

Washington State Economic and Revenue Forecast

April 2021
Volume XLV, No. 1



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Washington State Economic and Revenue Forecast

Prepared by the
Economic and Revenue Forecast Council

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Preface

ERFC forecasting structure and schedule

The Economic and Revenue Forecast Council is required by Chapter 231, Section 34, Laws of 1992 (RCW 82.33.020) to prepare a quarterly state economic and revenue forecast and submit it to the Forecast Council. This report presents the state's economic and General Fund-State revenue forecast. It is issued four times a year. The Washington State GF-S revenue forecast is prepared quarterly in conjunction with the state economic forecast for the Economic and Revenue Forecast Council. The Council consists of seven members, two appointed by the Governor, four appointed by the Legislature – one from each caucus of the Senate and House of Representatives, and the State Treasurer. Current members of the Economic and Revenue Forecast Council are listed inside the front cover of this publication. The GF-S revenue forecast is updated four times per year: March (February in even-numbered years), June, September, and November. The staff of the Economic and Revenue Forecast Council is responsible for the preparation of the state's economic forecast and the forecast of the Department of Revenue's GF-S revenue sources as well as the GF-S share of court fees, fines, and forfeitures. The staff is also responsible for review and coordination of the revenue forecasts of other agencies that collect relatively large amounts of GF-S revenue. These are the Department of Licensing, the Office of the Insurance Commissioner, the Lottery Commission, the State Treasurer, the Liquor and Cannabis Board and the Office of Financial Management. The Office of Financial Management is responsible for summarizing the forecasts of all other state agencies that collect relatively smaller amounts of GF-S revenue.

Forecast Procedure

For each quarterly update, the staff of the Economic and Revenue Forecast Council, under the direction of the Executive Director, reviews (and if warranted, modifies) a national economic forecast prepared by IHS Markit. A state economic forecast is then prepared using an econometric model that links Washington's economy to the national economy. After review by forecast workgroups; the Governor's Council of Economic Advisors; and the Economic and Revenue Forecast Council, this state economic forecast (updated for newly released data) is used to prepare a baseline revenue forecast for GF-S and the related funds. The forecasts are based on current law and administrative practices and do not reflect pending legal challenges to GF-S receipts until they are resolved. Additionally, at least two alternative forecasts are prepared for all GF-S and related fund sources and presented to the Forecast Council for approval. Once the Council approves the forecast, it becomes the official forecast of GF-S and related fund revenues.

Data in this publication are accurate through March 30, 2021.

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Executive Summary

- **The COVID-19 pandemic has severely weakened the economy. The decline of COVID-19 cases and increase in vaccinations have allowed the economy to reopen.**
- **Policymakers have approved trillions of dollars of fiscal and monetary support in response to the COVID-19 pandemic.**
- **The forecast for GDP growth in 2021 is now 5.7%, up from 4.0% in the November forecast. For 2022, real GDP growth is 4.1%, up from 2.9% in the previous forecast. Our forecast for GDP growth in 2023 to 2025 is up from the November forecast.**
- **The Washington economy continues to recover from the recession but growth has slowed.**
- **Washington personal income growth was sustained by extraordinary fiscal support in 2020.**
- **The decline in Washington real GDP in 2020 was mild due to a favorable mix of industries.**
- **The Washington forecast features higher personal income and housing construction but lower employment and inflation than did the forecast adopted in November.**
- **General Fund-State (GF-S) revenue collections since the November 2020 forecast have come in \$764 million (9.5%) above the forecasted amount.**
- **The GF-S forecast was increased by \$1.24 billion in the 2019-21 biennium, \$1.89 billion in the 2021-23 biennium and \$1.85 billion in the 2023-25 biennium.**
- **The forecast of total revenue for funds subject to the budget outlook process was increased by \$1.34 billion in the 2019-21 biennium, \$1.95 billion in the 2021-23 biennium and \$1.90 billion in the 2023-25 biennium.**
- **While forecasted revenue for the current biennium is \$356 million less than the pre-pandemic February 2020 forecast, the forecast for the next biennium exceeds the February forecast by \$298 million.**
- **Nationally, from 1993 through the second quarter of 2020, an average of nearly 7.6 million gross job gains and nearly 7.4 million gross job losses occurred each quarter.**
- **As a percent of employment, gross job gains and losses are consistently higher in Washington than for the U.S. as a whole.**

U.S. Economic Forecast

The economy has improved since the onset of the pandemic

The COVID-19 pandemic and resulting social distancing and business shutdowns have severely weakened the economy. COVID-19 cases have declined since the end of last year, and vaccinations have increased. The economy has been able to reopen, and with the help of recent stimulus, the economy has improved. Even with the rapid improvement, however, economic activity remains below the pre-pandemic peak.

Policymakers have approved trillions of dollars in stimulus

Policymakers have approved trillions of dollars of fiscal and monetary support in response to the COVID-19 pandemic. Stimulus related to the pandemic has been over \$500 billion in five major categories. Loan and grant programs (\$1.03 trillion), income support (\$882 billion), state and local government funding (\$873 billion), direct payments (\$870 billion), and health spending (\$677 billion). The remainder of the spending is comprised of tax policy and other spending such as disaster support, higher education, and housing. The Federal Reserve has engaged in asset purchases, liquidity measures, and loan programs to assist the economy.

Our forecast was based on a modified version of the March IHS Markit forecast

This forecast is based on a modified version of IHS Markit's March 2021 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 2021 is now 5.7%, up from 4.0% in the November forecast. For 2022, real GDP growth is 4.1%, up from 2.9% in the previous forecast. The March Blue Chip release also provided a new long term GDP forecast (the first since October 2020). The GDP forecast for the remainder of the forecast period is 2.4% in 2023, 2.2% in 2024 and 2.1% in 2025. This compares to GDP growth rates of 2.1%, 2.0% and 1.9% from 2023 through 2025 in November.

Washington Economic Forecast

The Washington economy continues to recover from the recession but growth has slowed

The Washington economy continues to recover from the recession but growth has slowed. Employment growth during the last four months has lagged far behind the November forecast. Washington's unemployment rate declined to 5.6% in February, down significantly from the 16.3% rate reached in April 2020. Washington housing construction increased in early 2021 to levels not seen since the mid-2000s. Washington exports continue to decline, mostly because of transportation equipment. Washington personal income growth was sustained by extraordinary fiscal support in 2020. The decline in Washington real GDP in 2020 was mild due to a favorable mix of industries. Seattle consumer price inflation matched the national average.

The Washington forecast features higher personal income and housing construction but lower employment and inflation than did the forecast adopted in November

The Washington forecast features higher personal income and housing construction but lower employment and inflation than did the forecast adopted in November. We expect a 1.7% increase in Washington employment this year, which is down from the 3.5% increase the November forecast. We expect employment growth to average 2.2% per year in 2022 through 2025 compared to the 1.7% average rate expected in November. Our forecast for nominal personal income growth this year is 4.8%, up from a 1.1% decline in the November forecast. The improvement in personal income growth is the result of additional fiscal support in 2021, which was not expected in November. Personal income growth will slow next year as the support is withdrawn. We expect personal income growth of only 1.1% in 2022 compared to 3.7% in the November forecast. Our new forecast for nominal personal income growth in 2023 through 2025 averages 5.1% per year compared to the 4.6% rate in the November forecast. We expect 52,200 housing units authorized by building permits this year, up from 45,200 in the November forecast. We expect permits to average 44,000 units in 2022 through 2025, also up from 41,900 units in the November forecast. We expect the Seattle CPI to rise 2.2% this year, down from 2.8% in the November forecast. We expect Seattle inflation to average 1.8% per year in 2022 through 2025 compared to 2.0% per year in the November forecast.

Revenue Forecast

The November forecast did not assume the federal stimulus packages that have since boosted the economy

At the time of the November 2020 forecast, it was assumed that no additional federal pandemic relief packages would be forthcoming, and the resulting cutoff in unemployment benefits and business support would bring an immediate slowdown in state spending. Instead, relief legislation was passed in both December 2020 and March 2021, including checks sent directly to households, extended unemployment benefits and further aid to businesses and state and local governments. Instead of a slowdown in taxable activity, the state saw continued growth, with revenue collections almost 10 percent higher than forecasted. Because of this, forecasted revenue has increased substantially. The forecast of total revenue subject to the budget outlook process for the 2021-23 biennium now exceeds the pre-pandemic February 2020 forecast by \$298 million, though the forecast for the current biennium still trails the February forecast by \$356 million.

GF-S forecast change by biennium (billions):

19-21: \$1.24
21-23: \$1.89
23-25: \$1.85

In the current biennium, GF-S revenue collections that are tracked monthly came in \$764 million higher than forecasted. The forecasted increase in economic activity for the rest of the biennium added \$481 million, resulting in a total forecast increase of \$1,244 million. The GF-S forecast for the 2021-23 biennium was increased by \$1,894 million and the forecast for the 2023-25 biennium was increased by \$1,846 million. The March 2021 forecast for GF-S revenue totals \$50.041 billion in the 2019-21 biennium, \$54.372 billion in the 2021-23 biennium and \$57.778 billion in the 2023-25 biennium.

*Change in
forecast of funds
subject to the
budget outlook
(billions):*

*19-21: \$1.340
21-23: \$1.949
23-25: \$1.899*

The forecast of total revenue for funds subject to the budget outlook for the 2019-21 biennium is \$53,334.2 million, \$1,339.5 million more than the November 2020 forecast. The forecast of total revenue for the 2021-23 biennium is \$56,614.9 million, \$1,948.8 million more than the November forecast. The forecast for the 2023-25 biennium is \$59,905.6 million, \$1,898.6 million more than the November forecast.



Chapter 1: U.S. Economy – Current Conditions and Forecast

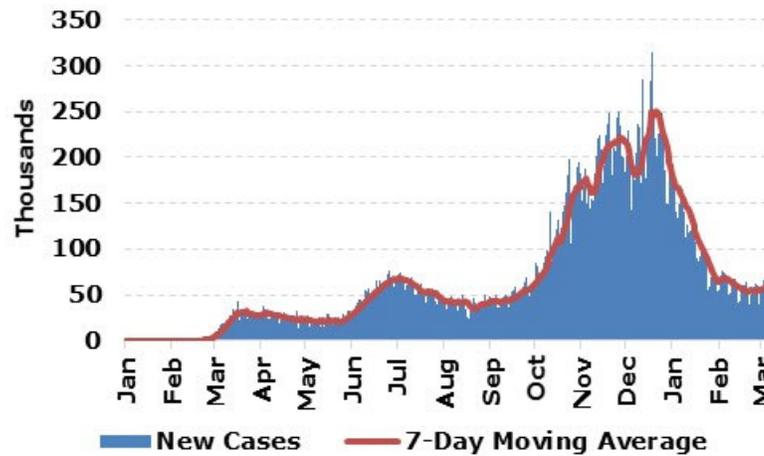
- **The COVID-19 pandemic has severely weakened the economy. The decline of COVID-19 cases and increase in vaccinations have allowed the economy to reopen.**
- **Policymakers have approved trillions of dollars of fiscal and monetary support in response to the COVID-19 pandemic.**
- **U.S. real GDP increased 4.3% (SAAR) in the fourth quarter after a 33.4% increase in the third quarter. Despite the growth, economic activity remains below the pre-pandemic peak.**
- **Employment has increased and unemployment has trended down but neither are at pre-pandemic levels.**
- **The housing market has recovered; manufacturing has returned to growth.**
- **Oil prices are increasing after an unprecedented drop due to the pandemic. U.S. production has fallen.**
- **The forecast for GDP growth in 2021 is now 5.7%, up from 4.0% in the November forecast. For 2022, real GDP growth is 4.1%, up from 2.9% in the previous forecast. Our forecast for GDP growth in 2023 to 2025 is up from the November forecast.**
- **Due to the high degree of uncertainty regarding the extent to which the COVID-19 pandemic will continue, the uncertainty in the baseline forecast is elevated.**

Current Conditions

The economy has improved since the onset of the pandemic

The COVID-19 pandemic and resulting social distancing and business shutdowns have severely weakened the economy. COVID-19 cases have declined since the end of last year (see figure 1.1), and vaccinations have increased. The economy has been able to reopen, and with the help of recent stimulus, the economy has improved. Even with the rapid improvement, however, economic activity remains below the pre-pandemic peak.

Figure 1.1: New COVID-19 Cases



Source: Source: U.S. Centers for Disease Control; data through March 28, 2021

Policymakers have approved trillions of dollars in stimulus

Policymakers have approved trillions of dollars of fiscal and monetary support in response to the COVID-19 pandemic. Stimulus related to the pandemic has been over \$500 billion in five major categories. Loan and grant programs (\$1.03 trillion), income support (\$882 billion), state and local government funding (\$873 billion), direct payments (\$870 billion), and health spending (\$677 billion). The remainder of the spending is comprised of tax policy and other spending such as disaster support, higher education, and housing. The Federal Reserve has engaged in asset purchases, liquidity measures, and loan programs to assist the economy.

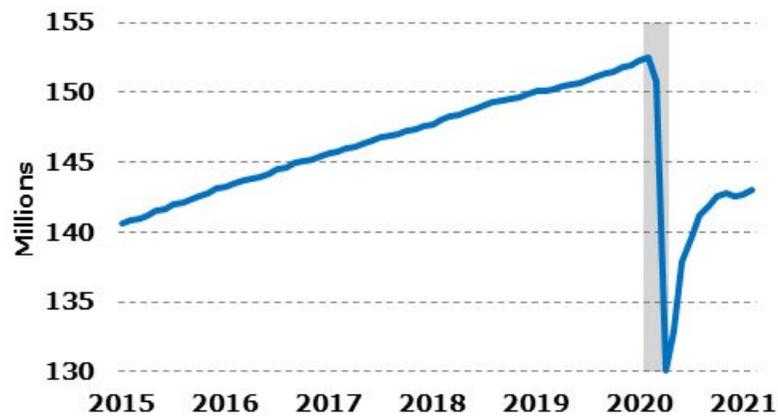
U.S. real GDP has yet to return to pre-pandemic levels

The COVID-19 crisis and efforts taken to contain it has created unprecedented volatility in economic growth. U.S. real GDP plummeted a record 31.4% (SAAR) in the second quarter. Real GDP then rebounded to a record 33.4% (SAAR) gain in the third quarter followed by a 4.3% (SAAR) increase in the fourth quarter. The increase the past two quarters still have not made up all of the decline from the 2019 Q4 peak. Consumer spending increased 2.3% (SAAR) in the fourth quarter, adding 1.6 points to topline GDP. Consumer spending on services increased 4.3% (SAAR) while spending on goods declined 1.4% (SAAR). Fixed investment increased 18.6% (SAAR) in the fourth quarter contributing 4.4 points to GDP. Residential construction surged another 36.6% (SAAR). Nonresidential construction increased 13.1% (SAAR) fueled by a 25.4% (SAAR) increase in equipment investment. Government spending declined 0.8% (SAAR) due primarily to an 8.9% (SAAR) decline in federal nondefense spending. Exports increased 22.3% (SAAR) and imports increased 31.1% (SAAR) as trade is still recovering from shutdowns. Net exports resulted in a net negative to GDP growth of 1.5 points.

Employment remains 9.5 million lower than the pre-pandemic level

Nonfarm payroll employment declined an unprecedented 20.7 million jobs in April of last year due to the pandemic. Initially, job growth was brisk as businesses reopened. However, an increase in cases last winter put a pause in growth. Employment has increased the past two months, including a 379,000 job gain in February. Strong private sector job growth of 465,000 more than made up for an 86,000 decline in government jobs. Most of the job gains were in leisure and hospitality as the businesses most impacted by the pandemic have been able to reopen. The construction sector lost 61,000 jobs despite the strong housing market. The manufacturing sector added 21,000 jobs. Retail trade employment increased by 41,000 jobs. Job gains in temporary help services was strong with 53,000 net new jobs. Even with the recent job gains, total nonfarm employment remains 9.5 million lower than the pre-pandemic February 2020 level (see figure 1.2).

Figure 1.2: U.S. Total Nonfarm Employment



Source: U.S. Bureau of Labor Statistics; data through February 2021

The unemployment rate has trended down after spiking in April 2020

The unemployment rate has continued to trend downward as shutdowns have been lifted and the economy has recovered. After spiking in April at 14.8%, the unemployment rate has fallen to 6.2% in February. Prior to the pandemic, the unemployment rate was at a historic low of 3.5% in February 2020. The labor force participation rate was at 61.4% in September, down from a cyclical high of 63.3% a year ago. Average hourly earnings rose 7 cents to \$30.01 while the average workweek fell 0.3 hours to 34.6 in February.

Consumer attitudes are improving

Consumer confidence surged 19.3 points to 109.7 in March and is at the highest level in a year. The present conditions component rose 20.4 points due to progress in the nation's vaccination campaign and the American Rescue Plan stimulus. Future expectations increased 18.7 points. The University of Michigan Consumer Sentiment index increased in March by 8.1 points to 84.9. The expectations component increased 9.0

points. Current conditions increased 7.2 points in March. Despite the strong improvement in confidence, both measures still remain below pre-pandemic levels.

Oil prices have increased

Oil prices have increased sharply since reaching a trough at the onset of the pandemic. Brent spot crude prices are now at \$66 for the third week in March after a trough of \$14 in April of last year. West Texas Intermediate (WTI) prices were hit harder as oil markets fully took account of the pandemic. WTI prices reached a weekly low of \$3 per barrel in April 2020 and even posted a single day price of an unheard of -\$40 per barrel. WTI prices have since recovered to \$63 per barrel in the third week of March. Demand remains down, due both to a shift to teleworking and reduced travel. OPEC and Russia continue to try manipulate prices with supply changes. OPEC would like to limit U.S production by driving prices down, however, low oil prices make it difficult for Saudi Arabia to balance its budget. Prior to the pandemic, U.S. production was at an all-time high at 12.866 million barrels per day (bpd) in November 2019. The latest data from December show a decline to 11.063 million bpd. The Baker Hughes rig count has been increasing as prices have risen. In March, the rig count was 498, up from the trough in August of 244.

Inflation remains tame

Headline inflation remains tame. After dropping sharply at the onset of the pandemic, inflation increased but remains well below 2%. Year-over-year, the Consumer Price Index (CPI) was up 1.7% in February. A year ago, headline inflation was 2.2%. Inflation had been held down by falling energy prices, particularly gasoline. As demand has picked up, however, gasoline prices have started to increase and are now up 1.5% since last year. Other sectors affected by stay-at-home orders have been impacted as well. Apparel prices are down 3.6% and transportation service prices are down 4.4%. Food prices are up 3.6% over the year, partially due to supply disruptions caused by the pandemic. Shelter cost inflation has remained steady and is now 1.5% over the year. Core consumer prices, which exclude food and energy, were up 1.3% over the year.

Home prices are once again rising rapidly

Home prices are rising rapidly due to rising material cost and low supply, and strong demand for housing. The seasonally adjusted S&P CoreLogic Case-Shiller 20-city Home Price Index increased 1.2% in January following a 1.3% gain the month before. Home prices are now 11.1% higher than a year ago. Lumber prices have skyrocketed over the past year, adding to the cost of new homes and causing projects to be delayed. The random length lumber price is now at \$974 per 110,000 board feet, over three times the price from a year ago (see figure 1.3). Homebuilder confidence has slipped recently but remains well above pre-pandemic levels. In March, confidence fell 2 points to 82. In April 2020, confidence was at 30. Expansionary monetary policy is supporting home prices by keeping interest rates low which allows buyers to purchase more expensive homes. The rate on a 30-year mortgage has been steadily increasing this year after

reaching a historic low of 2.65% in January. The rate on a 30-year mortgage is now at 3.17%, down from 3.50% a year ago.

Figure 1.3: Random Length Lumber Price Per 110,000 Board Feet



Source: NASDAQ; data through March 26, 2021

The housing market has recovered

The housing market has recovered to pre-pandemic levels, although there has been some weakness to start the year. Housing starts declined 10.3% in February and are 9.3% below a year ago. Single-family starts in February declined 8.5% while volatile multi-family starts declined 15.0%. Severe winter weather likely explains most of the decline in February. Housing starts are up 52.1% since the trough in April 2020. Housing permits declined 8.8% in February. Single-family permits declined 9.8% and multi-family permits declined 6.8%. Total permits remain up 19.6% from a year ago. New home sales were also hindered by winter storms. New home sales declined 18.2% in February to 775,000 (SAAR), but remain up 8.2% since last year.

The manufacturing sector has returned to growth

The manufacturing sector has been increasing after contracting sharply in April and May of last year. The Institute for Supply Management (ISM) Report on Business index increased to 60.8 (index values below 50 indicate contraction) in February from 58.7 in January. Supply chain disruptions due to the closure of nonessential businesses appear to be resolving. The new orders and production components both improved and remain over 60. The employment component increased 1.8 points and is now at 54.4. The latest G-17 report from the Federal Reserve indicates manufacturing output fell 3.1% in February and is still 0.3% below its pre-pandemic level in February. The largest decline was in motor vehicles and parts due to a global shortage of semiconductors and the severe weather. New orders for core capital goods (nondefense capital goods excluding aircraft) declined 0.8% in February. New orders are now 8.5% above year-ago levels.

U.S. exports are declining

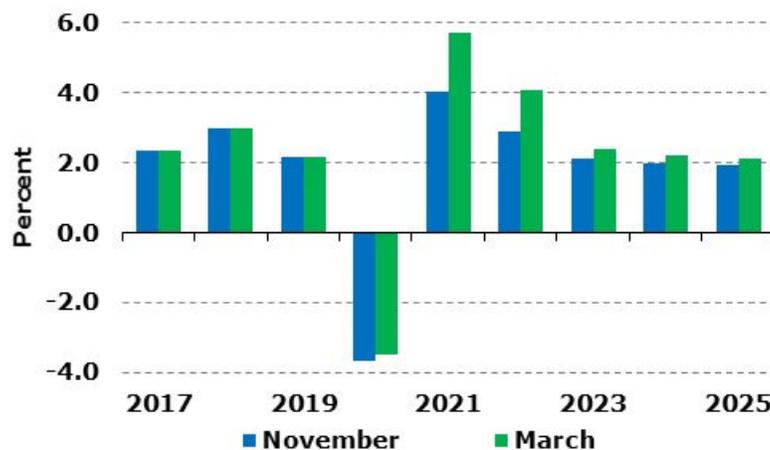
The global recession due to COVID-19, trade tensions, and the grounding of the 737 Max all contributed to a decline in U.S. exports. Total exports in the fourth quarter declined 5.4% year over year, the seventh consecutive quarter of decline. Transportation equipment exports declined 25.8% year over year and now make up only 13.6% of total exports. Typically, transportation equipment exports make up around half of total exports. Oil and gas exports, which had been strong, declined another 17.1% year over year due to weaker demand. Boeing is now resuming deliveries of the 737 Max which should boost exports going forward. The trade war with China, which was beginning to thaw, has seen no movement recently as it has taken a back seat to the pandemic. President Biden has signaled that his administration will not quickly reverse Trump-era initiatives towards China, but instead use them as leverage in negotiations.

Forecast

Our forecast was based on a modified version of the March IHS Markit forecast

This forecast is based on a modified version of IHS Markit's March 2021 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 2021 is now 5.7%, up from 4.0% in the November forecast. For 2022, real GDP growth is 4.1%, up from 2.9% in the previous forecast. The March Blue Chip release also provided a new long term GDP forecast (the first since October 2020). The GDP forecast for the remainder of the forecast period is 2.4% in 2023, 2.2% in 2024 and 2.1% in 2025. This compares to GDP growth rates of 2.1%, 2.0% and 1.9% from 2023 through 2025 in November.

Figure 1.4: U.S. Real GDP Growth



Source: U.S. Bureau of Economic Analysis, March 2021 ERFC forecast; historical data through 2020

Key assumptions regarding the pandemic are included in the forecast

The forecast includes key assumptions related to the economic recovery and the pandemic. The forecast assumes average daily infections continue receding from the peak in January. The forecast also assumes widespread inoculation of the U.S. population occurs by this fall.

The forecast includes the stimulus and tariffs

The November forecast includes all pandemic relief measures enacted in 2020. In addition, it assumes the Senate version of the \$1.9 trillion American Recovery Plan (ARP) Act. The forecast includes tariffs enacted by the U.S. and China since 2017 that are still in effect.

The U.S. just ended the longest recovery on record

The U.S. economy entered recession in February 2020. This marked the end of the longest economic recovery on record. The recovery lasted 128 months from the 2007-09 recession through February, surpassing the 120 months from the 1990 recession. GDP growth turned positive in the third quarter of 2020. Depending on official dates of the business cycle, this recession is likely to be one of the shortest recorded.

Oil prices are higher than in November

Oil prices have increased recently due to increased demand and continued production restraint by OPEC. Oil prices had been under severe downward pressure since COVID-19 started influencing trading early last year. Social distancing and stay-at-home orders caused demand for gasoline to plummet. As those restrictions have eased, demand has firmed. The refiner acquisition price of crude oil in 2021 is expected to average \$62 per barrel in 2021, up from \$42 in the November forecast (see Figure 1.5). We expect this year to be the peak in oil prices. The firming of prices will result in increased U.S. production, keeping prices in check even as demand continues to grow.

Figure 1.5: Average Price of Crude Oil



Source: EIA, March 2021 ERFC forecast; historical data through 2020 Q4

Inflation will remain moderate

Inflation (as measured by the price index for personal consumption expenditures) is expected to be higher this year than in the November forecast. We expect inflation to be 2.4% this year, up from 2.0% in the previous forecast. The increase in inflation expected this year is primarily due to higher energy prices. Inflation is expected to decline to 1.6% in 2022 as energy prices fall. Inflation is expected to slowly trend upward and reach 2.0% in 2025. Core inflation (minus food and energy) is expected to be 2.0% this year and average 1.9% from 2022 through 2025.

Consumer spending growth is expected to accelerate

Consumer spending is expected to accelerate this year due to the rapidly declining number of COVID-19 cases, success with vaccines, and easing containment measures. Another round of fiscal stimulus should give a boost to consumers as well. Real consumer spending is expected to grow 6.3% this year, up from a 3.9% decline in 2020. The November forecast expected growth of 4.6% this year. We expect consumer spending to be higher than in November throughout the forecast. The forecast calls for growth of 4.2% in 2022 compared to 2.7% assumed in the November forecast. The forecast then calls for consumption growth to trend downward as the recovery continues, reaching 2.3% in 2025.

Employment will take time to recover

Employment took a major hit from the COVID-19 pandemic but is now in the process of recovering. In 2020, there was a 5.7% reduction in employment. Almost all of the reduction is due to the unprecedented 20.7 million job loss in the month of April. The employment forecast calls for growth of 2.4% this year, slower than the 3.7% growth assumed in the November forecast. We expect average annual employment of 145.6 million jobs in 2021; less than the pre-pandemic annual average of 150.9 million jobs in 2019. We don't expect to reach the pre-pandemic peak of 151.9 million jobs until the fourth quarter of 2022. Job growth is expected to continue as the recovery continues but to trend downward throughout the forecast, reaching 0.5% in 2025. We expect the unemployment rate to average 5.5% this year, down from 5.8% forecasted in November. In 2022, we expect an unemployment rate of 4.1%, compared to 5.0% in November. Going forward, the forecast calls for the unemployment rate to reach a trough of 3.4% in 2024.

Business investment is expected to rebound this year

Real nonresidential fixed investment is expected to increase 6.5% this year after declining 4.0% in 2020. The recovery in oil prices has led to rising drilling activity. The capital-intensive manufacturing sector is firming and is above pre-pandemic trends. After an extended grounding, Boeing resumed delivery of the 737 MAX in December. Office vacancy rates continue to rise however as more Americans work from home. We expect real nonresidential construction to decline 3.5% this year after declining 10.6% in 2020. The forecast then calls for growth to resume in 2022 at 2.5% then average 3.8% in 2023 through 2025. Real nonresidential construction will have not fully recovered to levels before the pandemic by the end of 2025.

Real equipment investment has remained strong through the pandemic, growing 6.5% in 2020, and is expected to grow 12.6% this year. We expect growth in real equipment investment to slow throughout the forecast and reach 1.3% in 2025. We expect real nonresidential fixed investment growth to peak at 7.6% in 2022 and then trend down to 4.1% in 2025.

The housing market has rebounded

The housing market has rebounded. Record low interest rates and inventories have helped the market. There has also been a surge in demand from people working remotely and wanting to relocate. The outlook for housing is higher compared to November. The March forecast calls for housing starts to increase 11.4% this year. The November forecast expected a decline of 1.1%. We expect single-family housing starts to increase 19.8% and the multi-family segment to decline 9.9% this year. We expect 2021 to be the peak in housing starts at 1.55 million units. We expect a slow decline through the remainder of the forecast, with housing starts reaching 1.28 million in 2025.

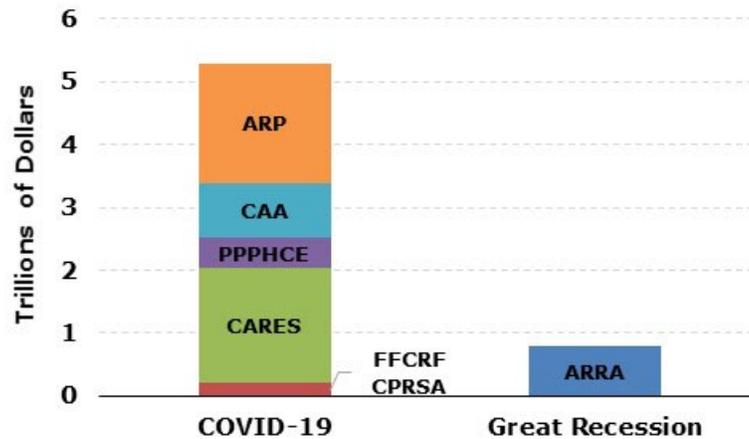
The COVID-19 pandemic has affected economies worldwide

The COVID-19 pandemic has affected economies throughout the world. Since peaking in January, new COVID-19 infections have declined globally. Economic growth of major U.S. trading partners is expected to rebound 4.7% this year after a 5.0% decline in 2020. We expect U.S. major trading partner growth of 3.7% next year and then average growth of 2.6% from 2023 through 2025. Real U.S. exports are forecasted to increase 7.1% this year after declining 13.0% in 2020. Exports are receiving a boost from resumed deliveries of the Boeing 737 MAX. We expect real export growth of 7.8% in 2022 as the global economy recovers. Real export growth is then expected to trend downward and reach 4.0% in 2025.

The federal government has enacted \$5.3 trillion in stimulus

The six COVID-19 relief measures have been far more substantial than the fiscal response to the Great Recession (see figure 1.6). Both episodes had their highest one year cost, or peak cost, in the third year after the initial stimulus. The American Recovery and Reinvestment Act of 2009 had a peak cost to the federal government of \$1.0 trillion and ended up costing \$787 billion over ten years. The combination of COVID-19 stimulus to date is expected to peak at \$5.4 trillion and total \$5.3 trillion over ten years.

Figure 1.6: Comparison of Great Recession and COVID-19 Stimulus Measures



Source: IHS Markit

The Fed has lowered rates

The Federal Reserve has lowered the federal funds rate to near zero in response to the pandemic. The Federal Reserve has also brought back several credit facilities from the previous recession and created new ones to support the economy and ensure normal functioning of credit markets. We expect the Federal Reserve to maintain extraordinary policy support through credit programs, liquidity support, and near zero interest rates until the economy is well into its recovery. The Federal Open Market Committee (FOMC) has established three preconditions to increase the federal funds rate. First, labor markets must achieve maximum employment. Second, inflation must rise to 2% on a sustained basis. Third, inflation must be on track to rise moderately above 2% for some time. We expect these conditions be satisfied in 2024 and expect the first rate hike to be in June of that year.

Table 1.1 provides a fiscal year summary of the U.S. economic indicators. For calendar year tables, see the appendix.

Risks to the Forecast

The level of uncertainty in the baseline forecast remains elevated, downside risks and upside risks are balanced.

Downside Risks

- New variants of COVID-19 causes another wave of cases
- Renewed social distancing measures cause widespread business failures
- Weak demand causes businesses to slow re-hiring of laid-off workers
- Increasing geopolitical tensions negatively affect consumer confidence

- Monetary policy is ineffective
- Deficit fears limit fiscal policy
- A breakdown in trade relations
- Weak global growth persists, further affecting exports

Upside Risks

- COVID-19 infections/deaths decline faster than anticipated
- COVID-19 vaccines are distributed more quickly than expected
- An infrastructure package passes
- Increased business confidence leads to more hiring
- Increased consumer confidence gives a boost to consumer spending
- The housing sector improves faster than anticipated
- China successfully transitions to a more consumption based economy
- European and emerging market economies grow faster than expected
- Wage growth picks up faster than expected

Table 1.1

Fiscal Years

U.S. Economic Forecast Summary
 Forecast 2021 to 2025

	2018	2019	2020	2021	2022	2023	2024	2025
Real National Income Accounts (Billions of Chained 2012 Dollars)								
Real Gross Domestic Product	18,432.5	18,884.3	18,677.3	18,932.0	19,959.0	20,519.6	20,988.9	21,435.7
% Ch	2.9	2.5	-1.1	1.4	5.4	2.8	2.3	2.1
Real Consumption	12,758.6	13,080.6	12,908.4	13,135.1	13,885.2	14,272.3	14,608.0	14,942.1
% Ch	2.7	2.5	-1.3	1.8	5.7	2.8	2.4	2.3
Real Nonresidential Fixed Investment	2,610.0	2,748.5	2,706.2	2,747.0	2,943.5	3,153.4	3,327.0	3,473.5
% Ch	5.4	5.3	-1.5	1.5	7.2	7.1	5.5	4.4
Real Residential Fixed Investment	618.4	600.9	605.3	699.0	705.5	671.6	660.3	662.2
% Ch	2.5	-2.8	0.7	15.5	0.9	-4.8	-1.7	0.3
Real Personal Income	16,251.8	16,726.6	17,369.8	18,184.2	17,724.6	18,210.6	18,739.0	19,266.8
% Ch	3.4	2.9	3.8	4.7	-2.5	2.7	2.9	2.8
Real Per Capita Income (\$/Person)	49,819	51,029	52,777	55,138	53,613	54,833	56,130	57,395
% Ch	2.8	2.4	3.4	4.5	-2.8	2.3	2.4	2.3
Price and Wage Indexes								
PCE Price Index (2012=100)	107.1	109.0	110.5	112.5	114.7	116.5	118.5	120.7
% Ch	1.9	1.8	1.3	1.8	2.0	1.6	1.7	1.9
U.S. Consumer Price Index (1982-84=1.0)	2.481	2.533	2.573	2.624	2.678	2.717	2.766	2.823
% Ch	2.2	2.1	1.6	2.0	2.1	1.5	1.8	2.0
Employment Cost Index (Dec. 2005=1.0)	1.314	1.354	1.395	1.432	1.473	1.522	1.569	1.615
% Ch	2.8	3.1	3.0	2.7	2.9	3.3	3.1	2.9
Current Dollar National Income (Billions of Dollars)								
Gross Domestic Product	20,087.5	21,024.4	21,092.2	21,745.6	23,415.9	24,603.1	25,721.6	26,820.0
% Ch	5.1	4.7	0.3	3.1	7.7	5.1	4.5	4.3
Personal Income	17,407.8	18,239.0	19,191.7	20,454.2	20,337.8	21,220.3	22,204.6	23,258.0
% Ch	5.4	4.8	5.2	6.6	-0.6	4.3	4.6	4.7
Employment (Millions)								
U.S. Civilian Labor Force	161.2	162.7	162.6	160.7	163.2	165.4	167.1	168.5
Total U.S. Employment	154.5	156.5	152.9	149.7	155.6	159.3	161.3	162.7
Unemployment Rate (%)	4.11	3.77	6.00	6.85	4.68	3.70	3.48	3.46
Nonfarm Payroll Employment	147.73	149.92	147.10	142.88	148.44	152.27	154.25	155.48
% Ch	1.5	1.5	-1.9	-2.9	3.9	2.6	1.3	0.8
Manufacturing	12.55	12.79	12.52	12.22	12.46	12.55	12.53	12.38
% Ch	1.4	1.9	-2.1	-2.4	2.0	0.7	-0.2	-1.2
Durable Manufacturing	7.83	8.03	7.82	7.60	7.81	7.85	7.87	7.76
% Ch	1.7	2.5	-2.6	-2.8	2.7	0.6	0.2	-1.4
Nondurable Manufacturing	4.72	4.76	4.70	4.62	4.65	4.69	4.66	4.62
% Ch	1.1	0.9	-1.3	-1.7	0.8	0.9	-0.7	-0.9
Construction	7.12	7.41	7.39	7.34	7.44	7.47	7.46	7.49
% Ch	4.0	4.1	-0.2	-0.8	1.4	0.4	-0.1	0.4
Service-Providing	127.36	128.98	126.50	122.72	127.90	131.61	133.61	134.95
% Ch	1.4	1.3	-1.9	-3.0	4.2	2.9	1.5	1.0
Miscellaneous Indicators								
Oil-WTI (\$ per barrel)	58.6	60.8	46.7	52.0	61.6	56.4	53.4	51.6
Personal Saving/Disposable Income (%)	7.5	7.9	12.5	16.2	8.6	8.4	8.7	9.2
Auto Sales (Millions)	5.7	5.1	3.9	3.6	3.6	3.6	3.5	3.5
% Ch	-11.6	-11.1	-24.2	-6.2	-0.3	-0.5	-2.1	-0.6
Housing Starts (Millions)	1.252	1.219	1.321	1.556	1.456	1.316	1.273	1.279
% Ch	4.4	-2.6	8.3	17.8	-6.4	-9.6	-3.3	0.4
Federal Budget Surplus (Billions)	-844.9	-979.1	-2,232.0	-3,691.8	-1,646.6	-1,317.8	-1,172.3	-1,191.2
Net Exports (Billions)	-564.3	-640.0	-555.3	-845.9	-953.4	-740.1	-623.4	-623.3
3-Month Treasury Bill Rate (%)	1.41	2.26	1.20	0.07	0.05	0.09	0.12	0.34
10-Year Treasury Note Yield (%)	2.57	2.74	1.41	1.04	1.75	1.95	2.01	2.24
Bond Index of 20 G.O. Munis. (%)	3.67	4.01	3.20	2.28	2.69	2.80	2.85	3.03
30-Year Fixed Mortgage Rate (%)	4.16	4.43	3.53	2.87	3.41	3.72	3.81	4.02

Table 1.2

Forecast Analysis

Comparison of Forecasts for 2019-21

U.S.	Average Annual Rate of Growth (Percent) 2019:2-2021:2		Average Rate (Percent) 2019:3 to 2021:2	
	Real GDP	PCE Price Index	3 Month T-Bill Rate	Mortgage Rate
2016				
February	2.2	1.7	2.79	5.60
June	2.2	1.9	2.81	5.67
September	2.2	1.9	2.79	5.77
November	2.1	2.0	2.55	5.57
2017				
March	2.0	1.9	2.80	5.96
June	2.0	2.0	2.81	5.97
September	2.0	1.9	2.83	6.00
November	2.1	2.0	2.56	5.08
2018				
February	2.0	2.0	3.00	5.26
June	1.9	2.1	3.09	5.28
September	1.9	2.0	3.09	5.11
November	1.8	2.0	3.10	5.17
2019				
March	1.8	2.1	2.66	4.77
June	1.8	1.8	2.23	4.26
September	1.7	2.1	1.70	3.86
November	1.8	1.9	1.64	3.97
2020				
February	1.9	1.6	1.59	3.84
June	-1.2	1.0	0.69	3.41
September	-0.5	1.4	0.65	3.29
November	0.1	1.5	0.65	3.24
2021				
March	0.8	1.7	0.64	3.20

Table 1.3

Forecast Analysis

Comparison of Forecasts for 2021-23

U.S.	Average Annual Rate of Growth (Percent) 2021:2-2023:2		Average Rate (Percent) 2021:3 to 2023:2	
	Real GDP	PCE Price Index	3 Month T-Bill Rate	Mortgage Rate
2018				
February	2.1	2.0	3.15	5.28
June	2.1	2.1	3.17	5.30
September	2.1	1.9	3.14	5.13
November	2.0	2.0	3.16	5.20
2019				
March	1.9	2.0	2.66	4.92
June	1.9	1.9	2.20	4.72
September	1.9	1.9	2.16	4.65
November	1.9	2.0	2.16	4.53
2020				
February	1.9	2.0	1.96	4.43
June	3.7	1.5	0.07	3.02
September	3.4	1.6	0.10	3.12
November	2.6	1.8	0.10	3.10
2021				
March	3.5	1.6	0.07	3.56

Table 1.4

Fiscal Years

Forecast Comparison

Forecast 2021 to 2025

	2019	2020	2021	2022	2023	2024	2025
U.S.							
Real GDP							
March	18,884.3	18,677.3	18,932.0	19,959.0	20,519.6	20,988.9	21,435.7
% Ch	2.5	-1.1	1.4	5.4	2.8	2.3	2.1
November	18,884.3	18,677.3	18,787.5	19,434.6	19,900.2	20,306.6	20,702.5
% Ch	2.5	-1.1	0.6	3.4	2.4	2.0	1.9
PCE Price Index							
March	109.0	110.5	112.5	114.7	116.5	118.5	120.7
% Ch	1.8	1.3	1.8	2.0	1.6	1.7	1.9
November	109.0	110.5	112.3	114.6	116.5	118.5	120.8
% Ch	1.8	1.3	1.6	2.1	1.7	1.7	1.9
Unemployment Rate							
March	3.77	6.00	6.85	4.68	3.70	3.48	3.46
November	3.77	6.00	6.92	5.39	4.70	4.46	4.35
Mortgage Rate							
March	4.43	3.53	2.87	3.41	3.72	3.81	4.02
November	4.43	3.53	2.95	3.09	3.11	3.17	3.41
3 Month T-Bill Rate							
March	2.26	1.20	0.07	0.05	0.09	0.12	0.34
November	2.26	1.20	0.10	0.11	0.09	0.08	0.08



Chapter 2: Washington Economy – Current Conditions and Forecast

- **The Washington economy continues to recover from the recession but growth has slowed.**
- **Employment growth during the last four months has lagged far behind the November forecast.**
- **Washington’s unemployment rate declined to 5.6% in February, down significantly from the 16.3% rate reached in April 2020.**
- **Washington housing construction increased in early 2021 to levels not seen since the mid-2000s.**
- **Washington exports continue to decline, mostly because of transportation equipment.**
- **Washington personal income growth was sustained by extraordinary fiscal support in 2020.**
- **The decline in Washington real GDP in 2020 was mild due to a favorable mix of industries.**
- **Seattle consumer price inflation matched the national average.**
- **The Washington forecast features higher personal income and housing construction but lower employment and inflation than did the forecast adopted in November.**

Current Conditions

The Washington economy continues to recover from the recession but growth has slowed

The Washington economy continues to recover from the recession but growth has slowed. Employment growth during the last four months has lagged far behind the November forecast. Washington’s unemployment rate declined to 5.6% in February, down significantly from the 16.3% rate reached in April 2020. Washington housing construction increased in early 2021 to levels not seen since the mid-2000s. Washington exports continue to decline, mostly because of transportation equipment. Washington personal income growth was sustained by extraordinary fiscal support in 2020. The decline in Washington real GDP in 2020 was mild due to a favorable mix of

industries. Seattle consumer price inflation matched the national average.

Washington employment grew much less than expected in the November forecast

We have four months of new Washington employment data since the November forecast was released. Total nonfarm payroll employment increased 15,800 from October through February which was a 66,800 less than the increase of 82,600 expected in the forecast. Private services-providing sectors added just 8,200 jobs in the four-month period, weighed down by the loss of 8,200 jobs in leisure and hospitality. The manufacturing sector managed an increase of 1,800 jobs in spite of the loss of 1,700 aerospace jobs. Construction employment increased by 4,200 jobs and state and local government employment increased by 4,900 jobs. Federal government employment declined by 3,200 jobs of which 1,600 were temporary Census workers.

New QCEW data lowered employment

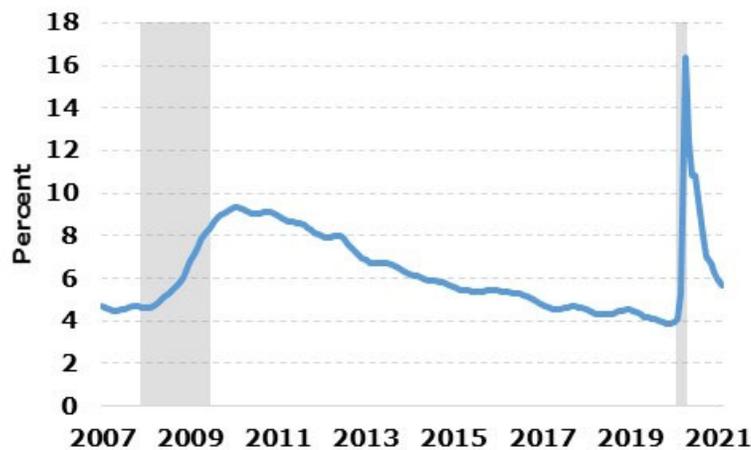
We have also incorporated another quarter of benchmark employment data from the Quarterly Census of Employment and Wages (QCEW). The new QCEW data and other revisions subtracted 20,800 (0.6%) from the estimated level of total employment in October 2020. Because of the lower-than-expected employment growth in November through February in addition to the downward revision to the October estimate, employment is 87,600 (2.6%) lower in February than expected in the November forecast.

Unemployment is down significantly

Washington's unemployment rate declined to 5.6% in February from 6.0% in January. The unemployment 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 (see Figure 2.1).

Figure 2.1: Washington Unemployment Rate

The Washington unemployment rate declined to a post-recession low



Source: Employment Security Department; data through February 2021

UI claims have declined sharply since the peak but remain high

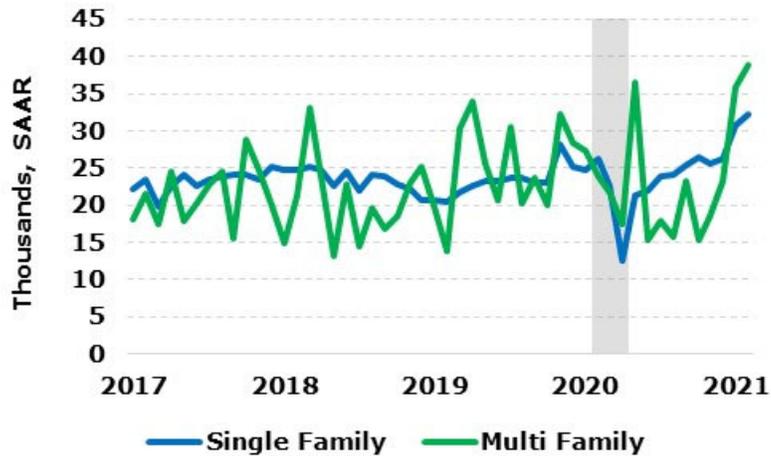
Initial claims for unemployment insurance have declined from the unprecedented levels of last spring but remain high. The seasonally adjusted number of claims in Washington declined to 12,200 in the week ending March 20, 2021 from 13,000 in the previous week. The four-week moving average declined to 13,500 from 14,500. While the moving average is down 92% since the peak in early April 2020, it is still more than twice the level in the same week in 2019.

