

Economic Review  
November 3, 2020



Washington State  
Economic and Revenue Forecast Council

*This page left intentionally blank.*



WASHINGTON STATE  
**ECONOMIC AND REVENUE FORECAST COUNCIL**

---

## AGENDA

### **ECONOMIC REVIEW MEETING**

November 3, 2020  
10:00 a.m.

- Approval of meeting minutes from September 23, 2020
- Budget Outlook methodology review – higher education growth factor
- Presentation of economic outlook and revenue collection experience
- Forecast supervisor contract renewal

*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**  
September 23, 2020  
Zoom

**Economic and Revenue Forecast Council**

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

*Staff*

Steve Lerch, Executive Director

**Call to Order**

Representative Orcutt called the meeting to order at 10:05 a.m.

**Approval of the Minutes**

Senator Braun moved, seconded by Representative Orcutt to adopt the meeting minutes from September 3, 2020. Council passed motion at 10:09 a.m.

**Forecast Presentation**

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

**Motion**

Representative Ormsby moved, seconded by Representative Orcutt, to adopt the Economic and Revenue Forecast as presented. Council approved the motion unanimously at 10:49 a.m.

**Adjournment**

With no further business, the meeting adjourned at 10:51 a.m.

*This page left intentionally blank.*

November 3, 2020

To: Economic and Revenue Forecast Council

From: State Budget Outlook Work Group

Subject: Growth factors for Outlooks prepared during the 2021-23 biennium

In accordance with prior practice, the State Budget Outlook Work Group (Workgroup) is in the process of updating growth factors for the Outlook functional areas. These revised growth factors will be presented to the Economic and Revenue Forecast Council (Council) for consideration during the November 18th meeting. If adopted, these growth factors would apply for all Outlooks prepared for the 2021-23 biennium including the Outlook for the 2022 Supplemental budget.

The Workgroup intends to mirror the approach that was done in 2018 with one possible exception identified in the questions section below.

### Background

Per statute, the estimated expenditures in the Outlook are to reflect the cost to continue current programs, entitlement program growth, and actions required by law. The cost to continue current programs and growth in entitlement programs is estimated in the Outlook by using growth factors. Other changes that are required by law, including items with future implementation dates, are generally reflected separately or accounted for by custom adjustments in the Outlook. The Outlook statute specifically excludes any future costs related to policy items to include, but not limited to, collective bargaining agreements not approved by the Legislature, or salaries and benefits, unless required by statute.

### Methodology Overview

The growth factors are updated through a joint effort by legislative and executive branch staff. The 2020 update will use budgeted appropriations for the four accounts covered by the Outlook from the 2011-13 biennium to the 2019-21 biennium. Generally, the approach compares the fiscal year (FY) change within each biennium through Maintenance Level (ML) of the budget.

The low-income health care & community behavioral health methodology combines the general approach for community behavioral health with a custom approach for low-income health care which calculates the average annual change in forecasted services. Growth for K-12 education and Debt Service is calculated through specific models, which calculate out FY growth rather than by applying a growth factor.

### Questions for the Council:

#### 1. Higher Education Growth Factor.

Chapter 406, Laws of 2019 (E2SHB 2158) changed the nature of the state's responsibilities for funding financial assistance for higher education. The act replaced the State Need Grant (SNG) with the Washington College Grant (WCG). While the funding of the SNG was previously discretionary and done

in policy level, Chapter 406, Laws of 2019 (E2SHB 2158) includes the following language that will make future funding of the WCG a ML rather than policy level decision.

*"The Legislature shall appropriate funding for the Washington college grant program. Allocations must be made on the basis of estimated eligible participants enrolled in eligible institutions of higher education or apprenticeship programs. All eligible students are entitled to a Washington college grant beginning in academic year 2020-21."*

Because of this change, the Workgroup believes that the prior methodology for assigning growth for higher education ML spending is likely to underestimate the ML expenditures moving forward. The group identified the option summarized below as a way to address this issue.

#### Higher Education Alternative Growth Factor Option

- Growth for non-financial aid, which accounts for roughly 80% of expenditures, would be calculated using the traditional methodology.
- Growth for financial aid, which accounts for roughly 20% of expenditures, would be calculated based on historical average tuition changes and forecasted population changes for persons between the ages of 18 and 24.
- A weighted growth factor for higher education would then be calculated to combine these factors.

While the Workgroup has not been able to finalize calculations, which are dependent on the November 10th population forecast update, the range of impact expected from changing the methodology, if applied to the higher education carryforward level budget, is roughly an increase in projected expenditures in the range of \$26-\$30 million in the 2023-25 biennial outlook period to which the growth factor will be applied.

***Question 1: Does the ERFC want the Workgroup to utilize the alternative growth factor option for higher education outlined above instead of the same methodology that was done in 2018?***

2. Other Growth Factors. The Workgroup is planning on maintaining the 2018 methodology for all other functional areas and will update the growth factors to include the most recent budgets that were enacted subsequent to adoption of the 2018 growth factors using the same methodology.

***Question 2: Does the ERFC want to direct any other methodology changes for the 2020 Outlook growth factor updates?***



*This page left intentionally blank.*

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



**Economic Review: November 3, 2020**

**Executive Summary**

**United States**

- This forecast is based on a modified version of IHS Markit's October 2020 Control forecast for the U.S. economy. We have adjusted real gross domestic product (GDP) to match the Blue Chip "Consensus" GDP forecast for 2020 and 2021. We now expect real GDP to decline 4.0% in 2020 followed by a 3.9% increase in 2021. In September we expected a 4.6% decline in 2020 followed by a 3.8% increase in 2021. In September we were guided by the IHS forecast for GDP growth in 2022-25 because the latest long term Blue Chip forecast was out of date. We now have a current long term Blue Chip forecast which indicates slower growth in those years. We now expect real GDP growth rates of 2.9%, 2.3%, 2.1%, and 2.0% in 2022 through 2025 compared to the September forecast of 3.9%, 2.8%, 2.5%, and 2.3%.
- Our oil price forecast reflects the futures markets, primarily the Brent (North Sea) oil price but also the West Texas Intermediate (WTI) benchmark. 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 28, 2020 closing prices for Brent and WTI futures. Oil prices are slightly lower than expected in the September forecast. The latest futures prices indicate that the refiner acquisition price of crude will average \$37 per barrel in the first quarter of 2021 compared to \$41 in the September forecast. By the fourth quarter of 2025 the refiner acquisition price of crude is expected to average \$44 per barrel compared to \$49 per barrel in the September forecast.
- The fiscal policy assumptions in this forecast were developed in early October. The forecast assumes new legislation will fund both emergency unemployment benefits of \$300 per week from October through December and a second round of stimulus checks, disbursed in the fourth quarter. As of this preliminary forecast, there has been no such legislation. We will get a new Blue Chip and IHS forecast in early November and update the fiscal policy assumptions in the final November economic forecast.
- National employment increased by 661,000 net jobs in September. Employment data for July and August were revised up by 145,000 jobs. Sectors with the largest job gains in September included food services and drinking places (+200,000), retail trade (+142,000), local government excluding education (+96,000), transportation and warehousing (+74,000), amusements, gambling and recreation (+69,000), manufacturing (+66,000), social assistance (+55,000), health care (+53,000), accommodation (+51,000), and professional and technical services (+47,000). Sectors with declining employment in September included local government education (-231,000), educational services (-69,000), state government education (-49,000), and Federal government (-34,000, largely due to a decline in temporary Census workers).

- Two key measures of consumer confidence moved in opposite directions this month but both remained well below their pre-pandemic levels. The University of Michigan (UM) consumer sentiment survey increased by 1.4 points to 81.8 in October. Future job prospects remained the top concern of survey respondents. The Conference Board index of consumer confidence decreased by 0.4 points in October to 100.9. Survey results suggest that consumers do not expect the economy to gain momentum in the last months of 2020.
- Initial claims for unemployment insurance remained at very high levels but decreased by 40,000 to 751,000 (SA) in the week ending October 24<sup>th</sup>. The four-week moving average of initial claims decreased by 24,500 to 787,750.
- Industrial production in September decreased by 0.6% (SA) following a revised 0.4% increase in August. Industrial production is down by 7.3% (SA) compared to September 2019. New orders for core capital goods (i.e., durables excluding aircraft and military), which is a proxy for business investment, increased by 1.0% (SA) in September following a revised 2.1% increase in August according to advanced U.S. Census Bureau data.
- Residential construction activity continued to be strong this month and is now well above year-ago levels. Housing units authorized by building permits in September were 5.2% (SA) above their August level and 8.1% above their year-ago level. September housing starts increased by 1.9% (SA) compared to August and were 11.1% above their September 2019 level. New home sales in September decreased by 3.5% (SA) compared to August but were 32.1% above their year-ago level. Existing home sales in September increased by 9.4% (SA) compared to August and were up 20.9% compared to September 2019. The seasonally adjusted Case-Shiller national home price index for August was 1.0% above its August level and 5.7% above its year-ago level.
- The major threat to the U.S. and Washington economies is the uncertain impact of COVID-19. Concerns about international trade policy and geopolitical risks remain.

