10:01 a.m.

Motion

Treasurer Davidson made one correction to the members present in the meeting minutes from March 2, 2017. Representative Ormsby moved, seconded by Treasurer Davidson, to approve the amended meeting minutes. Council approved the motion at 10:02 a.m.

Forecast Presentation

Dr. Lerch presented information on the final economic and revenue forecast. Dr. Lerch summarized the forecast changes. Discussion ensued regarding total revenue through 2021 and detail on revenue act sources above the November forecast.

Motion

Director Schumacher moved, seconded by Director Smith, to adopt the baseline revenue forecast. Council unanimously approved the motion at 10:20 a.m.

Adjournment

Meeting adjourned at 10:21 a.m.

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Economic & Revenue Forecast Council State of Washington



Economic Review: June 7, 2017

Executive Summary

- This forecast is based on a modified version of IHS Markit's May 2017 forecast for the U.S. economy. As usual, we have adjusted real gross domestic product (GDP) to match the Blue Chip "Consensus" GDP forecast. The May Blue Chip forecast for real GDP growth in 2017 was revised down to 2.1% from 2.3% in March. The forecast for 2018 was unchanged at 2.4%. The Blue Chip long-range forecast, which is revised only twice per year, has not been updated since March and remains at 2.1%, 2.0%, and 2.0% in 2019, 2020, and 2021.
- Our oil price forecast reflects the futures markets, primarily the Brent (North Sea) oil price but also the West Texas Intermediate (WTI) benchmark. This forecast was based on the Wednesday, May 31, 2017 closing prices for Brent and WTI futures. The latest futures prices are slightly lower than the prices used in the March forecast and, as in March, are relatively flat throughout the forecast. The refiner acquisition price of crude oil in the third quarter of 2017 is now expected to average \$47 per barrel compared to \$49 in the March forecast. By the end of 2021, the refiner acquisition price is expected to average \$50 per barrel compared to \$51 in the March forecast.
- As in March, the preliminary June forecast incorporates some policies proposed by the Trump administration, including lower personal and corporate federal tax rates, consistent with the House Republican plan, as well as \$250 billion in additional infrastructure spending over 10 years. The forecast does not assume a border adjustment tax nor does it assume any changes to the Affordable Care Act.
- The U.S. labor market expanded by 138,000 net new jobs in May. In the previous 12 months, employment had increased by an average of 181,000 jobs. Data for May employment will be incorporated into our final economic forecast.
- Two key measures of consumer confidence have been moving in opposite directions recently. The University of Michigan (UM) index of consumer sentiment increased for a second consecutive month, rising by 0.1 points in May to 97.1. The Conference Board index of consumer confidence fell for a second straight month, decreasing 1.5 points in May to 117.9. However, both indexes are at or above pre-recession readings, suggesting that optimism remains relatively strong in May.
- Initial claims for unemployment insurance increased by 13,000 to 248,000 (SA) in the week ending May 27th. The four-week moving average of initial claims increased by 2,500 to 238,000.
- Industrial production increased by 1.0% (SA) in April following a revised 0.4% (SA) increase in March. Industrial production is now 2.2% above its April 2016 level. New orders for core capital goods (i.e., durables excluding aircraft and military), which is a proxy for business investment, increased by 0.1% (SA) in April and were 0.3% (SA) above their year-ago level according to U.S. Census Bureau data.

- U.S. housing data weakened this month but remained above their year-ago levels. Housing units authorized by building permits in April were 2.5% (SA) below their March level but 5.7% above their year-ago level. April housing starts decreased by 2.6% (SA) compared to March but were 0.7% above their April 2016 level. Existing home sales in April fell 2.3% (SA) compared to March but were 1.6% above their year-ago level. New single-family home sales decreased from a revised 642,000 (SAAR) in March to 569,000 in April, a decline of 11.4% but still 0.5% above their year-ago level. The seasonally adjusted Case-Shiller national home price index for March was 0.3% above its February level and 5.7% above its year-ago level.
- Major threats to the U.S. and Washington economies remain, including a slowing U.S. economy, international trade concerns, and slow growth in labor productivity.

Washington

- We have two months of new Washington employment data since the March forecast was released. Total nonfarm payroll employment rose 12,300 (seasonally adjusted) in March and April, which was just 500 more than the 11,800 expected in the March forecast. Manufacturing lost 600 jobs in the two-month period due to the loss of 900 aerospace jobs. Construction employment increased 2,400 in March and April and government payrolls expanded by 1,800 jobs. As usual, the bulk of the net new jobs occurred in private, service-providing sectors, which added 8,500 jobs.
- 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 February 2017 by just 1,200 jobs (0.0%). As a result of the small downward revision to history and slightly stronger-than-expected growth, the total effect is 700 (0.0%) fewer jobs in April 2017 than expected in the March forecast.
- In March, the Bureau of Economic Analysis released estimates for state personal income through the fourth quarter of 2016. We have incorporated the new BEA estimates as well as additional Washington QCEW and other wage data, also through the fourth quarter. Our current estimate of Washington personal income in the fourth quarter of 2016 is \$393.6 billion, which is \$3.5 billion (0.9%) lower than assumed in the March forecast. The variance was in wages and salaries which were \$3.6 billion lower than believed in March.
- As expected in the March forecast, Washington housing construction came down to earth in the first quarter of 2017 after a fourth quarter spike. The number of housing units authorized by building permits fell from 51,900 units (SAAR) in the fourth quarter of 2016 to an average of 40,800 units (SAAR) in January, February, and March. The first quarter results were almost exactly on target. The March forecast had assumed 40,800 units (SAAR) in the first quarter. Washington housing construction got off to a very strong start in the second quarter of 2017, though mostly as a result of another surge in multi-family permits. In April, 52,300 units (SAAR) were permitted. The March

forecast assumed an average rate of 41,300 units for the second quarter as a whole (SAAR).

