Economic Review

November 4, 2019

Washington State
Economic and Revenue Forecast Council

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WASHINGTON STATE

ECONOMIC AND REVENUE FORECAST COUNCIL

AGENDA

ECONOMIC REVIEW MEETING

November 4, 2019
10:00 a.m.

- Approval of meeting minutes from September 25, 2019
- Budget Outlook methodology review
- Presentation of economic outlook and revenue collection experience

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STATE OF WASHINGTON
ECONOMIC AND REVENUE FORECAST COUNCIL
PO Box 40912 □ Olympia, Washington 98504-0912 □ (360) 534-1560

Meeting Minutes
Revenue Review

September 25, 2019
John L O'Brien, Hearing Room C

Economic and Revenue Forecast Council

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

Staff
Steve Lerch, Executive Director

Call to Order
Representative Orcutt called the meeting to order at 10:00 a.m.

Motion
Treasurer Davidson moved, seconded by Representative Orcutt, to adopt the September 5, 2019 meeting minutes. Council approved the motion unanimously at 10:01 a.m.

Forecast Presentation
Dr. Lerch presented information on the economic and revenue forecast. Dr. Lerch summarized the forecast changes. Discussion ensued regarding impacts of the out-of-state sales tax exemption and disruption to exports due to the repair of the locks on the Columbia River. The staff of ERFC will work with Department of Revenue to analyze the impacts of the out-of-state sales tax exemption when tax collection data are available.

Motion
Vikki Smith moved, seconded by Senator Braun, to adopt the optimistic, pessimistic, and baseline revenue forecasts. Council approved the motion unanimously at 10:33 a.m.

Adjournment
With no further business, the meeting adjourned at 10:33 a.m.

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November 4, 2019

To: Economic and Revenue Forecast Council

From: State Budget Outlook Work Group

Subject: Preparation of the November 2019 Outlook

The State Budget Outlook Work Group (work group) provides the following updates and poses the following issues for the Economic and Revenue Forecast Council (ERFC) to provide guidance in the preparation of the November 2019 Outlook.

Methodology for November 2019

Resource Updates

- The November 2019 Outlook will be updated for the November 2019 revenue forecast. However, the Budget Stabilization Account (BSA) transfers and extraordinary revenue growth (ERG) calculations based on the November 2019 forecast will not be available. The work group will use the BSA transfers and ERG calculation from the September 2019 forecast.
- Reversions for fiscal year 2019 will be updated to reflect actuals. Future year reversion assumptions will not be changed from the enacted Outlook.

Maintenance Level Updates

The November 2019 Outlook will begin with the 2019-21 enacted budget and include a preliminary estimate by the Office of Financial Management of projected FY 2020 supplemental budget maintenance level costs. These estimates are to reflect projected expenditures based on the estimated cost of providing services currently authorized in the enacted budget. The 2019-21 maintenance level projection will be the basis for the 2021-23 projection using the Outlook growth factors and adding any mandatory items that start in the 2021-23 biennium. This estimate of the Governor's projected maintenance level is not final.

Other Items

The work group requests further direction from the ERFC in preparing the November 2019 Outlook for the following items:

FY 2020 Fire Costs. Costs related to fire suppression/mobilization in 2019 will continue to be further refined but initial costs incurred to date are estimated to be approximately $38 million. While this amount will be a policy level item, the ERFC included the supplemental budget costs related to the fire season in the prior November 2018 Outlook and some other prior Outlooks with a footnote related to their inclusion. The ERFC has not provided a rule on whether to regularly include additional incurred policy level supplemental fire costs in preparation of future November Outlooks.

- *Does the ERFC want to include policy level fire suppression/mobilization costs in the November 2019 Outlook?*
- *For all future November Outlooks, does the ERFC want to include an estimate for fire suppression/mobilization costs for the recently concluded fire season?*

State Measures. There are three State Measures on the statewide ballot. The fiscal impact statements (FIS) for two of these measures indicate that one would have an indeterminate impact on Near General Fund-Outlook (NGF-O) resources and/or expenditures. The election results are not required to be certified until December 5th, after the November Outlook is presented to the ERFC on November 20th. The Work Group is not planning on making any adjustments related to 2019 Initiatives as explained below.

NOTE: In preparation of prior November Outlooks, the ERFC has directed the Work Group to incorporate the quantifiable fiscal impact of initiatives on the November ballot that appear to be passing and requested these be identified as distinct items.

Following is a listing of the three State Measures on the November 2019 ballot:

- **Initiative 976- Concerns Motor Vehicle Taxes and Fees**
  The FIS identifies significant revenue and expenditure changes, however these impacts are to state and local transportation accounts rather than NGF-O accounts covered by the Outlook. There are no direct impacts identified in the FIS to NGF-O accounts. As a result, the Work Group is not planning any adjustment related to Initiative 976.
  - *Does the ERFC concur with the proposed approach for Initiative 976?*

- **Referendum Measure No. 88- Concerning Initiative 1000**
  Initiative 1000 was enacted in the 2019 legislative session, and has not gone into effect because the voters submitted petitions to refer the measure to the November 2019 general election ballot. The FIS identifies some costs if the referendum is approved including $582,000 for the 2019-21 biennium and ongoing to establish a new commission and estimated costs for data collection identified for the University of Washington (but no other entities). The enacted 2019-21 biennial operating budget did not include any funding for implementation of Initiative 1000. Funding decisions related to implementation of Initiative 1000, if approved under Referendum Measure No. 88, will be a policy level decision in the 2020 legislative session. As a result, the Work Group is not planning any adjustment related to Referendum No. 88.
  - *Does the ERFC concur with the above proposed approach for Referendum 88?*

  - *For all future November Outlooks, does the ERFC want to include a standing rule to incorporate the quantifiable fiscal impact of initiatives on the November ballot that appear to be passing, and to reflect each as distinct items?*

- **Senate Joint Resolution No. 8200- Constitutional Amendment Concerning Legislative Powers in Times of Emergency**
  There is no requirement for a FIS for a constitutional amendment. The fiscal note on Senate Joint Resolution No. 8200 prepared during the 2019 legislative session identified only those costs related to the submission of this measure to a vote of the people and did not identify any general changes in revenue or expenditures by the state as a consequence of the substance of the measure. Given that there are no clearly identified fiscal impacts associated with passage of this measure, the Work Group is not planning any adjustment related to Senate Joint Resolution No. 8200.
  - *Does the ERFC concur with the above proposed approach for Senate Joint Resolution No. 8200?*

Economic & Revenue Forecast Council
State of Washington

Economic Review: November 4, 2019

Executive Summary

United States

- This forecast is based on a modified version of IHS Markit's October 2019 Control forecast for the U.S. economy. The forecast was produced prior to the release of the advance estimate of third quarter GDP. According to the advance estimate, real GDP grew 1.9% (SAAR) in the third quarter. This forecast assumed a 1.8% growth rate. We will incorporate the advance estimates in our final November forecast. As usual, we have adjusted real gross domestic product (GDP) to match the Blue Chip "Consensus" GDP forecast. The October Blue Chip forecast for real GDP growth in 2019 and 2020 was 2.3% and 1.7% compared to 2.3% and 1.8% in September. The October Blue Chip long-range forecast calls for growth rates of 1.8% 1.9%, and 2.0% in 2021, 2022, and 2023 compared to the previous forecast of 1.7%, 1.9%, and 2.0%.
- 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, October 30, 2019 closing prices for Brent and WTI futures. The latest futures prices indicate Brent prices drop from $62 per barrel in the third quarter of 2019 to $56 by the end of 2021. This is about $1 lower than expected in the September forecast.
- The forecast includes: tariffs on solar panels and metals; a 25% tariff (initially scheduled to rise to 30% on 15 October but now postponed) on 44% of goods imported from China; a 15% tariff on most of rest of imports from China, implemented in two steps on 1 September and 15 December; all of China's retaliatory tariffs on US exports to China.
- The U.S. economy added 128,000 net new jobs in October. Employment data for August and September were revised up by 95,000 jobs. Sectors with notable employment gains in October included accommodation and food services (+53,000), social assistance (+20,000), professional and technical services (+16,000) and financial activities (+16,000). Sectors with net employment declines in October included motor vehicle and parts manufacturing (-42,000; this reflects the now-resolved General Motors strike), Federal government (-17,000; largely reflecting layoffs of temporary Census workers), performing arts and spectator sports (-10,000), temporary employment services (-8,000), clothing and accessories stores (-8,000) and motion picture and sound recording industries (-6,000).
- Two key measures of consumer confidence moved in opposite directions this month. The University of Michigan consumer sentiment survey increased by 2.3 points to 95.5 in October, while the Conference Board index of consumer confidence dipped by 0.4 points.