## Washington

- We have just one month of new Washington employment data since the September forecast was released. Employment continued to rise in September following the historic decline in March, April, and May. Total nonfarm payroll employment rose 6,300 (seasonally adjusted) in September which was 11,400 less than expected in the September forecast. Private services-providing sectors added 12,900 jobs in September. The manufacturing sector added 1,700 jobs despite the loss of 500 aerospace jobs. Construction employment increased by 2,300. Federal government employment decreased by 3,900 however 2,300 of those were temporary Census jobs. State and local government payrolls declined by 6,800 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 subtracted 5,000 (0.2%) from the estimated level of total employment in August 2020. Because of the lower-than-expected employment growth in September in addition to the downward

revision to the August estimate, employment is 16,400 (0.5%) lower in September than expected in the September forecast.

- Washington's unemployment rate declined to 7.8% in September from 8.4% in August. The September rate is down significantly from the 16.3% rate reached in April which was an all-time high in the series that dates back to 1976.
- This forecast incorporates Boeing's announcement of deep cuts to company-wide employment in 2021 as well as the consolidation of 787 production in South Carolina. Boeing's latest announcement indicates they plan to reduce employment from 161,000 at the beginning of 2020 to about 130,000 by the end of 2021, a reduction of 31,000 jobs. We assume that Boeing is currently slightly more than halfway through this process. We also assume that the vast majority of cuts will continue to be made in Washington State and that non-Boeing aerospace employment will also decline as a result of lower production rates. Specifically, the forecast assumes that Washington aerospace employment will be 27,700 lower in December 2021 than in January 2020. We believe we have already lost about 14,200 aerospace jobs as of October 2020 and expect a further decline of 13,500 by December 2021.
- 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 2020. According to these estimates, Washington personal income rose from \$506.5 billion (SAAR) in the first quarter of 2020 to \$546.0 billion in the second quarter of 2020. The reported 35.1% growth rate (SAAR) in Washington personal income was the 24th largest among the states and District of Columbia and slightly exceeded the 34.2% growth rate for the U.S. as a whole. The income growth in the second quarter was extraordinary, especially considering the sharp contraction in economic activity. Washington personal income from net earnings (wages and salaries plus employer-provided benefits plus proprietors' income less contributions for government social insurance plus an adjustment for residence) declined at a 25.1% rate (SAAR) and income from property (dividends, interest, and rent) declined at a 9.6% rate. However personal current transfer receipts, boosted by the CARES Act, soared at a 1,260.4% rate (SAAR). As a result, increased transfer payments far outweighed the decline in net earnings and property income in the second quarter.
- Washington housing construction improved to 43,700 units (SAAR) in the third quarter from 40,300 units in the second quarter and exceeded the September forecast of 41,000 units. In the third quarter, single-family units averaged 24,700 and multi-family units averaged 19,000.
- Seattle-area home prices increased rapidly in July and August after three consecutive monthly declines. According to the S&P/Case-Shiller Home Price Indices, seasonally adjusted Seattle home prices increased 1.0% in July and 1.9% in August following declines of 0.1%, 0.2%, and 0.2% in April, May, and June. Seattle home prices were up 8.5% over the year. In comparison, the composite-20 index was up 5.2% over the year. In August, Seattle home prices were up 106% since the December 2011 trough and exceeded the May 2007 peak by 43%.

- Seattle-area consumer price inflation exceeded the national average in August due to higher food and energy inflation. From August 2019 to August 2020, the Seattle CPI rose 1.7% compared to a 1.3% increase in the U.S. City Average index. However, core prices, which exclude food and energy, increased only 1.4% over the year in Seattle compared to 1.7% for the U.S. City Average. Over-the-year shelter-cost inflation in Seattle was 2.2% compared to the national rate of 2.3%. Seattle inflation excluding shelter exceeded the national average at 1.3% compared to 0.8%.
- Washington exports declined over the year for a seventh consecutive quarter. Year-over-year exports decreased 42.9% in the second quarter of 2020. The large decline was mostly because of transportation equipment exports (mostly Boeing planes) which fell 83.7% over the year. The second quarter of 2019 had already been severely depressed by Boeing's suspension of 737 Max deliveries in March 2019. Second quarter exports of agricultural products decreased 2.8% over the year and exports of all other commodities (mostly manufacturing) declined 16.4% over the year.
- The Institute of Supply Management - Western Washington Index (ISM-WW) indicated expanding manufacturing activity again after briefly indicating a decline. The index, which measures conditions in the manufacturing sector, increased to 53.0 in September from 48.9 in August (index values above 50 indicate growth while values below 50 indicate contraction). The index has been positive in three of the last four months after indicating manufacturing declines in March, April, and May. The production, orders, and deliveries components indicated expansion in September while the employment and inventory components indicated contraction.
- Washington car and truck sales increased slightly in September after a slight decline in August. The seasonally adjusted number of new vehicle registrations increased 4.1% in September following a 1.3% decline in August. Light vehicle sales have largely recovered from April's low but remain below pre-recession levels. The number of new vehicle registrations fell 6.6% over the year in September.
- We expect a 4.7% decline in Washington employment this year which is unchanged from the September forecast. We expect above-average growth through the remainder of the forecast as the economy recovers from this deep recession. We expect employment growth to average 1.9% per year in 2021 through 2025 compared to the 2.3% average rate expected in September. Our forecast for nominal personal income growth this year is 8.7%, up from 7.7% in the September forecast. The strong personal income growth this year is the result of extraordinary fiscal stimulus. Personal income will decline next year as the stimulus is withdrawn. We expect personal income to decline 2.3% next year compared to a 1.9% decline in the September forecast. Our new forecast for nominal personal income growth in 2023 through 2025 averages 4.2% per year, which is down from the 4.6% rate expected in the September forecast.

# Washington State Economic Outlook & Revenue Collection Experience

Presented to  
The Economic & Revenue Forecast Council

Steve Lerch  
Executive Director

November 3, 2020  
Olympia, Washington



**WASHINGTON STATE  
ECONOMIC AND REVENUE FORECAST COUNCIL**



## Summary

- The preliminary economic forecast assumes emergency unemployment benefits of \$300/week are extended through December and a second round of stimulus checks will be issued before the end of the year
- If no additional stimulus legislation is passed, WA personal income will be approximately 7% lower in 2020 Q4
- The forecast incorporates the recent Boeing announcement of an additional 15,000 job cuts; as with the initial round of reductions, we assume the majority occur in Washington
- Revenue collections since the September forecast are \$133 million (8.6%) above expectations

Economic Review  
November 3, 2020

Slide 1

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



## Forecast risks

### Upside

- COVID infection rates decline, leading to faster reopening of businesses, greater consumer confidence and spending, increased employment
- An effective COVID vaccine becomes available before mid-2021

### Downside

- COVID infection rates continue to increase, leading to slower pace of economic reopening, reduced consumer spending and employment
- Congress does not pass additional fiscal stimulus legislation

Economic Review  
November 3, 2020

Slide 2

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL

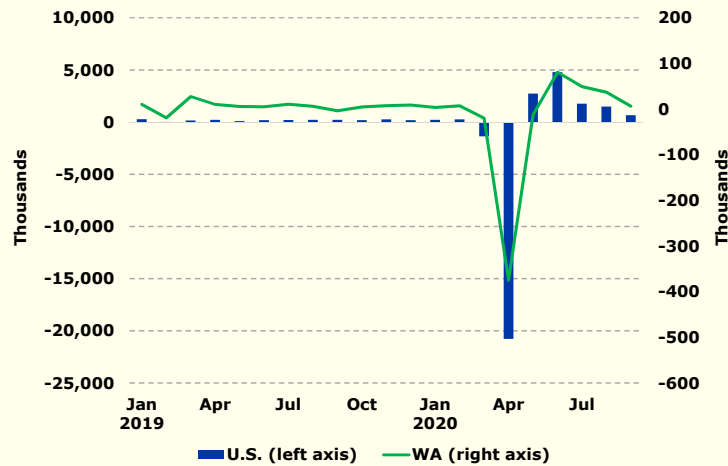


## U.S., WA employment have increased in the last five months

September employment compared to February:

U.S. = -10.7 million

WA = -235,000



Economic Review  
November 3, 2020

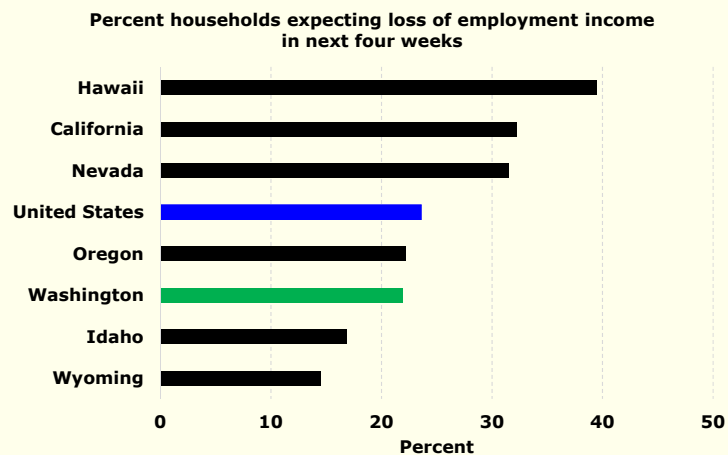
Slide 3

Source: Bureau of Labor Statistics, Employment Security Dept.; data Jan.2019 – Sept. 2020

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



## In early October, almost 24% of U.S. households expected reduced employment income in coming month



Economic Review  
November 3, 2020

Slide 4

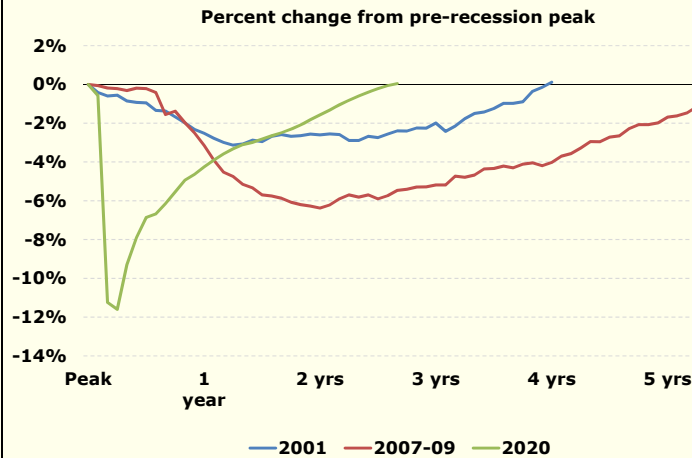
Source: U.S. Census Bureau Household Pulse Survey; data Sept. 30 – Oct. 12, 2020

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL





## WA employment loss by recession



Economic Review  
November 3, 2020

Slide 5

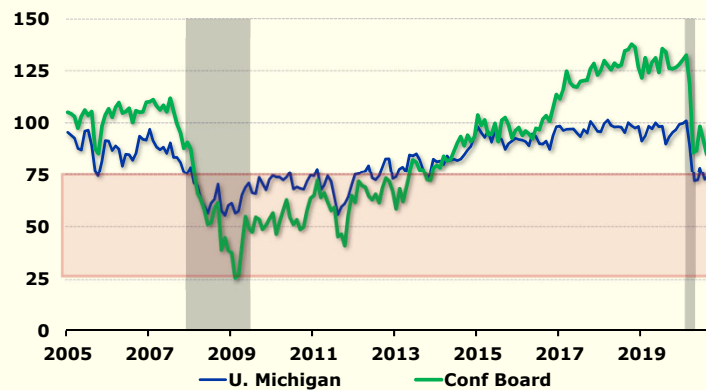
Source: WA Employment Security Dept., ERFC November 2020 preliminary forecast

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



## Consumer confidence improves slightly, remains well below pre-pandemic levels

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



Economic Review  
November 3, 2020

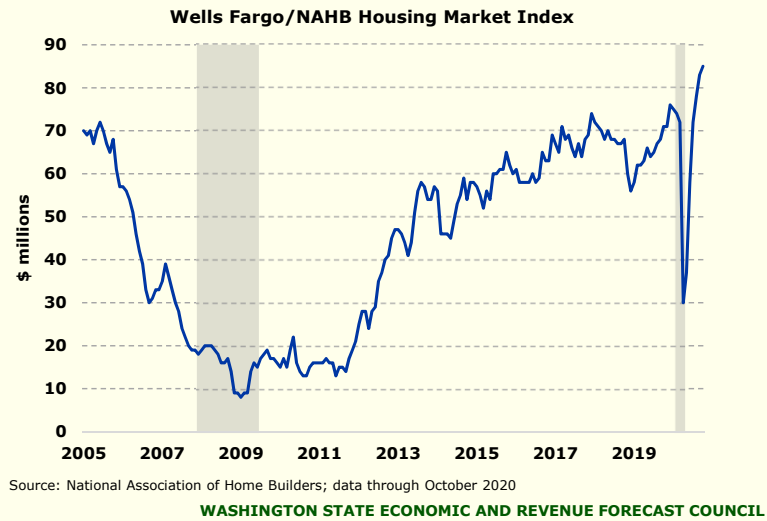
Slide 6

Sources: University of Michigan, Conference Board; data through October 2020

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



## Home builders very optimistic about the single-family home market

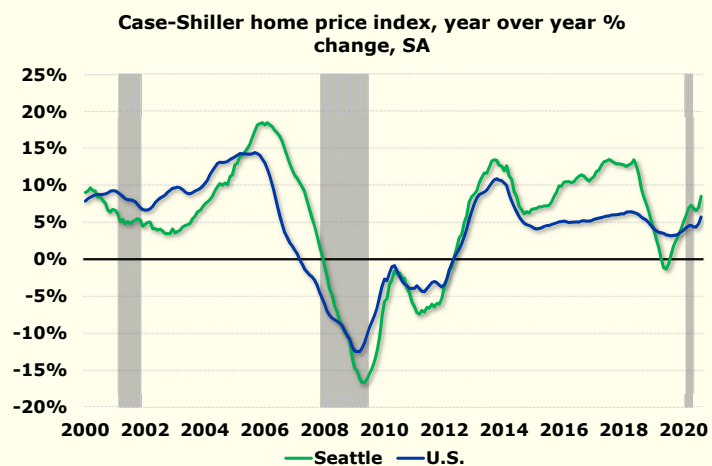


Economic Review  
November 3, 2020

Slide 7



## After slowing in 2019, home price growth has picked up nationally and in Seattle



Economic Review  
November 3, 2020

Slide 8

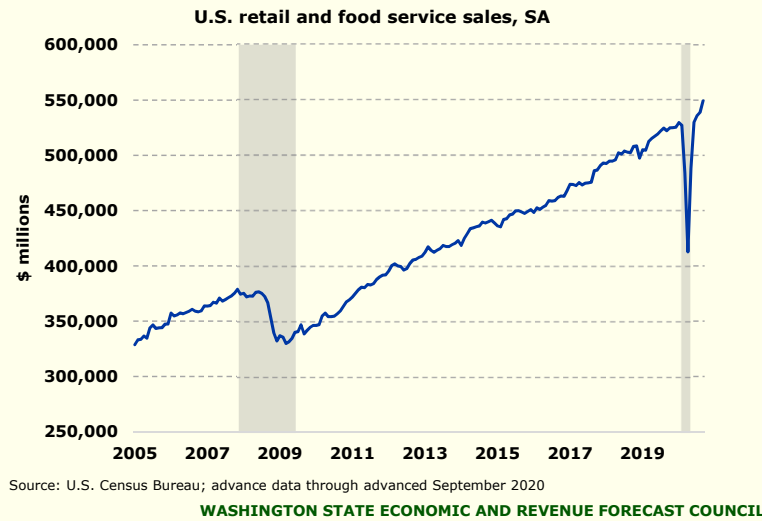


## U.S. retail and food service sales in September were 1.9% above their August level

In 2018 and 2019, monthly growth in retail and food service sales averaged 0.3%

Economic Review  
November 3, 2020

Slide 9

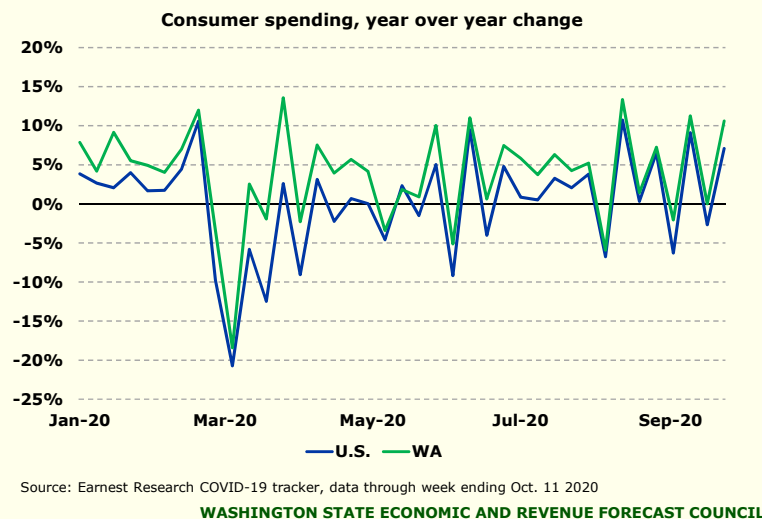


## Since May, WA consumer spending has grown in all but four weeks on a year over year basis

Earnest Research tracks a subset of credit and debit card transactions for large national chain stores and businesses; does not include construction or auto sales.