- Seattle home prices continue to rise very rapidly. According to the S&P/Case-Shiller Home Price Indices, seasonally adjusted Seattle area home prices rose 1.1% in March following increases of 1.8% in both January and February. Recent growth is probably overstated due to problems with the seasonal adjustment process. A more reliable measure is the over-the-year growth, which shows a 12.2% increase in prices since the previous March, more than double the 5.8% increase in the Composite-20 index. Seattle home prices are up 66% since the November 2011 trough and now exceed the May 2007 peak by 15%.
- Seattle area consumer price inflation remains well above the national average. Over the last year, from April 2016 to April 2017, consumer prices in the Seattle area rose 3.0% compared to 2.2% for the U.S. city average. 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 due to more rapid growth in shelter costs. During the year, shelter costs in Seattle rose 6.5% compared to 3.5% for the nation. Excluding shelter, Seattle inflation was slightly lower than the national average at 1.2% compared to 1.6%. This in spite of the fact that Seattle energy inflation was higher than U.S. city average energy inflation.
- The Institute of Supply Management - Western Washington Index (ISM-WW) moved decisively back into positive territory in March and April. The index, which measures conditions in the manufacturing sector, increased from 48.6 in February to 59.2 in both March and April (index values above 50 indicate growth while values below 50 indicate contraction). The production, orders, employment, and deliveries components all indicated expansion in April while only the inventories component indicated contraction.
- Washington car and truck sales rebounded in March after declines in the first two months of the year. Seasonally adjusted new vehicle registrations rose 4.7% in March following declines of 5.8% and 4.8% in January and February. Car and truck sales are down 8.6% since the post-recession peak in January 2016 and 1.0% over the year.
- First quarter 2017 Washington exports were down 5.5% from the first quarter of 2016 because of a 14.7% decline in transportation equipment exports (mostly Boeing planes). Exports of agricultural products increased 14.0% over the year and exports of all other commodities rose 4.3% over the year. This was the first year-over-year increase in the "other" category, which consists mainly of manufactured goods, in nearly three years.
- Washington employment is expected to grow 2.4% this year, up slightly from 2.3% in the March forecast. As in March, we expect growth to decelerate gradually as the recovery matures. We expect employment growth to average 1.3% per year in 2018 through 2021, which is slightly lower than the 1.4% rate assumed in March. Our preliminary forecast for nominal personal income growth this year is 4.8%, down from 5.0% in the March forecast. Our new forecast for nominal personal income growth in 2018 through 2021 averages 5.0% per year, also down slightly from the 5.1% rate in the March forecast.

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Washington State Economic Outlook & Revenue Collection Experience

Presented to
The Economic & Revenue Forecast Council

Steve Lerch
Executive Director

June 7, 2017
Olympia, Washington



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ECONOMIC AND REVENUE FORECAST COUNCIL**

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Summary

- The preliminary economic forecast for the U.S. is slightly weaker than in March
- The preliminary economic forecast for WA has slightly lower employment and personal income, slightly higher housing permits
- Downside risks to the baseline remain similar to those discussed in March: slow U.S. economic growth, weak labor productivity growth, and international trade concerns
- Revenue collections since the March forecast are \$44.4 million (1.6%) above expectations

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Forecast risks

Upside

- Elevated consumer, business confidence could translate into stronger growth
- Business investment continues to expand, improving labor productivity
- Stronger global economic growth

Downside

- U.S. GDP growth remains weak
- Stagnant labor productivity inhibits wage growth
- International trade policy uncertainty

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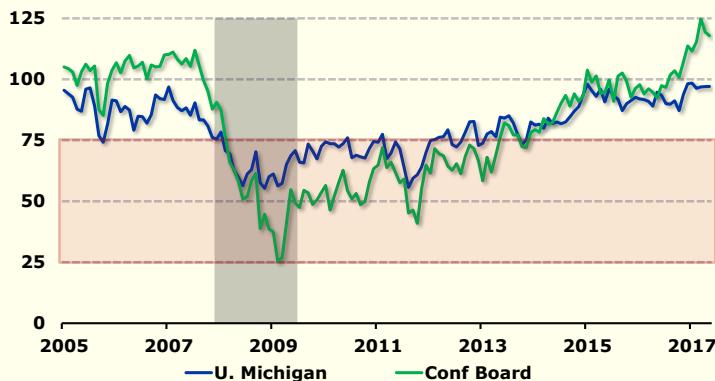
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Consumer confidence is above pre-recession levels

Index
Mich: 1966Q1 = 100, SA
Conf Board: 1985 = 100, SA



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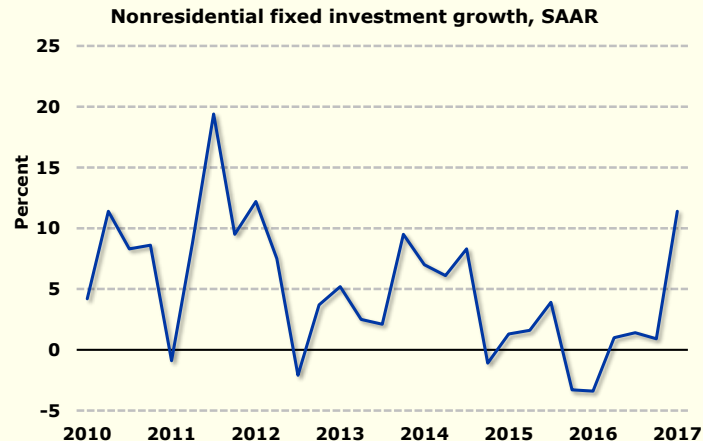
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Sources: University of Michigan, Conference Board; data through May 2017

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U.S. nonresidential investment grew at its fastest rate in five years in 2017 Q1



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Source: U.S. Bureau of Economic Analysis, data through 2017 Q1

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Global GDP growth is expected to improve gradually



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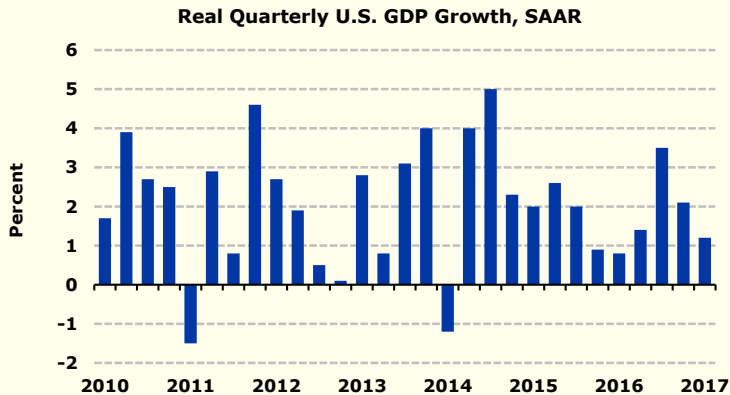
Slide 5

Source: International Monetary Fund, World Economic Outlook, April 2017; historic data through 2016

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U.S. GDP growth has been below 2% in four of the last six quarters