- Initial claims for unemployment insurance increased by 5,000 to 218,000 (SA) in the week ending October 26th. The four-week moving average of initial claims decreased by 500 to 214,750.
- Industrial production decreased by 0.4% (SA) in September following a 0.8% increase in August. New orders for core capital goods (i.e., durables excluding aircraft and military), which is a proxy for business investment, decreased by 0.5% (SA) in September according to advance U.S. Census Bureau data.
- Housing data were weaker than last month but construction activity and home sales remained above their year-ago levels. Housing units authorized by building permits in September were 2.7% (SA) below their August level but 7.7% above their year-ago level. September housing starts decreased by 9.4% (SA) compared to August but were 1.6% above their September 2018 level. New home sales in September decreased by 0.7% (SA) compared to August but were 15.5% above their year-ago level. Existing home sales in September decreased by 2.2% (SA) compared to August but were up 3.9% compared to September 2018. The seasonally adjusted Case-Shiller national home price index for August was 0.3% above its July level and 3.2% 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 just one month of new Washington employment data since the September forecast was released. Total nonfarm payroll employment rose 1,700 (seasonally adjusted) in September, which was 3,100 less than expected in the September forecast. However, the difference was mostly due to government employment which declined by 1,900. We believe the drop was due to a seasonal adjustment problem with state government education, which artificially increased the level of employment the month before. Private services-providing sectors added 2,900 jobs in September. The manufacturing sector added 400 jobs of which 200 were aerospace jobs. The construction sector added 200 jobs in September.
- 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 raised the estimated level of total employment in August 2019 by 2,900 jobs (0.1%). As a result of the upward revision to history and weaker-than-expected growth, the combined effect is 200 (0.0%) fewer jobs in September 2019 than expected in the September forecast.
- Washington's unemployment rate remained at 4.6% in September for a fifth consecutive month. The state's unemployment rate remains near its all-time low of 4.4% last reached in October 2018.
- While Boeing has suspended deliveries of the 737 Max, production continues though at a reduced rate. We assume deliveries will remain on hold through December and then jump early next year, when we assume Boeing is cleared to resume deliveries. We do not have any information on the impact on employment or hours worked but do not believe they are large at this point.

Boeing has issued no worker adjustment and retraining notifications (WARNs) since the grounding of the 737 Max and overall aerospace employment is slightly up.

- In September, after the forecast was complete, the U.S. Department of Commerce, Bureau of Economic Analysis (BEA) released state personal income estimates for the second quarter of 2019. According to these estimates, Washington personal income rose from $485.9 billion (SAAR) in the first quarter to $494.2 billion in the second quarter. The reported 7.0% growth rate (SAAR) in Washington personal income was the third largest among the states and District of Columbia and exceeded the 5.4% growth rate for the U.S. as a whole.
- Washington housing construction declined slightly in the third quarter of 2019 but exceeded the September forecast. The number of housing units authorized by building permits decreased to 48,000 (SAAR) in the third quarter from 48,600 units in the second quarter. Third quarter permits were made up of 23,700 single-family units and 24,300 multi-family units. The September forecast assumed 45,400 units (SAAR) in the third quarter, consisting of 22,600 single-family units and 22,800 multi-family units.
- Seattle area home prices rose over the year for the first time in five months. According to the S&P/Case-Shiller Home Price Indices, seasonally adjusted Seattle area home prices increased 0.5% in August while the composite-20 index declined 0.2%. Seattle home prices increased 0.5% in July as well. Because of the growth in the last two months, Seattle home prices are up 0.7% over the year. The composite-20 index was up 2.1% % over the year. Seattle home prices are up 90% since the December 2011 trough and exceed the May 2007 peak by 32%.
- Seattle area consumer price inflation continued to outpace the national average in August. From August 2018 to August 2019, the Seattle CPI rose 3.2% compared to the 1.8% increase in the U.S. City Average. Core prices, which exclude food and energy, increased 3.7% over the year in Seattle compared to 2.4% for the U.S. City Average. In part, the above-average Seattle inflation was due to higher shelter-cost inflation. Over-the-year shelter-cost inflation in Seattle was 4.8% compared to the national rate of 3.4%. However, Seattle inflation excluding shelter still exceeded the national average at 2.2% compared to 1.0%.
- Washington exports declined sharply over the year in the second quarter of 2019. Exports decreased 27.6% in the second quarter of 2019 compared to the second quarter of 2018 due largely to a 41.9% drop in transportation equipment exports (mostly Boeing planes). Boeing suspended deliveries of the 737 Max in March, which clearly affected second quarter exports. However, exports of agricultural products also declined 22.4% over the year and exports of all other commodities (mostly manufacturing) declined 5.6%.
- The Institute of Supply Management - Western Washington Index (ISM-WW) declined in September but remained in positive territory. The index, which measures conditions in the manufacturing sector, decreased from 56.0 in August to 54.0 in September (index values above 50 indicate growth while values below 50 indicate contraction). The index has exceeded 50 in each of the last 26 months. The production and orders components indicated expansion in September while the inventory and deliveries components

indicated contraction. The employment component was neutral at 50 in September.

- Washington car and truck sales declined in September. Seasonally adjusted new vehicle registrations decreased 1.5% in September after a 3.2% uptick in August. Sales were down 5.4% over the year and 16.9% since the November 2017 post-recession peak. Monthly sales are erratic but have been trending down since mid-2016.
- We expect 1.9% Washington employment growth this year, which is the same rate expected in the September forecast. As in September, we expect growth to decelerate. We expect employment growth to average 1.2% per year in 2020 through 2023, which is also unchanged since September. Our forecast for nominal personal income growth this year is 5.2%, down from 5.6% in the September forecast. Our new forecast for nominal personal income growth in 2020 through 2023 averages 4.7% per year, which is down slightly from the 4.8% rate expected in the September forecast. While personal income growth is lower than in September, the level is higher throughout the forecast due to the upward revision to history.

Washington State Economic Outlook & Revenue Collection Experience

Presented to
The Economic & Revenue Forecast Council

Steve Lerch
Executive Director

November 4, 2019
Olympia, Washington

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ECONOMIC AND REVENUE FORECAST COUNCIL

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Summary

- The preliminary economic forecast for both the U.S. and WA are very similar to the September forecast
- The 737 MAX is assumed to return to service in early 2020 with an increase in both deliveries and production
- The Federal Reserve reduced the Federal Funds interest rates by 0.25% in late October which is incorporated in this forecast; the September forecast had assumed a December rate cut
- Revenue collections since the September forecast are $45 million (2.8%) above expectations

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Forecast risks

Upside

- Consumer and business confidence have dipped but remain at high levels
- U.S., WA labor markets have slowed compared to 2018 but remain strong

Downside

- International trade policy uncertainty
- Geopolitical risks: North Korea, China, Russia, Iran, Venezuela, Brexit
- Maturing economic expansion

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NY Federal Reserve model has recession probabilities at same levels as before the 2007-09 recession

The model predicts recession probabilities 12 months in the future based on the difference in yields between 10 year and 3 month Treasury bonds.

However, long-term rates have been above short-term rates since October 11th which may reduce this probability.

