

The background of the cover is a photograph of the Washington State Capitol building. The building is a large, classical-style structure with a prominent central dome and a portico supported by several columns. The scene is framed by the branches of cherry blossom trees in full bloom, with white flowers and green leaves visible in the foreground and around the building. The sky is a clear, light blue.

Washington State Economic and Revenue Forecast

November 2022
Volume XLVII, No. 4



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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 GF-S revenue from fines and forfeitures collected by the Administrative Office of the Courts with 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 December 2, 2022.

Washington State Economic and Revenue Forecast

Prepared by the
Economic and Revenue Forecast Council

November 2022
Volume XLVII, No. 4

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Executive Summary

- **Strong demand combined with ongoing supply issues has caused inflation to remain elevated. The Federal Reserve has raised interest rates to combat inflation.**
- **The forecast for GDP growth in 2022 is now 1.8%, up from 1.6% the September forecast. For 2023, real GDP growth is 0.2%, down from 0.6% in the September forecast. We expect growth rates of 1.5%, 2.1%, 2.1%, and 1.9% in 2024 through 2027 compared to 2.1%, 2.0%, 2.0% and 1.9% in the September forecast.**
- **We expect the Federal Reserve to increase the federal funds rate until reaching 4.75% to 5.0% in March 2023.**
- **The Washington economy continues to expand but inflation remains high and housing has weakened.**
- **Washington housing construction continued to slow in the third quarter of 2022 and again in October.**
- **Seattle consumer price inflation of 8.9% outpaced the national average of 7.8% in the year ending in October 2022.**
- **The Washington forecast features higher personal income due to data revisions and higher near-term inflation but lower housing construction than in the September forecast.**
- **Tracked collections since September have come in well above their forecasted amounts, indicating the expected slowdown in taxable activity was not occurring as early as previously thought. The November forecast still expects a slowdown, but it begins later and starts from a higher level. This has raised forecasted revenue through the 2027 biennium.**
- **One exception to the forecast increase was real estate excise tax, which has been decreased due to higher interest rates and lower expected prices.**
- **The total forecast for funds subject to the budget outlook process was increased by \$762 million in the 2021-23 biennium, \$681 million in the 2023-25 biennium and \$747 million in the 2025-27 biennium.**

U.S. Economic Forecast

High inflation threatens to slow economic growth

The COVID-19 pandemic and resulting social distancing and business shutdowns severely weakened the economy. However, with the virus here to stay, the economy reopened. Economic growth recovered quickly with the help of fiscal and monetary policy. Strong demand combined with ongoing supply issues caused inflation to spike and stay elevated. The Federal Reserve raised interest rates to combat inflation, although this threatens to slow economic growth. There are still a significant number of new COVID-19 cases and the threat of an uptick in infections remains.

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

This forecast is based on a modified version of IHS Markit's November 2022 Control forecast for the U.S. economy. We have adjusted real gross domestic product (GDP) to match the November 2022 Blue Chip "Consensus" GDP forecast for 2022 and 2023. The forecast for GDP growth in 2022 is now 1.8%, up from 1.6% the September forecast (see figure 1.4). The forecast calls three quarters of slightly negative growth starting in the fourth quarter of this year. For 2023, real GDP growth is 0.2%, down from 0.6% in the September forecast. For 2024-27, we assume the same growth rates as in the October Blue Chip long term forecast. We expect growth rates of 1.5%, 2.1%, 2.1%, and 1.9% in 2024 through 2027 compared to 2.1%, 2.0%, 2.0% and 1.9% in the September forecast.

The Fed Funds rate is expected to peak at 4.75% to 5.0%

The Federal Reserve will continue to raise interest rates as it strives to lower inflation to 2%. The Federal Reserve raised the target for the federal funds another 75 basis points in November, the fourth consecutive rate hike of this magnitude. Inflation has remained high for longer than policymakers had anticipated. Our expectation is for a rate hike of 50 basis points on December 14th, followed by a pair of 25 basis point hikes in February and March of next year. We expect the federal funds rate to reach 4.75% to 5.0% in March 2023 (see figure 1.6). We then expect the Federal Reserve to hold the rate steady until the second quarter of 2024 when rates are slowly lowered. The rate cuts are expected to end in the third quarter of 2025 and then hold steady through 2027 at 2.5% to 2.75%. The forecast also calls for the Federal Reserve to continue removing stimulus tied to its balance sheet, allowing it to decline by about a third through 2024.

Washington Economic Forecast

The Washington economy continues to expand but inflation remains high and housing has weakened. Washington employment growth in September and October was more than expected in the September forecast. Washington's unemployment rate edged up to 3.8% in October from 3.7% in September. Washington housing construction continued to slow in the third quarter of 2022 and again in October. Seattle home

The Washington economy continues to expand but inflation remains high and housing has weakened

prices fell 1.9% in September following declines of 2.9% in August, 2.5% in July, and 1.7% in June. Washington exports increased 14% from the third quarter of 2021 to the third quarter of 2022. Washington personal income grew 6.0% in the second quarter compared to 5.8% for the nation. Seattle consumer price inflation of 8.9% outpaced the national average of 7.8% in the year ending in October 2022.

The Washington forecast features higher personal income due to data revisions and higher near-term inflation but lower housing construction than in the September forecast

The Washington forecast features higher personal income due to data revisions and higher near-term inflation but lower housing construction than in the September forecast. We expect a 5.2% increase in Washington employment this year up slightly from the 5.0% growth rate expected in the September forecast. The increase in growth this year is due to stronger than previously expected employment growth through October. We expect slower growth during the remainder of the forecast as the U.S economy slows. We expect employment growth to average 0.9% per year in 2023 through 2027 which is the same average rate as in the September forecast. Our forecast for nominal personal income growth this year is 3.0%, which is the same rate as in the September forecast. Real personal income is expected to decline 3.2% this year, which is weaker than the 3.0% decline in the September forecast. Real personal income growth this year will be undermined by the surge in inflation and the withdrawal of the extraordinary stimulus of the previous two years. Our new forecast for nominal personal income growth in 2023 through 2027 averages 5.2% per year which is slightly more than the 5.0% average rate in the September forecast. We expect permits to total 50,700 units this year, down from 53,200 units in the September forecast and we expect permits to average 45,600 units in 2023 through 2027, down from 46,500 units in the September forecast. We expect headline inflation to reach 8.9% this year, up from 8.7% in the September forecast. We expect Seattle headline inflation to average 2.6% per year in 2023 through 2027 which is slightly higher than the 2.4% average rate in the September forecast.

Revenue Forecast

Except for real estate taxes, tracked revenue has come in well above the September forecast, raising expectations for future receipts

Since the September forecast, taxable activity has been much stronger than expected, with tracked collections coming in well above the forecast. While the forecast had expected year-over-year growth in collections of Revenue Act taxes (the largest category of general revenue that includes sale and business taxes) to slow, growth instead increased. While the November forecast still expects a slowdown in the growth of taxable activity, the slowdown is now expected to begin later and start from a higher level. As a result, forecasted revenue has been increased through FY 2027. One exception to the forecast increase, however, is real estate excise tax. While real estate excise tax collections have come in only slightly below the forecast, increases in mortgage rates and the expectation of decreasing prices have lowered forecasted collections.

*Total forecast
change by
biennium
(millions):*

21-23: \$762

23-25: \$681

25-27: \$747

Forecasted revenue for funds subject to the budget outlook process was increased by \$761.5 million for the 2021-23 biennium. The forecast for the 2023-25 biennium was increased by \$681.3 million and the forecast for the 2025-27 biennium was increased by \$747.0 million. There were no non-economic changes to the forecast. The November 2022 forecast for these funds total \$63,952.2 million in the 2021-23 biennium, \$66,185.0 million in the 2023-25 biennium and \$70,882.8 million in the 2025-27 biennium.