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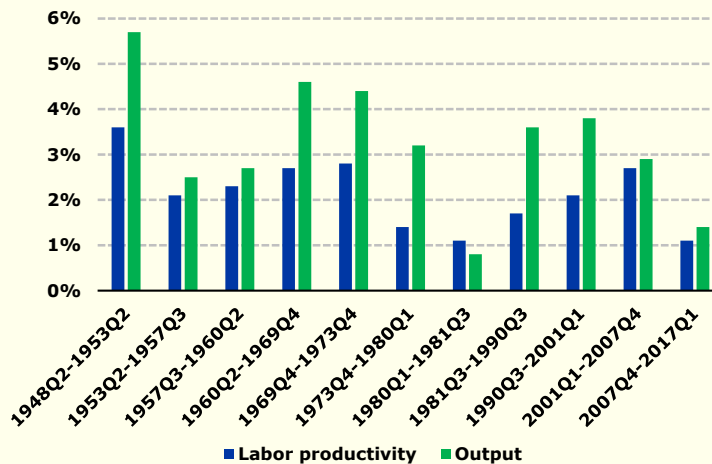
Source: U.S. Bureau of Economic Analysis, data through 2017 Q1

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Labor productivity and output: annual avg. growth rates during business cycles for nonfarm business sector

A business cycle is defined as the period from the peak of one expansion, through a recession to the peak of the next expansion.



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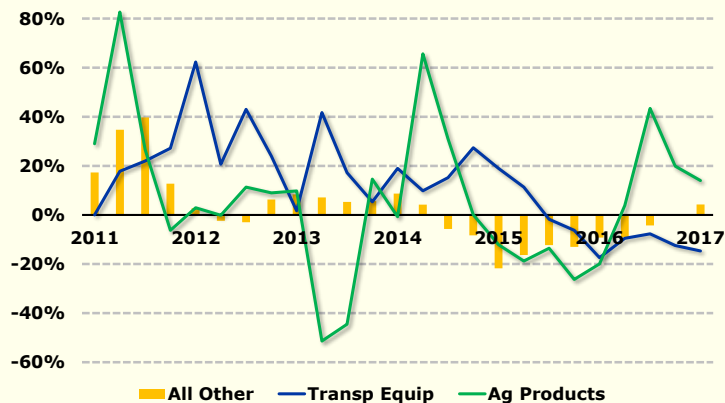
Source: U.S. Bureau of Labor Statistics, data through 2017Q1

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Agricultural exports are showing some improvement, transportation equipment is declining

Year over year growth, quarterly WA exports



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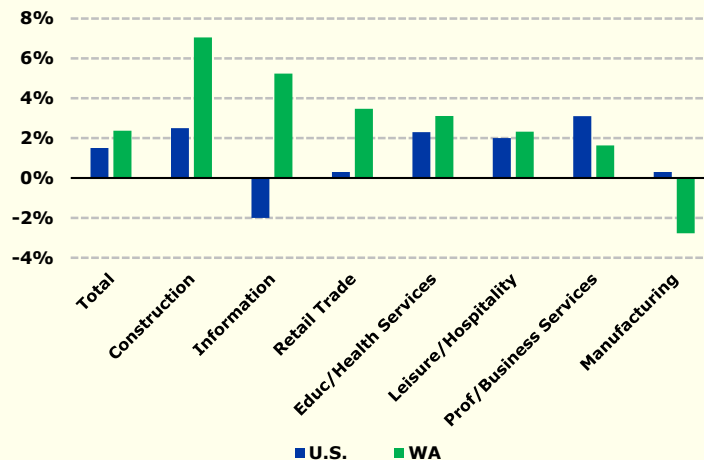
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Source: WISERTrade, data through 2017 Q1

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Washington vs U.S. employment growth: April 2016 to April 2017



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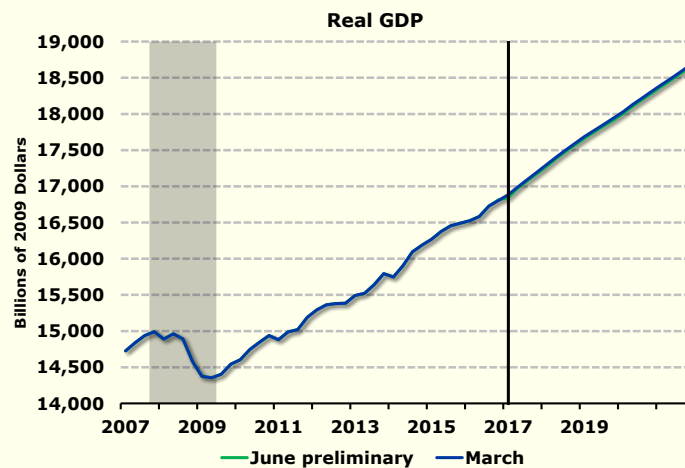
Source: U.S. Bureau of Labor Statistics, Employment Security Dept., ERFC; data through April 2017

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Real GDP is slightly lower than in the March forecast

Real GDP at the end of 2021 is 0.1% lower than in the March forecast.



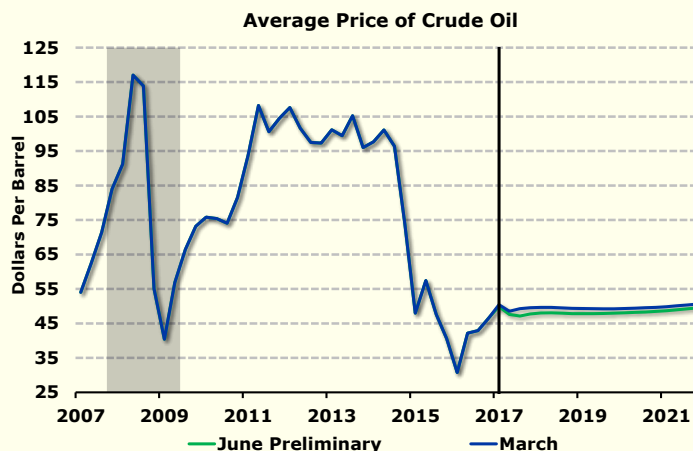
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Source: ERFC June 2017 Preliminary forecast; data through Q1 2017

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Oil prices are slightly lower compared to the March forecast



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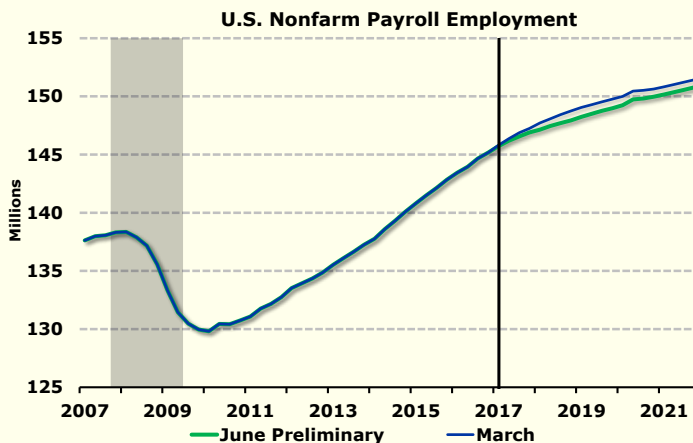
Source: DOE, ERFC June 2017 Preliminary forecast; historical data through Q1 2017

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The U.S. nonfarm payroll employment forecast is slightly lower than in March

By the end of 2021, U.S. employment is 0.4% lower than in the March forecast.