Source: Federal Reserve Bank of New York; daily data through Sept. 30 2019

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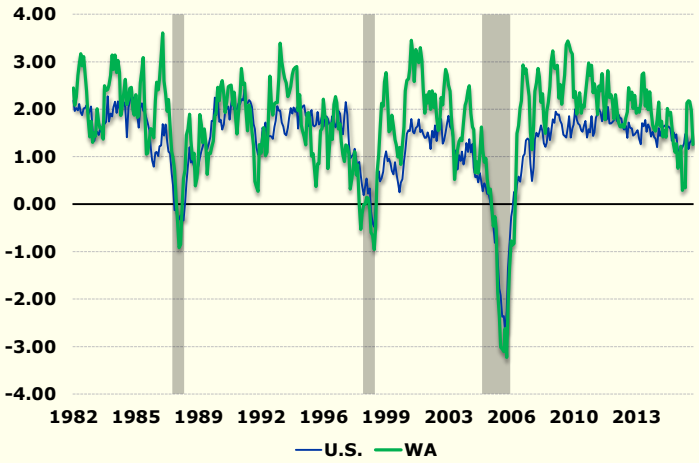
Philadelphia Fed leading economic indexes for WA, U.S. are declining but not in recession territory



Source: Federal Reserve Bank of Philadelphia, data through Sept. 2019

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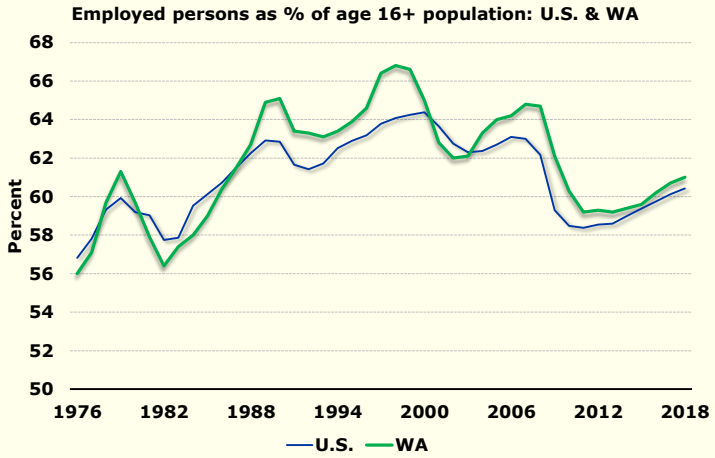
Employment-population ratio is rising but remains below late 90s peak



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Source: U.S. Bureau of Labor Statistics, annual data through 2018

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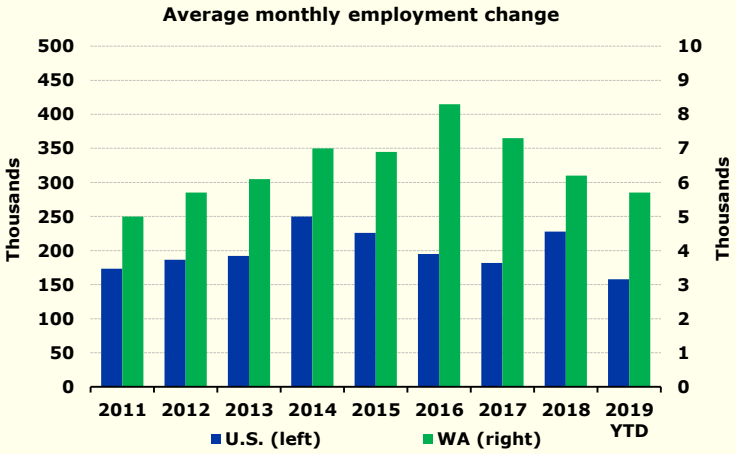
U.S., WA job growth below 2018 averages but remain healthy



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Source: Bureau of Labor Statistics, Employment Security Dept.; U.S. data through Oct. 2019, WA data through Sept. 2019

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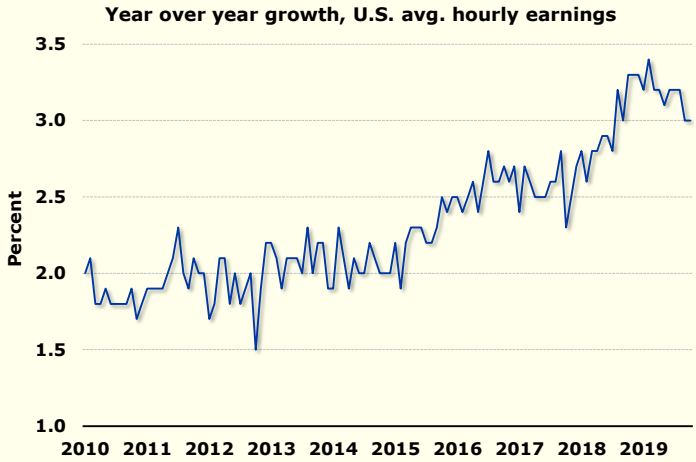
Hourly earnings are increasing but growth has slowed



Source: Bureau of Labor Statistics, data through October 2019

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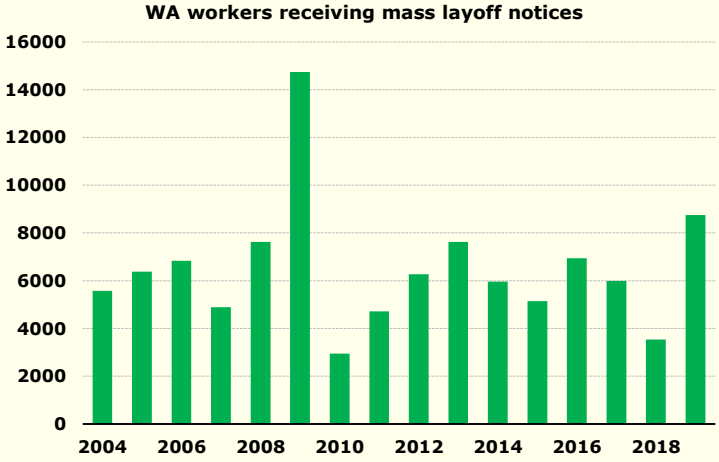
The number of workers in WA receiving layoff notices this year is the highest since 2009

Employers planning mass layoffs are required to notify workers 60 days before closure.



Source: Employment Security Dept., data through 2019

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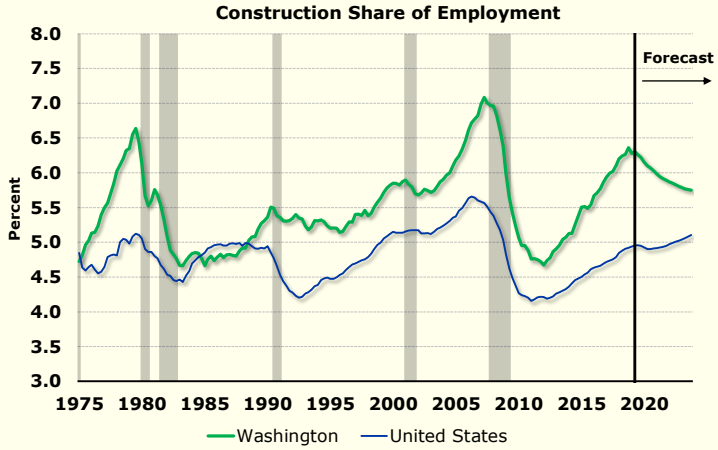
There is a heightened risk of a downturn in construction in WA

Since 1975, WA construction employment has exceeded 6% of total employment only three times.



