

Economic Review
September 6, 2018



Washington State
Economic and Revenue Forecast Council

This page left intentionally blank.



WASHINGTON STATE
ECONOMIC AND REVENUE FORECAST COUNCIL

AGENDA

ECONOMIC REVIEW MEETING

September 6, 2018
10:00 a.m.

- Administrative Items:
 - ✓ Approval of meeting minutes:
 - June 19, 2018
- Presentation of economic outlook and revenue collection experience

This page left intentionally blank.



STATE OF WASHINGTON

ECONOMIC AND REVENUE FORECAST COUNCIL

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

**Meeting Minutes
Revenue Review**

June 19, 2018

John A Cherberg, Senate Hearing Room 3

Economic and Revenue Forecast Council

Members Present

Christine Rolfes, Senate, ERFC Chair
John Braun, Senate (via phone)
Timm Ormsby, House of Representatives
Ed Orcutt, House of Representatives
Duane Davidson, Treasurer
David Schumacher, Office of Financial Management
Vikki Smith, Department of Revenue

Staff

Steve Lerch, Executive Director

Call to Order

Senator Rolfes called the meeting to order at 10:03 a.m.

Motion

Treasurer Davidson moved, seconded by Representative Ormsby, to adopt the May 29, 2018 meeting minutes. Motion passed at 10:03 a.m.

Forecast Presentation

Dr. Lerch presented information on the economic and revenue forecast. Dr. Lerch summarized the forecast changes. Discussion ensued regarding revenue growth rates, employment, housing, and population.

Motion

Representative Orcutt moved, seconded by Representative Ormsby, to adopt the baseline revenue forecast. Council approved the motion at 10:37 a.m.

Adjournment

With no further business, the meeting adjourned at 10:37 a.m.

This page left intentionally blank.

**Economic & Revenue Forecast Council
State of Washington**



Economic Review: September 6, 2018

Executive Summary

- This forecast is based on a modified version of IHS Markit's August 2018 Control 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 August Blue Chip forecast for real GDP growth was unchanged from June.
- 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, August 29, 2018 closing prices for Brent and WTI futures. The latest futures prices are slightly higher than the prices used in the June forecast. The refiner acquisition price of crude oil in the fourth quarter of 2018 is now expected to average \$71 per barrel compared to \$69 in the June forecast. By the end of 2023, the refiner acquisition price is now expected to average \$59 per barrel compared to \$56 in the June forecast.
- The U.S. economy added 157,000 net new jobs in July. Employment data for May and June were revised up by 59,000 jobs. Sectors with notable employment gains in July included manufacturing (+37,000), accommodation and food services (+34,000), temporary help services (+28,000), construction (+19,000), social assistance (+17,000), health care (+17,000) and professional and technical services (+16,000). Industries with net employment declines in July included sporting goods, hobby, book, and music stores (-32,000), transit and ground passenger transportation (-15,000), local government education (-14,000), educational services (-11,000) and finance and insurance (-9,000).
- Real U.S. GDP growth for the second quarter of 2018 was revised up from 4.1% (SAAR) to 4.2%. In the first quarter, real GDP grew by 2.2%
- Two key measures of consumer confidence painted a mixed picture this month but remain at high levels. Consumers responding to the University of Michigan consumer sentiment survey reported less favorable perceptions of product prices, resulting in a 2.6 point decline to 95.3 in the sentiment index in August. The Conference Board index of consumer confidence increased by 5.5 points in August to 133.4, its highest level since October 2000. Consumers were more confident about both current condition and future economic conditions compared to July.
- Initial claims for unemployment insurance increased by 3,000 to 213,000 (SA) in the week ending August 25th. The four-week moving average of initial claims decreased by 1,500 to 212,250.
- Industrial production increased by 0.1% (SA) in July following a revised 1.0% decrease in June. New orders for core capital goods (i.e., durables excluding aircraft and military), which is a proxy for business investment, increased by 1.4% (SA) in July according to U.S. Census Bureau advance data.

- U.S. residential construction activity improved this month while sales of both new and existing homes slowed. Housing units authorized by building permits in July were 1.5% (SA) above their June level and 4.2% above their year-ago level. July housing starts increased by 0.9% (SA) compared to June but were 1.4% below their July 2017 level. Existing home sales decreased for the fourth consecutive month in July, falling by 0.7% (SA) compared to June. Existing home sales in July were at their slowest pace in over two years and are 1.5% below their year-ago level. New single-family home sales in July decreased by 1.7% (SA) compared to June. However, new home sales were up by 12.8% compared to July 2017. The seasonally adjusted Case-Shiller national home price index for June was 0.3% above its May level and 6.3% above its year-ago level.
- Major threats to the U.S. and Washington economies remain, including concerns about international trade and fiscal policy as well as geopolitical risks.

Washington

- We have two months of new Washington employment data since the June forecast was released. Total nonfarm payroll employment rose 18,100 (seasonally adjusted) in June and July, which was 6,300 more than the 11,800 expected in the June forecast. The variance in employment growth was mostly due to the private services-providing sectors, which added 15,300 jobs compared to 9,400 in the June forecast. Manufacturing employment increased 1,700 in June and July, boosted by an increase of 1,300 aerospace employees. Construction employment decreased by 500 jobs while government payrolls expanded by 1,600 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 increased the estimated level of total employment in May 2018 by 13,400 jobs (0.4%). As a result of the upward revision to history and stronger-than-expected growth, the combined effect is 19,600 (0.6%) more jobs in July 2018 than expected in the June forecast.
- In June, the Bureau of Economic Analysis released estimates for state personal income through the first quarter of 2018. We have incorporated the new BEA estimates as well as additional Washington QCEW and other wage data. Our current estimate of Washington personal income in the first quarter of 2018 is \$441.8 billion, which is \$5.0 billion (1.1%) higher than assumed in the June forecast. The new estimate of wage and salary income is \$5.6 billion higher than expected and nonwage income is \$0.6 billion lower.
- Washington housing construction declined in the second quarter of 2018 and fell short of the June forecast. The number of housing units authorized by building permits decreased to 43,200 units (SAAR) in the second quarter of 2018 from 49,200 units in the first quarter. Second quarter permits were made up of 23,000 single-family units and 20,200 multi-family units. The June forecast assumed 46,700 units (SAAR) in the second quarter, consisting of 24,400 single-family units and 22,300 multi-family units.
- Housing permits remained weak in July at 35,400 units (SAAR) of which 21,800 were single-family units and 13,700 were multi-family units. The June forecast expected 42,800 units in the third quarter as a whole, consisting of 23,600 single-family units and 19,300 multi-family units.