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Source: ERFC June 2017 Preliminary forecast; data through Q1 2017

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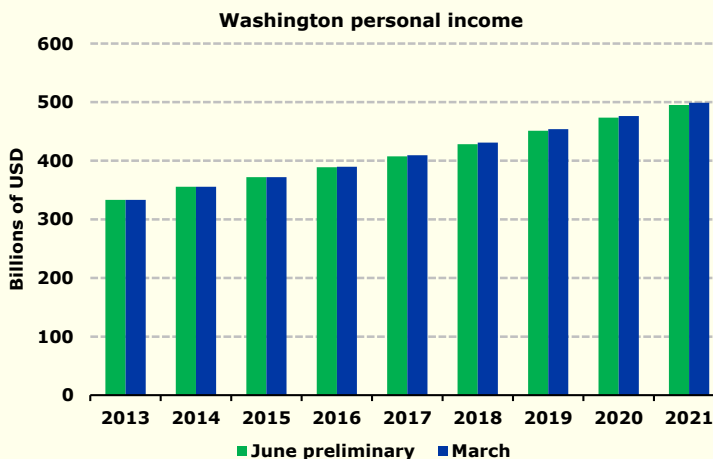


Washington personal income is slightly lower than in March

2016 data were revised slightly lower. WA personal income is 0.8% lower in 2021 compared to the March forecast.

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Source: ERFC June 2017 Preliminary forecast; historical data through 2016

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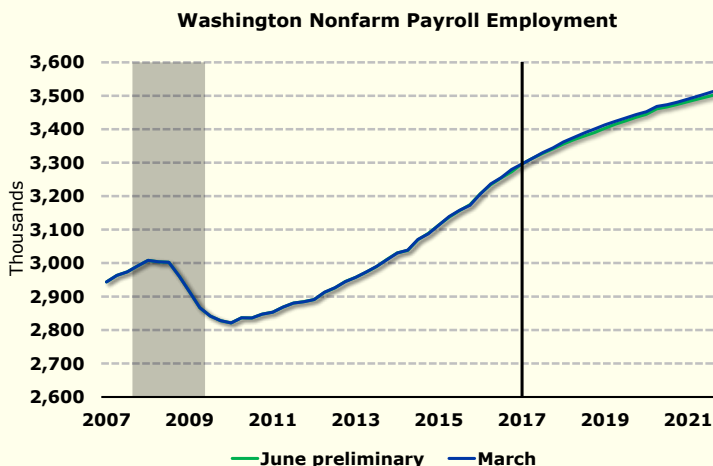


Washington employment forecast is slightly lower than in March

The WA nonfarm employment forecast is 12,000 jobs lower (0.3%) by 2021 compared to March.

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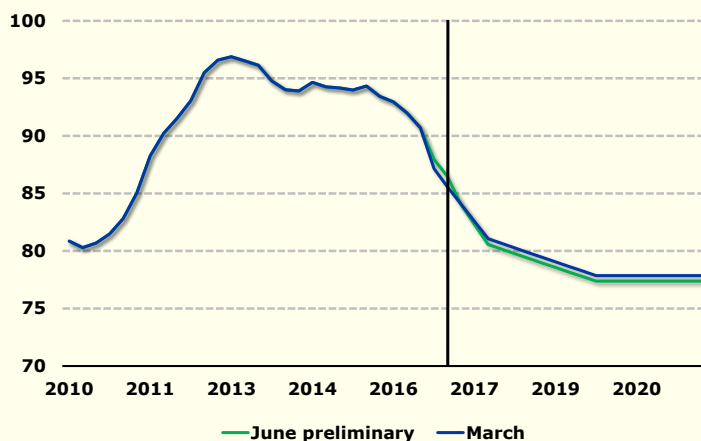


Source: ERFC June 2017 Preliminary forecast; historical data through Q1 2017

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Aerospace employment is expected to decline by 9,100 jobs between early 2017 and the end of 2019



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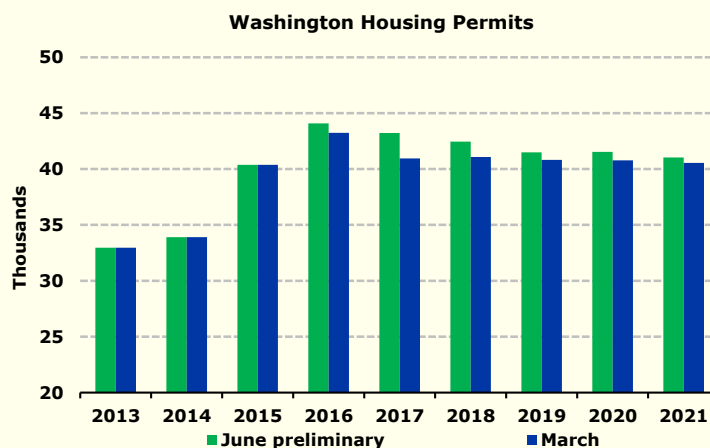
Source: ERFC June 2017 Preliminary forecast; historical data through Q1 2017

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Washington housing permits forecast is slightly higher compared to March

Fourth quarter 2016 saw a spike in multi-family building permits. After moderating in Q1, permits again picked up during 2017 Q2.