Source: ERFC September forecast; data through Q2 2019
Note: Vertical black line indicates last actual in September

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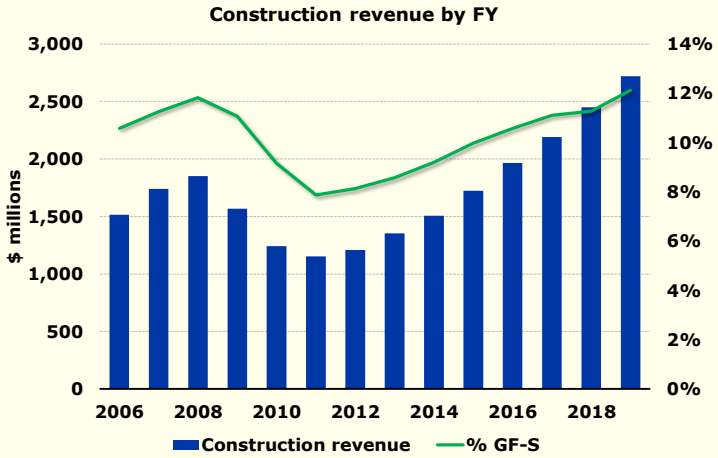
During the last construction downturn, construction revenue dropped from 12% to 8% of GF-S



Source: Dept. of Revenue, ERFC; data through FY 2019

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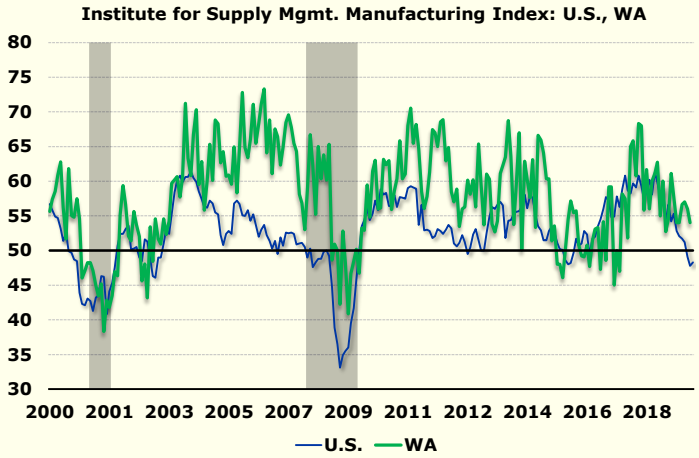
The ISM manufacturing index for the U.S. has indicated 3 consecutive months of slowing activity

Values above 50 indicate expansion, below 50 indicate contraction.



Source: ISM, U.S. data through Oct. 2019; WA data through Sept. 2019

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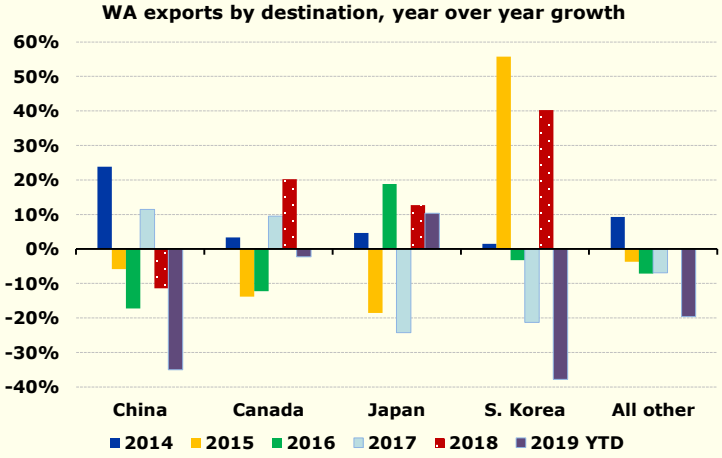
WA exports to China and S. Korea are down by over 30% so far this year



Source: WISERTrade, data through August 2019

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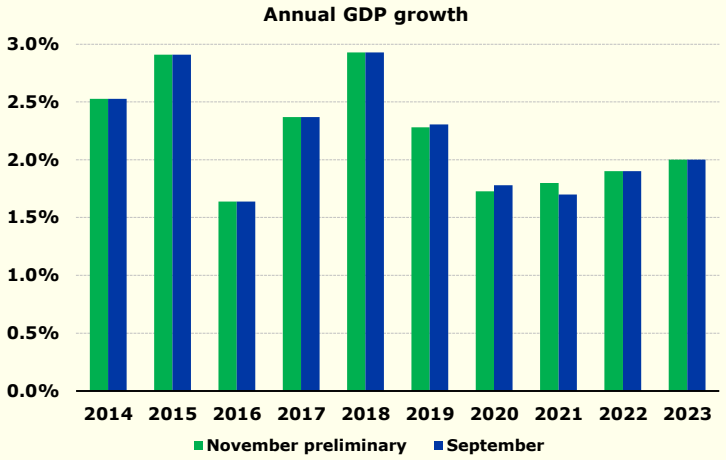
GDP growth is slightly lower this year and next, slightly higher in 2021 compared to the September forecast



Source: IHS Markit, ERFC November 2019 preliminary forecast; data through 2018

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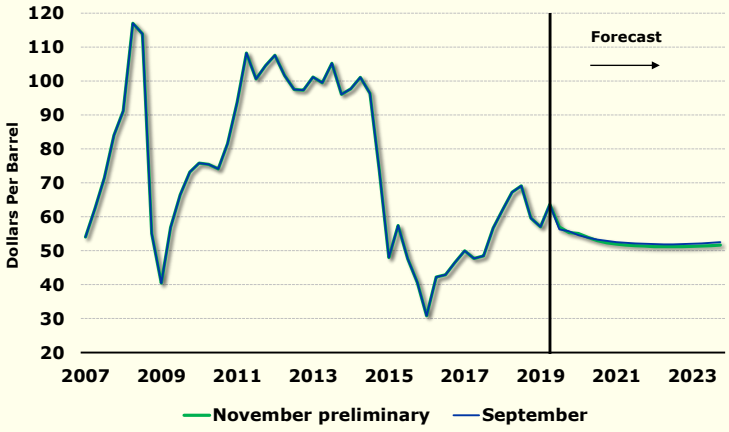
Oil prices are almost unchanged from the September forecast



Source: Energy Information Administration, IHS Markit, ERFC; data through Q3 2019
Note: Vertical black line indicates last actual

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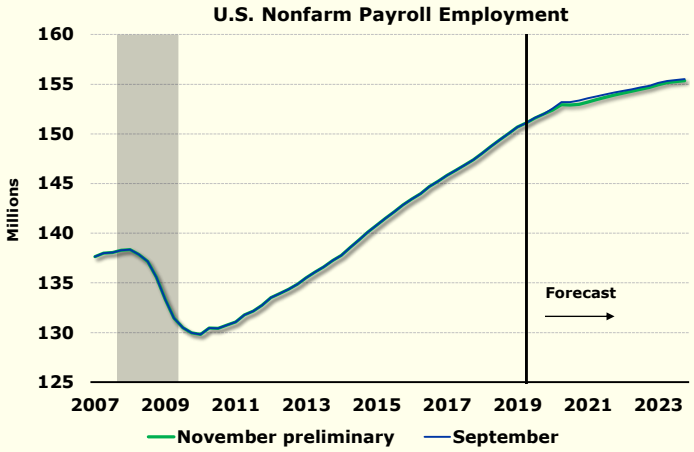
U.S. nonfarm payroll employment is close to the September forecast



Source: IHS Markit, ERFC; data through Q3 2019
Note: Vertical black line indicates last actual

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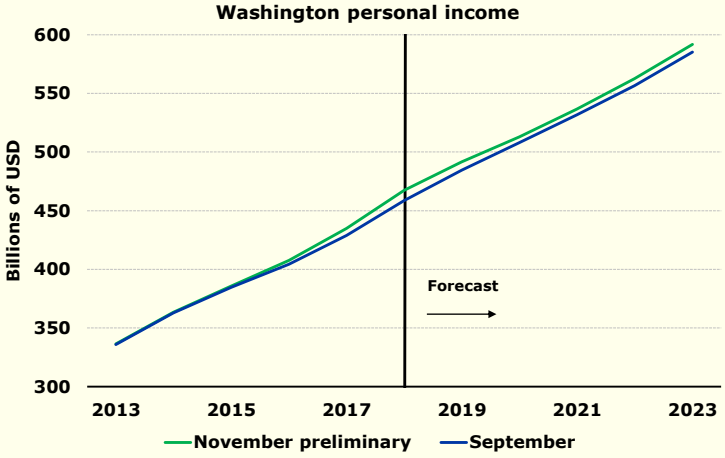
WA personal income forecast is slightly higher than in September but growth rates are very similar