- In a sign that the housing market may be cooling, seasonally adjusted Seattle area home prices rose just 0.2% in June according to the S&P/Case-Shiller Home Price Indices. The Composite-20 index rose just 0.1%. The monthly results might be misleading, however, due to ongoing problems with seasonal adjustment. The over-the-year growth was 12.8% in Seattle, which was double the 6.4% increase in the Composite-20 index. Seattle home prices are now up 92% since the December 2011 trough and exceed the May 2007 peak by 33%.
- Seattle area consumer price inflation remains well above the national average. Over the last year, from June 2017 to June 2018, consumer prices in the Seattle area rose 3.3% compared to 2.8% for the U.S. city average. Core prices, which exclude food and energy, were up 2.9% in Seattle compared to 2.2% for the nation. The higher Seattle inflation is due to more rapid growth in shelter costs. During the year, shelter costs in Seattle rose 6.4% compared to 3.4% for the nation. Excluding shelter costs, Seattle inflation was below the national average at 1.5% compared to 2.5%.
- Despite a decline in transportation equipment, Washington exports were up over the year for a third consecutive quarter. Exports increased 3.7% in the second quarter of 2018 compared to the second quarter of 2017. Transportation equipment exports (mostly Boeing planes) declined 5.3% over the year but exports of agricultural products rose 26.8% and exports of all other commodities (mostly manufacturing) increased 12.0%.
- The Institute of Supply Management - Western Washington Index (ISM-WW) increased in July and remained solidly in positive territory. The index, which measures conditions in the manufacturing sector, increased from 56.0 in June to 60.0 in July (index values above 50 indicate growth while values below 50 indicate contraction). The index has exceeded 50 in each of the last 12 months. The production, orders, employment, and inventory components all indicated expansion in July while the deliveries component was neutral at 50.
- Car and truck sales appear to have plateaued. Seasonally adjusted new vehicle registrations fell 1.4% in July but are up 0.9% over the year. Car and truck sales are down 13.1% since the post-recession peak in November 2017
- Washington employment is expected to grow 3.0% this year compared to 2.5% in the June forecast. As in June, we expect growth to decelerate gradually as the recovery matures. We expect employment growth to average 1.2% per year in 2019 through 2023, which is slightly stronger than the 1.1% per year expected in the June forecast. Our forecast for nominal personal income growth this year is 6.6%, up from 5.8% in the June forecast, due mainly to an upward revision to first quarter growth. Our new forecast for nominal personal income growth in 2019 through 2023 averages 4.9% per year compared to 5.1% per year in the June forecast.

This page left intentionally blank.

Washington State Economic Outlook & Revenue Collection Experience

Presented to
The Economic & Revenue Forecast Council

Steve Lerch
Executive Director

September 6, 2018
Olympia, Washington



**WASHINGTON STATE
ECONOMIC AND REVENUE FORECAST COUNCIL**

This page left intentionally blank.



Summary

- The preliminary economic forecast for the U.S. is very similar to the June forecast
- The preliminary economic forecast for WA has higher personal income and employment than the June forecast
- Downside risks to the baseline include uncertainty regarding trade and fiscal policy, geopolitical concerns and higher interest rates
- Revenue collections since the June forecast are \$75 million (2.2%) above expectations

Economic Review
September 6, 2018

Slide 1

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Forecast risks

Upside

- Elevated consumer, business confidence could translate into stronger growth
- Strong U.S., WA labor markets

Downside

- International trade and fiscal policy uncertainty
- Geopolitical risks: North Korea, China, Russia, Iran, Venezuela
- Impact of rising interest rates
- Maturing economic expansion

Economic Review
September 6, 2018

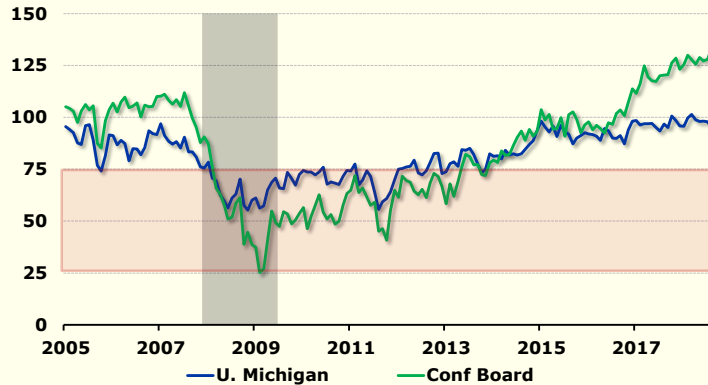
Slide 2

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Consumer confidence remains at an elevated level

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



Economic Review
September 6, 2018

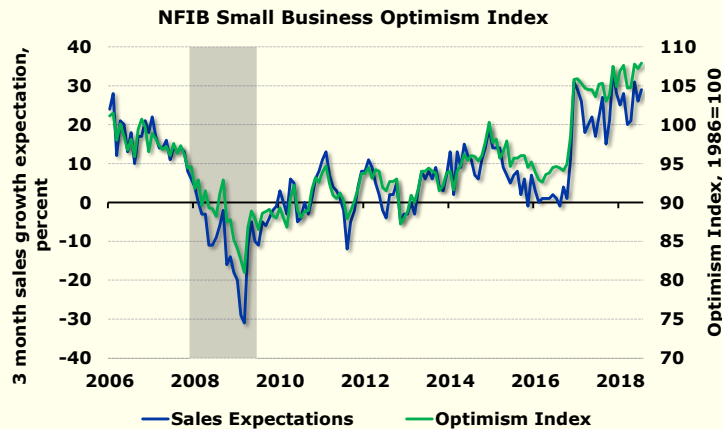
Slide 3

Sources: University of Michigan, Conference Board; data through August 2018

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Small business optimism and sales expectations remain above pre-recession levels



Economic Review
September 6, 2018

Slide 4

Source: National Federation of Independent Business; data through July 2018

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



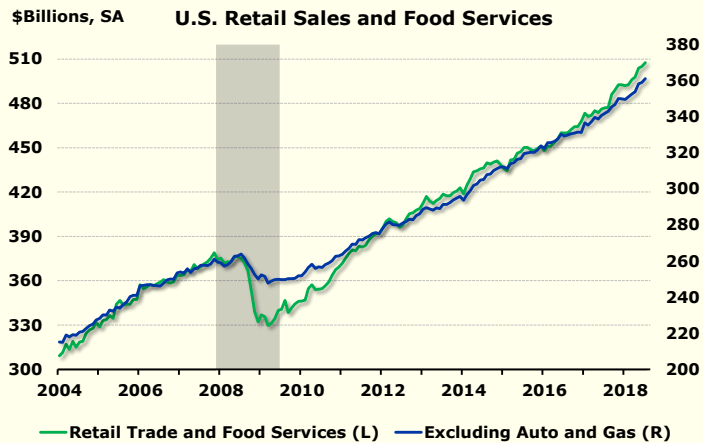
U.S. retail sales growth has strengthened

Preliminary U.S. retail trade and food services sales (SA) increased 6.1% YOY in June and 6.4% in July.

Excluding autos and gas, sales were up 5.4% YOY in June and 5.6% in July.

Economic Review
September 6, 2018

Slide 5



Source: U.S. Department of Commerce, Census Bureau; Data through July 2018 advance

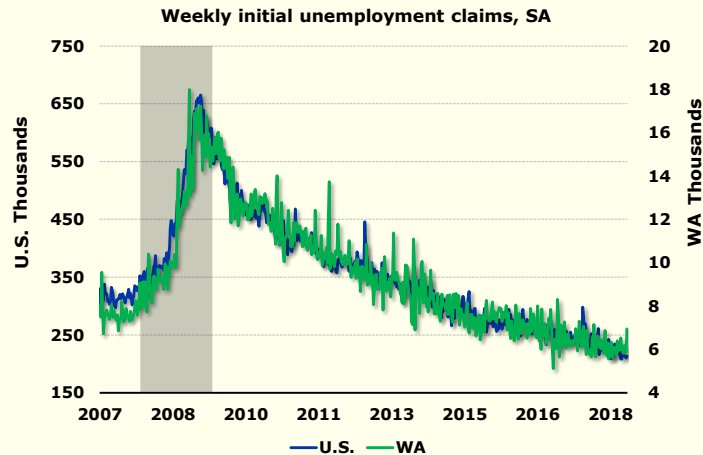
WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Both WA and U.S. initial unemployment claims remain low