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Source: ERFC June 2017 Preliminary forecast; historical data through 2016

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Revenue Act growth relative to income above average for last 9 quarters

Adjusted
Revenue Act
growth YOY:

16Q2: 7.6%
16Q3: 7.2%
16Q4: 6.4%
17Q1: 6.3%

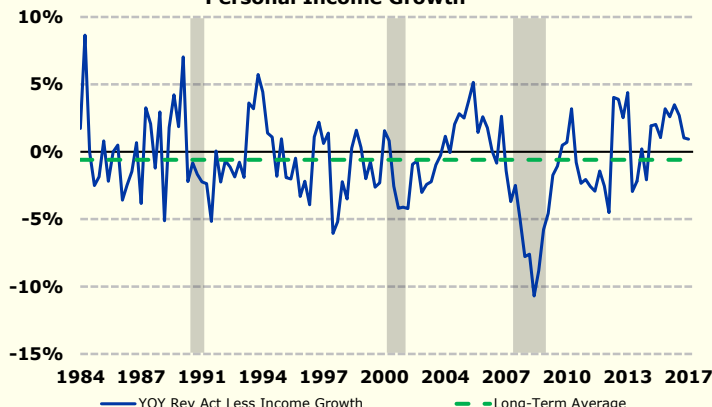
March personal
income YOY
growth estimate:

16Q2: 4.1%
16Q3: 4.5%
16Q4: 5.4%
17Q1: 5.4%

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Year-Over-Year Revenue Act* Growth Less State
Personal Income Growth



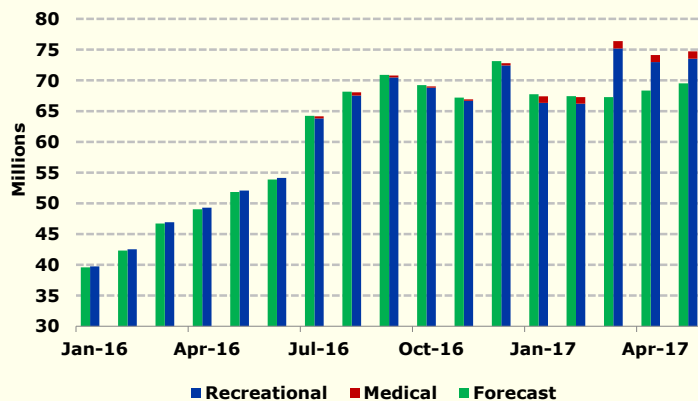
*Adjusted for large one-time payments and refunds and payments under the amnesty program
Source: ERFC; Quarterly revenue data through Q1 2017, March 2017 income estimates

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Cannabis revenue has displayed more variability in last eight months

Retail Cannabis Sales



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Source: LCB, ERFC; data through May 2017

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Large commercial property sales have slowed as other activity grows

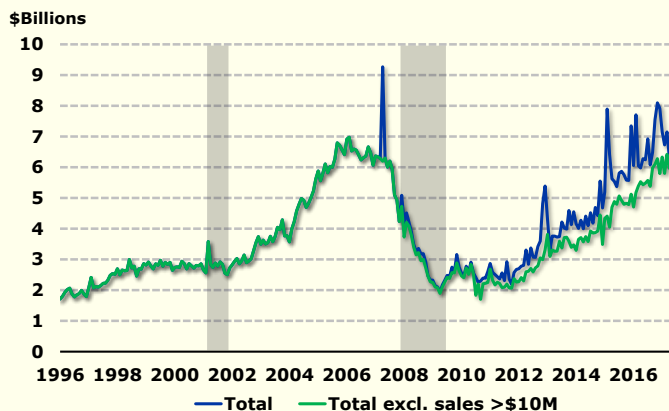
Large commercial sales (>\$10 million) averaged \$3.4 billion per quarter in 2016

Large commercial sales totaled \$1.8 billion in the first quarter of 2017 and \$1.1 billion in April and May.

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Seasonally Adjusted Taxable Real Estate Excise Activity



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Revenue collections to date

Collections Variance Since March Forecast
(March 13, 2017 – May 10, 2017)
dollars in thousands

	<u>Estimate</u>	<u>Actual</u>	<u>Difference</u>	<u>Pct.</u>
Dept. of Revenue	\$2,710,322	\$2,754,372	\$44,050	1.6%
All other agencies	\$15,586	\$15,906	\$320	2.1%
Total GF-S	\$2,725,908	\$2,770,277	\$44,370	1.6%

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Conclusion

- The U.S. and Washington economic forecasts are fairly similar to March; we continue to expect moderate growth
- As has been the case for some time, Washington's economy is continuing to outperform the nation
- Threats to economic expansion include slower domestic economic growth, slow labor productivity, and concerns about international trade
- The next monthly revenue collection report will be available on June 12th and the revenue forecast will be presented on June 20th

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Questions



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Economic & Revenue Forecast Council
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U.S. Economic Forecast Comparison