Source: ERFC November 2019 Preliminary forecast; historical data through 2018

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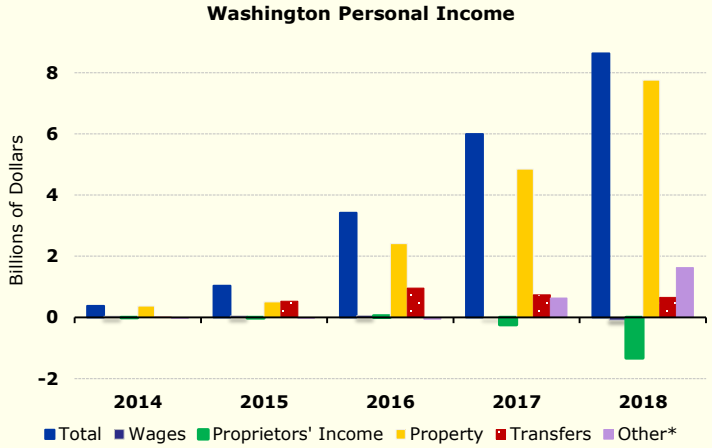
Washington property income was revised sharply higher

This forecast will incorporate the annual revision to the national income and product accounts.

For WA, total personal income was revised up $8.6 billion of which $7.8 billion was property income.



Source: U.S. Bureau of Economic Analysis, ERFC; data through 2018
* Other consists of adjustment for residence plus employer contributions for employee pension and insurance funds less employee and self-employed contributions for government social insurance

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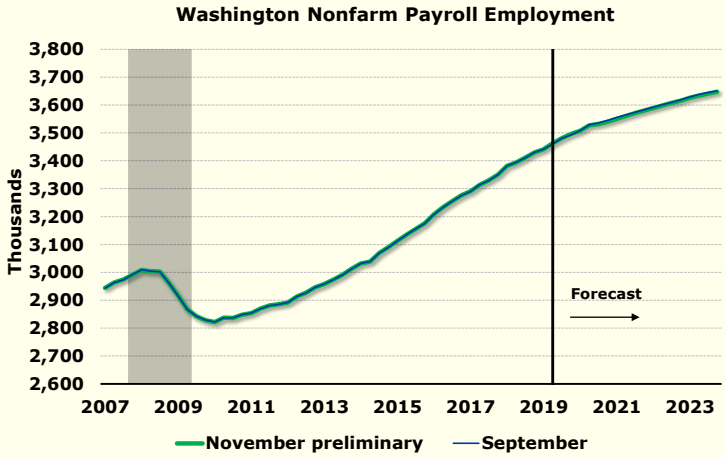
Washington employment forecast is nearly identical to September



Source: ERFC November 2019 Preliminary forecast; historical data through Q3 2019

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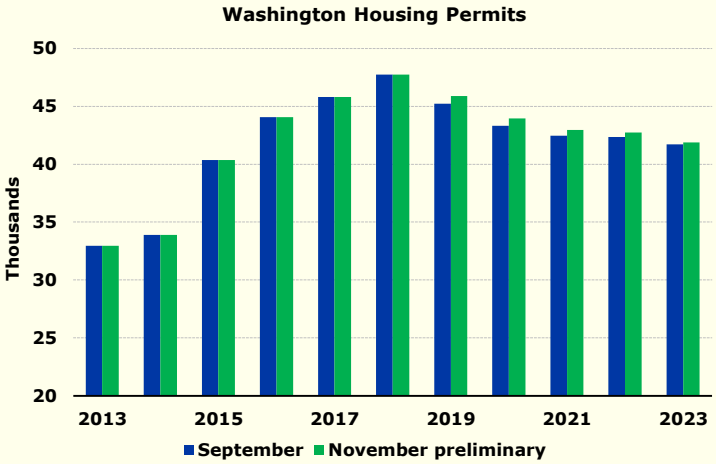
Washington housing permits forecast is slightly higher than in September



Source: ERFC November 2019 Preliminary forecast; historical data through 2018

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WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL

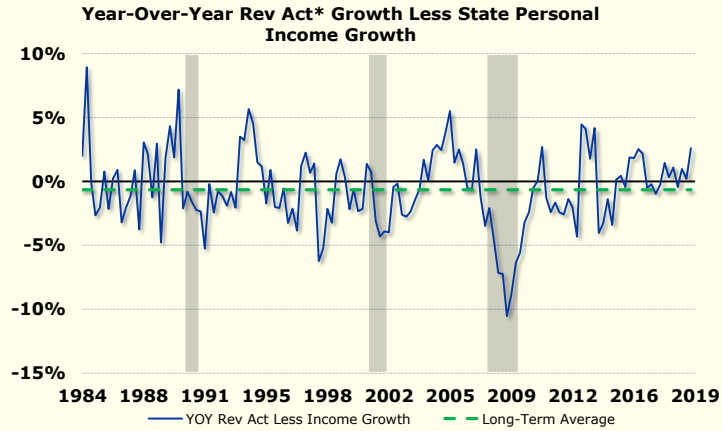
Rev Act collections still growing faster than personal income

Adjusted Rev Act growth YOY:

18Q3: 7.6%
18Q4: 7.4%
19Q1: 5.6%
19Q2: 8.1%

November preliminary personal income YOY growth estimates:

18Q3: 8.0%
18Q4: 6.5%
19Q1: 5.4%
19Q2: 5.5%



*Adjusted for large one-time payments and refunds and payments under the amnesty program
Source: ERFC; Quarterly revenue data through Q2 2019, November 2019 preliminary income estimates

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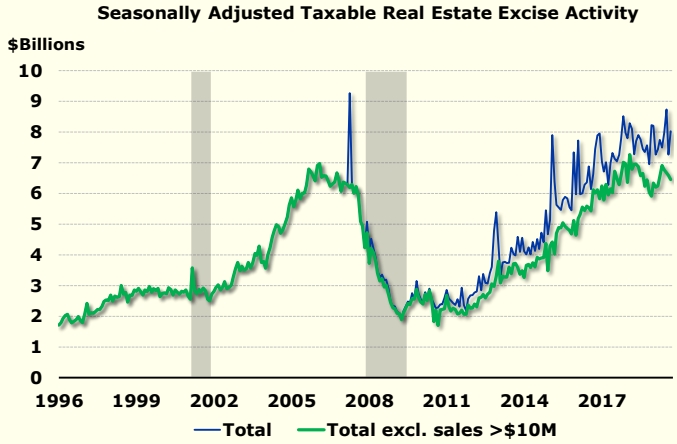
WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL

Commercial REET activity has increased while residential has declined

Large commercial sales (>$10 million) averaged $1.0 billion per month in the second quarter but jumped to $2 billion in the third quarter – possibly due to REET rate increase that takes effect January 1, 2020.