Economic Review
September 6, 2018

Slide 6

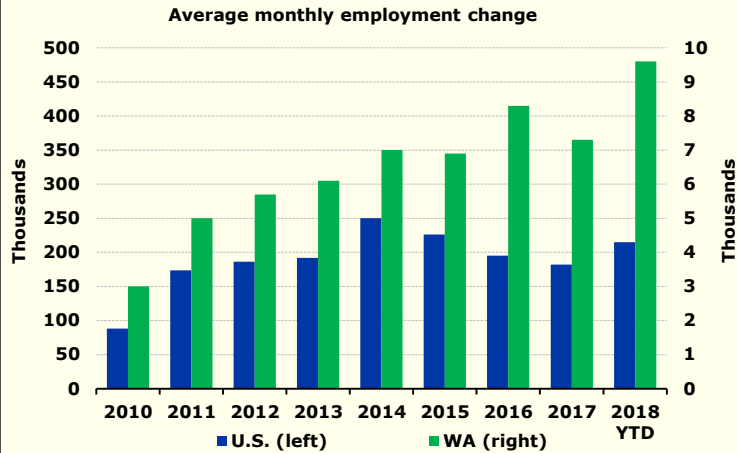


Source: U.S. Bureau of Labor Statistics, WA Employment Security Dept., data through Aug. 25, 2018

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



WA, U.S. job growth remain strong



Economic Review
September 6, 2018

Source: Bureau of Labor Statistics, ERFC; data through July 2018

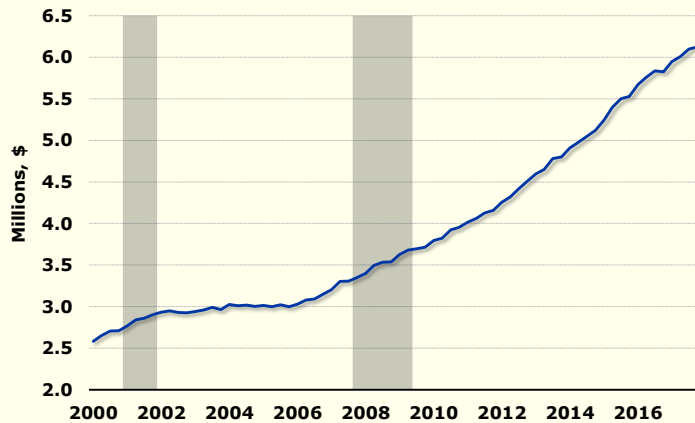
Slide 7

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Outstanding debt securities, U.S. non-financial corporations

Debt securities include commercial paper, bonds and other securities traded in financial markets



Economic Review
September 6, 2018

Source: Federal Reserve Bank of St. Louis, data through 2017 Q3

Slide 8

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Debt as percent of stock value, U.S. non-financial corporations

While corporate debt has risen, it is below pre-recession levels relative to stock values



Economic Review
September 6, 2018

Source: Federal Reserve Bank of St. Louis, data through 2018 Q1

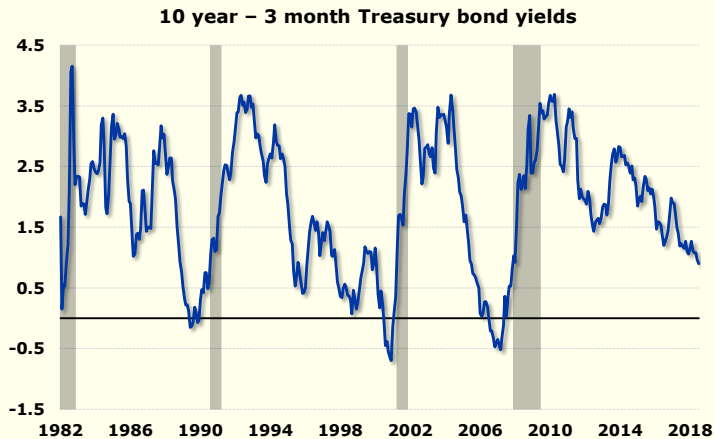
Slide 9

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



An inverted yield curve (short-term interest rates > long-term rates) is a consistent recession predictor

As of July 2018, 10 year Treasury bond yields were 0.9% above three month Treasury bond yields



Economic Review
September 6, 2018

Source: Federal Reserve Bank of St. Louis, data through July 2018

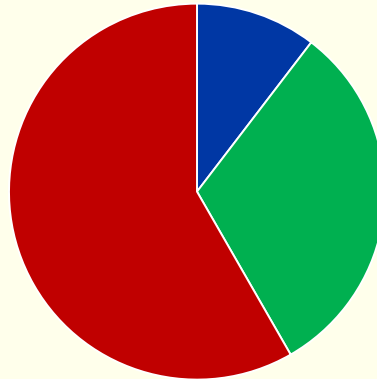
Slide 10

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



In recent survey, most economists saw downside risks to their forecast over the next 12 months

Forecast Risk, Next 12 Months



■ Balanced ■ Upside ■ Downside

Economic Review
September 6, 2018

Source: Wall Street Journal monthly economist survey, August 2018

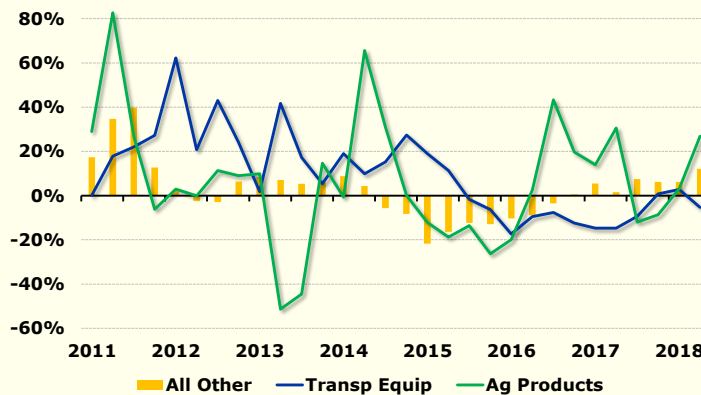
Slide 11

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



After 10 quarters of decline, exports have grown in the last three quarters

Year over year growth, quarterly WA exports



■ All Other ■ Transp Equip ■ Ag Products

Economic Review
September 6, 2018

Source: WISERTrade, data through 2018 Q2

Slide 12

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Tariffs imposed on selected WA exports as of August 23rd

Product	Country	Tariff	WA 2017 exports (millions)
Ultrasonic Scanning Apparatus	China	25%	\$ 281.5
Wheat	China	25%	\$ 248.2
Apples, Fresh	Mexico	20%	\$ 125.6
Apples, Fresh	China	25%	\$ 17.6
Wood pulp	China	25%	\$ 119.2
Iron or Non-alloy Bars, Rods	Canada	25%	\$ 111.5
Hay, Clover, Vetches	China	25%	\$ 101.9
Cherries, Fresh	China	25%	\$ 99.7
Aluminum Plates Etc. >.2 mm	EU	25%	\$ 78.8
Aluminum Plates Etc. > .2 mm	Canada	10%	\$ 43.1
Aluminum Casks, Etc.< 300 Liters	Canada	10%	\$ 56.9
Potatoes, Frozen	China	25%	\$ 54.4
Potatoes, Frozen	Mexico	20%	\$ 36.9