May 2017

	2017Q1	2017Q2	2017Q3	2017Q4	2016	2017	2018	2019	2020	2021
Real GDP, Percent Change, Annual Rate										
ERFC (Preliminary June)	0.7	3.1	2.4	2.3	1.6	2.1	2.4	2.1	2.0	2.0
Global Insight	0.7	3.4	2.9	2.4	1.6	2.2	2.7	2.4	2.2	2.2
Economy.com	0.7	3.2	2.9	2.4	1.6	2.2	2.6	2.1		
Blue Chip Average*		3.1	2.4	2.3		2.1	2.4	2.1	2.0	2.0
Blue Chip Top 10*		3.7	3.0	2.9		2.3	2.9	2.5	2.5	2.5
Blue Chip Bottom 10*		2.4	1.9	1.8		1.9	2.0	1.5	1.6	1.5
Real Consumption, Percent Change, Annual Rate										
ERFC (Preliminary June)	0.3	2.8	2.7	2.5	2.7	2.4	2.5	2.3	2.2	2.1
Global Insight	0.3	3.4	2.7	2.4	2.7	2.5	3.2	3.0	2.6	2.5
Economy.com	0.3	3.3	3.0	2.9	2.7	2.5	2.8	2.2		
Blue Chip Average*		2.8	2.6	2.4		2.4	2.5	2.3	2.2	2.1
Blue Chip Top 10*		3.3	3.0	2.8		2.6	3.0	2.8	2.6	2.6
Blue Chip Bottom 10*		2.4	2.1	1.9		2.2	2.1	1.7	1.7	1.7
Federal Funds Rate										
ERFC (Preliminary June)	0.7	1.0	1.2	1.3	0.4	1.0	1.7	2.6	3.0	3.0
Global Insight	0.7	1.0	1.2	1.3	0.4	1.0	1.7	2.6	3.0	3.0
Economy.com	0.7	0.9	1.0	1.2	0.4	1.0	1.9	3.4		
Three Month T-Bill Rate										
ERFC (Preliminary June)	0.6	0.8	1.1	1.2	0.3	0.9	1.6	2.5	2.8	2.8
Global Insight	0.6	0.8	1.1	1.2	0.3	0.9	1.7	2.5	2.9	2.9
Blue Chip Average*		0.9	1.1	1.3		1.0	1.8	2.4	2.7	2.8
Blue Chip Top 10*		1.1	1.3	1.5		1.1	2.1	3.1	3.5	3.4
Blue Chip Bottom 10*		0.8	0.9	1.1		0.8	1.4	1.7	2.0	2.2
10-Yr. T-Note Yield										
ERFC (Preliminary June)	2.4	2.4	2.5	2.7	1.8	2.5	3.2	3.8	4.0	3.9
Global Insight	2.4	2.4	2.6	2.7	1.8	2.5	3.2	3.8	4.1	4.1
Economy.com	2.4	2.5	2.8	3.0	1.8	2.7	3.6	4.3		
Blue Chip Average*		2.5	2.7	2.8		2.6	3.1	3.6	3.7	3.8
Blue Chip Top 10*		2.7	2.9	3.1		2.8	3.5	4.3	4.4	4.4
Blue Chip Bottom 10*		2.3	2.4	2.5		2.4	2.7	2.8	3.0	3.1
Consumer Price Index, Percent Change, Annual Rate										
ERFC (Preliminary June)	3.1	0.9	2.3	2.2	1.3	2.3	1.9	1.8	2.1	2.2
Global Insight	3.1	0.7	2.8	1.9	1.3	2.3	1.8	2.2	2.7	2.7
Economy.com	3.1	2.4	2.2	2.2	1.3	2.6	2.5	2.9		
Blue Chip Average*		1.3	2.2	2.3		2.4	2.2	2.3	2.4	2.3
Blue Chip Top 10*		2.5	2.7	2.9		2.6	2.7	2.8	2.8	2.8
Blue Chip Bottom 10*		0.3	1.7	1.7		2.1	1.9	1.9	2.0	2.0
Payroll Employment, Millions										
ERFC (Preliminary June)	145.7	146.2	146.6	146.9	144.3	146.3	147.6	148.6	149.7	150.5
Percent Change, Annual Rate	1.5	1.3	1.0	0.9	1.8	1.4	0.8	0.7	0.7	0.5
Global Insight	145.7	146.2	146.7	147.1	144.3	146.4	148.0	149.6	150.9	152.0
Percent Change, Annual Rate	1.5	1.4	1.3	1.1	1.8	1.5	1.1	1.1	0.9	0.7
Economy.com	145.7	146.3	146.9	147.3	144.3	146.5	148.4	150.0		
Percent Change, Annual Rate	1.5	1.5	1.6	1.3	1.8	1.6	1.3	1.1		
Unemployment Rate, Percent										
ERFC (Preliminary June)	4.7	4.5	4.5	4.4	4.9	4.5	4.3	4.3	4.4	4.5
Global Insight	4.7	4.5	4.4	4.4	4.9	4.5	4.2	4.0	4.1	4.2
Economy.com	4.7	4.5	4.4	4.3	4.9	4.5	4.2	4.1		
Blue Chip Average*		4.5	4.4	4.4		4.5	4.3	4.5	4.6	4.6
Blue Chip Top 10*		4.7	4.7	4.6		4.7	4.6	5.2	5.1	5.2
Blue Chip Bottom 10*		4.2	4.1	4.0		4.4	4.1	4.1	4.1	4.1
Real Disposable Personal Income, Percent Change, Annual Rate										
ERFC (Preliminary June)	1.0	3.1	2.5	2.2	2.8	2.2	3.3	2.8	2.1	2.1
Global Insight	1.0	3.7	2.7	3.0	2.8	2.4	4.0	3.2	2.5	2.6
Blue Chip Average*		3.1	2.6	2.6		2.2	2.8	2.5	2.4	2.3
Blue Chip Top 10*		4.0	3.4	3.5		2.5	3.6	3.6	3.2	3.0
Blue Chip Bottom 10*		2.2	2.2	1.9		2.0	2.2	1.7	1.8	1.7
West Texas Intermediate										
ERFC (Preliminary June)	51.9	49.3	48.5	49.0	43.2	49.7	49.1	48.9	49.3	50.1
Global Insight	51.9	51.1	54.5	53.8	43.2	52.9	51.5	60.3	73.8	80.2
Economy.com	51.8	52.9	53.9	54.8	43.4	53.3	57.0	60.1		

* Forecasts beyond 2018 are from the March 2017 Blue Chip Economic Indicators

U.S. Forecast Comparison

	2017Q1	2017Q2	2017Q3	2017Q4
Real GDP (Billions of 2009 Dollars)				
June Forecast, Preliminary	16,842	16,972	17,075	17,173
Percent Change	0.7%	3.1%	2.4%	2.3%
March Forecast	16,884	16,989	17,090	17,193
Percent Change	1.9%	2.5%	2.4%	2.4%
Real Consumption (Billions of 2009 Dollars)				
June Forecast, Preliminary	11,680	11,761	11,838	11,911
Percent Change	0.3%	2.8%	2.7%	2.5%
March Forecast	11,709	11,786	11,859	11,935
Percent Change	1.9%	2.6%	2.5%	2.6%
Implicit Price Deflator, PCE (2009=1.00)				
June Forecast, Preliminary	1.121	1.124	1.129	1.133
Percent Change	2.4%	0.9%	1.8%	1.6%
March Forecast	1.121	1.123	1.128	1.132
Percent Change	2.3%	0.9%	1.7%	1.5%
Real Personal Income (Billions of 2009 Dollars)				
June Forecast, Preliminary	14,650	14,765	14,850	14,942
Percent Change	1.6%	3.2%	2.3%	2.5%
March Forecast	14,643	14,777	14,874	14,980
Percent Change	1.3%	3.7%	2.6%	2.9%
Nonfarm Payroll Employment (Millions)				
June Forecast, Preliminary	145.7	146.2	146.6	146.9
Percent Change	1.5%	1.3%	1.0%	0.9%
March Forecast	145.8	146.4	146.9	147.2
Percent Change	1.8%	1.5%	1.4%	1.0%
Unemployment Rate (Percent of Labor Force)				
June Forecast, Preliminary	4.7	4.5	4.5	4.4
March Forecast	4.7	4.6	4.5	4.5
30 Year Fixed Mortgage Rate (Percent, average)				
June Forecast, Preliminary	4.2	4.1	4.4	4.6
March Forecast	4.2	4.5	4.6	4.7
3 Month T-Bill Rate (Percent, average)				
June Forecast, Preliminary	0.6	0.8	1.1	1.2
March Forecast	0.6	0.8	1.0	1.2