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

- **Strong demand combined with ongoing supply issues has caused inflation to remain elevated. The Federal Reserve has raised interest rates to combat inflation.**
- **Policymakers approved trillions of dollars of fiscal and monetary support in response to the COVID-19 pandemic.**
- **Real GDP increased 2.9% (SAAR) in the second quarter of 2022 after declining 0.6% (SAAR) in the first quarter.**
- **Employment has been strong and unemployment is low.**
- **The housing market is declining; manufacturing growth is slowing.**
- **Oil prices appear to have peaked.**
- **The forecast calls for three quarters of slightly negative growth starting in the fourth quarter of this year.**
- **The forecast for GDP growth in 2022 is now 1.8%, up from 1.6% the September forecast. For 2023, real GDP growth is 0.2%, down from 0.6% in the September forecast. We expect growth rates of 1.5%, 2.1%, 2.1%, and 1.9% in 2024 through 2027 compared to 2.1%, 2.0%, 2.0% and 1.9% in the September forecast.**
- **We expect the Federal Reserve to increase the federal funds rate until reaching 4.75% to 5.0% in March 2023.**
- **Due to the high degree of uncertainty regarding the extent to which the COVID-19 pandemic will continue, and the possibility of a recession, the uncertainty in the baseline forecast is elevated.**

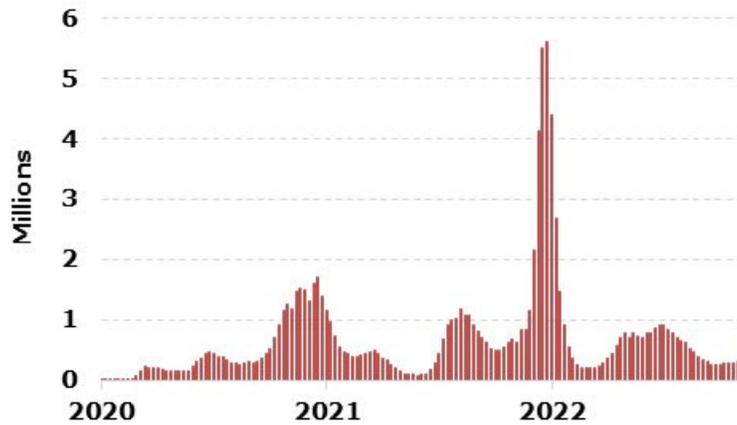
Current Conditions

High inflation threatens to slow economic growth

The COVID-19 pandemic and resulting social distancing and business shutdowns severely weakened the economy. However, with the virus here to stay, the economy reopened. Economic growth recovered quickly with the help of fiscal and monetary policy. Strong demand combined with ongoing supply issues caused inflation to spike and stay elevated. The Federal Reserve raised interest rates to combat inflation, although this threatens to slow economic growth. There are still a significant number of

new COVID-19 cases and the threat of an uptick in infections remains (see figure 1.1).

Figure 1.1: New Weekly COVID-19 Cases



Source: Source: U.S. Centers for Disease Control; data through November 30, 2022

Policymakers approved trillions of dollars in stimulus

Policymakers approved trillions of dollars of fiscal and monetary support in response to the COVID-19 pandemic. Stimulus related to the pandemic has been over \$6.0 trillion in five major categories. Business support (\$1.56 trillion), income support (\$925 billion), state and local government funding (\$904 billion), direct payments (\$869 billion), and health spending (\$748 billion). The remainder of the spending is comprised of tax policy and other spending such as disaster support, higher education, and housing.

U.S. real GDP has returned to pre-pandemic levels

The COVID-19 crisis, efforts taken to contain it, and the subsequent stimulus programs and other responses have created unprecedented volatility in economic growth. U.S. real GDP plummeted a record 29.9% (SAAR) in the second quarter of 2020 followed by a record 35.3% (SAAR) gain in the third quarter of 2020. GDP has since recovered and reached the pre-pandemic peak in the second quarter of 2021.

GDP increased in the third quarter

Real GDP increased by 2.9% (SAAR) in the third quarter of 2022 after declining 0.6% (SAAR) and 1.6% (SAAR) in the previous two quarters. Trade was a significant contributor to growth, with net exports adding 2.9 points to overall growth. Consumption grew 1.7% (SAAR) and added 1.2 points to GDP growth with all the improvement coming from spending on services. Nonresidential fixed investment grew 5.1% (SAAR) and added 0.7 points to growth with a decline in structures offsetting growth in equipment and intellectual property. Fixed residential investment plummeted 26.8% (SAAR), subtracting 1.4 points from growth. Inventories were again a major drag on growth in the third quarter, subtracting 1.0 points from overall GDP growth. Government spending turned positive for the first time

in over a year, increasing 3.0% (SAAR) and increasing GDP by 0.5 points.

Job growth has been strong

Nonfarm payroll employment has continued to grow after the unprecedented 20.7 million job decline in April 2020 due to the pandemic. Job growth remained strong in November with an increase of 263,000. Supply chain issues that were plaguing goods producing industries have eased. The manufacturing sector gained 14,000 jobs in October. Construction employment increased by 20,000 despite the weakening housing market. Private services providing employment increased by 184,000. Employment increases in the service sector were led by an 88,000 increase in leisure and hospitality as it continues to recover from deep declines related to behavioral changes since the pandemic. Health care and social assistance continues to grow, gaining 68,100 jobs in November. The strong job growth in November was partially offset by declines in retail trade and employment services. Retail trade declined 29,900 while employment services declined 25,000 over the month. Government payrolls increased by 42,000. The strong employment gains in recent months have resulted in total nonfarm employment surpassing the pre-pandemic February 2020 level.

The unemployment rate remains low

The unemployment rate remains low. After spiking in April 2020 at 14.8%, the unemployment rate steadily declined to 3.5% in September 2022, matching the historic low reaching prior to the pandemic in February 2020. In October, the unemployment rate increased to 3.7%. The labor force participation rate slipped 0.1% to 62.2% in October and was down from a pre-pandemic high of 63.4% in January 2020. Average hourly earnings are up \$1.47 from a year ago to \$32.58 while the average workweek fell 0.3 hours from last year to 34.5 hours in October.

Consumer confidence is trending down

Consumer confidence continues to trend down. Consumer confidence as measured by the Conference Board declined 2.0 points in November and is down 11.7 since last year. The decline in November was primarily from weakening expectations, although present conditions also dipped. The University of Michigan Consumer Sentiment index shows a similar decline, albeit off a more depressed level. The index decreased 3.1 points in November to 56.8 and is down 10.6 points from last November. The decline was due to worsening current conditions, although expectations also declined. Increases in gas prices and a weak stock market offset healthy job growth. Inflation expectations remain elevated in November.

Oil prices have fallen

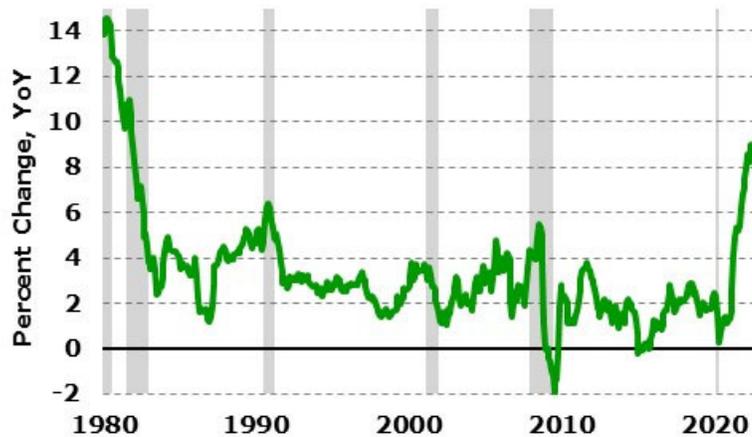
Oil prices have fallen to the lowest level since the first week in January. Brent spot crude prices are now at \$86 per barrel in the fourth week of November, down from \$127 in early June. West Texas Intermediate (WTI) prices have declined to \$79 per barrel from \$120 per barrel over the same time period. OPEC+ continues to try to keep prices elevated by keeping supplies tight. The invasion of Ukraine and subsequent sanctions against Russian oil have kept upward pressure on prices. U.S. oil

production has increased over the year and is nearing pre-pandemic levels. U.S. production increased to 12.268 million bpd in September up from 12.000 million bpd in August and 10.918 million bpd a year ago. Prior to the pandemic, U.S. production was at an all-time high at 12.866 million bpd in November 2019. The Baker Hughes rig count has been increasing since reaching a trough in August 2020. As of November 23rd the rig count was 784, up 215 since last year.