Economic Review
September 6, 2018

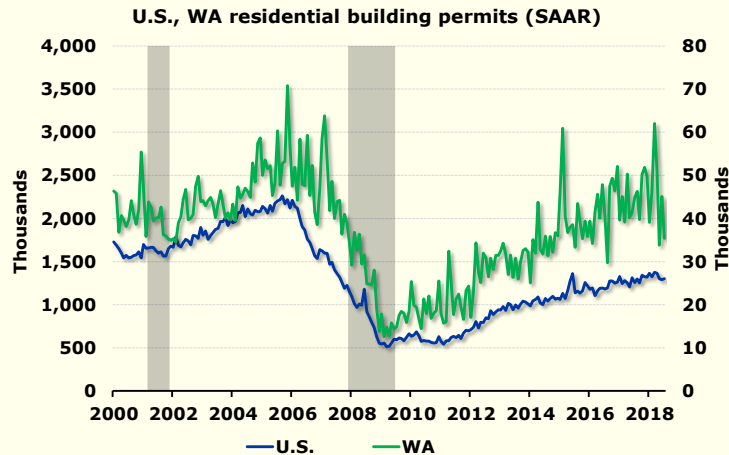
Slide 13

Source: WiserTrade, Economy.com

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



U.S. residential construction remains below historic levels



Economic Review
September 6, 2018

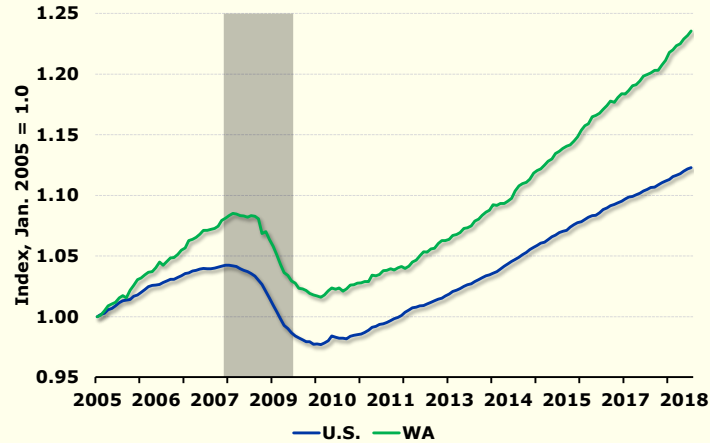
Slide 14

Source: U.S. Census Bureau, ERFC; data through July 2018

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



WA employment growth continues to exceed the U.S.



Economic Review
September 6, 2018

Slide 15

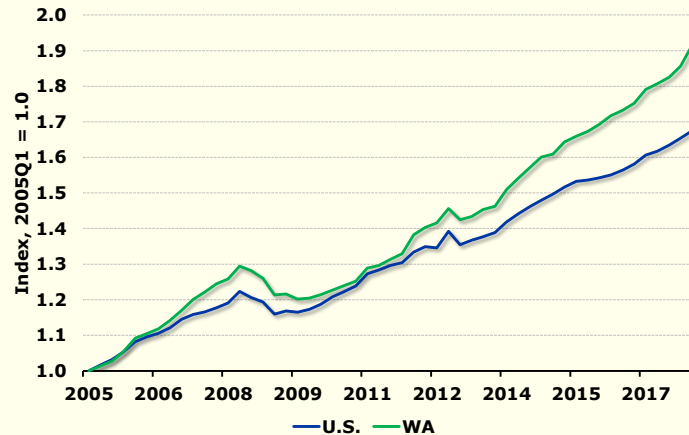
Source: U.S. Bureau of Labor Statistics, Employment Security Dept., ERFC; data through July 2018

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



WA personal income growth continues to grow faster than the nation as a whole

WA personal income grew by 4.8% in 2017 compared to a 3.1% growth rate for the U.S.



Economic Review
September 6, 2018

Slide 16

Source: U.S. Bureau of Economic Analysis; data through 2018 Q1

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL

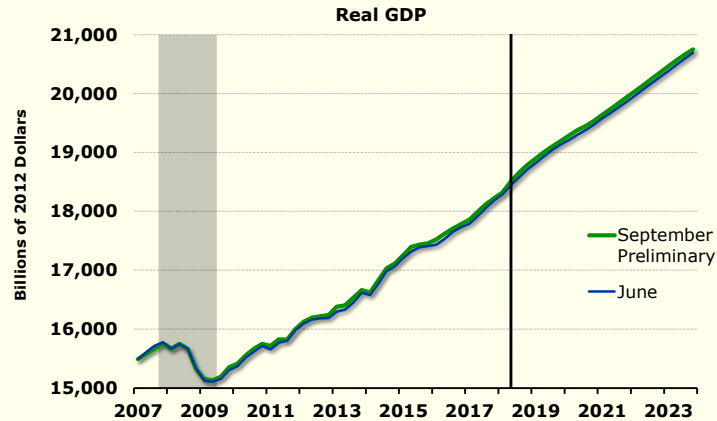


The real GDP forecast is very similar to the June forecast

The level of real GDP is slightly higher than in June due to the comprehensive revision of the national income and product accounts.

The growth rates are virtually unchanged from the June forecast in 2018-23.

Economic Review
September 6, 2018
Slide 17



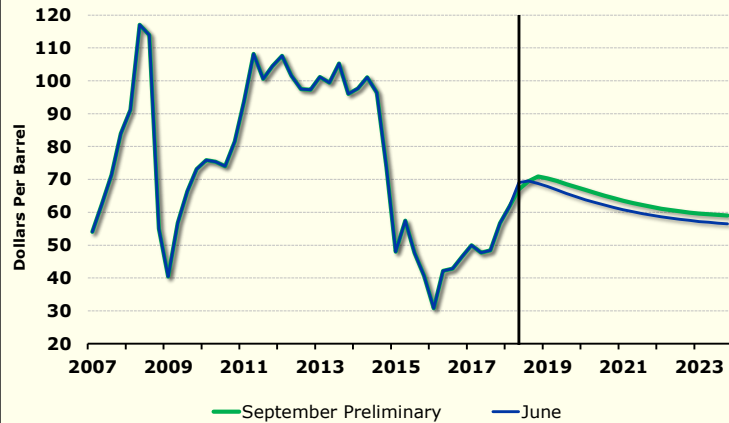
Source: IHS Markit, ERFC; data through Q2 2018
Note: Vertical black line indicates last actual

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Oil prices are very similar to the June forecast

Economic Review
September 6, 2018
Slide 18



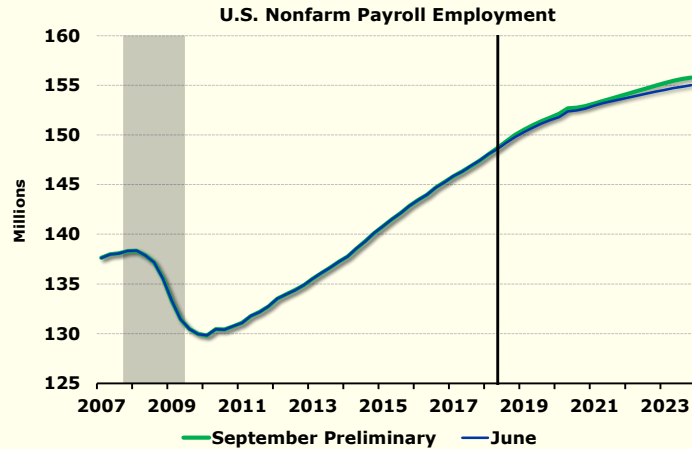
Source: Energy Information Administration, IHS Markit, ERFC; data through Q2 2018
Note: Vertical black line indicates last actual

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



U.S. nonfarm payroll employment growth is slightly higher than in June

By the end of 2023, employment is 0.5% higher than in the June forecast.



Economic Review
September 6, 2018

Slide 19

Source: IHS Markit, ERFC; data through Q2 2018

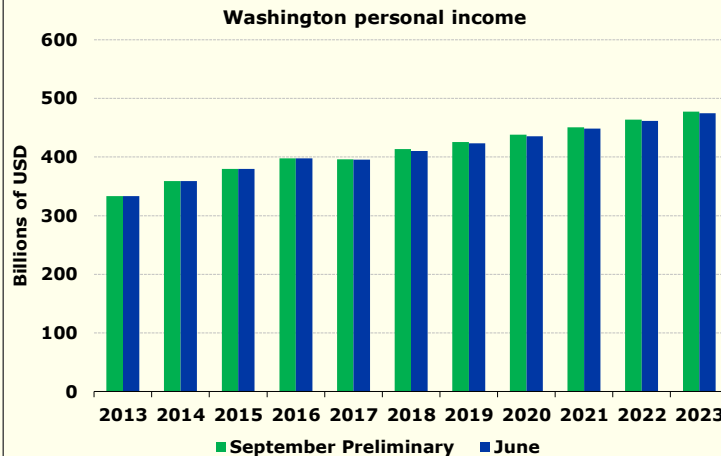
Note: Vertical black line indicates last actual