Housing construction got off to a very strong start in the first quarter of 2021

Washington housing construction improved in the fourth quarter of 2020 and slightly exceeded the forecast. The number of housing units authorized by building permits increased to 45,600 (SAAR) from 42,600 in the third quarter. The November 2020 forecast expected 45,500 units. Single-family permits averaged 26,600 units in the fourth quarter and multi-family permits averaged 19,100 units. Single-family construction has fully recovered to pre-recession levels but multi-family construction remains lower. Housing construction got off to a very strong start in the first quarter of 2021 (see Figure 2.2). Permits averaged 68,800 units (SAAR) in January and February of which 31,500 were single-family units and 37,400 were multi-family units.

Figure 2.2: Washington Housing Units Authorized by Building Permits

Single-family and multi-family were both very strong in January and February



Source: Census Bureau; data through February 2021

Seattle-area home prices continue to rise rapidly

Seattle-area home prices increased rapidly for a seventh consecutive month after three consecutive monthly declines. According to the S&P/Case-Shiller Home Price Indices, seasonally adjusted Seattle home prices increased 1.5% in January compared to a 1.2% increase in the composite-20 index. January Seattle home prices were up 14.3% over the year. In comparison, the composite-20 index was up 11.1% over the year. January Seattle home prices were up 126% since the December 2011 trough and exceeded the May 2007 peak by 57%.

Washington exports declined over the year for a ninth consecutive quarter

Washington exports declined over the year for a ninth consecutive quarter despite a large increase in agricultural exports. Year-over-year exports decreased 18.1% in the fourth quarter of 2020. Fourth quarter exports of agricultural products increased 69.6% over the year but this is misleading as it was largely due to soybeans which receive only minimal processing in Washington. Transportation equipment exports (mostly Boeing planes) fell 63.7% over the year. Year-over-year exports from all other sectors (mostly manufacturing) declined 8.3%.

Washington car and truck sales surged in February

Washington car and truck sales surged in February to their highest level since before the recession. The seasonally adjusted number of new vehicle registrations increased 12.0% in February to 294,500 which was the highest level since June 2019. The number of new vehicle registrations increased 1.0% over the year in February.

Washington personal income declined 6.2% (SAAR) in the third quarter due to a decrease in benefits from several CARES Act programs.

In March, after the forecast was complete, the U.S. Department of Commerce, Bureau of Economic Analysis (BEA) released state personal income estimates for the fourth quarter of 2020. According to these estimates, Washington personal income fell from \$530.6 billion in the third quarter of 2020 to \$522.1 billion (SAAR) in the fourth quarter. The 6.2% decline (SAAR) in Washington personal income was the 29th best result among the states and District of Columbia and was slightly better than the 6.8% rate of decline for the U.S. as a whole. A decrease in benefits from several CARES Act programs caused large reductions in transfer receipts across the U.S. On the other hand, farm earnings soared in several states due to increases in payments to farmers from the Coronavirus Food Assistance Program. In Washington, the decline in transfers subtracted 9.6 percentage points from annualized growth, more than offsetting the positive 2.0 percentage points from net earnings and the positive 1.3 percentage points from dividends, interest, and rent.

Washington personal income growth was sustained by extraordinary fiscal support in 2020

The March personal income release also included preliminary estimates for 2020 as a whole. Washington personal income rose to \$525.6 billion in 2020 from \$493.1 billion in 2019. The 6.6% growth rate in Washington personal income was the 20th highest among the states and District of Columbia and exceeded the 6.1% growth rate for the U.S. as a whole. Washington personal income growth was sustained by extraordinary fiscal support in 2020. The largest source of income growth in 2020 was a 36.6% increase in transfer receipts, which added 5.1 percentage points to growth (see Figure 2.3). Of the \$25.0 billion increase in transfers in 2020, \$21.2 billion (85%) was due to a variety of federal Covid-19 relief programs. Washington net earnings grew 2.8%, adding 1.8 percentage points to personal income growth while dividends, interest, and rent fell 1.0%, subtracting 0.2 percentage points from growth.

Figure 2.3: Contributions to WA Personal Income Growth

Most of Washington's personal income growth in 2020 came from transfer receipts



Source: BEA; data through 2020

Important sectors of the Washington economy were either resilient to the pandemic or even benefitted from it

Real GDP declined in every state and the District of Columbia in 2020. The decline in Washington real GDP was 0.7% which was the second smallest decline among the states and District of Columbia and much better than the 3.5% decline for the U.S. The reason the overall decline was mild in Washington is that important sectors of the Washington economy were either resilient to the pandemic or even benefitted from it. The difference between Washington and U.S. real GDP growth was mostly due to two sectors: retail trade (which includes electronic shopping) and information (which includes software publishing and other IT services such as internet publishing and web search portals). On the other hand, durable manufacturing (which includes aerospace) was a significant drag on Washington GDP growth in 2020.

Seattle consumer price inflation matched the national average

Seattle-area consumer price inflation matched the national average in the year ending in February 2021. From February 2020 to February 2021, the Seattle CPI rose 1.7% which was the same rate of increase as in the U.S. City Average index. Core prices, which exclude food and energy, increased 1.3% over the year in Seattle which was also the same rate of increase as in the U.S. City Average index. Seattle shelter cost inflation slightly trailed the national average at 1.2% compared to 1.5%. Seattle inflation excluding shelter slightly exceeded the national average at 2.0% compared to 1.8%.

Washington State Forecast

The Washington forecast features higher personal income and housing construction but lower employment and inflation than did the forecast adopted in November

The Washington forecast features higher personal income and housing construction but lower employment and inflation than did the forecast adopted in November. We expect a 1.7% increase in Washington employment this year, which is down from the 3.5% increase the November forecast. We expect employment growth to average 2.2% per year in 2022 through 2025 compared to the 1.7% average rate expected in November. Our forecast for nominal personal income growth this year is 4.8%, up from a 1.1% decline in the November forecast. The improvement in personal income growth is the result of additional fiscal support in 2021, which was not expected in November. Personal income growth will slow next year as the support is withdrawn. We expect personal income growth of only 1.1% in 2022 compared to 3.7% in the November forecast. Our new forecast for nominal personal income growth in 2023 through 2025 averages 5.1% per year compared to the 4.6% rate in the November forecast. We expect 52,200 housing units authorized by building permits this year, up from 45,200 in the November forecast. We expect permits to average 44,000 units in 2022 through 2025, also up from 41,900 units in the November forecast. We expect the Seattle CPI to rise 2.2% this year, down from 2.8% in the November forecast. We expect Seattle inflation to average 1.8% per year in 2022 through 2025 compared to 2.0% per year in the November forecast.

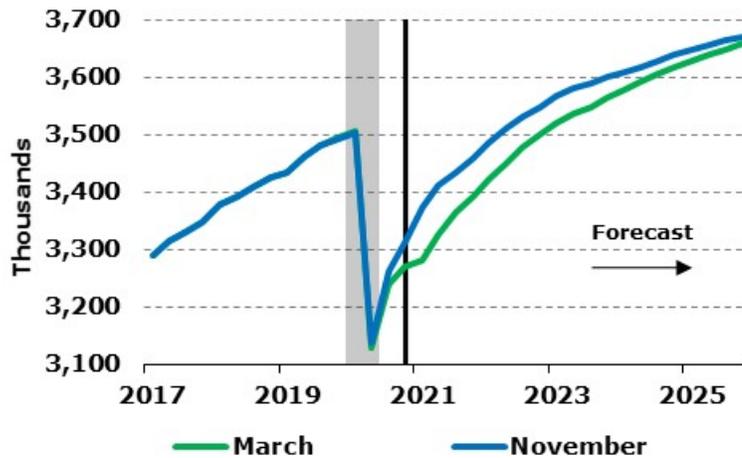
Washington Payroll Employment

Our forecast for employment growth in 2021 is lower than expected in the November forecast

Our forecast for employment growth in 2021 is lower than expected in the November forecast due to much slower than expected employment growth in recent months (see Figure 2.4). Our forecast for employment growth after this year is more optimistic than expected in the November forecast due to a better than expected vaccine rollout and additional fiscal support. We expect a 1.7% increase in Washington employment this year which is down from the 3.5% increase the November forecast. We expect above-average growth through the remainder of the forecast as the economy continues to from the recession. We expect employment growth to average 2.2% per year in 2022 through 2025 compared to the 1.7% average rate expected in November. On an annual basis, we expect 3.7% employment growth in 2022, 2.3% in 2023, 1.6% in 2024, and 1.3% in 2025.

Figure 2.4: Washington Nonfarm Payroll Employment

After a pause in 2021, employment growth is stronger than in the November forecast



Source: Employment Security Department, ERFC; historical data through 2020 Q4

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

As in November, 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 indicated 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 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 29,800 lower in December 2021 than in January 2020. We have already lost about 19,000 aerospace jobs as of February 2021 and expect a further decline of 10,700 by December 2021. On an annual average basis, we expect aerospace employment to decline 18.4% this year and 7.1% in 2022. We expect aerospace employment to grow 1.1% in 2023, 2.1% in 2024, and 1.0% in 2025.

The software sector did not experience a significant decline during the recession

The software sector in Washington did not experience a significant decline during the recession. After a large increase in the second quarter, Washington software employment declined slightly in the second half of 2020 to end the year up 1.2% compared to the first quarter. We expect positive growth to resume in 2021 and then to accelerate in 2022. On an annual average basis, we expect growth rates of 0.7% in 2021, 2.8% in 2022, 1.7% in 2023, and 1.5% per year in 2024 and 2025.

Electronic shopping employment has benefitted from social distancing

Washington's electronic shopping and mail order sector has benefited from the social distancing caused by the pandemic as customers substituted online for in-person shopping. In Washington, this sector consists almost entirely of electronic shopping employment. We have increased our forecast for employment growth in 2021 from 6.3% to 15.5% based on very

strong monthly growth continuing through February 2021. The forecast for growth during the remainder of the forecast is similar to the November forecast. On an annual basis, electronic shopping and mail order employment will grow 3.0% in 2022, 2.5% in 2023, 2.3% in 2024, and 2.2% in 2025.

Construction has recovered nearly all the jobs lost in the recession

Construction employment growth has also continued to exceed expectations. After an initial drop in employment in March and April of 2020, construction employment came roaring back. As of February 2021, construction has recovered virtually all the jobs lost in the recession. As a result, we have revised our forecast for growth this year from -1.8% to +2.4%. We still expect declining employment over the next couple of years. On a calendar year basis, we expect construction employment to decline 3.3% in 2022 and 2.0% in 2023. We expect 0.2% growth in 2024 and 1.1% growth in 2025.

Washington Personal Income

Personal income was lower than previously thought due to lower transfer payments

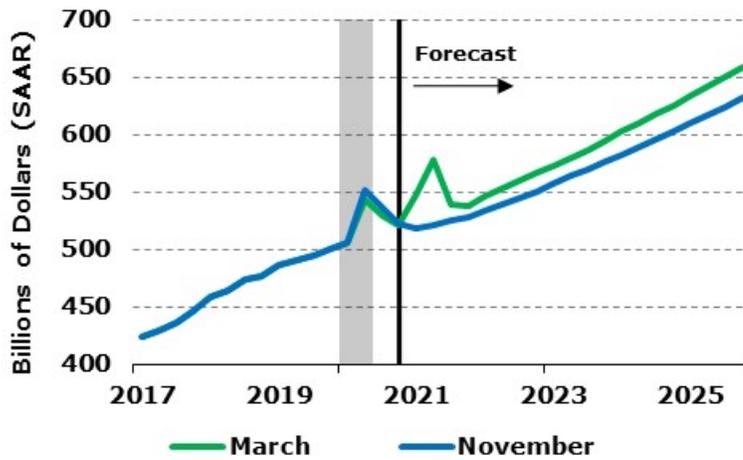
In December, after the forecast was complete, the Bureau of Economic Analysis released estimates for state personal income through the third quarter of 2020. We have incorporated the new BEA estimates as well as additional Washington Quarterly Census of Employment and Wages (QCEW) data. Our current estimate of Washington personal income in the third quarter of 2020 is \$7.1 billion (1.3%) lower than in the November forecast. Wages and salaries are \$2.6 billion (1.0%) higher than expected but nonwage income is \$9.8 billion (3.6%) lower than expected. The large discrepancy in nonwage income is almost entirely due to transfer payments which are \$9.5 billion (9.1%) lower than expected.

Personal income growth in 2021 is higher than expected in November due to renewed fiscal support

Our forecast for nominal personal income growth this year is 4.8%, up from a 1.1% decline in the November forecast (see Figure 2.5). The improvement in personal income growth is the result of additional fiscal support in 2021 which was not expected in November. Personal income growth will slow next year as the support is withdrawn. We expect personal income growth of only 1.1% in 2022 compared to 3.7% in the November forecast. Our new forecast for nominal personal income growth in 2023 through 2025 averages 5.1% per year compared to the 4.6% rate in the November forecast. On an annual basis, we expect personal income to grow 4.8% in 2023, 5.3% in 2024, and 5.3% in 2025.

Figure 2.5: Washington Personal Income

Fiscal support boosts personal income in 2020 and 2021



Source: Bureau of Economic Analysis, ERFC; historical data through 2020 Q3

Washington Building Permits

The outlook for Washington housing construction has improved

The outlook for Washington housing construction as measured by units authorized by building permits has improved since the November forecast. Single-family construction has been improving since a sharp decline in April 2020. Multi-family construction also initially improved after the April decline but until recently, remained below pre-pandemic levels. Single-family and multi-family permits jumped in early 2021 leading to totals that have not been seen since the housing boom of the mid-2000s. We expect strong housing construction through the remainder of this year. While we expect construction activity to decline after this year, the levels will remain higher than expected in the November forecast.

We expect 52,200 housing units this year

We expect 52,200 housing units authorized by building permits this year, up from 45,200 in the November forecast. If so, this will be the highest annual total since 2005. We expect permits to average 44,000 units in 2022 through 2025, also up from 41,900 units in the November forecast. On a calendar year basis, we expect 45,800 units in 2022, 43,100 units in 2023, and 43,600 units per year in 2024 and 2025.

Consumer Price Index

The near-term inflation outlook has softened since the November forecast

The near-term inflation outlook has softened since the November forecast due to weaker than expected actual inflation through February 2021 and a different path for the dollar. We now expect the dollar to rise modestly from early 2021 through mid-2023 rather than continuing to decline as in the November forecast, putting downward pressure on import prices. With actual data through February, we expect the Seattle core index to rise 1.6% this year compared to 2.7% in the November

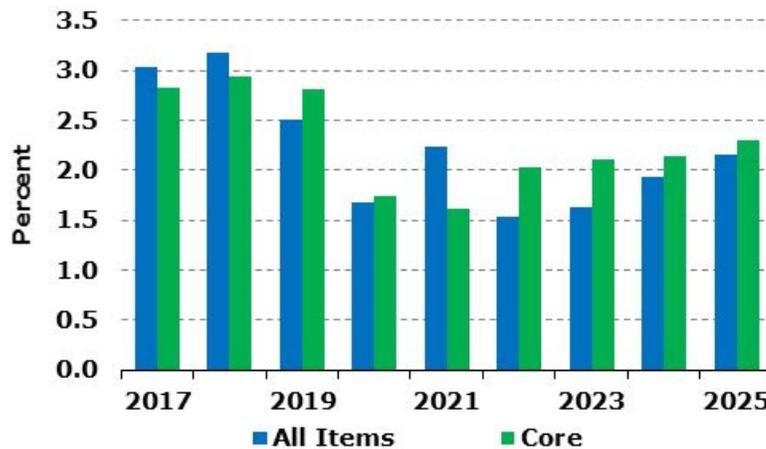
forecast. We now expect Seattle core inflation to average 2.1% per year in 2022 through 2025, which is the same rate as in the November forecast. Our forecast calls for annual Seattle core inflation rates of 2.0% in 2022, 2.1% in 2023, 2.1% in 2024, and 2.3% in 2025.

Energy costs have rebounded

Energy costs have rebounded since the large decline last year. This will add to headline inflation this year. We expect the Seattle CPI to rise 2.2% this year, down from 2.8% in the November forecast but well above the 1.6% core inflation rate. Energy costs are expected to fall during the remainder of the forecast, holding headline inflation below core inflation through 2025 (see Figure 2.6). We expect Seattle inflation to average 1.8% per year in 2022 through 2025 compared to 2.0% per year in the November forecast. On a calendar year basis, we expect inflation rates of 1.5% in 2022, 1.6% in 2023, 1.9% in 2024, and 2.2% in 2025.

Figure 2.6: Seattle Consumer Price Inflation

Declining energy costs will reduce inflation in 2022-25



Source: Bureau of Labor Statistics, ERFC; historical data through 2020

Table 2.1 provides a fiscal year summary of the state economic indicators. For calendar year tables, see the appendix.

Alternative Scenarios

Alternative forecasts are required by law

In accordance with state law, the Washington State Economic and Revenue Forecast Council adopted a forecast based on optimistic assumptions and a forecast based on pessimistic assumptions in addition to the baseline forecast.

Optimistic

The optimistic scenario is characterized by a quicker recovery than in the baseline. Now that there is a \$1.9 trillion fiscal stimulus package, we assume the aid is more front-loaded and

The optimistic scenario assumes that easing containment measures, vaccines and still more stimulus drive a faster recovery

the consumer response more robust than in the baseline. Also, new cases and deaths dwindle quickly in this scenario as a result of a much faster pace of vaccinations and greater adherence to guidelines for social distancing and masks. As a result, consumers approach pre-pandemic spending patterns more quickly than in the baseline. Business fixed investment also rises more quickly in the first quarter and remains elevated relative to the baseline. The previous peak in GDP is passed in the second quarter of 2021, the same as in the baseline. As a result of the relaxation of containment measures and faster growth of GDP, the unemployment rate quickly falls to below 4.5% by the end of 2021.

The optimistic scenario also assumes a stronger Washington economy

In addition to reflecting the impact of the stronger U.S. forecast on the state economy, the optimistic Washington forecast assumes that aerospace employment bottoms out in the fourth quarter of 2021 as in the baseline, but then begins to recover rather than level off as in the baseline. Software employment also grows more rapidly than in the baseline forecast. In the optimistic scenario, the stronger regional economy drives Seattle consumer price inflation above the baseline. Washington average wage growth is also higher in the optimistic scenario than in the baseline. Construction employment declines less through late 2023 than in the baseline and then begins to rise more rapidly than in the baseline. By the end of 2025, Washington nonfarm payroll employment is higher by 78,500 jobs (2.1%) than in the baseline forecast and Washington personal income is \$45.8 billion (7.0%) higher.

Pessimistic

The pessimistic scenario assumes the recovery stumbles as consumers hunker down amid wait for vaccination

This pessimistic scenario is characterized by a weaker recovery in consumer spending than in the baseline forecast. We assume that, as a result of the high, albeit falling number of new cases, hospitalizations, and deaths, and the appearance of new more contagious strains of the disease, containment measures are re-introduced. Also, elevated cases, renewed containment measures, and consumers turning more cautious as they wait to get vaccinated result in consumer spending falling below the baseline over the next few quarters. This slows the rise of spending, production, and employment more broadly. The previous peak in GDP is not passed until the fourth quarter of 2021, two quarters later than in the baseline. The unemployment rate is expected to continue to decline, but at a slower pace than in the baseline, not falling below 5.0% until mid-2022.

This scenario also assumes a weaker local economy

In addition to reflecting the impact of the weaker U.S. forecast on the state economy, aerospace employment declines more quickly in the baseline and continues to decline after 2021 rather than level off as in the baseline. Software employment also declines rather than rising as in the baseline forecast. After an initial rebound due to a partial lifting of restrictions, construction employment declines faster than in the baseline and the decline

continues throughout the forecast. The relatively weak local economy also puts downward pressure on Washington wages and the Seattle CPI. By the end of 2025, Washington nonfarm payroll employment is 73,700 (2.0%) lower than in the baseline forecast and Washington personal income is \$48.6 billion (7.4%) lower.

Table 2.2 compares the optimistic and pessimistic forecasts with the baseline forecast.

Governor’s Council of Economic Advisors (GCEA)

In the GCEA scenario, the U.S. and state forecasts were adjusted to match the average view of the Council members.

The GCEA national forecast is similar to the baseline forecast

The GCEA national forecast is similar to the baseline forecast. The Governor’s Council members forecast a 3.5% increase in real GDP growth this year compared to 4.1% in the baseline forecast. Over the five-year forecast interval, however, the Council members’ forecast averages 3.3% per year which is the same average rate as in the preliminary forecast. The GCEA forecast of 3.5% average real consumer spending growth is also the same as in the baseline forecast. The GCEA members’ PCE inflation forecast averages 2.2% per year compared to 1.9% per year in the baseline forecast. The Council members’ mortgage rate forecast averages 3.8% over the forecast horizon, which is slightly higher than the 3.7% average mortgage rate in the baseline forecast and their oil price forecast averages \$63 per barrel compared to \$60 in the baseline forecast.

The Governor’s Council of Economic Advisors’ Washington forecast is also similar to the baseline forecast

The Governor’s Council of Economic Advisors’ Washington forecast is also similar to the baseline forecast. The GCEA scenario for Washington real personal income growth averages 2.1% per year in 2021 through 2025, compared to the 2.3% average rate in the baseline forecast. Because their inflation forecast is higher than ours is, however, their implied average nominal income growth is slightly higher at 4.4% compared to our 4.3%. The Council members’ forecast for total employment growth over the five-year period averages 2.4% per year, which is stronger than the 2.1% rate in the baseline forecast. The GCEA forecast for average manufacturing employment growth is slightly lower than in the baseline forecast but their forecast of construction employment growth is slightly stronger. The GCEA housing permit forecast is also slightly higher, averaging 46,200 units per year compared to 45,600 in the baseline forecast. At the end of 2025, the GCEA forecast for Washington nonfarm payroll employment is 54,800 (1.5%) higher than in the baseline forecast and Washington personal income is \$3.4 billion (0.5%) higher.

Table 2.1

Fiscal Years

Washington Economic Forecast Summary
 Forecast 2021 to 2025

	2018	2019	2020	2021	2022	2023	2024	2025
Real Income (Billions of Chained 2012 Dollars)								
Real Personal Income	421.242	441.810	462.857	483.436	474.050	488.877	505.110	521.823
% Ch	5.5	4.9	4.8	4.4	-1.9	3.1	3.3	3.3
Real Wage and Salary Disb.	213.059	225.733	232.445	240.324	247.537	256.142	265.253	274.486
% Ch	6.6	5.9	3.0	3.4	3.0	3.5	3.6	3.5
Real Nonwage Income	208.183	216.077	230.412	243.112	226.513	232.735	239.857	247.336
% Ch	4.5	3.8	6.6	5.5	-6.8	2.7	3.1	3.1
Real Per Capita Income (\$/Person)	56,354	58,361	60,412	62,442	60,759	62,051	63,408	64,749
% Ch	3.9	3.6	3.5	3.4	-2.7	2.1	2.2	2.1
Price and Wage Indexes								
U.S. Implicit Price Deflator, PCE (2012=1.0)	1.071	1.090	1.105	1.125	1.147	1.165	1.185	1.207
% Ch	1.9	1.8	1.3	1.8	2.0	1.6	1.7	1.9
Seattle Cons. Price Index (1982-84=1.0)	2.671	2.745	2.803	2.859	2.913	2.955	3.009	3.070
% Ch	3.1	2.8	2.1	2.0	1.9	1.5	1.8	2.0
Average Nonfarm Annual Wage	65,777	69,623	73,395	80,062	80,994	82,663	85,552	88,949
% Ch	6.3	5.8	5.4	9.1	1.2	2.1	3.5	4.0
Avg. Hourly Earnings-Mfg. (\$/Hour)	27.93	28.91	28.93	27.73	28.06	28.94	29.78	30.59
% Ch	4.2	3.5	0.0	-4.1	1.2	3.1	2.9	2.7
Current Dollar Income (Billions of Dollars)								
Personal Income	451.213	481.750	511.387	543.760	543.944	569.679	598.528	629.928
% Ch	7.6	6.8	6.2	6.3	0.0	4.7	5.1	5.2
Disposable Personal Income	397.240	425.062	452.977	484.326	481.093	502.873	527.350	555.288
% Ch	7.7	7.0	6.6	6.9	-0.7	4.5	4.9	5.3
Per Capita Income (\$/Person)	60,362	63,636	66,746	70,233	69,716	72,306	75,133	78,161
% Ch	5.9	5.4	4.9	5.2	-0.7	3.7	3.9	4.0
Employment (Thousands)								
Washington Civilian Labor Force	3,767.0	3,860.6	3,935.8	3,869.0	3,910.2	3,978.8	4,039.0	4,096.8
Total Washington Employment	3,597.5	3,692.0	3,683.7	3,604.0	3,712.5	3,803.0	3,864.6	3,920.1
Unemployment Rate (%)	4.50	4.37	6.41	6.84	5.06	4.42	4.32	4.31
Nonfarm Payroll Employment	3,362.6	3,433.0	3,403.5	3,279.3	3,407.5	3,509.1	3,571.3	3,622.2
% Ch	2.4	2.1	-0.9	-3.6	3.9	3.0	1.8	1.4
Manufacturing	284.1	291.9	287.7	262.1	258.5	260.6	261.8	262.2
% Ch	-1.1	2.7	-1.4	-8.9	-1.4	0.8	0.5	0.1
Durable Manufacturing	199.4	205.5	202.4	180.1	175.2	176.0	177.4	178.2
% Ch	-2.1	3.1	-1.5	-11.0	-2.7	0.4	0.8	0.4
Aerospace	82.5	86.6	87.6	71.1	61.4	60.7	62.0	63.0
% Ch	-5.9	4.9	1.2	-18.8	-13.7	-1.1	2.1	1.7
Nondurable Manufacturing	84.6	86.3	85.3	82.1	83.3	84.6	84.4	84.0
% Ch	1.5	2.0	-1.2	-3.8	1.5	1.6	-0.3	-0.5
Construction	206.5	216.8	216.3	218.1	214.8	208.8	207.0	208.4
% Ch	6.7	5.0	-0.3	0.9	-1.5	-2.8	-0.9	0.7
Service-Providing	2,865.8	2,918.2	2,893.9	2,793.5	2,928.5	3,034.0	3,096.9	3,146.0
% Ch	2.5	1.8	-0.8	-3.5	4.8	3.6	2.1	1.6
Software Publishers	63.1	67.7	73.6	75.7	76.8	78.9	79.9	81.2
% Ch	4.7	7.4	8.6	2.9	1.5	2.7	1.3	1.5
Electronic Shopping and Mail-Order	53.5	58.1	69.3	83.2	89.0	91.4	93.6	95.7
% Ch	21.7	8.7	19.1	20.2	7.0	2.7	2.4	2.2
Housing Indicators (Thousands)								
Housing Units Authorized by Bldg. Permit	48.873	46.042	47.547	48.693	48.740	43.832	43.313	43.693
% Ch	9.8	-5.8	3.3	2.4	0.1	-10.1	-1.2	0.9
Single-Family	24.216	22.439	22.863	27.834	29.162	25.766	25.276	25.224
% Ch	9.5	-7.3	1.9	21.7	4.8	-11.6	-1.9	-0.2
Multi-Family	24.657	23.603	24.684	20.859	19.577	18.066	18.038	18.468
% Ch	10.1	-4.3	4.6	-15.5	-6.1	-7.7	-0.2	2.4
30-Year Fixed Mortgage Rate (%)	4.16	4.43	3.53	2.87	3.41	3.72	3.81	4.02

Table 2.2
Comparison of Alternative Forecasts

Fiscal Years

	2020	2021	2022	2023	2024	2025
U.S.						
Real GDP, Percent Change						
Optimistic	-1.1	1.8	6.4	2.5	2.4	2.2
Baseline	-1.1	1.4	5.4	2.8	2.3	2.1
Pessimistic	-1.1	0.6	3.6	3.9	3.0	2.8
PCE Price Index, Percent Change						
Optimistic	1.3	1.7	2.1	2.0	2.2	2.3
Baseline	1.3	1.8	2.0	1.6	1.7	1.9
Pessimistic	1.3	1.6	1.0	0.5	1.1	1.4
Mortgage Rate, Percent						
Optimistic	3.53	2.87	3.40	3.84	4.10	4.36
Baseline	3.53	2.87	3.41	3.72	3.81	4.02
Pessimistic	3.53	2.86	3.13	3.22	3.34	3.60
3 Month T-Bill Rate, Percent						
Optimistic	1.20	0.07	0.06	0.11	0.35	0.71
Baseline	1.20	0.07	0.05	0.09	0.12	0.34
Pessimistic	1.20	0.07	0.05	0.08	0.09	0.09
Washington						
Real Personal Income, Percent Change						
Optimistic	4.8	5.5	0.5	3.8	3.4	3.7
Baseline	4.8	4.4	-1.9	3.1	3.3	3.3
Pessimistic	4.8	3.8	-3.6	2.7	2.7	2.8
Personal Income, Percent Change						
Optimistic	6.2	7.3	2.6	5.8	5.7	6.2
Baseline	6.2	6.3	0.0	4.7	5.1	5.2
Pessimistic	6.2	5.5	-2.6	3.3	3.9	4.2
Employment, Percent Change						
Optimistic	-0.9	-3.5	4.7	3.2	2.1	1.8
Baseline	-0.9	-3.6	3.9	3.0	1.8	1.4
Pessimistic	-0.9	-3.8	2.8	2.2	1.9	1.4
Housing Permits, Thousands of Authorized Units						
Optimistic	47.5	49.1	51.6	47.1	46.5	47.3
Baseline	47.5	48.7	48.7	43.8	43.3	43.7
Pessimistic	47.5	48.5	47.7	41.6	40.6	40.5

Table 2.3
Governor's Council of Economic Advisor's Forecast

Calendar Years

	2021	2022	2023	2024	2025
U.S.					
Real GDP					
<i>Growth</i>					
ERFC	5.7	4.1	2.4	2.2	2.1
GCEA Average	5.9	3.5	2.4	2.4	2.4
Real Consumption					
<i>Growth</i>					
ERFC	6.3	4.2	2.4	2.3	2.3
GCEA Average	6.3	4.0	2.6	2.4	2.3
PCE Price Index					
<i>Growth</i>					
ERFC	2.4	1.6	1.6	1.8	2.0
GCEA Average	2.2	2.3	2.2	2.1	2.0
Mortgage Rate					
<i>Percent</i>					
ERFC	3.1	3.6	3.8	3.9	4.1
GCEA Average	3.4	3.7	3.6	4.1	4.3
Oil Price (Brent)					
<i>Dollars per barrel</i>					
ERFC	66.1	62.3	59.1	57.0	55.8
GCEA Average	62.4	63.3	64.7	61.7	62.0
Washington State					
Real Personal Income					
<i>Growth</i>					
ERFC	2.4	-0.5	3.2	3.4	3.2
GCEA Average	2.8	-0.7	2.6	2.8	3.3
Wage and Salary Employment					
<i>Growth</i>					
ERFC	1.7	3.7	2.3	1.6	1.3
GCEA Average	2.8	3.1	2.4	1.9	1.7
Manufacturing Employment					
<i>Growth</i>					
ERFC	-4.5	0.0	0.6	0.3	0.0
GCEA Average	-5.0	-1.1	0.6	0.3	0.3
Construction Employment					
<i>Growth</i>					
ERFC	2.4	-3.3	-2.0	0.2	1.1
GCEA Average	2.5	-0.3	-0.1	0.7	1.0
Housing Permits					
<i>Thousands of authorized units</i>					
ERFC	52.2	45.8	43.1	43.6	43.6
GCEA Average	48.7	47.2	45.4	45.2	44.4
Washington Average Annual Wage					
<i>Growth</i>					
ERFC	4.2	1.2	2.9	3.8	4.2
GCEA Average	4.4	2.1	2.6	3.2	3.7

Table 2.4
Forecast Analysis
 Comparison of Forecasts for 2019-21

Washington	Average Annual Rate of Growth (Percent) 2019:2-2021:2			Average Annual Rate (Thousands) 2019:3 to 2021:2
	Employment	Personal Income	Real Personal Income	Housing Units Authorized
2016				
February	1.1	4.7	3.0	44.3
June	1.1	5.0	3.1	44.3
September	1.1	5.1	3.0	44.3
November	1.2	5.0	3.0	41.5
2017				
March	1.1	4.9	2.9	40.7
June	1.2	5.1	3.0	42.0
September	1.2	5.3	3.3	42.0
November	1.2	5.3	3.2	42.6
2018				
February	1.4	5.2	3.1	42.8
June	1.2	5.0	2.9	43.2
September	1.2	5.0	2.9	44.0
November	1.3	4.9	2.8	43.5
2019				
March	1.3	4.8	2.7	42.1
June	1.4	4.9	3.0	41.8
September	1.5	4.7	2.6	43.3
November	1.3	4.0	2.1	43.8
2020				
February	1.5	4.3	2.7	46.8
June	-0.4	3.0	1.9	40.9
September	-0.4	2.8	1.3	46.0
November	-0.8	3.1	1.5	46.7
2021				
March	-2.0	8.5	6.7	48.1

Table 2.5
Forecast Analysis
 Comparison of Forecasts for 2021-23

Washington	Average Annual Rate of Growth (Percent) 2021:2-2023:2			Average Annual Rate (Thousands) 2021:3 to 2023:2
	Employment	Personal Income	Real Personal Income	Housing Units Authorized
2018				
February	1.0	5.0	2.9	42.4
June	0.7	5.0	2.9	41.9
September	0.8	4.8	2.9	42.0
November	1.0	4.8	2.8	41.4
2019				
March	1.0	4.7	2.7	42.5
June	1.1	4.9	2.9	42.0
September	1.0	4.9	2.9	42.3
November	0.9	4.8	2.8	42.2
2020				
February	1.0	4.6	2.6	43.4
June	2.0	3.5	2.0	40.2
September	2.6	4.6	3.0	42.8
November	2.4	3.9	2.1	43.5
2021				
March	3.1	0.1	-1.5	46.3

Table 2.6
Forecast Comparison
 Forecast 2021 to 2025

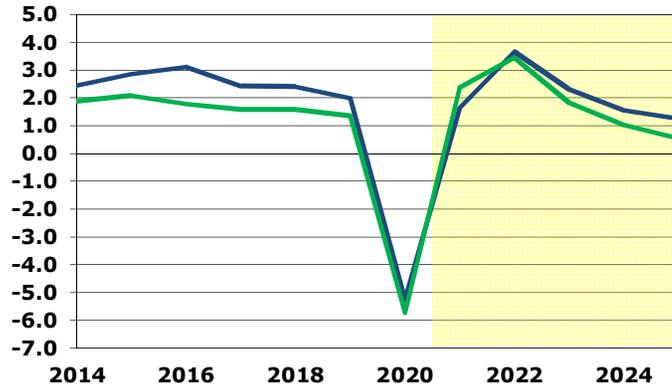
Fiscal Years

	2019	2020	2021	2022	2023	2024	2025
Washington							
Real Personal Income							
March	441.810	462.857	483.436	474.050	488.877	505.110	521.823
% Ch	4.9	4.8	4.4	-1.9	3.1	3.3	3.3
November	441.810	464.639	467.607	464.028	475.541	488.913	502.301
% Ch	4.9	5.2	0.6	-0.8	2.5	2.8	2.7
Personal Income							
March	481.750	511.387	543.760	543.944	569.679	598.528	629.928
% Ch	6.8	6.2	6.3	0.0	4.7	5.1	5.2
November	481.750	513.354	524.908	531.700	554.257	579.469	606.636
% Ch	6.8	6.6	2.3	1.3	4.2	4.5	4.7
Employment							
March	3433.0	3403.5	3279.3	3407.5	3509.1	3571.3	3622.2
% Ch	2.1	-0.9	-3.6	3.9	3.0	1.8	1.4
November	3433.1	3403.5	3339.4	3472.6	3556.9	3604.9	3642.8
% Ch	2.1	-0.9	-1.9	4.0	2.4	1.3	1.1
Housing Permits							
March	46.042	47.547	48.693	48.740	43.832	43.313	43.693
% Ch	-5.8	3.3	2.4	0.1	-10.1	-1.2	0.9
November	45.964	48.125	45.350	44.035	42.889	41.974	40.792
% Ch	-5.7	4.7	-5.8	-2.9	-2.6	-2.1	-2.8

Figure 2.7: Comparison of Washington and U.S. Economic Forecasts
(Percent change)

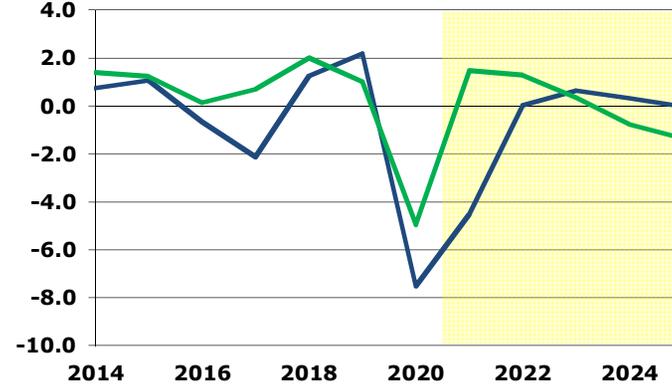
Forecast

Total Nonfarm Payroll Employment



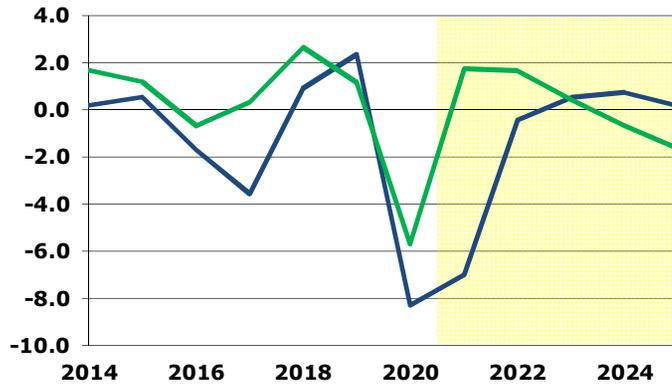
Source: WA State Employment Security Dept. 2020, ERFC 2025

Manufacturing Employment



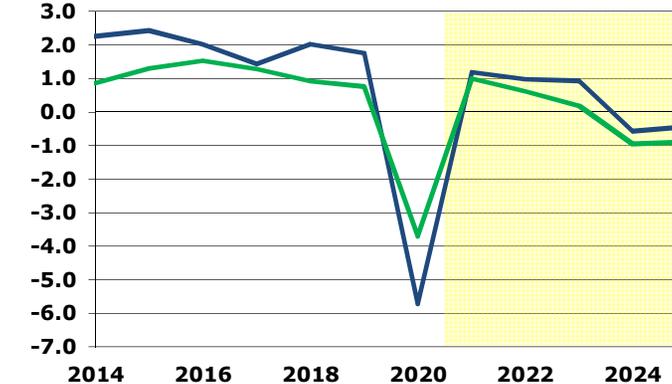
Source: WA State Employment Security Dept. 2020, ERFC 2025

Durable Manufacturing Employment



Source: WA State Employment Security Dept. 2020, ERFC 2025

Nondurable Manufacturing Employment



Source: WA State Employment Security Dept. 2020, ERFC 2025

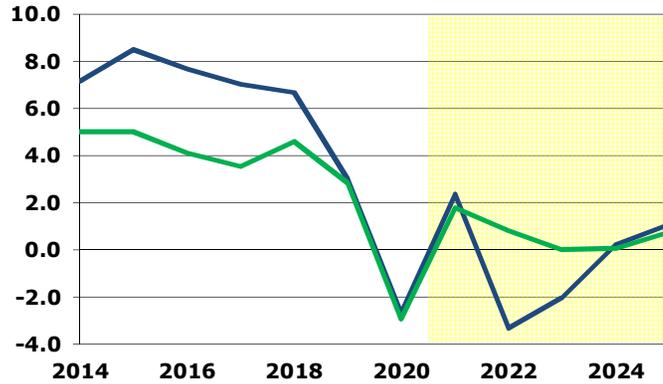
Washington

U.S.

Figure 2.7: Comparison of Washington and U.S. Economic Forecasts (continued)
 (Percent change)

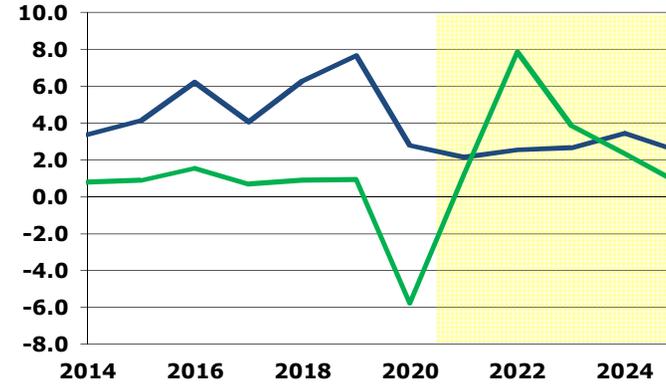
Forecast

Construction Employment



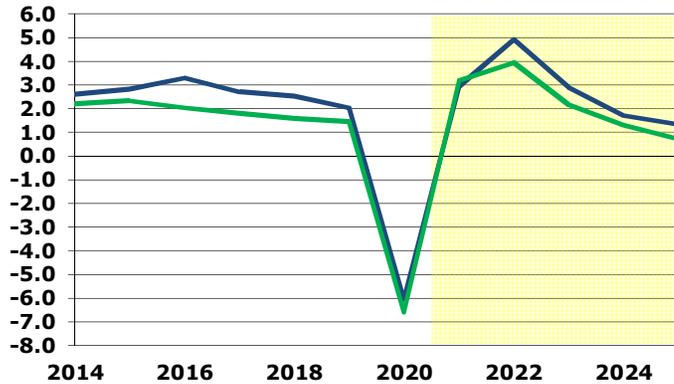
Source: WA State Employment Security Dept. 2020, ERFC 2025

Information Employment



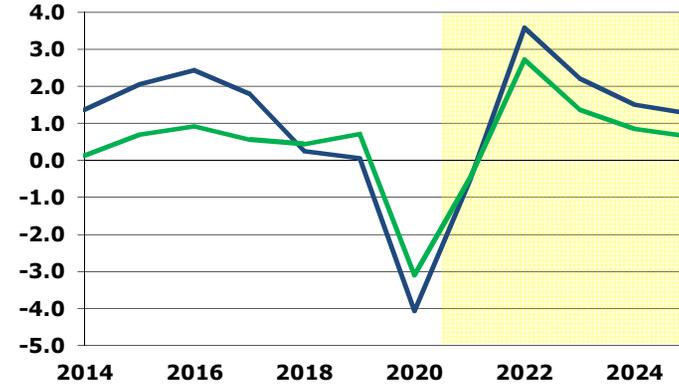
Source: WA State Employment Security Dept. 2020, ERFC 2025

Other Private Employment



Source: WA State Employment Security Dept. 2020, ERFC 2025

Government Employment



Source: WA State Employment Security Dept. 2020, ERFC 2025

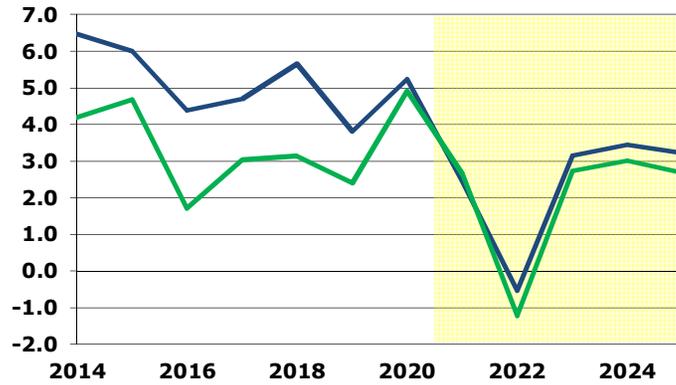
Washington

U.S.

Figure 2.7: Comparison of Washington and U.S. Economic Forecasts (continued)
(Percent change)

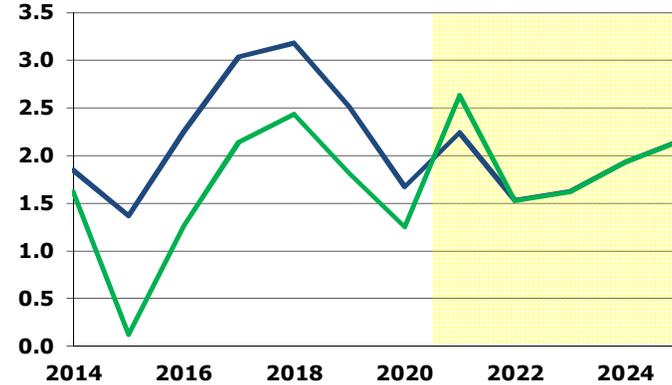
Forecast

Real Personal Income



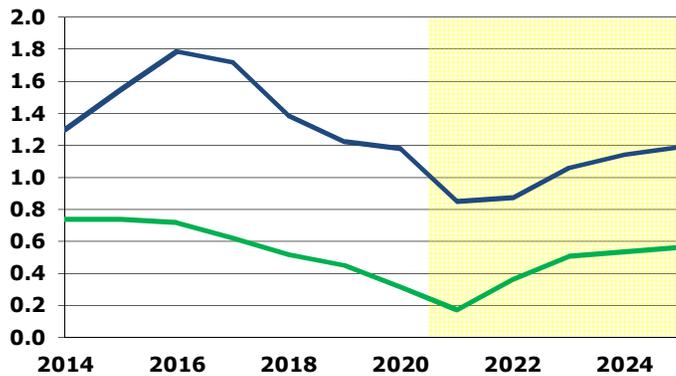
Source: Bureau of Economic Analysis 2019, ERFC 2025

Consumer Price Indices



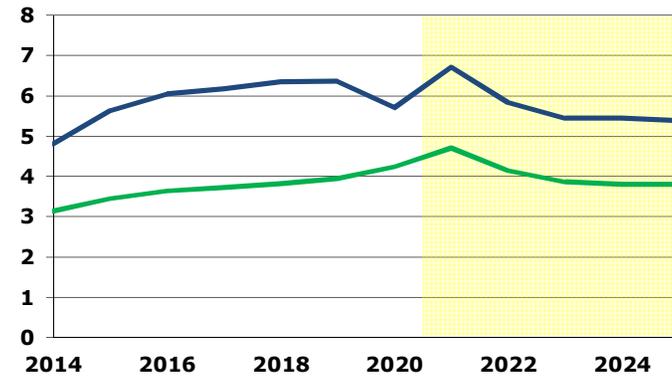
Source: Bureau of Labor Statistics 2020, ERFC 2025

Population



Source: Census Bureau 2019, ERFC 2025

New Housing Units Per 1,000 Population (Level)



Source: Census Bureau 2020, ERFC 2025

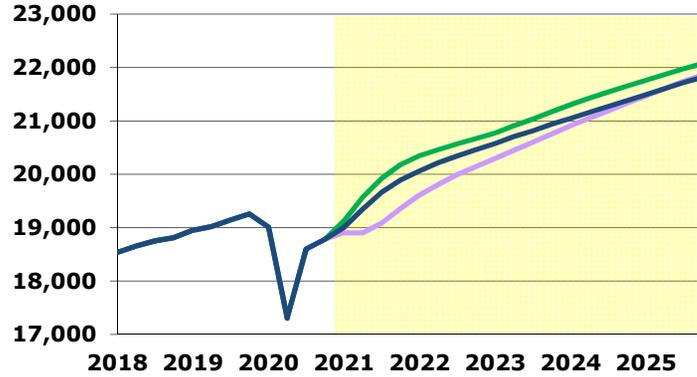
Washington

U.S.

