

# Budget Outlook & Economic Review

January 30, 2020



Washington State  
Economic and Revenue Forecast Council

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WASHINGTON STATE  
**ECONOMIC AND REVENUE FORECAST COUNCIL**

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## AGENDA

# **BUDGET OUTLOOK & ECONOMIC REVIEW MEETING**

January 30, 2020  
10:00 a.m.

- Approval of meeting minutes from November 20, 2019
- Budget Outlook methodology review
- Budget Outlook adoption
- 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 & Budget Outlook**

November 20, 2019

John L. O'Brien, Hearing Room C

#### **Economic and Revenue Forecast Council**

##### *Members Present*

Ed Orcutt, House of Representatives, ERFC Chair  
Christine Rolfes, Senate  
John Braun, Senate  
Timm Ormsby, House of Representatives  
Duane Davidson, Treasurer  
David Schumacher, Office of Financial Management

##### *Staff*

Steve Lerch, Executive Director  
Sarian Scott, Senate  
Andy Toulon, House  
Rachel Knutson, OFM

#### **Call to Order**

Representative Orcutt called the meeting to order at 10:03 a.m.

#### **Motion**

Representative Ormsby moved, seconded by Representative Orcutt, to adopt the November 4, 2019 meeting minutes. Motion passed at 10:04 a.m.

#### **Forecast Presentation**

Dr. Lerch presented information on the economic and revenue forecast. Dr. Lerch summarized the forecast changes.

#### **Motion**

Director Schumacher moved, seconded by Representative Orcutt, to adopt the official state economic and revenue forecasts, and the unofficial optimistic, pessimistic and alternative forecasts. Council approved the motion unanimously at 10:22 a.m.

#### **Budget Outlook Presentation**

Sarian Scott, Andy Toulon, and Rachel Knutson presented information on the four-year budget outlook. Discussion ensued regarding pension costs and extraordinary expenditures for fire costs.

#### **Motion**

Representative Ormsby made a motion to adopt the budget outlook as presented, seconded by Representative Orcutt. Council approved the motion unanimously at 10:39 a.m.

#### **Adjournment**

With no further business, the meeting adjourned at 10:40 a.m.

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



**Economic Review: January 30, 2020**

**Executive Summary**

United States

- This forecast is based on a modified version of IHS Markit's January 2020 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 forecast for GDP growth in 2020 and 2021 is now 1.9% in both years compared to 1.8% in both years in the November forecast. The Blue Chip long-range forecast has not changed since November and calls for growth rates of 1.9% and 2.0% in 2022 and 2023. February 2020 is our first forecast for 2024 and 2025. We assume real GDP will grow 2.0% in each year as in the latest Blue Chip long-range forecast.
- 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 Friday, January 24, 2020 closing prices for Brent and WTI futures. The latest futures prices indicate a slightly steeper decline in oil prices than in the November forecast. As in November, the refiner acquisition price of crude is \$57 per barrel in the first quarter of 2020 however it now declines to \$50 by the end of 2023 compared to \$52 in the November forecast.
- China and the U.S. announced a tentative "phase one" trade agreement. The forecast includes the suspension of 15% tariffs on \$160 billion of Chinese goods scheduled to go into effect on December 15th and the reduction, from 15% to 7.5%, of tariffs on \$112 billion of goods that went into effect on September 1st that were included in the phase one agreement. However, it does not include the \$200 billion increase in Chinese imports from the U.S. that was part of the phase one agreement. We will increase the forecast of net exports as we see evidence of stronger Chinese demand that is not offset by shifts away from other U.S. export markets.
- The U.S. economy added 145,000 net new jobs in December. Employment data for October and November were revised down by 14,000 jobs. With these revisions, average monthly employment gains in 2019 equaled 176,000 jobs. Sectors with notable employment gains in December included retail trade (+41,000), health care (+28,000), accommodation and food service (+25,000), construction (+20,000), amusement, gambling and recreation (+14,000) and local government (+14,000). Sectors with net employment declines in December included manufacturing (-12,000), couriers and messengers (-9,000), support activities for mining (-8,000), state government (-8,000) and services to buildings and dwellings (-6,000).
- Two key measures of consumer confidence diverged yet again this month. The University of Michigan (UM) consumer sentiment survey increased by 2.5 points to 99.3 in December. Most of the December gain in the index was attributed to upper income households. The Conference Board index of

consumer confidence declined slightly, falling 0.3 points in December to 126.5. A slightly stronger assessment of current economic conditions was offset by a decline in the short-term outlook for jobs and financial prospects.

- Initial claims for unemployment insurance increased by 6,000 to 211,000 (SA) in the week ending January 18th. The four-week moving average of initial claims decreased by 3,250 to 213,250.
- Industrial production in November increased by 1.1% (SA) compared to October. This increase in part reflects the return to work of striking automotive workers. Over the year, industrial production is down by 0.8% (SA). New orders for core capital goods (i.e., durables excluding aircraft and military), which is a proxy for business investment, increased by 0.2% (SA) in November following a 1.0% increase in October according to U.S. Census Bureau data.
- Residential construction and new home sales data improved this month. Housing units authorized by building permits in November were 1.4% (SA) above their October level and 11.1% above their year-ago level. November housing starts increased by 3.2% (SA) compared to October and were 13.6% above their November 2018 level. New home sales in November increased by 1.3% (SA) compared to October and were 16.9% above their year-ago level. Existing home sales in November decreased by 1.7% (SA) compared to October but were up 2.7% compared to November 2018. The seasonally adjusted Case-Shiller national home price index for October was 0.5% above its September level and 3.3% above its year-ago level.
- Major threats to the U.S. and Washington economies remain, including concerns about international trade policy and geopolitical risks.

## Washington

- We have two months of new Washington employment data since the November forecast was released. Total nonfarm payroll employment rose 13,700 (seasonally adjusted) in November and December, which was 500 more than expected in the November forecast. Private services-providing sectors added 7,700 jobs in the two-month period. The manufacturing sector added 1,700 jobs of which 900 were aerospace jobs. Construction employment increased by 800 jobs and government employment rose by 3,600 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 did not change the estimated level of total employment in October 2019. December employment is 500 (0.0%) higher than expected in the November forecast because of stronger growth from October to December.
- Washington's unemployment rate declined to 4.3% in December from 4.4% in November. The December unemployment rate was a new all-time low in the series that dates back to 1974.
- Boeing suspended production of the 737 MAX jet in January. We assume the suspension continues through March. The effect of moving from slowdown to suspension is to reduce first-quarter U.S GDP growth by 0.5 percentage point while adding 0.25 percentage point to growth in both the second and third

quarters. Boeing has indicated that affected employees will be reassigned and that there will be no layoffs or furloughs due to the shutdown.