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Washington personal income is slightly higher than in June

First quarter 2018 personal income data were revised up after the June forecast



Economic Review
September 6, 2018

Slide 20

Source: ERFC September 2018 Preliminary forecast; historical data through 2017

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL

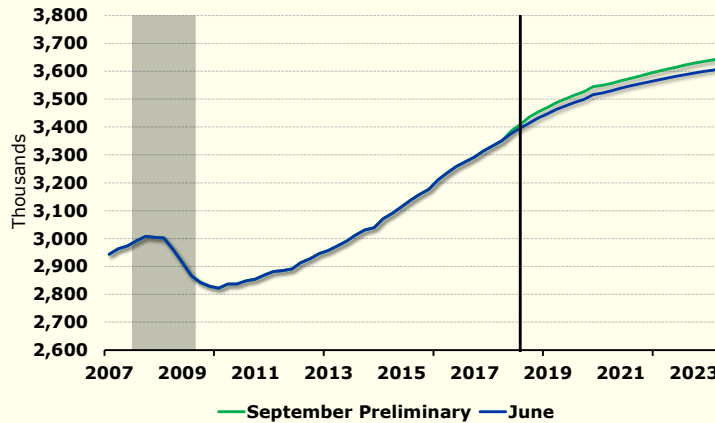


Washington employment forecast is slightly higher than in June

The nonfarm employment forecast is 16,000 jobs higher (0.5%) this year and 36,000 jobs higher (1.0%) by 2023 compared to June.

Economic Review
September 6, 2018
Slide 21

Washington Nonfarm Payroll Employment



Source: ERFC September 2018 Preliminary forecast; historical data through Q2 2018

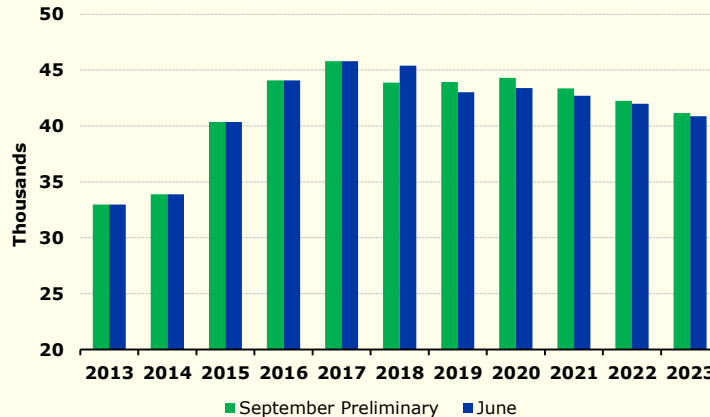
WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Washington housing permits forecast is lower this year, higher for 2019 – 2023 compared to June

Economic Review
September 6, 2018
Slide 22

Washington Housing Permits



Source: ERFC September 2018 Preliminary forecast; historical data through 2017

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Rev Act growth relative to personal income has rebounded since 2017Q3

Adjusted Rev Act growth YOY:

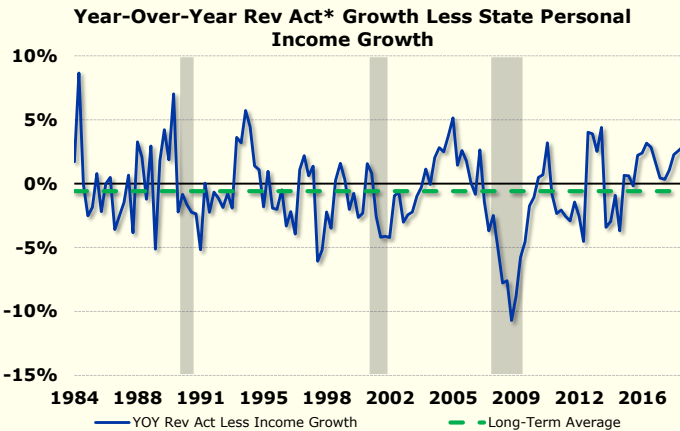
17Q3: 6.4%
17Q4: 8.3%
18Q1: 8.2%
18Q2: 8.8%

June personal income YOY growth estimates:

17Q3: 5.4%
17Q4: 6.0%
18Q1: 5.6%
18Q2: 5.9%

Economic Review
September 6, 2018

Slide 23



*Adjusted for large one-time payments and refunds and payments under the amnesty program
Source: ERFC; Quarterly revenue data through Q2 2018 preliminary, June 2018 income estimates

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



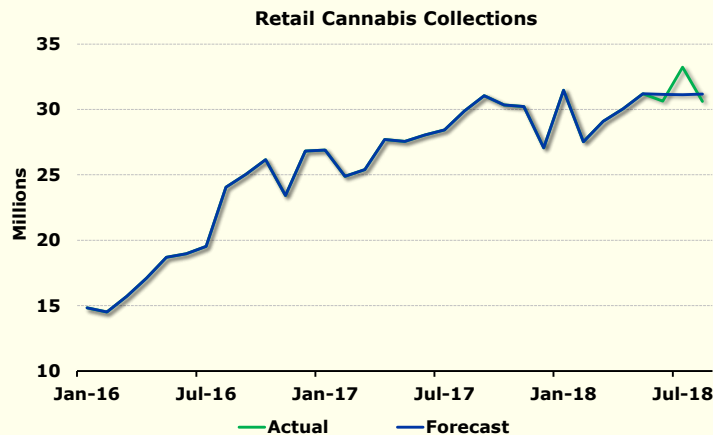
Cannabis revenue continues to be volatile

Collections were 1.8% below forecast in August

Collections are 1.1% above forecast since June

Economic Review
September 6, 2018

Slide 24



Source: LCB, ERFC; data through August 2018

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Large commercial property sales have increased recently while residential sales activity has declined

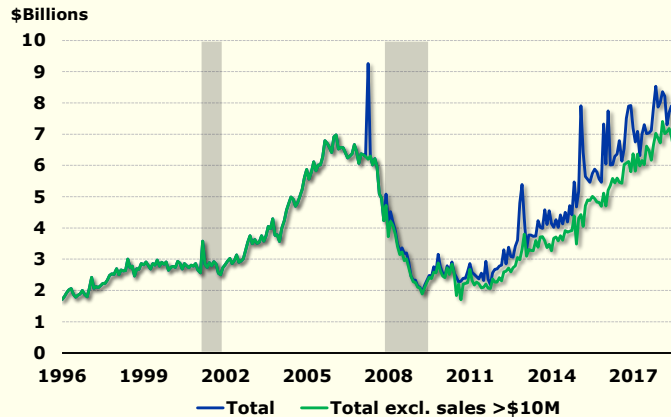
Large commercial sales (>\$10 million) totaled \$0.6 billion in May, \$1.2 billion in June and \$1.4 billion (preliminary) in July.

Excluding the large sales, taxable activity decreased in June and July.