Figure 2.8: Comparison of Alternative U.S. Economic Forecasts

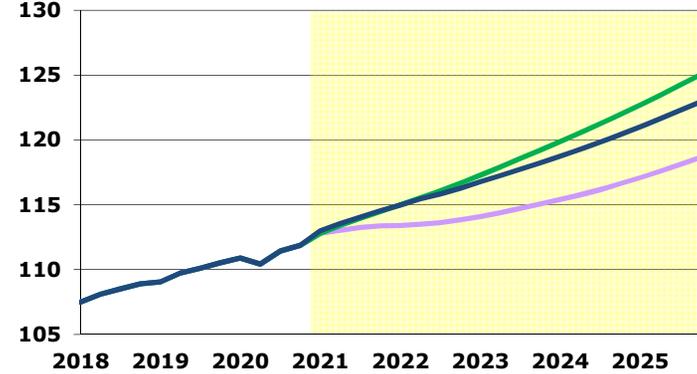
Forecast

Real GDP, Billions of 2012 Dollars



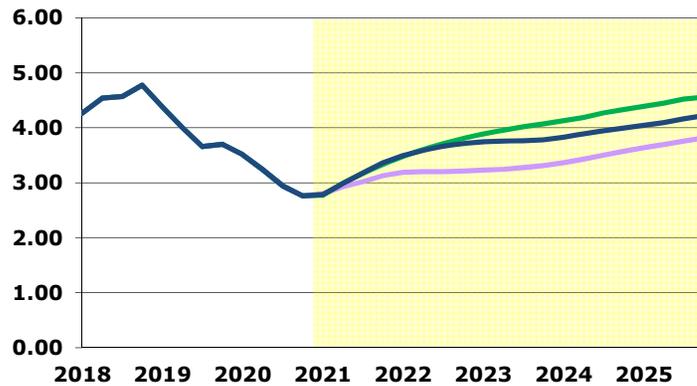
Source: Bureau of Economic Analysis 2020 Q4, ERFC 2025

PCE Price Index, 2012 = 100



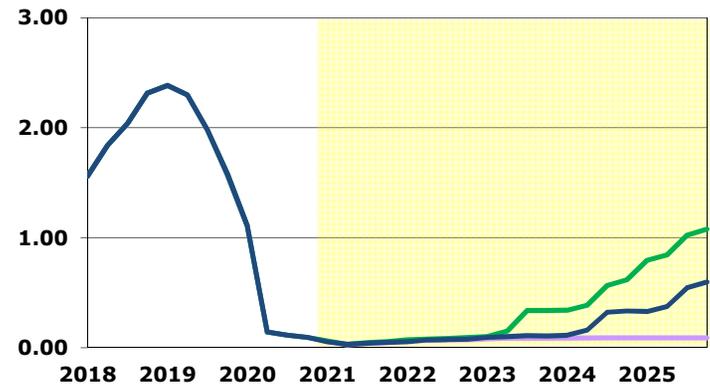
Source: Bureau of Economic Analysis 2020 Q4, ERFC 2025

Mortgage Rate, Percent



Source: Freddie Mac 2020 Q4, ERFC 2025

Three Month T-Bill Rate, Percent



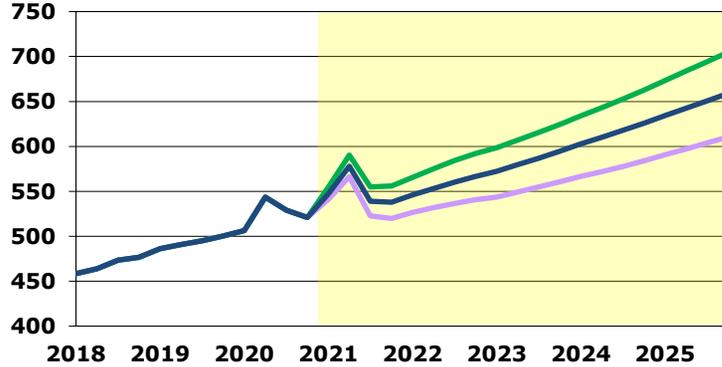
Source: Federal Reserve Board 2020 Q4, ERFC 2025

■ Baseline ■ Optimistic ■ Pessimistic

Figure 2.9: Comparison of Alternative Washington Economic Forecasts

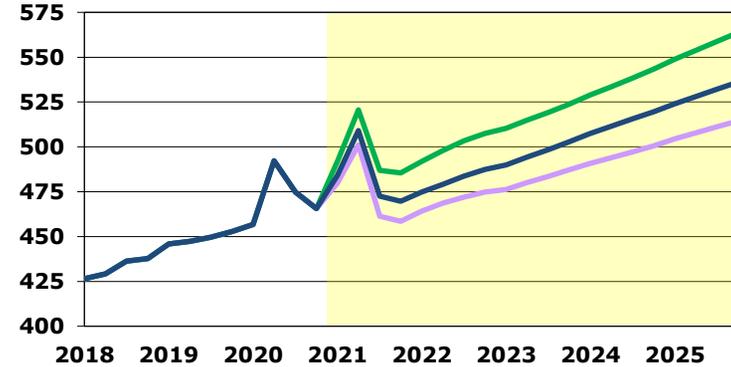
Forecast

Personal Income, Billions of Dollars



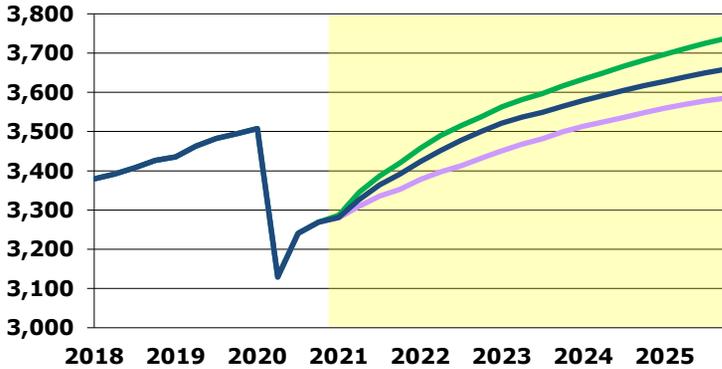
Source: Bureau of Economic Analysis 2019 Q4, ERFC 2025

Real Personal Income, Billions of 2012 Dollars



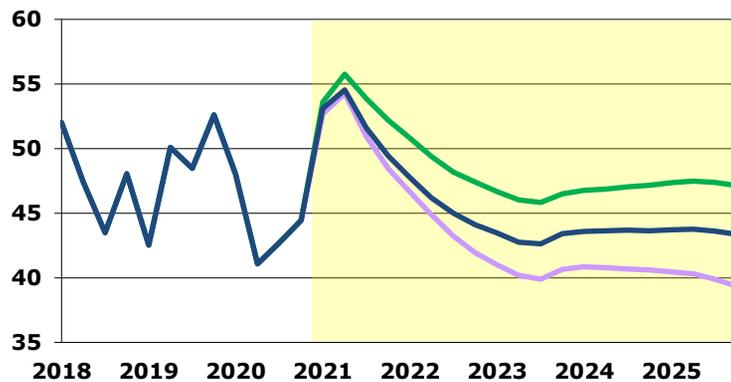
Source: Bureau of Economic Analysis 2019 Q4, ERFC 2025

Total Nonfarm Payroll Employment, Thousands



Source: WA State Employment Security 2020 Q4, ERFC 2025

Housing Permits, Thousands



Source: Census Bureau 2020 Q4, ERFC 2025

■ Baseline ■ Optimistic ■ Pessimistic



Chapter 3: Washington State Revenue Forecast Summary

- **General Fund-State (GF-S) revenue collections since the November 2020 forecast have come in \$764 million (9.5%) above the forecasted amount.**
- **The GF-S forecast was increased by \$1.24 billion in the 2019-21 biennium, \$1.89 billion in the 2021-23 biennium and \$1.85 billion in the 2023-25 biennium.**
- **The forecast of total revenue for funds subject to the budget outlook process was increased by \$1.34 billion in the 2019-21 biennium, \$1.95 billion in the 2021-23 biennium and \$1.90 billion in the 2023-25 biennium.**
- **While forecasted revenue for the current biennium is \$356 million less than the pre-pandemic February 2020 forecast, the forecast for the next biennium exceeds the February forecast by \$298 million.**

Overview

The November forecast did not assume the federal stimulus packages that have since boosted the economy

At the time of the November 2020 forecast, it was assumed that no additional federal pandemic relief packages would be forthcoming, and the resulting cutoff in unemployment benefits and business support would bring an immediate slowdown in state spending. Instead, relief legislation was passed in both December 2020 and March 2021, including checks sent directly to households, extended unemployment benefits, and further aid to businesses and state and local governments. Instead of a slowdown in taxable activity, the state saw continued growth, with revenue collections almost 10 percent higher than forecasted. Because of this, forecasted revenue has increased substantially. The forecast of total revenue subject to the budget outlook process for the 2021-23 biennium now exceeds the pre-pandemic February 2020 forecast by \$298 million, though the forecast for the current biennium still trails the February forecast by \$356 million.

GF-S forecast change by biennium (billions):

19-21: \$1.24
21-23: \$1.89
23-25: \$1.85

Table 3.1 summarizes the changes to the forecasts of GF-S revenue for the 2019-21 and 2021-23 biennia. For the current biennium, revenue collections that are tracked monthly came in \$764 million higher than forecasted. The forecasted increase in economic activity for the rest of the biennium added \$481 million, resulting in a total forecast increase of \$1,244 million.

The forecast for the 2021-23 biennium was increased by \$1,894 million and the forecast for the 2023-25 biennium was increased by \$1,846 million. The March 2021 forecast for GF-S revenue totals \$50.041 billion in the 2019-21 biennium, \$54.372 billion in the 2021-23 biennium and \$57.778 billion in the 2023-25 biennium.

GF-S forecast (\$billions):

2019-21:
\$50.041

2021-23:
\$54.372

2023-25:
\$57.778

Table 3.1: Revisions to the General Fund-State Forecast (cash basis, millions of dollars)

	2019-21 Biennium	2021-23 Biennium	2023-25 Biennium
Collection Experience	\$763.5	NA	NA
Non-Economic Change	\$0.0	\$0.0	\$0.0
Forecast Change	\$480.7	\$1,894.2	\$1,845.6
Total Change	\$1,244.2	\$1,894.2	\$1,845.6

Though the ratio of collections to income has increased from the FY 2015 trough, it is still near historical lows

As can be seen in Figure 3.1, the ratio of GF-S revenue collected relative to state personal income had been on an increasing trend after reaching a trough in FY 2015. The ratio of revenue to income had been on a downward trend since 1995, broken only by the housing boom that raised the ratio from 2005 to mid-2008, and by temporary taxes and transfers of funds from non-GF-S sources into the GF-S that again boosted the ratio in fiscal years 2011 and 2013. The ratio increased slightly in FY 2014 due to low personal income growth and then decreased slightly in FY 2015. The ratio then increased in FY 2016 and 2017, largely due to revenue increases stemming from legislative changes. Additional legislative changes enacted in June of 2017 boosted the FY 2018 ratio, but legislative changes from the 2018 session reduced the ratio in FY 2019. While revenue increased in FY 2020, income increased at the same rate due to federal pandemic relief payments, keeping the ratio of revenue to income constant. While continued pandemic relief payments will boost income in FY 2021, GF-S revenue is forecasted to grow faster, causing the ratio of revenue to income to increase. Slower growth in income relative to revenue increases the ratio further in FY 2022 but the ratio then continues its downward trend through FY 2025.

Forecast details are at the end of the chapter

The history of nominal and real GF-S revenue by biennium can be found in Table 3.3. GF-S forecast changes by agency and major revenue classification for the 2019-21 biennium can be found in Table 3.5 (cash) and Table 3.6 (GAAP). Forecast changes for the 2021-23 biennium can be found in Table 3.7 (cash) and Table 3.8 (GAAP). The GF-S forecast by fiscal year and major source category through FY 2023 can be found in Table 3.9.

Figure 3.1: GF-S Revenue as a Percentage of State Personal Income (Fiscal Years)

GF-S revenue relative to state personal income has been on a declining trend since 1995



Source: ERFC, data through fiscal year 2020. Gray shaded area indicates recession; blue shaded area indicates forecast.

Recent Collection Experience

Collections were \$764 million (9.5%) more than forecasted in November 2020

Revenue collections from the Department of Revenue (DOR) and the Washington court system are tracked monthly. In the period since the November 2020 forecast, total revenue from the above sources came in \$763.5 million (9.5%) higher than expected (see Table 3.2). Revenue Act collections reported by the DOR were \$561.5 million (9.9%) higher than forecasted. Revenue from other DOR tax sources was \$200.3 million (8.3%) above the forecast.

Table 3.2: Pre-Forecast Collection Variance of Major General Fund-State Taxes by Agency (relative to the November 2020 forecast, cash basis, millions of dollars)

<u>Agency/Source</u>	<u>Collection Variance</u>	<u>Percent of Estimate</u>
Department of Revenue		
Revenue Act	\$561.5	9.9%
Non-Revenue Act	\$200.3	8.3%
Subtotal	\$761.8	9.4%
Washington court system	\$1.7	10.5%
Total*	\$763.5	9.5%

* Detail may not add to total due to rounding.

Source: ERFC; Period: November 11, 2020 - March 10, 2021

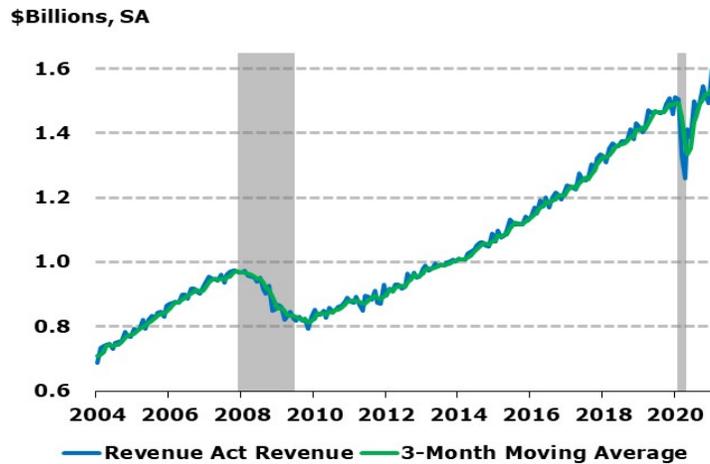
Real Estate Excise Tax collections were much higher than forecasted

Most of the surplus in non-Revenue Act collections came from real estate excise tax (REET) collections, which came in \$181.6 million (60.4%) higher than forecasted. Liquor sales and liter tax receipts came in \$6.6 million (6.0%) higher than forecasted.

Cigarette tax collections came in \$4.6 million (4.6%) higher than forecasted. Net deposits of unclaimed property into the GF-S were \$7.0 million higher than forecasted. Property tax collections were \$5.9 million (0.3%) lower than forecasted. Revenue from all other DOR revenue sources came in \$6.4 million (6.0%) higher than forecasted. Revenue from the Washington court system was \$1.7 million (10.5%) higher than forecasted.

Figure 3.2: Revenue Act Collections*

Revenue Act collections have been above the previous seasonally-adjusted peak in three of the last four months



Source: ERFC; Data through March 10, 2021

*Adjusted for large payments/refunds, payment pattern change and deferred payments

Adjusted Revenue Act collections were up 2.9% year over year for fourth quarter activity after 1.8% growth in the third quarter

Figure 3.2 shows seasonally adjusted Revenue Act receipts excluding payments received under the tax amnesty program in early 2011 and other large payments. It is also adjusted for past changes in payment patterns and deferred payments in the first half of 2020. As shown in the figure, collections dropped precipitously in the periods representing March and April activity, declining 14.8% year over year in the May 11-June 10 collection period (April activity). Collections have since strengthened. Adjusted collections for January activity (February 11 – March 10 collections) were up 5.5% year-over-year. Collections for December 2020 activity were up 5.0% year-over-year. Adjusted collections for October, November, and January activity were higher than the previous seasonally adjusted peak in collections, which represented January 2020 activity. Adjusted collections representing fourth quarter 2020 activity (November 11, 2020 – February 10, 2021 collections) were up 2.9% year-over-year, while collections representing second quarter activity (August 11 – November 10, 2020 collections) were up 1.8%. Adjusted year-over-year collections representing second quarter activity were down 8.1% year-over-year and year-over-year growth in collections representing first quarter 2019 activity was 1.6%.

Real estate activity was much higher than expected in November

Taxable real estate activity has been much higher than previously forecasted. Collections in April and May had dropped sharply as real estate services were shut down due to the pandemic, falling 32% and 37% year-over-year, respectively. While collections were expected to improve in subsequent months, the rebound has been much stronger than expected, due to both low mortgage rates and people re-assessing their living situations in light of their newfound ability to work from home. In addition to the growth in residential sales, a December spike of \$3.4 billion in large commercial sales boosted seasonally adjusted activity to its second-highest level in the history of the series (see Figure 3.3). Activity was up 41.8% year-over-year in January and 44.7% in February.

Figure 3.3: Taxable Real Estate Excise Activity, SA

Taxable real estate activity was up 44.7% year over year in February



Source: ERFC; data through February 2021

Revenue Forecasts by Source

Department of Revenue

Taxes collected by DOR are most of GF-S taxes

The Department of Revenue (DOR) collects and administers the majority of Washington’s GF-S revenue, accounting for 95.0% of total GF-S revenue in FY 2019. The largest tax sources administered by the DOR are the retail sales tax, business and occupation tax, property tax, use tax, cigarette tax and real estate excise tax. The revenue forecasts discussed below can be found in Tables 3.5-3.8.

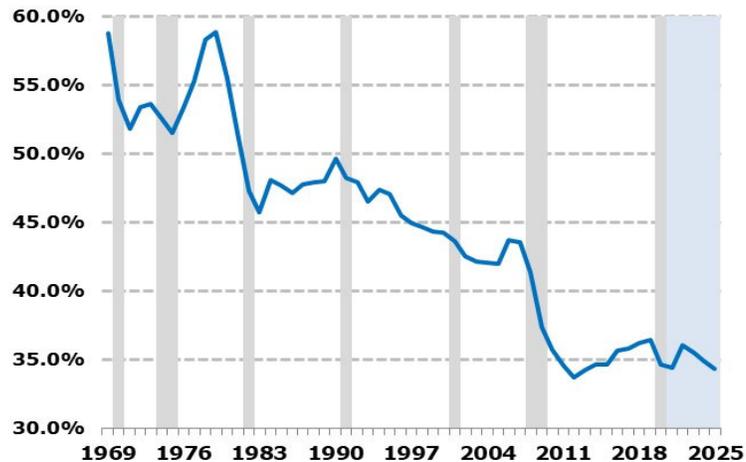
Retail sales taxes are the largest source of GF-S revenue

The retail sales tax is the largest source of GF-S revenue, accounting for 47.4% of GF-S revenue in FY 2020. The state’s share of the tax is 6.5% of the sales price. While construction labor, repair services, and some other services are taxed, the tax does not apply to most services. Taxable sales as a share of

personal income have been declining. Their share fell sharply during the recession and continued to fall through FY 2012. In that year, 33.7% of personal income was spent on taxable items and services, the lowest percentage on record. Increased spending on construction and autos, along with legislative changes to services and companies deemed taxable, caused the share to grow through FY 2017, reaching 36.1% of personal income. Legislation passed in 2017, 2018 and March 2019 that extends the tax to bottled water and online sales caused a continued increase in the ratio. The COVID-19-related collapse in late FY 2020, however, coupled with federal emergency income support, caused the ratio of sales to income to decline in FY 2020. While retail sales growth is forecasted to improve in FY 2021, income is expected to grow faster, causing the ratio to decrease further. While the ratio is expected to bounce back to 36.0% in FY 2022, it is forecasted to then continue to trend downward through FY 2025. The historical and forecasted relationship between taxable sales and income is illustrated in Figure 3.4. Taxable retail sales by fiscal year can be found in Table 3.4.

Figure 3.4: Taxable Sales* as Percentage of State Personal Income

The ratio of taxable sales to state personal income has been on a declining trend



*Past tax base adjusted to represent current base. Gray shaded area indicates recession, blue shaded area indicates forecast.
Source: ERFC; Data through FY 2020, forecast through FY 2025

Retail sales tax receipt growth forecast:

- FY21: 6.8%
- FY22: 4.4%
- FY23: 3.3%
- FY24: 3.0%
- FY25: 3.5%

Strong growth in construction and auto sales brought taxable retail sales growth of 8.1% in FY 2015. Legislative changes coupled with continued growth in construction and auto sales boosted growth in FY 2016 taxable activity to 8.4%. Slowing construction growth and flat auto sales lowered growth in FY 2017 activity to 6.3%. Growth increased to 8.6% in FY 2018, due largely to increased taxation of online sales. Growth in FY 2019 taxable activity stayed relatively strong at 7.6% despite slowing auto sales and construction because of continuing increases in the volume of taxable online sales. Taxable activity growth slowed to 1.0% in FY 2020 due to pandemic-related

shutdowns in the latter part of the year. Taxable sales are now forecasted to grow by 5.7% in FY 2021, while a decline of 0.6% had been previously forecasted. Growth is forecasted to ease to 4.8% in FY 2022 before slowing to 3.2% in FY 2023 and FY 2024 and 3.5% in 2025 (see Table 3.4). Due to the lag between taxable activity and collections and the presence of tax deferrals, credits, refunds, and payments of past due taxes, the growth in actual collections differs from the growth in taxable activity. Growth in collections for FY 2019 was 8.6% and growth in FY 2020 was 1.7%. Collections are now forecasted to grow 6.8% in FY 2021. Collections are forecasted to increase by 4.4% in FY 2022, 3.3% FY 2023, 3.0% in FY 2024 and 3.5% in FY 2025.

Business and Occupation taxes are the second largest source of GF-S revenue

The business and occupation (B&O) tax is the second largest source of GF-S revenue, accounting for 19.3% of GF-S revenue in FY 2020. It is a tax on the gross receipts of all businesses operating in Washington. The state portion of the tax applies ten different rates according to various classifications of business activities. In FY 2019, the largest contributor to total state B&O tax was the services sector, which had a gross tax rate of 1.5% and represented an estimated 43% of B&O taxes due. The next largest sector was retailing, which is taxed at 0.471% and represented an estimated 24% of taxes due, followed by the wholesaling sector, which is taxed at 0.484% and represented an estimated 19% of taxes due.

B&O tax growth forecast:

*FY21: 4.9%
FY22: 3.9%
FY23: 5.0%
FY24: 4.6%
FY25: 4.7%*

In FY 2018, B&O tax receipts grew by 8.6% due to several large one-time payments of past due taxes and legislative expansion of the tax base. Growth slowed to a still-strong 6.9% in FY 2019. Despite a second quarter collapse in activity, FY 2020 growth remained positive at 3.6%. Collections are forecasted to increase by 4.9% in FY 2021, 3.9% in FY 2022, 5.0% in FY 2023, 4.6% in FY 2024 and 4.7% in FY 2025.

State property taxes are the third largest source of GF-S revenue

The state property tax levy is the third largest source of GF-S revenue, accounting for 14.5% of total revenue in FY 2020. Although the tax goes into the GF-S, it is dedicated to the funding of basic education. As discussed in the [September 2017](#) forecast publication, the total amount of the state levy was increased by new legislation in June 2017, with the increases beginning in FY 2018.

Property tax growth forecast:

*FY21: 24.8%
FY22: 1.6%
FY23: 2.6%
FY24: 2.7%
FY25: 2.6%*

Constrained by prior law to a levy growth rate of one percent on existing property (or the rate of inflation if less than one percent), property tax collections grew by 1.9% in FY 2017. The first payments of the additional state levy began to arrive in the latter half of FY 2018, bringing total GF-S property tax growth of 31.4% for the fiscal year. Collections fell by 12.4% in FY 2019 due to a temporary reduction in the levy rate for calendar year 2019 and a \$936 million transfer of collections from the levy to the Education Legacy Trust Account (ELTA). Collections rebounded by 44.2% in FY 2020 due to a smaller \$83.8 million

transfer to ELTA and the end of the temporary levy reduction in the second half of the year. FY 2021 growth is forecasted at 24.8% due to a full year of collections at the unreduced levy rate along with the collection of some taxes which would have been collected in FY 2020 but were instead deferred due to the pandemic. The absence of the extra payments from deferrals brings 1.6% growth in FY 2022 before growth increases to 2.6% in FY 2023. Growth is forecasted at 2.7% for FY 2024 and 2.6% for FY 2025.

REET rates and distributions changed on January 1, 2020

The real estate excise tax (REET) was the fourth largest source of GF-S revenue in FY 2020, accounting for 4.6% of total revenue. The tax is applied to both residential and commercial real estate, including purchases of vacant land. Prior to January 1, 2020, the state portion of REET was 1.28% of the sales price and was divided between the GF-S (92.3%), a fund for local public works (2.0%), a fund for assistance of cities and counties (1.6%) and ELTA (4.1%). As of January 1, rates are 1.1% for the portion of the selling price less than or equal to \$500 thousand, 1.28% for the portion greater than \$500 thousand and less than or equal to \$1.5 million, 2.75% for the portion greater than \$1.5 million and less than or equal to \$3.0 million and 3.0% for the portion greater than \$3.0 million. The distributions of the tax are also changed: 79.4% is deposited in the GF-S, 1.7% in the public works assistance account, 1.4% in the city-county assistance account and the remainder (17.5%) in ELTA. Beginning July 1, 2023, distributions to the city-county assistance account increase to 5.2% and distributions to the Education Legacy Trust Account decrease to 14%. The new rates and distributions were designed to result in increased collections for both the GF-S and ELTA.

GF-S REET growth forecast:

*FY21: 26.8%
FY22: -14.9%
FY23: -6.6%
FY24: -2.1%
FY25: 3.6%*

From FY 2013 through 2019, the recovery in the residential real estate market after the Great Recession has been accompanied by a boom in commercial real estate. Sales of large commercial properties began to weaken in FY 2019 while residential sales increased, resulting in a 0.5% increase in collections in FY 2019. In the first half of FY2020, residential sales remained strong, and commercial sales surged in December 2019 ahead of the January 1, 2020 change in tax rates. The real estate market downturn that began with April 2020 collections, however, brought a total decline of 0.7% in FY 2020. The sales boom that began in July 2020 accelerated after the November forecast, including a spike in large commercial transactions in December 2020. The boom is forecasted to bring growth of 26.8% in FY 2021. In the aftermath of the huge growth in sales and prices in FY 2021, receipts are forecasted to decline by 14.9% in FY2022, 6.6% in FY 2023 and 2.1% in FY 2024. Growth then resumes at 3.6% in FY 2025.

Use tax was the fifth largest GF-S source in FY 2019

The state use tax was the fifth largest GF-S revenue source in FY 2020 at 3.0% of total receipts. The state portion of the tax is 6.5% of the purchase price for items used in the state that were not subject to the state retail sales tax. Examples of items subject to the state use tax are goods purchased out-of-state; online and mail-order purchases, where sales tax was not collected; or purchases of used vehicles from private individuals.

Use tax growth forecast:

*FY21: 11.9%
FY22: -6.8%
FY23: 2.2%
FY24: 1.9%
FY25: 3.0%*

Use tax collections grew 9.0% in FY 2019, boosted by several large one-time purchases. Despite strong collections in the first half of the fiscal year, FY 2020 collections declined by 4.9%. Collections are forecasted to increase by 7.9% in FY 2021 due to record high used car sales before decreasing by 6.8% in FY 2022 in the absence of those sales. Growth then resumes at 2.2% in FY 2023, 1.9% in FY 2024 and 3.0% in FY 2025.

Public utility taxes were the sixth largest GF-S source in FY 2019

Public utility taxes were the sixth largest DOR source of GF-S revenue in FY 2020, bringing in 1.7% of total receipts. The tax applies to the gross income of sales to consumers by public and privately owned utilities and is in lieu of the B&O tax. The largest source of public utility taxes is the 3.873% tax on the distribution and generation of electrical power, followed by the 3.852% tax on the distribution of natural gas.

Growth forecast:

*FY21: 7.5%
FY22: 10.2%
FY23: 3.0%
FY24: 2.9%
FY25: 3.4%*

Public utility tax receipts shrank by 1.1% in FY 2018 after 1.4% growth in FY 2017. Growth shrank by a further 0.3% in FY 2019, but collections grew by 0.3% in FY 2020. The expiration of a large tax credit plus increased natural gas and electricity use due to people working from home boosts forecasted collections growth to 7.5% in FY 2021. A full fiscal year of reduced credits plus the resumption of business activities and increased utility prices increases forecasted growth to 10.2% in FY 2022. Growth is forecasted to slow to 3.0% in FY 2023, 2.9% in FY 2024 and 3.4% in FY 2025.

The cigarette tax was the seventh largest GF-S source in FY 2019

The state tax on cigarettes was the seventh largest DOR GF-S revenue source in FY 2020 at 1.4% of total receipts. Prior to FY 2010, the tax made up a much smaller portion of GF-S revenue because much of the tax was dedicated to non-GF-S accounts. In FY 2010, all of the tax except the portion dedicated to the Education Legacy Trust account was redirected to the GF-S, and in FY 2011 all of the cigarette tax was redirected to the GF-S. The current tax rate, which took effect May 1, 2010, is \$3.025 per pack of 20 cigarettes.

Cigarette tax growth forecast:

*FY21: -0.1%
FY22: -5.4%
FY23: -3.5%
FY24: -3.3%
FY25: -3.3%*

The total number of taxed cigarettes has been on a downward trend due to a continuing decline in the number of smokers. Recently, the rate of decline has been increasing further. Collections decreased by 3.3% in FY 2019 after decreasing by 5.4% in FY 2018. The decrease in collections accelerated to 6.0% in FY 2020, partially due to a state increase in the legal age to purchase cigarettes from 18 to 21 that took effect on

January 1, 2020. Declining collections are forecasted to continue at a rate of 0.1% in FY 2021, 5.4% in FY 2022, 3.5% in FY 2023 and 3.3% FY 2024 and FY 2025.

Forecasted Revenue from Cannabis-Related Sales

Sales of cannabis products in state-licensed stores began in July 2014

Initiative 502, approved by voters in the November 2012 election, legalized the sale and use of recreational cannabis and cannabis products in Washington. The first legal sales of cannabis products in state-licensed stores occurred in July 2014. During the 2015 regular and special sessions, legislation was passed that substantially altered the market rules set up by the initiative. 2SSB 5052, passed during the regular session, brought previously unregulated medical marijuana dispensaries into the same regulatory regime as licensed recreational cannabis outlets. This legislation was outlined in our [June 2015](#) forecast publication. Subsequent to the June 2015 forecast, 2E2SHB 2136, passed in the second special session, changed the cannabis excise tax from a 25 percent tax collected from growers, processors and retailers to a 37 percent tax on retail sales only. The law also made changes to the distribution of tax and fee revenue. Cannabis taxes and license fees are collected by the Liquor and Cannabis Board and are placed into a dedicated fund with annual appropriations to various other accounts including the GF-S.

Change in GF-S forecast of total cannabis-related revenue by biennium (millions):

19-21: -\$0.6
21-23: \$6.5
23-25: \$9.4

Distributions of cannabis excise taxes to the GF-S totaled \$15.3 million in the 2013-15 biennium and \$147.6 million in the 2015-17 biennium. GF-S distributions were \$248.9 million in the 2017-19 biennium. Distributions are forecasted at \$355.8 million in the 2019-21 biennium, a decrease of \$0.6 million from the previous forecast, and \$375.7 million in the 2021-23 biennium, an increase of \$6.5 million. The forecast of GF-S distributions for the 2023-25 biennium is \$407.3 million, an increase of \$9.4 million. Details of the forecasted distributions from the account can be found in Table 3.18.

The Office of Financial Management (Other Agencies)

Forecast change by biennium (millions):

19-21: \$6.8
21-23: \$12.0
23-25: \$16.4

The Office of Financial Management (OFM) is responsible for preparing General Fund-State revenue and transfer forecasts for all agencies excluding the Department of Revenue, the Liquor and Cannabis Board, the Insurance Commissioner, the Washington State Lottery, and the State Treasurer. The office's forecast for the 2019-21 biennium was increased \$6.8 million to \$231.4 million and the forecast for the 2021-23 biennium was increased \$12.0 million to \$233.0 million. The office's forecast of revenue for the 2023-25 biennium was increased \$16.4 million to \$280.2 million.

State Treasurer

*Forecast
change by
biennium
(millions):*

19-21: \$4.7
21-23: \$19.3
23-25: \$7.9

The Office of the State Treasurer generates GF-S revenue by investing state short-term cash reserves. The office's forecast for the 2019-21 biennium has been increased \$4.7 million to \$19.5 million due to higher-than-expected account balances. The office's forecast for the 2021-23 biennium has been increased \$19.3 million to \$14.6 million and the forecast of revenue for the 2023-25 biennium has been increased \$7.9 million to \$5.5 million.

Insurance Commissioner

*Forecast
change by
biennium
(millions):*

19-21: \$139.5
21-23: \$36.9
23-25: \$23.8

The Office of the Insurance Commissioner collects premium taxes on most classes of insurance sold in Washington State. These taxes are distributed to the GF-S and various accounts in support of fire services. The forecast of GF-S revenue for the 2019-21 biennium has been increased \$139.5 million to \$1,306.1 million, as COVID-related decreases in premium volume were not as severe as forecasted in November. The forecast of GF-S revenue for the 2021-23 biennium has been increased \$36.9 million to \$1,420.9 million and the forecast for the 2023-25 biennium has been increased \$23.8 million to \$1,525.2 million.

Liquor and Cannabis Board

*Forecast
change by
biennium
(millions):*

19-21: \$5.6
21-23: \$19.7
23-25: \$17.2

The Liquor and Cannabis Board (LCB) collects fees from distributors and retailers on sales of spirits and surtaxes on sales of beer and wine (sales and liter taxes on sprits are collected by the DOR). The LCB is also responsible for the collection of excise taxes and fees associated with the legalized sale and use of recreational and medicinal cannabis discussed previously. The forecast of GF-S distributions for the 2019-21 biennium has been increased \$5.6 million to \$642.6 million and the forecast of revenue for the 2021-23 biennium has been increased \$19.7 million to \$682.9 million. The forecast of GF-S distributions for the 2023-25 biennium has been increased \$17.2 million to \$728.1 million. The forecast changes were a combination of increases in expected fees and taxes associated with beer, wine, and liquor distribution and the increases in expected distributions of cannabis excise taxes to the GF-S discussed above.

Lottery Commission

While most of the proceeds from sales of lottery games go to the Washington Opportunity Pathways Account (OPA), distributions are also made to programs such as Problem Gambling, Economic Development and the Stadium/Exhibition Center. Details of the forecast of the distribution of Lottery earnings can be found in Table 3.15 on a cash basis and Table 3.16 on a GAAP basis.

GF-S forecast change by biennium (millions):

19-21 \$0.5
21-23: \$2.0
23-25: \$0.8

When total profits from all Washington-only games plus the Powerball game exceed \$102 million per year, the amount above \$102 million is transferred to the GF-S. Forecasted GF-S transfers for the 2019-21 biennium have been increased \$0.5 million to \$42.2 million and transfers for the 2021-23 biennium have been increased \$2.0 million to \$53.5 million. The forecast for the 2023-25 biennium has been increased \$0.8 million to \$53.6 million.

OPA forecast change by biennium (millions):

19-21: \$19.2
21-23: \$9.9
23-25: \$10.4

The OPA receives all profits (excluding statutory transfers) from Washington-only lottery games plus all profits from the Mega Millions game. The forecast of OPA revenue for the 2019-21 biennium has been increased \$19.2 million to \$320.2 million and the forecast for the 2021-23 biennium has been increased \$9.9 million to \$330.7 million. The forecast for the 2023-25 biennium has been increased \$10.4 million to \$334.7 million.

Washington Court System

Forecast change by biennium (millions):

19-21: \$1.2
21-23: -\$2.3
23-25: -\$3.7

The GF-S receives surcharges on certain filing fees, fines, and infraction penalties collected by the Washington court system. This revenue is transferred to the GF-S on a monthly basis. The forecast of GF-S transfers for the 2019-21 biennium has been increased \$1.2 million to \$113.9 million and the forecast of revenue for the 2021-23 biennium has been decreased \$2.3 million to \$92.3 million. The forecast of transfers for the 2023-25 biennium has been decreased \$3.7 million to \$89.5 million.

Track Record for the 2019-21 Biennium

The current forecast is \$323 million (0.6%) higher than the forecasted revenue at the time of the initial 2019-21 budget

Table 3.10 summarizes the historical changes to the GF-S revenue forecast for the 2019-21 biennium. The February 2016 forecast was the initial forecast for the biennium. The March 2021 forecast is \$6.6 billion (15.2%) higher than the initial forecast. Non-economic changes have increased the forecast by \$3.4 billion (7.8%). Excluding non-economic changes, the current forecast is \$3.2 billion (7.4%) higher than the initial forecast. The March 2019 forecast, coupled with \$109 million in legislative and budget-driven revenue changes passed in the 2019 legislative session subsequent to the March forecast, was the basis for the initial budget for the 2019-21 biennium. The March forecast of biennial revenue is \$323 million (0.6%) higher than that sum.

Track Record for the 2021-23 Biennium

The current forecast is \$2.44 billion higher than the initial forecast in February 2018

Table 3.11 summarizes the historical changes to the GF-S revenue forecast for the 2021-23 biennium. The February 2018 forecast was the initial forecast for the biennium. The March 2021 forecast is \$2,440 million (4.7%) higher than the initial forecast. Non-economic changes have increased the forecast by \$765 million (1.5%). Excluding non-economic changes, the current forecast is \$1,675 million (3.2%) higher than the initial forecast.

The Relationship between the Cash and GAAP General Fund-State Revenue Forecasts

GAAP forecasts are based on the period in which the revenue is earned rather than received

Legislation enacted in 1987 requires that the state's biennial budget be in conformance with Generally Accepted Accounting Principles (GAAP). It also requires a GF-S revenue forecast on both a cash and GAAP basis. The GAAP forecasts of GF-S revenue for the 2017-19 and 2019-21 biennia are presented in Tables 3.6 and 3.8 and the GAAP forecast of Lottery revenue transfers for those biennia is in Table 3.15. The primary difference between the cash and GAAP forecasts is the timing of the receipt of revenue. On a GAAP basis, revenue is credited to the biennium in which it is earned even though it may not have been received. The cash forecast, on the other hand, reflects expected cash receipts during a fiscal period. The forecast on a GAAP, or accrual, basis is primarily used for financial reporting. The cash forecast is used for cash flow management and revenue tracking. The cash forecast is also the forecast used in the state's budgetary balance sheet, which is the principal tool for assessing the General Fund's current surplus or deficit position. References to the GF-S forecast in the text of this chapter refer to the cash forecast unless otherwise noted. Likewise, figures from revenue tables other than Tables 3.6, 3.8 and 3.16 are projected on a cash basis.

Budgetary Balance Sheet for the 2019-21 Biennium

The forecast implies total reserves of \$2.963 billion at the end of the 2019-21 biennium for GF-S, ELTA, OPA and WEIA

Table 3.12 shows the budgetary balance sheets for the 2019-21 biennium as prepared by the Office of Financial Management and the House and Senate fiscal committees. The balance sheet shows not only projected GF-S spending and resources but also total projected spending and resources for the GF-S plus the other main non-transportation state-funded accounts: the Education Legacy Trust Account (ELTA), the Washington Opportunity Pathways Account (OPA) and the Workforce Education Investment Account (WEIA). As shown in the table, the GF-S beginning fund balance for the 2019-21 biennium was \$999.3 million and the total beginning balance for GF-S, ELTA, OPA and WEIA was \$1,981.2 million. Based on the March 2021 revenue forecast and currently enacted budgets, the projected

ending fund GF-S balance at the end of the 2019-21 biennium is \$787.9 million and the projected ending balance in the sum of GF-S, ELTA, OPA and WEIA accounts is \$1,154.6 million. The Budget Stabilization Account (BSA) is projected to have a balance of \$1,808.0 million. Including the BSA funds, the GF-S is projected to have total reserves of \$2,595.9 million at the end of the biennium and total reserves for GF-S, ELTA, OPA and WEIA balances are projected at \$2,962.6 million.

Alternative Forecasts for the 2019-21 and 2021-23 Biennia

Optimistic scenario (billions):
 19-21: +\$0.63
 21-23: +\$3.80

Pessimistic scenario:
 19-21: -\$0.64
 21-23: -\$3.85

Chapter 2 outlines optimistic and pessimistic economic scenarios relative to the baseline economic forecast. The forecast assigns a probability of 50% to the baseline forecast, 25% to the optimistic scenario and 25% to the pessimistic scenario. The revenue implications of these alternative scenarios for the 2019-21 biennium are shown in Table 3.13 and those of the 2021-23 biennium are shown in Table 3.14. For the 2019-21 biennium, the optimistic forecast generates \$50.669 billion in GF-S revenue, \$629 million (1.3%) more than the baseline scenario, while the pessimistic forecast produces \$49.399 billion in revenue, \$641 million (1.3%) less than the baseline. For the 2021-23 biennium, the optimistic forecast generates \$58.167 billion in GF-S revenue, \$3.795 billion (7.0%) more than the baseline scenario, while the pessimistic forecast produces \$50.521 billion in revenue, \$3.852 billion (7.1%) less than the baseline.

Education Legacy Trust Account

ELTA forecast change by biennium (millions):
 19-21: \$74.1
 21-23: \$23.9
 23-25: \$17.3

The Education Legacy Trust Account (ELTA) was created in the 2005 legislative session, with revenue collection beginning in FY 2006. Funds from the account may only be used for support of the common schools, expanding access to higher education through funding for new enrollments and financial aid, and other educational improvement efforts. The ELTA is primarily funded by a tax on estates of over \$2 million. Legislation from the 2013 special session, however, added revenue from public utility and real estate excise taxes (REET), which had previously gone into non-GF-S accounts. Subsequent legislation also added revenue from solid waste taxes beginning in FY 2016 and a transfer of \$935 million from the additional property tax levy to the account in FY 2019. The forecast of ELTA revenue has been increased by \$74.1 million for the current biennium, \$23.9 million for the 2021-23 biennium and \$17.3 million for the 2023-25 biennium. The forecast increases were due to increases in both the REET and estate tax forecasts. Forecasted ELTA receipts are now \$1,621.8 million for the current biennium, \$1,286.1 million for the 2021-23 biennium and \$1,071.7 million for the 2023-25 biennium.

Workforce Education Investment Account

*WEIA
forecast
change by
biennium
(millions):*

19-21: \$2.0
21-23: \$20.8
23-25: \$25.3

The Workforce Education Investment Account (WEIA) was created in the 2019 legislative session. The account, the purpose of which is to help fund the state's higher education system and student loans, was originally funded by a surcharge on specific industries that benefitted from an educated workforce. This tax was scheduled to take effect on January 1, 2020, and the Economic and Revenue Forecast Council was later tasked with forecasting revenue generated for the account. ESSB 6492, passed in early February of the 2020 legislative session, retroactively eliminated the existing surcharge and replaced it with a simplified version that is effective April 1, 2020. The simplified surcharge applies to businesses with gross taxable activity under the "services and other activities" category of \$1 million or more (with some nonprofit and other businesses exempt). In addition to this surcharge, which equals 0.25% of gross taxable income, another surcharge is applied to a group of "select advanced computing businesses," and is paid quarterly. The forecast of WEIA revenue has been increased by \$2.0 million in the current biennium and \$20.8 million in the 2021-23 biennium and \$25.3 million in the 2023-25 biennium. WEIA revenue is now forecasted at \$345.3 million in the 2019-21 biennium, \$626.0 million in the 2021-23 biennium and \$720.7 million in the 2023-25 biennium. The WEIA forecast by fiscal year is presented in Table 3.19.

Funds Subject to the Budget Outlook

*Change in
forecast of
funds
subject to
the budget
outlook
(billions):*

2019-21:
\$1.340

2021-23:
\$1.949

2023-25:
\$1.899

By law, enacted biennial budgets must balance not only in the initial biennium of the budget but in the subsequent biennium as well, given assumptions of growth in spending from one biennium to the next and the current revenue forecast. The budget outlook that determines this balance looks at not only GF-S revenue and spending but also that of the ELTA, OPA and the WEIA. The forecast of total revenue for funds subject to the budget outlook for the 2019-21 biennium is \$53,334.2 million, \$1,339.5 million more than the November 2020 forecast. The forecast of total revenue for the 2021-23 biennium is \$56,614.9 million, \$1,948.8 million more than the November forecast. The forecast for the 2023-25 biennium is \$59,905.6 million, \$1,898.6 million more than the November forecast. The forecast of total GF-S, ELTA, OPA and WEIA revenue and recent history by fiscal year is presented in Table 3.17.