- In December, after the forecast was complete, the U.S. Department of Commerce, Bureau of Economic Analysis (BEA) released state personal income estimates for the third quarter of 2019. According to these estimates, Washington personal income rose from \$493.1 billion (SAAR) in the second quarter to \$498.2 billion in the third quarter. The reported 4.2% growth rate (SAAR) in Washington personal income was the 16th largest among the states and District of Columbia and exceeded the 3.8% growth rate for the U.S. as a whole. Washington personal income growth was boosted by strong information earnings growth in the third quarter but was restrained by below average farm earnings growth.
- Washington housing permits increased from 48,000 units (SAAR) in the third quarter of 2019 to 54,300 units in the fourth quarter. Fourth quarter permits consisted of 26,600 single-family units and 27,600 multi-family units. The November forecast assumed an average rate of 43,200 (SAAR) units for the fourth quarter as a whole consisting of 22,500 single-family units and 20,700 multi-family units.
- Seattle-area home prices rose over the year for a fourth consecutive month in November following year-over-year declines in the previous four months. According to the S&P/Case-Shiller Home Price Indices, seasonally adjusted Seattle home prices increased 0.8% in November following monthly growth rates of 0.5%, 0.6%, 0.8%, and 0.7% in July, August, September, and October. Because of the strong growth in the last five months, November Seattle home prices were up 3.3% over the year. In comparison, the composite-20 index was up 2.5% over the year. Seattle home prices are up 95% since the December 2011 trough and exceed the May 2007 peak by 35%.
- Seattle-area consumer price inflation slightly trailed the national average in December despite above average shelter cost inflation. From December 2018 to December 2019, the Seattle CPI rose 2.2% compared to a 2.3% increase in the U.S. City Average. Core prices, which exclude food and energy, increased 2.4% over the year in Seattle compared to 2.2% for the U.S. City Average. Over-the-year shelter-cost inflation in Seattle was 3.6% compared to the national rate of 3.2%. Seattle inflation excluding shelter trailed the national average at 1.3% compared to 1.8%.
- Washington exports declined sharply over the year for the second consecutive quarter. Year-over-year exports decreased 33.4% in the third quarter of 2019 following a 27.6% decline in the second quarter. The large declines were mostly because of transportation equipment exports (mostly Boeing planes) which fell 41.9% in the second quarter and 53.1% in the third quarter. Boeing suspended deliveries of the 737 Max in March, which clearly affected second and third quarter exports. However, third quarter exports of agricultural products also declined 8.3% over the year and exports of all other commodities (mostly manufacturing) declined 8.2% over the year.
- The Institute of Supply Management - Western Washington Index (ISM-WW) moved back into slightly positive territory in December after dipping into negative territory in November. The index, which measures conditions in the manufacturing sector, increased from 47.0 in November to 52.5 in December (index values above 50 indicate growth while values below 50 indicate

contraction). The production, orders, and deliveries components indicated expansion in December while the employment and inventory components indicated contraction.

- Washington car and truck sales declined slightly in December. Seasonally adjusted new vehicle registrations decreased 1.3% in December following a 0.8% decline in November. December sales were down 7.8% over the year and 17.5% since the November 2017 post-recession peak. Monthly sales are erratic but have been trending down since mid-2016.
- We expect 1.8% Washington employment growth this year, up slightly from the 1.6% rate in the November forecast. As in November, we expect growth to continue to decelerate. We expect employment growth to average 1.0% per year in 2021 through 2023, which is slightly faster than the 0.9% rate expected in November. Our forecast for nominal personal income growth this year is 4.4%, up from 3.9% in the November forecast. Our new forecast for nominal personal income growth in 2021 through 2023 averages 4.5% per year, which is down from the 4.7% rate expected in the November forecast. While personal income growth is lower than in November, the level is higher due to an upward revision to history.



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# Washington State Economic Outlook & Revenue Collection Experience

Presented to the Economic and Revenue  
Forecast Council

Steve Lerch  
Executive Director

January 30, 2020  
Olympia, Washington

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## Summary

- The preliminary economic forecast for both the U.S. and WA are very similar to the November forecast.
- Inflation remains tame.
- Boeing suspended production of the 737 MAX jet in January; it is expected that it will be cleared to fly this summer with production to resume in March. Boeing has indicated that affected employees will be reassigned and that there will be no layoffs or furloughs due to the shutdown.
- Revenue collections since the November forecast are \$169 million above expectations; December REET collections were \$74 million above the forecast due to a rush of sales ahead of a January 1 increase in tax rates on sales worth more than \$1.56 million.

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## Forecast

### Upside

- Consumer and business confidence have dipped but remain at high levels
- U.S., WA labor markets slowed in 2019 but remain strong

### Downside

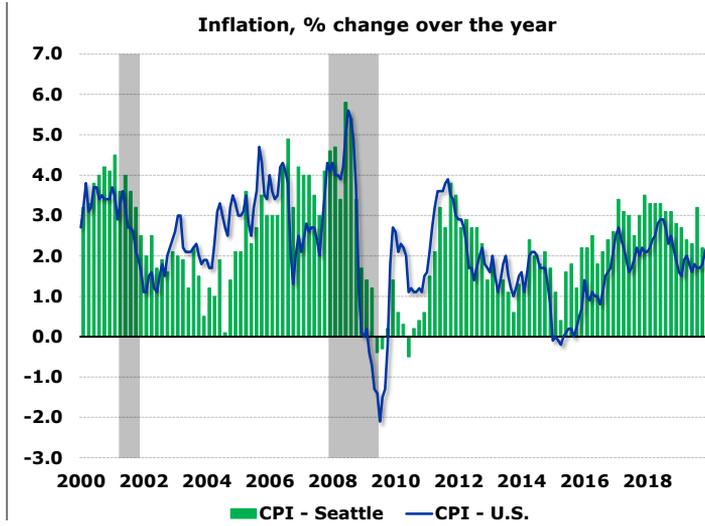
- International trade policy remains uncertain
- Geopolitical risks: Iran, North Korea, China, Russia, Brexit
- Uncertainty regarding 737 MAX
- Maturing economic expansion

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## Inflation remains moderate



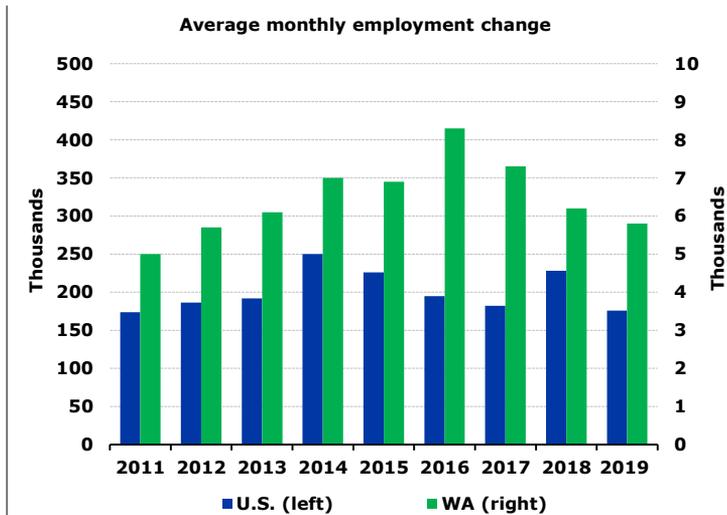
Source: U.S. Bureau of Labor Statistics, data through Dec. 2019

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## Job growth below 2018 averages, remains healthy



Source: Bureau of Labor Statistics, Employment Security Dept.; data through Dec. 2019