Inflation remains high

Headline inflation has moderated but remains high. Supply has not been able to meet the surge in demand. Supply chain issues due to the pandemic contributed to the disconnect. Shortages of commodities have also pushed prices higher. Rents have now accelerated in lagged response to soaring home prices. Wage increases in response to higher consumer inflation have kept overall inflation more persistent. Year-over-year, the Consumer Price Index (CPI) was up 7.7% in October, down from the peak of 9.1% in June (see Figure 1.2). The disruption in the auto market which resulted in significant car price inflation appears to be easing. Other sectors affected by earlier stay-at-home orders have seen some of the largest impacts. Energy prices have remained stubbornly high with gas prices up 17.5% from a year ago. Food costs are up 10.9% over the year. Shelter cost inflation is beginning to accelerate and is now at 6.9%. Core consumer prices, which exclude food and energy, were up 6.3% over the year.

Figure 1.2: Consumer Price Index



Source: Bureau of Labor Statistics; data through October 2022

Home prices have peaked

Home prices have peaked. Tight supply and strong demand for housing had led to surging prices. With inflation remaining persistently high, the Federal Reserve has raised interest rates substantially. This has led to a rapid rise in mortgage rates which has caused affordability to plummet. The seasonally adjusted S&P CoreLogic Case-Shiller 20-city Home Price Index declined 1.2% in September. Home prices remain 10.5% higher than a year ago but have reached an inflection point (see Figure

1.3). Lumber prices, which had been at historic highs, have come down. The random length lumber price reached an all-time high \$1,671 per 110,000 board feet in May 2021. Prices came down to \$424 at the end of November, in line with prices prior to the pandemic. Homebuilder confidence has fallen for 11 consecutive months. In November, confidence fell five points to 33, the lowest level in more than a decade. Mortgage rates have eased in recent weeks, but remain much higher than a year ago. The rate on a 30-year mortgage fell to 6.49% as of December 1st from a recent peak of 7.08% in November, but up from 3.11% a year ago.

Figure 1.3: S&P CoreLogic Case-Shiller 20-city Home Price Index



Source: S&P CoreLogic Case-Shiller; data through September 2022

The housing market is slowing

The housing market is slowing just as it recovered to pre-pandemic levels. Home prices hit record highs but are now starting to decline. Rising interest rates, lower confidence, and declining affordability are slowing new construction. Housing starts declined 4.2% in October and are down 8.8% since last year. Single-family starts in October are down 20.8% since last year while multi-family starts are up 17.8%. The inventory of new homes on the market is trending up. In October there were 8.9 months' worth of supply, down from 9.4 in September but up from 6.9 a year ago. Housing permits declined 2.4% in October and are down 10.1% since last year. Single-family permits are down 22.1% since last year while multi-family permits are up 10.6%. New home sales increased 7.5% October to 632,000 (SAAR) but are down 5.8% since last year.

The manufacturing sector is starting to decline

The manufacturing sector is starting to decline. The Institute for Supply Management (ISM) Report on Business index fell to 49.0 (index values below 50 indicate contraction) in November from 50.2 in October. The new orders component declined 2.0 points to 47.2 once again indicating contraction. Production fell 0.8 points, but remains positive at 51.5. The employment component fell into negative territory again, declining 1.6 points to 48.4. The latest G-17 report from the Federal Reserve

indicates manufacturing output improved 0.1% in October and remains up 2.4% from a year ago. Durable goods improved 0.5% while nondurable goods declined 0.3% from the month before. New orders for core capital goods (nondefense capital goods excluding aircraft) increased 0.7% in October and are up 9.2% from a year ago.

U.S. exports remain strong

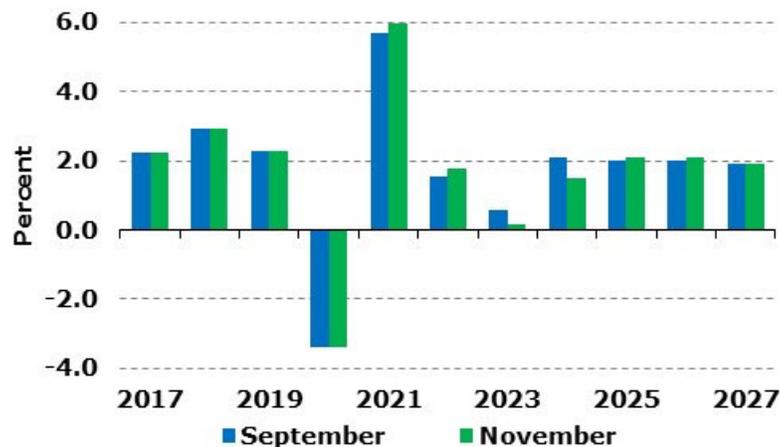
U.S. exports remain strong. Global containment measures to combat virus outbreaks have eased, with the exception of China, and trade remains strong. Total exports in the third quarter grew 22.6% year over year. Oil and gas exports have surged as demand picked up and prices rose, increasing 69.5% from a year ago. Petroleum and coal exports are similarly growing, up 64.1% year over year. Exports to the rest of North America have remained strong. Year-over-year growth in exports to Canada increased to 19.6% and exports to Mexico are up 20.9%. Exports to China returned to growth in the third quarter, increasing 9.1% year over year after declining 3.4% year over year in the second quarter.

Forecast

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

This forecast is based on a modified version of IHS Markit's November 2022 Control forecast for the U.S. economy. We have adjusted real gross domestic product (GDP) to match the November 2022 Blue Chip "Consensus" GDP forecast for 2022 and 2023. The forecast for GDP growth in 2022 is now 1.8%, up from 1.6% the September forecast (see figure 1.4). The forecast calls three quarters of slightly negative growth starting in the fourth quarter of this year. For 2023, real GDP growth is 0.2%, down from 0.6% in the September forecast. For 2024-27, we assume the same growth rates as in the October Blue Chip long term forecast. We expect growth rates of 1.5%, 2.1%, 2.1%, and 1.9% in 2024 through 2027 compared to 2.1%, 2.0%, 2.0% and 1.9% in the September forecast.

Figure 1.4: Real GDP Growth



Source: U.S. Bureau of Economic Analysis, November 2022 ERFC forecast; historical data through 2021

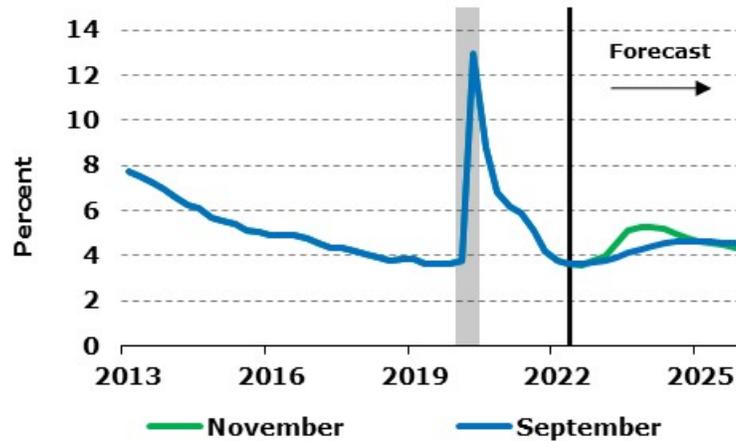
<i>Key assumptions regarding the pandemic are included in the forecast</i>	The forecast includes key assumptions related to the economic recovery and the pandemic. The transition from pandemic to endemic continues as the number of cases remain subdued and behavior adjusts to risks of living with the virus. The CDC extended the Public Health Emergency 90 days through mid-January.
<i>All stimulus measures enacted are in the forecast</i>	The forecast includes the Infrastructure Investment and Jobs Act (IIJA), the Consolidated Appropriations Act of 2022 funding federal government for this fiscal year, the Inflation Reduction Act, and assumes current tax policy. It does not include the president's plan to forgive a portion of student debt. The forecast includes tariffs enacted by the U.S. and China since 2017 that are still in effect.
<i>Oil prices have declined but remain high</i>	Oil prices have declined since peaking in June but remain high. Recession fears and pandemic restrictions in Asia have lowered demand. However, production restraint by OPEC+, and sanctions following the Russian invasion of Ukraine have limited supply. Saudi Arabia and the United Arab Emirates have been reluctant to pump more oil since they believe the market is balanced and there is no need for an increase in production. The refiner acquisition price of crude oil in 2022 is expected to average \$96 per barrel, unchanged since the September forecast. The expected slowdown in economic growth should result in reduced demand. Going forward, supply constraints are expected to diminish, and increased U.S. production will keep prices somewhat in check as demand recovers. We expect oil prices to decline to \$82 per barrel in 2023 and decline throughout the forecast reaching \$66 per barrel in 2027.
<i>Inflation is expected to peak this year</i>	Inflation (as measured by the price index for personal consumption expenditures) is expected to peak at 6.3% this year. Inflation has surged as demand recovered faster than could be accommodated by supplies of commodities and labor disrupted by the pandemic. Inflation is expected to moderate throughout the forecast, although we expect it to be slightly higher than in September. Inflation is expected to decline to 3.6% in 2023, compared to 3.2% in the previous forecast. Inflation is expected to average 1.9% from 2024 through 2027. Core inflation (excluding food and energy) is expected to be 5.0% this year and then trend down and average 1.9% in 2025 through 2027.
<i>Consumer spending growth is expected to slow</i>	Consumer spending growth is expected to slow this year after strong growth last year due to the reopening of the economy after various measures taken in 2020 to combat the spread of COVID-19. Fiscal stimulus measures are no longer giving a boost to consumers as they did last year. Consumers are seeing real wage declines due to high inflation this year. Going forward, continued wage growth and slowing inflation is expected to turn real income growth positive. Real consumer spending is expected to grow 2.6% this year, down from 8.3% growth in 2021. The previous forecast expected growth of 2.4% this year. The forecast calls for growth to further soften in 2023 at 0.6%.