	2015	2016	2017	2018	2019	2020	2021
16,397	16,662	17,016	17,425	17,791	18,147	18,510	
2.6%	1.6%	2.1%	2.4%	2.1%	2.0%	2.0%	
16,397	16,660	17,039	17,447	17,814	18,170	18,533	
2.6%	1.6%	2.3%	2.4%	2.1%	2.0%	2.0%	
11,215	11,522	11,797	12,097	12,375	12,647	12,913	
3.2%	2.7%	2.4%	2.5%	2.3%	2.2%	2.1%	
11,215	11,519	11,822	12,126	12,405	12,678	12,945	
3.2%	2.7%	2.6%	2.6%	2.3%	2.2%	2.1%	
1.095	1.107	1.127	1.143	1.161	1.181	1.203	
0.4%	1.1%	1.8%	1.5%	1.5%	1.7%	1.9%	
1.095	1.107	1.126	1.143	1.162	1.184	1.207	
0.4%	1.1%	1.7%	1.5%	1.7%	1.9%	1.9%	
14,113	14,461	14,802	15,217	15,688	16,099	16,454	
4.0%	2.5%	2.4%	2.8%	3.1%	2.6%	2.2%	
14,113	14,462	14,819	15,276	15,725	16,116	16,471	
4.0%	2.5%	2.5%	3.1%	2.9%	2.5%	2.2%	
141.8	144.3	146.3	147.6	148.6	149.7	150.5	
2.1%	1.8%	1.4%	0.8%	0.7%	0.7%	0.5%	
141.8	144.3	146.6	148.2	149.4	150.4	151.1	
2.1%	1.8%	1.6%	1.1%	0.8%	0.7%	0.5%	
5.3	4.9	4.5	4.3	4.3	4.4	4.5	
5.3	4.9	4.6	4.3	4.3	4.4	4.5	
3.9	3.6	4.3	5.1	5.8	6.0	5.9	
3.9	3.6	4.5	5.1	5.8	6.0	5.9	
0.1	0.3	0.9	1.6	2.5	2.8	2.8	
0.1	0.3	0.9	1.6	2.5	2.8	2.8	

Washington Forecast Comparison

	2017Q1	2017Q2	2017Q3	2017Q4
Real Personal Income (Billions of 2009 Dollars)				
June Forecast, Preliminary	358.1	360.9	362.1	365.3
Percent Change	5.8%	3.3%	1.3%	3.6%
March Forecast	360.7	362.3	363.7	367.5
Percent Change	5.0%	1.8%	1.6%	4.1%
Personal Income (Billions of Dollars)				
June Forecast, Preliminary	401.5	405.6	408.7	414.0
Percent Change	8.3%	4.2%	3.1%	5.3%
March Forecast	404.3	407.0	410.4	416.1
Percent Change	7.4%	2.7%	3.4%	5.7%
Nonfarm Payroll Employment (Thousands)				
June Forecast, Preliminary	3296	3313	3327	3341
Percent Change	2.9%	2.0%	1.8%	1.7%
March Forecast	3296	3313	3330	3344
Percent Change	2.0%	2.1%	2.1%	1.7%
Unemployment Rate (Percent of Labor Force)				
June Forecast, Preliminary	4.9	4.6	4.6	4.5
March Forecast	5.1	4.9	4.8	4.7
Manufacturing Employment (Thousands)				
June Forecast, Preliminary	285.1	283.5	282.6	281.4
Percent Change	-1.0%	-2.3%	-1.3%	-1.7%
March Forecast	285.8	285.0	284.9	284.2
Percent Change	-0.7%	-1.1%	-0.1%	-1.0%
Construction Employment (Thousands)				
June Forecast, Preliminary	195.4	199.0	201.3	203.9
Percent Change	9.1%	7.5%	4.6%	5.4%
March Forecast	192.8	194.5	196.5	199.1
Percent Change	5.6%	3.6%	4.2%	5.4%
Housing Permits (Thousands)				
June Forecast, Preliminary	40.8	45.3	43.7	43.1
Percent Change	-61.9%	52.1%	-13.7%	-5.0%
March Forecast	40.8	41.3	41.0	40.7
Percent Change	-59.0%	5.3%	-3.0%	-2.4%

	2015	2016	2017	2018	2019	2020	2021
1	339.7	351.2	361.6	374.6	388.8	400.9	411.7
	4.3%	3.4%	3.0%	3.6%	3.8%	3.1%	2.7%
2	339.7	352.1	363.5	377.1	390.6	402.3	413.3
	4.3%	3.6%	3.3%	3.7%	3.6%	3.0%	2.7%
3	372.1	388.8	407.5	428.3	451.2	473.4	495.1
	4.6%	4.5%	4.8%	5.1%	5.4%	4.9%	4.6%
4	372.1	389.8	409.4	431.1	454.0	476.4	498.9
	4.6%	4.8%	5.0%	5.3%	5.3%	4.9%	4.7%
5	3146	3242	3319	3373	3420	3462	3494
	2.9%	3.1%	2.4%	1.6%	1.4%	1.2%	0.9%
6	3146	3244	3321	3382	3428	3469	3504
	2.9%	3.1%	2.3%	1.8%	1.4%	1.2%	1.0%
7	5.6	5.4	4.6	4.4	4.3	4.4	4.5
	5.6	5.4	4.9	4.5	4.4	4.5	4.6
8	291.8	289.8	283.1	283.8	287.5	291.1	294.2
	1.1%	-0.7%	-2.3%	0.2%	1.3%	1.3%	1.1%
9	291.8	290.0	285.0	287.2	290.9	293.2	295.3
	1.1%	-0.6%	-1.7%	0.8%	1.3%	0.8%	0.7%
10	173.3	186.4	199.9	207.5	210.6	210.7	209.7
	8.5%	7.6%	7.2%	3.8%	1.5%	0.1%	-0.5%
11	173.3	186.2	195.7	203.2	206.5	208.1	211.3
	8.5%	7.5%	5.1%	3.8%	1.6%	0.8%	1.6%
12	40.4	44.1	43.2	42.4	41.5	41.5	41.0
	19.1%	9.2%	-1.9%	-1.8%	-2.3%	0.1%	-1.2%
13	40.4	43.2	40.9	41.1	40.8	40.8	40.5
	19.1%	7.1%	-5.3%	0.3%	-0.6%	-0.1%	-0.6%