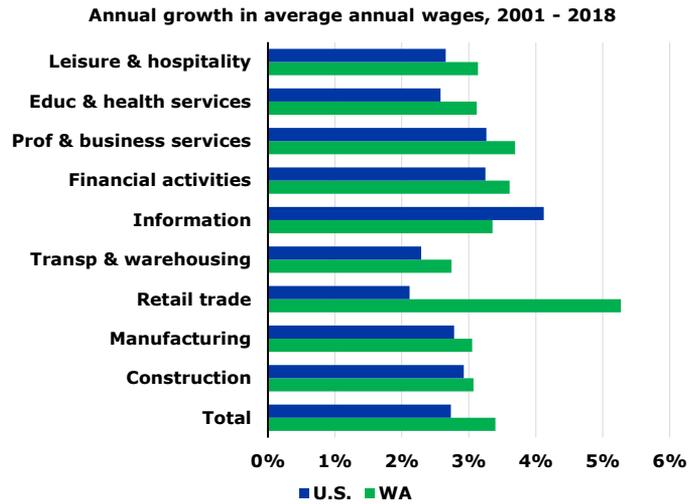
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## Wage growth by selected industries

Adjusting for inflation, annual overall WA wage growth averaged 1.3% over this period



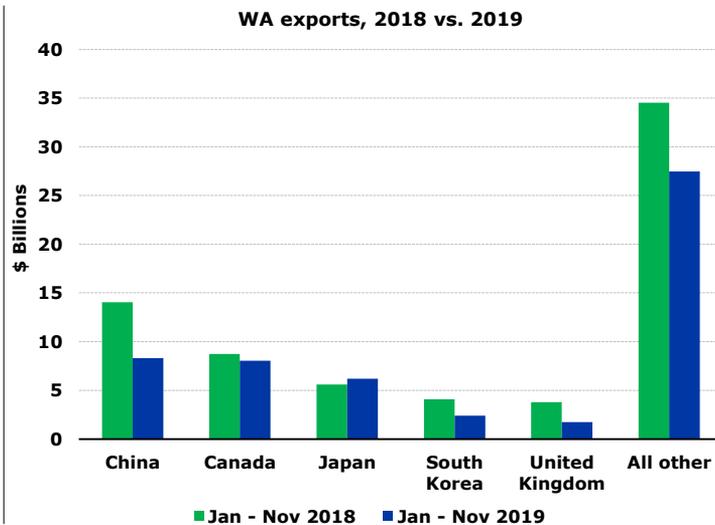
Source: Bureau of Labor Statistics, Employment Security Dept.; data through 2018

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## 2019 WA exports to most countries have declined



Source: WISERTrade, data through Nov. 2019

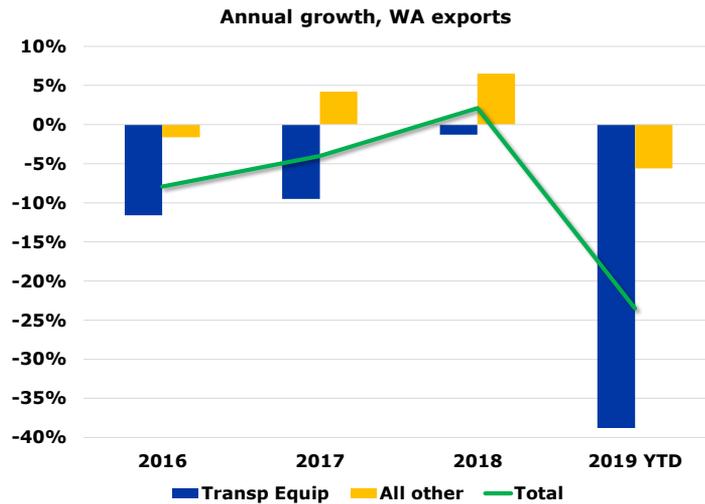
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## WA exports down substantially in 2019

Aerospace exports for Jan – Nov 2019 are \$15.2 billion lower than during the same period in 2018



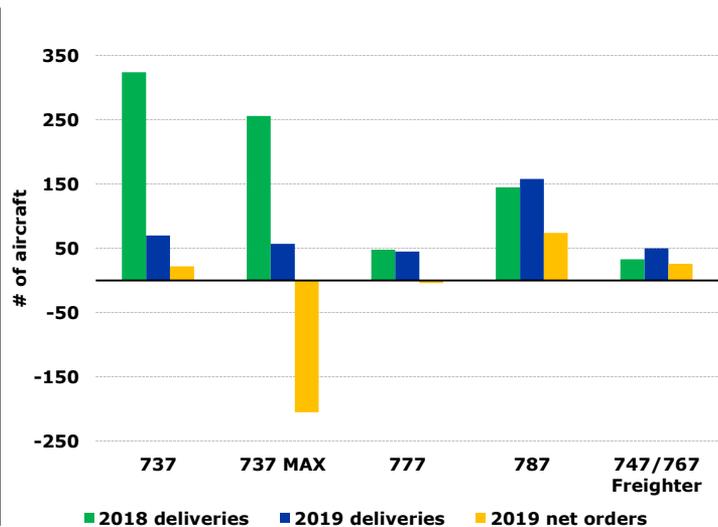
Source: WISERTrade, data through Nov. 2019

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## Boeing deliveries down this year, few new orders



Source: Boeing Company, data through Dec. 2019

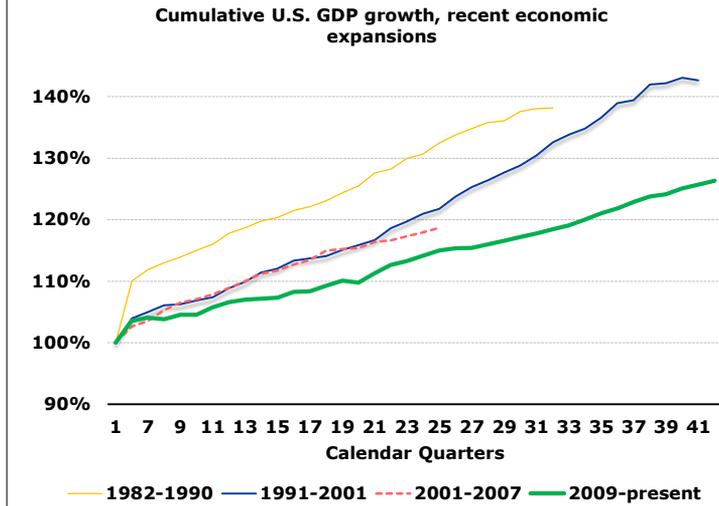
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## Recent economic expansions

The current expansion is the longest on record but growth has been slower than in previous expansions.



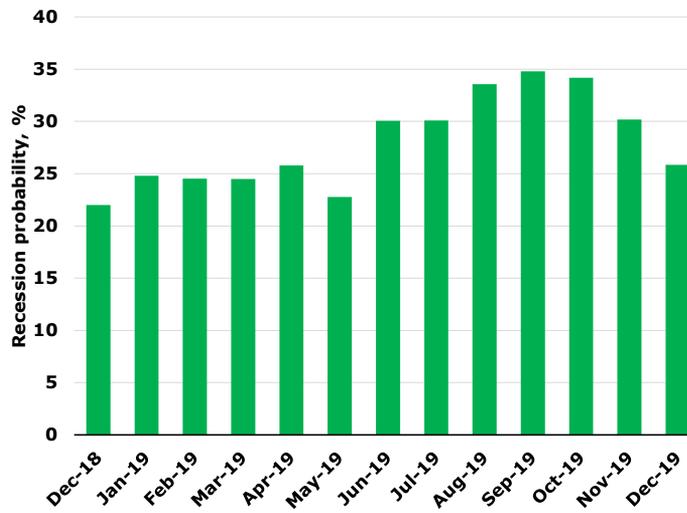
Source: U.S. Bureau of Economic Analysis, data through 2019 Q3

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## WSJ: probability of recession in next 12 months



Source: Wall Street Journal Economic Forecasting Survey, data through Dec. 2019

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## U.S. manufacturing has slowed in last 5 months

Values above 50 indicate expansion, below 50 indicate contraction.