Economic Review  
November 3, 2020

Slide 10



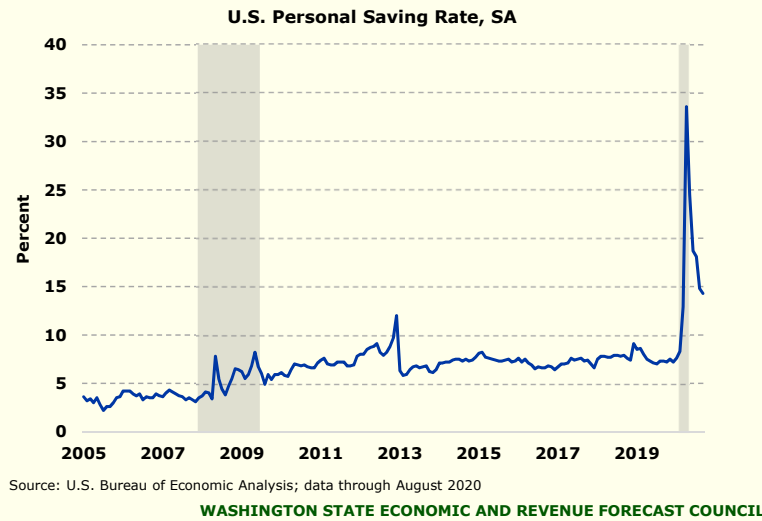


## After reaching a record 33.6% in April 2020, U.S. savings rate has declined but remains unusually high

The personal savings rate is the percentage of disposable income saved.

Economic Review  
November 3, 2020

Slide 11

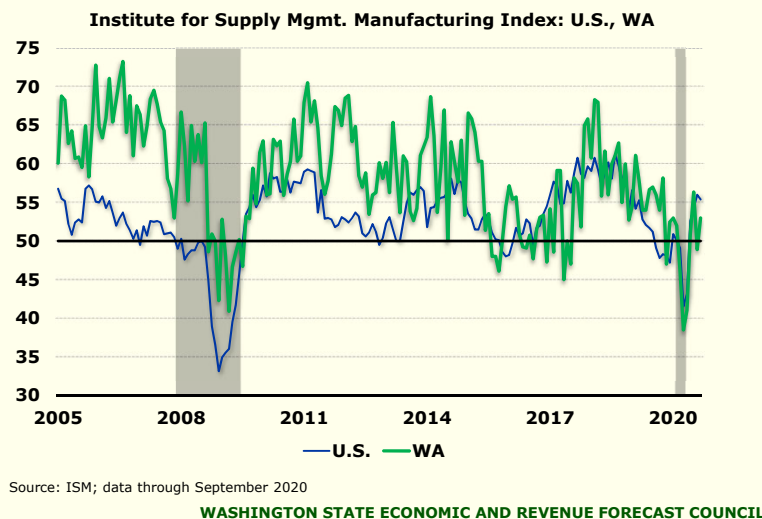


## U.S. manufacturing activity expanded in past four months; WA dipped in August, bounced back in September

Values above 50 indicate expansion, below 50 indicate contraction.

Economic Review  
November 3, 2020

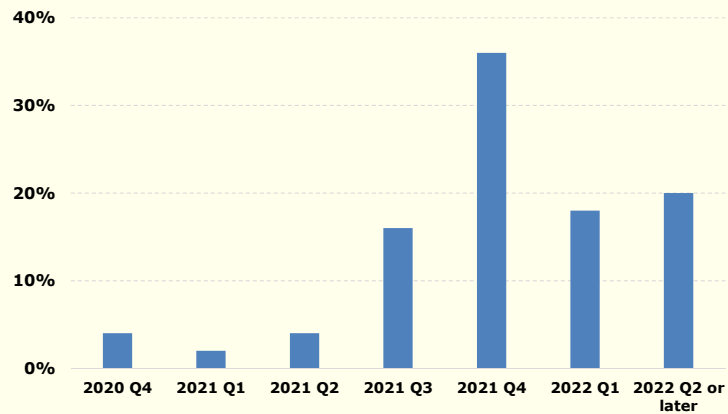
Slide 12





## Many economists do not expect GDP to return to pre-pandemic levels until late 2021 or 2022

In what quarter do you expect U.S. real GDP to regain its 2019 Q4 level?



Source: Wall Street Journal, October 2020 Economic Forecasting Survey

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL

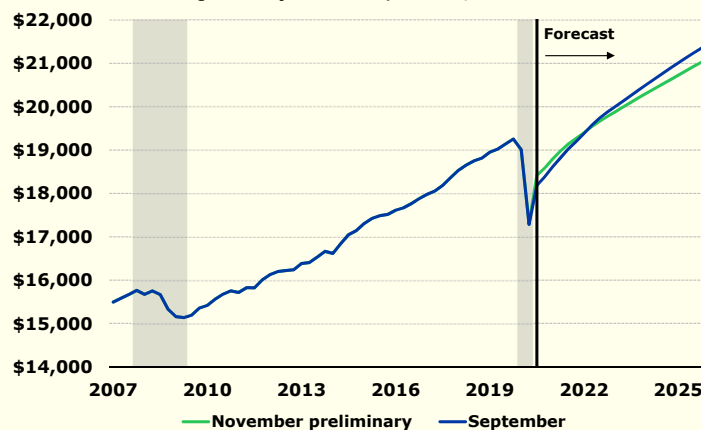
Economic Review  
November 3, 2020

Slide 13



## GDP growth is stronger in 2020 & 2021, weaker in 2022 - 2025

Quarterly real GDP, 2012 \$ billions



Source: IHS Markit, ERF November 2020 preliminary forecast; data through 2020 Q2

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL

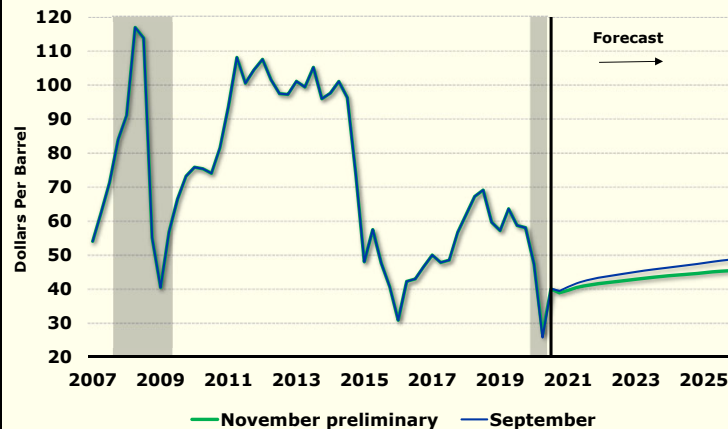
GDP is expected to return to pre-pandemic levels in the 4<sup>th</sup> quarter of 2021.

Economic Review  
November 3, 2020

Slide 14



## Oil prices are expected to be slightly lower than in the September forecast



Economic Review  
November 3, 2020

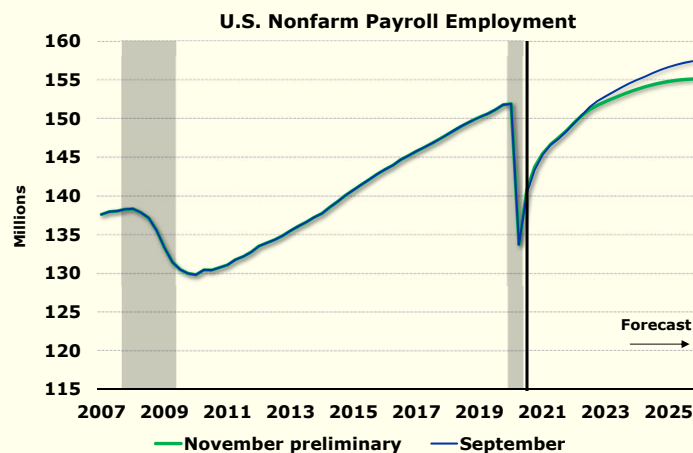
Slide 15

Source: Energy Information Administration, IHS Markit, ERF; data through Q3 2020  
Note: Vertical black line indicates last actual

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



## Compared to September, U.S. nonfarm employment is expected to grow more slowly after 2020



After reaching 13.0% in 2020 Q2, the U.S. unemployment rate is expected to decline to 7.6% by 2020 Q4 and to average 6.5% in 2021.