Economic Review
September 6, 2018

Slide 25

Seasonally Adjusted Taxable Real Estate Excise Activity



Source: ERFC; Monthly data through July 2018 preliminary

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Revenue collections to date

Collections Variance Since February Forecast
(June 11, 2018 – September 10, 2018)
dollars in thousands

	<u>Estimate</u>	<u>Actual</u>	<u>Difference</u>	<u>Pct.</u>
Dept. of Revenue	\$3,425,485	\$3,499,254	\$73,769	2.2%
All other agencies	11,365	12,579	1,214	10.7%
Total GF-S	\$3,436,851	\$3,511,833	\$74,983	2.2%

Economic Review
September 6, 2018

Slide 26

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Conclusion

- The Washington economic forecast is slightly stronger than in June
- As has been the case for some time, Washington's economy is continuing to outperform the nation
- Threats to economic expansion include geopolitical risks, concerns about international trade, and fiscal policy
- The next monthly revenue collection report will be available on September 18th and the revenue forecast will be presented on September 26th

Economic Review
September 6, 2018

Slide 27

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



Questions



Economic Review
September 6, 2018

Slide 28

Economic & Revenue Forecast Council
PO BOX 40912
Olympia WA 98504-0912

www.erc.wa.gov
360-534-1560

U.S. Economic Forecast Comparison

August 2018

	2018Q2	2018Q3	2018Q4	2019Q1	2018	2019	2020	2021	2022	2023
Real GDP, Percent Change, Annual Rate										
ERFC (Preliminary September)	4.1	3.3	2.8	2.3	2.9	2.6	1.9	1.9	2.1	2.1
IHS	4.1	3.2	3.2	2.5	2.9	2.7	1.9	1.6	1.8	1.7
Economy.com	4.1	3.7	3.4	2.6	3.0	2.7	0.9			
Blue Chip Average*		3.1	2.8	2.4	2.9	2.6	1.9	1.9	2.1	2.1
Blue Chip Top 10*		3.6	3.3	2.9	3.0	3.0	2.5	2.5	2.6	2.5
Blue Chip Bottom 10*		2.6	1.9	1.7	2.8	2.0	1.2	1.4	1.5	1.6
Real Consumption, Percent Change, Annual Rate										
ERFC (Preliminary September)	4.0	2.7	2.6	2.5	2.6	2.5	2.0	2.0	2.1	2.2
IHS	4.0	2.6	2.7	2.3	2.5	2.5	2.3	2.4	2.4	2.2
Economy.com	4.0	2.6	2.6	2.6	2.5	2.4	0.9			
Blue Chip Average*		2.7	2.5	2.3	2.6	2.5	2.0	2.0	2.1	2.2
Blue Chip Top 10*		3.2	2.9	2.6	2.7	2.9	2.4	2.5	2.5	2.6
Blue Chip Bottom 10*		2.3	2.1	1.7	2.4	2.1	1.4	1.6	1.8	1.8
Federal Funds Rate										
ERFC (Preliminary September)	1.7	1.9	2.2	2.4	1.8	2.8	3.4	3.4	3.4	3.3
IHS	1.7	1.9	2.2	2.4	1.8	2.8	3.4	3.4	3.4	3.3
Economy.com	1.7	2.0	2.3	2.7	1.9	3.1	3.5			
Three Month T-Bill Rate										
ERFC (Preliminary September)	1.8	2.1	2.4	2.5	2.0	2.7	3.1	3.2	3.1	3.0
IHS	1.8	2.1	2.4	2.5	2.0	2.8	3.1	3.2	3.2	3.0
Blue Chip Average*		2.1	2.3	2.5	2.0	2.7	2.7	2.8	2.9	2.9
Blue Chip Top 10*		2.2	2.4	2.6	2.0	2.9	3.3	3.4	3.5	3.5
Blue Chip Bottom 10*		2.0	2.1	2.3	1.9	2.5	2.1	2.1	2.2	2.2
10-Yr. T-Note Yield										
ERFC (Preliminary September)	2.9	3.0	3.1	3.2	2.9	3.3	3.5	3.5	3.4	3.4
IHS	2.9	3.0	3.1	3.2	2.9	3.3	3.5	3.5	3.5	3.5
Economy.com	2.9	3.1	3.2	3.4	3.0	3.5	3.6			
Blue Chip Average*		3.0	3.1	3.2	3.0	3.3	3.5	3.6	3.7	3.7
Blue Chip Top 10*		3.2	3.3	3.5	3.1	3.8	4.2	4.3	4.4	4.4
Blue Chip Bottom 10*		2.9	2.9	2.9	2.8	2.9	2.8	2.9	3.0	3.0
Consumer Price Index, Percent Change, Annual Rate										
ERFC (Preliminary September)	1.7	2.7	2.6	2.1	2.6	2.2	2.1	1.9	1.9	1.9
IHS	1.7	2.7	2.7	2.7	2.6	2.3	2.4	2.2	2.1	2.1
Economy.com	1.7	2.8	2.4	2.6	2.6	2.5	2.3			
Blue Chip Average*		2.4	2.2	2.3	2.5	2.3	2.3	2.3	2.3	2.3
Blue Chip Top 10*		2.9	2.8	2.9	2.7	2.7	2.8	2.8	2.8	2.8
Blue Chip Bottom 10*		1.9	1.6	1.6	2.4	1.9	1.8	1.9	2.0	2.0
Payroll Employment, Millions										
ERFC (Preliminary September)	148.7	149.4	150.0	150.5	149.0	151.2	152.6	153.5	154.6	155.5
Percent Change, Annual Rate	1.7	1.8	1.7	1.4	1.6	1.4	1.0	0.6	0.7	0.6
IHS	148.7	149.4	150.0	150.6	149.0	151.3	152.8	153.5	154.1	154.7
Percent Change, Annual Rate	1.7	1.8	1.8	1.5	1.6	1.5	1.0	0.4	0.4	0.4
Economy.com	148.7	149.3	149.9	150.5	149.0	151.1	151.6			
Percent Change, Annual Rate	1.8	1.5	1.8	1.5	1.6	1.4	0.3			
Unemployment Rate, Percent										
ERFC (Preliminary September)	3.9	3.8	3.6	3.6	3.9	3.5	3.6	3.8	3.8	3.9
IHS	3.9	3.8	3.6	3.5	3.9	3.5	3.6	3.8	4.0	4.2
Economy.com	3.9	3.8	3.7	3.5	3.9	3.4	3.9			
Blue Chip Average*		3.8	3.7	3.6	3.9	3.6	4.0	4.2	4.3	4.4
Blue Chip Top 10*		3.9	3.9	3.8	4.0	3.9	4.7	5.1	5.3	5.3
Blue Chip Bottom 10*		3.7	3.6	3.4	3.8	3.3	3.5	3.6	3.6	3.7
Real Disposable Personal Income, Percent Change, Annual Rate										
ERFC (Preliminary September)	2.6	1.4	1.5	3.6	2.7	2.5	2.5	2.2	2.3	2.4
IHS	2.6	1.4	1.5	3.3	2.7	2.5	2.4	2.1	2.2	2.2
Blue Chip Average*		2.4	2.4	2.7	2.8	2.4	2.2	2.2	2.3	2.3
Blue Chip Top 10*		3.2	3.3	4.0	3.0	3.0	2.9	2.9	2.9	2.9
Blue Chip Bottom 10*		1.3	1.5	1.6	2.2	1.7	1.4	1.7	1.8	1.8
West Texas Intermediate										
ERFC (Preliminary September)	68.0	69.5	69.2	68.3	67.4	66.9	63.2	60.3	58.3	57.1
IHS	68.0	70.4	70.0	71.7	67.8	69.6	75.9	76.8	76.1	75.2
Economy.com	67.9	71.1	70.1	70.1	68.0	67.9	59.9			

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

U.S. Forecast Comparison

2018Q2 2018Q3 2018Q4 2019Q1

Real GDP (Billions of 2012 Dollars)

September Forecast, Preliminary	18,507	18,657	18,789	18,897
Percent Change	4.1%	3.3%	2.8%	2.3%
June Forecast	18,445	18,582	18,710	18,820
Percent Change	3.5%	3.0%	2.8%	2.4%

Real Consumption (Billions of 2012 Dollars)

September Forecast, Preliminary	12,848	12,932	13,015	13,094
Percent Change	4.0%	2.7%	2.6%	2.5%
June Forecast	12,901	12,988	13,071	13,148
Percent Change	3.1%	2.7%	2.6%	2.4%

PCE Price Index (2012=100)

September Forecast, Preliminary	108.0	108.6	109.2	109.7
Percent Change	1.8%	2.2%	2.2%	2.0%
June Forecast	108.1	108.7	109.2	109.7
Percent Change	2.0%	2.0%	2.0%	1.8%