Source: ERFC; Monthly data through September 2019 preliminary

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WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL

Revenue collections to date

Collections Variance Since September Forecast (September 11 – October 10, 2019)
dollars in thousands

	Estimate	Actual	Difference	Pct.
Dept. of Revenue	$1,623,745	$1,669,398	$45,654	2.8%
All other agencies	$6,665	$5,860	($805)	-12.1%
Total GF-S	**$1,630,409**	**$1,675,258**	**$44,849**	**2.8%**

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WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL

Conclusion

- The U.S. and Washington economic forecasts are very similar to September, with slightly stronger WA housing permits
- As has been the case for some time, Washington's economy is continuing to outperform the nation
- Threats to economic expansion include concerns about international trade and fiscal policy, geopolitical risks and a maturing expansion
- The next monthly revenue collection report will be available on November 18th and the revenue forecast will be presented on November 20th

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WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL

Questions

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

www.erfc.wa.gov
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November 4, 2019

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Table 1
U.S. Economic Forecast Comparison
October 2019

	2019Q3	2019Q4	2020Q1	2020Q2	2018	2019	2020	2021	2022	2023
Real GDP, Percent Change, Annual Rate										
ERFC (November Preliminary)	1.8	1.8	1.7	1.7	2.9	2.3	1.7	1.8	1.9	2.0
IHS	1.6	1.9	1.8	2.3	2.9	2.3	2.0	2.0	1.7	1.4
Economy.com	1.9	2.0	1.9	1.7	2.9	2.3	1.7	2.1		
Blue Chip Average*	1.8	1.8	1.7	1.7		2.3	1.7	1.8	1.9	2.0
Blue Chip Top 10*	2.2	2.3	2.3	2.5		2.4	2.2	2.2	2.3	2.4
Blue Chip Bottom 10*	1.4	1.3	0.9	0.5		2.2	1.2	1.3	1.6	1.6
Real Consumption, Percent Change, Annual Rate										
ERFC (November Preliminary)	2.7	2.2	2.1	1.9	3.0	2.6	2.2	1.9	2.0	2.2
IHS	2.7	2.9	2.4	2.5	3.0	2.6	2.7	2.6	2.4	2.2
Economy.com	2.9	1.8	1.5	1.3	3.0	2.6	1.7	1.3		
Blue Chip Average*	2.7	2.1	1.9	1.9		2.6	2.2	1.9	2.0	2.2
Blue Chip Top 10*	3.3	2.6	2.4	2.6		2.7	2.6	2.3	2.4	2.7
Blue Chip Bottom 10*	2.1	1.4	1.2	1.0		2.4	1.6	1.5	1.7	1.7
Federal Funds Rate										
ERFC (November Preliminary)	2.2	1.7	1.6	1.6	1.8	2.2	1.6	2.0	2.4	2.6
IHS	2.2	1.8	1.6	1.6	1.8	2.2	1.6	2.0	2.4	2.6
Economy.com	2.2	1.7	1.4	1.4	1.8	2.2	1.4	1.6		
Three Month T-Bill Rate										
ERFC (November Preliminary)	2.0	1.7	1.6	1.6	1.9	2.1	1.6	1.8	2.1	2.4
IHS	2.0	1.8	1.6	1.6	1.9	2.1	1.6	1.8	2.1	2.3
Blue Chip Average*	2.0	1.7	1.6	1.5		2.1	1.5	1.7	2.0	2.1
Blue Chip Top 10*	2.0	1.9	2.0	1.9		2.2	2.0	2.4	2.6	2.8
Blue Chip Bottom 10*	2.0	1.6	1.3	1.1		2.0	1.1	1.0	1.4	1.5
10-Yr. T-Note Yield										
ERFC (November Preliminary)	1.8	1.6	1.9	2.0	2.9	2.1	2.1	2.7	3.1	3.3
IHS	1.8	1.7	1.9	2.0	2.9	2.1	2.1	2.7	3.1	3.3
Economy.com	1.8	2.1	2.3	2.5	2.9	2.2	2.5	3.1		
Blue Chip Average*	1.8	1.7	1.7	1.8		2.1	1.8	2.2	2.6	2.8
Blue Chip Top 10*	1.8	1.9	2.1	2.2		2.2	2.2	3.0	3.3	3.4
Blue Chip Bottom 10*	1.8	1.4	1.4	1.4		1.9	1.4	1.5	1.8	2.1
Consumer Price Index, Percent Change, Annual Rate										
ERFC (November Preliminary)	2.1	1.8	2.3	1.6	2.4	1.8	2.0	1.9	2.3	2.3
IHS	1.9	3.0	2.4	1.3	2.4	1.9	2.1	1.8	2.5	2.5
Economy.com	2.0	1.5	1.8	1.8	2.4	1.8	2.0	2.5		
Blue Chip Average*	1.9	2.1	2.2	2.0		1.8	2.1	2.1	2.2	2.2
Blue Chip Top 10*	2.3	2.8	2.7	2.7		1.9	2.5	2.5	2.5	2.5
Blue Chip Bottom 10*	1.6	1.4	1.6	1.4		1.7	1.8	1.8	1.9	1.9
Payroll Employment, Millions										
ERFC (November Preliminary)	151.6	152.0	152.4	152.9	149.1	151.3	152.8	153.6	154.4	155.2
Percent Change, Annual Rate	1.3	1.1	1.1	1.4	1.7	1.5	1.0	0.5	0.5	0.5
IHS	151.5	151.9	152.3	152.8	149.1	151.3	152.8	153.9	154.7	154.9
Percent Change, Annual Rate	1.2	1.0	0.9	1.5	1.7	1.5	1.0	0.7	0.5	0.2
Economy.com	151.6	152.0	152.3	152.8	149.1	151.3	152.6	152.5		
Percent Change, Annual Rate	1.2	1.1	0.9	1.3	1.7	1.5	0.8	-0.1		
Unemployment Rate, Percent										
ERFC (November Preliminary)	3.6	3.6	3.5	3.5	3.9	3.7	3.6	3.7	3.8	4.0
IHS	3.7	3.6	3.6	3.5	3.9	3.7	3.5	3.6	3.8	4.2
Economy.com	3.6	3.6	3.6	3.6	3.9	3.7	3.7	4.3		
Blue Chip Average*	3.6	3.6	3.6	3.6		3.7	3.7	4.0	4.1	4.1
Blue Chip Top 10*	3.6	3.8	3.9	4.0		3.8	4.1	4.7	4.7	4.7
Blue Chip Bottom 10*	3.6	3.5	3.4	3.3		3.7	3.3	3.4	3.5	3.5
Real Disposable Personal Income, Percent Change, Annual Rate										
ERFC (November Preliminary)	2.3	2.6	1.9	2.0	4.0	3.1	2.1	2.2	2.3	2.3
IHS	2.3	1.9	1.7	2.3	4.0	3.1	2.1	2.4	2.1	2.0
Blue Chip Average*	2.4	2.1	1.9	2.0		3.0	2.0	1.9	2.0	2.0
Blue Chip Top 10*	3.3	2.8	2.5	3.0		3.2	2.6	2.3	2.4	2.5
Blue Chip Bottom 10*	1.7	1.2	1.2	0.9		2.4	1.5	1.5	1.5	1.5
West Texas Intermediate										
ERFC (November Preliminary)	56.4	54.7	54.9	53.9	64.9	56.4	53.4	51.1	50.5	50.6
IHS	56.6	63.7	64.0	59.7	64.9	58.7	59.5	55.2	61.4	65.3
Economy.com	56.4	57.8	58.1	58.1	64.8	57.2	58.9	61.3		