Economic Review  
November 3, 2020

Slide 16

Source: IHS Markit, ERF November 2020 preliminary forecast; data through 2020 Q3

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL

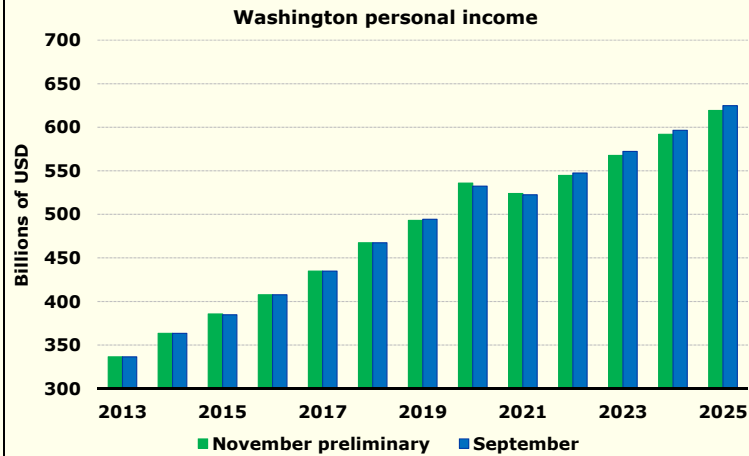


## Higher WA personal income in 2020 reflects slightly higher transfer payments than in September forecast

The preliminary forecast assumes a second stimulus bill which has not passed to date. The final economic forecast will reflect Congressional action as of early November.

Economic Review  
November 3, 2020

Slide 17



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

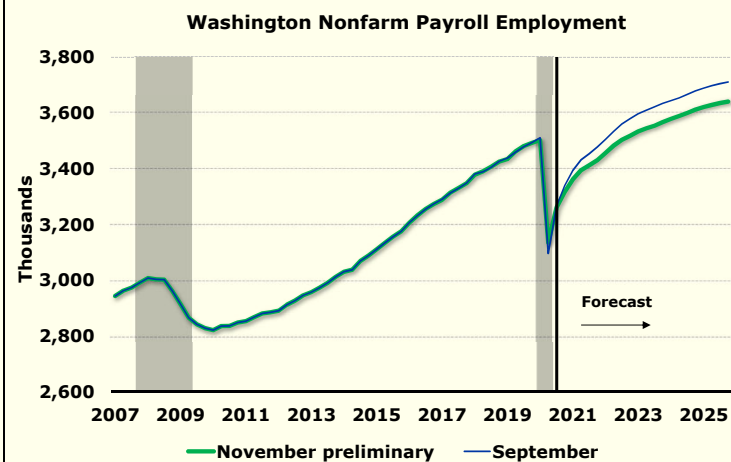
WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



## WA employment growth for 2020–25 expected to average 1.9% compared to 2.3% in the September forecast

Economic Review  
November 3, 2020

Slide 18



Source: ERFC November 2020 Preliminary forecast; historical data through Q3 2020

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL

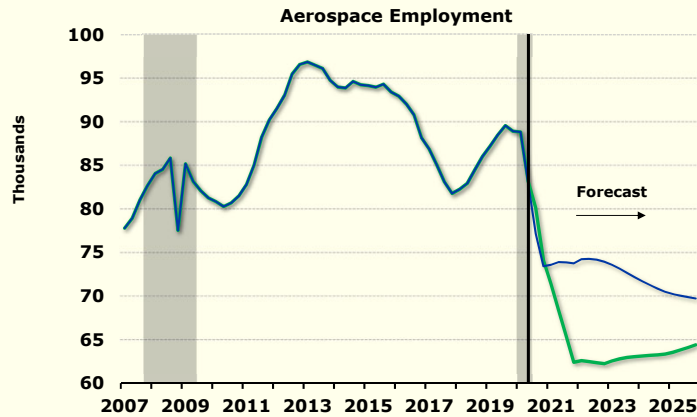


## The forecast incorporates Boeing announcement of additional job cuts

On Oct. 28, the Boeing Co. announced that it will employ 19% fewer workers by the end of 2021 compared to Jan. 2020. It had previously announced employment would be cut by 10%.

Economic Review  
November 3, 2020

Slide 19



— November preliminary — September

Source: WA State Employment Security Department, ERFC Nov. 2020 preliminary forecast; data through Q3 2020

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL

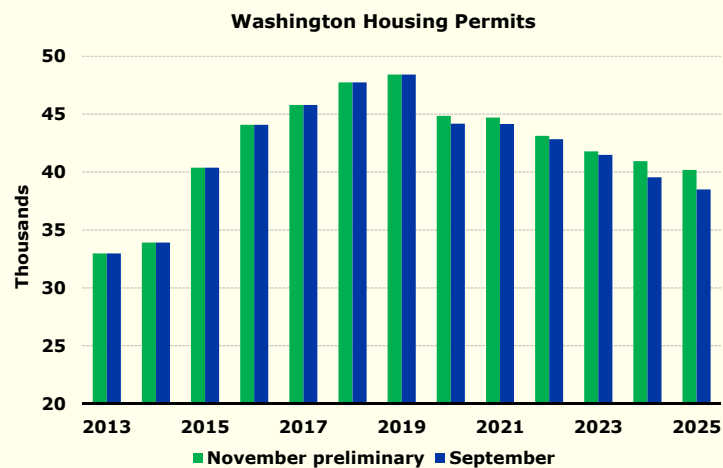


## Washington housing permits forecast has been revised up compared to September

Housing permits for 2020 Q3 averaged 43,700 at an annualized rate, up from the 41,000 expected in the September forecast.

Economic Review  
November 3, 2020

Slide 20



■ November preliminary ■ September

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

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL





## Seasonally adjusted Revenue Act receipts for August activity down from that of July

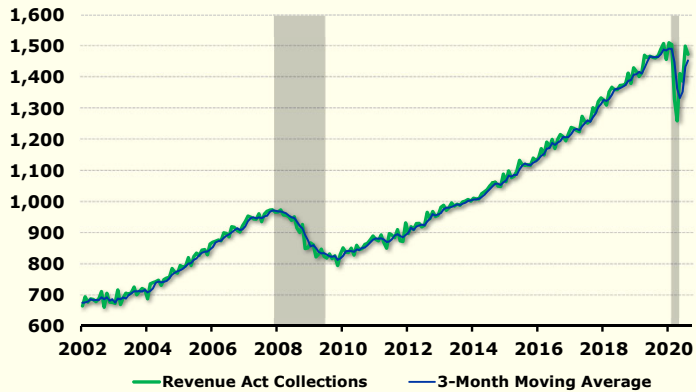
Adjusted Revenue Act receipts for August activity were down 1.6% YOY after being up 3.6% YOY for July activity.

Seasonally adjusted receipts decreased 1.8% from July to August reporting periods.

Economic Review  
November 3, 2020

Slide 21

\$millions SA



\* Adjusted for large one-time transactions, amnesty payments, reporting frequency change and deferred payments, current definition of Revenue Act.  
Source: DOR and ERFC; monthly data through August 2020 activity

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



## Taxable REET activity jumped to a near-record high in September

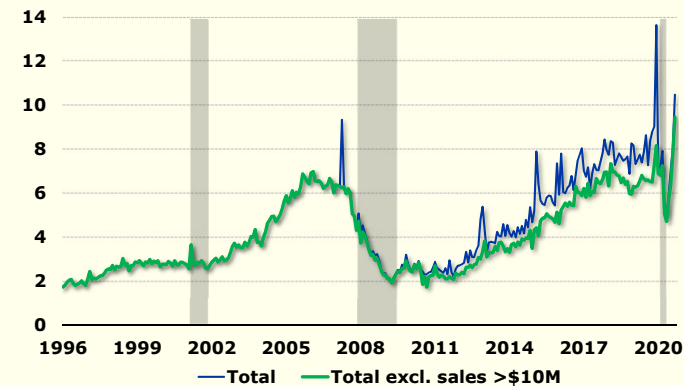
September sales spiked due to record low mortgage rates and people seeking new living arrangements to better accommodate working from home.