Table 3.3
General Fund-State collections*
(millions of dollars, cash basis)

Biennium	Current Dollars	Percent Change	2012 Chained Dollars	Percent Change
1961-63	\$817.1		\$4,300.0	
1963-65	866.2	6.0%	4,439.3	3.2%
1965-67	1,128.6	30.3%	5,565.5	25.4%
1967-69	1,440.5	27.6%	6,658.6	19.6%
1969-71	1,732.7	20.3%	8,271.5	24.2%
1971-73	1,922.1	10.9%	8,490.3	2.6%
1973-75	2,372.4	23.4%	9,054.3	6.6%
1975-77	3,395.0	43.1%	11,271.8	24.5%
1977-79	4,490.0	32.3%	13,091.7	16.1%
1979-81	5,356.4	19.3%	12,990.7	-0.8%
1981-83	6,801.4	27.0%	14,354.4	10.5%
1983-85	8,202.4	20.6%	15,975.3	11.3%
1985-87	9,574.6	16.7%	17,604.4	10.2%
1987-89	10,934.1	14.2%	18,775.3	6.7%
1989-91	13,309.0	21.7%	21,047.1	12.1%
1991-93	14,862.2	11.7%	22,112.5	5.1%
1993-95	16,564.6	11.5%	23,547.7	6.5%
1995-97	17,637.7	6.5%	24,059.4	2.2%
1997-99	19,620.1	11.2%	26,059.1	8.3%
1999-01	21,262.1	8.4%	27,187.8	4.3%
2001-03	21,140.7	-0.6%	26,144.9	-3.8%
2003-05	23,388.5	10.6%	27,714.8	6.0%
2005-07	27,772.0	18.7%	31,145.3	12.4%
2007-09	27,703.0	-0.2%	29,633.3	-4.9%
2009-11	28,218.1	1.9%	29,418.7	-0.7%
2011-13	30,657.0	8.6%	30,679.6	4.3%
2013-15	33,666.0	9.8%	32,834.8	7.0%
2015-17	38,317.4	13.8%	36,751.1	11.9%
2017-19	44,142.6	15.2%	40,846.5	11.1%
2019-21 ^F	50,040.7	13.4%	44,892.0	9.9%
2021-23 ^F	54,372.1	8.7%	47,021.5	4.7%
2023-25 ^F	57,778.5	6.3%	48,309.8	2.7%

^F March 2021 forecast

*Total General Fund-State revenue and transfers. Cash basis; includes rate base and administrative changes. Modified cash basis: 1985-87 and prior; pure cash basis: 1987-89 and after. May not be comparable because the collection totals include the impact of rate, base and administrative changes.

Source: Department of Revenue, the Office of Financial Management and the Economic and Revenue Forecast Council 's March 2021 forecast.

Table 3.4
Taxable retail sales*
(millions of dollars)

Fiscal Year	Amount	Percent Change
1981	25,197	4.7%
1982	26,097	3.6%
1983	29,368	12.5%
1984	29,156	-0.7%
1985	30,687	5.3%
1986	32,158	4.8%
1987	34,647	7.7%
1988	37,452	8.1%
1989	41,429	10.6%
1990	47,183	13.9%
1991	49,812	5.6%
1992	53,189	6.8%
1993	55,319	4.0%
1994	59,009	6.7%
1995	61,927	4.9%
1996	62,817	1.4%
1997	66,748	6.3%
1998	72,059	8.0%
1999	77,197	7.1%
2000	83,335	8.0%
2001	85,633	2.8%
2002	84,418	-1.4%
2003	86,165	2.1%
2004	90,139	4.6%
2005	97,253	7.9%
2006	107,071	10.1%
2007	115,527	7.9%
2008	118,676	2.7%
2009	106,379	-10.4%
2010	99,983	-6.0%
2011	101,825	1.8%
2012	106,036	4.1%
2013	113,173	6.7%
2014	120,453	6.4%
2015	130,168	8.1%
2016	141,103	8.4%
2017	149,992	6.3%
2018	162,958	8.6%
2019	175,266	7.6%
2020	176,961	1.0%
2021 ^F	186,993	5.7%
2022 ^F	195,908	4.8%
2023 ^F	202,206	3.2%
2024 ^F	208,605	3.2%
2025 ^F	215,907	3.5%

^F March 2021 forecast

Source: ERF

* Actual Base. Includes statutory and administrative changes to the tax base. Historical fiscal year data are from quarterly taxable sales reported by taxpayers on the state's Combined Excise tax return. Reported totals affected by enacted legislation. Major base changes include: exemption of off-premises food, beginning 1978:3 (fiscal 1979); extension of the sales tax base to off premises food (1982:2 to 1983:2); food again exempt 1983:3 (fiscal 1984); extension of the sales tax base to candy, gum and bottled water (June 1 - December 2, 2010); elimination of sales tax exemption for residential phone service (July 1, 2013); elimination of sales tax exemption for bottled water (July 1, 2017); extension of economic nexus to certain remote sellers (January 1, 2018).

Table 3.5

Comparison of the General Fund-State forecast by agency

2019-21 biennium; cash basis

(millions of dollars)

Forecast by Agency	Nov 2020 Forecast¹	Non- Economic Changes	Forecast Revision	Mar 2021 Forecast²	Total Change
Department of Revenue					
Retail Sales	\$22,737.7	\$0.0	\$621.1	\$23,358.7	\$621.1
Business & Occupation	9,149.2	0.0	271.4	9,420.6	271.4
Use	1,495.6	0.0	28.5	1,524.1	28.5
Public Utility	866.4	0.0	(33.1)	833.3	(33.1)
Liquor Sales/Liter	636.6	0.0	8.3	644.9	8.3
Cigarette	643.3	0.0	5.9	649.2	5.9
Property (State Levy)	7,857.8	0.0	(70.4)	7,787.4	(70.4)
Real Estate Excise	2,219.1	0.0	244.5	2,463.6	244.5
Timber Excise	1.1	0.0	(0.3)	0.9	(0.3)
Other	992.3	0.0	10.0	1,002.3	10.0
Subtotal	46,599.1	0.0	1,085.9	47,684.9	1,085.9
Insurance Commissioner					
Insurance Premiums	1,166.6	0.0	139.5	1,306.1	139.5
Liquor Control Board					
Fees, Cannabis Excise Tax	580.3	0.0	5.2	585.5	5.2
Beer & Wine Surtax	56.6	0.0	0.5	57.1	0.5
Lottery Commission					
Lottery Revenue	41.7	0.0	0.5	42.2	0.5
State Treasurer					
Interest Earnings	14.8	0.0	4.7	19.5	4.7
Office of Financial Management					
Other Agencies	224.6	0.0	6.8	231.4	6.8
Washington Court System					
Court Fees, Fines & Forfeitures	112.7	0.0	1.2	113.9	1.2
Total General Fund-State *	\$48,796.4	\$0.0	\$1,244.2	\$50,040.7	\$1,244.2

¹ Forecast for the 2019-21 biennium adopted by the Economic and Revenue Forecast Council November 18, 2020² Forecast for the 2019-21 biennium, adopted March 17, 2021

*Detail may not add to totals because of rounding.

Source: ERF, Insurance Commissioner, Lottery Commission, Office of the State Treasurer, Liquor and Cannabis Board, Office of Financial Management

Table 3.6

Comparison of the General Fund-State forecast by agency

2019-21 biennium; GAAP basis

(millions of dollars)

Forecast by Agency	Nov 2020 Forecast¹	Non-Economic Changes	Forecast Revision	Mar 2021 Forecast²	Total Change
Department of Revenue					
Retail Sales	\$22,709.1	\$0.0	\$621.1	\$23,330.1	\$621.1
Business & Occupation	9,148.9	0.0	271.4	9,420.3	271.4
Use	1,491.2	0.0	28.5	1,519.7	28.5
Public Utility	865.9	0.0	(33.1)	832.8	(33.1)
Liquor Sales/Liter	652.0	0.0	1.5	653.6	1.5
Cigarette	646.3	0.0	5.9	652.2	5.9
Property (State Levy)	8,111.5	0.0	(70.4)	8,041.1	(70.4)
Real Estate Excise	2,221.1	0.0	244.5	2,465.7	244.5
Timber Excise	1.0	0.0	(0.4)	0.6	(0.4)
Other	1,032.5	0.0	16.8	1,049.3	16.8
Subtotal	46,879.5	0.0	1,085.8	47,965.3	1,085.8
Insurance Commissioner					
Insurance Premiums	1,166.6	0.0	139.5	1,306.1	139.5
Liquor Control Board					
Fees, Cannabis Excise Tax	580.3	0.0	5.2	585.5	5.2
Beer & Wine Surtax	56.6	0.0	0.5	57.1	0.5
Lottery Commission					
Lottery Revenue	41.9	0.0	1.3	43.1	1.3
State Treasurer					
Interest Earnings	12.5	0.0	5.0	17.5	5.0
Office of Financial Management					
Other Agencies	224.6	0.0	6.8	231.4	6.8
Washington Court System					
Court Fees, Fines & Forfeitures	112.7	0.0	1.2	113.9	1.2
Total General Fund-State *	\$49,074.7	\$0.0	\$1,245.2	\$50,319.9	\$1,245.2

¹ Forecast for the 2019-21 biennium adopted by the Economic and Revenue Forecast Council November 18, 2020² Forecast for the 2019-21 biennium, adopted March 17, 2021

*Detail may not add to totals because of rounding.

Source: ERFC, Insurance Commissioner, Lottery Commission, Office of the State Treasurer, Liquor and Cannabis Board, Office of Financial Management

Table 3.7

Comparison of the General Fund-State forecast by agency

2021-23 biennium; cash basis

(millions of dollars)

Forecast by Agency	Nov 2020 Forecast¹	Non- Economic Changes	Forecast Revision	Mar 2021 Forecast²	Total Change
Department of Revenue					
Retail Sales	\$24,275.4	\$0.0	\$1,333.3	\$25,608.7	\$1,333.3
Business & Occupation	9,812.8	0.0	465.8	10,278.6	465.8
Use	1,447.4	0.0	69.4	1,516.8	69.4
Public Utility	949.1	0.0	16.4	965.5	16.4
Liquor Sales/Liter	627.2	0.0	13.3	640.5	13.3
Cigarette	603.9	0.0	(1.0)	602.9	(1.0)
Property (State Levy)	9,080.3	0.0	(184.9)	8,895.4	(184.9)
Real Estate Excise	2,178.0	0.0	87.8	2,265.8	87.8
Timber Excise	2.5	0.0	(0.3)	2.1	(0.3)
Other	1,091.7	0.0	6.8	1,098.5	6.8
Subtotal	50,068.2	0.0	1,806.7	51,874.9	1,806.7
Insurance Commissioner					
Insurance Premiums	1,384.0	0.0	36.9	1,420.9	36.9
Liquor Control Board					
Fees, Cannabis Excise Tax	605.3	0.0	19.1	624.5	19.1
Beer & Wine Surtax	57.8	0.0	0.6	58.4	0.6
Lottery Commission					
Lottery Revenue	51.5	0.0	2.0	53.5	2.0
State Treasurer					
Interest Earnings	(4.6)	0.0	19.3	14.6	19.3
Office of Financial Management					
Other Agencies	221.0	0.0	12.0	233.0	12.0
Washington Court System					
Court Fees, Fines & Forfeitures	94.6	0.0	(2.3)	92.3	(2.3)
Total General Fund-State *	\$52,477.9	\$0.0	\$1,894.2	\$54,372.1	\$1,894.2

¹ Forecast for the 2021-23 biennium adopted by the Economic and Revenue Forecast Council November 18, 2020² Forecast for the 2021-23 biennium, adopted March 17, 2021

*Detail may not add to totals because of rounding.

Source: ERFC, Insurance Commissioner, Lottery Commission, Office of the State Treasurer, Liquor Control Board, Office of Financial Management

Table 3.8

Comparison of the General Fund-State forecast by agency

2021-23 biennium; GAAP basis

(millions of dollars)

Forecast by Agency	Nov 2020 Forecast¹	Non- Economic Changes	Forecast Revision	Mar 2021 Forecast²	Total Change
Department of Revenue					
Retail Sales	\$24,275.4	\$0.0	\$1,333.3	\$25,608.7	\$1,333.3
Business & Occupation	9,812.8	0.0	465.8	10,278.6	465.8
Use	1,447.4	0.0	69.4	1,516.8	69.4
Public Utility	949.1	0.0	16.4	965.5	16.4
Liquor Sales/Liter	627.2	0.0	13.3	640.5	13.3
Cigarette	603.9	0.0	(1.0)	602.9	(1.0)
Property (State Levy)	9,080.3	0.0	(184.9)	8,895.4	(184.9)
Real Estate Excise	2,178.0	0.0	87.8	2,265.8	87.8
Timber Excise	2.6	0.0	(0.3)	2.2	(0.3)
Other	1,091.7	0.0	6.8	1,098.5	6.8
Subtotal	50,068.3	0.0	1,806.7	51,875.0	1,806.7
Insurance Commissioner					
Insurance Premiums	1,384.0	0.0	36.9	1,420.9	36.9
Liquor Control Board					
Fees, Cannabis Excise Tax	605.3	0.0	19.1	624.5	19.1
Beer & Wine Surtax	57.8	0.0	0.6	58.4	0.6
Lottery Commission					
Lottery Revenue	51.9	0.0	1.3	53.2	1.3
State Treasurer					
Interest Earnings	(5.4)	0.0	19.5	14.1	19.5
Office of Financial Management					
Other Agencies	221.0	0.0	12.0	233.0	12.0
Washington Court System					
Court Fees, Fines & Forfeitures	94.6	0.0	(2.3)	92.3	(2.3)
Total General Fund-State *	\$52,477.6	\$0.0	\$1,893.7	\$54,371.4	\$1,893.7

¹ Forecast for the 2021-23 biennium adopted by the Economic and Revenue Forecast Council November 18, 2020² Forecast for the 2021-23 biennium, adopted March 17, 2021

*Detail may not add to totals because of rounding.

Source: ERF, Insurance Commissioner, Lottery Commission, Office of the State Treasurer, Liquor Control Board, Office of Financial Management

Table 3.9

March 2021 General Fund-State forecast detail**2019-21 to 2023-25 biennia; cash basis**

(Millions of Dollars)

Forecast by Source	Fiscal 2020	Fiscal 2021	2019-21 Biennium	Fiscal 2022	Fiscal 2023	2021-23 Biennium	Fiscal 2024	Fiscal 2025	2023-25 Biennium
State Taxes									
Retail sales**	\$11,296.2	\$12,062.5	\$23,358.7	\$12,598.1	\$13,010.6	\$25,608.7	\$13,404.4	\$13,873.1	\$27,277.5
Business & occupation	4,596.8	4,823.8	9,420.6	5,012.8	5,265.9	10,278.6	5,505.8	5,766.6	11,272.4
Use**	719.2	804.9	1,524.1	750.1	766.7	1,516.8	780.9	804.1	1,585.1
Public Utility	401.7	431.6	833.3	475.6	489.9	965.5	504.2	521.4	1,025.6
Liquor sales/liter	311.6	333.3	644.9	318.8	321.6	640.5	328.7	335.0	663.7
Beer & wine surtax	28.2	28.9	57.1	29.1	29.3	58.4	29.4	29.5	58.9
Cigarette	331.3	335.4	666.7	315.1	304.6	619.7	294.8	285.3	580.1
Tobacco products	53.1	55.6	108.7	57.8	58.4	116.2	59.0	59.7	118.7
Cannabis Excise Taxes	149.9	196.5	346.4	179.6	186.4	366.0	194.4	203.2	397.6
Property (state school levy)	3,464.9	4,322.5	7,787.4	4,389.6	4,505.8	8,895.4	4,626.5	4,747.7	9,374.2
Leasehold Excise Tax	36.3	34.9	71.1	37.5	38.0	75.5	38.6	39.2	77.9
Public utility district	58.4	48.2	106.6	59.7	61.7	121.4	63.5	64.9	128.4
Brokered Natural Gas	23.1	20.8	43.9	21.3	21.8	43.1	22.2	22.5	44.7
Real estate excise***	1,086.2	1,377.4	2,463.6	1,171.5	1,094.2	2,265.8	1,071.0	1,109.7	2,180.6
Timber excise	0.2	0.6	0.9	0.9	1.2	2.1	1.4	1.6	3.0
Estate/inheritance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Boat excise	17.1	16.6	33.6	16.2	16.2	32.3	17.1	16.4	33.5
Insurance premiums	652.3	653.8	1,306.1	696.7	724.3	1,420.9	750.3	774.9	1,525.2
Penalties and interest on past due taxes	140.7	130.0	270.6	156.1	167.9	324.0	173.4	179.4	352.9
Other	24.3	60.7	85.0	59.8	59.8	119.7	59.9	60.5	120.4
Total Taxes	23,391.4	25,738.0	49,129.5	26,346.4	27,124.4	53,470.8	27,925.7	28,894.9	56,820.6
State Non-Tax Sources									
Licenses, permits, fees	153.4	156.9	310.4	159.7	163.0	322.7	165.9	159.8	325.7
Liquor & Cannabis fees	104.7	134.4	239.1	128.3	130.2	258.5	133.7	137.9	271.6
Earnings on investments	4.2	15.3	19.5	8.6	6.0	14.6	2.9	2.6	5.5
Washington Court System	62.5	51.4	113.9	46.8	45.6	92.3	45.0	44.5	89.5
Transfers of unclaimed property	110.4	133.1	243.6	109.5	110.5	220.0	111.5	112.4	223.9
Other revenue & transfers	(9.3)	(5.9)	(15.2)	(0.6)	(6.2)	(6.9)	23.1	18.6	41.7
Total Non-Tax	425.9	485.3	911.2	452.3	449.0	901.3	482.0	475.9	957.9
Total General Fund-State *	\$23,817.3	\$26,223.3	\$50,040.7	\$26,798.8	\$27,573.4	\$54,372.1	\$28,407.7	\$29,370.8	\$57,778.5

* Detail may not add to totals due to rounding

**GFS portion after Initiative 900 transfer

***Includes penalties and interest

Table 3.10
Track Record for the 2019-21 General Fund-State Cash Forecast
 February 2016 through March 2021
 Cash Basis - Millions of Dollars

Date of Forecast	Department of Revenue*	Other Agencies	Subtotal*	Non-Economic Changes**	Total Change	Total General Fund-State Cash Basis
February 2016 #	\$36,887	\$1,823				\$43,441
Changes to Forecast						
June 2016	172	(31)	141	(7) #1	134	43,575
September 2016	86	(31)	55	0	55	43,630
November 2016	21	4	26	0	26	43,656
March 2017	241	(55)	186	0	186	43,842
June 2017	47	(13)	34	(1) #2	34	43,875
September 2017	245	(3)	243	3,278 #3	3,521	47,396
November 2017	188	(2)	186	0	186	47,582
February 2018	655	16	671	0	671	48,253
June 2018	426	22	448	(181) #4	267	48,520
September 2018	295	22	317	38 #5	355	48,875
November 2018	186	3	189	0	189	49,064
March 2019	465	(35)	430	115 #6	545	49,609
June 2019	57	29	86	109 #7	195	49,804
September 2019	307	3	310	(84) #8	226	50,030
November 2019	283	(8)	274	0	274	50,304
February 2020	309	(2)	307	0	307	50,611
June 2020	(4,422)	(185)	(4,607)	125 #9	(4,482)	46,129
September 2020	1,990	69	2,060	0	2,060	48,189
November 2020	577	31	607	0	607	48,796
March 2021	1086	158	1,244	0	1,244	50,041
Total change***:						
From February 2016	3,216	(9)	3,207	3,393	6,600	
Percent change	8.7	(0.5)	7.4	7.8	15.2	

* Excludes legislative, judicial, statutorily required or other major non-economic changes.

** Includes legislative, judicial, statutorily required or other major non-economic changes.

*** Detail may not add to total due to rounding.

First official forecast for the 2019-21 biennium.

#1 Legislative revenue changes from the 2016 regular and first special legislative sessions

#2 Sum of legislative revenue changes from 2017 legislative sessions through June 20, 2017

#3 Sum of legislative and budget driven revenue changes from 2017 special legislative sessions since the June 2017 forecast

#4 Sum of legislative and budget driven revenue changes from the 2018 legislative session

#5 Estimated increase in sales tax collections due US Supreme Court ruling of June 21, 2018.

#6 Effects of SSB 5581, passed in March of 2019 legislative session

#7 Sum of legislative and budget driven revenue changes from the 2018 legislative session subsequent to the March 2019 forecast

#8 Later-than-forecasted cash transfer of Property Tax out of GF-S into ELTA

#9 Legislative and budget-driven revenue changes from the 2020 legislative session

Table 3.11

Track Record for the 2021-23 General Fund-State Cash Forecast

February 2018 through March 2021

Cash Basis - Millions of Dollars

Date of Forecast	Department of Revenue*	Other Agencies	Subtotal*	Non-Economic Changes**	Total Change	Total General Fund-State Cash Basis
February 2018 #	\$49,551	\$2,381				\$51,932
Changes to Forecast						
June 2018	324	33	357	(7) #1	350	52,282
September 2018	248	1	249	46 #2	295	52,577
November 2018	228	(27)	201	0	201	52,778
March 2019	402	(33)	369	190 #3	559	53,337
June 2019	17	8	24	322 #4	347	53,683
September 2019	(89)	10	(79)	0	(79)	53,604
November 2019	169	6	175	0	175	53,779
February 2020	501	12	512	0	512	54,291
June 2020	(4,431)	(139)	(4,570)	213 #5	(4,357)	49,935
September 2020	2187	59	2,246	0	2,246	52,181
November 2020	265	32	297	0	297	52,478
March 2021	1,807	88	1,894	0	1,894	54,372
Total change***:						
From February 2018	1,626	49	1,675	765	2,440	
Percent change	3.3	2.0	3.2	1.5	4.7	

* Excludes legislative, judicial, statutorily required or other major non-economic changes.

** Includes legislative, judicial, statutorily required or other major non-economic changes.

*** Detail may not add to total due to rounding.

First official forecast for the 2021-23 biennium.

#1 Sum of legislative and budget driven revenue changes from the 2018 legislative session

#2 Estimated increase in sales tax collections due US Supreme Court ruling of June 21, 2018.

#3 Effects of SSB 5581, passed in March of 2019 legislative session

#4 Sum of legislative and budget driven revenue changes from the 2018 legislative session subsequent to the March 2019 forecast

#5 Legislative and budget-driven revenue changes from the 2020 legislative session

Table 3.12

2019-21 Enacted Budget Balance Sheet
General Fund-State (GFS), Education Legacy Trust Account (ELTA),
Washington Opportunity Pathways Account (OPA),
Workforce Education Investment Account (WEIA) and Budget Stabilization Account (BSA)
Dollars in Millions

	2019-21		
	GFS	ELTA , OPA and WEIA	TOTAL
RESOURCES			
Beginning Fund Balance	999.3	981.9	1,981.2
November 2020 Revenue Forecast	48,796.4	2,198.2	50,994.7
March 2021 Revenue Forecast change	1,244.2	95.3	1,339.5
Current Revenue Totals	50,040.7	2,293.5	52,334.2
Transfer to Budget Stabilization Account (1% of GSR)	(485.8)		(485.8)
Transfer to Budget Stabilization Account (EGSR)	-		-
Enacted Fund Transfers	35.2	160.0	195.2
CAFR Adjustments FY 20	(3.9)	28.2	24.2
Actual/Assumed Prior Period Adjustments	59.7		59.7
Total Resources (including beginning fund balance)	50,645.2	3,463.6	54,108.8
EXPENDITURES			
2019-21 Biennium			
Enacted Budgets	50,602.8	3,096.9	53,699.7
Actual/Assumed Reversions**	(745.5)	-	(745.5)
Total Expenditures	49,857.3	3,096.9	52,954.2
RESERVES			
Projected Ending Balance	787.9	366.7	1,154.6
Budget Stabilization Account			
Budget Stabilization Account Beginning Balance	1,618.4		1,618.4
Transfers from General Fund (1% of GSR)	485.8		485.8
Transfers from GFS (EGSR)	-		-
Prior Period Adjustment-FY 20	0.9		0.9
Actual/Assumed Interest Earnings	42.1		42.1
Fund Transfer- EHB 2965- ESD transfer back to BSA	25.0		25.0
Less 2020 Supplemental Approp from BSA-Coronavirus	(200.0)		(200.0)
Less Approp from BSA-Covid-19- HB 1367	(164.3)		(164.3)
Projected Budget Stabilization Account Ending Balance	1,808.0		1,808.0
Total Reserves (Near General Fund plus Budget Stabilization)	2,595.9	366.7	2,962.6

**FY 21 Estimated GFS reversions adjusted for K-3 update

Acronyms

GSR- General State Revenues

EGSR- Extraordinary General State Revenues

CAFR- Comprehensive Annual Financial Report

Table 3.13
Alternative forecasts compared to the baseline forecast
2019-21 biennium
(cash basis, millions of dollars)

Forecast by Source	Optimistic Forecast	Baseline Forecast	Pessimistic Forecast
Department of Revenue			
Retail Sales	\$23,684.9	\$23,358.7	\$22,936.0
Business & Occupation Use	9,548.1	9,420.6	9,233.0
Public Utility	1,548.3	1,524.1	1,495.2
Property (school levy)	847.7	833.3	813.9
Real Estate Excise	7,809.7	7,787.4	7,765.1
Other	2,494.9	2,463.6	2,463.0
Subtotal	2,307.7	2,297.2	2,288.1
	48,241.3	47,684.9	46,994.2
Insurance Commissioner¹	1,305.9	1,306.1	1,306.4
Lottery Commission	43.7	42.2	40.7
State Treasurer - Interest earnings	22.7	19.5	17.1
Liquor and Cannabis Surtaxes & Fees²	708.3	642.6	697.7
Office of Financial Management			
Other agencies	232.5	231.4	230.2
Washington Court System			
Court Fees, Fines & Forfeitures	114.9	113.9	113.0
Total General Fund - State*	\$50,669.2	\$50,040.7	\$49,399.4
Difference from March 2021 Baseline	\$628.6		(\$641.3)

1 Insurance premiums, General Fund-State portion.

2 Includes beer and wine surtax, cannabis excise tax, distributor fees, retailer fees, licensing fees.

* Detail may not add to total due to rounding.

Source: ERFC, Insurance Commissioner, Lottery Commission, Office of the State Treasurer, Liquor Control Board, Office of Financial Management

Table 3.14

**Alternative forecasts compared to the baseline forecast
2021-23 biennium**

(cash basis, millions of dollars)

Forecast by Source	Optimistic Forecast	Baseline Forecast	Pessimistic Forecast
Department of Revenue			
Retail Sales	\$27,677.5	\$25,608.7	\$23,293.4
Business & Occupation	11,088.8	10,278.6	9,278.8
Use	1,651.7	1,516.8	1,381.0
Public Utility	1,035.8	965.5	875.0
Property (school levy)	8,989.3	8,895.4	8,807.5
Real Estate Excise	2,521.4	2,265.8	2,154.9
Other	2,437.8	2,344.1	2,247.4
Subtotal	55,402.3	51,874.9	48,038.1
Insurance Commissioner¹	1,492.5	1,420.9	1,349.3
Lottery Commission	56.2	53.5	50.8
State Treasurer - Interest earnings	40.5	14.6	(0.3)
Liquor and Cannabis Surtaxes & Fees²	840.1	682.9	768.9
Office of Financial Management			
Other agencies	240.0	233.0	226.0
Washington Court System			
Court Fees, Fines & Forfeitures	95.7	92.3	87.8
Total General Fund - State*	\$58,167.3	\$54,372.1	\$50,520.6
Difference from March 2021 Baseline	\$3,795.2		(\$3,851.5)

1 Insurance premiums, General Fund-State portion.

2 Includes beer and wine surtax, cannabis excise tax, distributor fees, retailer fees, licensing fees.

* Detail may not add to total due to rounding.

Source: ERFC, Insurance Commissioner, Lottery Commission, Office of the State Treasurer, Liquor Control Board, Office of Financial Management

Table 3.15

Lottery transfers by fund

March 2021 Forecast
(cash basis, millions of dollars)

	Lottery: Total Transfers:*	Mariners General Fund	Mariners Stadium	Exhibition Center & Stadium	Student Achievement Account	School Construction Account	Problem Gambling Account	Economic Development Account	Opportunity Pathways Account	Veteran's VIP Account	Education Legacy Trust Account
2014	147.9	9.3	0.0	10.8	0.0	0.0	0.3	3.7	113.7	0.0	10.1
2015	143.1	0.6	0.0	11.2	0.0	0.0	0.3	4.7	120.2	0.0	6.1
2013-15 Biennium	291.0	9.9	0.0	22.0	0.0	0.0	0.6	8.4	233.9	0.0	16.1
2016	171.6	17.1	0.0	11.7	0.0	0.0	0.3	3.3	139.1	0.0	0.0
2017	159.7	14.8	0.0	12.2	0.0	0.0	0.3	4.8	126.6	0.0	0.0
2015-17 Biennium	331.2	31.9	0.0	23.8	0.0	0.0	0.7	8.0	265.7	0.0	0.0
2018	183.6	38.5	0.0	12.6	0.0	0.0	0.3	3.5	128.5	0.0	0.0
2019	213.8	38.7	0.0	13.1	0.0	0.0	0.4	5.8	155.7	0.0	0.0
2017-19 Biennium	397.3	77.3	0.0	25.8	0.0	0.0	0.8	9.3	284.2	0.0	0.0
2020	186.4	16.7	0.0	13.7	0.0	0.0	0.4	3.1	152.5	0.0	0.0
2021	211.9	25.5	0.0	14.2	0.0	0.0	0.4	4.1	167.7	0.0	0.0
2019-21 Biennium	398.3	42.2	0.0	27.9	0.0	0.0	0.8	7.2	320.2	0.0	0.0
2022	195.2	26.8	0.0	0.0	0.0	0.0	0.4	4.0	164.0	0.0	0.0
2023	197.9	26.6	0.0	0.0	0.0	0.0	0.4	4.1	166.7	0.0	0.0
2021-23 Biennium	393.1	53.5	0.0	0.0	0.0	0.0	0.8	8.1	330.7	0.0	0.0
2024	198.4	26.7	0.0	0.0	0.0	0.0	0.4	4.1	167.2	0.0	0.0
2025	198.9	26.9	0.0	0.0	0.0	0.0	0.4	4.1	167.5	0.0	0.0
2023-25 Biennium	397.2	53.6	0.0	0.0	0.0	0.0	0.8	8.1	334.7	0.0	0.0

Table 3.16

Lottery transfers by fund

March 2021 Forecast
(GAAP basis, millions of dollars)

	Lottery: Total Transfers:*	Mariners General Fund	Mariners Stadium	Exhibition Center & Stadium	Student Achievement Account	School Construction Account	Problem Gambling Account	Economic Development Account	Opportunity Pathways Account	Veteran's VIP Account	Education Legacy Trust Account
2014	147.7	0.6	0.0	10.8	0.0	0.0	0.3	4.0	121.9	0.0	10.1
2015	141.3	0.0	0.0	11.2	0.0	0.0	0.3	4.7	119.0	0.0	6.1
2013-15 Biennium	288.9	0.6	0.0	22.0	0.0	0.0	0.6	8.7	240.9	0.0	16.1
2016	175.5	31.9	0.0	11.7	0.0	0.0	0.3	2.8	128.7	0.0	0.0
2017	161.9	16.8	0.0	12.2	0.0	0.0	0.3	4.9	126.8	0.0	0.0
2015-17 Biennium	337.4	48.7	0.0	23.8	0.0	0.0	0.7	7.7	255.5	0.0	0.0
2018	183.0	31.2	0.0	12.6	0.0	0.0	0.4	4.6	134.2	0.0	0.0
2019	215.8	30.9	0.0	13.1	0.0	0.0	0.4	4.6	166.7	0.0	0.0
2017-19 Biennium	398.8	62.1	0.0	25.8	0.0	0.0	0.8	9.2	300.9	0.0	0.0
2020	180.9	16.2	0.0	13.7	0.0	0.0	0.4	3.4	147.3	0.0	0.0
2021	209.6	26.9	0.0	14.2	0.0	0.0	0.4	4.1	164.0	0.0	0.0
2019-21 Biennium	390.6	43.1	0.0	27.9	0.0	0.0	0.8	7.4	311.3	0.0	0.0
2022	197.4	26.5	0.0	0.0	0.0	0.0	0.4	4.1	166.4	0.0	0.0
2023	197.9	26.7	0.0	0.0	0.0	0.0	0.4	4.1	166.8	0.0	0.0
2021-23 Biennium	395.3	53.2	0.0	0.0	0.0	0.0	0.8	8.1	333.2	0.0	0.0
2024	198.4	26.7	0.0	0.0	0.0	0.0	0.4	4.1	167.2	0.0	0.0
2025	198.9	26.8	0.0	0.0	0.0	0.0	0.4	4.1	167.7	0.0	0.0
2023-25 Biennium	397.3	53.5	0.0	0.0	0.0	0.0	0.8	8.1	334.9	0.0	0.0

* Total Transfers are equal to total sales less total expenses (prizes, cost of sales, administration etc.)

Source: Lottery Commission, ERF

Table 3.17

General Fund-State, Education Legacy Trust Account, Opportunity Pathways Account and Workforce Education Investment Account

History and Forecast by Fiscal Year (Cash basis)

March 2021 - Millions of Dollars

	General Fund-State (GF-S) (current definition)		Education Legacy Trust Account* (ELTA)		WA Opportunity Pathways Account (OPA)		Workforce Ed. Investment Acct. (WEIA)		Total GF-S, ELTA, OPA and WEIA	
	Level	% Chg.	Level	% Chg.	Level	% Chg.	Level	% Chg.	Level	% Chg.
History:										
FY 2001	\$11,560	4.4%							\$11,560	4.4%
FY 2002	\$11,632	0.6%						\$11,632	0.6%	
FY 2003	\$11,721	0.8%						\$11,721	0.8%	
FY 2004	\$12,358	5.4%						\$12,358	5.4%	
FY 2005	\$13,036	5.5%						\$13,036	5.5%	
FY 2006	\$14,318	9.8%	\$115					\$14,432	10.7%	
FY 2007	\$15,467	8.0%	\$266	132.2%				\$15,734	9.0%	
FY 2008	\$15,659	1.2%	\$213	-20.1%				\$15,872	0.9%	
FY 2009	\$14,158	-9.6%	\$224	5.4%				\$14,382	-9.4%	
FY 2010	\$13,571	-4.1%	\$157	-29.9%				\$13,728	-4.6%	
FY 2011	\$14,648	7.9%	\$112	-29.0%	\$99			\$14,859	8.2%	
FY 2012	\$14,874	1.5%	\$114	2.3%	\$118	19.1%		\$15,107	1.7%	
FY 2013	\$15,783	6.1%	\$101	-11.5%	\$126	5.9%		\$16,009	6.0%	
FY 2014	\$16,383	3.8%	\$197	95.3%	\$114	-9.4%		\$16,694	4.3%	
FY 2015	\$17,283	5.5%	\$207	5.0%	\$120	5.7%		\$17,611	5.5%	
FY 2016	\$18,579	7.5%	\$215	3.6%	\$139	15.7%		\$18,933	7.5%	
FY 2017	\$19,739	6.2%	\$252	17.5%	\$127	-9.0%		\$20,118	6.3%	
FY 2018	\$21,712	10.0%	\$302	19.6%	\$129	1.5%		\$22,143	10.1%	
FY 2019	\$22,430	3.3%	\$1,352	348.1%	\$156	21.1%		\$23,938	8.1%	
FY 2020	\$23,817	6.2%	\$913	-32.5%	\$153	-2.0%	\$32	\$24,915	4.1%	
Forecast:										
FY 2021	\$26,223	10.1%	\$715	-21.7%	\$168	9.9%	\$313	883.5%	\$27,419	10.1%
FY 2022	\$26,799	2.2%	\$642	-10.2%	\$164	-2.2%	\$303	-3.3%	\$27,908	1.8%
FY 2023	\$27,573	2.9%	\$644	0.4%	\$167	1.7%	\$323	6.5%	\$28,707	2.9%
FY 2024	\$28,408	3.0%	\$523	-18.8%	\$167	0.3%	\$353	9.3%	\$29,451	2.6%
FY 2025	\$29,371	3.4%	\$548	4.8%	\$168	0.2%	\$368	4.2%	\$30,455	3.4%
Biennial Totals										
07-09 Biennium	\$29,817	0.1%	\$437	14.8%	\$0	NA	\$0	NA	\$30,254	0.3%
09-11 Biennium	\$28,218	-5.4%	\$269	-38.5%	\$99	NA	\$0	NA	\$28,586	-5.5%
11-13 Biennium	\$30,657	8.6%	\$215	-19.9%	\$244	145.2%	\$0	NA	\$31,116	8.8%
13-15 Biennium	\$33,666	9.8%	\$405	88.0%	\$234	-4.1%	\$0	NA	\$34,305	10.2%
15-17 Biennium	\$38,317	13.8%	\$467	15.4%	\$266	13.6%	\$0	NA	\$39,050	13.8%
17-19 Biennium	\$44,143	15.2%	\$1,654	254.1%	\$284	6.9%	\$0	NA	\$46,081	18.0%
19-21 Biennium	\$50,041	13.4%	\$1,628	-1.6%	\$320	12.7%	\$345	NA	\$52,334	13.6%
21-23 Biennium	\$54,372	8.7%	\$1,286	-21.0%	\$331	3.3%	\$626	81.3%	\$56,615	8.2%
23-25 Biennium	\$57,778	6.3%	\$1,072	-16.7%	\$335	1.2%	\$721	15.1%	\$59,906	5.8%

*Education legacy trust fund excluding FY 14 and FY 15 lottery fund transfers. Includes pension stabilization fund interest in FY 08 and FY 09.

Table 3.18
Forecasted distribution of excise tax and license fees from cannabis sales
 March 2021
 Thousands of dollars

Fiscal year	Total of cannabis excise taxes plus license fees	LCB administration and pre-distribution allotments	Total to distribute	Distribution of remaining funds							General Fund State*
				DSHS substance abuse program	Dept. of Health cannabis education program	UW/WSU research	Basic Health Plan Trust Account	Health Care Authority community health centers	OSPI dropout prevention		
2015	\$67,486	\$22,074	\$45,412	\$5,166	\$0	\$0	\$22,706	\$2,271	\$0	\$15,269	
2016	\$168,051	\$8,551	\$159,500	\$12,814	\$7,500	\$345	\$79,750	\$7,791	\$251	\$51,049	
2017	\$300,635	\$9,201	\$291,434	\$27,786	\$7,500	\$345	\$145,717	\$12,979	\$511	\$96,596	
2018	\$360,608	\$13,772	\$346,836	\$27,786	\$9,761	\$365	\$173,418	\$17,616	\$513	\$117,377	
2019	\$391,191	\$14,558	\$376,633	\$0	\$9,764	\$365	\$188,317	\$46,191	\$515	\$131,482	
2020	\$448,427	\$18,234	\$430,193	\$0	\$10,786	\$374	\$215,096	\$48,660	\$522	\$154,754	
2021	\$541,239	\$18,660	\$522,579	\$0	\$10,616	\$390	\$261,290	\$48,746	\$530	\$201,008	
2022	\$508,774	\$17,860	\$490,914	\$0	\$10,616	\$390	\$245,457	\$49,446	\$530	\$184,475	
2023	\$522,246	\$17,860	\$504,386	\$0	\$10,616	\$390	\$252,193	\$49,446	\$530	\$191,211	
2024	\$538,162	\$17,860	\$520,302	\$0	\$10,616	\$390	\$260,151	\$49,446	\$530	\$199,169	
2025	\$556,088	\$17,860	\$538,228	\$0	\$10,616	\$390	\$269,114	\$49,446	\$530	\$208,132	
Biennial totals											
2013-15	\$67,486	\$22,074	\$45,412	\$5,166	\$0	\$0	\$22,706	\$2,271	\$0	\$15,269	
2015-17	\$468,686	\$17,752	\$450,934	\$40,600	\$15,000	\$690	\$225,467	\$20,770	\$762	\$147,645	
2017-19	\$751,799	\$28,330	\$723,469	\$27,786	\$19,525	\$730	\$361,735	\$63,807	\$1,028	\$248,859	
2019-21	\$989,666	\$36,894	\$952,772	\$0	\$21,402	\$764	\$476,386	\$97,406	\$1,052	\$355,762	
2021-23	\$1,031,020	\$35,720	\$995,300	\$0	\$21,232	\$780	\$497,650	\$98,892	\$1,060	\$375,686	
2023-25	\$1,094,250	\$35,720	\$1,058,530	\$0	\$21,232	\$780	\$529,265	\$98,892	\$1,060	\$407,301	

*Before distributions to local governments

Table 3.19
Workforce Education Investment Account
 March 2021
 Thousands of dollars

	FY20	FY21	2019-21 Biennium	FY22	FY23	2021-23 Biennium	FY24	FY25	2023-25 Biennium
November 2020 forecast	31,863	311,410	343,274	293,213	311,943	605,157	342,009	353,429	695,438
Forecast change	-	1,978	1,978	9,978	10,831	20,809	10,863	14,435	25,298
March 2021 forecast	31,863	313,389	345,252	303,192	322,774	625,966	352,872	367,864	720,736



Chapter 4: Labor Market Dynamics at the Establishment Level

- **This chapter focuses on demand side of the labor market by analyzing the Business Employment Dynamics data collected by the U.S. Bureau of Labor Statistics.**
- **Nationally, from 1993 through the second quarter of 2020, an average of nearly 7.6 million gross job gains and nearly 7.4 million gross job losses occurred each quarter.**
- **As a percent of employment, gross job gains and losses are consistently higher in Washington than for the U.S. as a whole.**

Introduction

This chapter focuses on the demand side of the labor market by analyzing the Business Employment Dynamics data

Our quarterly forecasts and monthly updates typically discuss employment at a high level – the net number of jobs gained or lost in a month or the change in the net number of jobs from one year to the next. However, underlying those numbers is a very dynamic process. The supply of labor changes as new high school and college graduates enter the labor market, retirees leave the labor market and workers leave jobs in search of higher pay or better benefits. On the labor demand side, the opening of new businesses and the expansion of existing businesses create new jobs, while businesses reducing their activity or even closing altogether eliminate jobs.

In this chapter, we will focus on the demand side of the labor market by analyzing the Business Employment Dynamics (BED) data collected by the U.S. Bureau of Labor Statistics (BLS). The BED data are based on quarterly information collected from all business establishments covered by unemployment insurance. Nationally, these data represent about 98 percent of all private nonfarm employment; the data do not cover self-employed workers, religious organizations, most agricultural workers on small farms, members of the armed forces, elected officials in most states, most employees of railroads, some domestic workers, most student workers at schools, and employees of

certain nonprofit organizations. Because this is a census of business establishments, as opposed to a survey, the data are not subject to sampling error. However, reporting mistakes (and subsequent corrections) are possible.

The unit of analysis is a business establishment

The unit of analysis is an establishment, defined by BLS as “the physical location of a certain economic activity—for example, a factory, mine, store, or office. A single establishment generally produces a single good or provides a single service. An enterprise (a private firm, government, or nonprofit organization) can consist of a single establishment or multiple establishments.” For example, a grocery store chain is an enterprise which includes multiple individual grocery store establishments. Establishments are linked over time to identify newly opened businesses, closing businesses or to determine changes in employment for ongoing businesses (expansions or contractions).

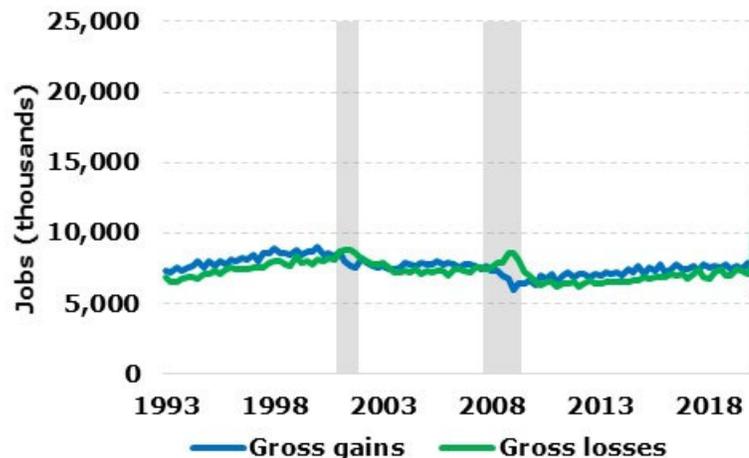
At the national level, the BED data can provide information on employment changes due to openings, closings, expansions and contractions in total and by industry and establishment size. At the state level, to maintain confidentiality, data are not available by establishment size.

National data: Private Sector Employment Changes

Between 1993 Q1 and 2020 Q2, the U.S. averaged 7.6 million gross job gains and 7.4 million gross job losses per quarter

Figure 1 shows the gross number of job gains and losses from first quarter 1993 through second quarter 2020. Note that every quarter in the series indicates both substantial gross job gains from opening and expanding establishments and substantial gross job losses from closing and contracting establishments. On average, the net change in employment during this period was 196,000 jobs per quarter, but that required an average of nearly 7.6 million gross job gains and nearly 7.4 million gross job losses.

Figure 4.1: U.S. private sector, gross job gains and losses

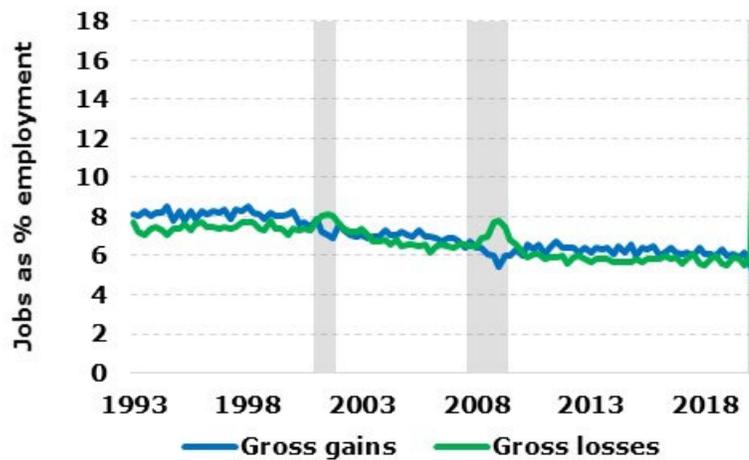


As a percent of U.S. employment, gross job gains averaged 7.0% and gross job losses averaged 6.8% between 1993 Q1 and 2020 Q2

Even during the three recessionary periods (2001 Q1 – 2001 Q4; 2007 Q4 – 2009 Q2; 2020 Q1 – Q2) on the graph, there are gross job gains. On average during those three recessions, opening and expanding businesses increased the number of jobs by over 7.1 million per quarter. However, gross job losses averaged over 9.1 million per quarter so that the net change in jobs was negative in those recessionary periods. In the non-recessionary periods shown, the average quarter saw a net increase of 490,000 jobs. However, that represented (on average) a gross gain of nearly 7.7 million jobs and a gross loss of nearly 7.2 million jobs. The second quarter of 2020 stands out among those recessionary quarters for a record high number of gross job losses (20.4 million) and a record low number of gross job gains (5.7 million).