Source: ISM, WA data through Dec. 2019

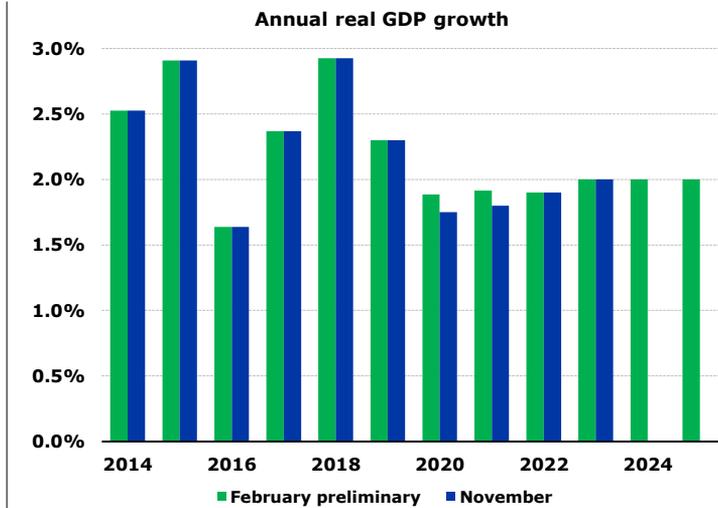
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## GDP growth forecast

GDP growth is slightly higher for 2020 and 2021 compared to the November forecast



Source: IHS Markit, ERFC February 2020 preliminary forecast; data through 2018

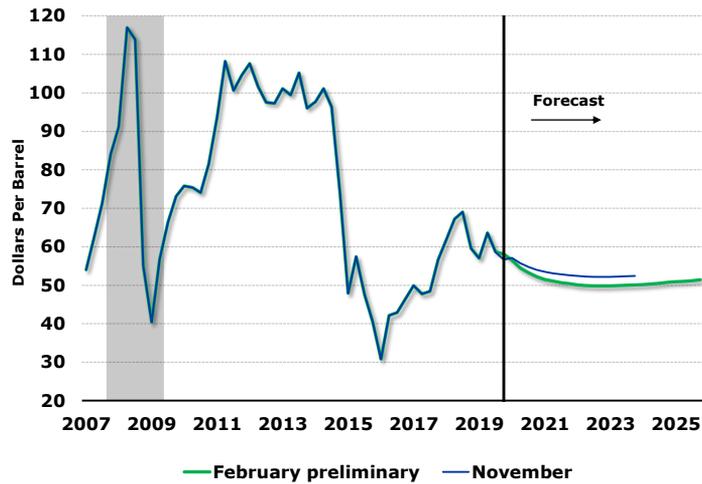
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## Oil prices

Oil prices are slightly lower than in the November forecast



Source: Energy Information Administration, IHS Markit, ERFC; data through Q4 2019  
Note: Vertical black line indicates last actual

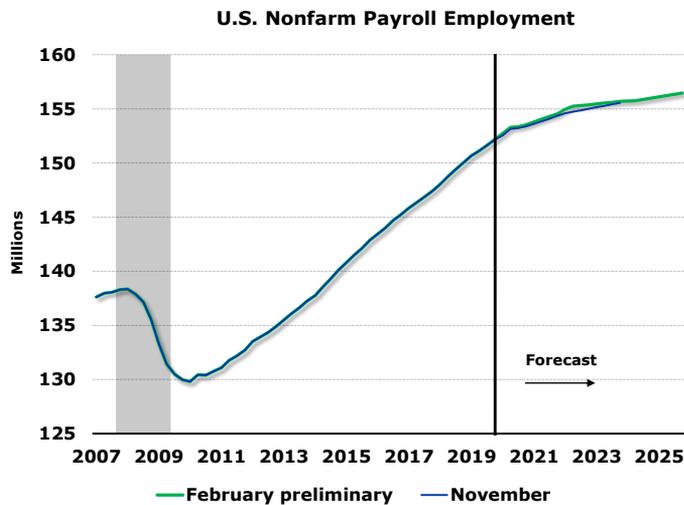
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## U.S. nonfarm payroll employment

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



Source: IHS Markit, ERFC; data through Q4 2019  
Note: Vertical black line indicates last actual

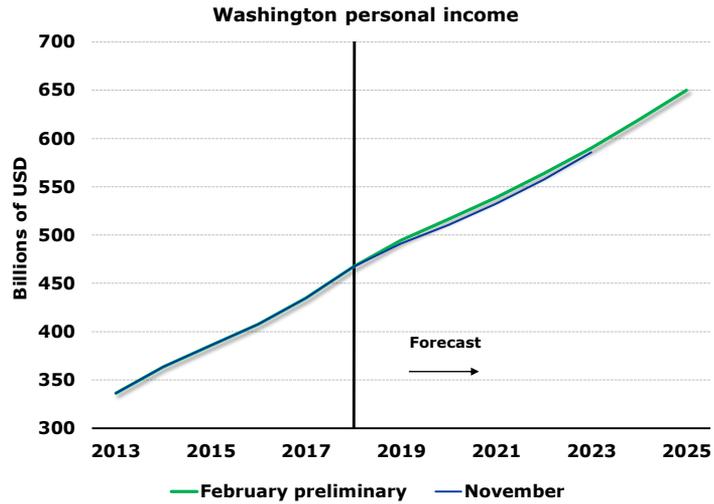
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## WA personal income forecast

Washington personal income forecast is slightly higher than in November but with slightly lower growth rates



Source: ERFC February 2020 Preliminary forecast; historical data through 2018

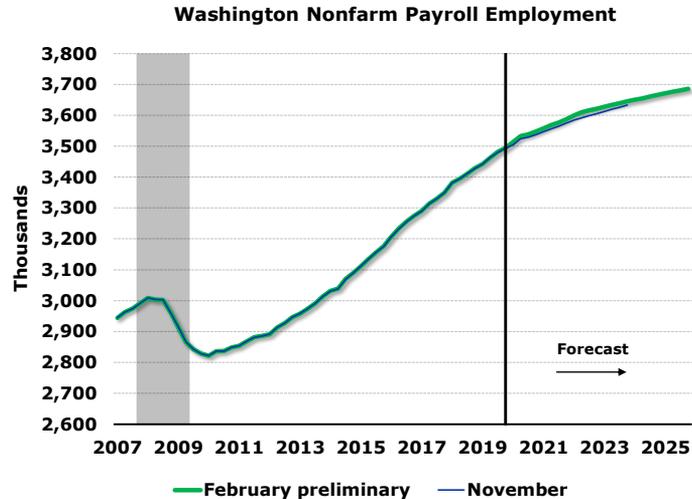
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## Washington employment forecast