Economic Review  
November 3, 2020

Slide 22

### Seasonally Adjusted Taxable Real Estate Excise Activity

\$Billions



Source: ERFC; Monthly data through September 2020 estimate

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



## Revenue collections to date

The main contributors to the positive forecast variance were Revenue Act collections (\$82 million) and real estate excise tax collections (\$40 million).

### Collections Variance Since February Forecast (September 11 – October 10, 2020) dollars in thousands

	<u>Estimate</u>	<u>Actual</u>	<u>Difference</u>	<u>Pct.</u>
Dept. of Revenue	\$1,540,541	\$1,672,836	\$132,295	8.6%
All other agencies	\$4,110	\$4,319	\$209	5.1%
<b>Total GF-S</b>	<b>\$1,544,651</b>	<b>\$1,677,155</b>	<b>\$132,504</b>	<b>8.6%</b>

Economic Review  
November 3, 2020

Slide 23

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



## Conclusion

- The preliminary economic forecast reflects stronger WA personal income growth in 2020 but slower growth in 2021 - 2025 compared to the September forecast.
- The forecast incorporates the October 28<sup>th</sup> Boeing announcement regarding deeper job cuts.
- Uncertainty regarding COVID-19 impacts to the economy remains high.
- The next monthly revenue collection report will be available on November 17<sup>th</sup> and the revenue forecast will be presented on November 18<sup>th</sup>.

Economic Review  
November 3, 2020

Slide 24

WASHINGTON STATE ECONOMIC AND REVENUE FORECAST COUNCIL



## Questions

Economic Review  
November 3, 2020  
Slide 25



**Economic & Revenue Forecast Council**  
**PO BOX 40912**  
**Olympia WA 98504-0912**  
[www.erfc.wa.gov](http://www.erfc.wa.gov)  
**360-534-1560**

**U.S. Economic Forecast Comparison**  
October 2020

	2020Q3	2020Q4	2021Q1	2021Q2	2020	2021	2022	2023	2024	2025
<b>Real GDP, Percent Change, Annual Rate</b>										
ERFC (November Preliminary)	28.3	3.7	4.5	4.1	-4.0	3.9	2.9	2.3	2.1	2.0
IHS	33.2	3.7	3.4	2.5	-3.5	3.7	3.2	2.8	2.7	2.6
Economy.com	29.4	1.5	5.6	3.9	-4.0	4.0	4.5			
Blue Chip Average*	29.1	3.8	4.0	4.0	-4.0	3.9	2.9	2.3	2.1	2.0
Blue Chip Top 10*	34.1	6.2	6.0	5.8	-3.5	5.1	3.8	2.9	2.4	2.3
Blue Chip Bottom 10*	22.8	1.3	2.1	2.2	-4.8	2.8	2.1	1.9	1.7	1.6
<b>Real Consumption, Percent Change, Annual Rate</b>										
ERFC (November Preliminary)	34.6	3.7	3.9	4.3	-4.4	4.3	2.9	2.4	2.2	2.1
IHS	38.5	3.5	2.1	4.2	-4.0	4.0	3.0	2.7	2.6	2.7
Economy.com	39.9	3.0	4.8	3.9	-3.9	4.7	3.9			
Blue Chip Average*	34.5	3.6	3.7	4.2	-4.4	4.3	2.9	2.4	2.2	2.1
Blue Chip Top 10*	39.1	6.5	6.2	6.3	-3.9	5.5	3.7	3.0	2.6	2.5
Blue Chip Bottom 10*	23.7	1.1	1.7	2.3	-5.1	3.2	2.3	2.0	1.8	1.8
<b>Federal Funds Rate</b>										
ERFC (November Preliminary)	0.1	0.1	0.1	0.1	0.4	0.1	0.1	0.1	0.1	0.1
IHS	0.1	0.1	0.1	0.1	0.4	0.1	0.1	0.1	0.1	0.1
Economy.com	0.1	0.1	0.1	0.1	0.4	0.1	0.1			
<b>Three Month T-Bill Rate</b>										
ERFC (November Preliminary)	0.2	0.1	0.1	0.1	0.4	0.1	0.1	0.1	0.1	0.1
IHS	0.1	0.1	0.1	0.1	0.4	0.1	0.1	0.1	0.1	0.1
Blue Chip Average*	0.1	0.1	0.1	0.1	0.3	0.2	0.4	0.6	0.9	1.1
Blue Chip Top 10*	0.1	0.2	0.2	0.2	0.4	0.2	0.8	1.2	1.8	2.0
Blue Chip Bottom 10*	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.4
<b>10-Yr. T-Note Yield</b>										
ERFC (November Preliminary)	0.7	0.7	0.8	0.9	0.9	0.9	1.2	1.4	1.6	1.8
IHS	0.7	0.7	0.8	0.9	0.8	0.9	1.2	1.4	1.6	1.8
Economy.com	0.7	0.7	0.8	0.9	0.8	1.1	2.1			
Blue Chip Average*	0.7	0.8	0.8	0.9	0.9	0.9	1.4	1.7	2.0	2.2
Blue Chip Top 10*	0.7	0.9	1.0	1.2	1.0	1.2	1.9	2.4	2.7	2.9
Blue Chip Bottom 10*	0.7	0.6	0.7	0.7	0.7	0.7	1.0	1.2	1.4	1.5
<b>Consumer Price Index, Percent Change, Annual Rate</b>										
ERFC (November Preliminary)	5.8	1.9	3.1	2.6	1.3	2.5	2.0	1.6	1.9	2.1
IHS	5.2	2.2	3.2	2.7	1.3	2.6	2.3	1.8	1.9	2.2
Economy.com	5.4	1.7	1.0	1.9	1.3	1.9	2.8			
Blue Chip Average*	4.7	2.0	2.1	2.0	1.2	2.0	2.2	2.2	2.2	2.2
Blue Chip Top 10*	5.6	2.8	3.3	2.7	1.4	2.5	2.5	2.5	2.5	2.5
Blue Chip Bottom 10*	2.9	1.2	1.2	1.4	0.9	1.5	1.8	1.9	1.9	1.9
<b>Payroll Employment, Millions</b>										
ERFC (November Preliminary)	140.8	143.8	145.5	146.7	142.5	147.0	150.7	152.8	154.2	155.0
Percent Change, Annual Rate	22.9	8.7	4.9	3.2	-5.6	3.1	2.5	1.4	0.9	0.5
IHS	140.8	144.1	146.1	147.1	142.6	147.4	151.2	153.9	156.0	157.5
Percent Change, Annual Rate	22.9	9.7	5.6	2.7	-5.5	3.3	2.6	1.8	1.4	0.9
Economy.com	140.8	141.9	142.4	143.0	142.1	143.4	146.9			
Percent Change, Annual Rate	22.9	3.3	1.3	1.9	-5.9	0.9	2.5			
<b>Unemployment Rate, Percent</b>										
ERFC (November Preliminary)	8.8	7.6	6.9	6.7	8.3	6.5	5.1	4.6	4.3	4.3
IHS	8.8	7.3	6.7	6.5	8.2	6.4	5.0	4.3	3.7	3.5
Economy.com	8.8	8.3	8.2	8.0	8.5	7.9	6.3			
Blue Chip Average*	8.8	7.9	7.4	7.0	8.4	6.8	5.5	4.8	4.5	4.3
Blue Chip Top 10*	8.8	8.9	8.7	8.2	8.9	8.1	6.4	5.5	5.1	4.9
Blue Chip Bottom 10*	8.8	7.3	6.6	6.0	8.3	5.9	4.6	4.1	3.9	3.8
<b>Real Disposable Personal Income, Percent Change, Annual Rate</b>										
ERFC (November Preliminary)	-20.2	20.3	-30.5	2.0	7.0	-5.2	2.5	2.7	2.4	2.4
IHS	-19.7	20.7	-30.4	1.5	7.1	-5.3	2.4	2.8	2.6	2.8
Blue Chip Average*	-17.0	-3.2	-5.6	0.9	5.7	-1.8	2.1	2.2	2.0	2.0
Blue Chip Top 10*	-7.3	10.6	7.2	4.1	7.7	1.6	2.9	2.6	2.4	2.4
Blue Chip Bottom 10*	-22.1	-12.8	-25.9	-4.2	3.6	-5.6	1.3	1.7	1.7	1.7
<b>West Texas Intermediate</b>										
ERFC (November Preliminary)	40.9	38.1	38.1	39.0	38.1	39.2	40.7	41.7	42.6	43.5
IHS	40.9	40.2	41.7	43.5	38.7	46.0	54.4	56.1	57.3	59.8
Economy.com	40.9	42.6	43.0	46.4	39.5	47.3	56.4			