* Forecasts beyond 2020 are from the October 2019 Blue Chip Economic Indicators

Table 2

U.S. Forecast Comparison

	2019Q3	2019Q4	2020Q1	2020Q2	2017	2018	2019	2020	2021	2022	2023
Real GDP (Billions of 2012 Dollars)											
November Forecast, Preliminary	19,109	19,195	19,273	19,354	18,108	18,638	19,063	19,392	19,741	20,116	20,519
Percent Change	*1.8%*	*1.8%*	*1.7%*	*1.7%*	*2.4%*	*2.9%*	*2.3%*	*1.7%*	*1.8%*	*1.9%*	*2.0%*
September Forecast	19,117	19,204	19,288	19,370	18,108	18,638	19,068	19,407	19,737	20,112	20,514
Percent Change	*2.0%*	*1.8%*	*1.8%*	*1.7%*	*2.4%*	*2.9%*	*2.3%*	*1.8%*	*1.7%*	*1.9%*	*2.0%*
Real Consumption (Billions of 2012 Dollars)											
November Forecast, Preliminary	13,337	13,409	13,477	13,540	12,567	12,945	13,275	13,565	13,822	14,099	14,409
Percent Change	*2.7%*	*2.2%*	*2.1%*	*1.9%*	*2.6%*	*3.0%*	*2.6%*	*2.2%*	*1.9%*	*2.0%*	*2.2%*
September Forecast	13,341	13,407	13,477	13,541	12,567	12,945	13,276	13,566	13,824	14,100	14,382
Percent Change	*2.7%*	*2.0%*	*2.1%*	*1.9%*	*2.6%*	*3.0%*	*2.6%*	*2.2%*	*1.9%*	*2.0%*	*2.0%*
PCE Price Index (2012=100)											
November Forecast, Preliminary	110.0	110.5	111.1	111.6	105.9	108.1	109.7	111.9	114.0	116.3	118.7
Percent Change	*1.8%*	*1.8%*	*2.1%*	*1.9%*	*1.8%*	*2.1%*	*1.5%*	*1.9%*	*1.9%*	*2.0%*	*2.0%*
September Forecast	110.0	110.5	111.2	111.7	105.9	108.1	109.7	112.0	114.3	116.6	118.8
Percent Change	*1.8%*	*2.0%*	*2.3%*	*2.1%*	*1.8%*	*2.1%*	*1.5%*	*2.1%*	*2.0%*	*2.0%*	*1.9%*
Real Personal Income (Billions of 2012 Dollars)											
November Forecast, Preliminary	17,060	17,165	17,251	17,338	15,933	16,477	17,016	17,380	17,759	18,169	18,628
Percent Change	*1.8%*	*2.5%*	*2.0%*	*2.0%*	*2.9%*	*3.4%*	*3.3%*	*2.1%*	*2.2%*	*2.3%*	*2.5%*
September Forecast	17,071	17,187	17,273	17,365	15,933	16,477	17,026	17,403	17,765	18,165	18,628
Percent Change	*2.0%*	*2.8%*	*2.0%*	*2.2%*	*2.9%*	*3.4%*	*3.3%*	*2.2%*	*2.1%*	*2.3%*	*2.5%*
Nonfarm Payroll Employment (Millions)											
November Forecast, Preliminary	151.6	152.0	152.4	152.9	146.6	149.1	151.3	152.8	153.6	154.4	155.2
Percent Change	*1.3%*	*1.1%*	*1.1%*	*1.4%*	*1.6%*	*1.7%*	*1.5%*	*1.0%*	*0.5%*	*0.5%*	*0.5%*
September Forecast	151.6	152.0	152.5	153.2	146.6	149.1	151.4	153.1	153.9	154.6	155.4
Percent Change	*1.3%*	*1.1%*	*1.4%*	*1.7%*	*1.6%*	*1.7%*	*1.5%*	*1.1%*	*0.5%*	*0.5%*	*0.5%*
Unemployment Rate (Percent of Labor Force)											
November Forecast, Preliminary	3.6	3.6	3.5	3.5	4.4	3.9	3.7	3.6	3.7	3.8	4.0
September Forecast	3.6	3.5	3.6	3.6	4.4	3.9	3.7	3.6	3.8	3.9	4.1
Oil Price, Refiner's Acquisition											
November Forecast, Preliminary	56.9	55.3	55.0	53.9	50.7	64.5	58.2	53.6	51.6	51.2	51.4
September Forecast	56.3	55.7	54.5	53.8	50.7	64.5	58.2	53.6	52.2	51.9	52.2
30 Year Fixed Mortgage Rate (Percent, average)											
November Forecast, Preliminary	3.7	3.6	3.7	3.8	4.0	4.5	3.9	3.8	4.3	4.7	4.8
September Forecast	3.6	3.5	3.6	3.8	4.0	4.5	3.9	3.8	4.3	4.7	4.8
3 Month T-Bill Rate (Percent, average)											
November Forecast, Preliminary	2.0	1.7	1.6	1.6	0.9	1.9	2.1	1.6	1.8	2.1	2.4
September Forecast	2.0	1.8	1.7	1.6	0.9	1.9	2.1	1.6	1.8	2.2	2.4

Table 3

Washington Forecast Comparison

	2019Q3	2019Q4	2020Q1	2020Q2	2017	2018	2019	2020	2021	2022	2023
Real Personal Income (Billions of 2012 Dollars)											
November Forecast, Preliminary	449.2	452.1	453.8	457.2	410.4	432.2	448.0	458.5	470.9	483.7	498.6
Percent Change	*2.2%*	*2.6%*	*1.6%*	*3.1%*	*4.8%*	*5.3%*	*3.7%*	*2.3%*	*2.7%*	*2.7%*	*3.1%*
September Forecast	443.3	446.3	449.0	452.2	404.8	424.2	441.7	453.4	465.1	477.6	492.5
Percent Change	*2.7%*	*2.7%*	*2.4%*	*2.9%*	*4.2%*	*4.8%*	*4.1%*	*2.7%*	*2.6%*	*2.7%*	*3.1%*
Personal Income (Billions of Dollars)											
November Forecast, Preliminary	494.2	499.6	504.2	510.4	434.8	467.4	491.6	512.9	536.7	562.6	591.7
Percent Change	*4.0%*	*4.4%*	*3.7%*	*5.0%*	*6.6%*	*7.5%*	*5.2%*	*4.3%*	*4.6%*	*4.8%*	*5.2%*
September Forecast	487.7	493.4	499.1	505.4	428.8	458.8	484.7	508.0	531.7	556.7	585.1
Percent Change	*4.6%*	*4.8%*	*4.8%*	*5.1%*	*6.1%*	*7.0%*	*5.6%*	*4.8%*	*4.7%*	*4.7%*	*5.1%*
Disposable Personal Income (Billions of Dollars)											
November Forecast, Preliminary	440.6	445.6	449.9	455.4	387.3	417.9	438.2	457.8	479.3	502.4	527.5
Percent Change	*4.3%*	*4.6%*	*3.9%*	*5.0%*	*6.9%*	*7.9%*	*4.9%*	*4.5%*	*4.7%*	*4.8%*	*5.0%*
September Forecast	435.9	441.1	446.2	451.8	380.3	410.0	433.0	454.3	476.0	498.5	522.9
Percent Change	*4.9%*	*4.9%*	*4.7%*	*5.1%*	*6.0%*	*7.8%*	*5.6%*	*4.9%*	*4.8%*	*4.7%*	*4.9%*
Nonfarm Payroll Employment (Thousands)											
November Forecast, Preliminary	3481	3496	3508	3527	3321	3404	3470	3527	3565	3603	3637
Percent Change	*2.1%*	*1.8%*	*1.3%*	*2.2%*	*2.4%*	*2.5%*	*1.9%*	*1.6%*	*1.1%*	*1.0%*	*1.0%*
September Forecast	3480	3494	3508	3529	3321	3404	3469	3530	3569	3605	3640
Percent Change	*2.3%*	*1.6%*	*1.7%*	*2.4%*	*2.4%*	*2.5%*	*1.9%*	*1.7%*	*1.1%*	*1.0%*	*1.0%*
Unemployment Rate (Percent of Labor Force)											
November Forecast, Preliminary	4.6	4.6	4.6	4.5	4.7	4.5	4.6	4.5	4.6	4.8	4.9
September Forecast	4.6	4.5	4.6	4.6	4.7	4.5	4.6	4.6	4.8	4.9	5.0
Manufacturing Employment (Thousands)											
November Forecast, Preliminary	295.4	295.7	295.8	295.0	284.2	287.5	294.6	294.2	292.9	294.9	298.0
Percent Change	*2.5%*	*0.4%*	*0.1%*	*-1.1%*	*-2.1%*	*1.2%*	*2.5%*	*-0.1%*	*-0.5%*	*0.7%*	*1.1%*
September Forecast	296.6	296.5	297.0	295.6	284.2	287.5	295.3	294.9	293.0	295.0	298.7
Percent Change	*3.1%*	*-0.2%*	*0.7%*	*-1.9%*	*-2.1%*	*1.2%*	*2.7%*	*-0.2%*	*-0.6%*	*0.7%*	*1.2%*
Construction Employment (Thousands)											
November Forecast, Preliminary	219.0	219.1	217.5	216.7	199.8	213.4	218.1	216.2	212.9	211.8	211.0
Percent Change	*0.3%*	*0.1%*	*-2.9%*	*-1.4%*	*7.0%*	*6.8%*	*2.2%*	*-0.9%*	*-1.5%*	*-0.5%*	*-0.4%*
September Forecast	217.9	217.3	215.8	215.2	199.8	213.4	217.3	214.8	211.8	210.5	209.9
Percent Change	*-0.4%*	*-1.1%*	*-2.6%*	*-1.1%*	*7.0%*	*6.8%*	*1.9%*	*-1.2%*	*-1.4%*	*-0.6%*	*-0.3%*
Housing Permits (Thousands)											
November Forecast, Preliminary	48.0	43.2	43.8	44.1	45.8	47.7	45.9	43.9	43.0	42.7	41.9
Percent Change	*-5.1%*	*-34.4%*	*6.1%*	*2.2%*	*3.9%*	*4.3%*	*-3.9%*	*-4.2%*	*-2.2%*	*-0.5%*	*-2.0%*
September Forecast	45.4	43.2	43.3	43.5	45.8	47.7	45.2	43.3	42.5	42.4	41.7
Percent Change	*-23.8%*	*-18.2%*	*0.7%*	*2.0%*	*3.9%*	*4.3%*	*-5.3%*	*-4.2%*	*-2.0%*	*-0.2%*	*-1.5%*