Going forward, we expect spending growth to average 2.0% in 2024 through 2027.

Employment growth is expected to slow

Employment took a major hit from the COVID-19 pandemic. In 2020, there was a 5.7% reduction in employment. Almost all of the reduction was due to the unprecedented 20.7 million job loss in the month of April. Employment grew 2.8% in 2021 and is expected to accelerate to 4.0% growth this year. Job growth is expected to slow to 0.2% in 2023 and then fall to 0.2% in 2024. We then expect job growth to turn positive in 2025 at 0.8%. The forecast calls for growth to average 0.5% in 2026 and 2027. The forecast calls for the unemployment rate to average 3.7% this year, down from 5.4% in 2021. Going forward, the forecast calls for the unemployment rate to increase to 5.0% in 2025 before declining to 4.1% in 2027 (see figure 1.5).

Figure 1.4: Unemployment Rate



Source: U.S. Bureau of Economic Analysis, November 2022 ERFC forecast; historical data through 2022Q3

Business investment is expected to be weaker than in September

Real nonresidential fixed investment is expected to increase 3.4% this year after a 6.4% increase in 2021. The September forecast expected 4.1% growth this year. Demand is expected to soften in line with slower overall GDP growth, lessening the need to expand productivity capacity. Borrowing costs have moved up sharply, reflecting expectations of more aggressive monetary policy by the Federal Reserve. Office vacancy rates remain high as Americans still work from home even after social distancing requirements have eased. Real nonresidential fixed investment growth is forecasted to decline 0.1% and 0.5% in 2023 and 2024. The forecast then calls for growth to pick up and reach 2.5% in 2027. We expect real nonresidential construction to decline 9.2% this year after declining 6.4% in 2021. The forecast calls for nonresidential construction to decline another 4.5% in 2023 before returning to growth in 2024. Real nonresidential construction will not have fully recovered to its level before the pandemic by the end of 2027. Real equipment investment is expected to decline 1.2% this year

after growing 9.1% in 2021. We expect real equipment investment growth to average 1.4% in 2023 through 2027.

The housing market has quickly turned negative

The housing market outlook has quickly turned negative. Rising mortgage rates are lowering affordability and weighing down housing demand. Labor and material shortages remain, causing delays in finished construction. The November forecast calls for housing starts to decline 3.4% after strong growth of 15.1% in 2021. We expect single-family housing starts to decline 10.3% and multi-family starts to increase 12.8% this year. We expect 2021 to be the peak in housing starts at 1.61 million units. The forecast assumes a sharp contraction in starts in 2023 of 23.2% with both single and multi-family declining. We expect total housing starts to reach a trough in 2023 of 1.19 million units. The forecast then calls for growth over the next two years before a slight decline in 2026 and 2027.

Growth in major U.S. trading partners is expected to be slightly stronger this year than in the previous forecast

The COVID-19 pandemic has affected economies throughout the world. Economic growth of U.S. major trading partners is expected to be slightly stronger this year, but then weaker in 2023 compared to the September forecast. Economic growth of major U.S. trading partners is expected to be 3.1% this year after growth of 5.8% in 2021. The September forecast called for growth of 3.0% in 2022. We expect U.S. major trading partner growth to slow to 1.2% in 2023 compared to anticipated growth of 2.0% in the previous forecast. We then expect growth to average 2.5% in 2024 through 2027. Real U.S. exports are forecasted to increase 7.4% this year, up from 7.1% growth in the previous forecast. We expect real export growth to slow and average 3.5% in 2023 through 2027.

The fiscal response to the pandemic has been massive

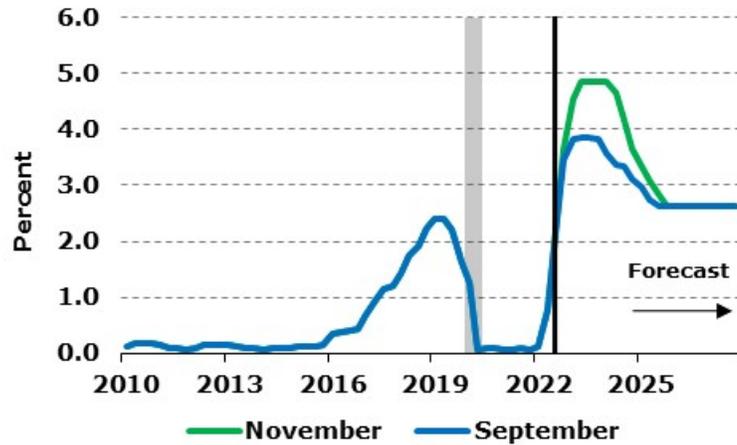
The COVID-19 relief measures were far more substantial than the fiscal response to the 2007-09 Great Recession. The American Recovery and Reinvestment Act (ARRA) of 2009 had its highest one-year cost, or peak cost, in the third year after the initial stimulus to the federal government of \$1.0 trillion. ARRA ended up costing \$787 billion over ten years. The combination of COVID-19 stimulus to date, with the inclusion of IIJA, is expected to have a cost of \$5.7 trillion over ten years.

The Fed Funds rate is expected to peak at 4.75% to 5.0%

The Federal Reserve will continue to raise interest rates as it strives to lower inflation to 2%. The Federal Reserve raised the target for the federal funds another 75 basis points in November, the fourth consecutive rate hike of this magnitude. Inflation has remained high for longer than policymakers had anticipated. Our expectation is for a rate hike of 50 basis points on December 14th, followed by a pair of 25 basis point hikes in February and March of next year. We expect the federal funds rate to reach 4.75% to 5.0% in March 2023 (see figure 1.6). We then expect the Federal Reserve to hold the rate steady until the second quarter of 2024 when rates are slowly lowered. The rate cuts are expected to end in the third quarter of 2025 and then hold steady through 2027 at 2.5% to 2.75%. The forecast also calls for the Federal Reserve to continue removing stimulus tied to its

balance sheet, allowing it to decline by about a third through 2024.

Figure 1.6: Federal Funds Rate



Source: U.S. Census Bureau, November 2022 ERFC forecast; historical data through 2022Q3

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, with downside risks outweighing upside risks.