\* Forecasts beyond 2021 are from the October 2020 Blue Chip Economic Indicators

**U.S. Forecast Comparison**

	2020Q3	2020Q4	2021Q1	2021Q2
<b>Real GDP (Billions of 2012 Dollars)</b>				
November Forecast, Preliminary	18,415	18,585	18,789	18,978
Percent Change	28.3%	3.7%	4.5%	4.1%
September Forecast	18,183	18,384	18,612	18,820
Percent Change	22.5%	4.5%	5.1%	4.5%
<b>Real Consumption (Billions of 2012 Dollars)</b>				
November Forecast, Preliminary	12,774	12,892	13,017	13,153
Percent Change	34.6%	3.7%	3.9%	4.3%
September Forecast	12,603	12,750	12,886	13,026
Percent Change	29.3%	4.7%	4.3%	4.4%
<b>PCE Price Index (2012=100)</b>				
November Forecast, Preliminary	111.7	112.1	112.7	113.3
Percent Change	4.5%	1.4%	2.3%	2.2%
September Forecast	111.3	111.7	112.3	112.9
Percent Change	3.5%	1.1%	2.3%	2.1%
<b>Real Personal Income (Billions of 2012 Dollars)</b>				
November Forecast, Preliminary	17,612	18,358	16,937	17,016
Percent Change	-17.3%	18.1%	-27.6%	1.9%
September Forecast	17,472	18,196	16,804	16,936
Percent Change	-20.1%	17.6%	-27.3%	3.2%
<b>Nonfarm Payroll Employment (Millions)</b>				
November Forecast, Preliminary	140.8	143.8	145.5	146.7
Percent Change	22.9%	8.7%	4.9%	3.2%
September Forecast	140.3	143.4	145.3	146.6
Percent Change	21.3%	9.0%	5.6%	3.6%
<b>Unemployment Rate (Percent of Labor Force)</b>				
November Forecast, Preliminary	8.8	7.6	6.9	6.7
September Forecast	9.3	8.0	7.1	6.7
<b>Oil Price, Refiner's Acquisition</b>				
November Forecast, Preliminary	40.0	36.9	37.2	38.1
September Forecast	40.0	39.4	40.5	41.6
<b>30 Year Fixed Mortgage Rate (Percent, average)</b>				
November Forecast, Preliminary	3.0	3.0	3.1	3.1
September Forecast	3.0	3.0	3.1	3.1
<b>3 Month T-Bill Rate (Percent, average)</b>				
November Forecast, Preliminary	0.2	0.1	0.1	0.1
September Forecast	0.1	0.1	0.1	0.1

	2019	2020	2021	2022	2023	2024	2025
	19,092	18,328	19,043	19,595	20,046	20,467	20,876
	2.2%	-4.0%	3.9%	2.9%	2.3%	2.1%	2.0%
	19,092	18,215	18,912	19,641	20,195	20,702	21,181
	2.2%	-4.6%	3.8%	3.9%	2.8%	2.5%	2.3%
	13,240	12,661	13,205	13,588	13,914	14,220	14,518
	2.4%	-4.4%	4.3%	2.9%	2.4%	2.2%	2.1%
	13,240	12,573	13,093	13,575	13,969	14,322	14,668
	2.4%	-5.0%	4.1%	3.7%	2.9%	2.5%	2.4%
	109.9	111.3	113.6	115.5	117.2	119.1	121.3
	1.5%	1.3%	2.1%	1.7%	1.4%	1.7%	1.8%
	109.9	111.1	113.2	115.1	116.8	118.9	121.2
	1.5%	1.1%	1.9%	1.7%	1.5%	1.7%	2.0%
	16,888	17,883	17,064	17,514	17,981	18,393	18,818
	2.4%	5.9%	-4.6%	2.6%	2.7%	2.3%	2.3%
	16,888	17,810	16,972	17,491	18,014	18,449	18,921
	2.4%	5.5%	-4.7%	3.1%	3.0%	2.4%	2.6%
	150.9	142.5	147.0	150.7	152.8	154.2	155.0
	1.4%	-5.6%	3.1%	2.5%	1.4%	0.9%	0.5%
	150.9	142.3	146.9	150.9	153.7	155.7	157.1
	1.4%	-5.7%	3.2%	2.7%	1.9%	1.3%	0.9%
	3.7	8.3	6.5	5.1	4.6	4.3	4.3
	3.7	8.5	6.5	5.0	4.2	3.7	3.6
	59.4	37.7	38.3	40.2	41.6	42.7	43.6
	59.4	38.1	41.9	44.0	45.5	46.8	48.1
	3.9	3.2	3.1	3.1	3.3	3.4	3.6
	3.9	3.2	3.1	3.1	3.1	3.3	3.5
	2.1	0.4	0.1	0.1	0.1	0.1	0.1
	2.1	0.4	0.1	0.1	0.1	0.1	0.1

### Washington Forecast Comparison

	2020Q3	2020Q4	2021Q1	2021Q2
<b>Real Personal Income (Billions of 2012 Dollars)</b>				
November Forecast, Preliminary	476.9	493.6	459.2	460.3
Percent Change	-17.0%	14.7%	-25.1%	1.0%
September Forecast	472.3	489.9	457.0	460.7
Percent Change	-17.5%	15.8%	-24.3%	3.3%
<b>Personal Income (Billions of Dollars)</b>				
November Forecast, Preliminary	532.5	553.1	517.5	521.6
Percent Change	-13.3%	16.4%	-23.3%	3.2%
September Forecast	525.9	547.1	513.3	520.1
Percent Change	-14.5%	17.1%	-22.5%	5.5%
<b>Disposable Personal Income (Billions of Dollars)</b>				
November Forecast, Preliminary	479.9	500.3	464.3	468.2
Percent Change	-17.0%	18.1%	-25.9%	3.5%
September Forecast	473.5	494.7	459.2	465.3
Percent Change	-18.5%	19.1%	-25.8%	5.4%
<b>Nonfarm Payroll Employment (Thousands)</b>				
November Forecast, Preliminary	3261	3317	3362	3395
Percent Change	17.0%	7.0%	5.5%	3.9%
September Forecast	3267	3340	3394	3433
Percent Change	23.8%	9.3%	6.7%	4.6%
<b>Unemployment Rate (Percent of Labor Force)</b>				
November Forecast, Preliminary	8.8	7.2	7.5	7.2
September Forecast	9.1	8.0	7.1	6.7
<b>Manufacturing Employment (Thousands)</b>				
November Forecast, Preliminary	270.4	267.5	262.4	261.5
Percent Change	1.0%	-4.2%	-7.3%	-1.5%
September Forecast	261.1	266.9	266.2	268.2
Percent Change	-0.7%	9.2%	-1.0%	3.1%
<b>Construction Employment (Thousands)</b>				
November Forecast, Preliminary	211.5	212.1	209.1	207.2
Percent Change	25.5%	1.1%	-5.5%	-3.7%
September Forecast	196.1	205.0	204.6	202.9
Percent Change	40.7%	19.5%	-0.8%	-3.2%
<b>Housing Permits (Thousands)</b>				
November Forecast, Preliminary	43.7	45.5	45.8	44.9
Percent Change	37.7%	17.9%	2.2%	-7.8%
September Forecast	41.0	45.5	44.8	44.4
Percent Change	6.5%	52.4%	-6.7%	-3.4%

	2019	2020	2021	2022	2023	2024	2025
	448.9	481.7	461.2	471.2	484.1	496.4	509.8
	3.8%	7.3%	-4.3%	2.2%	2.7%	2.5%	2.7%
	450.0	479.4	461.6	475.5	489.8	501.8	515.5
	4.2%	6.5%	-3.7%	3.0%	3.0%	2.4%	2.7%
	493.1	535.9	523.8	544.4	567.2	591.2	618.4
	5.4%	8.7%	-2.3%	3.9%	4.2%	4.2%	4.6%
	494.4	532.4	522.4	547.5	572.3	596.4	624.7
	5.8%	7.7%	-1.9%	4.8%	4.5%	4.2%	4.7%
	442.2	483.7	470.0	488.2	509.1	531.3	556.2
	5.1%	9.4%	-2.8%	3.9%	4.3%	4.4%	4.7%
	439.7	479.9	467.2	488.5	510.2	531.4	556.1
	5.2%	9.1%	-2.6%	4.6%	4.4%	4.1%	4.7%
	3468	3304	3400	3491	3550	3595	3632
	2.0%	-4.7%	2.9%	2.7%	1.7%	1.3%	1.0%
	3468	3304	3440	3545	3616	3662	3701
	2.0%	-4.7%	4.1%	3.1%	2.0%	1.3%	1.1%
	4.3	8.5	7.1	5.9	5.5	5.3	5.2
	4.3	8.8	6.6	5.2	4.6	4.2	4.1
	293.6	274.9	259.9	258.7	260.1	260.3	260.6
	2.0%	-6.4%	-5.4%	-0.5%	0.5%	0.1%	0.1%
	293.6	270.5	268.2	272.9	274.1	272.9	272.9
	2.0%	-7.9%	-0.8%	1.8%	0.4%	-0.5%	0.0%
	219.3	211.7	206.0	200.8	199.4	200.3	203.6
	2.9%	-3.5%	-2.7%	-2.5%	-0.7%	0.5%	1.6%
	219.3	201.2	203.1	201.2	200.4	199.1	200.6
	2.9%	-8.3%	0.9%	-0.9%	-0.4%	-0.6%	0.7%
	48.4	44.9	44.7	43.1	41.8	40.9	40.2
	1.4%	-7.4%	-0.3%	-3.6%	-3.2%	-2.0%	-1.8%
	48.4	44.2	44.1	42.8	41.5	39.5	38.5
	1.4%	-8.8%	-0.1%	-3.0%	-3.1%	-4.7%	-2.6%