U.S. Forecast Comparison				Fiscal Years		
	2016	2017	2018	2019	2020	2021
Real GDP						
Billions of 2009 dollars						
June Preliminary Forecast	16,513	16,839	17,225	17,617	17,963	18,331
Growth	1.7%	2.0%	2.3%	2.3%	2.0%	2.0%
March Forecast	16,513	16,851	17,245	17,638	17,987	18,353
Growth	1.7%	2.0%	2.3%	2.3%	2.0%	2.0%
Difference in level	0	-12	-20	-22	-24	-22
<i>Difference in growth forecast</i>	<i>0.0%</i>	<i>-0.1%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>
Real Consumption						
Billions of 2009 dollars						
June Preliminary Forecast	11,356	11,670	11,951	12,238	12,509	12,782
Growth	2.7%	2.8%	2.4%	2.4%	2.2%	2.2%
March Forecast	11,356	11,680	11,976	12,268	12,542	12,813
Growth	2.7%	2.8%	2.5%	2.4%	2.2%	2.2%
Difference in level	0	-10	-25	-30	-32	-31
<i>Difference in growth forecast</i>	<i>0.0%</i>	<i>-0.1%</i>	<i>-0.1%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>
Implicit Price Deflator						
Index 2009 = 100						
June Preliminary Forecast	110.0	111.7	113.5	115.2	117.1	119.2
Growth	0.7%	1.5%	1.6%	1.4%	1.6%	1.8%
March Forecast	110.0	111.7	113.4	115.2	117.3	119.5
Growth	0.7%	1.5%	1.6%	1.6%	1.8%	1.9%
Difference in level	0.0	0.0	0.1	-0.1	-0.2	-0.4
<i>Difference in growth forecast</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>-0.1%</i>	<i>-0.2%</i>	<i>-0.1%</i>
Unemployment Rate						
Percent of Labor Force						
June Preliminary Forecast	5.0%	4.7%	4.4%	4.3%	4.4%	4.5%
March Forecast	5.0%	4.7%	4.4%	4.3%	4.4%	4.5%
<i>Difference in forecast</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>
30 Year Fixed Mortgage Rate						
Annual Average						
June Preliminary Forecast	3.8%	3.9%	4.7%	5.4%	6.0%	5.9%
March Forecast	3.8%	4.0%	4.7%	5.4%	6.0%	5.9%
<i>Difference in forecast</i>	<i>0.0%</i>	<i>-0.1%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>
3 Month T-Bill Rate						
Annual Average						
June Preliminary Forecast	0.2%	0.5%	1.3%	2.1%	2.8%	2.8%
March Forecast	0.2%	0.5%	1.3%	2.1%	2.8%	2.8%
<i>Difference in forecast</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>

Washington Forecast Comparison

Fiscal Years

	2016	2017	2018	2019	2020	2021
Real Personal Income						
Billions of 2009 dollars						
June Preliminary Forecast	345.7	356.2	368.2	381.8	395.0	406.5
Growth	3.6%	3.0%	3.4%	3.7%	3.5%	2.9%
March Forecast	345.8	358.1	370.5	384.1	396.6	407.9
Growth	3.6%	3.6%	3.4%	3.7%	3.2%	2.8%
Difference in level	-0.1	-1.9	-2.2	-2.3	-1.5	-1.4
<i>Difference in growth forecast</i>	<i>0.0%</i>	<i>-0.5%</i>	<i>-0.1%</i>	<i>0.0%</i>	<i>0.2%</i>	<i>0.0%</i>
Nominal Personal Income						
Billions of dollars						
June Preliminary Forecast	380.4	398.0	418.0	439.7	462.4	484.4
Growth	4.2%	4.6%	5.0%	5.2%	5.2%	4.7%
March Forecast	380.5	400.0	420.3	442.6	465.2	487.6
Growth	4.3%	5.1%	5.1%	5.3%	5.1%	4.8%
Difference in level	-0.1	-2.0	-2.3	-2.9	-2.8	-3.2
<i>Difference in growth forecast</i>	<i>0.0%</i>	<i>-0.5%</i>	<i>0.0%</i>	<i>-0.1%</i>	<i>0.1%</i>	<i>-0.1%</i>
Nonfarm Payroll Employment						
Thousands						
June Preliminary Forecast	3,193.2	3,283.9	3,348.2	3,396.9	3,441.6	3,478.3
Growth	2.9%	2.8%	2.0%	1.5%	1.3%	1.1%
March Forecast	3,193.4	3,285.9	3,352.9	3,406.5	3,449.4	3,485.8
Growth	2.9%	2.9%	2.0%	1.6%	1.3%	1.1%
Difference in level	-0.2	-2.0	-4.7	-9.6	-7.7	-7.5
<i>Difference in growth forecast</i>	<i>0.0%</i>	<i>-0.1%</i>	<i>-0.1%</i>	<i>-0.1%</i>	<i>0.1%</i>	<i>0.0%</i>
Housing Permits						
Units Authorized, Thousands						
June Preliminary Forecast	40.1	44.5	43.2	41.7	41.5	41.4
Growth	3.6%	11.0%	-3.0%	-3.4%	-0.6%	-0.2%
March Forecast	39.7	43.1	41.0	40.9	40.8	40.7
Growth	2.6%	8.5%	-4.7%	-0.2%	-0.4%	-0.1%
Difference in level	0.4	1.4	2.2	0.8	0.7	0.7
<i>Difference in growth forecast</i>	<i>1.0%</i>	<i>2.5%</i>	<i>1.8%</i>	<i>-3.1%</i>	<i>-0.2%</i>	<i>-0.1%</i>

Year-Over-Year Employment Growth by Industry (April 2016 to April 2017) Washington vs. U.S.

	Washington		U.S.
	(000)	% Chg.	% Chg.
Total	76.5	2.4%	1.5%
Electronic Shopping and Mail-Order Houses	12.1	33.6%	6.0%
Construction	13.0	7.0%	2.5%
Software Publishers	4.0	6.9%	2.7%
Information Excluding Software	2.3	3.7%	-2.7%
State and Local Gov Non-Education	6.7	3.2%	0.5%
Education and Health Services	14.3	3.1%	2.3%
State and Local Gov Education	7.0	2.8%	0.6%
Financial Activities	3.7	2.5%	2.0%
Leisure and Hospitality	7.5	2.3%	2.0%
Transportation, Warehousing and Utilities	2.4	2.3%	1.4%
Other Services	1.9	1.6%	1.0%
Professional and Business Services	6.6	1.6%	3.1%
Wholesale Trade	1.2	0.9%	0.8%
Manufacturing Excluding Aerospace	-1.1	-0.5%	0.5%
Mining and Logging	0.0	-0.7%	2.5%
Aerospace Product and Parts Manufacturing	-7.0	-7.6%	-2.4%
Information	6.2	5.2%	-2.0%
Retail Trade	12.8	3.5%	0.3%
Manufacturing	-8.1	-2.8%	0.3%

Source: WA State ERFC Kalman filtered data, U.S. Bureau of Labor Statistics