Another way to measure employment dynamics is to look at gross job changes relative to total employment – the rate of gross job gains and losses as a percent of average employment in the current and previous quarter. Figure 2 shows the rate of gross job gains and losses for first quarter 1993 through second quarter 2020. Over this period, gross job gains averaged 7.0% of employment while gross job losses averaged 6.8% of employment.

Figure 4.2: U.S. private sector, gross job gains and losses as percent of employment



The BED data also allow us to examine employment dynamics at the industry level. Because the level of employment varies widely by industry, looking at employment rates gives us a better sense of which sectors have higher or lower degrees of gross employment changes. As Figure 3 indicates, the natural resources and mining sector has the highest rates of gross job gains and losses, while the manufacturing sector has the lowest rates.

Figure 4.3: U.S. average rates, gross job gains and losses, 1993 Q1 – 2020 Q2



Nationally, the natural resources and mining and construction sectors had the highest rates of gross job gains and gross job losses

A closer inspection of the data (Figures 4 and 5) reveal that expanding, opening, contracting and closing establishments all have bigger impacts on gross job changes in the natural resources and mining sector compared to the U.S. average while the opposite is true for the manufacturing sector.

Figure 4.4: U.S. average gross job gains as percent of employment, 1993 Q1 – 2020 Q2

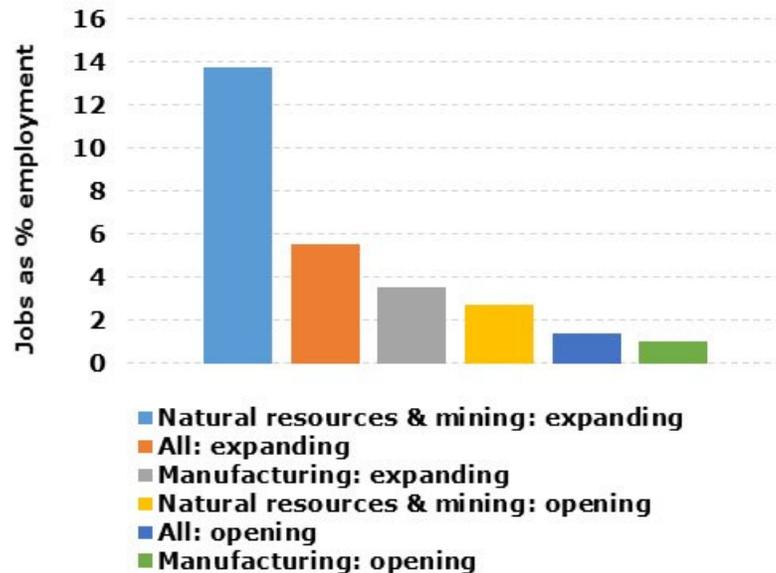
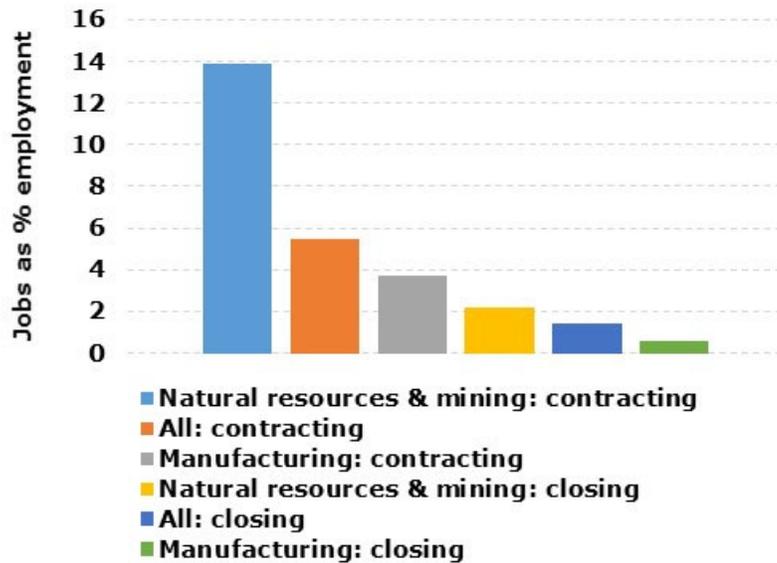


Figure 4.5: U.S. average gross job losses as percent of employment, 1993 Q1 – 2020 Q2



Business openings and closings account for a small percentage of gross job gains or losses for all but the smallest establishments

The BED data also give us insights into employment dynamics by size of establishment. Figure 6 shows average gross job gains by the number of employees at an establishment, while Figure 7 shows average gross job losses by the number of employees at an establishment. For larger establishments, most gross job gains and losses are the result of expansion or contraction. Among establishments with 1,000 or more employees, opening and closing firms are responsible for less than one percent of gross job gains or gross job losses. Only for the smallest establishments, those with one to four employees, are openings and closings a major factor in job creation or destruction.

Figure 4.6: U.S. gross job gains by firm size, 1992 Q3 – 2020 Q2

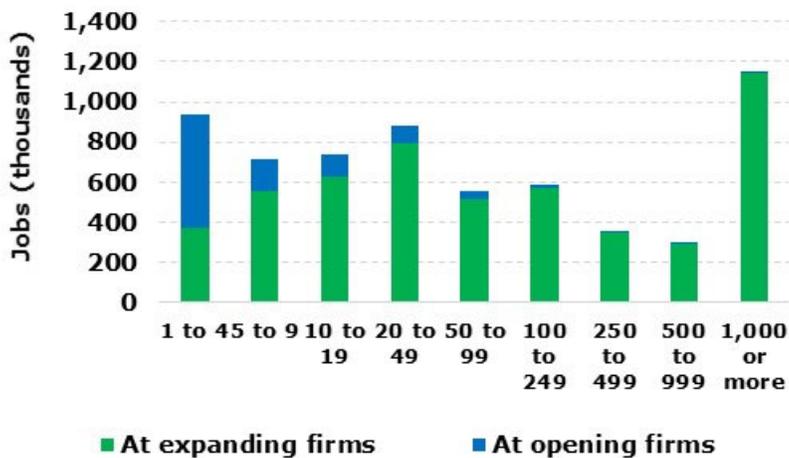
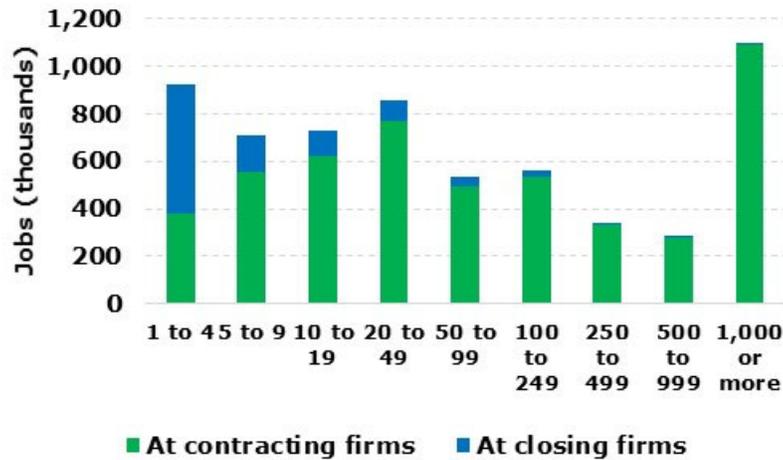


Figure 4.7: U.S. gross job losses by firm size, 1992 Q3 – 2020 Q2

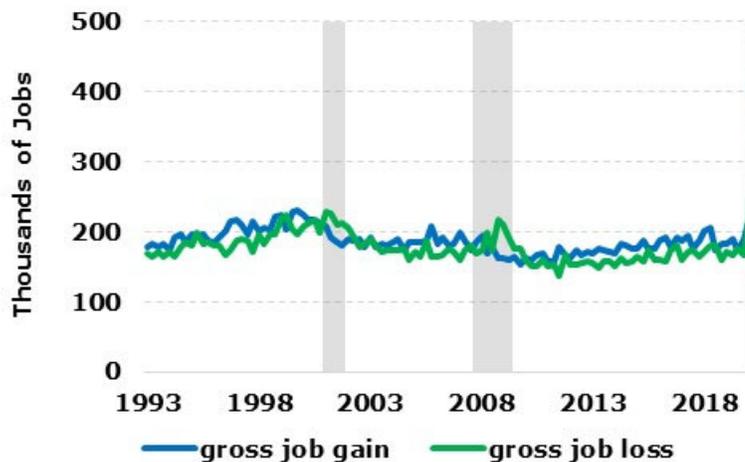


Washington data: Private Sector Employment Changes

Like the U.S., WA saw both gross job gains and gross job losses in every quarter from 1993 Q1 through 2020 Q2

Figure 8 shows the gross number of job gains and losses from first quarter 1993 through second quarter 2020 for Washington. As was the case for the nation as a whole, Washington has gross job gains in each quarter displayed in Chart 8, including the three recessions (2001 Q1 – 2001 Q4; 2007 Q4 – 2009 Q2; 2020 Q1 – Q2). Also like the U.S., Washington had gross job losses that exceeded gross job gains during each of the three recessions.

Figure 4.8: WA private sector, gross job gain and losses

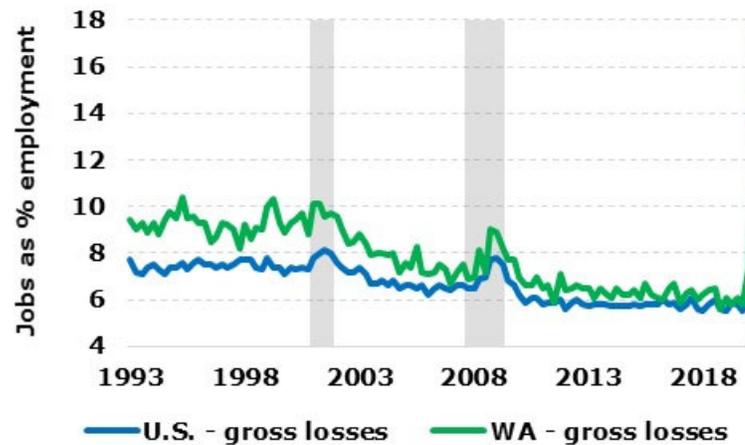


However, to get a sense of how Washington’s job creation and destruction compares to the U.S., we need to compare rates of gross job gains and gross job losses. Figures 9 and 10 reveal that the Washington economy consistently has higher rates of both job creation and job destruction than the U.S.

Figure 4.9: U.S. and WA private sector gross job gains



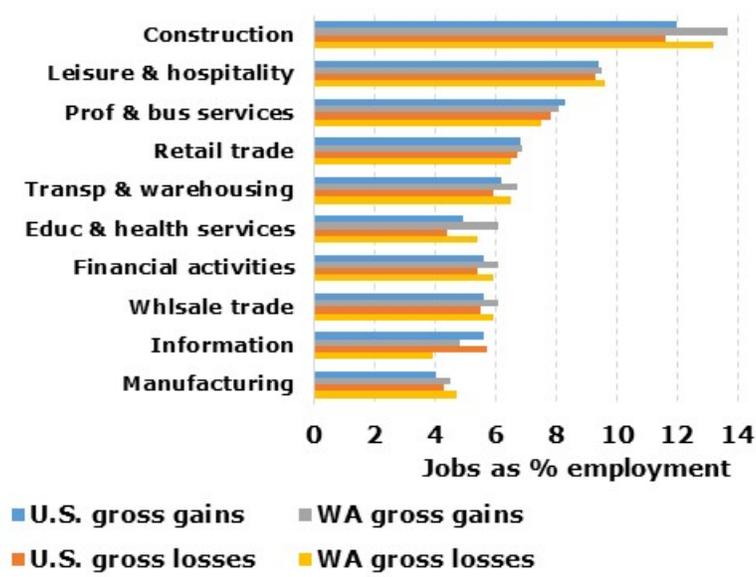
Figure 4.10: U.S. and WA private sector job losses



WA has consistently higher rates of both gross job gains and gross job losses than the nation as a whole

Comparing the average rates of gross job gains and gross job losses by industry (Figure 11; state level data are not available for the natural resources and mining sector), Washington has higher rates for most but not all industries. Washington’s information and professional and business services sectors have lower rates of both gross job gains and gross job losses compared to the U.S. The Washington retail trade sector has lower rates of gross job losses than the U.S. but higher rates of gross job gains.

Figure 4.11: U.S. and WA average gross job gains and losses by sector, 1993Q1 - 2020Q2



Summary

The BED data provide insights into the dynamic nature of labor markets. Nationally, between the first quarter of 1993 and the second quarter of 2020, an average of almost 7.6 million gross jobs were created per quarter and an average of almost 7.4 million gross jobs were eliminated per quarter. The net impact of existing establishments expanding, contracting or closing and new establishments opening was to increase net employment by an average of 196,000 jobs per quarter. This amounts to the creation of 38.7 jobs and the elimination of 37.7 jobs to increase overall employment by one job.

However, the rate of gross job gains and losses varies widely by industry. While the rate of gross job gains between the first quarter of 1993 and the second quarter of 2020 averaged 7.0% of employment for all private sector establishments, this ranged from a high of 16.5% for the natural resources and mining sector to a low of 4.0% for the manufacturing sector. The picture for gross job losses is similar: an average of 6.8% of employment for all private sector establishments, but as high as 11.6% for construction and as low as 4.3% for manufacturing.

Focusing on Washington, we see rates of average gross job gains (8.2%) and average gross job losses (7.9%) that exceed those of the U.S. for the first quarter of 1993 through the second quarter of 2020. We generally see this pattern at the industry level as well, with most Washington industries having both higher rates of gross job gains and higher rates of gross job losses than the nation as a whole; the information and professional and business services sectors are the exceptions.

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Detail Components of the Washington State Economic and Revenue Forecast

Calendar Years

Note: The economic data discussed in these tables were current at the time the forecast was prepared. Many concepts have changed since then due to new releases and data revisions.

Table A1.1

U.S. Economic Forecast Summary

Forecast 2021 to 2025

	2018	2019	2020	2021	2022	2023	2024	2025
Real National Income Accounts (Billions of Chained 2012 Dollars)								
Real Gross Domestic Product	18,687.8	19,091.7	18,423.4	19,477.0	20,269.8	20,756.3	21,212.9	21,658.4
% Ch	3.0	2.2	-3.5	5.7	4.1	2.4	2.2	2.1
Real Consumption	12,928.1	13,240.2	12,725.9	13,531.7	14,102.2	14,440.6	14,772.8	15,112.5
% Ch	2.7	2.4	-3.9	6.3	4.2	2.4	2.3	2.3
Real Nonresidential Fixed Investment	2,698.9	2,776.8	2,666.5	2,838.8	3,053.7	3,243.0	3,403.4	3,541.9
% Ch	6.9	2.9	-4.0	6.5	7.6	6.2	4.9	4.1
Real Residential Fixed Investment	612.0	601.5	637.8	722.2	685.9	662.1	661.3	661.8
% Ch	-0.6	-1.7	6.0	13.2	-5.0	-3.5	-0.1	0.1
Real Personal Income	16,492.4	16,887.6	17,716.9	18,186.2	17,964.3	18,453.9	19,008.7	19,518.5
% Ch	3.1	2.4	4.9	2.6	-1.2	2.7	3.0	2.7
Real Per Capita Income (\$/Person)	50,431	51,409	53,764	55,094	54,224	55,421	56,784	57,981
% Ch	2.6	1.9	4.6	2.5	-1.6	2.2	2.5	2.1
Price and Wage Indexes								
PCE Price Index (2012=100)	108.2	109.9	111.2	113.8	115.6	117.5	119.6	122.0
% Ch	2.1	1.5	1.2	2.4	1.6	1.6	1.8	2.0
U.S. Consumer Price Index (1982-84=1.0)	2.511	2.557	2.588	2.656	2.697	2.741	2.794	2.854
% Ch	2.4	1.8	1.2	2.6	1.5	1.6	1.9	2.2
Employment Cost Index (Dec. 2005=1.0)	1.334	1.374	1.414	1.452	1.497	1.546	1.592	1.638
% Ch	3.1	3.0	2.9	2.7	3.1	3.3	3.0	2.9
Current Dollar National Income (Billions of Dollars)								
Gross Domestic Product	20,611.9	21,433.2	20,934.9	22,624.2	24,031.8	25,168.7	26,264.4	27,397.4
% Ch	5.5	4.0	-2.3	8.1	6.2	4.7	4.4	4.3
Personal Income	17,851.8	18,551.5	19,691.6	20,688.2	20,772.1	21,681.8	22,727.3	23,803.9
% Ch	5.3	3.9	6.1	5.1	0.4	4.4	4.8	4.7
Employment (Millions)								
U.S. Civilian Labor Force	162.1	163.5	160.7	161.7	164.4	166.3	167.8	169.1
Total U.S. Employment	155.8	157.5	147.8	152.9	157.7	160.4	162.1	163.1
Unemployment Rate (%)	3.90	3.67	8.10	5.48	4.07	3.55	3.44	3.52
Nonfarm Payroll Employment	148.89	150.90	142.25	145.62	150.64	153.39	154.97	155.81
% Ch	1.6	1.3	-5.7	2.4	3.4	1.8	1.0	0.5
Manufacturing	12.69	12.82	12.18	12.36	12.52	12.56	12.46	12.29
% Ch	2.0	1.0	-4.9	1.5	1.3	0.3	-0.8	-1.4
Durable Manufacturing	7.95	8.04	7.58	7.71	7.84	7.88	7.82	7.69
% Ch	2.7	1.2	-5.7	1.7	1.7	0.4	-0.7	-1.6
Nondurable Manufacturing	4.74	4.78	4.60	4.65	4.68	4.68	4.64	4.60
% Ch	0.9	0.8	-3.7	1.0	0.6	0.2	-1.0	-0.9
Construction	7.29	7.49	7.27	7.40	7.46	7.46	7.47	7.53
% Ch	4.6	2.8	-2.9	1.8	0.8	0.0	0.1	0.8
Service-Providing	128.19	129.86	122.18	125.23	130.01	132.71	134.38	135.32
% Ch	1.3	1.3	-5.9	2.5	3.8	2.1	1.3	0.7
Miscellaneous Indicators								
Oil-WTI (\$ per barrel)	64.9	57.0	39.2	62.8	58.5	54.7	52.4	51.1
Personal Saving/Disposable Income (%)	7.9	7.6	16.1	13.5	8.3	8.4	8.9	9.4
Auto Sales (Millions)	5.3	4.7	3.4	3.6	3.6	3.5	3.5	3.5
% Ch	-12.8	-11.1	-27.5	4.8	0.5	-1.6	-1.4	0.2
Housing Starts (Millions)	1.248	1.295	1.396	1.554	1.373	1.284	1.272	1.278
% Ch	3.4	3.8	7.8	11.4	-11.7	-6.5	-1.0	0.5
Federal Budget Surplus (Billions)	-931.7	-1,047.0	-3,159.3	-3,125.0	-1,455.4	-1,204.6	-1,166.6	-1,233.5
Net Exports (Billions)	-609.5	-610.5	-644.9	-949.7	-861.8	-657.1	-619.7	-627.0
3-Month Treasury Bill Rate (%)	1.94	2.06	0.37	0.04	0.07	0.10	0.23	0.46
10-Year Treasury Note Yield (%)	2.91	2.14	0.89	1.50	1.88	1.97	2.11	2.37
Bond Index of 20 G.O. Munis. (%)	3.96	3.60	2.65	2.50	2.76	2.82	2.93	3.16
30-Year Fixed Mortgage Rate (%)	4.54	3.94	3.12	3.08	3.62	3.76	3.92	4.13

Table A1.2
U.S. Economic Forecast Summary
Forecast 2021 to 2025

	2020:1	2020:2	2020:3	2020:4	2021:1	2021:2	2021:3	2021:4
Real National Income Accounts (Billions of Chained 2012 Dollars)								
Real Gross Domestic Product	19,010.8	17,302.5	18,596.5	18,783.9	19,004.6	19,343.2	19,666.6	19,893.8
% Ch , Annual Rate	-5.0	-31.4	33.4	4.1	4.8	7.3	6.9	4.7
Real Consumption	13,118.4	11,860.3	12,924.7	13,000.3	13,178.4	13,437.1	13,672.1	13,839.2
% Ch , Annual Rate	-6.9	-33.2	41.0	2.4	5.6	8.1	7.2	5.0
Real Nonresidential Fixed Investment	2,733.8	2,525.5	2,659.0	2,747.6	2,782.4	2,799.1	2,855.9	2,917.9
% Ch , Annual Rate	-6.7	-27.2	22.9	14.0	5.2	2.4	8.4	9.0
Real Residential Fixed Investment	637.6	571.3	645.5	696.8	723.6	730.3	722.6	712.2
% Ch , Annual Rate	19.0	-35.6	63.0	35.8	16.3	3.7	-4.1	-5.6
Real Personal Income	17,091.1	18,524.3	17,816.9	17,435.4	18,230.2	19,254.5	17,695.4	17,564.7
% Ch , Annual Rate	2.8	38.0	-14.4	-8.3	19.5	24.4	-28.7	-2.9
Real Per Capita Income (\$/Person)	51,906	56,222	54,051	52,877	55,271	58,352	53,595	53,158
% Ch , Annual Rate	2.5	37.6	-14.6	-8.4	19.4	24.2	-28.8	-3.2
Price and Wage Indexes								
PCE Price Index (2012=100)	110.9	110.4	111.4	111.9	113.0	113.5	114.0	114.5
% Ch , Annual Rate	1.3	-1.6	3.7	1.6	4.1	2.0	1.7	1.7
U.S. Consumer Price Index (1982-84=1.0)	2.585	2.565	2.594	2.610	2.638	2.652	2.663	2.673
% Ch , Annual Rate	1.0	-3.1	4.7	2.4	4.5	2.1	1.7	1.5
Employment Cost Index (Dec. 2005=1.0)	1.403	1.408	1.415	1.428	1.437	1.447	1.457	1.467
% Ch , Annual Rate	4.1	1.4	2.0	3.7	2.7	2.6	2.7	3.0
Current Dollar National Income (Billions of Dollars)								
Gross Domestic Product	21,561.1	19,520.1	21,170.3	21,487.9	21,925.2	22,399.0	22,890.0	23,282.5
% Ch , Annual Rate	-3.4	-32.8	38.3	6.1	8.4	8.9	9.1	7.0
Personal Income	18,951.0	20,457.3	19,853.5	19,504.4	20,597.8	21,861.3	20,178.3	20,115.3
% Ch , Annual Rate	4.1	35.8	-11.3	-6.8	24.4	26.9	-27.4	-1.2
Employment (Millions)								
U.S. Civilian Labor Force	163.9	158.2	160.3	160.6	160.3	161.4	162.2	162.9
Total U.S. Employment	157.6	137.6	146.2	149.8	150.3	152.4	153.8	155.0
Unemployment Rate (%)	3.80	13.02	8.81	6.75	6.23	5.61	5.21	4.86
Nonfarm Payroll Employment	151.87	133.67	140.86	142.62	143.02	145.01	146.56	147.87
% Ch , Annual Rate	0.3	-40.0	23.3	5.1	1.1	5.7	4.3	3.6
Manufacturing	12.77	11.69	12.08	12.19	12.26	12.35	12.41	12.42
% Ch , Annual Rate	-0.9	-29.8	13.9	4.0	2.1	3.0	2.0	0.3
Durable Manufacturing	7.99	7.25	7.51	7.58	7.62	7.70	7.76	7.78
% Ch , Annual Rate	-0.9	-32.4	15.7	3.4	2.2	4.4	3.0	1.3
Nondurable Manufacturing	4.78	4.45	4.56	4.62	4.64	4.65	4.65	4.64
% Ch , Annual Rate	-1.0	-25.2	11.0	4.9	2.1	0.8	0.4	-1.2
Construction	7.61	6.90	7.23	7.36	7.37	7.39	7.41	7.44
% Ch , Annual Rate	3.1	-32.2	20.0	7.7	0.4	1.1	1.5	1.6
Service-Providing	130.81	114.47	120.97	122.47	122.80	124.66	126.11	127.37
% Ch , Annual Rate	0.4	-41.4	24.7	5.1	1.1	6.2	4.7	4.1
Miscellaneous Indicators								
Oil-WTI (\$ per barrel)	45.8	27.8	40.9	42.5	58.7	65.9	64.4	62.3
Personal Saving/Disposable Income (%)	9.6	26.0	15.7	13.0	16.4	19.7	10.1	8.0
Auto Sales (Millions)	3.8	2.5	3.6	3.8	3.6	3.6	3.6	3.6
% Ch , Annual Rate	-43.6	-81.7	304.0	23.5	-19.2	0.7	4.4	-1.5
Housing Starts (Millions)	1.484	1.079	1.432	1.588	1.602	1.602	1.535	1.478
% Ch , Annual Rate	15.2	-72.1	210.5	51.0	3.6	0.1	-15.7	-14.2
Federal Budget Surplus (Billions)	-1,150.8	-5,638.3	-3,528.6	-2,319.6	-3,283.7	-5,635.4	-2,056.1	-1,524.8
Net Exports (Billions)	-494.3	-545.2	-736.1	-804.2	-886.1	-957.1	-978.1	-977.5
3-Month Treasury Bill Rate (%)	1.11	0.14	0.11	0.09	0.05	0.03	0.04	0.05
10-Year Treasury Note Yield (%)	1.38	0.69	0.65	0.86	1.16	1.49	1.62	1.74
Bond Index of 20 G.O. Munis. (%)	3.45	2.79	2.15	2.22	2.28	2.46	2.58	2.69
30-Year Fixed Mortgage Rate (%)	3.51	3.24	2.95	2.76	2.78	2.99	3.18	3.36

Table A1.2 (continued)
U.S. Economic Forecast Summary
Forecast 2021 to 2025

	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4
Real National Income Accounts (Billions of Chained 2012 Dollars)								
Real Gross Domestic Product	20,063.0	20,212.7	20,342.3	20,461.1	20,571.8	20,703.1	20,814.9	20,935.4
% Ch , Annual Rate	3.4	3.0	2.6	2.4	2.2	2.6	2.2	2.3
Real Consumption	13,961.2	14,068.3	14,153.3	14,226.0	14,311.0	14,398.9	14,484.1	14,568.6
% Ch , Annual Rate	3.6	3.1	2.4	2.1	2.4	2.5	2.4	2.4
Real Nonresidential Fixed Investment	2,970.2	3,030.0	3,079.3	3,135.2	3,176.6	3,222.3	3,264.9	3,308.2
% Ch , Annual Rate	7.4	8.3	6.7	7.5	5.4	5.9	5.4	5.4
Real Residential Fixed Investment	697.9	689.1	681.4	675.3	667.4	662.2	659.2	659.6
% Ch , Annual Rate	-7.8	-5.0	-4.4	-3.5	-4.6	-3.0	-1.8	0.3
Real Personal Income	17,744.6	17,893.8	18,050.3	18,168.5	18,236.3	18,387.4	18,525.9	18,666.1
% Ch , Annual Rate	4.2	3.4	3.5	2.6	1.5	3.4	3.0	3.1
Real Per Capita Income (\$/Person)	53,652	54,045	54,454	54,743	54,876	55,258	55,602	55,949
% Ch , Annual Rate	3.8	3.0	3.1	2.1	1.0	2.8	2.5	2.5
Price and Wage Indexes								
PCE Price Index (2012=100)	115.0	115.4	115.8	116.3	116.8	117.2	117.7	118.2
% Ch , Annual Rate	1.6	1.6	1.4	1.5	1.7	1.7	1.7	1.7
U.S. Consumer Price Index (1982-84=1.0)	2.683	2.693	2.701	2.711	2.723	2.735	2.747	2.759
% Ch , Annual Rate	1.6	1.5	1.1	1.4	1.8	1.8	1.8	1.8
Employment Cost Index (Dec. 2005=1.0)	1.479	1.490	1.503	1.516	1.528	1.541	1.552	1.564
% Ch , Annual Rate	3.2	3.2	3.5	3.5	3.3	3.2	3.1	3.0
Current Dollar National Income (Billions of Dollars)								
Gross Domestic Product	23,597.1	23,893.9	24,177.6	24,458.6	24,739.6	25,036.6	25,309.2	25,589.5
% Ch , Annual Rate	5.5	5.1	4.8	4.7	4.7	4.9	4.4	4.5
Personal Income	20,402.9	20,654.8	20,907.2	21,123.4	21,293.1	21,557.7	21,810.1	22,066.2
% Ch , Annual Rate	5.8	5.0	5.0	4.2	3.3	5.1	4.8	4.8
Employment (Millions)								
U.S. Civilian Labor Force	163.6	164.1	164.7	165.2	165.7	166.1	166.5	166.9
Total U.S. Employment	156.2	157.3	158.3	159.1	159.7	160.2	160.7	161.1
Unemployment Rate (%)	4.49	4.15	3.90	3.72	3.62	3.55	3.53	3.51
Nonfarm Payroll Employment	149.09	150.24	151.21	152.03	152.65	153.21	153.66	154.05
% Ch , Annual Rate	3.3	3.1	2.6	2.2	1.7	1.5	1.2	1.0
Manufacturing	12.46	12.55	12.53	12.52	12.57	12.56	12.56	12.54
% Ch , Annual Rate	1.3	2.8	-0.5	-0.4	1.5	-0.1	0.0	-0.7
Durable Manufacturing	7.81	7.88	7.84	7.82	7.87	7.87	7.89	7.88
% Ch , Annual Rate	1.6	3.6	-1.9	-1.0	2.1	0.4	0.7	-0.4
Nondurable Manufacturing	4.65	4.67	4.69	4.70	4.70	4.69	4.68	4.66
% Ch , Annual Rate	0.8	1.5	1.8	0.6	0.5	-0.8	-1.1	-1.3
Construction	7.44	7.47	7.47	7.48	7.47	7.47	7.46	7.46
% Ch , Annual Rate	-0.1	1.3	0.2	0.7	-0.6	-0.2	-0.3	0.1
Service-Providing	128.54	129.58	130.56	131.38	131.96	132.53	132.98	133.38
% Ch , Annual Rate	3.7	3.3	3.1	2.5	1.8	1.7	1.4	1.2
Miscellaneous Indicators								
Oil-WTI (\$ per barrel)	60.5	59.0	57.8	56.8	55.9	55.1	54.3	53.7
Personal Saving/Disposable Income (%)	8.2	8.2	8.4	8.5	8.2	8.3	8.4	8.6
Auto Sales (Millions)	3.6	3.6	3.6	3.6	3.6	3.6	3.5	3.5
% Ch , Annual Rate	0.6	1.9	-1.9	-0.4	-1.7	-1.4	-4.3	-2.2
Housing Starts (Millions)	1.427	1.383	1.355	1.325	1.301	1.282	1.275	1.277
% Ch , Annual Rate	-13.1	-11.6	-7.9	-8.7	-7.0	-5.5	-2.2	0.6
Federal Budget Surplus (Billions)	-1,514.2	-1,491.3	-1,475.1	-1,341.2	-1,236.7	-1,218.3	-1,203.2	-1,160.3
Net Exports (Billions)	-956.9	-901.0	-830.6	-758.9	-707.4	-663.7	-635.3	-621.8
3-Month Treasury Bill Rate (%)	0.06	0.07	0.08	0.08	0.09	0.10	0.11	0.11
10-Year Treasury Note Yield (%)	1.80	1.86	1.91	1.94	1.98	1.97	1.96	1.97
Bond Index of 20 G.O. Munis. (%)	2.73	2.76	2.78	2.80	2.83	2.81	2.83	2.83
30-Year Fixed Mortgage Rate (%)	3.50	3.59	3.66	3.71	3.75	3.76	3.76	3.78

Table A1.2 (continued)
U.S. Economic Forecast Summary
Forecast 2021 to 2025

	2024:1	2024:2	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4
Real National Income Accounts (Billions of Chained 2012 Dollars)								
Real Gross Domestic Product	21,045.5	21,159.9	21,269.2	21,377.0	21,491.5	21,605.1	21,717.4	21,819.4
% Ch , Annual Rate	2.1	2.2	2.1	2.0	2.2	2.1	2.1	1.9
Real Consumption	14,648.7	14,730.9	14,813.8	14,897.7	14,985.4	15,071.6	15,155.9	15,237.4
% Ch , Annual Rate	2.2	2.3	2.3	2.3	2.4	2.3	2.3	2.2
Real Nonresidential Fixed Investment	3,347.9	3,386.9	3,422.4	3,456.3	3,490.6	3,524.6	3,559.5	3,593.1
% Ch , Annual Rate	4.9	4.7	4.3	4.0	4.0	3.9	4.0	3.8
Real Residential Fixed Investment	660.9	661.4	660.9	661.8	662.7	663.4	662.9	658.2
% Ch , Annual Rate	0.8	0.3	-0.3	0.5	0.5	0.5	-0.3	-2.8
Real Personal Income	18,815.2	18,948.9	19,074.7	19,196.0	19,336.6	19,459.8	19,581.8	19,695.9
% Ch , Annual Rate	3.2	2.9	2.7	2.6	3.0	2.6	2.5	2.4
Real Per Capita Income (\$/Person)	56,322	56,646	56,943	57,225	57,563	57,847	58,128	58,385
% Ch , Annual Rate	2.7	2.3	2.1	2.0	2.4	2.0	2.0	1.8
Price and Wage Indexes								
PCE Price Index (2012=100)	118.7	119.3	119.8	120.4	121.0	121.6	122.3	122.9
% Ch , Annual Rate	1.8	1.8	1.8	2.0	2.0	2.1	2.1	2.1
U.S. Consumer Price Index (1982-84=1.0)	2.773	2.786	2.800	2.815	2.830	2.846	2.862	2.878
% Ch , Annual Rate	2.0	2.0	2.0	2.1	2.1	2.2	2.3	2.3
Employment Cost Index (Dec. 2005=1.0)	1.575	1.586	1.598	1.609	1.621	1.632	1.644	1.655
% Ch , Annual Rate	2.9	2.9	2.9	2.9	2.8	2.9	2.8	2.9
Current Dollar National Income (Billions of Dollars)								
Gross Domestic Product	25,857.8	26,130.0	26,397.5	26,672.2	26,959.4	27,251.0	27,546.7	27,832.6
% Ch , Annual Rate	4.3	4.3	4.2	4.2	4.4	4.4	4.4	4.2
Personal Income	22,341.3	22,600.8	22,854.7	23,112.3	23,397.6	23,667.6	23,941.6	24,208.8
% Ch , Annual Rate	5.1	4.7	4.6	4.6	5.0	4.7	4.7	4.5
Employment (Millions)								
U.S. Civilian Labor Force	167.3	167.7	168.0	168.3	168.6	168.9	169.2	169.5
Total U.S. Employment	161.5	161.9	162.3	162.6	162.8	163.0	163.2	163.4
Unemployment Rate (%)	3.46	3.43	3.42	3.43	3.47	3.50	3.54	3.58
Nonfarm Payroll Employment	154.46	154.84	155.16	155.41	155.59	155.75	155.89	155.99
% Ch, Annual Rate	1.1	1.0	0.8	0.6	0.5	0.4	0.4	0.3
Manufacturing	12.52	12.48	12.45	12.41	12.35	12.31	12.26	12.24
% Ch, Annual Rate	-0.8	-1.1	-1.2	-1.2	-1.7	-1.4	-1.4	-0.6
Durable Manufacturing	7.86	7.84	7.81	7.78	7.74	7.71	7.67	7.66
% Ch, Annual Rate	-0.8	-1.3	-1.4	-1.5	-2.1	-1.7	-1.7	-0.6
Nondurable Manufacturing	4.65	4.64	4.64	4.63	4.61	4.60	4.59	4.58
% Ch, Annual Rate	-0.9	-0.8	-0.7	-0.9	-1.1	-0.9	-0.9	-0.7
Construction	7.46	7.46	7.47	7.48	7.50	7.52	7.54	7.55
% Ch, Annual Rate	0.0	0.0	0.3	0.7	0.8	1.0	1.0	0.8
Service-Providing	133.83	134.24	134.58	134.86	135.08	135.26	135.42	135.53
% Ch, Annual Rate	1.3	1.3	1.0	0.8	0.7	0.5	0.5	0.3
Miscellaneous Indicators								
Oil-WTI (\$ per barrel)	53.1	52.5	52.1	51.8	51.5	51.2	51.0	50.8
Personal Saving/Disposable Income (%)	8.8	8.9	9.0	9.1	9.3	9.4	9.5	9.6
Auto Sales (Millions)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
% Ch, Annual Rate	-0.2	-0.7	-1.0	-0.7	0.8	0.5	1.3	0.1
Housing Starts (Millions)	1.271	1.268	1.272	1.275	1.282	1.286	1.279	1.266
% Ch, Annual Rate	-1.8	-1.2	1.4	0.7	2.2	1.4	-2.2	-3.9
Federal Budget Surplus (Billions)	-1,161.8	-1,163.8	-1,172.2	-1,168.8	-1,200.6	-1,223.3	-1,248.0	-1,262.0
Net Exports (Billions)	-618.8	-617.5	-620.5	-622.0	-624.1	-626.5	-628.5	-629.0
3-Month Treasury Bill Rate (%)	0.11	0.16	0.32	0.33	0.33	0.38	0.54	0.60
10-Year Treasury Note Yield (%)	2.02	2.08	2.14	2.20	2.27	2.33	2.40	2.46
Bond Index of 20 G.O. Munis. (%)	2.85	2.90	2.95	3.00	3.06	3.12	3.19	3.26
30-Year Fixed Mortgage Rate (%)	3.83	3.89	3.95	4.00	4.04	4.10	4.16	4.22

Table A1.3
Washington Economic Forecast Summary
Forecast 2021 to 2025

	2018	2019	2020	2021	2022	2023	2024	2025
Real Income (Billions of Chained 2012 Dollars)								
Real Personal Income	432.420	448.909	472.403	483.871	481.271	496.442	513.546	530.099
% Ch	5.7	3.8	5.2	2.4	-0.5	3.2	3.4	3.2
Real Wage and Salary Disb.	219.336	231.316	235.414	243.717	251.640	260.672	269.879	279.083
% Ch	6.5	5.5	1.8	3.5	3.3	3.6	3.5	3.4
Real Nonwage Income	213.084	217.593	236.988	240.155	229.631	235.771	243.667	251.016
% Ch	4.8	2.1	8.9	1.3	-4.4	2.7	3.3	3.0
Real Per Capita Income (\$/Person)	57,474	58,947	61,310	62,271	61,398	62,670	64,097	65,385
% Ch	4.2	2.6	4.0	1.6	-1.4	2.1	2.3	2.0
Price and Wage Indexes								
U.S. Implicit Price Deflator, PCE (2012=1.0)	1.082	1.098	1.111	1.138	1.156	1.175	1.196	1.220
% Ch	2.1	1.5	1.2	2.4	1.6	1.6	1.8	2.0
Seattle Cons. Price Index (1982-84=1.0)	2.711	2.779	2.826	2.889	2.933	2.981	3.038	3.104
% Ch	3.2	2.5	1.7	2.2	1.5	1.6	1.9	2.2
Average Nonfarm Annual Wage	67,735	71,155	77,422	80,642	81,643	84,017	87,180	90,842
% Ch	6.5	5.0	8.8	4.2	1.2	2.9	3.8	4.2
Avg. Hourly Earnings-Mfg. (\$/Hour)	28.42	29.16	28.32	27.68	28.48	29.37	30.19	30.99
% Ch	3.8	2.6	-2.9	-2.3	2.9	3.1	2.8	2.7
Current Dollar Income (Billions of Dollars)								
Personal Income	468.055	493.128	525.037	550.449	556.496	583.281	614.013	646.490
% Ch	7.9	5.4	6.5	4.8	1.1	4.8	5.3	5.3
Disposable Personal Income	413.382	434.572	466.527	489.550	491.804	514.252	540.947	570.389
% Ch	8.4	5.1	7.4	4.9	0.5	4.6	5.2	5.4
Per Capita Income (\$/Person)	62,209	64,752	68,140	70,839	70,994	73,632	76,635	79,740
% Ch	6.4	4.1	5.2	4.0	0.2	3.7	4.1	4.1
Employment (Thousands)								
Washington Civilian Labor Force	3,811.7	3,910.1	3,912.8	3,870.7	3,945.4	4,009.6	4,068.3	4,125.0
Total Washington Employment	3,644.5	3,747.7	3,584.0	3,658.1	3,761.4	3,835.5	3,893.6	3,945.1
Unemployment Rate (%)	4.39	4.15	8.41	5.50	4.66	4.34	4.29	4.36
Nonfarm Payroll Employment	3,401.1	3,468.8	3,286.5	3,340.8	3,463.2	3,543.1	3,598.4	3,643.8
% Ch	2.4	2.0	-5.3	1.7	3.7	2.3	1.6	1.3
Manufacturing	287.7	294.0	271.9	259.6	259.7	261.3	262.2	262.1
% Ch	1.2	2.2	-7.5	-4.5	0.0	0.6	0.3	0.0
Durable Manufacturing	202.2	206.9	189.8	176.5	175.7	176.7	178.0	178.3
% Ch	0.9	2.4	-8.3	-7.0	-0.4	0.5	0.8	0.2
Aerospace	83.9	88.5	79.9	65.2	60.6	61.3	62.6	63.3
% Ch	-0.3	5.5	-9.7	-18.4	-7.1	1.1	2.1	1.0
Nondurable Manufacturing	85.6	87.1	82.1	83.1	83.9	84.7	84.2	83.8
% Ch	2.0	1.8	-5.7	1.2	1.0	0.9	-0.6	-0.5
Construction	213.1	219.5	213.6	218.7	211.4	207.1	207.6	209.8
% Ch	6.7	3.0	-2.7	2.4	-3.3	-2.0	0.2	1.1
Service-Providing	2,894.0	2,949.4	2,795.4	2,857.0	2,986.4	3,069.0	3,123.1	3,166.2
% Ch	2.2	1.9	-5.2	2.2	4.5	2.8	1.8	1.4
Software Publishers	65.3	70.4	75.4	76.0	78.1	79.4	80.6	81.7
% Ch	6.4	7.7	7.2	0.7	2.8	1.7	1.5	1.5
Electronic Shopping and Mail-Order	54.8	63.5	75.9	87.7	90.3	92.6	94.7	96.7
% Ch	10.1	15.9	19.6	15.5	3.0	2.5	2.3	2.2
Housing Indicators (Thousands)								
Housing Units Authorized by Bldg. Permit	47.746	48.424	44.062	52.163	45.761	43.061	43.634	43.612
% Ch	4.3	1.4	-9.0	18.4	-12.3	-5.9	1.3	-0.1
Single-Family	23.676	23.300	23.044	30.645	27.005	25.294	25.253	25.227
% Ch	2.4	-1.6	-1.1	33.0	-11.9	-6.3	-0.2	-0.1
Multi-Family	24.070	25.124	21.018	21.518	18.756	17.767	18.381	18.385
% Ch	6.1	4.4	-16.3	2.4	-12.8	-5.3	3.5	0.0
30-Year Fixed Mortgage Rate (%)	4.54	3.94	3.12	3.08	3.62	3.76	3.92	4.13

Table A1.4
Washington Economic Forecast Summary
Forecast 2021 to 2025

	2020:1	2020:2	2020:3	2020:4	2021:1	2021:2	2021:3	2021:4
Real Income (Billions of Chained 2012 Dollars)								
Real Personal Income	456.796	492.275	474.878	465.662	484.073	509.132	472.578	469.703
% Ch, Annual Rate	3.6	34.9	-13.4	-7.5	16.8	22.4	-25.8	-2.4
Real Wage and Salary Disb.	237.019	226.889	236.980	240.769	240.395	243.152	244.952	246.368
% Ch, Annual Rate	4.8	-16.0	19.0	6.6	-0.6	4.7	3.0	2.3
Real Nonwage Income	219.777	265.386	237.898	224.892	243.678	265.979	227.626	223.335
% Ch, Annual Rate	2.4	112.6	-35.4	-20.1	37.8	41.9	-46.4	-7.3
Real Per Capita Income (\$/Person)	59,542	63,978	61,522	60,199	62,462	65,586	60,764	60,273
% Ch, Annual Rate	2.5	33.3	-14.5	-8.3	15.9	21.6	-26.3	-3.2
Price and Wage Indexes								
U.S. Implicit Price Deflator, PCE (2012=1.0)	1.109	1.104	1.114	1.119	1.130	1.135	1.140	1.145
% Ch, Annual Rate	1.3	-1.6	3.7	1.6	4.1	2.0	1.7	1.7
Seattle Cons. Price Index (1982-84=1.0)	2.817	2.804	2.836	2.847	2.869	2.884	2.896	2.907
% Ch, Annual Rate	2.7	-1.8	4.6	1.5	3.2	2.1	1.7	1.5
Average Nonfarm Annual Wage	72,803	77,681	79,161	80,045	80,419	80,622	80,687	80,838
% Ch, Annual Rate	4.8	29.6	7.8	4.5	1.9	1.0	0.3	0.7
Avg. Hourly Earnings-Mfg. (\$/Hour)	28.79	28.58	28.27	27.66	27.42	27.58	27.76	27.95
% Ch, Annual Rate	-4.3	-3.0	-4.2	-8.4	-3.3	2.4	2.5	2.8
Current Dollar Income (Billions of Dollars)								
Personal Income	506.487	543.622	529.139	520.900	546.939	578.061	538.889	537.910
% Ch, Annual Rate	5.0	32.7	-10.2	-6.1	21.5	24.8	-24.5	-0.7
Disposable Personal Income	446.289	487.910	470.729	461.180	487.626	517.769	477.284	475.521
% Ch, Annual Rate	4.8	42.9	-13.4	-7.9	25.0	27.1	-27.8	-1.5
Per Capita Income (\$/Person)	66,019	70,651	68,552	67,340	70,574	74,465	69,290	69,025
% Ch, Annual Rate	3.8	31.2	-11.4	-6.9	20.6	23.9	-25.0	-1.5
Employment (Thousands)								
Washington Civilian Labor Force	3,950.3	3,923.6	3,892.2	3,885.1	3,836.2	3,862.5	3,883.3	3,900.8
Total Washington Employment	3,774.7	3,403.7	3,530.3	3,627.2	3,610.5	3,648.0	3,675.3	3,698.3
Unemployment Rate (%)	4.45	13.25	9.30	6.64	5.88	5.55	5.36	5.19
Nonfarm Payroll Employment	3,507.5	3,129.2	3,240.3	3,268.9	3,281.1	3,326.9	3,363.6	3,391.5
% Ch, Annual Rate	1.5	-36.6	15.0	3.6	1.5	5.7	4.5	3.4
Manufacturing	292.3	269.7	264.5	261.1	262.2	260.8	258.9	256.5
% Ch, Annual Rate	-1.2	-27.6	-7.4	-5.1	1.6	-2.1	-2.8	-3.6
Durable Manufacturing	205.0	190.7	184.0	179.5	179.3	177.6	175.6	173.5
% Ch, Annual Rate	-2.6	-25.1	-13.4	-9.3	-0.5	-3.6	-4.4	-4.6
Aerospace	88.9	83.1	76.6	71.1	69.9	66.8	63.6	60.4
% Ch, Annual Rate	-0.6	-23.3	-28.0	-25.7	-6.5	-16.5	-17.9	-18.8
Nondurable Manufacturing	87.3	79.0	80.6	81.6	82.9	83.2	83.3	83.0
% Ch, Annual Rate	2.4	-33.2	8.3	5.3	6.5	1.4	0.6	-1.5
Construction	224.0	199.1	212.6	218.9	221.7	219.3	217.8	216.0
% Ch, Annual Rate	4.2	-37.5	30.0	12.3	5.4	-4.3	-2.9	-3.2
Service-Providing	2,985.5	2,655.0	2,757.6	2,783.4	2,791.7	2,841.4	2,881.5	2,913.3
% Ch, Annual Rate	1.5	-37.5	16.4	3.8	1.2	7.3	5.8	4.5
Software Publishers	74.6	76.0	75.6	75.5	75.9	75.9	75.7	76.4
% Ch, Annual Rate	11.3	7.5	-2.0	-0.4	1.9	0.3	-1.2	4.0
Electronic Shopping and Mail-Order	71.2	73.6	77.2	81.7	86.6	87.3	88.0	88.7
% Ch, Annual Rate	22.3	14.1	21.2	25.6	26.0	3.5	3.3	3.1
Housing Indicators (Thousands)								
Housing Units Authorized by Bldg. Permit	48.031	41.079	42.691	44.447	53.093	54.541	51.601	49.419
% Ch, Annual Rate	-30.5	-46.5	16.6	17.5	103.6	11.4	-19.9	-15.9
Single-Family	24.091	18.309	24.056	25.720	28.200	33.361	31.371	29.649
% Ch, Annual Rate	-21.1	-66.6	198.0	30.7	44.5	95.9	-21.8	-20.2
Multi-Family	23.940	22.770	18.636	18.726	24.893	21.179	20.230	19.770
% Ch, Annual Rate	-38.5	-18.2	-55.1	2.0	212.3	-47.6	-16.8	-8.8
30-Year Fixed Mortgage Rate (%)	3.51	3.24	2.95	2.76	2.78	2.99	3.18	3.36