U.S. Forecast Comparison				Fiscal Years		
	2020	2021	2022	2023	2024	2025
<b>Real GDP</b>						
Billions of 2012 dollars						
November Preliminary Forecast	18,677	18,692	19,337	19,829	20,260	20,672
Growth	-1.1%	0.1%	3.4%	2.5%	2.2%	2.0%
September Forecast	18,672	18,500	19,291	19,937	20,450	20,946
Growth	-1.1%	-0.9%	4.3%	3.3%	2.6%	2.4%
Difference in level	5	192	45	-108	-190	-274
<i>Difference in growth forecast</i>	<i>0.0%</i>	<i>1.0%</i>	<i>-0.8%</i>	<i>-0.8%</i>	<i>-0.4%</i>	<i>-0.4%</i>
<b>Real Consumption</b>						
Billions of 2012 dollars						
November Preliminary Forecast	12,908	12,959	13,414	13,752	14,070	14,368
Growth	-1.3%	0.4%	3.5%	2.5%	2.3%	2.1%
September Forecast	12,898	12,816	13,349	13,779	14,149	14,494
Growth	-1.4%	-0.6%	4.2%	3.2%	2.7%	2.4%
Difference in level	10	143	66	-27	-79	-125
<i>Difference in growth forecast</i>	<i>0.1%</i>	<i>1.0%</i>	<i>-0.6%</i>	<i>-0.7%</i>	<i>-0.4%</i>	<i>-0.3%</i>
<b>PCE Price Index</b>						
2012 = 100						
November Preliminary Forecast	110.5	112.4	114.6	116.3	118.1	120.2
Growth	1.3%	1.8%	2.0%	1.5%	1.5%	1.8%
September Forecast	110.5	112.1	114.2	116.0	117.8	120.0
Growth	1.3%	1.4%	1.9%	1.5%	1.6%	1.9%
Difference in level	0.0	0.4	0.4	0.4	0.3	0.2
<i>Difference in growth forecast</i>	<i>0.0%</i>	<i>0.3%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>-0.1%</i>	<i>-0.1%</i>
<b>Unemployment Rate</b>						
Percent of Labor Force						
November Preliminary Forecast	6.0%	7.5%	5.8%	4.7%	4.4%	4.2%
September Forecast	6.0%	7.8%	5.8%	4.5%	3.9%	3.6%
<i>Difference in forecast</i>	<i>0.0%</i>	<i>-0.3%</i>	<i>0.0%</i>	<i>0.3%</i>	<i>0.5%</i>	<i>0.7%</i>
<b>30 Year Fixed Mortgage Rate</b>						
Annual Average						
November Preliminary Forecast	3.5%	3.0%	3.1%	3.2%	3.3%	3.5%
September Forecast	3.5%	3.1%	3.1%	3.1%	3.2%	3.4%
<i>Difference in forecast</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.1%</i>	<i>0.1%</i>	<i>0.1%</i>
<b>3 Month T-Bill Rate</b>						
Annual Average						
November Preliminary Forecast	1.2%	0.1%	0.1%	0.1%	0.1%	0.1%
September Forecast	1.2%	0.1%	0.1%	0.1%	0.1%	0.1%
<i>Difference in forecast</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>

## Washington Forecast Comparison

Fiscal Years

	2020	2021	2022	2023	2024	2025
<b>Real Personal Income</b>						
Billions of 2012 dollars						
November Preliminary Forecast	464.6	472.5	465.4	477.7	490.2	503.2
Growth	5.2%	1.7%	-1.5%	2.6%	2.6%	2.7%
September Forecast	465.7	470.0	468.1	483.0	495.8	508.7
Growth	5.6%	0.9%	-0.4%	3.2%	2.6%	2.6%
Difference in level	-1.1	2.5	-2.7	-5.3	-5.6	-5.5
<i>Difference in growth forecast</i>	<i>-0.4%</i>	<i>0.8%</i>	<i>-1.1%</i>	<i>-0.5%</i>	<i>0.0%</i>	<i>0.1%</i>
<b>Nominal Personal Income</b>						
Billions of dollars						
November Preliminary Forecast	513.4	531.2	533.5	555.7	578.8	604.8
Growth	6.6%	3.5%	0.4%	4.2%	4.2%	4.5%
September Forecast	514.5	526.6	534.7	560.1	584.0	610.4
Growth	7.0%	2.4%	1.5%	4.8%	4.3%	4.5%
Difference in level	-1.1	4.6	-1.2	-4.4	-5.2	-5.6
<i>Difference in growth forecast</i>	<i>-0.4%</i>	<i>1.1%</i>	<i>-1.1%</i>	<i>-0.6%</i>	<i>-0.1%</i>	<i>0.0%</i>
<b>Nonfarm Payroll Employment</b>						
Thousands						
November Preliminary Forecast	3,403.5	3,333.9	3,446.3	3,525.5	3,572.8	3,616.0
Growth	-0.9%	-2.0%	3.4%	2.3%	1.3%	1.2%
September Forecast	3,395.7	3,358.4	3,493.3	3,587.3	3,639.2	3,683.6
Growth	-1.1%	-1.1%	4.0%	2.7%	1.4%	1.2%
Difference in level	7.8	-24.5	-47.0	-61.8	-66.4	-67.6
<i>Difference in growth forecast</i>	<i>0.2%</i>	<i>-0.9%</i>	<i>-0.6%</i>	<i>-0.4%</i>	<i>-0.1%</i>	<i>0.0%</i>
<b>Housing Permits</b>						
Units Authorized, Thousands						
November Preliminary Forecast	48.1	45.0	43.9	42.3	41.3	40.6
Growth	4.7%	-6.5%	-2.5%	-3.5%	-2.4%	-1.7%
September Forecast	48.1	43.9	43.5	42.1	40.5	38.9
Growth	4.7%	-8.7%	-1.0%	-3.1%	-3.9%	-3.9%
Difference in level	0.0	1.1	0.4	0.2	0.8	1.7
<i>Difference in growth forecast</i>	<i>0.0%</i>	<i>2.2%</i>	<i>-1.5%</i>	<i>-0.4%</i>	<i>1.5%</i>	<i>2.1%</i>



## Year-Over-Year Employment Growth by Industry (September 2019 to September 2020) Washington vs. U.S.

	<u>Washington</u>		<u>U.S.</u>
	(000)	% Chg.	% Chg.
<b>Total</b>	<b>-213.5</b>	<b>-6.1%</b>	<b>-6.7%</b>
Electronic Shopping and Mail-Order Houses	11.8	18.3%	-1.3%
Software Publishers	3.9	5.5%	2.6%
Professional and Business Services	-12.9	-2.9%	-6.1%
Information Excluding Software	-2.6	-3.5%	-11.8%
Transportation, Warehousing and Utilities	-4.3	-3.7%	-5.3%
Mining and Logging	-0.2	-3.7%	-16.3%
Education and Health Services	-19.4	-3.8%	-4.6%
Financial Activities	-6.7	-4.2%	-1.4%
Construction	-9.3	-4.2%	-3.8%
State and Local Gov Education	-12.8	-4.9%	-5.1%
Wholesale Trade	-8.1	-5.9%	-5.1%
State and Local Gov Non-Education	-13.4	-6.1%	-4.2%
Manufacturing Excluding Aerospace	-15.0	-7.3%	-5.6%
Other Services	-14.1	-11.0%	-8.5%
Aerospace Product and Parts Manufacturing	-10.9	-12.2%	-4.6%
Leisure and Hospitality	-92.4	-26.5%	-23.3%
Information	1.3	0.9%	-9.4%
Retail Trade	0.8	0.2%	-3.6%
Manufacturing	-25.9	-8.8%	-5.5%

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