Washington employment forecast is very close to the November forecast



Source: ERFC February 2020 Preliminary forecast; historical data through Q4 2019

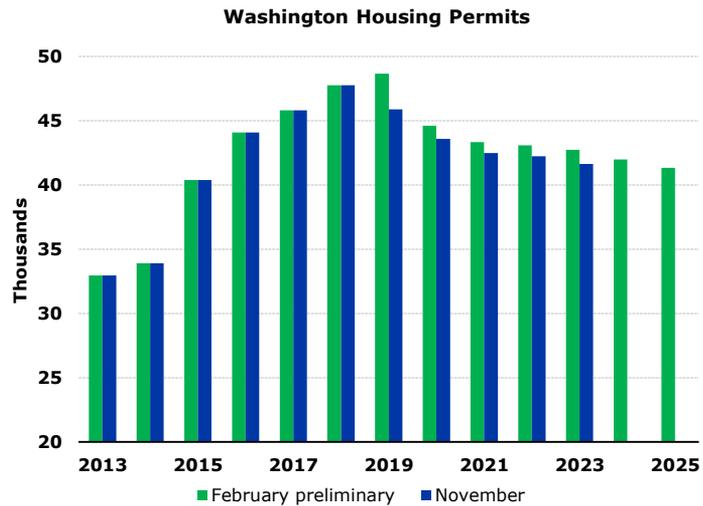
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## Housing permits forecast

Washington housing permits forecast is slightly higher than in November



Source: ERFC February 2020 Preliminary forecast; historical data through 2019

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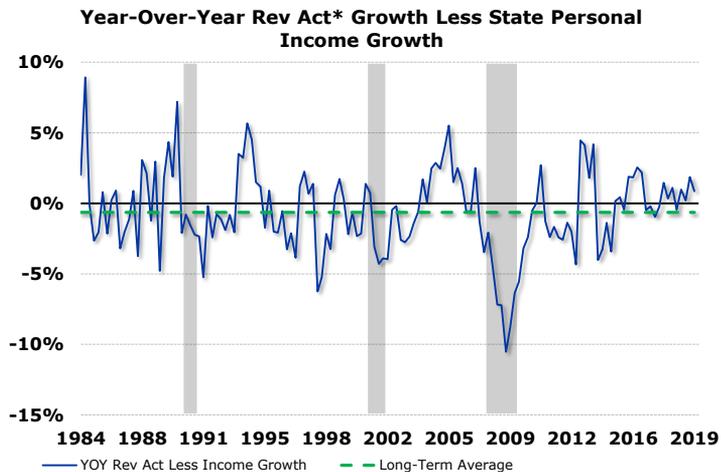
## Collections still growing faster than personal income

Adjusted Rev Act growth YOY:

18Q4: 7.5%  
19Q1: 5.6%  
19Q2: 8.1%  
19Q3: 6.6%

February preliminary personal income YOY growth estimates:

18Q4: 6.5%  
19Q1: 5.4%  
19Q2: 6.2%  
19Q3: 5.7%



\*Adjusted for large one-time payments and refunds and payments under the amnesty program  
Source: ERFC; Quarterly revenue data through Q3 2019, February 2019 preliminary income estimates

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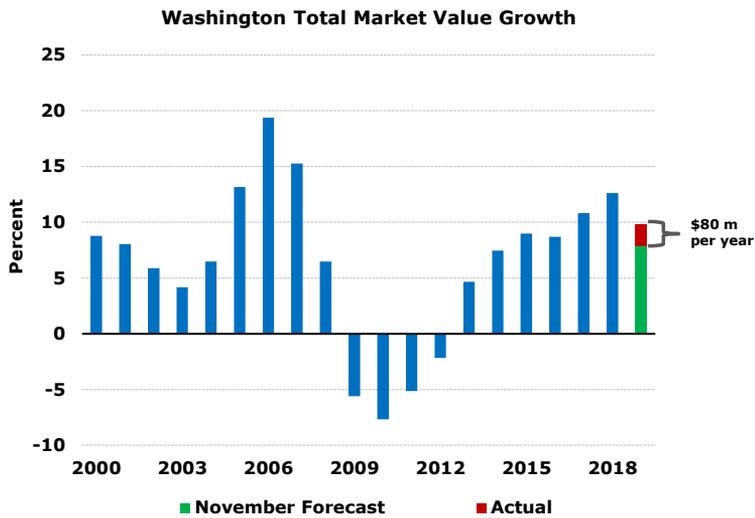


## Actual market value came in higher than anticipated

November forecast for growth in market value: 7.9%

Actual growth: 9.8%

Every 1.0 percentage point increase in market value growth adds around \$40 million in revenue per year



Source: ERFC November 2019 forecast; historical data through 2019

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## Taxable real estate sales jumped in December

On Jan. 1<sup>st</sup>, the real estate excise tax rate changed from 1.28% to a graduated rate ranging from 1.1% to 3.0%



Source: ERFC, data through Dec. 2019 sales

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## Collections through January 10th

Special factors: \$32.0 million in net large one-time payments for past due taxes.

REET collections jumped higher than expected ahead of the January 1 rate increase.

Adjusted for both the special factors and the REET surplus, collections are \$48.0 million (1.0%) higher than forecasted.

### Cumulative collections as of January 10 compared to the November forecast

Thousands of dollars

	Estimate	Actual	Diff.	Pct.
Department of Revenue-Total	\$4,604,212	\$4,772,574	\$168,362	3.7%
Revenue Act	2,846,010	2,926,699	80,690	2.8%
Non-Revenue Act	1,758,203	1,845,874	87,672	5.0%
Liquor Sales/Liter	47,804	48,914	1,110	2.3%
Cigarette	55,456	55,155	(301)	-0.5%
Property (State School Levy)	1,439,556	1,422,494	(17,062)	-1.2%
Real Estate Excise	179,506	268,187	88,682	49.4%
Unclaimed Property	15,927	25,629	9,703	60.9%
Other	19,955	25,495	5,540	27.8%
Administrative Office of the Courts	11,189	11,482	294	2.6%
<b>Total General Fund-State</b>	<b>\$4,615,401</b>	<b>\$4,784,056</b>	<b>\$168,656</b>	<b>3.7%</b>
<b>Total Excluding Special Factors</b>	<b>\$4,615,401</b>	<b>\$4,752,060</b>	<b>\$136,660</b>	<b>3.0%</b>

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## Conclusion

- The U.S. and Washington economic forecasts are very similar to November, 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 policy, geopolitical risks and a maturing expansion
- The next monthly revenue collection report will be available on February 18<sup>th</sup> and the revenue forecast will be presented on February 19<sup>th</sup>

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## Questions?

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Economic and Revenue Forecast Council