Downside Risks

- New variants to COVID-19 emerge
- Rising COVID-19 virus infections
- The re-imposition of some social restrictions
- New travel restrictions
- The war in Ukraine escalates
- Rising interest rates cause a steep recession
- Inflation increases
- Rising mortgage rates cause a sharp downturn in affordability and housing activity
- Increasing geopolitical tensions negatively affect consumer confidence
- Deficit fears limit fiscal policy
- Debt limit brinkmanship puts pressure on US credit rating
- A breakdown in trade relations
- Global growth weakens, pulling exports down

Upside Risks

- The Federal Reserve increases rates to slow inflation without causing a recession
- COVID-19 infections/deaths decline faster than anticipated
- The war in Ukraine ends
- Energy prices decline faster than expected
- The impact of the Infrastructure Investment and Jobs Act is more robust than expected
- 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 2022 to 2027

	2020	2021	2022	2023	2024	2025	2026	2027
Real National Income Accounts (Billions of Chained 2012 Dollars)								
Real Gross Domestic Product	18,678.8	19,107.1	19,874.5	19,982.7	20,107.3	20,501.8	20,938.9	21,356.8
% Ch	-0.7	2.3	4.0	0.5	0.6	2.0	2.1	2.0
Real Consumption	12,802.1	13,282.4	13,995.9	14,157.8	14,279.0	14,560.3	14,886.4	15,207.7
% Ch	-1.2	3.8	5.4	1.2	0.9	2.0	2.2	2.2
Real Nonresidential Fixed Investment	2,735.9	2,750.5	2,885.7	2,948.2	2,907.1	2,926.7	2,972.2	3,037.7
% Ch	-0.9	0.5	4.9	2.2	-1.4	0.7	1.6	2.2
Real Residential Fixed Investment	612.0	707.5	699.6	580.1	554.9	610.1	635.0	647.0
% Ch	1.4	15.6	-1.1	-17.1	-4.3	9.9	4.1	1.9
Real Personal Income	17,420.2	18,359.3	17,832.4	17,802.6	18,103.7	18,575.6	19,098.0	19,611.1
% Ch	4.6	5.4	-2.9	-0.2	1.7	2.6	2.8	2.7
Real Per Capita Income (\$/Person)	52,580	55,298	53,618	53,342	53,998	55,135	56,407	57,638
% Ch	4.2	5.2	-3.0	-0.5	1.2	2.1	2.3	2.2
Price and Wage Indexes								
PCE Price Index (2012=100)	110.5	112.8	119.3	125.5	128.8	131.3	133.7	136.1
% Ch	1.3	2.0	5.8	5.2	2.6	2.0	1.8	1.8
U.S. Consumer Price Index (1982-84=1.0)	2.573	2.632	2.820	3.012	3.103	3.171	3.231	3.294
% Ch	1.6	2.3	7.2	6.8	3.0	2.2	1.9	1.9
Employment Cost Index (Dec. 2005=1.0)	1.395	1.437	1.509	1.586	1.660	1.731	1.801	1.870
% Ch	3.0	3.0	5.0	5.1	4.6	4.3	4.1	3.8
Current Dollar National Income (Billions of Dollars)								
Gross Domestic Product	21,103.3	22,107.0	24,472.1	25,990.7	26,891.7	28,005.3	29,168.4	30,363.1
% Ch	0.7	4.8	10.7	6.2	3.5	4.1	4.2	4.1
Personal Income	19,252.7	20,707.0	21,278.2	22,346.7	23,312.5	24,397.2	25,527.4	26,692.0
% Ch	6.0	7.6	2.8	5.0	4.3	4.7	4.6	4.6
Employment (Millions)								
U.S. Civilian Labor Force	162.6	160.6	162.9	164.9	165.9	166.5	167.1	167.6
Total U.S. Employment	152.9	149.5	156.1	158.4	157.2	158.6	159.8	160.7
Unemployment Rate (%)	6.00	6.92	4.18	3.95	5.21	4.72	4.33	4.15
Nonfarm Payroll Employment	147.08	142.96	149.36	153.02	151.57	152.66	153.73	154.54
% Ch	-1.9	-2.8	4.5	2.4	-0.9	0.7	0.7	0.5
Manufacturing	12.52	12.18	12.58	12.91	12.49	12.21	12.08	11.98
% Ch	-2.1	-2.7	3.3	2.7	-3.3	-2.2	-1.1	-0.8
Durable Manufacturing	7.82	7.57	7.82	8.04	7.72	7.53	7.43	7.37
% Ch	-2.6	-3.2	3.3	2.8	-3.9	-2.5	-1.3	-0.8
Nondurable Manufacturing	4.70	4.61	4.76	4.87	4.77	4.69	4.65	4.61
% Ch	-1.4	-1.9	3.2	2.5	-2.2	-1.7	-0.9	-0.7
Construction	7.39	7.32	7.54	7.68	7.44	7.40	7.42	7.48
% Ch	-0.3	-0.9	3.0	1.9	-3.2	-0.5	0.3	0.9
Service-Providing	126.50	122.90	128.65	131.79	130.99	132.38	133.55	134.38
% Ch	-1.9	-2.8	4.7	2.4	-0.6	1.1	0.9	0.6
Miscellaneous Indicators								
Oil-WTI (\$ per barrel)	46.7	51.8	87.8	86.6	77.2	72.2	68.7	65.9
Personal Saving/Disposable Income (%)	13.6	15.3	6.0	4.1	6.4	7.4	7.8	8.4
Auto Sales (Millions)	3.8	3.7	2.9	2.9	3.0	3.2	3.2	3.2
% Ch	-24.2	-3.1	-23.0	0.6	4.6	5.1	2.0	-0.6
Housing Starts (Millions)	1.315	1.549	1.654	1.317	1.213	1.407	1.443	1.414
% Ch	8.0	17.8	6.8	-20.4	-7.9	15.9	2.6	-2.0
Federal Budget Surplus (Billions)	-2,151.8	-3,213.5	-1,407.8	-1,076.2	-1,511.7	-1,683.9	-1,750.5	-1,840.6
Net Exports (Billions)	-537.1	-776.0	-989.0	-887.1	-816.4	-798.9	-752.8	-689.4
3-Month Treasury Bill Rate (%)	1.20	0.07	0.37	3.96	4.50	3.24	2.42	2.35
10-Year Treasury Note Yield (%)	1.41	1.11	1.93	3.82	3.59	3.18	3.09	3.05
Bond Index of 20 G.O. Munis. (%)	3.20	2.21	2.48	4.03	4.02	3.62	3.53	3.50
30-Year Fixed Mortgage Rate (%)	3.53	2.89	3.72	6.60	6.14	5.25	4.91	4.83

Table 1.2

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
June	3.5	2.0	0.04	3.46
September	3.5	2.1	0.08	3.39
November	3.2	2.5	0.09	3.43
2022				
February	3.2	3.4	0.58	3.62
June	2.2	4.9	1.31	4.48
September	1.1	4.9	1.88	4.66
November	1.1	5.1	2.16	5.16

Table 1.3

Forecast Analysis

Comparison of Forecasts for 2023-25

U.S.	Average Annual Rate of Growth (Percent) 2023:2-2025:2		Average Rate (Percent) 2023:3 to 2025:2	
	Real GDP	PCE Price Index	3 Month T-Bill Rate	Mortgage Rate
2020				
February	2.0	2.1	2.30	4.62
June	2.3	1.7	0.13	3.24
September	2.4	1.8	0.10	3.27
November	2.0	1.9	0.08	3.29
2021				
March	2.2	1.9	0.23	3.92
June	1.9	1.9	0.22	3.86
September	2.2	1.9	0.47	4.02
November	2.1	2.1	0.88	4.26
2022				
February	2.1	2.1	1.64	4.55
June	2.1	1.7	2.61	5.00
September	2.1	1.9	3.09	5.18
November	1.7	2.1	3.87	5.69