Table A1.4 (continued)
Washington Economic Forecast Summary
Forecast 2021 to 2025

	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4
Real Income (Billions of Chained 2012 Dollars)								
Real Personal Income	474.792	479.125	483.721	487.447	489.942	494.398	498.481	502.947
% Ch, Annual Rate	4.4	3.7	3.9	3.1	2.1	3.7	3.3	3.6
Real Wage and Salary Disb.	248.375	250.454	252.709	255.023	257.284	259.554	261.696	264.152
% Ch, Annual Rate	3.3	3.4	3.7	3.7	3.6	3.6	3.3	3.8
Real Nonwage Income	226.418	228.671	231.012	232.424	232.658	234.845	236.785	238.795
% Ch, Annual Rate	5.6	4.0	4.2	2.5	0.4	3.8	3.3	3.4
Real Per Capita Income (\$/Person)	60,793	61,205	61,640	61,956	62,107	62,502	62,843	63,229
% Ch, Annual Rate	3.5	2.7	2.9	2.1	1.0	2.6	2.2	2.5
Price and Wage Indexes								
U.S. Implicit Price Deflator, PCE (2012=1.0)	1.150	1.154	1.158	1.163	1.168	1.172	1.177	1.182
% Ch, Annual Rate	1.6	1.6	1.4	1.5	1.7	1.7	1.7	1.7
Seattle Cons. Price Index (1982-84=1.0)	2.918	2.929	2.937	2.948	2.961	2.974	2.987	3.001
% Ch, Annual Rate	1.6	1.5	1.1	1.4	1.8	1.8	1.8	1.8
Average Nonfarm Annual Wage	81,063	81,387	81,794	82,326	82,909	83,621	84,380	85,157
% Ch, Annual Rate	1.1	1.6	2.0	2.6	2.9	3.5	3.7	3.7
Avg. Hourly Earnings-Mfg. (\$/Hour)	28.15	28.36	28.59	28.83	29.05	29.27	29.48	29.68
% Ch, Annual Rate	3.0	3.0	3.3	3.3	3.1	3.0	2.9	2.8
Current Dollar Income (Billions of Dollars)								
Personal Income	545.920	553.056	560.283	566.723	572.069	579.641	586.849	594.563
% Ch, Annual Rate	6.1	5.3	5.3	4.7	3.8	5.4	5.1	5.4
Disposable Personal Income	482.691	488.878	495.113	500.535	504.709	511.136	517.268	523.893
% Ch, Annual Rate	6.2	5.2	5.2	4.5	3.4	5.2	4.9	5.2
Per Capita Income (\$/Person)	69,900	70,649	71,397	72,032	72,518	73,278	73,984	74,747
% Ch, Annual Rate	5.2	4.4	4.3	3.6	2.7	4.3	3.9	4.2
Employment (Thousands)								
Washington Civilian Labor Force	3,919.7	3,936.9	3,954.2	3,970.7	3,987.7	4,002.5	4,016.3	4,031.9
Total Washington Employment	3,725.6	3,750.9	3,774.2	3,794.7	3,813.8	3,829.1	3,841.8	3,857.2
Unemployment Rate (%)	4.95	4.72	4.55	4.43	4.36	4.33	4.34	4.33
Nonfarm Payroll Employment	3,423.2	3,451.7	3,477.6	3,500.2	3,521.5	3,537.0	3,549.0	3,564.7
% Ch, Annual Rate	3.8	3.4	3.0	2.6	2.5	1.8	1.4	1.8
Manufacturing	258.3	260.2	260.1	260.0	261.0	261.1	261.5	261.7
% Ch, Annual Rate	2.7	3.1	-0.1	-0.3	1.5	0.3	0.5	0.3
Durable Manufacturing	175.1	176.6	175.9	175.4	176.1	176.3	176.9	177.3
% Ch, Annual Rate	3.5	3.5	-1.5	-1.1	1.6	0.6	1.2	1.0
Aerospace	60.7	60.7	60.6	60.4	60.7	61.1	61.5	61.8
% Ch, Annual Rate	2.2	-0.2	-0.9	-1.1	2.3	2.4	2.5	2.4
Nondurable Manufacturing	83.2	83.6	84.2	84.6	84.9	84.8	84.6	84.4
% Ch, Annual Rate	1.0	2.2	2.8	1.6	1.4	-0.3	-0.8	-1.0
Construction	213.4	212.3	210.4	209.6	208.3	207.1	205.7	207.4
% Ch, Annual Rate	-4.7	-2.1	-3.4	-1.6	-2.5	-2.3	-2.5	3.3
Service-Providing	2,945.8	2,973.5	3,001.2	3,025.0	3,046.6	3,063.2	3,076.2	3,090.0
% Ch, Annual Rate	4.5	3.8	3.8	3.2	2.9	2.2	1.7	1.8
Software Publishers	77.3	77.9	78.5	78.7	79.1	79.3	79.5	79.8
% Ch, Annual Rate	4.6	3.0	3.0	1.4	1.7	1.0	1.2	1.3
Electronic Shopping and Mail-Order	89.4	90.0	90.6	91.2	91.7	92.3	92.8	93.4
% Ch, Annual Rate	2.9	2.8	2.7	2.6	2.5	2.4	2.4	2.3
Housing Indicators (Thousands)								
Housing Units Authorized by Bldg. Permit	47.763	46.176	44.998	44.107	43.459	42.763	42.617	43.406
% Ch, Annual Rate	-12.7	-12.6	-9.8	-7.7	-5.7	-6.3	-1.4	7.6
Single-Family	28.344	27.287	26.497	25.891	25.502	25.172	25.124	25.377
% Ch, Annual Rate	-16.5	-14.1	-11.1	-8.8	-5.9	-5.1	-0.8	4.1
Multi-Family	19.419	18.889	18.501	18.215	17.957	17.591	17.493	18.029
% Ch, Annual Rate	-6.9	-10.5	-8.0	-6.0	-5.5	-7.9	-2.2	12.8
30-Year Fixed Mortgage Rate (%)	3.50	3.59	3.66	3.71	3.75	3.76	3.76	3.78

Table A1.4 (continued)
Washington Economic Forecast Summary
Forecast 2021 to 2025

	2024:1	2024:2	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4
Real Income (Billions of Chained 2012 Dollars)								
Real Personal Income	507.457	511.554	515.603	519.569	524.021	528.099	532.180	536.096
% Ch, Annual Rate	3.6	3.3	3.2	3.1	3.5	3.1	3.1	3.0
Real Wage and Salary Disb.	266.454	268.710	271.038	273.313	275.648	277.946	280.242	282.496
% Ch, Annual Rate	3.5	3.4	3.5	3.4	3.5	3.4	3.3	3.3
Real Nonwage Income	241.004	242.844	244.565	246.255	248.373	250.153	251.938	253.600
% Ch, Annual Rate	3.8	3.1	2.9	2.8	3.5	2.9	2.9	2.7
Real Per Capita Income (\$/Person)	63,614	63,944	64,262	64,567	64,928	65,238	65,546	65,830
% Ch, Annual Rate	2.5	2.1	2.0	1.9	2.3	1.9	1.9	1.7
Price and Wage Indexes								
U.S. Implicit Price Deflator, PCE (2012=1.0)	1.187	1.193	1.198	1.204	1.210	1.216	1.223	1.229
% Ch, Annual Rate	1.8	1.8	1.8	2.0	2.0	2.1	2.1	2.1
Seattle Cons. Price Index (1982-84=1.0)	3.016	3.031	3.046	3.062	3.078	3.095	3.113	3.130
% Ch, Annual Rate	2.0	2.0	2.0	2.1	2.1	2.2	2.3	2.3
Average Nonfarm Annual Wage	85,930	86,739	87,583	88,469	89,397	90,345	91,317	92,308
% Ch, Annual Rate	3.7	3.8	3.9	4.1	4.3	4.3	4.4	4.4
Avg. Hourly Earnings-Mfg. (\$/Hour)	29.88	30.08	30.29	30.49	30.69	30.89	31.09	31.30
% Ch, Annual Rate	2.8	2.7	2.7	2.7	2.6	2.7	2.6	2.7
Current Dollar Income (Billions of Dollars)								
Personal Income	602.558	610.142	617.780	625.570	634.072	642.290	650.667	658.933
% Ch, Annual Rate	5.5	5.1	5.1	5.1	5.5	5.3	5.3	5.2
Disposable Personal Income	530.782	537.455	544.259	551.292	559.058	566.543	574.198	581.756
% Ch, Annual Rate	5.4	5.1	5.2	5.3	5.8	5.5	5.5	5.4
Per Capita Income (\$/Person)	75,536	76,267	76,997	77,740	78,563	79,344	80,139	80,914
% Ch, Annual Rate	4.3	3.9	3.9	3.9	4.3	4.0	4.1	3.9
Employment (Thousands)								
Washington Civilian Labor Force	4,046.8	4,061.1	4,075.5	4,089.7	4,103.9	4,118.0	4,132.1	4,145.9
Total Washington Employment	3,872.7	3,886.9	3,900.9	3,914.0	3,926.5	3,939.0	3,951.4	3,963.3
Unemployment Rate (%)	4.30	4.29	4.28	4.30	4.32	4.35	4.37	4.41
Nonfarm Payroll Employment	3,579.3	3,592.2	3,605.1	3,617.0	3,628.0	3,638.8	3,649.3	3,658.9
% Ch, Annual Rate	1.6	1.5	1.4	1.3	1.2	1.2	1.2	1.1
Manufacturing	262.0	262.1	262.2	262.3	262.2	262.1	262.0	262.1
% Ch, Annual Rate	0.4	0.2	0.2	0.1	-0.2	-0.1	-0.1	0.2
Durable Manufacturing	177.7	177.9	178.1	178.3	178.2	178.3	178.3	178.4
% Ch, Annual Rate	0.8	0.5	0.4	0.4	-0.1	0.1	0.0	0.3
Aerospace	62.2	62.5	62.8	63.0	63.1	63.2	63.3	63.4
% Ch, Annual Rate	2.2	2.0	1.8	1.4	1.0	0.7	0.4	0.4
Nondurable Manufacturing	84.3	84.2	84.2	84.1	83.9	83.8	83.7	83.7
% Ch, Annual Rate	-0.5	-0.4	-0.3	-0.5	-0.6	-0.5	-0.4	-0.1
Construction	207.6	207.2	207.5	208.0	208.7	209.4	210.2	210.8
% Ch, Annual Rate	0.3	-0.7	0.5	1.0	1.4	1.4	1.5	1.2
Service-Providing	3,104.1	3,117.3	3,129.8	3,141.0	3,151.5	3,161.6	3,171.4	3,180.3
% Ch, Annual Rate	1.8	1.7	1.6	1.4	1.3	1.3	1.2	1.1
Software Publishers	80.1	80.4	80.7	81.0	81.3	81.6	81.9	82.1
% Ch, Annual Rate	1.6	1.7	1.5	1.5	1.6	1.5	1.2	1.1
Electronic Shopping and Mail-Order	93.9	94.4	94.9	95.5	96.0	96.5	97.0	97.5
% Ch, Annual Rate	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1
Housing Indicators (Thousands)								
Housing Units Authorized by Bldg. Permit	43.591	43.640	43.679	43.627	43.704	43.762	43.616	43.367
% Ch, Annual Rate	1.7	0.4	0.4	-0.5	0.7	0.5	-1.3	-2.3
Single-Family	25.385	25.217	25.246	25.166	25.201	25.285	25.228	25.195
% Ch, Annual Rate	0.1	-2.6	0.5	-1.3	0.6	1.3	-0.9	-0.5
Multi-Family	18.206	18.423	18.432	18.461	18.503	18.477	18.388	18.173
% Ch, Annual Rate	4.0	4.8	0.2	0.6	0.9	-0.6	-1.9	-4.6
30-Year Fixed Mortgage Rate (%)	3.83	3.89	3.95	4.00	4.04	4.10	4.16	4.22

Table A2.1

U.S. Nonagricultural Employment by Industry (Millions)

Forecast 2021 to 2025

	2018	2019	2020	2021	2022	2023	2024	2025
Nonfarm Payroll Employment	148.89	150.90	142.25	145.62	150.64	153.39	154.97	155.81
% Ch	1.6	1.3	-5.7	2.4	3.4	1.8	1.0	0.5
Manufacturing	12.69	12.82	12.18	12.36	12.52	12.56	12.46	12.29
% Ch	2.0	1.0	-4.9	1.5	1.3	0.3	-0.8	-1.4
Durable Manufacturing	7.95	8.04	7.58	7.71	7.84	7.88	7.82	7.69
% Ch	2.7	1.2	-5.7	1.7	1.7	0.4	-0.7	-1.6
Wood Products	0.41	0.41	0.40	0.42	0.44	0.42	0.41	0.41
% Ch	2.3	0.7	-3.3	6.7	4.7	-5.5	-1.9	-0.4
Primary and Fabricated Metals	1.85	1.87	1.75	1.76	1.83	1.87	1.87	1.84
% Ch	3.0	1.2	-6.5	0.6	3.8	2.3	0.0	-1.7
Computer and Electronic Products	1.05	1.08	1.07	1.10	1.12	1.12	1.13	1.13
% Ch	1.5	2.0	-0.3	2.2	2.2	0.2	0.4	0.5
Machinery and Electrical Equipment	1.52	1.53	1.44	1.45	1.52	1.52	1.49	1.47
% Ch	3.5	0.9	-5.8	0.7	5.0	-0.5	-1.5	-1.6
Transportation Equipment	1.70	1.73	1.58	1.61	1.55	1.58	1.57	1.52
% Ch	3.6	1.6	-8.6	1.8	-3.9	2.1	-0.7	-2.9
Other Durables	1.42	1.42	1.34	1.38	1.38	1.37	1.36	1.33
% Ch	1.3	0.4	-5.7	2.4	0.5	-0.7	-1.2	-2.3
Nondurable Manufacturing	4.74	4.78	4.60	4.65	4.68	4.68	4.64	4.60
% Ch	0.9	0.8	-3.7	1.0	0.6	0.2	-1.0	-0.9
Food Manufacturing	1.62	1.64	1.62	1.62	1.60	1.65	1.66	1.67
% Ch	1.4	1.5	-1.6	0.0	-0.8	2.7	0.7	1.0
Paper and Paper Products	0.37	0.37	0.36	0.35	0.36	0.37	0.37	0.36
% Ch	-0.1	-0.1	-2.4	-0.6	2.9	1.3	-0.2	-1.1
Other Nondurables	2.76	2.77	2.63	2.68	2.71	2.67	2.61	2.56
% Ch	0.8	0.4	-5.1	1.8	1.2	-1.5	-2.1	-2.1
Natural Resources and Mining	0.73	0.73	0.62	0.62	0.65	0.65	0.66	0.66
% Ch	7.6	0.0	-14.7	0.2	4.0	1.2	0.6	1.0
Construction	7.29	7.49	7.27	7.40	7.46	7.46	7.47	7.53
% Ch	4.6	2.8	-2.9	1.8	0.8	0.0	0.1	0.8
Trade, Transportation, and Utilities	27.60	27.72	26.59	27.51	27.49	27.07	26.71	26.71
% Ch	0.8	0.4	-4.1	3.5	-0.1	-1.5	-1.3	0.0
Wholesale Trade	5.84	5.89	5.64	5.77	6.12	6.39	6.53	6.65
% Ch	0.5	0.8	-4.2	2.2	6.2	4.5	2.2	1.8
Retail Trade	15.78	15.62	14.86	15.46	14.77	13.91	13.34	13.12
% Ch	-0.4	-1.0	-4.9	4.0	-4.4	-5.8	-4.1	-1.7
Trans., Warehousing, and Utilities	5.98	6.21	6.09	6.29	6.60	6.77	6.83	6.94
% Ch	4.3	3.9	-2.0	3.3	4.9	2.5	0.9	1.6
Information	2.84	2.86	2.70	2.73	2.95	3.06	3.13	3.15
% Ch	0.9	0.9	-5.8	1.2	7.9	3.9	2.3	0.8
Publishing Industries	0.74	0.76	0.76	0.74	0.77	0.76	0.75	0.74
% Ch	1.3	3.5	-0.4	-2.4	3.6	-0.8	-1.6	-1.5
Other Information	2.10	2.10	1.94	1.99	2.17	2.30	2.38	2.41
% Ch	0.7	0.0	-7.8	2.6	9.5	5.5	3.6	1.5
Financial Activities	8.59	8.75	8.73	8.84	9.16	9.21	9.23	9.26
% Ch	1.7	1.9	-0.3	1.3	3.5	0.6	0.2	0.3
Professional and Business Services	20.95	21.28	20.25	21.08	23.26	24.65	25.73	26.48
% Ch	2.2	1.6	-4.8	4.1	10.3	6.0	4.4	2.9
Education and Health Services	23.64	24.16	23.23	23.47	24.00	24.41	24.63	24.72
% Ch	1.9	2.2	-3.8	1.0	2.3	1.7	0.9	0.4
Leisure and Hospitality	16.30	16.59	13.37	14.21	14.71	15.36	15.76	15.59
% Ch	1.5	1.8	-19.4	6.3	3.5	4.5	2.6	-1.1
Other Services	5.83	5.89	5.40	5.59	6.05	6.24	6.29	6.37
% Ch	1.1	1.0	-8.4	3.6	8.3	3.2	0.7	1.3
Federal Government	2.80	2.83	2.93	2.87	2.87	2.87	2.87	2.87
% Ch	-0.2	1.1	3.5	-2.2	0.0	0.0	0.0	0.0
State and Local Government	19.65	19.78	18.98	18.94	19.53	19.83	20.03	20.17
% Ch	0.5	0.7	-4.0	-0.2	3.1	1.6	1.0	0.7

Table A2.2

U.S. Nonagricultural Employment by Industry (Millions)

Forecast 2021 to 2025

	2020:1	2020:2	2020:3	2020:4	2021:1	2021:2	2021:3	2021:4
Nonfarm Payroll Employment	151.87	133.67	140.86	142.62	143.02	145.01	146.56	147.87
% Ch, Annual Rate	0.3	-40.0	23.3	5.1	1.1	5.7	4.3	3.6
Manufacturing	12.77	11.69	12.08	12.19	12.26	12.35	12.41	12.42
% Ch, Annual Rate	-0.9	-29.8	13.9	4.0	2.1	3.0	2.0	0.3
Durable Manufacturing	7.99	7.25	7.51	7.58	7.62	7.70	7.76	7.78
% Ch, Annual Rate	-0.9	-32.4	15.7	3.4	2.2	4.4	3.0	1.3
Wood Products	0.41	0.38	0.39	0.40	0.40	0.41	0.43	0.44
% Ch, Annual Rate	-0.2	-24.8	8.0	10.5	3.3	12.5	16.1	8.2
Primary and Fabricated Metals	1.84	1.71	1.71	1.73	1.73	1.75	1.77	1.78
% Ch, Annual Rate	-3.3	-25.9	1.3	4.1	0.4	3.9	4.8	2.5
Computer and Electronic Products	1.08	1.07	1.07	1.07	1.08	1.09	1.11	1.11
% Ch, Annual Rate	0.2	-5.0	0.4	1.1	2.4	5.6	4.6	0.5
Machinery and Electrical Equipment	1.51	1.41	1.42	1.43	1.43	1.45	1.45	1.48
% Ch, Annual Rate	-3.2	-23.8	2.3	3.2	-0.6	5.8	0.3	10.6
Transportation Equipment	1.73	1.42	1.59	1.59	1.61	1.62	1.62	1.58
% Ch, Annual Rate	2.3	-54.4	57.8	0.4	5.3	3.2	-0.9	-8.6
Other Durables	1.42	1.26	1.33	1.35	1.36	1.37	1.38	1.38
% Ch, Annual Rate	0.2	-38.6	26.1	6.0	3.1	1.8	3.2	0.7
Nondurable Manufacturing	4.78	4.45	4.56	4.62	4.64	4.65	4.65	4.64
% Ch, Annual Rate	-1.0	-25.2	11.0	4.9	2.1	0.8	0.4	-1.2
Food Manufacturing	1.66	1.57	1.61	1.63	1.64	1.63	1.61	1.59
% Ch, Annual Rate	-1.0	-18.5	9.4	4.6	2.5	-1.5	-4.9	-6.3
Paper and Paper Products	0.36	0.35	0.35	0.36	0.36	0.35	0.35	0.35
% Ch, Annual Rate	-1.5	-10.9	1.3	1.3	-0.2	-3.1	2.8	0.0
Other Nondurables	2.76	2.52	2.60	2.63	2.65	2.67	2.69	2.70
% Ch, Annual Rate	-0.9	-30.8	13.5	5.6	2.1	2.7	3.3	1.8
Natural Resources and Mining	0.68	0.61	0.59	0.60	0.60	0.62	0.63	0.64
% Ch, Annual Rate	-12.1	-38.2	-9.7	3.2	0.2	13.8	10.8	5.5
Construction	7.61	6.90	7.23	7.36	7.37	7.39	7.41	7.44
% Ch, Annual Rate	3.1	-32.2	20.0	7.7	0.4	1.1	1.5	1.6
Trade, Transportation, and Utilities	27.82	25.13	26.47	26.94	27.07	27.53	27.72	27.75
% Ch, Annual Rate	0.4	-33.4	23.2	7.2	1.9	7.0	2.7	0.4
Wholesale Trade	5.89	5.52	5.55	5.60	5.62	5.72	5.82	5.90
% Ch, Annual Rate	-0.3	-23.1	2.7	3.6	1.6	7.2	6.7	5.7
Retail Trade	15.57	13.79	14.92	15.14	15.25	15.52	15.60	15.46
% Ch, Annual Rate	-0.9	-38.3	36.9	6.0	3.0	7.1	2.2	-3.6
Trans., Warehousing, and Utilities	6.36	5.82	6.00	6.20	6.19	6.29	6.30	6.39
% Ch, Annual Rate	4.5	-30.2	13.2	13.8	-0.3	6.6	0.7	6.0
Information	2.91	2.61	2.62	2.65	2.66	2.71	2.76	2.79
% Ch, Annual Rate	2.9	-35.1	2.0	4.7	1.4	7.7	7.0	4.3
Publishing Industries	0.79	0.76	0.75	0.76	0.76	0.75	0.72	0.74
% Ch, Annual Rate	4.9	-13.7	-4.1	4.5	2.0	-6.4	-12.3	9.0
Other Information	2.12	1.85	1.87	1.90	1.90	1.96	2.03	2.05
% Ch, Annual Rate	2.2	-41.9	4.6	4.8	1.2	13.9	15.1	2.7
Financial Activities	8.86	8.61	8.68	8.76	8.78	8.87	8.87	8.86
% Ch, Annual Rate	1.7	-10.6	3.0	3.8	0.8	4.2	0.3	-0.6
Professional and Business Services	21.41	19.30	19.90	20.41	20.61	20.84	21.15	21.71
% Ch, Annual Rate	0.2	-34.0	12.9	10.8	3.9	4.6	6.1	11.0
Education and Health Services	24.48	22.17	23.04	23.25	23.28	23.45	23.56	23.59
% Ch, Annual Rate	1.4	-32.7	16.7	3.8	0.4	2.9	2.0	0.4
Leisure and Hospitality	16.64	10.33	13.05	13.46	13.40	14.01	14.58	14.84
% Ch, Annual Rate	-3.2	-85.1	154.4	13.3	-2.0	19.7	17.1	7.5
Other Services	5.90	4.82	5.38	5.48	5.49	5.57	5.57	5.73
% Ch, Annual Rate	-0.7	-55.6	55.6	7.5	0.7	5.7	0.2	11.9
Federal Government	2.86	2.88	3.06	2.92	2.87	2.87	2.87	2.87
% Ch, Annual Rate	3.3	2.0	27.0	-16.8	-6.9	-0.1	0.0	0.0
State and Local Government	19.93	18.62	18.77	18.59	18.65	18.82	19.03	19.24
% Ch, Annual Rate	1.3	-23.9	3.3	-3.8	1.3	3.7	4.5	4.4

Table A2.2 (continued)

U.S. Nonagricultural Employment by Industry (Millions)

Forecast 2021 to 2025

	2022Q1	2022Q2	2022Q3	2022Q4	2023Q1	2023Q2	2023Q3	2023Q4
Nonfarm Payroll Employment	149.09	150.24	151.21	152.03	152.65	153.21	153.66	154.05
% Ch, Annual Rate	3.3	3.1	2.6	2.2	1.7	1.5	1.2	1.0
Manufacturing	12.46	12.55	12.53	12.52	12.57	12.56	12.56	12.54
% Ch, Annual Rate	1.3	2.8	-0.5	-0.4	1.5	-0.1	0.0	-0.7
Durable Manufacturing	7.81	7.88	7.84	7.82	7.87	7.87	7.89	7.88
% Ch, Annual Rate	1.6	3.6	-1.9	-1.0	2.1	0.4	0.7	-0.4
Wood Products	0.45	0.45	0.44	0.43	0.42	0.42	0.41	0.41
% Ch, Annual Rate	6.1	4.5	-8.9	-9.0	-4.5	-6.0	-3.9	-2.5
Primary and Fabricated Metals	1.80	1.84	1.83	1.83	1.85	1.86	1.88	1.88
% Ch, Annual Rate	4.8	7.5	-0.7	0.3	4.3	2.4	2.4	0.4
Computer and Electronic Products	1.12	1.12	1.12	1.12	1.12	1.12	1.12	1.12
% Ch, Annual Rate	3.3	1.8	-0.1	0.1	0.4	0.0	0.0	0.1
Machinery and Electrical Equipment	1.50	1.54	1.53	1.52	1.52	1.52	1.51	1.51
% Ch, Annual Rate	5.8	8.9	-2.0	-1.8	-0.1	-1.6	-0.4	-1.2
Transportation Equipment	1.56	1.54	1.54	1.55	1.57	1.58	1.59	1.58
% Ch, Annual Rate	-6.2	-4.4	-0.2	1.5	6.2	2.4	1.6	-0.4
Other Durables	1.38	1.40	1.38	1.37	1.37	1.37	1.37	1.37
% Ch, Annual Rate	-0.3	3.6	-4.3	-2.9	0.7	-0.2	0.4	-0.4
Nondurable Manufacturing	4.65	4.67	4.69	4.70	4.70	4.69	4.68	4.66
% Ch, Annual Rate	0.8	1.5	1.8	0.6	0.5	-0.8	-1.1	-1.3
Food Manufacturing	1.58	1.59	1.61	1.63	1.64	1.65	1.65	1.65
% Ch, Annual Rate	-0.6	1.2	6.6	3.8	3.6	0.7	0.2	0.1
Paper and Paper Products	0.36	0.36	0.37	0.37	0.37	0.37	0.37	0.37
% Ch, Annual Rate	3.1	7.5	4.1	1.7	0.6	-0.4	-0.3	-0.3
Other Nondurables	2.71	2.72	2.71	2.70	2.69	2.68	2.66	2.65
% Ch, Annual Rate	1.4	0.9	-1.2	-1.4	-1.4	-1.8	-2.0	-2.3
Natural Resources and Mining	0.64	0.64	0.65	0.65	0.65	0.65	0.65	0.66
% Ch, Annual Rate	2.3	0.3	2.0	0.3	1.8	0.9	0.8	1.4
Construction	7.44	7.47	7.47	7.48	7.47	7.47	7.46	7.46
% Ch, Annual Rate	-0.1	1.3	0.2	0.7	-0.6	-0.2	-0.3	0.1
Trade, Transportation, and Utilities	27.71	27.51	27.57	27.19	27.03	27.27	27.07	26.92
% Ch, Annual Rate	-0.5	-2.8	0.8	-5.4	-2.4	3.7	-2.9	-2.2
Wholesale Trade	5.96	6.02	6.23	6.28	6.35	6.38	6.41	6.44
% Ch, Annual Rate	4.2	4.0	15.0	3.5	4.6	1.7	1.6	1.8
Retail Trade	15.28	14.97	14.64	14.19	13.90	14.12	13.89	13.71
% Ch, Annual Rate	-4.5	-7.9	-8.4	-11.9	-7.8	6.5	-6.4	-5.2
Trans., Warehousing, and Utilities	6.47	6.53	6.69	6.72	6.77	6.77	6.77	6.78
% Ch, Annual Rate	5.2	3.3	10.7	1.4	3.1	-0.2	0.2	0.4
Information	2.90	2.91	2.97	2.99	3.04	3.05	3.06	3.08
% Ch, Annual Rate	17.3	1.5	8.9	2.4	7.0	1.1	1.0	3.1
Publishing Industries	0.76	0.77	0.78	0.77	0.77	0.77	0.76	0.76
% Ch, Annual Rate	11.5	4.5	4.6	-2.0	-0.5	-3.6	-2.6	-2.2
Other Information	2.14	2.14	2.20	2.22	2.27	2.29	2.30	2.33
% Ch, Annual Rate	19.5	0.4	10.5	3.9	9.8	2.7	2.2	4.9
Financial Activities	9.00	9.13	9.26	9.24	9.26	9.21	9.19	9.19
% Ch, Annual Rate	6.3	6.2	5.7	-0.9	1.1	-2.4	-1.0	0.1
Professional and Business Services	22.61	23.12	23.42	23.88	24.32	24.53	24.75	25.00
% Ch, Annual Rate	17.7	9.3	5.2	8.1	7.7	3.4	3.6	4.1
Education and Health Services	23.53	24.10	24.25	24.14	24.33	24.40	24.44	24.49
% Ch, Annual Rate	-1.0	10.2	2.4	-1.7	3.1	1.3	0.6	0.8
Leisure and Hospitality	14.68	14.45	14.50	15.21	15.12	15.14	15.51	15.69
% Ch, Annual Rate	-4.4	-6.2	1.5	21.1	-2.3	0.5	10.0	4.7
Other Services	5.87	6.00	6.14	6.19	6.25	6.24	6.24	6.24
% Ch, Annual Rate	10.6	8.8	9.8	3.1	4.0	-0.2	-0.3	0.1
Federal Government	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87
% Ch, Annual Rate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
State and Local Government	19.37	19.49	19.59	19.67	19.75	19.81	19.87	19.92
% Ch, Annual Rate	2.8	2.3	2.1	1.8	1.5	1.3	1.2	1.0

Table A2.2 (continued)

U.S. Nonagricultural Employment by Industry (Millions)

Forecast 2021 to 2025

	2024Q1	2024Q2	2024Q3	2024Q4	2025Q1	2025Q2	2025Q3	2025Q4
Nonfarm Payroll Employment	154.46	154.84	155.16	155.41	155.59	155.75	155.89	155.99
% Ch, Annual Rate	1.1	1.0	0.8	0.6	0.5	0.4	0.4	0.3
Manufacturing	12.52	12.48	12.45	12.41	12.35	12.31	12.26	12.24
% Ch, Annual Rate	-0.8	-1.1	-1.2	-1.2	-1.7	-1.4	-1.4	-0.6
Durable Manufacturing	7.86	7.84	7.81	7.78	7.74	7.71	7.67	7.66
% Ch, Annual Rate	-0.8	-1.3	-1.4	-1.5	-2.1	-1.7	-1.7	-0.6
Wood Products	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
% Ch, Annual Rate	-1.3	-0.6	-0.9	-0.3	-0.4	0.7	-0.6	-1.9
Primary and Fabricated Metals	1.88	1.87	1.86	1.86	1.85	1.84	1.83	1.83
% Ch, Annual Rate	-0.4	-1.1	-1.4	-1.4	-2.4	-1.9	-1.7	-0.6
Computer and Electronic Products	1.12	1.12	1.13	1.13	1.13	1.13	1.13	1.13
% Ch, Annual Rate	0.4	0.6	0.9	0.9	0.5	0.2	-0.1	-0.2
Machinery and Electrical Equipment	1.50	1.50	1.49	1.48	1.48	1.47	1.47	1.47
% Ch, Annual Rate	-1.5	-1.9	-1.9	-1.8	-2.1	-1.4	-0.9	0.5
Transportation Equipment	1.58	1.57	1.57	1.56	1.54	1.53	1.52	1.51
% Ch, Annual Rate	-1.0	-1.7	-1.8	-2.4	-3.5	-3.4	-3.5	-2.4
Other Durables	1.37	1.36	1.35	1.34	1.34	1.33	1.32	1.32
% Ch, Annual Rate	-1.2	-2.0	-2.5	-2.3	-2.8	-2.3	-2.4	0.0
Nondurable Manufacturing	4.65	4.64	4.64	4.63	4.61	4.60	4.59	4.58
% Ch, Annual Rate	-0.9	-0.8	-0.7	-0.9	-1.1	-0.9	-0.9	-0.7
Food Manufacturing	1.65	1.66	1.66	1.67	1.67	1.67	1.68	1.68
% Ch, Annual Rate	0.8	1.0	1.3	1.2	0.7	0.8	0.9	1.1
Paper and Paper Products	0.37	0.37	0.37	0.37	0.37	0.37	0.36	0.36
% Ch, Annual Rate	0.1	-0.2	-0.4	-0.9	-1.5	-1.3	-1.2	-0.8
Other Nondurables	2.63	2.62	2.61	2.59	2.58	2.56	2.55	2.54
% Ch, Annual Rate	-2.0	-2.0	-2.1	-2.2	-2.2	-2.0	-2.0	-1.8
Natural Resources and Mining	0.65	0.66	0.66	0.66	0.66	0.66	0.66	0.67
% Ch, Annual Rate	-0.9	1.1	1.1	1.2	1.0	0.5	1.2	0.7
Construction	7.46	7.46	7.47	7.48	7.50	7.52	7.54	7.55
% Ch, Annual Rate	0.0	0.0	0.3	0.7	0.8	1.0	1.0	0.8
Trade, Transportation, and Utilities	26.80	26.66	26.68	26.69	26.70	26.70	26.73	26.73
% Ch, Annual Rate	-1.7	-2.1	0.2	0.2	0.1	0.0	0.5	-0.1
Wholesale Trade	6.48	6.52	6.55	6.59	6.62	6.65	6.67	6.68
% Ch, Annual Rate	2.6	2.8	2.0	2.0	2.1	1.7	1.4	0.7
Retail Trade	13.52	13.31	13.28	13.24	13.18	13.12	13.11	13.07
% Ch, Annual Rate	-5.2	-6.1	-1.0	-1.1	-2.0	-1.8	-0.4	-1.1
Trans., Warehousing, and Utilities	6.80	6.83	6.84	6.86	6.90	6.93	6.96	6.98
% Ch, Annual Rate	1.5	1.6	1.0	0.9	2.3	1.9	1.6	1.0
Information	3.11	3.13	3.14	3.14	3.14	3.15	3.16	3.16
% Ch, Annual Rate	3.9	2.7	1.0	-0.5	0.4	1.8	0.8	0.3
Publishing Industries	0.75	0.75	0.75	0.75	0.75	0.74	0.74	0.73
% Ch, Annual Rate	-1.0	-0.7	-1.3	-1.3	-1.1	-1.4	-2.6	-2.9
Other Information	2.36	2.38	2.39	2.39	2.39	2.41	2.42	2.43
% Ch, Annual Rate	5.5	3.8	1.7	-0.2	0.8	2.9	1.9	1.3
Financial Activities	9.20	9.23	9.24	9.25	9.26	9.27	9.26	9.24
% Ch, Annual Rate	0.6	1.1	0.6	0.5	0.3	0.2	-0.3	-0.9
Professional and Business Services	25.32	25.64	25.87	26.09	26.29	26.44	26.56	26.61
% Ch, Annual Rate	5.2	5.2	3.7	3.3	3.2	2.3	1.8	0.8
Education and Health Services	24.56	24.62	24.66	24.68	24.71	24.72	24.73	24.74
% Ch, Annual Rate	1.2	1.0	0.5	0.5	0.4	0.3	0.1	0.1
Leisure and Hospitality	15.74	15.80	15.78	15.74	15.65	15.60	15.54	15.56
% Ch, Annual Rate	1.4	1.5	-0.5	-1.0	-2.1	-1.5	-1.6	0.7
Other Services	6.26	6.28	6.30	6.31	6.34	6.36	6.39	6.40
% Ch, Annual Rate	1.2	1.6	1.0	0.9	1.5	1.5	1.6	1.1
Federal Government	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87
% Ch, Annual Rate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
State and Local Government	19.96	20.01	20.05	20.09	20.12	20.16	20.19	20.22
% Ch, Annual Rate	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.6

Table A2.3

Washington Nonagricultural Employment by Industry (Thousands)

Forecast 2021 to 2025

	2018	2019	2020	2021	2022	2023	2024	2025
Nonfarm Payroll Employment	3,401.1	3,468.8	3,286.5	3,340.8	3,463.2	3,543.1	3,598.4	3,643.8
% Ch	2.4	2.0	-5.3	1.7	3.7	2.3	1.6	1.3
Manufacturing	287.7	294.0	271.9	259.6	259.7	261.3	262.2	262.1
% Ch	1.2	2.2	-7.5	-4.5	0.0	0.6	0.3	0.0
Durable Manufacturing	202.2	206.9	189.8	176.5	175.7	176.7	178.0	178.3
% Ch	0.9	2.4	-8.3	-7.0	-0.4	0.5	0.8	0.2
Wood Products	13.0	12.9	12.5	13.3	13.5	12.6	12.1	11.8
% Ch	0.9	-0.5	-3.1	6.3	1.7	-6.9	-4.0	-2.7
Primary and Fabricated Metals	26.1	26.9	24.3	23.3	24.1	24.7	24.7	24.3
% Ch	4.3	2.9	-9.5	-4.5	3.7	2.3	0.1	-1.7
Computer and Electronic Products	19.8	19.9	19.1	19.7	20.6	20.9	21.3	21.8
% Ch	0.9	0.2	-3.8	3.1	4.8	1.5	1.9	2.0
Machinery and Electrical Equipment	21.3	21.2	19.3	20.0	22.0	22.4	22.6	22.8
% Ch	3.0	-0.8	-8.7	3.3	10.2	2.0	0.7	0.7
Aerospace	83.9	88.5	79.9	65.2	60.6	61.3	62.6	63.3
% Ch	-0.3	5.5	-9.7	-18.4	-7.1	1.1	2.1	1.0
Other Transportation Equip.	9.9	9.7	9.0	8.6	8.4	8.2	8.0	7.8
% Ch	-3.0	-1.8	-7.5	-3.9	-2.5	-2.8	-2.5	-2.4
Other Durables	28.1	27.8	25.6	26.5	26.5	26.5	26.7	26.7
% Ch	1.5	-0.8	-8.0	3.4	-0.1	0.3	0.5	0.1
Nondurable Manufacturing	85.6	87.1	82.1	83.1	83.9	84.7	84.2	83.8
% Ch	2.0	1.8	-5.7	1.2	1.0	0.9	-0.6	-0.5
Food Manufacturing	39.1	39.4	37.6	37.7	37.0	37.6	37.4	37.4
% Ch	2.8	0.8	-4.6	0.2	-1.9	1.6	-0.3	0.0
Paper and Paper Products	7.7	7.8	7.5	7.5	7.7	7.7	7.6	7.5
% Ch	-1.2	1.5	-3.0	0.0	2.3	0.5	-1.2	-2.2
Other Nondurables	38.9	39.9	37.0	37.9	39.2	39.4	39.1	38.9
% Ch	1.9	2.8	-7.4	2.4	3.5	0.3	-0.7	-0.5
Natural Resources and Mining	6.3	5.9	5.5	5.5	5.7	5.6	5.6	5.7
% Ch	1.1	-6.3	-6.1	-1.1	4.6	-1.9	-0.2	1.2
Construction	213.1	219.5	213.6	218.7	211.4	207.1	207.6	209.8
% Ch	6.7	3.0	-2.7	2.4	-3.3	-2.0	0.2	1.1
Trade, Transportation, and Utilities	636.0	643.2	628.9	655.4	658.9	654.7	651.9	656.7
% Ch	1.8	1.1	-2.2	4.2	0.5	-0.6	-0.4	0.7
Wholesale Trade	135.7	136.3	130.4	131.0	138.5	145.0	149.4	153.1
% Ch	1.8	0.5	-4.4	0.4	5.7	4.7	3.0	2.5
Retail Trade	385.8	390.5	386.4	411.8	401.2	386.5	378.1	376.9
% Ch	1.9	1.2	-1.0	6.6	-2.6	-3.7	-2.2	-0.3
Electronic Shopping and Mail-Order	54.8	63.5	75.9	87.7	90.3	92.6	94.7	96.7
% Ch	10.1	15.9	19.6	15.5	3.0	2.5	2.3	2.2
Other Retail Trade	331.0	327.0	310.5	324.1	310.9	293.9	283.4	280.2
% Ch	0.6	-1.2	-5.0	4.4	-4.1	-5.5	-3.6	-1.1
Trans., Warehousing, and Utilities	114.5	116.4	112.1	112.6	119.2	123.1	124.4	126.6
% Ch	1.8	1.6	-3.7	0.5	5.9	3.3	1.1	1.8
Information	134.2	144.5	148.5	151.7	155.6	159.7	165.2	169.3
% Ch	6.3	7.7	2.8	2.2	2.5	2.6	3.4	2.5
Software Publishers	65.3	70.4	75.4	76.0	78.1	79.4	80.6	81.7
% Ch	6.4	7.7	7.2	0.7	2.8	1.7	1.5	1.5
Other Publishing Industries	5.1	4.8	4.1	3.6	3.7	3.4	3.1	2.7
% Ch	-6.8	-6.2	-14.1	-12.3	3.0	-8.3	-11.2	-12.2
Other Information	63.7	69.3	69.0	72.1	73.7	76.9	81.6	84.9
% Ch	7.4	8.7	-0.5	4.6	2.3	4.2	6.2	4.0
Financial Activities	157.7	160.4	157.9	158.2	167.2	168.9	169.1	169.5
% Ch	2.4	1.7	-1.6	0.2	5.7	1.0	0.1	0.2
Professional and Business Services	424.3	434.7	423.8	445.2	492.8	524.6	547.4	565.2
% Ch	2.6	2.4	-2.5	5.0	10.7	6.4	4.4	3.2
Education and Health Services	490.3	502.4	488.6	496.2	497.6	506.2	514.7	521.2
% Ch	3.1	2.5	-2.7	1.6	0.3	1.7	1.7	1.3
Leisure and Hospitality	341.9	347.4	265.4	269.1	301.1	322.8	331.5	330.9
% Ch	3.1	1.6	-23.6	1.4	11.9	7.2	2.7	-0.2
Other Services	122.4	129.3	118.7	120.7	132.5	138.7	140.9	143.4
% Ch	2.2	5.7	-8.3	1.7	9.9	4.6	1.6	1.8
Federal Government	74.8	75.8	78.1	75.2	75.5	75.9	76.2	76.6
% Ch	0.0	1.3	3.0	-3.6	0.4	0.4	0.5	0.5
State and Local Government	512.5	511.8	485.6	485.3	505.1	517.5	526.1	533.3
% Ch	0.3	-0.1	-5.1	-0.1	4.1	2.5	1.7	1.4

Table A2.4

Washington Nonagricultural Employment by Industry (Thousands)