Table 1

**U.S. Economic Forecast Comparison**

January 2020

	2019Q4	2020Q1	2020Q2	2020Q3	2020	2021	2022	2023	2024	2025
<b>Real GDP, Percent Change, Annual Rate</b>										
ERFC (February Preliminary)	1.8	1.7	2.0	1.9	1.9	1.9	1.9	2.0	2.0	2.0
IHS	1.8	1.7	2.4	2.5	2.1	2.1	1.7	1.5	1.8	2.2
Economy.com	2.2	1.5	2.2	1.5	1.8	2.0				
Blue Chip Average*	2.0	1.6	1.9	1.8	1.9	1.9	1.9	2.0	2.0	2.0
Blue Chip Top 10*	2.6	2.3	2.6	2.3	2.3	2.3	2.3	2.4	2.3	2.2
Blue Chip Bottom 10*	1.4	1.0	1.1	1.3	1.8	1.5	1.6	1.6	1.6	1.7
<b>Real Consumption, Percent Change, Annual Rate</b>										
ERFC (February Preliminary)	2.3	2.0	2.1	2.0	2.4	2.1	2.0	2.2	2.1	2.1
IHS	2.3	2.9	2.7	2.8	2.8	2.7	2.3	2.2	2.2	2.4
Economy.com	2.1	1.4	1.5	1.1	1.9	1.4				
Blue Chip Average*	2.2	2.1	2.1	2.0	2.4	2.1	2.0	2.2	2.1	2.1
Blue Chip Top 10*	2.8	2.7	2.6	2.5	2.7	2.5	2.4	2.7	2.5	2.3
Blue Chip Bottom 10*	1.7	1.3	1.5	1.4	1.9	1.7	1.7	1.7	1.8	1.9
<b>Federal Funds Rate</b>										
ERFC (February Preliminary)	1.7	1.6	1.6	1.6	1.6	1.8	2.1	2.4	2.6	2.6
IHS	1.7	1.6	1.6	1.6	1.6	1.8	2.1	2.4	2.6	2.6
Economy.com	1.7	1.6	1.6	1.6	1.6	1.7				
<b>Three Month T-Bill Rate</b>										
ERFC (February Preliminary)	1.6	1.5	1.5	1.5	1.5	1.6	2.0	2.1	2.3	2.3
IHS	1.6	1.5	1.5	1.5	1.5	1.6	1.9	2.1	2.4	2.4
Blue Chip Average*	1.6	1.6	1.5	1.5	1.5	1.4	2.0	2.1	2.2	2.3
Blue Chip Top 10*	1.6	1.6	1.6	1.7	1.7	1.8	2.6	2.8	2.9	2.9
Blue Chip Bottom 10*	1.6	1.5	1.3	1.1	1.2	0.9	1.4	1.5	1.6	1.7
<b>10-Yr. T-Note Yield</b>										
ERFC (February Preliminary)	1.8	2.0	2.2	2.3	2.2	2.7	3.0	2.9	2.9	2.9
IHS	1.8	2.0	2.1	2.3	2.2	2.7	2.9	3.0	3.0	3.1
Economy.com	1.8	2.1	2.2	2.2	2.2	2.7				
Blue Chip Average*	1.8	1.8	1.9	1.9	1.9	2.1	2.6	2.8	2.9	3.0
Blue Chip Top 10*	1.8	2.0	2.2	2.3	2.2	2.6	3.3	3.4	3.6	3.7
Blue Chip Bottom 10*	1.8	1.7	1.6	1.6	1.6	1.6	1.8	2.1	2.2	2.3
<b>Consumer Price Index, Percent Change, Annual Rate</b>										
ERFC (February Preliminary)	3.0	1.6	1.5	1.5	1.9	1.8	2.2	2.2	2.2	2.2
IHS	2.7	1.8	1.6	1.1	1.8	1.7	2.5	2.6	2.5	2.4
Economy.com	2.5	2.3	1.9	2.4	2.3	2.4				
Blue Chip Average*	2.4	2.2	2.1	2.0	2.2	2.0	2.2	2.2	2.2	2.2
Blue Chip Top 10*	2.8	3.0	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.4
Blue Chip Bottom 10*	1.8	1.6	1.6	1.3	1.8	1.6	1.9	1.9	1.9	1.9
<b>Payroll Employment, Millions</b>										
ERFC (February Preliminary)	152.2	152.7	153.3	153.3	153.2	154.2	155.2	155.6	155.8	156.3
Percent Change, Annual Rate	1.5	1.4	1.5	0.1	1.2	0.6	0.7	0.2	0.2	0.3
IHS	152.2	152.7	153.3	153.4	153.3	154.4	155.1	155.2	155.4	156.0
Percent Change, Annual Rate	1.6	1.3	1.6	0.4	1.2	0.8	0.5	0.1	0.1	0.4
Economy.com	152.2	152.6	153.2	153.2	153.1	153.8				
Percent Change, Annual Rate	1.5	1.2	1.5	0.0	1.1	0.4				
<b>Unemployment Rate, Percent</b>										
ERFC (February Preliminary)	3.5	3.5	3.5	3.5	3.5	3.7	3.8	4.0	4.2	4.3
IHS	3.5	3.5	3.4	3.5	3.5	3.5	3.8	4.2	4.5	4.5
Economy.com	3.5	3.5	3.5	3.5	3.5	4.0				
Blue Chip Average*	3.6	3.6	3.6	3.6	3.6	3.7	4.1	4.1	4.1	4.1
Blue Chip Top 10*	3.6	3.7	3.9	4.0	4.0	4.4	4.7	4.7	4.6	4.6
Blue Chip Bottom 10*	3.5	3.4	3.4	3.3	3.4	3.2	3.5	3.5	3.6	3.6
<b>Real Disposable Personal Income, Percent Change, Annual Rate</b>										
ERFC (February Preliminary)	1.6	2.1	1.5	1.8	1.9	2.0	2.1	1.8	1.9	2.3
IHS	1.8	2.3	1.9	2.5	2.2	2.6	2.2	2.0	2.2	2.5
Blue Chip Average*	2.1	2.2	2.0	1.9	2.1	2.0	2.0	2.0	2.0	2.0
Blue Chip Top 10*	2.9	2.7	2.8	2.5	2.6	2.5	2.4	2.5	2.5	2.4
Blue Chip Bottom 10*	1.3	1.5	1.3	1.3	1.6	1.5	1.5	1.5	1.5	1.6
<b>West Texas Intermediate</b>										
ERFC (February Preliminary)	57.0	55.4	54.1	53.2	53.7	50.6	49.5	49.4	49.8	50.4
IHS	56.7	56.9	55.9	52.0	52.7	47.5	52.4	58.1	62.1	66.4
Economy.com	56.9	60.1	60.1	60.3	60.2	61.3				

\* Forecasts beyond 2021 are from the October 2019 Blue Chip Economic Indicators

### U.S. Forecast Comparison

	2019Q4	2020Q1	2020Q2	2020Q3
<b>Real GDP (Billions of 2012 Dollars)</b>				
February Forecast, Preliminary	19,208	19,290	19,385	19,474
Percent Change	1.8%	1.7%	2.0%	1.9%
November Forecast	19,188	19,271	19,358	19,440
Percent Change	1.6%	1.7%	1.8%	1.7%
<b>Real Consumption (Billions of 2012 Dollars)</b>				
February Forecast, Preliminary	13,430	13,496	13,564	13,632
Percent Change	2.3%	2.0%	2.1%	2.0%
November Forecast	13,410	13,479	13,547	13,607
Percent Change	2.0%	2.1%	2.0%	1.8%
<b>PCE Price Index (2012=100)</b>				
February Forecast, Preliminary	110.4	110.9	111.3	111.8
Percent Change	1.9%	1.5%	1.6%	1.7%
November Forecast	110.6	111.1	111.6	112.2
Percent Change	2.2%	2.0%	1.9%	1.9%
<b>Real Personal Income (Billions of 2012 Dollars)</b>				
February Forecast, Preliminary	17,104	17,194	17,262	17,340
Percent Change	1.8%	2.1%	1.6%	1.8%
November Forecast	17,139	17,219	17,275	17,331
Percent Change	1.5%	1.9%	1.3%	1.3%
<b>Nonfarm Payroll Employment (Millions)</b>				
February Forecast, Preliminary	152.2	152.7	153.3	153.3
Percent Change	1.5%	1.4%	1.5%	0.1%
November Forecast	152.2	152.6	153.1	153.2
Percent Change	1.4%	1.1%	1.5%	0.3%
<b>Unemployment Rate (Percent of Labor Force)</b>				
February Forecast, Preliminary	3.5	3.5	3.5	3.5
November Forecast	3.5	3.5	3.5	3.5
<b>Oil Price, Refiner's Acquisition</b>				
February Forecast, Preliminary	58.1	56.6	54.5	53.2
November Forecast	56.7	57.1	55.8	54.8
<b>30 Year Fixed Mortgage Rate (Percent, average)</b>				
February Forecast, Preliminary	3.7	3.9	4.0	4.0
November Forecast	3.7	3.8	3.9	4.0
<b>3 Month T-Bill Rate (Percent, average)</b>				
February Forecast, Preliminary	1.6	1.5	1.5	1.5
November Forecast	1.6	1.6	1.5	1.5