Real Personal Income (Billions of 2012 Dollars)

September Forecast, Preliminary	16,204	16,262	16,332	16,471
Percent Change	2.4%	1.4%	1.7%	3.4%
June Forecast	14,821	14,898	15,013	15,151
Percent Change	2.0%	2.1%	3.1%	3.7%

Nonfarm Payroll Employment (Millions)

September Forecast, Preliminary	148.7	149.4	150.0	150.5
Percent Change	1.7%	1.8%	1.7%	1.4%
June Forecast	148.6	149.2	149.8	150.3
Percent Change	1.4%	1.7%	1.6%	1.3%

Unemployment Rate (Percent of Labor Force)

September Forecast, Preliminary	3.9	3.8	3.6	3.6
June Forecast	3.9	3.8	3.6	3.6

Oil Price, Refiner's Acquisition

September Forecast, Preliminary	67.0	69.4	70.9	70.3
June Forecast	69.1	69.6	68.7	67.9

30 Year Fixed Mortgage Rate (Percent, average)

September Forecast, Preliminary	4.5	4.6	4.8	4.9
June Forecast	4.5	4.6	4.7	4.8

3 Month T-Bill Rate (Percent, average)

September Forecast, Preliminary	1.8	2.1	2.4	2.5
June Forecast	1.9	2.1	2.3	2.4

2017 2018 2019 2020 2021 2022 2023

18,051	18,569	19,050	19,411	19,789	20,198	20,613
2.2%	2.9%	2.6%	1.9%	1.9%	2.1%	2.1%
17,989	18,506	18,982	19,341	19,718	20,125	20,539
2.3%	2.9%	2.6%	1.9%	1.9%	2.1%	2.1%

12,559	12,879	13,199	13,457	13,732	14,025	14,329
2.5%	2.6%	2.5%	2.0%	2.0%	2.1%	2.2%
12,619	12,941	13,253	13,511	13,787	14,082	14,387
2.8%	2.6%	2.4%	2.0%	2.0%	2.1%	2.2%

106.1	108.3	110.5	112.7	114.8	116.8	118.8
1.8%	2.1%	2.0%	2.0%	1.8%	1.8%	1.8%
106.2	108.4	110.5	112.8	115.1	117.5	119.9
1.7%	2.1%	1.9%	2.1%	2.0%	2.1%	2.1%

15,867	16,226	16,629	17,035	17,435	17,880	18,335
2.6%	2.3%	2.5%	2.4%	2.3%	2.6%	2.5%
14,583	14,870	15,293	15,677	16,062	16,461	16,876
1.4%	2.0%	2.8%	2.5%	2.5%	2.5%	2.5%

146.6	149.0	151.2	152.6	153.5	154.6	155.5
1.6%	1.6%	1.4%	1.0%	0.6%	0.7%	0.6%
146.6	148.9	150.9	152.3	153.3	154.1	154.8
1.6%	1.6%	1.3%	0.9%	0.6%	0.5%	0.5%

4.4	3.9	3.5	3.6	3.8	3.8	3.9
4.4	3.8	3.6	3.7	3.8	4.0	4.1

50.7	67.3	69.0	65.5	62.5	60.5	59.3
50.7	67.3	66.3	62.6	59.9	58.1	56.8

4.0	4.6	5.0	5.2	5.2	5.1	5.1
4.0	4.5	5.0	5.3	5.3	5.3	5.2

0.9	2.0	2.7	3.1	3.2	3.1	3.0
0.9	1.9	2.7	3.1	3.2	3.2	3.0

Washington Forecast Comparison

	2018Q2	2018Q3	2018Q4	2019Q1
Real Personal Income (Billions of 2012 Dollars)				
September Forecast, Preliminary	411.5	414.4	416.6	420.7
Percent Change	0.5%	2.9%	2.2%	3.9%
June Forecast	408.5	411.2	414.8	418.9
Percent Change	2.4%	2.8%	3.5%	4.0%
Personal Income (Billions of Dollars)				
September Forecast, Preliminary	444.4	450.0	455.0	461.6
Percent Change	2.4%	5.1%	4.5%	5.9%
June Forecast	441.6	446.8	452.9	459.4
Percent Change	4.4%	4.8%	5.5%	5.8%
Disposable Personal Income (Billions of Dollars)				
September Forecast, Preliminary	397.8	402.7	406.9	413.0
Percent Change	2.7%	5.0%	4.3%	6.1%
June Forecast	392.9	397.4	403.0	408.9
Percent Change	5.0%	4.7%	5.7%	6.1%
Nonfarm Payroll Employment (Thousands)				
September Forecast, Preliminary	3409	3436	3454	3471
Percent Change	2.7%	3.2%	2.1%	2.0%
June Forecast	3396	3414	3432	3448
Percent Change	2.2%	2.2%	2.1%	1.9%
Unemployment Rate (Percent of Labor Force)				
September Forecast, Preliminary	4.7	4.6	4.4	4.3
June Forecast	4.7	4.6	4.4	4.3
Manufacturing Employment (Thousands)				
September Forecast, Preliminary	285.5	287.9	289.7	290.9
Percent Change	1.9%	3.5%	2.5%	1.7%
June Forecast	285.9	287.1	288.7	289.8
Percent Change	1.4%	1.7%	2.2%	1.5%
Construction Employment (Thousands)				
September Forecast, Preliminary	211.6	211.7	212.3	212.8
Percent Change	5.5%	0.3%	1.0%	0.9%
June Forecast	210.7	211.9	212.4	213.1
Percent Change	4.8%	2.3%	1.0%	1.1%
Housing Permits (Thousands)				
September Forecast, Preliminary	43.2	40.1	43.0	43.4
Percent Change	-40.2%	-25.8%	32.0%	3.6%
June Forecast	46.7	42.8	42.9	43.2
Percent Change	-18.6%	-29.2%	0.8%	2.3%

	2017	2018	2019	2020	2021	2022	2023
September Forecast, Preliminary	395.9	413.4	425.6	438.3	450.6	464.0	477.6
Percent Change	3.7%	4.4%	3.0%	3.0%	2.8%	3.0%	2.9%
June Forecast	395.8	410.1	423.3	435.6	448.4	461.4	474.8
Percent Change	3.9%	3.6%	3.2%	2.9%	2.9%	2.9%	2.9%
September Forecast, Preliminary	420.0	447.8	470.4	494.0	517.1	541.8	567.6
Percent Change	5.6%	6.6%	5.1%	5.0%	4.7%	4.8%	4.8%
June Forecast	420.1	444.6	467.7	491.4	516.0	542.0	569.1
Percent Change	5.6%	5.8%	5.2%	5.1%	5.0%	5.0%	5.0%
September Forecast, Preliminary	374.2	400.6	421.0	442.4	462.6	483.6	505.8
Percent Change	5.6%	7.1%	5.1%	5.1%	4.6%	4.6%	4.6%
June Forecast	372.3	395.3	416.6	437.7	458.7	480.5	503.5
Percent Change	5.0%	6.2%	5.4%	5.1%	4.8%	4.7%	4.8%
September Forecast, Preliminary	3322	3421	3494	3544	3578	3610	3637
Percent Change	2.4%	3.0%	2.1%	1.4%	0.9%	0.9%	0.8%
June Forecast	3323	3405	3469	3517	3550	3578	3601
Percent Change	2.4%	2.5%	1.9%	1.4%	1.0%	0.8%	0.6%
September Forecast, Preliminary	4.8	4.6	4.2	4.2	4.3	4.3	4.4
June Forecast	4.8	4.6	4.3	4.3	4.4	4.5	4.6
September Forecast, Preliminary	283.8	286.8	291.4	292.7	294.3	296.8	299.5
Percent Change	-2.1%	1.1%	1.6%	0.5%	0.5%	0.9%	0.9%
June Forecast	283.8	286.6	290.8	293.2	295.3	296.7	297.9
Percent Change	-2.1%	1.0%	1.5%	0.8%	0.7%	0.5%	0.4%
September Forecast, Preliminary	199.7	211.1	213.3	214.6	214.1	213.4	212.0
Percent Change	7.0%	5.7%	1.1%	0.6%	-0.2%	-0.3%	-0.7%
June Forecast	199.7	210.8	213.9	215.0	214.8	214.1	212.2
Percent Change	7.0%	5.6%	1.4%	0.5%	-0.1%	-0.3%	-0.9%
September Forecast, Preliminary	45.8	43.9	43.9	44.3	43.4	42.3	41.2
Percent Change	3.9%	-4.2%	0.1%	0.8%	-2.1%	-2.6%	-2.6%
June Forecast	45.8	45.4	43.0	43.4	42.7	42.0	40.9
Percent Change	3.9%	-0.8%	-5.3%	0.9%	-1.6%	-1.7%	-2.7%