Forecast 2021 to 2025

	2020:1	2020:2	2020:3	2020:4	2021:1	2021:2	2021:3	2021:4
Nonfarm Payroll Employment	3,507.5	3,129.2	3,240.3	3,268.9	3,281.1	3,326.9	3,363.6	3,391.5
% Ch, Annual Rate	1.5	-36.6	15.0	3.6	1.5	5.7	4.5	3.4
Manufacturing	292.3	269.7	264.5	261.1	262.2	260.8	258.9	256.5
% Ch, Annual Rate	-1.2	-27.6	-7.4	-5.1	1.6	-2.1	-2.8	-3.6
Durable Manufacturing	205.0	190.7	184.0	179.5	179.3	177.6	175.6	173.5
% Ch, Annual Rate	-2.6	-25.1	-13.4	-9.3	-0.5	-3.6	-4.4	-4.6
Wood Products	12.8	12.0	12.4	12.9	12.9	13.1	13.5	13.7
% Ch, Annual Rate	-3.0	-23.6	13.8	17.8	0.0	8.2	11.2	4.6
Primary and Fabricated Metals	26.7	24.5	23.4	22.8	22.9	23.1	23.4	23.5
% Ch, Annual Rate	-5.8	-28.7	-16.8	-9.0	1.7	3.6	4.7	2.2
Computer and Electronic Products	19.4	19.0	18.7	19.3	19.1	19.6	20.0	20.1
% Ch, Annual Rate	-3.6	-9.1	-5.4	12.1	-3.7	10.7	9.1	2.0
Machinery and Electrical Equipment	20.1	19.2	18.8	19.3	19.3	19.8	19.9	20.8
% Ch, Annual Rate	-13.5	-17.6	-7.9	11.0	0.5	11.1	2.6	19.1
Aerospace	88.9	83.1	76.6	71.1	69.9	66.8	63.6	60.4
% Ch, Annual Rate	-0.6	-23.3	-28.0	-25.7	-6.5	-16.5	-17.9	-18.8
Other Transportation Equip.	9.7	8.8	8.8	8.6	8.7	8.6	8.6	8.5
% Ch, Annual Rate	8.0	-34.5	0.2	-6.5	5.1	-4.3	-1.5	-3.6
Other Durables	27.4	24.2	25.4	25.5	26.4	26.5	26.6	26.5
% Ch, Annual Rate	0.2	-39.1	21.0	2.5	14.9	0.8	1.2	-0.7
Nondurable Manufacturing	87.3	79.0	80.6	81.6	82.9	83.2	83.3	83.0
% Ch, Annual Rate	2.4	-33.2	8.3	5.3	6.5	1.4	0.6	-1.5
Food Manufacturing	39.6	36.7	37.0	37.1	38.3	38.1	37.5	36.8
% Ch, Annual Rate	1.5	-26.1	3.9	0.4	13.9	-2.5	-5.8	-7.3
Paper and Paper Products	7.8	7.5	7.2	7.6	7.6	7.5	7.5	7.5
% Ch, Annual Rate	1.2	-15.7	-14.1	20.1	0.9	-4.4	2.1	-1.0
Other Nondurables	39.9	34.8	36.3	37.0	37.0	37.6	38.3	38.7
% Ch, Annual Rate	3.4	-42.5	18.8	7.5	0.5	6.7	7.2	4.4
Natural Resources and Mining	5.7	5.4	5.5	5.5	5.5	5.4	5.3	5.6
% Ch, Annual Rate	-1.6	-16.4	3.9	3.1	-3.7	-3.8	-5.4	24.1
Construction	224.0	199.1	212.6	218.9	221.7	219.3	217.8	216.0
% Ch, Annual Rate	4.2	-37.5	30.0	12.3	5.4	-4.3	-2.9	-3.2
Trade, Transportation, and Utilities	651.0	596.5	627.3	640.8	644.4	655.0	660.4	661.7
% Ch, Annual Rate	2.0	-29.5	22.3	8.9	2.3	6.7	3.3	0.8
Wholesale Trade	136.8	128.1	127.7	129.0	128.3	130.1	131.9	133.5
% Ch, Annual Rate	1.0	-23.0	-1.2	4.0	-2.0	5.6	5.6	5.1
Retail Trade	396.6	359.5	389.7	399.9	405.9	412.5	415.3	413.3
% Ch, Annual Rate	3.0	-32.5	38.1	10.8	6.2	6.7	2.8	-1.9
Electronic Shopping and Mail-Order	71.2	73.6	77.2	81.7	86.6	87.3	88.0	88.7
% Ch	22.3	14.1	21.2	25.6	26.0	3.5	3.3	3.1
Other Retail Trade	325.4	285.9	312.5	318.1	319.3	325.2	327.3	324.6
% Ch	-0.7	-40.4	42.7	7.4	1.5	7.5	2.6	-3.3
Trans., Warehousing, and Utilities	117.6	108.9	109.9	111.9	110.1	112.4	113.1	114.9
% Ch, Annual Rate	-0.1	-26.7	3.8	7.6	-6.2	8.4	2.7	6.2
Information	149.8	147.8	147.4	149.2	150.6	151.6	152.4	152.3
% Ch, Annual Rate	6.1	-5.3	-1.0	4.9	4.0	2.6	2.2	-0.2
Software Publishers	74.6	76.0	75.6	75.5	75.9	75.9	75.7	76.4
% Ch, Annual Rate	11.3	7.5	-2.0	-0.4	1.9	0.3	-1.2	4.0
Other Publishing Industries	4.6	4.1	3.9	4.0	3.9	3.7	3.4	3.5
% Ch, Annual Rate	-8.3	-38.4	-13.9	5.2	-3.1	-20.3	-33.8	18.0
Other Information	70.6	67.7	67.9	69.7	70.8	71.9	73.4	72.4
% Ch, Annual Rate	2.0	-15.2	0.9	10.9	6.8	6.5	8.2	-5.2
Financial Activities	162.9	155.8	156.3	156.4	156.0	158.3	159.1	159.5
% Ch, Annual Rate	2.7	-16.1	1.3	0.1	-1.1	6.2	1.9	0.9
Professional and Business Services	442.6	411.2	415.2	426.4	432.0	440.0	448.3	460.3
% Ch, Annual Rate	2.2	-25.5	3.9	11.2	5.4	7.6	7.8	11.2
Education and Health Services	507.8	468.1	486.8	491.6	494.6	497.0	497.4	495.8
% Ch, Annual Rate	0.6	-27.8	17.0	4.1	2.4	1.9	0.3	-1.3
Leisure and Hospitality	347.1	216.9	246.6	251.1	246.1	262.9	278.6	288.8
% Ch, Annual Rate	-2.7	-84.7	67.3	7.4	-7.7	30.3	26.1	15.5
Other Services	132.5	109.4	115.1	117.6	116.3	119.5	121.9	125.0
% Ch, Annual Rate	2.2	-53.5	22.7	8.9	-4.5	11.5	8.2	10.8
Federal Government	77.2	77.6	81.1	76.4	75.2	75.2	75.3	75.4
% Ch, Annual Rate	6.5	1.8	19.2	-21.1	-6.4	0.3	0.4	0.4
State and Local Government	514.8	471.8	481.8	474.0	476.6	481.9	488.2	494.6
% Ch, Annual Rate	1.7	-29.5	8.8	-6.3	2.2	4.5	5.3	5.3

Table A2.4 (continued)

Washington Nonagricultural Employment by Industry (Thousands)

Forecast 2021 to 2025

	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4
Nonfarm Payroll Employment	3,423.2	3,451.7	3,477.6	3,500.2	3,521.5	3,537.0	3,549.0	3,564.7
% Ch, Annual Rate	3.8	3.4	3.0	2.6	2.5	1.8	1.4	1.8
Manufacturing	258.3	260.2	260.1	260.0	261.0	261.1	261.5	261.7
% Ch, Annual Rate	2.7	3.1	-0.1	-0.3	1.5	0.3	0.5	0.3
Durable Manufacturing	175.1	176.6	175.9	175.4	176.1	176.3	176.9	177.3
% Ch, Annual Rate	3.5	3.5	-1.5	-1.1	1.6	0.6	1.2	1.0
Wood Products	13.8	13.8	13.5	13.1	12.9	12.7	12.5	12.3
% Ch, Annual Rate	2.9	1.6	-9.8	-9.9	-6.1	-7.4	-5.6	-4.4
Primary and Fabricated Metals	23.8	24.3	24.2	24.2	24.5	24.6	24.8	24.8
% Ch, Annual Rate	4.7	7.8	-1.1	0.2	4.5	2.5	2.5	0.9
Computer and Electronic Products	20.4	20.6	20.7	20.8	20.9	20.9	21.0	21.0
% Ch, Annual Rate	6.9	4.2	1.0	1.2	1.9	1.1	1.2	1.3
Machinery and Electrical Equipment	21.4	22.2	22.2	22.2	22.3	22.4	22.5	22.6
% Ch, Annual Rate	11.3	16.0	-0.1	0.2	2.5	0.4	2.2	1.0
Aerospace	60.7	60.7	60.6	60.4	60.7	61.1	61.5	61.8
% Ch, Annual Rate	2.2	-0.2	-0.9	-1.1	2.3	2.4	2.5	2.4
Other Transportation Equip.	8.5	8.4	8.4	8.4	8.3	8.2	8.1	8.1
% Ch, Annual Rate	-2.2	-2.9	-1.2	-0.9	-1.3	-7.1	-4.0	-1.6
Other Durables	26.5	26.6	26.4	26.4	26.5	26.5	26.6	26.6
% Ch, Annual Rate	-0.6	1.3	-1.7	-0.8	1.1	0.8	1.0	0.9
Nondurable Manufacturing	83.2	83.6	84.2	84.6	84.9	84.8	84.6	84.4
% Ch, Annual Rate	1.0	2.2	2.8	1.6	1.4	-0.3	-0.8	-1.0
Food Manufacturing	36.6	36.6	37.1	37.4	37.6	37.6	37.5	37.4
% Ch, Annual Rate	-1.7	0.1	5.6	2.8	2.6	-0.3	-0.9	-0.9
Paper and Paper Products	7.6	7.7	7.8	7.8	7.8	7.8	7.7	7.7
% Ch, Annual Rate	2.4	7.4	3.6	0.9	-0.3	-1.4	-1.3	-1.3
Other Nondurables	39.0	39.3	39.3	39.4	39.4	39.4	39.4	39.3
% Ch, Annual Rate	3.3	3.1	0.0	0.6	0.7	-0.1	-0.6	-1.0
Natural Resources and Mining	5.7	5.7	5.8	5.7	5.7	5.6	5.6	5.6
% Ch, Annual Rate	4.5	2.6	1.4	-5.8	-1.0	-3.0	-2.5	-0.9
Construction	213.4	212.3	210.4	209.6	208.3	207.1	205.7	207.4
% Ch, Annual Rate	-4.7	-2.1	-3.4	-1.6	-2.5	-2.3	-2.5	3.3
Trade, Transportation, and Utilities	661.9	659.0	660.5	654.1	652.1	658.2	655.0	653.4
% Ch, Annual Rate	0.1	-1.8	1.0	-3.8	-1.2	3.8	-1.9	-1.0
Wholesale Trade	134.8	136.2	140.7	142.2	144.0	144.5	145.3	146.4
% Ch, Annual Rate	3.9	4.2	13.8	4.4	5.1	1.3	2.3	3.2
Retail Trade	410.5	404.9	399.0	390.2	385.0	390.7	386.7	383.6
% Ch, Annual Rate	-2.7	-5.4	-5.7	-8.5	-5.2	6.0	-4.1	-3.1
Electronic Shopping and Mail-Order	89.4	90.0	90.6	91.2	91.7	92.3	92.8	93.4
% Ch	2.9	2.8	2.7	2.6	2.5	2.4	2.4	2.3
Other Retail Trade	321.2	314.9	308.4	299.0	293.3	298.4	293.8	290.2
% Ch	-4.2	-7.6	-8.0	-11.6	-7.5	7.1	-6.0	-4.8
Trans., Warehousing, and Utilities	116.6	117.8	120.9	121.7	123.1	123.1	123.1	123.3
% Ch, Annual Rate	6.1	4.4	10.7	2.8	4.6	-0.1	0.1	0.8
Information	155.7	154.9	156.1	155.6	158.2	159.1	160.0	161.6
% Ch, Annual Rate	9.1	-2.1	3.3	-1.3	6.6	2.4	2.3	3.9
Software Publishers	77.3	77.9	78.5	78.7	79.1	79.3	79.5	79.8
% Ch, Annual Rate	4.6	3.0	3.0	1.4	1.7	1.0	1.2	1.3
Other Publishing Industries	3.7	3.8	3.8	3.7	3.6	3.5	3.4	3.3
% Ch, Annual Rate	25.0	5.5	5.8	-10.7	-7.4	-15.2	-13.1	-12.7
Other Information	74.7	73.2	73.9	73.2	75.5	76.3	77.1	78.6
% Ch, Annual Rate	13.3	-7.4	3.5	-3.6	12.9	4.8	4.3	7.5
Financial Activities	162.8	166.3	169.6	169.9	170.2	168.9	168.2	168.4
% Ch, Annual Rate	8.8	8.8	8.1	0.8	0.7	-3.2	-1.6	0.5
Professional and Business Services	478.0	489.2	496.8	507.2	517.4	522.0	526.7	532.1
% Ch, Annual Rate	16.3	9.7	6.4	8.6	8.3	3.6	3.7	4.2
Education and Health Services	492.6	500.3	500.7	496.9	503.1	505.4	507.2	509.2
% Ch, Annual Rate	-2.5	6.4	0.3	-3.0	5.1	1.9	1.4	1.6
Leisure and Hospitality	291.9	293.8	300.6	318.2	318.2	318.9	325.4	328.8
% Ch, Annual Rate	4.3	2.7	9.5	25.6	0.0	1.0	8.4	4.3
Other Services	128.1	131.1	134.2	136.8	138.0	138.4	138.9	139.4
% Ch, Annual Rate	10.3	9.7	9.7	8.0	3.6	1.3	1.3	1.4
Federal Government	75.4	75.5	75.6	75.7	75.7	75.8	75.9	76.0
% Ch, Annual Rate	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5
State and Local Government	499.3	503.4	507.1	510.6	513.7	516.5	518.9	521.1
% Ch, Annual Rate	3.9	3.3	3.0	2.7	2.5	2.2	1.9	1.7

Table A2.4 (continued)

Washington Nonagricultural Employment by Industry (Thousands)

Forecast 2021 to 2025

	2024:1	2024:2	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4
Nonfarm Payroll Employment	3,579.3	3,592.2	3,605.1	3,617.0	3,628.0	3,638.8	3,649.3	3,658.9
% Ch, Annual Rate	1.6	1.5	1.4	1.3	1.2	1.2	1.2	1.1
Manufacturing	262.0	262.1	262.2	262.3	262.2	262.1	262.0	262.1
% Ch, Annual Rate	0.4	0.2	0.2	0.1	-0.2	-0.1	-0.1	0.2
Durable Manufacturing	177.7	177.9	178.1	178.3	178.2	178.3	178.3	178.4
% Ch, Annual Rate	0.8	0.5	0.4	0.4	-0.1	0.1	0.0	0.3
Wood Products	12.2	12.1	12.0	12.0	11.9	11.8	11.7	11.6
% Ch, Annual Rate	-3.4	-2.9	-3.2	-2.6	-2.7	-1.8	-2.9	-4.0
Primary and Fabricated Metals	24.8	24.7	24.7	24.6	24.4	24.3	24.2	24.2
% Ch, Annual Rate	-0.3	-1.1	-1.3	-1.4	-2.4	-1.9	-1.7	-0.5
Computer and Electronic Products	21.1	21.3	21.4	21.5	21.7	21.7	21.8	21.8
% Ch, Annual Rate	1.8	2.3	2.7	2.8	2.1	1.6	1.1	0.9
Machinery and Electrical Equipment	22.6	22.6	22.6	22.6	22.6	22.7	22.8	23.0
% Ch, Annual Rate	0.8	0.1	0.1	0.2	-0.1	1.0	1.7	3.7
Aerospace	62.2	62.5	62.8	63.0	63.1	63.2	63.3	63.4
% Ch, Annual Rate	2.2	2.0	1.8	1.4	1.0	0.7	0.4	0.4
Other Transportation Equip.	8.0	8.0	7.9	7.9	7.9	7.8	7.7	7.7
% Ch, Annual Rate	-1.8	-2.0	-2.4	-2.2	-2.4	-2.6	-2.7	-2.9
Other Durables	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7
% Ch, Annual Rate	0.7	0.1	-0.1	0.0	-0.1	0.2	0.2	0.5
Nondurable Manufacturing	84.3	84.2	84.2	84.1	83.9	83.8	83.7	83.7
% Ch, Annual Rate	-0.5	-0.4	-0.3	-0.5	-0.6	-0.5	-0.4	-0.1
Food Manufacturing	37.4	37.4	37.5	37.5	37.4	37.4	37.4	37.4
% Ch, Annual Rate	-0.2	0.0	0.4	0.2	-0.3	-0.2	-0.1	0.1
Paper and Paper Products	7.7	7.7	7.6	7.6	7.5	7.5	7.5	7.4
% Ch, Annual Rate	-0.9	-1.2	-1.5	-2.0	-2.7	-2.5	-2.3	-1.9
Other Nondurables	39.2	39.1	39.1	39.0	38.9	38.9	38.9	38.9
% Ch, Annual Rate	-0.7	-0.7	-0.7	-0.8	-0.6	-0.3	-0.3	0.0
Natural Resources and Mining	5.6	5.6	5.6	5.6	5.7	5.7	5.7	5.6
% Ch, Annual Rate	0.1	0.9	1.1	2.5	2.0	1.1	-0.5	-2.4
Construction	207.6	207.2	207.5	208.0	208.7	209.4	210.2	210.8
% Ch, Annual Rate	0.3	-0.7	0.5	1.0	1.4	1.4	1.5	1.2
Trade, Transportation, and Utilities	652.1	650.3	651.8	653.3	654.5	655.7	657.7	658.8
% Ch, Annual Rate	-0.7	-1.1	0.9	0.9	0.8	0.7	1.2	0.7
Wholesale Trade	147.7	149.0	149.9	150.9	151.9	152.8	153.6	154.2
% Ch, Annual Rate	3.5	3.5	2.6	2.6	2.8	2.4	2.0	1.5
Retail Trade	380.6	377.0	377.2	377.4	376.8	376.5	377.1	377.2
% Ch, Annual Rate	-3.1	-3.7	0.2	0.1	-0.5	-0.4	0.7	0.1
Electronic Shopping and Mail-Order	93.9	94.4	94.9	95.5	96.0	96.5	97.0	97.5
% Ch	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1
Other Retail Trade	286.7	282.6	282.3	281.9	280.9	280.0	280.1	279.7
% Ch	-4.7	-5.6	-0.4	-0.6	-1.4	-1.2	0.2	-0.5
Trans., Warehousing, and Utilities	123.8	124.3	124.6	125.0	125.7	126.4	127.0	127.4
% Ch, Annual Rate	1.6	1.5	1.2	1.2	2.4	2.1	1.8	1.3
Information	163.4	164.9	166.0	166.6	167.5	168.8	169.9	170.9
% Ch, Annual Rate	4.6	3.8	2.6	1.5	2.2	3.3	2.6	2.3
Software Publishers	80.1	80.4	80.7	81.0	81.3	81.6	81.9	82.1
% Ch, Annual Rate	1.6	1.7	1.5	1.5	1.6	1.5	1.2	1.1
Other Publishing Industries	3.2	3.1	3.0	2.9	2.8	2.7	2.6	2.5
% Ch, Annual Rate	-9.7	-9.0	-11.0	-11.2	-10.9	-12.3	-16.3	-18.1
Other Information	80.1	81.4	82.2	82.6	83.3	84.5	85.4	86.3
% Ch, Annual Rate	8.4	6.5	4.1	1.9	3.2	5.8	4.7	4.1
Financial Activities	168.6	169.1	169.3	169.5	169.7	169.7	169.6	169.1
% Ch, Annual Rate	0.6	1.0	0.6	0.5	0.3	0.2	-0.4	-1.0
Professional and Business Services	538.7	545.3	550.5	555.3	560.1	563.9	567.3	569.6
% Ch, Annual Rate	5.0	5.0	3.9	3.6	3.5	2.7	2.4	1.6
Education and Health Services	511.7	513.9	515.7	517.4	519.0	520.5	521.9	523.4
% Ch, Annual Rate	1.9	1.8	1.4	1.3	1.3	1.2	1.1	1.1
Leisure and Hospitality	330.3	331.8	332.0	331.9	331.1	330.8	330.4	331.5
% Ch, Annual Rate	1.7	1.9	0.3	-0.1	-1.0	-0.4	-0.5	1.3
Other Services	140.0	140.6	141.2	141.8	142.4	143.1	143.7	144.4
% Ch, Annual Rate	1.7	1.8	1.7	1.7	1.8	1.8	1.9	1.8
Federal Government	76.1	76.2	76.3	76.4	76.5	76.5	76.6	76.7
% Ch, Annual Rate	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
State and Local Government	523.3	525.2	527.1	528.9	530.7	532.5	534.2	535.9
% Ch, Annual Rate	1.7	1.5	1.4	1.4	1.4	1.3	1.3	1.3

Table A3.1

U.S. Personal Income by Component (Billions of Dollars)

Forecast 2021 to 2025

	2018	2019	2020	2021	2022	2023	2024	2025
Personal Income	17,851.8	18,551.5	19,691.6	20,688.2	20,772.1	21,681.8	22,727.3	23,803.9
% Ch	5.3	3.9	6.1	5.1	0.4	4.4	4.8	4.7
Total Wage and Salary Disbursements	8,894.2	9,309.3	9,331.9	9,906.7	10,449.1	10,982.6	11,528.9	12,084.8
% Ch	5.0	4.7	0.2	6.2	5.5	5.1	5.0	4.8
Nonwage Personal Income	8,957.6	9,242.2	10,359.7	10,781.5	10,323.0	10,699.1	11,198.4	11,719.1
% Ch	5.7	3.2	12.1	4.1	-4.3	3.6	4.7	4.6
Supplements to Wages and Salaries	2,055.9	2,123.1	2,117.6	2,249.7	2,368.3	2,481.3	2,597.2	2,729.1
% Ch	5.4	3.3	-0.3	6.2	5.3	4.8	4.7	5.1
Proprietor's Income	1,585.9	1,657.7	1,694.6	1,766.0	1,826.8	1,948.5	2,073.5	2,184.3
% Ch	5.1	4.5	2.2	4.2	3.4	6.7	6.4	5.3
Farm	43.0	49.7	64.5	74.5	45.6	55.2	67.1	67.7
% Ch	...	...	...	...	...	...	...	...
Nonfarm	1,542.9	1,608.0	1,630.1	1,691.5	1,781.2	1,893.3	2,006.4	2,116.7
% Ch	5.1	4.2	1.4	3.8	5.3	6.3	6.0	5.5
Less: Contribution For Govt. Soc. Ins.	1,360.4	1,418.8	1,436.1	1,511.6	1,586.5	1,663.5	1,743.8	1,825.8
% Ch	4.8	4.3	1.2	5.3	5.0	4.9	4.8	4.7
Dividends/Int./Rent	3,705.9	3,755.0	3,714.2	3,744.2	3,906.6	4,071.5	4,230.3	4,368.7
% Ch	7.1	1.3	-1.1	0.8	4.3	4.2	3.9	3.3
Transfer Payments	2,970.3	3,125.2	4,269.4	4,533.2	3,807.8	3,861.3	4,041.2	4,262.8
% Ch	4.0	5.2	36.6	6.2	-16.0	1.4	4.7	5.5

Table A3.2

U.S. Personal Income by Component (Billions of Dollars)

Forecast 2021 to 2025

	2020:1	2020:2	2020:3	2020:4	2021:1	2021:2	2021:3	2021:4
Personal Income	18,951.0	20,457.3	19,853.5	19,504.4	20,597.8	21,861.3	20,178.3	20,115.3
% Ch, Annual Rate	4.1	35.8	-11.3	-6.8	24.4	26.9	-27.4	-1.2
Total Wage and Salary Disbursements	9,526.1	8,908.8	9,343.3	9,549.4	9,663.1	9,852.8	9,990.5	10,120.3
% Ch, Annual Rate	4.5	-23.5	21.0	9.1	4.8	8.1	5.7	5.3
Nonwage Personal Income	9,424.9	11,548.5	10,510.2	9,955.0	10,934.7	12,008.4	10,187.9	9,995.0
% Ch, Annual Rate	3.8	125.4	-31.4	-19.5	45.6	45.4	-48.2	-7.4
Supplements to Wages and Salaries	2,148.3	2,040.7	2,122.9	2,158.4	2,201.7	2,237.3	2,266.1	2,293.7
% Ch, Annual Rate	1.1	-18.6	17.1	6.9	8.3	6.6	5.2	5.0
Proprietor's Income	1,706.0	1,511.9	1,803.0	1,757.4	1,742.4	1,837.6	1,759.6	1,724.3
% Ch, Annual Rate	2.0	-38.3	102.2	-9.7	-3.4	23.7	-15.9	-7.8
Farm	56.4	38.9	62.8	100.0	88.0	88.2	67.4	54.2
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	1,649.6	1,473.0	1,740.2	1,657.4	1,654.4	1,749.4	1,692.1	1,670.1
% Ch, Annual Rate	2.6	-36.4	94.8	-17.7	-0.7	25.0	-12.5	-5.1
Less: Contribution For Govt. Soc. Ins.	1,451.5	1,388.4	1,441.6	1,462.9	1,481.1	1,506.0	1,522.0	1,537.4
% Ch, Annual Rate	5.3	-16.3	16.3	6.0	5.1	6.9	4.3	4.1
Dividends/Int./Rent	3,786.6	3,706.3	3,656.7	3,707.2	3,684.2	3,717.9	3,768.5	3,806.4
% Ch, Annual Rate	1.1	-8.2	-5.2	5.6	-2.5	3.7	5.6	4.1
Transfer Payments	3,235.5	5,678.0	4,369.3	3,794.9	4,787.5	5,721.6	3,915.6	3,708.0
% Ch, Annual Rate	10.6	848.5	-64.9	-43.1	153.3	104.0	-78.1	-19.6

Table A3.2 (continued)

U.S. Personal Income by Component (Billions of Dollars)

Forecast 2021 to 2025

	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4
Personal Income	20,402.9	20,654.8	20,907.2	21,123.4	21,293.1	21,557.7	21,810.1	22,066.2
% Ch, Annual Rate	5.8	5.0	5.0	4.2	3.3	5.1	4.8	4.8
Total Wage and Salary Disbursements	10,251.2	10,383.6	10,514.6	10,647.1	10,778.4	10,915.7	11,050.9	11,185.7
% Ch, Annual Rate	5.3	5.3	5.1	5.1	5.0	5.2	5.0	5.0
Nonwage Personal Income	10,151.7	10,271.3	10,392.6	10,476.3	10,514.7	10,642.0	10,759.2	10,880.6
% Ch, Annual Rate	6.4	4.8	4.8	3.3	1.5	4.9	4.5	4.6
Supplements to Wages and Salaries	2,326.1	2,354.5	2,382.5	2,409.9	2,440.1	2,467.9	2,495.0	2,522.2
% Ch, Annual Rate	5.8	5.0	4.8	4.7	5.1	4.6	4.5	4.4
Proprietor's Income	1,778.1	1,815.4	1,848.1	1,865.6	1,894.0	1,935.2	1,967.9	1,996.9
% Ch, Annual Rate	13.1	8.7	7.4	3.9	6.2	9.0	6.9	6.0
Farm	47.3	44.2	44.3	46.7	49.3	53.1	57.3	61.2
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	1,730.8	1,771.2	1,803.8	1,819.0	1,844.7	1,882.1	1,910.6	1,935.8
% Ch, Annual Rate	15.3	9.7	7.6	3.4	5.8	8.4	6.2	5.4
Less: Contribution For Govt. Soc. Ins.	1,561.1	1,577.9	1,594.9	1,612.0	1,636.5	1,654.7	1,672.5	1,690.3
% Ch, Annual Rate	6.3	4.4	4.4	4.3	6.2	4.5	4.4	4.3
Dividends/Int./Rent	3,849.0	3,886.6	3,926.3	3,964.7	4,005.8	4,050.1	4,093.4	4,136.6
% Ch, Annual Rate	4.6	4.0	4.2	4.0	4.2	4.5	4.3	4.3
Transfer Payments	3,759.6	3,792.7	3,830.6	3,848.1	3,811.3	3,843.5	3,875.5	3,915.1
% Ch, Annual Rate	5.7	3.6	4.1	1.8	-3.8	3.4	3.4	4.1

Table A3.2 (continued)

U.S. Personal Income by Component (Billions of Dollars)

Forecast 2021 to 2025

	2024:1	2024:2	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4
Personal Income	22,341.3	22,600.8	22,854.7	23,112.3	23,397.6	23,667.6	23,941.6	24,208.8
% Ch, Annual Rate	5.1	4.7	4.6	4.6	5.0	4.7	4.7	4.5
Total Wage and Salary Disbursements	11,322.7	11,460.8	11,597.5	11,734.5	11,874.1	12,013.9	12,155.5	12,295.8
% Ch, Annual Rate	5.0	5.0	4.9	4.8	4.8	4.8	4.8	4.7
Nonwage Personal Income	11,018.6	11,140.0	11,257.2	11,377.8	11,523.4	11,653.7	11,786.2	11,913.1
% Ch, Annual Rate	5.2	4.5	4.3	4.4	5.2	4.6	4.6	4.4
Supplements to Wages and Salaries	2,553.4	2,582.1	2,611.5	2,641.9	2,678.0	2,711.4	2,746.0	2,781.0
% Ch, Annual Rate	5.0	4.6	4.6	4.7	5.6	5.1	5.2	5.2
Proprietor's Income	2,028.6	2,061.5	2,089.6	2,114.2	2,141.4	2,171.6	2,200.8	2,223.4
% Ch, Annual Rate	6.5	6.6	5.6	4.8	5.3	5.7	5.5	4.2
Farm	64.5	66.9	68.2	68.7	68.5	68.0	67.3	66.8
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	1,964.1	1,994.6	2,021.3	2,045.5	2,072.9	2,103.6	2,133.5	2,156.7
% Ch, Annual Rate	6.0	6.4	5.5	4.9	5.5	6.0	5.8	4.4
Less: Contribution For Govt. Soc. Ins.	1,716.2	1,734.7	1,753.0	1,771.1	1,797.8	1,816.4	1,835.2	1,853.8
% Ch, Annual Rate	6.3	4.4	4.3	4.2	6.1	4.2	4.2	4.1
Dividends/Int./Rent	4,176.1	4,213.3	4,248.6	4,283.2	4,315.7	4,349.8	4,386.0	4,423.4
% Ch, Annual Rate	3.9	3.6	3.4	3.3	3.1	3.2	3.4	3.5
Transfer Payments	3,976.7	4,017.9	4,060.5	4,109.6	4,186.1	4,237.3	4,288.6	4,339.1
% Ch, Annual Rate	6.4	4.2	4.3	4.9	7.7	5.0	4.9	4.8

Table A3.3

Washington Personal Income by Component (Billions of Dollars)

Forecast 2021 to 2025

	2018	2019	2020	2021	2022	2023	2024	2025
Personal Income	468.055	493.128	525.037	550.449	556.496	583.281	614.013	646.490
% Ch	7.9	5.4	6.5	4.8	1.1	4.8	5.3	5.3
Total Wage and Salary Disbursements	237.411	254.104	261.687	277.288	290.972	306.269	322.677	340.361
% Ch	8.8	7.0	3.0	6.0	4.9	5.3	5.4	5.5
Manufacturing	22.822	23.869	21.982	21.633	21.694	22.457	23.369	24.319
% Ch	5.3	4.6	-7.9	-1.6	0.3	3.5	4.1	4.1
Durable Manufacturing	17.971	18.794	17.006	16.406	16.337	16.901	17.657	18.411
% Ch	5.2	4.6	-9.5	-3.5	-0.4	3.5	4.5	4.3
Nondurable Manufacturing	4.851	5.074	4.976	5.228	5.357	5.556	5.712	5.907
% Ch	5.4	4.6	-1.9	5.1	2.5	3.7	2.8	3.4
Nonmanufacturing	207.564	222.965	232.167	247.778	261.063	275.233	290.355	306.700
% Ch	9.5	7.4	4.1	6.7	5.4	5.4	5.5	5.6
Other Private Wages	1.311	1.343	1.381	1.450	1.522	1.599	1.678	1.761
% Ch	5.7	2.5	2.8	5.0	5.0	5.0	4.9	4.9
Farm Wages	1.455	1.548	1.652	1.778	1.905	2.040	2.180	2.329
% Ch	-3.5	6.4	6.7	7.6	7.1	7.1	6.9	6.8
Military Wages	4.259	4.379	4.504	4.648	4.788	4.940	5.095	5.252
% Ch	1.8	2.8	2.9	3.2	3.0	3.2	3.1	3.1
Nonwage Personal Income	230.644	239.024	263.350	273.161	265.524	277.012	291.335	306.129
% Ch	7.0	3.6	10.2	3.7	-2.8	4.3	5.2	5.1
Supplements to Wages and Salaries	53.261	56.367	57.587	61.473	64.489	67.680	71.074	75.017
% Ch	8.5	5.8	2.2	6.7	4.9	4.9	5.0	5.5
Proprietor's Income	36.464	38.357	38.943	39.707	40.716	43.311	46.004	48.506
% Ch	5.0	5.2	1.5	2.0	2.5	6.4	6.2	5.4
Farm	1.591	1.798	2.449	2.085	1.255	1.401	1.600	1.610
% Ch	...	...	...	...	...	...	...	...
Nonfarm	34.873	36.558	36.494	37.622	39.462	41.910	44.404	46.896
% Ch	6.5	4.8	-0.2	3.1	4.9	6.2	5.9	5.6
Less: Contribution For Govt. Soc. Ins.	38.315	40.387	42.111	44.687	46.595	48.827	51.249	53.856
% Ch	6.2	5.4	4.3	6.1	4.3	4.8	5.0	5.1
Plus: Residence Adjustment	4.579	4.668	4.648	4.954	5.272	5.584	5.904	6.229
% Ch	6.8	1.9	-0.4	6.6	6.4	5.9	5.7	5.5
Dividends/Int./Rent	109.949	111.772	110.861	112.358	117.823	123.474	129.077	134.141
% Ch	7.9	1.7	-0.8	1.3	4.9	4.8	4.5	3.9
Transfer Payments	64.707	68.247	93.422	99.357	83.818	85.789	90.526	96.092
% Ch	4.9	5.5	36.9	6.4	-15.6	2.4	5.5	6.1
State U.I. Benefits	1.005	1.059	13.401	6.754	1.069	1.289	1.435	1.516
% Ch	-1.2	5.3	1,165.6	-49.6	-84.2	20.5	11.3	5.7
Other Transfers	63.701	67.189	80.022	92.603	82.749	84.499	89.091	94.577
% Ch	5.0	5.5	19.1	15.7	-10.6	2.1	5.4	6.2

Table A3.4

Washington Personal Income by Component (Billions of Dollars)

Forecast 2021 to 2025

	2020:1	2020:2	2020:3	2020:4	2021:1	2021:2	2021:3	2021:4
Personal Income	506.487	543.622	529.139	520.900	546.939	578.061	538.889	537.910
% Ch, Annual Rate	5.0	32.7	-10.2	-6.1	21.5	24.8	-24.5	-0.7
Total Wage and Salary Disbursements	262.803	250.555	264.059	269.330	271.615	276.072	279.323	282.143
% Ch, Annual Rate	6.2	-17.4	23.4	8.2	3.4	6.7	4.8	4.1
Manufacturing	22.061	22.477	21.681	21.709	21.864	21.782	21.568	21.319
% Ch, Annual Rate	-20.6	7.8	-13.4	0.5	2.9	-1.5	-3.9	-4.5
Durable Manufacturing	16.970	17.654	16.740	16.662	16.700	16.556	16.310	16.056
% Ch, Annual Rate	-25.3	17.1	-19.2	-1.8	0.9	-3.4	-5.8	-6.1
Nondurable Manufacturing	5.091	4.824	4.941	5.047	5.163	5.226	5.258	5.263
% Ch, Annual Rate	-1.7	-19.4	10.1	8.8	9.5	4.9	2.5	0.4
Nonmanufacturing	233.295	220.604	234.820	239.950	242.000	246.444	249.829	252.840
% Ch, Annual Rate	9.4	-20.0	28.4	9.0	3.5	7.5	5.6	4.9
Other Private Wages	1.394	1.355	1.369	1.406	1.418	1.444	1.462	1.477
% Ch, Annual Rate	-4.8	-10.9	4.3	11.2	3.4	7.5	5.2	4.2
Farm Wages	1.626	1.637	1.644	1.702	1.724	1.766	1.798	1.825
% Ch, Annual Rate	10.6	2.8	1.5	15.0	5.3	10.2	7.3	6.1
Military Wages	4.426	4.481	4.545	4.563	4.609	4.636	4.666	4.683
% Ch, Annual Rate	1.8	5.1	5.8	1.6	4.1	2.3	2.6	1.5
Nonwage Personal Income	243.685	293.067	265.081	251.570	275.324	301.989	259.566	255.766
% Ch, Annual Rate	3.7	109.2	-33.1	-18.9	43.5	44.7	-45.4	-5.7
Supplements to Wages and Salaries	57.442	55.456	58.364	59.087	60.329	61.189	61.877	62.496
% Ch, Annual Rate	2.0	-13.1	22.7	5.0	8.7	5.8	4.6	4.1
Proprietor's Income	39.570	34.939	41.274	39.987	39.650	41.276	39.390	38.512
% Ch, Annual Rate	3.6	-39.2	94.7	-11.9	-3.3	17.4	-17.1	-8.6
Farm	1.871	2.235	2.601	3.086	2.759	2.333	1.782	1.464
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	37.699	32.704	38.673	36.901	36.890	38.943	37.608	37.048
% Ch, Annual Rate	3.6	-43.4	95.5	-17.1	-0.1	24.2	-13.0	-5.8
Less: Contribution For Govt. Soc. Ins.	41.596	40.577	42.909	43.363	43.969	44.580	44.945	45.254
% Ch, Annual Rate	6.1	-9.4	25.0	4.3	5.7	5.7	3.3	2.8
Plus: Residence Adjustment	4.789	4.435	4.624	4.745	4.811	4.923	5.003	5.079
% Ch, Annual Rate	2.0	-26.5	18.2	10.8	5.7	9.6	6.7	6.2
Dividends/Int./Rent	113.084	110.350	109.151	110.861	110.344	111.495	113.157	114.435
% Ch, Annual Rate	2.0	-9.3	-4.3	6.4	-1.9	4.2	6.1	4.6
Transfer Payments	70.396	128.464	94.577	80.253	104.160	127.687	85.083	80.498
% Ch, Annual Rate	9.7	1,009.0	-70.6	-48.2	183.8	125.8	-80.3	-19.9
State U.I. Benefits	1.612	28.804	17.951	5.234	10.641	9.564	5.836	0.975
% Ch, Annual Rate	502.2	#####	-84.9	-99.3	1,607.7	-34.7	-86.1	-99.9
Other Transfers	68.784	99.660	76.625	75.019	93.520	118.123	79.247	79.523
% Ch, Annual Rate	6.2	340.7	-65.1	-8.1	141.5	154.5	-79.7	1.4

Table A3.4 (continued)

Washington Personal Income by Component (Billions of Dollars)

Forecast 2021 to 2025

	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4
Personal Income	545.920	553.056	560.283	566.723	572.069	579.641	586.849	594.563
% Ch, Annual Rate	6.1	5.3	5.3	4.7	3.8	5.4	5.1	5.4
Total Wage and Salary Disbursements	285.584	289.099	292.707	296.498	300.412	304.305	308.088	312.269
% Ch, Annual Rate	5.0	5.0	5.1	5.3	5.4	5.3	5.1	5.5
Manufacturing	21.452	21.676	21.747	21.899	22.092	22.330	22.587	22.817
% Ch, Annual Rate	2.5	4.3	1.3	2.8	3.6	4.4	4.7	4.1
Durable Manufacturing	16.178	16.353	16.365	16.452	16.599	16.791	17.007	17.205
% Ch, Annual Rate	3.1	4.4	0.3	2.1	3.6	4.7	5.2	4.7
Nondurable Manufacturing	5.274	5.323	5.382	5.448	5.493	5.539	5.580	5.612
% Ch, Annual Rate	0.8	3.8	4.5	5.0	3.4	3.4	3.0	2.3
Nonmanufacturing	256.041	259.249	262.698	266.261	269.871	273.439	276.876	280.746
% Ch, Annual Rate	5.2	5.1	5.4	5.5	5.5	5.4	5.1	5.7
Other Private Wages	1.495	1.513	1.531	1.551	1.570	1.590	1.608	1.629
% Ch, Annual Rate	5.0	4.9	4.9	5.1	5.2	5.0	4.7	5.2
Farm Wages	1.856	1.888	1.920	1.954	1.989	2.023	2.056	2.092
% Ch, Annual Rate	7.1	7.0	7.0	7.2	7.3	7.0	6.7	7.2
Military Wages	4.739	4.772	4.809	4.833	4.890	4.924	4.961	4.986
% Ch, Annual Rate	4.9	2.9	3.1	2.0	4.8	2.8	3.1	2.0
Nonwage Personal Income	260.337	263.956	267.576	270.225	271.657	275.336	278.761	282.293
% Ch, Annual Rate	7.3	5.7	5.6	4.0	2.1	5.5	5.1	5.2
Supplements to Wages and Salaries	63.359	64.106	64.861	65.629	66.520	67.295	68.044	68.863
% Ch, Annual Rate	5.6	4.8	4.8	4.8	5.5	4.7	4.5	4.9
Proprietor's Income	39.681	40.476	41.175	41.534	42.158	43.033	43.708	44.344
% Ch, Annual Rate	12.7	8.3	7.1	3.5	6.1	8.6	6.4	5.9
Farm	1.304	1.232	1.224	1.259	1.302	1.365	1.435	1.501
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	38.377	39.244	39.952	40.275	40.856	41.668	42.273	42.843
% Ch, Annual Rate	15.1	9.3	7.4	3.3	5.9	8.2	5.9	5.5
Less: Contribution For Govt. Soc. Ins.	45.901	46.349	46.818	47.311	48.049	48.568	49.066	49.624
% Ch, Annual Rate	5.8	4.0	4.1	4.3	6.4	4.4	4.2	4.6
Plus: Residence Adjustment	5.156	5.233	5.310	5.388	5.465	5.545	5.624	5.703
% Ch, Annual Rate	6.2	6.2	6.0	6.0	5.8	6.0	5.8	5.7
Dividends/Int./Rent	115.859	117.139	118.489	119.805	121.215	122.731	124.226	125.726
% Ch, Annual Rate	5.1	4.5	4.7	4.5	4.8	5.1	5.0	4.9
Transfer Payments	82.183	83.352	84.558	85.180	84.349	85.300	86.225	87.281
% Ch, Annual Rate	8.6	5.8	5.9	3.0	-3.8	4.6	4.4	5.0
State U.I. Benefits	0.949	1.005	1.123	1.202	1.197	1.266	1.333	1.361
% Ch, Annual Rate	-10.2	26.0	55.6	31.3	-1.5	25.2	22.7	8.9
Other Transfers	81.235	82.347	83.436	83.978	83.152	84.034	84.892	85.920
% Ch, Annual Rate	8.9	5.6	5.4	2.6	-3.9	4.3	4.1	4.9

Table A3.4 (continued)

Washington Personal Income by Component (Billions of Dollars)

Forecast 2021 to 2025

	2024:1	2024:2	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4
Personal Income	602.558	610.142	617.780	625.570	634.072	642.290	650.667	658.933
% Ch, Annual Rate	5.5	5.1	5.1	5.1	5.5	5.3	5.3	5.2
Total Wage and Salary Disbursements	316.389	320.496	324.750	329.074	333.537	338.047	342.637	347.224
% Ch, Annual Rate	5.4	5.3	5.4	5.4	5.5	5.5	5.5	5.5
Manufacturing	23.032	23.245	23.478	23.722	23.951	24.186	24.431	24.707
% Ch, Annual Rate	3.8	3.8	4.1	4.2	3.9	4.0	4.1	4.6
Durable Manufacturing	17.384	17.559	17.746	17.941	18.124	18.309	18.499	18.714
% Ch, Annual Rate	4.2	4.1	4.3	4.5	4.1	4.1	4.2	4.7
Nondurable Manufacturing	5.648	5.686	5.733	5.780	5.828	5.877	5.932	5.993
% Ch, Annual Rate	2.6	2.8	3.3	3.4	3.3	3.5	3.8	4.2
Nonmanufacturing	284.539	288.344	292.269	296.269	300.386	304.565	308.811	313.037
% Ch, Annual Rate	5.5	5.5	5.6	5.6	5.7	5.7	5.7	5.6
Other Private Wages	1.648	1.668	1.688	1.708	1.729	1.750	1.772	1.793
% Ch, Annual Rate	5.0	4.8	4.9	4.9	5.0	5.0	5.0	4.9
Farm Wages	2.127	2.162	2.198	2.234	2.272	2.310	2.348	2.387
% Ch, Annual Rate	6.9	6.7	6.8	6.8	6.9	6.9	6.9	6.7
Military Wages	5.043	5.078	5.116	5.141	5.199	5.235	5.274	5.301
% Ch, Annual Rate	4.7	2.8	3.0	2.0	4.6	2.8	3.0	2.0
Nonwage Personal Income	286.170	289.646	293.030	296.496	300.535	304.243	308.030	311.708
% Ch, Annual Rate	5.6	4.9	4.8	4.8	5.6	5.0	5.1	4.9
Supplements to Wages and Salaries	69.789	70.617	71.491	72.399	73.487	74.487	75.523	76.571
% Ch, Annual Rate	5.5	4.8	5.0	5.2	6.1	5.6	5.7	5.7
Proprietor's Income	45.026	45.733	46.353	46.904	47.524	48.212	48.883	49.404
% Ch, Annual Rate	6.3	6.4	5.5	4.8	5.4	5.9	5.7	4.3
Farm	1.557	1.597	1.620	1.628	1.625	1.616	1.605	1.595
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	43.469	44.137	44.733	45.276	45.899	46.596	47.279	47.809
% Ch, Annual Rate	6.0	6.3	5.5	4.9	5.6	6.2	6.0	4.6
Less: Contribution For Govt. Soc. Ins.	50.406	50.958	51.528	52.105	52.943	53.548	54.162	54.771
% Ch, Annual Rate	6.5	4.5	4.5	4.5	6.6	4.6	4.7	4.6
Plus: Residence Adjustment	5.783	5.864	5.944	6.024	6.106	6.187	6.270	6.352
% Ch, Annual Rate	5.7	5.7	5.6	5.5	5.5	5.5	5.5	5.3
Dividends/Int./Rent	127.125	128.457	129.733	130.993	132.193	133.450	134.775	136.145
% Ch, Annual Rate	4.5	4.3	4.0	3.9	3.7	3.9	4.0	4.1
Transfer Payments	88.853	89.933	91.037	92.279	94.169	95.454	96.740	98.007
% Ch, Annual Rate	7.4	5.0	5.0	5.6	8.4	5.6	5.5	5.3
State U.I. Benefits	1.393	1.426	1.449	1.471	1.491	1.508	1.524	1.540
% Ch, Annual Rate	9.6	9.8	6.6	6.3	5.5	4.6	4.4	4.1
Other Transfers	87.460	88.507	89.589	90.808	92.678	93.946	95.216	96.467
% Ch, Annual Rate	7.4	4.9	5.0	5.6	8.5	5.6	5.5	5.4

Table A4.1
Selected Inflation Indicators
(PCE Price Index 2012=100; CPI 1982-84=1)

	PCE Price Index*		U.S. CPI#		Seattle CPI+	
	Index	Percent Change	Index	Percent Change	Index	Percent Change
1971	21.8	4.2	0.405	4.2	0.382	2.1
1972	22.6	3.4	0.418	3.3	0.393	2.9
1973	23.8	5.4	0.444	6.3	0.418	6.4
1974	26.3	10.4	0.493	11.0	0.464	11.0
1975	28.5	8.3	0.538	9.1	0.511	10.2
1976	30.0	5.5	0.569	5.8	0.540	5.5
1977	32.0	6.5	0.606	6.5	0.583	8.0
1978	34.2	7.0	0.652	7.6	0.640	9.9
1979	37.3	8.9	0.726	11.3	0.709	10.8
1980	41.3	10.8	0.824	13.5	0.827	16.7
1981	45.0	9.0	0.909	10.4	0.916	10.8
1982	47.5	5.6	0.965	6.2	0.978	6.7
1983	49.5	4.3	0.996	3.2	0.993	1.5
1984	51.3	3.8	1.039	4.4	1.030	3.8
1985	53.1	3.5	1.076	3.5	1.056	2.5
1986	54.3	2.2	1.097	1.9	1.066	1.0
1987	56.0	3.1	1.136	3.6	1.092	2.4
1988	58.2	3.9	1.183	4.1	1.128	3.3
1989	60.7	4.4	1.239	4.8	1.181	4.7
1990	63.4	4.4	1.307	5.4	1.268	7.3
1991	65.5	3.3	1.362	4.2	1.341	5.8
1992	67.2	2.7	1.403	3.0	1.390	3.7
1993	68.9	2.5	1.445	3.0	1.429	2.8
1994	70.3	2.1	1.482	2.6	1.478	3.4
1995	71.8	2.1	1.524	2.8	1.522	3.0
1996	73.3	2.1	1.569	2.9	1.575	3.4
1997	74.6	1.7	1.605	2.3	1.630	3.5
1998	75.2	0.8	1.630	1.5	1.677	2.9
1999	76.3	1.5	1.666	2.2	1.728	3.0
2000	78.2	2.5	1.722	3.4	1.792	3.7
2001	79.7	1.9	1.770	2.8	1.857	3.6
2002	80.8	1.3	1.799	1.6	1.893	2.0
2003	82.4	1.9	1.840	2.3	1.924	1.6
2004	84.4	2.5	1.889	2.7	1.947	1.2
2005	86.8	2.8	1.953	3.4	2.002	2.8
2006	89.2	2.7	2.016	3.2	2.076	3.7
2007	91.4	2.5	2.073	2.9	2.157	3.9
2008	94.2	3.0	2.153	3.8	2.247	4.2
2009	94.1	-0.1	2.146	-0.3	2.260	0.6
2010	95.7	1.7	2.181	1.6	2.267	0.3
2011	98.1	2.5	2.249	3.1	2.328	2.7
2012	100.0	1.9	2.296	2.1	2.387	2.5
2013	101.3	1.3	2.330	1.5	2.416	1.2
2014	102.8	1.5	2.367	1.6	2.460	1.8
2015	103.0	0.2	2.370	0.1	2.494	1.4
2016	104.1	1.0	2.400	1.3	2.550	2.3
2017	106.0	1.8	2.451	2.1	2.627	3.0
2018	108.2	2.1	2.511	2.4	2.711	3.2
2019	109.9	1.5	2.557	1.8	2.779	2.5
2020	111.2	1.2	2.588	1.2	2.826	1.7
Forecast						
2021	113.8	2.4	2.656	2.6	2.889	2.2
2022	115.6	1.6	2.697	1.5	2.933	1.5
2023	117.5	1.6	2.741	1.6	2.981	1.6
2024	119.6	1.8	2.794	1.9	3.038	1.9
2025	122.0	2.0	2.854	2.2	3.104	2.2

* GDP Price Index for Personal Consumption Expenditures
Consumer Price Index for all Urban Consumers
+ Consumer Price Index for the Seattle-Tacoma-Bremerton, WA CMSA
Consumer Price Index and PCE Price Index values shown here are annual averages of seasonally adjusted quarterly data and may differ slightly from the annual values published by the Bureau of Labor Statistics and Bureau of Economic Analysis.