Table 1.4

Fiscal Years

Forecast Comparison

Forecast 2022 to 2025

	2021	2022	2023	2024	2025	2026	2027
U.S.							
Real GDP							
November	19,107.1	19,874.5	19,982.7	20,107.3	20,501.8	20,938.9	21,356.8
% Ch	2.3	4.0	0.5	0.6	2.0	2.1	2.0
September	18,938.1	19,678.1	19,757.7	20,031.5	20,467.4	20,872.4	21,277.2
% Ch	1.6	3.9	0.4	1.4	2.2	2.0	1.9
PCE Price Index							
November	112.8	119.3	125.5	128.8	131.3	133.7	136.1
% Ch	2.0	5.8	5.2	2.6	2.0	1.8	1.8
September	112.8	119.2	125.0	127.7	130.1	132.5	135.1
% Ch	2.0	5.6	4.9	2.1	1.8	1.9	1.9
Unemployment Rate							
November	6.92	4.18	3.95	5.21	4.72	4.33	4.15
September	6.92	4.18	3.75	4.33	4.60	4.50	4.30
Mortgage Rate							
November	2.89	3.72	6.60	6.14	5.25	4.91	4.83
September	2.89	3.72	5.59	5.33	5.03	4.83	4.79
3 Month T-Bill Rate							
November	0.07	0.37	3.96	4.50	3.24	2.42	2.35
September	0.07	0.37	3.39	3.42	2.77	2.37	2.36



Chapter 2: Washington Economy – Current Conditions and Forecast

- **The Washington economy continues to expand but inflation remains high and housing has weakened.**
- **Washington employment growth in September and October was more than expected in the September forecast.**
- **Washington’s unemployment rate edged up to 3.8% in October from 3.7% in September.**
- **Washington housing construction continued to slow in the third quarter of 2022 and again in October.**
- **Seattle home prices fell 1.9% in September following declines of 2.9% in August, 2.5% in July, and 1.7% in June.**
- **Washington exports increased 14% from the third quarter of 2021 to the third quarter of 2022.**
- **Washington personal income grew 6.0% in the second quarter compared to 5.8% for the nation.**
- **Seattle consumer price inflation of 8.9% outpaced the national average of 7.8% in the year ending in October 2022.**
- **The Washington forecast features higher personal income due to data revisions and higher near-term inflation but lower housing construction than in the September forecast.**

Current Conditions

The Washington economy continues to expand but inflation remains high and housing has weakened

The Washington economy continues to expand but inflation remains high and housing has weakened. Washington employment growth in September and October was more than expected in the September forecast. Washington's unemployment rate edged up to 3.8% in October from 3.7% in September. Washington housing construction continued to slow in the third quarter of 2022 and again in October. Seattle home prices fell 1.9% in September following declines of 2.9% in August, 2.5% in July, and 1.7% in June. Washington exports increased 14% from the third quarter of 2021 to the third quarter of 2022. Washington personal income grew 6.0% in the second quarter compared to 5.8% for the nation. Seattle consumer price inflation of 8.9% outpaced the national average of 7.8% in the year ending in October 2022.

Total seasonally adjusted nonfarm payroll employment increased 14,600 in September and October

We have two months of new Washington employment data since the September forecast was released. Total seasonally adjusted nonfarm payroll employment increased 14,600 in September and October which was 8,000 more than the forecasted increase of 6,600. Private services-providing sectors added 19,200 jobs in the two-month period. The manufacturing sector added 1,300 jobs, including 1,200 jobs in aerospace manufacturing. Construction employment increased by 3,000 jobs. We expected a decline of 3,200 state and local government jobs due to seasonality issues, but the actual loss of 8,500 jobs was more severe. The federal government lost 300 jobs in September and October.

Revisions added to the level of employment

Revisions to employment data added 6,600 (0.2%) to the estimated level of total employment in August 2022. The combined effect of the upward revision to historical data and the stronger employment growth in September and October is that October employment is 14,600 (0.4%) higher than expected in the September forecast.

Washington's unemployment rate edged up in October

Washington's unemployment rate edged up to 3.8% in October from 3.7% in September. The September rate matched a record low in the series that dates to 1976. The unemployment rate is down significantly from the 16.8% rate reached in April 2020 which was an all-time high.

Washington initial claims have fully recovered

Washington initial claims for unemployment insurance have fully recovered after rising to unprecedented levels in the spring of 2020. The four-week moving average of the seasonally adjusted number of claims in Washington edged up to 4,733 in the week ending November 26, 2022 from 4,644 in the previous week. Washington initial claims have declined 97% from the April 2020 peak and remain close to the all-time low in the series recorded in early April (see Figure 2.1).

Figure 2.1: Washington Initial Claims for Unemployment Insurance

Washington initial claims remain close to the all-time low in the series



Source: Source: Employment Security Department; data through November 26, 2022

Permits continued to weaken early in the fourth quarter

Washington housing construction continued to slow in the third quarter of 2022. The number of housing units authorized by building permits declined from 60,500 (SAAR) in the first quarter to 56,300 in the second quarter and to 44,500 units in the third quarter. Permits continued to weaken early in the fourth quarter. In October, a total of 38,900 (SAAR) units were permitted consisting of 14,900 single-family units and 24,000 multi-family units. The November forecast assumed 41,500 units for the fourth quarter as a whole, consisting of 20,300 single-family units and 21,200 multi-family units.

Seattle-area home prices are declining

Seattle-area home prices are declining. According to the S&P/Case-Shiller Home Price Indices, seasonally adjusted Seattle home prices fell 1.9% in September following declines of 2.9% in August, 2.5% in July, and 1.7% in June. The composite-20 index declined 1.2% in September, its third consecutive monthly decrease. September Seattle home prices were still up 6.3% over the year, however. In comparison, the composite-20 index was up 10.4% over the year.

Washington exports increased 14% from the third quarter of 2021 to the third quarter of 2022

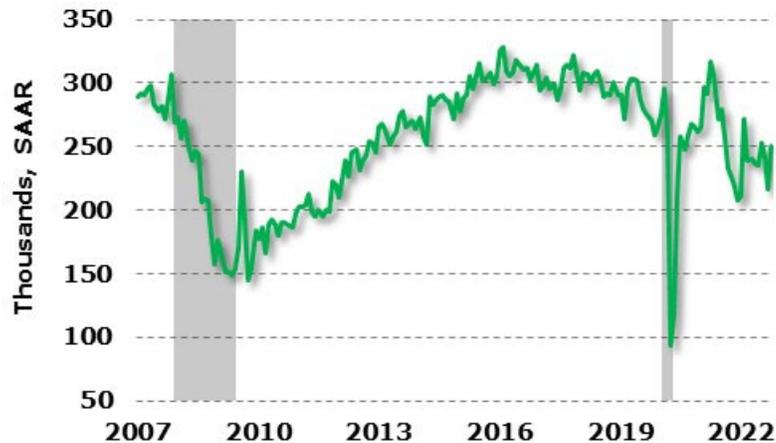
According to the World Institute for Strategic Economic Research (WISER), Washington exports increased 14% from the third quarter of 2021 to the third quarter of 2022. After more than two years of year-over-year declines, Washington exports of transportation equipment (mostly Boeing planes) increased over the year for a sixth consecutive quarter, rising 19%. Agricultural exports increased 18% over the year but this could be misleading as the data include soybean and corn exports which receive only minimal processing in Washington. Exports from all other sectors (mostly manufacturing) increased 11% over the year.

Washington car and truck sales surged in October

Washington car and truck sales surged in October. The seasonally adjusted number of new vehicle registrations increased 16.0% in October following a 4.4% decrease in August and a 10.7% decrease in September (see Figure 2.2). The number of registrations was up 10.7% over the year in October. This was the first over-the-year increase in Washington car and truck sales in more than a year.

Figure 2.2: Washington New Vehicle Registrations

The seasonally adjusted number of new vehicle registrations increased 16.0% in October



Source: WA State Department of Licensing, ERFC; data through November 2022

Washington personal income growth slightly outpaced the national average in the second quarter of 2022

In September, after the forecast was complete, the U.S. Department of Commerce, Bureau of Economic Analysis (BEA) released state personal income estimates for the second quarter of 2022. Washington personal income increased from \$574.8 billion (SAAR) in the first quarter of 2022 to \$583.2 billion in the second quarter of 2022. The 6.0% increase (SAAR) in Washington personal income was the 16th highest among the states and District of Columbia and exceeded the 5.8% rate of increase for the U.S. as a whole. At 4.8% (SAAR), growth in Washington net earnings trailed the 6.3% national average rate, however, both property income (dividends, interest, and rent) and transfer receipts grew faster in Washington than in the U.S.