U.S. Forecast Comparison	Fiscal Years					
	2018	2019	2020	2021	2022	2023
Real GDP						
Billions of 2012 dollars						
September Preliminary Forecast	18,294	18,837	19,239	19,591	19,991	20,411
<i>Growth</i>	2.6%	3.0%	2.1%	1.8%	2.0%	2.1%
June Forecast	18,245	18,762	19,171	19,524	19,918	20,333
<i>Growth</i>	2.7%	2.8%	2.2%	1.8%	2.0%	2.1%
Difference in level	49	75	68	67	73	77
<i>Difference in growth forecast</i>	-0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
Real Consumption						
Billions of 2012 dollars						
September Preliminary Forecast	12,715	13,053	13,330	13,591	13,877	14,178
<i>Growth</i>	2.5%	2.7%	2.1%	2.0%	2.1%	2.2%
June Forecast	12,781	13,107	13,382	13,648	13,933	14,232
<i>Growth</i>	2.7%	2.6%	2.1%	2.0%	2.1%	2.2%
Difference in level	-65	-55	-52	-57	-56	-54
<i>Difference in growth forecast</i>	-0.1%	0.1%	0.0%	0.0%	0.0%	0.0%
Implicit Price Deflator						
Index 2012 = 100						
September Preliminary Forecast	107.1	109.4	111.6	113.8	115.8	117.8
<i>Growth</i>	1.9%	2.1%	2.0%	1.9%	1.8%	1.8%
June Forecast	107.2	109.4	111.6	113.9	116.3	118.7
<i>Growth</i>	1.8%	2.1%	2.0%	2.1%	2.0%	2.1%
Difference in level	-0.1	0.0	0.0	-0.2	-0.5	-0.9
<i>Difference in growth forecast</i>	0.1%	0.1%	0.0%	-0.1%	-0.3%	-0.3%
Unemployment Rate						
Percent of Labor Force						
September Preliminary Forecast	4.1%	3.6%	3.6%	3.7%	3.8%	3.8%
June Forecast	4.1%	3.6%	3.6%	3.8%	3.9%	4.1%
<i>Difference in forecast</i>	0.0%	0.0%	-0.1%	0.0%	-0.1%	-0.2%
30 Year Fixed Mortgage Rate						
Annual Average						
September Preliminary Forecast	4.2%	4.8%	5.1%	5.2%	5.1%	5.1%
June Forecast	4.1%	4.8%	5.2%	5.3%	5.3%	5.3%
<i>Difference in forecast</i>	0.0%	0.0%	-0.1%	-0.2%	-0.2%	-0.2%
3 Month T-Bill Rate						
Annual Average						
September Preliminary Forecast	1.4%	2.4%	3.0%	3.2%	3.1%	3.1%
June Forecast	1.4%	2.3%	3.0%	3.2%	3.2%	3.2%
<i>Difference in forecast</i>	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%

Washington Forecast Comparison
Fiscal Years

	2018	2019	2020	2021	2022	2023
Real Personal Income						
Billions of 2012 dollars						
September Preliminary Forecast	405.0	418.9	432.2	444.2	457.3	470.8
<i>Growth</i>	4.3%	3.4%	3.2%	2.8%	2.9%	3.0%
June Forecast	403.0	416.7	429.4	441.9	454.9	468.0
<i>Growth</i>	3.9%	3.4%	3.1%	2.9%	2.9%	2.9%
Difference in level	2.0	2.2	2.8	2.3	2.4	2.8
<i>Difference in growth forecast</i>	0.4%	0.0%	0.1%	-0.1%	0.0%	0.1%
Nominal Personal Income						
Billions of dollars						
September Preliminary Forecast	434.0	458.5	482.4	505.4	529.4	554.6
<i>Growth</i>	6.2%	5.7%	5.2%	4.8%	4.7%	4.8%
June Forecast	432.1	456.0	479.4	503.5	528.9	555.4
<i>Growth</i>	5.7%	5.5%	5.1%	5.0%	5.0%	5.0%
Difference in level	1.9	2.5	3.0	1.9	0.5	-0.8
<i>Difference in growth forecast</i>	0.5%	0.1%	0.1%	-0.3%	-0.3%	-0.2%
Nonfarm Payroll Employment						
Thousands						
September Preliminary Forecast	3,369.3	3,461.9	3,522.0	3,561.2	3,594.5	3,624.8
<i>Growth</i>	2.6%	2.7%	1.7%	1.1%	0.9%	0.8%
June Forecast	3,364.1	3,439.4	3,495.4	3,534.3	3,564.7	3,590.2
<i>Growth</i>	2.4%	2.2%	1.6%	1.1%	0.9%	0.7%
Difference in level	5.1	22.5	26.7	26.8	29.9	34.5
<i>Difference in growth forecast</i>	0.2%	0.5%	0.1%	0.0%	0.1%	0.1%
Housing Permits						
Units Authorized, Thousands						
September Preliminary Forecast	47.1	42.6	44.3	43.9	42.8	41.7
<i>Growth</i>	5.9%	-9.7%	4.1%	-1.0%	-2.5%	-2.6%
June Forecast	48.0	43.0	43.1	43.2	42.4	41.5
<i>Growth</i>	7.8%	-10.4%	0.2%	0.4%	-2.1%	-2.1%
Difference in level	-0.9	-0.4	1.3	0.7	0.4	0.2
<i>Difference in growth forecast</i>	-1.9%	0.8%	3.9%	-1.4%	-0.5%	-0.5%

**Year-Over-Year Employment Growth by Industry
(June 2017 to June 2018)
Washington vs. U.S.**

	Washington		U.S.
	(000)	% Chg.	% Chg.
Total	92.8	2.8%	1.7%
Electronic Shopping and Mail-Order Houses	8.7	17.7%	5.6%
Software Publishers	4.0	6.5%	3.1%
Construction	11.1	5.6%	4.1%
Education and Health Services	21.6	4.5%	2.0%
Professional and Business Services	17.3	4.2%	2.5%
Financial Activities	4.9	3.2%	1.5%
Wholesale Trade	3.9	2.9%	1.2%
Leisure and Hospitality	9.6	2.9%	1.7%
Information Excluding Software	1.8	2.8%	-2.1%
Mining and Logging	0.1	2.1%	8.7%
Other Services	2.4	2.0%	1.7%
State and Local Gov Non-Education	3.1	1.4%	0.2%
Manufacturing Excluding Aerospace	2.2	1.1%	1.9%
State and Local Gov Education	-0.9	-0.3%	0.1%
Transportation, Warehousing and Utilities	-0.8	-0.7%	2.9%
Aerospace Product and Parts Manufacturing	-1.0	-1.2%	1.8%
Information	5.8	4.6%	-0.9%
Retail Trade	12.0	3.1%	0.6%
Manufacturing	1.2	0.4%	2.3%

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