Table A4.2
Price Indexes for Gross Domestic Product
(2012=100)

	Services		Food		Fuels		Gasoline	
	Index	Percent Change	Index	Percent Change	Index	Percent Change	Index	Percent Change
1971	16.8	5.5	21.4	2.3	4.9	6.4	9.1	0.7
1972	17.5	4.2	22.4	4.8	5.0	0.6	9.2	1.3
1973	18.3	4.8	25.2	12.7	5.7	14.6	10.1	9.6
1974	19.9	8.5	29.0	15.2	9.0	58.9	13.6	35.1
1975	21.6	8.6	31.2	7.5	9.8	8.5	14.6	6.7
1976	23.1	6.9	31.8	1.9	10.5	7.3	15.2	4.2
1977	24.8	7.6	33.7	5.9	11.9	13.2	16.1	5.8
1978	26.8	7.7	36.9	9.6	12.6	5.7	16.8	4.3
1979	29.0	8.4	40.5	9.8	17.3	37.9	22.5	34.0
1980	32.0	10.4	43.9	8.4	24.3	40.4	31.2	38.8
1981	35.3	10.2	47.1	7.1	29.8	22.3	34.7	11.3
1982	38.1	7.8	48.3	2.6	29.2	-1.9	32.9	-5.1
1983	40.4	6.1	48.8	1.1	26.9	-7.8	31.9	-3.3
1984	42.5	5.2	50.3	3.0	27.5	2.2	31.4	-1.5
1985	44.6	4.9	50.9	1.1	26.4	-3.9	31.6	0.8
1986	46.4	4.1	52.1	2.4	20.7	-21.7	24.8	-21.5
1987	47.8	3.0	53.7	3.2	21.2	2.6	25.8	3.8
1988	50.1	4.8	55.3	3.0	21.2	0.0	26.0	0.8
1989	52.4	4.7	58.2	5.3	22.5	5.9	28.4	9.2
1990	54.8	4.6	61.1	4.9	27.1	20.4	32.3	13.8
1991	57.0	3.9	63.0	3.1	25.8	-4.8	31.9	-1.3
1992	59.0	3.6	63.5	0.8	24.7	-4.1	31.8	-0.4
1993	61.1	3.5	64.3	1.4	24.6	-0.7	31.5	-1.0
1994	62.7	2.7	65.4	1.7	24.1	-1.8	31.6	0.5
1995	64.5	2.8	66.8	2.2	23.9	-0.9	32.1	1.6
1996	66.2	2.7	68.9	3.1	27.1	13.3	34.1	6.1
1997	68.1	2.8	70.2	1.9	27.1	0.2	34.1	0.0
1998	69.5	2.1	71.1	1.3	24.0	-11.4	29.7	-12.9
1999	71.0	2.0	72.2	1.6	24.4	1.7	32.3	8.9
2000	72.9	2.8	73.9	2.3	35.8	46.6	41.3	27.8
2001	75.2	3.1	76.1	2.9	35.1	-2.0	39.8	-3.6
2002	77.1	2.6	77.2	1.5	31.3	-10.8	37.4	-6.0
2003	79.5	3.1	78.7	1.9	37.9	20.9	43.6	16.5
2004	82.0	3.1	81.2	3.1	44.1	16.4	51.3	17.6
2005	84.7	3.3	82.6	1.7	58.7	33.0	62.3	21.6
2006	87.6	3.5	84.0	1.7	66.7	13.7	70.3	12.9
2007	90.5	3.3	87.2	3.9	71.3	6.9	76.3	8.4
2008	93.2	3.0	92.6	6.1	96.8	35.7	88.8	16.5
2009	94.2	1.1	93.7	1.2	66.2	-31.6	65.2	-26.6
2010	96.0	1.8	93.9	0.3	77.5	16.9	76.9	18.0
2011	97.8	1.9	97.7	4.0	98.6	27.3	96.6	25.7
2012	100.0	2.2	100.0	2.4	100.0	1.4	100.0	3.5
2013	102.3	2.3	101.0	1.0	98.8	-1.2	97.2	-2.8
2014	104.8	2.4	102.9	1.9	98.3	-0.5	93.5	-3.8
2015	106.7	1.8	104.1	1.1	69.9	-28.8	68.7	-26.5
2016	109.2	2.3	103.0	-1.0	58.0	-17.1	61.0	-11.2
2017	111.9	2.5	102.9	-0.1	66.8	15.3	68.9	12.8
2018	115.0	2.8	103.4	0.5	80.8	20.9	78.0	13.2
2019	117.7	2.4	104.4	1.0	77.2	-4.5	75.3	-3.4
2020	120.1	2.0	108.0	3.4	60.6	-21.4	63.9	-15.1
Forecast								
2021	123.0	2.4	109.1	1.0	70.5	16.3	81.8	28.0
2022	126.2	2.6	110.6	1.4	66.0	-6.4	76.2	-6.8
2023	129.6	2.7	111.8	1.1	60.9	-7.7	71.5	-6.2
2024	133.1	2.7	113.2	1.3	60.4	-0.9	70.6	-1.3
2025	136.9	2.9	115.0	1.6	60.8	0.8	70.7	0.2

Table A5.1

Washington Resident Population and Components of Change*

(Thousands)

	<u>Population</u>	<u>Change</u>	<u>Percent Change</u>	<u>Births</u>	<u>Deaths</u>	<u>Net Migration</u>
1970	3413.2	16.2	0.5	59.9	30.0	-13.7
1971	3436.3	23.1	0.7	60.0	29.8	-7.1
1972	3430.3	-6.0	-0.2	53.1	30.4	-28.7
1973	3444.3	14.0	0.4	47.7	30.4	-3.3
1974	3508.7	64.4	1.9	48.2	29.9	46.1
1975	3567.9	59.2	1.7	50.1	30.3	39.4
1976	3634.9	67.0	1.9	51.4	30.2	45.8
1977	3715.4	80.5	2.2	54.2	29.1	55.4
1978	3836.2	120.8	3.3	57.3	30.4	93.9
1979	3979.2	143.0	3.7	60.2	30.2	113.0
1980	4132.2	153.0	3.8	65.4	31.3	118.9
1981	4229.3	97.1	2.4	68.2	31.8	60.8
1982	4276.5	47.3	1.1	70.1	31.7	8.9
1983	4307.2	30.7	0.7	69.5	32.5	-6.2
1984	4354.1	46.8	1.1	68.5	33.2	11.6
1985	4415.8	61.7	1.4	69.1	34.0	26.6
1986	4462.2	46.4	1.1	70.2	34.0	10.2
1987	4527.1	64.9	1.5	69.3	34.4	30.0
1988	4616.9	89.8	2.0	71.0	36.0	54.8
1989	4728.1	111.2	2.4	73.0	36.0	74.2
1990	4866.7	138.6	2.9	76.4	36.2	98.5
1991	5000.4	133.7	2.7	79.1	36.6	91.2
1992	5091.1	90.8	1.8	80.2	37.2	47.7
1993	5188.0	96.9	1.9	79.1	39.4	57.1
1994	5291.6	103.6	2.0	78.2	39.5	64.9
1995	5396.6	105.0	2.0	77.5	40.0	67.5
1996	5483.1	86.5	1.6	77.0	41.2	50.7
1997	5579.1	96.0	1.8	78.0	42.6	60.6
1998	5685.5	106.3	1.9	78.8	41.6	69.1
1999	5792.2	106.8	1.9	79.8	43.1	70.1
2000	5894.1	101.9	1.8	79.9	43.7	65.8
2001	5970.5	76.3	1.3	80.7	43.9	39.5
2002	6059.7	89.2	1.5	79.3	44.9	54.9
2003	6126.9	67.2	1.1	79.1	44.7	32.9
2004	6208.5	81.6	1.3	81.0	46.0	46.7
2005	6298.8	90.3	1.5	81.8	45.6	54.0
2006	6420.2	121.4	1.9	83.2	45.3	83.5
2007	6525.1	104.9	1.6	87.8	46.2	63.3
2008	6608.2	83.1	1.3	89.6	47.9	41.5
2009	6672.3	64.0	1.0	89.8	48.1	22.3
2010	6724.5	52.3	0.8	88.4	47.7	11.5
2011	6767.9	43.4	0.6	86.4	48.8	5.8
2012	6817.8	49.9	0.7	87.1	49.2	12.0
2013	6882.4	64.6	0.9	87.3	51.1	28.5
2014	6968.2	85.8	1.2	87.0	50.7	49.5
2015	7061.4	93.2	1.3	88.5	52.8	57.6
2016	7183.7	122.3	1.7	89.8	54.7	87.1
2017	7310.3	126.6	1.8	89.7	56.1	93.0
2018	7427.6	117.3	1.6	87.3	56.4	86.3
2019	7546.4	118.8	1.6	85.7	57.2	90.3
2020	7656.2	109.8	1.5	85.2	59.1	83.7
Forecast						
2021	7714.7	58.5	0.8	85.6	61.1	33.9
2022	7776.1	61.4	0.8	86.4	60.4	35.5
2023	7839.7	63.6	0.8	86.9	61.5	38.3
2024	7904.4	64.7	0.8	87.3	62.8	40.2
2025	7969.8	65.5	0.8	87.5	64.1	42.1

* As of April 1 of Each Year

Source: Office of Financial Management

Table A5.2
Washington Population*
 (Thousands)

	<u>2016</u>	<u>2017</u>	Actual <u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	Forecast <u>2023</u>	<u>2024</u>	<u>2025</u>
Total Population	7183.7	7310.3	7427.6	7546.4	7656.2	7714.7	7776.1	7839.7	7904.4	7969.8
Percent Change	1.7	1.8	1.6	1.6	1.5	0.8	0.8	0.8	0.8	0.8
Age 17 and Under	1625.6	1648.7	1665.9	1682.1	1697.4	1698.8	1699.6	1700.2	1700.8	1698.3
Percent of Total	22.6	22.6	22.4	22.3	22.2	22.0	21.9	21.7	21.5	21.3
Age 6-18	1178.7	1195.4	1211.9	1228.8	1244.6	1254.5	1264.7	1272.4	1275.4	1275.1
Percent of Total	16.4	16.4	16.3	16.3	16.3	16.3	16.3	16.2	16.1	16.0
Age 18 and Over	5558.1	5661.6	5761.7	5864.3	5958.8	6015.9	6076.5	6139.4	6203.5	6271.6
Percent of Total	77.4	77.4	77.6	77.7	77.8	78.0	78.1	78.3	78.5	78.7
Age 21 and Over	5284.0	5383.5	5479.6	5578.9	5673.2	5733.7	5795.1	5854.5	5914.3	5975.8
Percent of Total	73.6	73.6	73.8	73.9	74.1	74.3	74.5	74.7	74.8	75.0
Age 20-34	1482.7	1507.6	1529.6	1554.8	1575.7	1576.7	1577.8	1578.7	1579.2	1577.7
Percent of Total	20.6	20.6	20.6	20.6	20.6	20.4	20.3	20.1	20.0	19.8
Age 18-64	4484.7	4540.3	4588.0	4637.5	4677.3	4684.8	4694.7	4706.6	4722.5	4740.5
Percent of Total	62.4	62.1	61.8	61.5	61.1	60.7	60.4	60.0	59.7	59.5
Age 65 and Over	1073.3	1121.3	1173.7	1226.8	1281.4	1331.1	1381.8	1432.8	1481.1	1531.1
Percent of Total	14.9	15.3	15.8	16.3	16.7	17.3	17.8	18.3	18.7	19.2

* As of April 1 of Each Year

Source: Office of Financial Management

Table A6.1

Summary of National and State Indicators

Indicator	Latest Data	Indication*
U.S. Leading Index	February 2021	+
U.S. Real GDP Growth	4th quarter 2020	-
U.S. ISM Index	February 2021	+
U.S. Employment YOY%Δ	February 2021	+
U.S. Unemployment Rate	February 2021	+
U.S. Consumer Confidence	March 2021	+
U.S. Consumer Sentiment	March 2021	+
U.S. CPI YOY%Δ	February 2021	-
U.S. Home Prices YOY%Δ	January 2021	+
S&P 500 Index	March 2021	+
WA Leading Index	February 2021	+
WA Employment YOY%Δ	February 2021	+
WA Aerospace Empl. YOY%Δ	February 2021	-
WA Unemployment Rate	February 2021	+
WA Help Wanted Index	February 2021	-
WA Business Cycle Indicator	February 2021	+
WA Initial Unemploy. Claims	February 2021	+
WA Housing Permits	February 2021	+
WA Weekly Hours in Mfg.	February 2021	-
WA New Vehicle Registration	February 2021	+
WA In-Migration	February 2021	-
WA Exports-Total YOY%Δ	4th quarter 2020	+
WA Exports- w/o Trans. Equip. YOY%Δ	4th quarter 2020	+
Seattle CPI YOY%Δ	February 2021	-
Seattle Home Prices YOY%Δ	January 2021	+
WA Construction Activity Index	February 2021	+

*Change from the previous reading

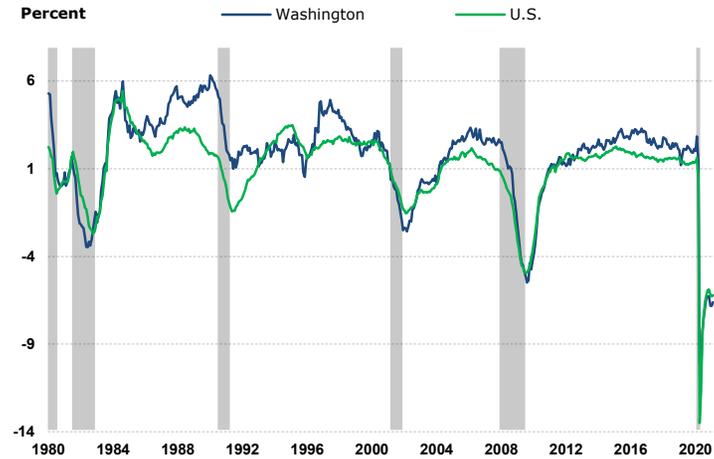
Table A6.2
Washington Business Indicators
 Historical Data

	WA Index of Leading Indicators	U.S. Index of Leading Indicators	WA State Business Cycle Indicator	WA State Construction Index	WA State Help Wanted Index	U.S. Purchasing Management Index
2015:01	117.9	97.4	54.9	103.8	127.6	53.5
2015:02	118.9	97.4	59.9	107.6	137.2	52.9
2015:03	118.3	97.9	59.1	104.0	138.8	51.5
2015:04	118.4	98.4	59.4	102.5	135.7	51.5
2015:05	119.1	98.8	58.7	102.8	139.0	52.8
2015:06	119.1	99.3	59.4	103.1	136.0	53.5
2015:07	118.9	99.1	61.0	103.3	141.0	52.7
2015:08	119.1	99.1	60.0	104.8	139.1	51.1
2015:09	117.9	99.0	59.3	104.5	126.6	50.2
2015:10	118.5	99.4	60.4	103.3	132.4	50.1
2015:11	118.5	99.8	60.2	103.5	134.3	48.6
2015:12	118.7	99.6	63.0	105.9	130.7	48.0
2016:01	118.5	99.3	63.4	105.9	128.7	48.2
2016:02	118.8	99.2	65.7	107.2	124.9	49.7
2016:03	119.2	99.2	62.9	106.9	128.9	51.7
2016:04	120.4	99.7	63.4	107.9	130.9	50.7
2016:05	121.1	99.5	65.5	108.2	148.2	51.0
2016:06	121.3	99.8	66.6	109.3	151.3	52.8
2016:07	121.9	100.2	67.6	108.7	156.3	52.3
2016:08	121.1	100.2	66.9	106.5	153.1	49.4
2016:09	121.8	100.4	67.5	111.1	143.4	51.7
2016:10	122.1	100.5	68.3	111.7	152.3	52.0
2016:11	121.5	100.7	69.3	111.7	148.8	53.5
2016:12	121.6	101.2	70.7	112.9	149.2	54.5
2017:01	122.1	101.8	69.1	111.1	152.5	56.0
2017:02	122.1	102.1	68.9	112.0	140.1	57.7
2017:03	122.7	102.6	70.6	111.6	143.4	57.2
2017:04	123.3	102.8	69.5	111.9	143.3	54.8
2017:05	123.8	103.2	71.1	112.7	149.2	54.9
2017:06	124.3	103.8	70.8	113.4	145.4	57.8
2017:07	124.6	104.1	71.0	113.8	139.5	56.3
2017:08	124.7	104.5	72.1	114.4	135.1	58.8
2017:09	125.0	104.5	73.3	113.7	140.4	60.8
2017:10	125.3	105.9	73.1	117.2	132.7	58.7
2017:11	125.4	106.3	75.1	116.8	134.7	58.2
2017:12	126.3	107.1	74.8	116.2	138.6	59.7
2018:01	126.7	107.8	74.5	115.8	136.8	59.1
2018:02	128.2	108.5	76.9	117.9	133.3	60.8
2018:03	128.8	108.8	77.8	119.8	137.4	59.3
2018:04	128.6	109.3	77.1	116.9	133.7	57.3
2018:05	127.6	109.4	77.7	115.5	128.0	58.7
2018:06	127.3	110.0	77.9	117.3	123.1	60.2
2018:07	127.1	110.4	77.4	115.8	124.8	58.1
2018:08	127.1	110.9	75.9	117.6	123.4	61.3
2018:09	127.7	111.5	76.4	116.5	131.5	59.8
2018:10	127.2	111.4	76.7	118.1	129.3	57.7
2018:11	126.6	111.5	75.7	118.5	117.4	59.3
2018:12	127.1	111.3	76.3	119.3	118.8	54.1
2019:01	128.1	111.3	76.0	119.0	120.5	56.6
2019:02	126.4	111.5	72.7	114.5	119.5	54.2
2019:03	129.5	111.7	76.5	119.8	125.6	55.3
2019:04	129.7	111.8	78.3	121.2	125.5	52.8
2019:05	129.4	111.8	77.9	120.1	124.0	52.1
2019:06	129.3	111.6	78.5	119.4	122.8	51.7
2019:07	130.0	112.0	78.4	121.8	123.8	51.2
2019:08	129.2	111.8	76.9	119.5	125.0	49.1
2019:09	128.4	111.6	77.4	120.6	118.9	47.8
2019:10	128.0	111.4	77.7	120.7	118.4	48.3
2019:11	128.8	111.6	77.5	123.3	119.5	48.1
2019:12	129.5	111.4	81.7	124.9	124.8	47.2
2020:01	129.6	112.0	78.0	119.8	125.3	50.9
2020:02	129.6	111.8	78.4	120.0	110.1	50.1
2020:03	118.7	103.5	71.8	121.0	88.3	49.1
2020:04	113.0	96.9	42.2	104.8	99.9	41.5
2020:05	118.3	99.8	46.6	113.8	112.7	43.1
2020:06	121.1	102.8	56.4	114.4	115.9	52.6
2020:07	123.1	104.9	61.8	116.9	109.6	54.2
2020:08	124.4	106.5	63.9	117.4	108.5	56.0
2020:09	124.2	107.5	68.5	120.9	108.7	55.4
2020:10	125.0	108.3	70.1	119.7	111.0	59.3
2020:11	126.4	109.3	71.8	120.4	111.6	57.5
2020:12	127.8	109.7	73.8	124.6	107.9	60.7
2021:01	129.3	110.3	73.7	123.9	111.0	58.7
2021:02	130.5	110.5	76.4	125.5	109.5	60.8

Figure A7.1: Washington State Economic Indicators

Year-over-Year Employment Growth

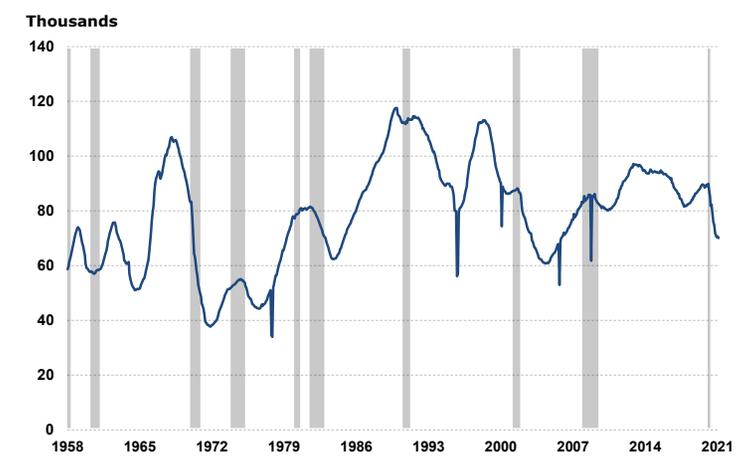
January 1980 to February 2021



* Bureau of Labor Statistics, WA State Employment Security, ERFC Kalman Filtered Data

Washington Aircraft and Parts Employment

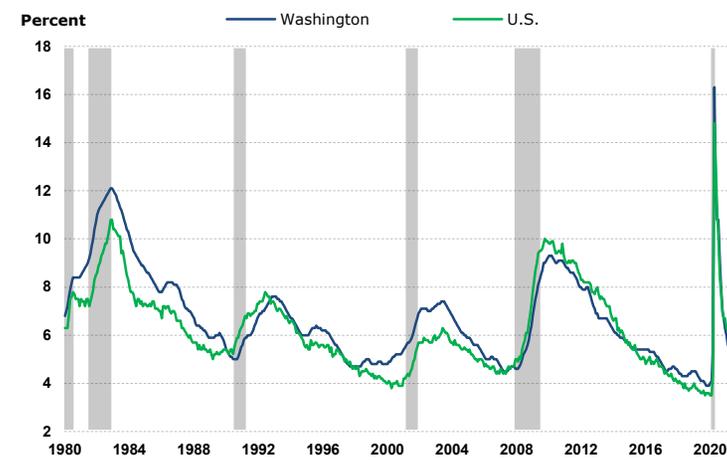
January 1958 to February 2021



* Source: Bureau of Labor Statistics, ERFC

Unemployment Rate, S.A.

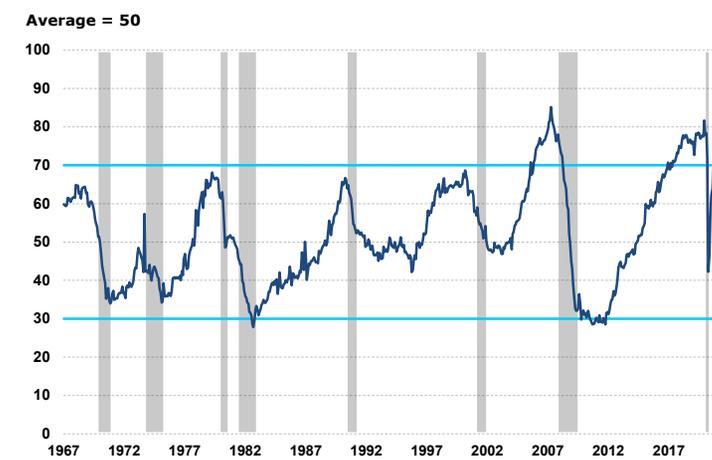
January 1980 to February 2021



* Source: Bureau of Labor Statistics

Washington Business Cycle Indicator

January 1968 to February 2021

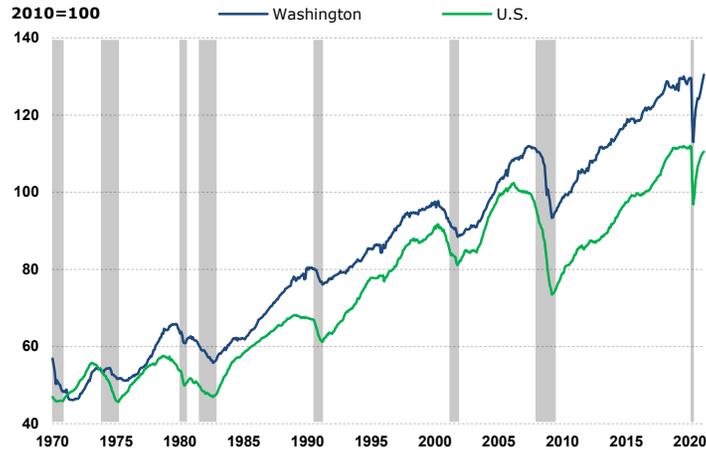


* Source: ERFC

Figure A7.2: Washington State Leading Indicators

The Washington and U.S. Indexes of Leading Indicators

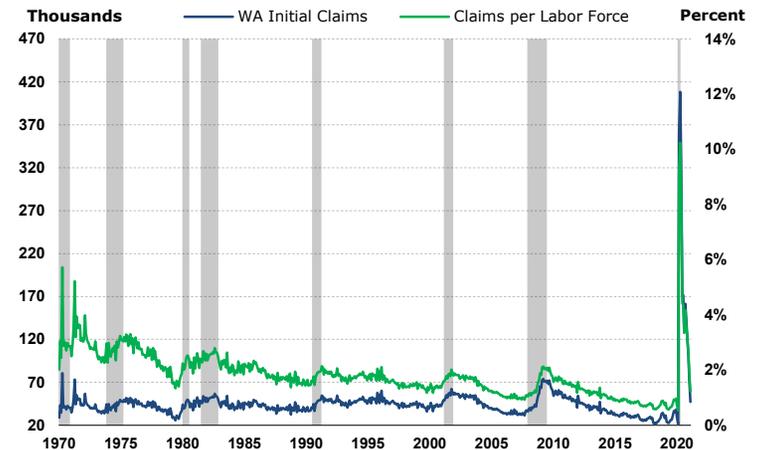
January 1970 to February 2021



* The Conference Board, ERFC

Washington Initial Claims for Unemployment Insurance

January 1970 to February 2021, S.A.



* Source: WA State Employment Security, ERFC

Washington State Help Wanted Index

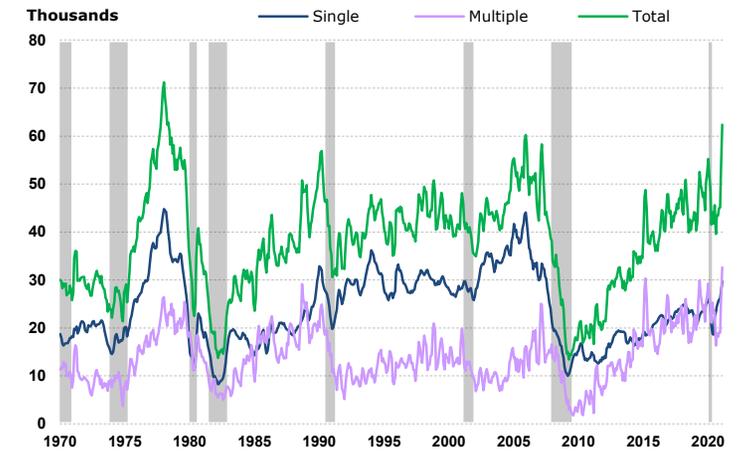
January 1964 to February 2021



* Source: The Conference Board, ERFC

Housing Units Authorized in Washington State

January 1970 to February 2021, 3mma, SAAR

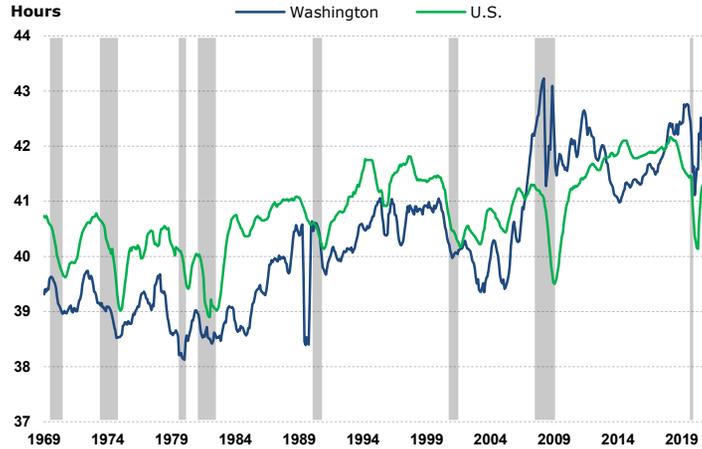


* Source: Census Bureau, ERFC

Figure A7.3: Other State Economic Indicators

Average Weekly Hours in Manufacturing

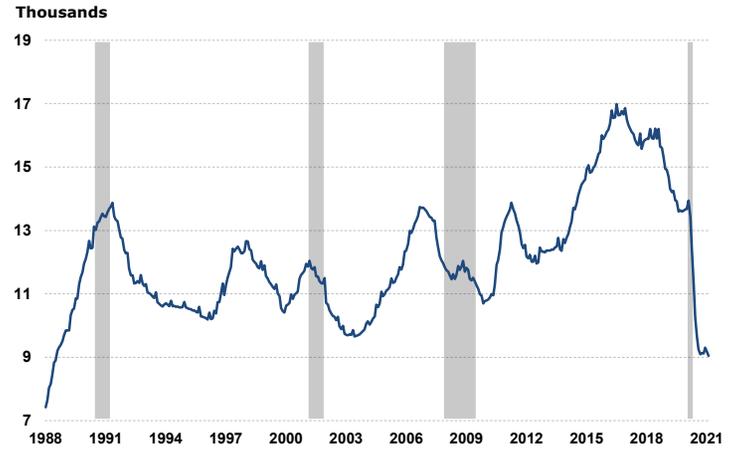
June 1969 to February 2021, 6-Mo. Moving Average, S.A.



* Bureau of Labor Statistics, ERFC

Washington Driver's License In-Migration

January 1988 to January 2021, 12-Month Moving Average



* Source: WA State Department of Licensing, ERFC

New Car and Truck Registrations in Washington

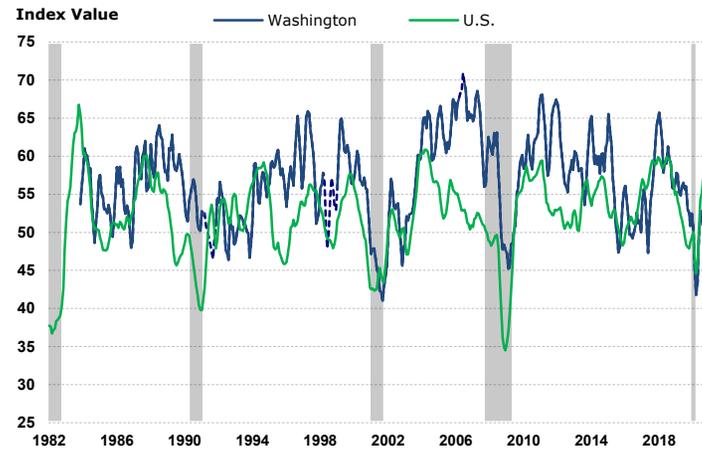
September 1970 to February 2021, 3-Month Moving Average, S.A.



* Source: WA State Department of Licensing, ERFC

Institute for Supply Management Index

March 1982 to February 2021, 3-Month Moving Average, S.A.

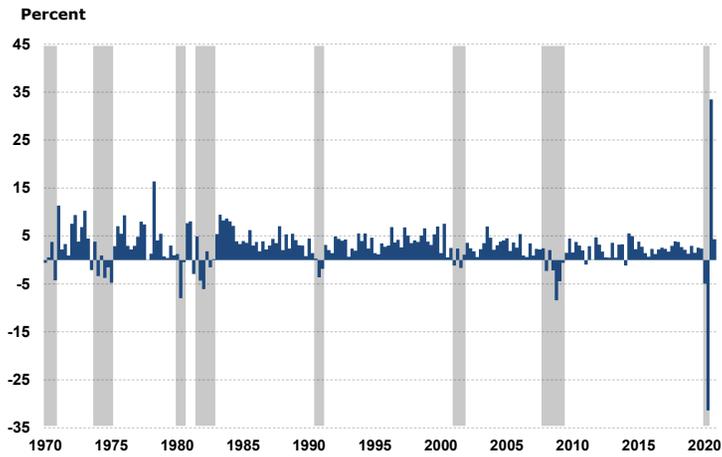


* Source: Institute for Supply Management, ISM-WW, ERFC

Figure A7.4: Other Economic Indicators

Quarterly U.S. Real GDP Growth

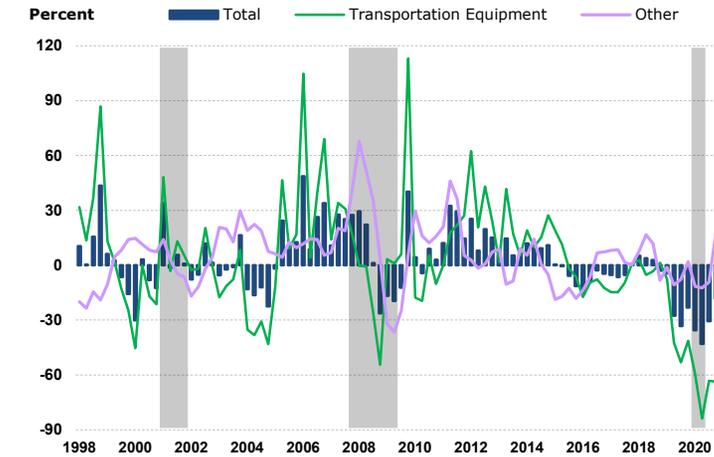
1970Q1 to 2020Q4, SAAR



* Source: Bureau of Economic Analysis

Washington State Export Composition

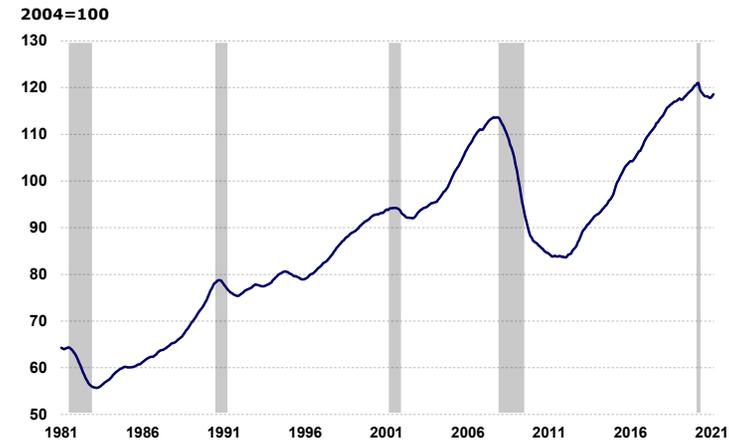
1998Q1 to 2020Q4, Year-over-year percent change



* Source: WISER

Washington State Construction Index

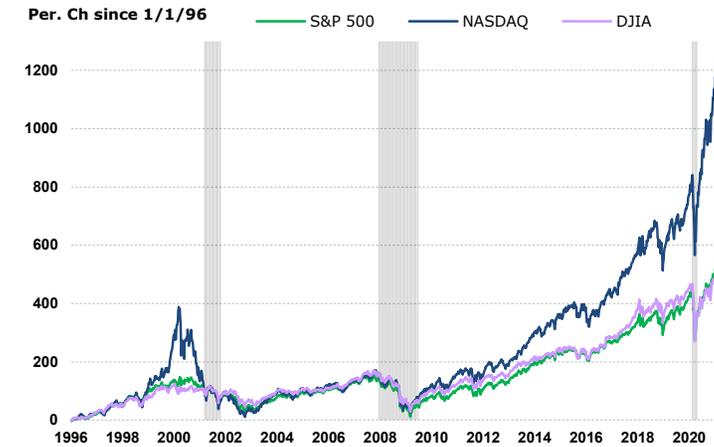
January 1981 to February 2021, 12mma



* Source: ERFC

National Stock Indexes

January 1, 1996 to March 26, 2021

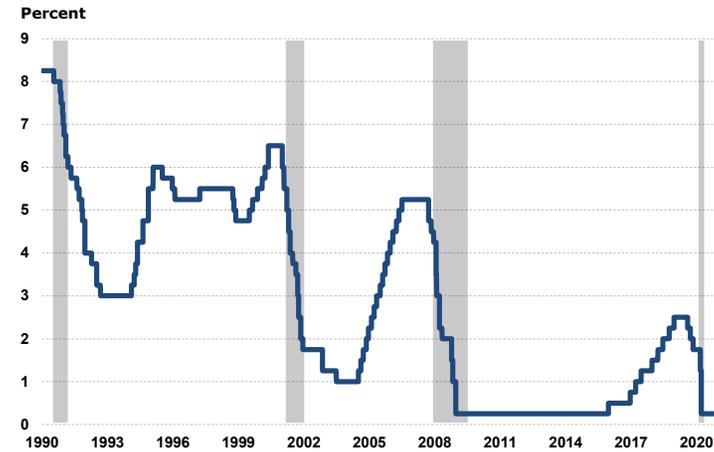


* Source: ERFC

Figure A7.4: Other Economic Indicators (continued...)

Federal Funds Target Rate

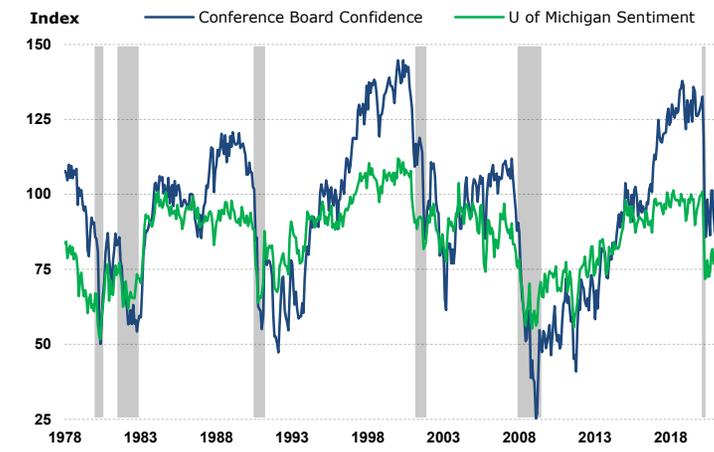
January 1, 1990 to March 30, 2021



* Federal Reserve

Consumer Confidence

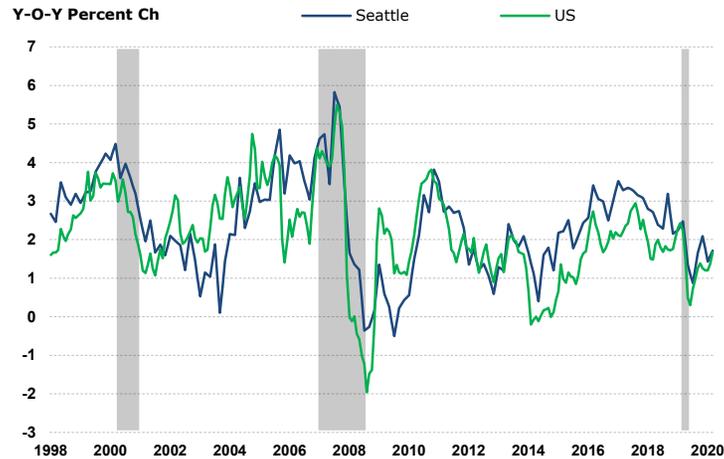
March 1978 to March 2021



* Source: The Conference Board, University of Michigan

Seattle vs U.S. CPI (All Urban Consumers)

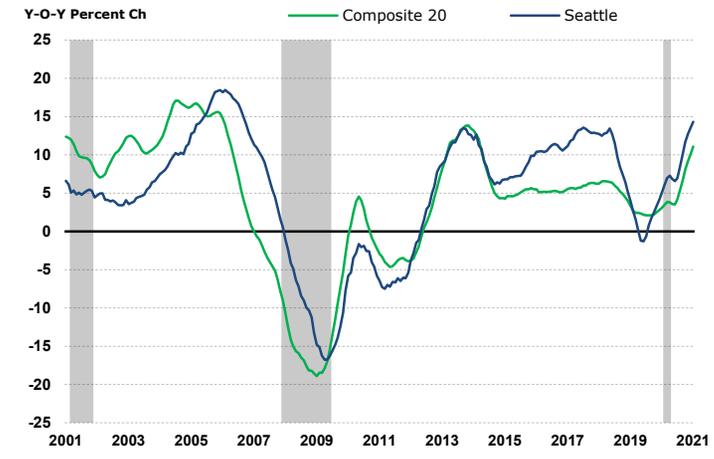
December 1998 to February 2021



* Source: Bureau of Labor Statistics

Case Shiller Home Price Index

January 2001 to January 2021, SA



* Source: Case Shiller, ERFC

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Glossary

Biennium: The state's two years budget cycle.

Cash Basis: Cash receipts received during a period. The Forecast Council forecasts revenues on a Cash and GAAP (Generally Accepted Accounting Principles) basis.

CPI: The Consumer Price Index for All Urban Consumers. The Bureau of Labor Statistics (BLS) updates the CPI monthly, surveying over 60,000 goods in 85 urban areas.

Tax Elasticity: A measure of how tax revenues respond to changes in personal income. If tax revenue elasticity is greater than one, a one percent change in personal income will be associated with more than a one percent increase in tax revenues. If elasticity is less than one, a one percent increase in personal income will be associated with less than a one percent increase in tax revenues.

Fiscal Year: The state's budget year. Washington State's fiscal year runs from July 1 through June 30. Fiscal year 2018, for example, ran from July 1, 2017 through June 30, 2018.

GAAP Basis: Generally Accepted Accounting Principles measure revenue in the period during which they accrue rather than the period in which they are received.
General Fund: Accounts for all financial resources and transactions not accounted for in another fund.

General Fund-State (GF-S) Revenue: Resources from state sources only, excludes federal monies. The general fund is the principal state fund supporting the operation of the state.

Implicit Price Deflator, PCE (IPD): The IPD for consumption is a by-product of the National Income and Product Accounts. It is derived by dividing current dollar (nominal) consumer expenditures by constant dollar (real) consumer expenditures.

Mortgage Rate: The average interest rate on 30-year conventional loan (as reported by Freddie Mac).

Near General Fund: All accounts included in the General Fund - State plus the Education Legacy Trust Account and the Washington Opportunity Pathways Account.

Non-Wage Income: Personal income other than from wages and salaries. The major components are: proprietor's income, transfer payments, and dividends, interest and rent.

Real GDP: Gross Domestic Production adjusted for the price level.

Revenue Act: Revenue Act taxes consist of the retail sales tax, use tax, business and occupation tax, public utility tax and tobacco products tax, plus penalty and interest payments associated with those taxes.

Personal Income: Income from wages and salaries; other labor income; proprietor's income; dividends, interest and rent; transfer payments; and a residence adjustment. It is reduced by employee contributions for social insurance.

Seasonally Adjusted: Adjusted for normal seasonal variations. Monthly statistics, such as the unemployment rate, are seasonally adjusted to make month-to-month comparisons possible.

Seasonally Adjusted Annual Rate: A rate for a given period that is typically less than one year, but that is computed as if the rate were for a full year and seasonally adjusted.

Nonfarm Payroll Employment: Civilian non-farm payroll employees. The self-employed, farm workers, members of the armed forces, private household employees, and workers on strike are excluded.