U.S. Forecast Comparison						Fiscal Years
	2018	2019	2020	2021	2022	2023
Real GDP						
Billions of 2012 dollars						
November Preliminary Forecast	18,381	18,866	19,233	19,562	19,925	20,315
Growth	*2.8%*	*2.6%*	*1.9%*	*1.7%*	*1.9%*	*2.0%*
September Forecast	18,381	18,867	19,245	19,569	19,917	20,312
Growth	*2.8%*	*2.6%*	*2.0%*	*1.7%*	*1.8%*	*2.0%*
Difference in level	0	0	-12	-7	7	3
Difference in growth forecast	***0.0%***	***0.0%***	***-0.1%***	***0.0%***	***0.1%***	***0.0%***
Real Consumption						
Billions of 2012 dollars						
November Preliminary Forecast	12,752	13,110	13,441	13,687	13,959	14,251
Growth	*2.8%*	*2.8%*	*2.5%*	*1.8%*	*2.0%*	*2.1%*
September Forecast	12,752	13,111	13,441	13,689	13,962	14,240
Growth	*2.8%*	*2.8%*	*2.5%*	*1.8%*	*2.0%*	*2.0%*
Difference in level	0	-1	-1	-2	-3	11
Difference in growth forecast	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.1%***
PCE Price Index						
2012 = 100						
November Preliminary Forecast	107.0	108.9	110.8	112.9	115.1	117.5
Growth	*1.9%*	*1.7%*	*1.8%*	*1.9%*	*2.0%*	*2.1%*
September Forecast	107.0	108.9	110.9	113.2	115.4	117.7
Growth	*1.9%*	*1.7%*	*1.8%*	*2.1%*	*2.0%*	*1.9%*
Difference in level	0.0	0.0	-0.1	-0.3	-0.3	-0.2
Difference in growth forecast	***0.0%***	***0.0%***	***-0.1%***	***-0.2%***	***0.0%***	***0.1%***
Unemployment Rate						
Percent of Labor Force						
November Preliminary Forecast	4.1%	3.8%	3.6%	3.6%	3.7%	3.9%
September Forecast	4.1%	3.8%	3.6%	3.7%	3.9%	4.0%
Difference in forecast	***0.0%***	***0.0%***	***0.0%***	***-0.1%***	***-0.1%***	***-0.1%***
30 Year Fixed Mortgage Rate						
Annual Average						
November Preliminary Forecast	4.2%	4.4%	3.7%	4.1%	4.5%	4.8%
September Forecast	4.2%	4.4%	3.6%	4.1%	4.5%	4.8%
Difference in forecast	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
3 Month T-Bill Rate						
Annual Average						
November Preliminary Forecast	1.4%	2.3%	1.7%	1.6%	2.0%	2.3%
September Forecast	1.4%	2.3%	1.8%	1.6%	2.0%	2.3%
Difference in forecast	***0.0%***	***0.0%***	***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						
November Preliminary Forecast	421.7	440.7	453.1	464.6	477.2	490.9
Growth	*5.3%*	*4.5%*	*2.8%*	*2.5%*	*2.7%*	*2.9%*
September Forecast	414.5	433.3	447.7	459.3	471.1	484.8
Growth	*4.6%*	*4.5%*	*3.3%*	*2.6%*	*2.6%*	*2.9%*
Difference in level	7.2	7.5	5.4	5.3	6.1	6.1
Difference in growth forecast	***0.7%***	***0.0%***	***-0.5%***	***0.0%***	***0.1%***	***0.0%***
Nominal Personal Income						
Billions of dollars						
November Preliminary Forecast	451.4	480.0	502.1	524.6	549.4	576.7
Growth	*7.3%*	*6.3%*	*4.6%*	*4.5%*	*4.7%*	*5.0%*
September Forecast	443.7	471.8	496.4	519.9	543.8	570.5
Growth	*6.6%*	*6.3%*	*5.2%*	*4.7%*	*4.6%*	*4.9%*
Difference in level	7.7	8.2	5.7	4.7	5.5	6.2
Difference in growth forecast	***0.7%***	***0.0%***	***-0.6%***	***-0.2%***	***0.1%***	***0.1%***
Nonfarm Payroll Employment						
Thousands						
November Preliminary Forecast	3,363.9	3,436.4	3,503.0	3,545.8	3,584.6	3,620.5
Growth	*2.4%*	*2.2%*	*1.9%*	*1.2%*	*1.1%*	*1.0%*
September Forecast	3,363.9	3,435.7	3,503.0	3,550.0	3,587.3	3,623.2
Growth	*2.4%*	*2.1%*	*2.0%*	*1.3%*	*1.0%*	*1.0%*
Difference in level	0.0	0.7	0.0	-4.2	-2.7	-2.6
Difference in growth forecast	***0.0%***	***0.0%***	***0.0%***	***-0.1%***	***0.0%***	***0.0%***
Housing Permits						
Units Authorized, Thousands						
November Preliminary Forecast	48.8	46.0	44.8	43.5	43.0	42.2
Growth	*9.6%*	*-5.6%*	*-2.8%*	*-2.9%*	*-1.0%*	*-1.8%*
September Forecast	48.8	46.0	43.8	42.9	42.5	42.0
Growth	*9.6%*	*-5.6%*	*-4.8%*	*-2.2%*	*-0.7%*	*-1.3%*
Difference in level	0.0	0.0	0.9	0.6	0.5	0.3
Difference in growth forecast	***0.0%***	***0.0%***	***2.0%***	***-0.7%***	***-0.3%***	***-0.4%***

Year-Over-Year Employment Growth by Industry
(September 2018 to September 2019)
Washington vs. U.S.

	Washington		U.S.
	(000)	% Chg.	% Chg.
Total	**73.5**	**2.2%**	**1.5%**
Information Excluding Software	6.0	8.7%	-1.1%
Electronic Shopping and Mail-Order Houses	4.5	8.2%	-2.2%
Software Publishers	4.6	7.0%	7.3%
Aerospace Product and Parts Manufacturing	5.0	5.9%	4.7%
Other Services	6.3	5.2%	1.5%
Professional and Business Services	11.3	2.6%	2.1%
Education and Health Services	11.4	2.3%	2.7%
Financial Activities	3.5	2.2%	1.2%
Construction	4.7	2.2%	2.2%
Leisure and Hospitality	6.1	1.8%	2.5%
Transportation, Warehousing, and Utilities	1.4	1.2%	1.6%
State and Local Gov Non-Education	2.6	1.2%	0.8%
Manufacturing Excluding Aerospace	2.0	1.0%	0.9%
State and Local Gov Education	2.5	1.0%	0.3%
Wholesale Trade	1.0	0.7%	1.3%
Mining and Logging	-0.5	-7.4%	0.3%
Information	10.7	7.9%	0.1%
Manufacturing	7.1	2.5%	0.9%
Retail Trade	2.9	0.7%	-0.2%

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