The 8.2% growth rate in Washington personal income was the 10th highest among the states and District of Columbia and exceeded the 7.5% growth rate for the nation

The BEA also released revised annual personal income estimates in September for 2017 through 2021 as part of its annual revision of the National Income and Product Accounts (NIPAs). Washington personal income rose to \$570.9 billion in 2021 from \$527.6 billion in 2020. The 8.2% growth rate in Washington personal income was the 10th highest among the states and District of Columbia and exceeded the 7.5% growth rate for the nation. The annual revision added \$14.2 billion (2.6%) to the estimate for 2021 personal income, mostly because of a large increase in the estimate for property income (dividends, interest, and rent). The annual revision raised the estimate of property income by a whopping 13.3% in 2021, adding \$13.4 billion to the estimated level of personal income. The estimate for transfer receipts was revised up by \$3.2 billion (3.2%) while

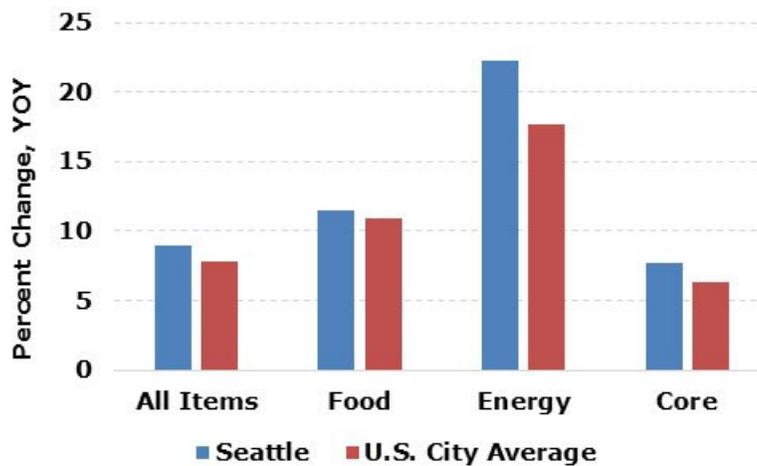
the estimate for net earnings by place of residence was revised down by \$2.3 billion (0.7%).

Seattle consumer price inflation outpaced the national average in the year ending in October 2022

Seattle-area consumer price inflation outpaced the national average in the year ending in October 2022. From October 2021 to October 2022, the seasonally adjusted Seattle CPI rose 8.9% compared to the 7.8% increase in the U.S. City Average index. These relatively high rates were partially due to much higher food and energy prices this year compared to last year. However, core prices, which exclude food and energy, still increased 7.7% in Seattle and 6.3% in the national index (see Figure 2.3). Seattle shelter cost inflation exceeded the national average at 9.0% compared to 6.9%. Seattle inflation excluding shelter slightly exceeded the national average at 8.9% compared to 8.2%.

Figure 2.3: Consumer Price Inflation

Higher food and energy prices added to over-the-year inflation in October



Source: BLS; data through October 2022

Washington State Forecast

The Washington forecast features higher personal income due to data revisions and higher near-term inflation but lower housing construction than in the September forecast

The Washington forecast features higher personal income due to data revisions and higher near-term inflation but lower housing construction than in the September forecast. We expect a 5.2% increase in Washington employment this year up slightly from the 5.0% growth rate expected in the September forecast. The increase in growth this year is due to stronger than previously expected employment growth through October. We expect slower growth during the remainder of the forecast as the U.S. economy slows. We expect employment growth to average 0.9% per year in 2023 through 2027 which is the same average rate as in the September forecast. Our forecast for nominal personal income growth this year is 3.0%, which is the same rate as in the September forecast. Real personal income is expected to decline 3.2% this year, which is weaker than the 3.0% decline in the September forecast. Real personal income growth this year will be undermined by the surge in inflation and the withdrawal of the extraordinary stimulus of the previous two years. Our new

forecast for nominal personal income growth in 2023 through 2027 averages 5.2% per year which is slightly more than the 5.0% average rate in the September forecast. We expect permits to total 50,700 units this year, down from 53,200 units in the September forecast and we expect permits to average 45,600 units in 2023 through 2027, down from 46,500 units in the September forecast. We expect headline inflation to reach 8.9% this year, up from 8.7% in the September forecast. We expect Seattle headline inflation to average 2.6% per year in 2023 through 2027 which is slightly higher than the 2.4% average rate in the September forecast.

Washington Payroll Employment

The November Washington employment forecast is similar to the September forecast

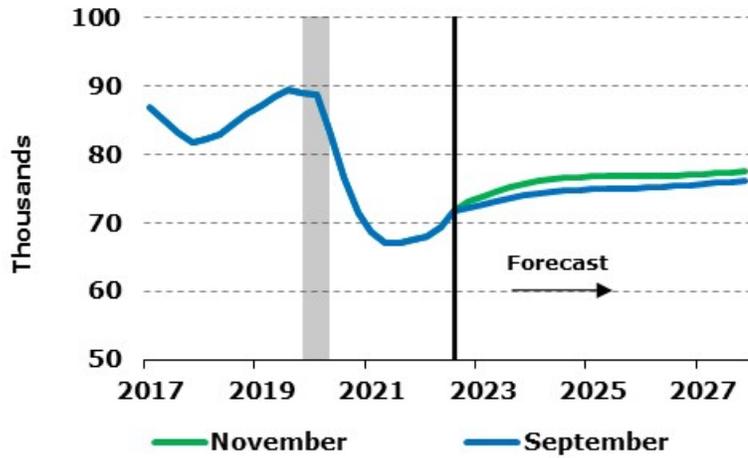
The November Washington employment forecast is similar to the September forecast. We expect a 5.2% increase in Washington employment this year up slightly from the 5.0% growth rate expected in the September forecast. The increase in growth this year is due to stronger than previously expected employment growth through October. We expect slower growth during the remainder of the forecast as the U.S economy slows. We expect employment growth to average 0.9% per year in 2023 through 2027 which is the same average rate as in the September forecast. On an annual basis, we expect 0.9% employment growth in 2023, 0.4% in 2024, 1.2% in 2025, 1.1% in 2026, and 0.9% in 2027.

Aerospace employment is increasing

After the grounding of the 737 Max and then the pandemic, Washington's aerospace employment declined from 89,600 at end of 2019 to a low of 66,800 in August 2021, a loss of 22,800 jobs. Since August 2021, the industry added back 6,100 jobs, bringing the level to 72,800 in October 2022. We expect aerospace employment to continue to expand in Washington, adding 5,000 jobs from the third quarter of 2022 to the fourth quarter of 2024 and another 700 jobs by the end of 2027 (see Figure 2.4). On an annual average basis, we expect aerospace employment to grow 4.4% this year and 6.1% in 2023, slowing to 2.1% in 2024, 0.3% in 2025, 0.2% in 2026, and 0.5% in 2027.

Figure 2.4: Washington Aerospace Employment

We expect aerospace employment to continue to expand



Source: Employment Security Department, ERFC; historical data through 2022 Q3

The software sector in Washington continues to grow

The software sector in Washington continues to grow. As of October 2022, Washington software employment was 14.9% higher than at the business cycle peak of February 2020. Based on actual growth through October, we are increasing our calendar year forecast for 2022 to 6.1% from 5.6% in the September forecast. We expect slower growth during the remainder of the forecast with growth rates of 2.3% in 2023, 1.1% in 2024, 1.6% in 2025, 1.3% in 2026, and 1.3% in 2027.

Construction employment is expected to decline because of a decline in home building

Construction has recovered more than all the jobs lost in the recession because of a surge in home building. After an initial drop in employment in March and April of 2020, construction employment came roaring back. As of October 2022, construction employment was 6.0% higher than at its peak in February 2020. The recovery has been entirely due to residential construction. Employment in residential building and residential specialty trades is 16,400 higher than at the business cycle peak while all other construction employment is 2,800 lower. We expect construction to peak in the fourth quarter of 2022. The expected decline of 10,500 construction jobs from the fourth quarter of this year through the end of 2025 is also due to residential building and residential special trades which is expected to decline by 11,700 while all other construction employment is expected to rise by 1,100 jobs. We expect construction employment to grow 5.7% in calendar year 2022 followed by a 1.4% decline in 2023, a 1.0% decline in 2024, and a 0.4% decline in 2025. We expect construction to grow 0.3% in 2026 and 0.9% in 2027.