	2019	2020	2021	2022	2023	2024	2025
<b>Real GDP (Billions of 2012 Dollars)</b>							
February Forecast, Preliminary	19,069	19,429	19,801	20,177	20,581	20,993	21,412
Percent Change	2.3%	1.9%	1.9%	1.9%	2.0%	2.0%	2.0%
November Forecast	19,063	19,397	19,746	20,121	20,523		
Percent Change	2.3%	1.8%	1.8%	1.9%	2.0%		
<b>Real Consumption (Billions of 2012 Dollars)</b>							
February Forecast, Preliminary	13,284	13,600	13,886	14,164	14,475	14,779	15,090
Percent Change	2.6%	2.4%	2.1%	2.0%	2.2%	2.1%	2.1%
November Forecast	13,277	13,574	13,832	14,108	14,419		
Percent Change	2.6%	2.2%	1.9%	2.0%	2.2%		
<b>PCE Price Index (2012=100)</b>							
February Forecast, Preliminary	109.7	111.6	113.6	115.8	118.1	120.4	122.7
Percent Change	1.4%	1.7%	1.8%	2.0%	2.0%	2.0%	1.9%
November Forecast	109.7	111.9	114.0	116.3	118.6		
Percent Change	1.5%	2.0%	1.9%	2.0%	2.0%		
<b>Real Personal Income (Billions of 2012 Dollars)</b>							
February Forecast, Preliminary	16,983	17,304	17,661	18,061	18,438	18,859	19,326
Percent Change	3.1%	1.9%	2.1%	2.3%	2.1%	2.3%	2.5%
November Forecast	17,014	17,306	17,644	18,063	18,511		
Percent Change	3.3%	1.7%	2.0%	2.4%	2.5%		
<b>Nonfarm Payroll Employment (Millions)</b>							
February Forecast, Preliminary	151.4	153.2	154.2	155.2	155.6	155.8	156.3
Percent Change	1.6%	1.2%	0.6%	0.7%	0.2%	0.2%	0.3%
November Forecast	151.4	153.1	154.0	154.8	155.4		
Percent Change	1.6%	1.1%	0.6%	0.5%	0.4%		
<b>Unemployment Rate (Percent of Labor Force)</b>							
February Forecast, Preliminary	3.7	3.5	3.7	3.8	4.0	4.2	4.3
November Forecast	3.7	3.5	3.7	3.9	4.1		
<b>Oil Price, Refiner's Acquisition</b>							
February Forecast, Preliminary	59.4	54.1	50.9	50.0	50.0	50.5	51.1
November Forecast	59.0	55.4	53.0	52.3	52.3		
<b>30 Year Fixed Mortgage Rate (Percent, average)</b>							
February Forecast, Preliminary	3.9	4.0	4.3	4.5	4.5	4.6	4.6
November Forecast	3.9	3.9	4.4	4.5	4.6		
<b>3 Month T-Bill Rate (Percent, average)</b>							
February Forecast, Preliminary	2.1	1.5	1.6	2.0	2.1	2.3	2.3
November Forecast	2.1	1.5	1.8	2.2	2.4		

### Washington Forecast Comparison

	2019Q4	2020Q1	2020Q2	2020Q3	2019	2020	2021	2022	2023	2024	2025
<b>Real Personal Income (Billions of 2012 Dollars)</b>											
February Forecast, Preliminary	456.1	459.0	462.0	464.4	450.9	463.1	474.4	486.7	499.5	514.2	529.5
Percent Change	2.2%	2.6%	2.7%	2.0%	4.3%	2.7%	2.4%	2.6%	2.6%	2.9%	3.0%
November Forecast	451.1	452.8	455.4	457.1	447.7	456.1	466.9	479.4	493.8		
Percent Change	1.7%	1.5%	2.3%	1.5%	3.6%	1.9%	2.3%	2.7%	3.0%		
<b>Personal Income (Billions of Dollars)</b>											
February Forecast, Preliminary	503.7	508.9	514.3	519.1	494.6	516.6	538.9	563.7	589.9	619.2	650.0
Percent Change	4.2%	4.2%	4.3%	3.7%	5.8%	4.4%	4.3%	4.6%	4.6%	5.0%	5.0%
November Forecast	498.6	503.1	508.3	512.7	491.3	510.4	532.5	557.6	585.7		
Percent Change	4.1%	3.6%	4.2%	3.5%	5.1%	3.9%	4.3%	4.7%	5.0%		
<b>Disposable Personal Income (Billions of Dollars)</b>											
February Forecast, Preliminary	447.8	452.5	457.3	461.6	440.1	459.4	479.5	501.4	523.3	547.5	573.8
Percent Change	3.9%	4.3%	4.3%	3.8%	5.3%	4.4%	4.4%	4.6%	4.4%	4.6%	4.8%
November Forecast	444.5	448.7	453.4	457.5	437.7	455.4	475.7	498.2	522.2		
Percent Change	4.3%	3.9%	4.2%	3.6%	4.8%	4.0%	4.5%	4.7%	4.8%		
<b>Nonfarm Payroll Employment (Thousands)</b>											
February Forecast, Preliminary	3495	3513	3533	3538	3470	3533	3572	3612	3636	3658	3678
Percent Change	1.5%	2.1%	2.3%	0.6%	1.9%	1.8%	1.1%	1.1%	0.7%	0.6%	0.6%
November Forecast	3494	3504	3524	3530	3470	3524	3561	3595	3623		
Percent Change	1.5%	1.2%	2.3%	0.7%	1.9%	1.6%	1.1%	1.0%	0.8%		
<b>Unemployment Rate (Percent of Labor Force)</b>											
February Forecast, Preliminary	4.4	4.3	4.2	4.3	4.6	4.3	4.5	4.7	4.9	5.1	5.2
November Forecast	4.5	4.5	4.5	4.5	4.6	4.5	4.7	4.9	5.1		
<b>Manufacturing Employment (Thousands)</b>											
February Forecast, Preliminary	293.2	294.3	293.2	291.5	293.5	292.4	289.9	291.5	293.2	293.9	293.3
Percent Change	-1.4%	1.6%	-1.6%	-2.3%	2.1%	-0.4%	-0.8%	0.6%	0.6%	0.2%	-0.2%
November Forecast	295.0	295.2	294.1	292.8	294.5	293.5	291.3	293.0	295.5		
Percent Change	-1.3%	0.2%	-1.4%	-1.9%	2.4%	-0.3%	-0.8%	0.6%	0.9%		
<b>Construction Employment (Thousands)</b>											
February Forecast, Preliminary	221.9	222.5	222.2	220.8	219.1	221.3	216.8	214.5	212.4	212.2	212.3
Percent Change	4.1%	1.1%	-0.6%	-2.4%	2.7%	1.0%	-2.1%	-1.1%	-1.0%	-0.1%	0.1%
November Forecast	221.4	219.7	218.8	217.6	218.9	218.2	214.0	212.5	211.8		
Percent Change	3.5%	-3.0%	-1.7%	-2.0%	2.6%	-0.3%	-1.9%	-0.7%	-0.3%		
<b>Housing Permits (Thousands)</b>											
February Forecast, Preliminary	54.3	44.9	44.8	44.6	48.6	44.6	43.3	43.1	42.7	42.0	41.3
Percent Change	63.5%	-53.2%	-0.7%	-1.4%	1.9%	-8.3%	-2.9%	-0.5%	-0.8%	-1.7%	-1.5%
November Forecast	43.2	43.9	43.8	43.5	45.9	43.6	42.5	42.2	41.6		
Percent Change	-34.4%	6.5%	-0.8%	-2.2%	-3.9%	-5.0%	-2.5%	-0.6%	-1.4%		

U.S. Forecast Comparison	Fiscal Years					
	2020	2021	2022	2023	2024	2025
<b>Real GDP</b>						
Billions of 2012 dollars						
February Preliminary Forecast	19,251	19,614	19,989	20,376	20,786	21,201
<i>Growth</i>	2.0%	1.9%	1.9%	1.9%	2.0%	2.0%
November Forecast	19,233	19,568	19,928	20,320		
<i>Growth</i>	1.9%	1.7%	1.8%	2.0%		
Difference in level	18	45	61	56		
<i>Difference in growth forecast</i>	0.1%	0.1%	0.1%	0.0%		
<b>Real Consumption</b>						
Billions of 2012 dollars						
February Preliminary Forecast	13,461	13,743	14,022	14,317	14,628	14,933
<i>Growth</i>	2.7%	2.1%	2.0%	2.1%	2.2%	2.1%
November Forecast	13,445	13,699	13,967	14,260		
<i>Growth</i>	2.6%	1.9%	2.0%	2.1%		
Difference in level	16	44	55	57		
<i>Difference in growth forecast</i>	0.1%	0.2%	0.1%	0.0%		
<b>PCE Price Index</b>						
2012 = 100						
February Preliminary Forecast	110.6	112.5	114.7	116.9	119.3	121.6
<i>Growth</i>	1.6%	1.7%	1.9%	1.9%	2.0%	1.9%
November Forecast	110.8	113.0	115.2	117.4		
<i>Growth</i>	1.8%	1.9%	2.0%	2.0%		
Difference in level	-0.2	-0.4	-0.4	-0.5		
<i>Difference in growth forecast</i>	-0.2%	-0.2%	0.0%	0.0%		
<b>Unemployment Rate</b>						
Percent of Labor Force						
February Preliminary Forecast	3.5%	3.6%	3.7%	3.9%	4.1%	4.3%
November Forecast	3.5%	3.6%	3.8%	4.0%		
<i>Difference in forecast</i>	0.0%	0.0%	-0.1%	-0.2%		
<b>30 Year Fixed Mortgage Rate</b>						
Annual Average						
February Preliminary Forecast	3.8%	4.2%	4.5%	4.5%	4.6%	4.6%
November Forecast	3.8%	4.2%	4.5%	4.6%		
<i>Difference in forecast</i>	0.0%	0.0%	0.0%	-0.1%		
<b>3 Month T-Bill Rate</b>						
Annual Average						
February Preliminary Forecast	1.7%	1.5%	1.8%	2.0%	2.2%	2.3%
November Forecast	1.7%	1.6%	2.1%	2.3%		
<i>Difference in forecast</i>	0.0%	-0.1%	-0.2%	-0.2%		

**Washington Forecast Comparison**
**Fiscal Years**

	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
<b>Real Personal Income</b>						
Billions of 2012 dollars						
February Preliminary Forecast	457.7	468.6	480.4	492.9	506.7	521.9
<i>Growth</i>	3.7%	2.4%	2.5%	2.6%	2.8%	3.0%
November Forecast	452.1	461.1	472.9	486.4		
<i>Growth</i>	2.6%	2.0%	2.6%	2.8%		
Difference in level	5.6	7.5	7.4	6.5		
<b><i>Difference in growth forecast</i></b>	<b>1.1%</b>	<b>0.4%</b>	<b>-0.1%</b>	<b>-0.2%</b>		
<b>Nominal Personal Income</b>						
Billions of dollars						
February Preliminary Forecast	506.4	527.4	551.1	576.4	604.3	634.6
<i>Growth</i>	5.3%	4.2%	4.5%	4.6%	4.8%	5.0%
November Forecast	500.9	520.9	544.7	571.2		
<i>Growth</i>	4.4%	4.0%	4.6%	4.9%		
Difference in level	5.4	6.5	6.4	5.2		
<b><i>Difference in growth forecast</i></b>	<b>0.9%</b>	<b>0.2%</b>	<b>-0.1%</b>	<b>-0.3%</b>		
<b>Nonfarm Payroll Employment</b>						
Thousands						
February Preliminary Forecast	3,505.8	3,552.7	3,593.2	3,624.6	3,647.2	3,668.5
<i>Growth</i>	2.0%	1.3%	1.1%	0.9%	0.6%	0.6%
November Forecast	3,500.4	3,542.6	3,578.9	3,609.0		
<i>Growth</i>	1.9%	1.2%	1.0%	0.8%		
Difference in level	5.4	10.2	14.4	15.7		
<b><i>Difference in growth forecast</i></b>	<b>0.2%</b>	<b>0.1%</b>	<b>0.1%</b>	<b>0.0%</b>		
<b>Housing Permits</b>						
Units Authorized, Thousands						
February Preliminary Forecast	48.0	44.0	43.1	43.0	42.3	41.7
<i>Growth</i>	4.2%	-8.2%	-2.2%	-0.2%	-1.5%	-1.4%
November Forecast	44.7	43.0	42.4	41.9		
<i>Growth</i>	-2.9%	-3.9%	-1.3%	-1.1%		
Difference in level	3.3	1.0	0.7	1.0		
<b><i>Difference in growth forecast</i></b>	<b>7.1%</b>	<b>-4.4%</b>	<b>-0.8%</b>	<b>0.9%</b>		

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

	Washington		U.S.
	(000)	% Chg.	% Chg.
<b>Total</b>	<b>65.2</b>	<b>1.9%</b>	<b>1.5%</b>
Electronic Shopping and Mail-Order Houses	11.8	21.0%	-3.4%
Software Publishers	4.7	7.0%	7.1%
Information Excluding Software	4.6	6.6%	-0.9%
Other Services	5.5	4.5%	1.5%
Transportation, Warehousing and Utilities	3.2	2.8%	1.0%
Professional and Business Services	11.6	2.7%	2.0%
Education and Health Services	11.2	2.3%	2.8%
Financial Activities	3.4	2.1%	1.4%
Aerospace Product and Parts Manufacturing	1.8	2.1%	3.6%
State and Local Gov Non-Education	3.7	1.7%	1.1%
Construction	3.6	1.7%	2.0%
Leisure and Hospitality	5.0	1.4%	2.5%
Wholesale Trade	1.3	0.9%	1.1%
State and Local Gov Education	0.0	0.0%	0.6%
Manufacturing Excluding Aerospace	-0.4	-0.2%	0.5%
Mining and Logging	-0.6	-9.5%	-1.1%
Information	9.4	6.8%	0.2%
Retail Trade	4.7	1.2%	-0.2%
Manufacturing	1.4	0.5%	0.6%

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