Washington Personal Income

Washington personal income in the second quarter was higher than in the September forecast

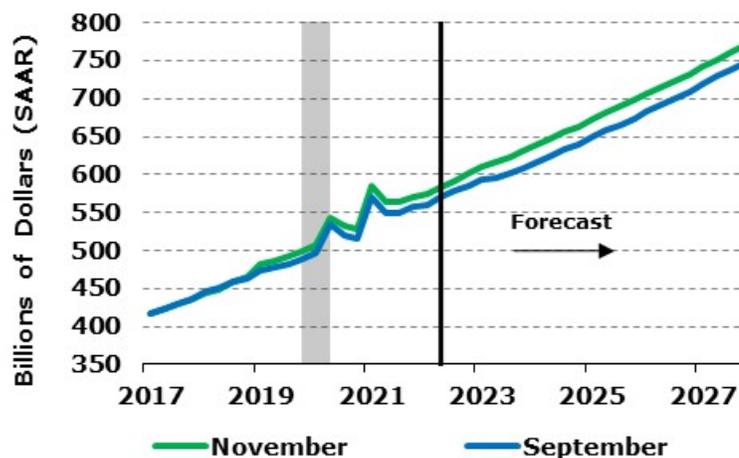
In September, after the forecast was complete, the U.S. Department of Commerce, Bureau of Economic Analysis (BEA) released state personal income estimates for the second quarter of 2022. -Washington personal income in the second quarter of 2022 was \$12.8 billion (2.2%) higher than in the September forecast. Wages and salaries were \$4.0 billion (1.3%) lower than expected but nonwage income was \$16.7 billion (6.5%) higher than expected. The large upward revision to nonwage income was mostly due to an increase in the estimate for property income in the annual revision of state personal income.

Our forecast for nominal personal income growth this year is 3.0%

Our forecast for nominal personal income growth this year is 3.0%, which is the same rate as in the September forecast. Real personal income is expected to decline 3.2% this year, which is weaker than the 3.0% decline in the September forecast. Real personal income growth this year will be undermined by the surge in inflation and the withdrawal of the extraordinary stimulus of the previous two years. Our new forecast for nominal personal income growth in 2023 through 2027 averages 5.2% per year which is slightly more than the 5.0% average rate in the September forecast. While personal income growth is similar to the September forecast, the level is significantly higher because of the annual revision of state personal income (see Figure 2.5). On an annual basis, we expect personal income to grow 5.4% in 2023, 5.1% in 2024, 5.1% in 2025, 5.1% in 2026, and 5.1% in 2027.

The level of personal income is higher than in the September forecast

Figure 2.5: Washington Personal Income



Source: Bureau of Economic Analysis, ERFC; historical data through 2022 Q2

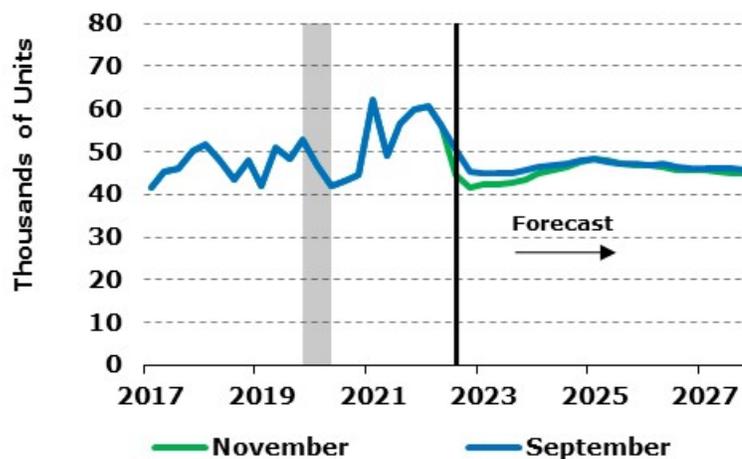
Washington Building Permits

The Washington housing construction forecast is lower than in September

The Washington housing construction forecast is lower than in September. The number of authorized housing units jumped to 56,900 in 2021 from 44,100 in 2020. This was the highest annual total since 1978. As in September, we expect housing construction to decline from the recent highs (see Figure 2.6). We expect permits to total 50,700 units this year, down from 53,200 units in the September forecast and we expect permits to average 45,600 units in 2023 through 2027, down from 46,500 units in the September forecast. On a calendar year basis, we expect 42,800 units in 2023, 46,100 units in 2024, 47,500 in 2025, 46,200 units in 2026, and 45,300 units in 2027.

Figure 2.6: Washington Building Permits

We expect housing construction to decline from the recent highs



Source: Census Bureau, ERFC; historical data through 2022 Q3

Consumer Price Index

The inflation outlook has increased since the September forecast

The inflation outlook has increased since the September forecast but we expect price pressures to diminish over the remainder of 2022 and in 2023. The Seattle core CPI index rose 3.8% in 2021 which was the highest rate since 1997. On an annual average basis, core inflation will rise further to 7.8% this year, up slightly from 7.7% in the September forecast. While near term inflation is higher, we believe longer term inflation is still well-anchored. Core inflation is expected to decline to slightly over 2% by the end of 2024. We expect Seattle core inflation to average 2.9% per year in 2023 through 2027, which is slightly higher than the 2.7% average rate in the September forecast. Our forecast calls for annual Seattle core inflation rates of 5.0% in 2023, 2.9% 2024, 2.2% in 2025, 2.1% in 2026, and 2.2% in 2027.

Energy costs are expected to fall

Energy costs rebounded in 2021 adding to headline inflation. The all-items Seattle CPI rose 4.7% in 2021 which was the highest annual rate since 1991 and was well above the 3.8% core inflation rate. We expect headline inflation to reach 8.9% this year, up from 8.7% in the September forecast. Energy costs are expected to fall every year from 2023 through 2025. This will

result in all-items inflation dropping below core inflation. We expect Seattle headline inflation to average 2.6% per year in 2023 through 2027 which is slightly higher than the 2.4% average rate in the September forecast. On a calendar year basis, we expect inflation rates of 4.9% 2023, 2.5% in 2024, 2.0% in 2025, 1.9% in 2026, and 2.0% in 2027.

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 assumes stronger growth of consumer spending and stronger productivity relative to the baseline

The optimistic scenario assumes stronger growth of consumer spending and stronger productivity relative to the baseline. We assume the consumer and business response to the Infrastructure Investment and Jobs Act is more robust than in the baseline, while a quicker resolution to the Russia-Ukraine conflict allows for a lower path of energy prices. Moreover, we assume firms return to being able to effect the kinds of large productivity gains they achieved early in the pandemic, which improves corporate profitability. Real GDP declines in only one quarter, the first quarter of next year, compared to the three quarterly declines in the baseline forecast. For the year, real GDP rises 0.7% in 2023 in the optimistic scenario compared to the baseline forecast of a 0.2% increase. The unemployment rate averages 4.6% in 2023 in the optimistic forecast compared to 4.7% in the baseline forecast.

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 recovers much faster than assumed 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. After declining in the first three quarters of 2023, construction employment grows more rapidly in 2024-27 than in the baseline forecast. By the end of 2027, Washington nonfarm payroll employment is higher by 63,100 jobs (1.7%) than in the baseline forecast and Washington personal income is \$42.0 billion (5.5%) higher.

Pessimistic

Recovery stumbles as Russia-Ukraine conflict intensifies and supply chain problems persist

The pessimistic scenario assumes weaker consumer spending and a deeper three-quarter recession than in the baseline forecast, with a peak-to-trough decline in GDP of 1.8%, versus 0.3% in the baseline forecast. The Russia-Ukraine conflict intensifies and drags on, leading to higher price paths for energy commodities, other industrial commodities and grains, wider risk spreads, and a more pronounced slowdown in foreign growth. In addition, a slower correction of supply-chain issues prolongs delays in the production of consumer durable goods. On an annual basis, GDP rises 1.7% in 2022 and declines 1.2% in 2023, versus growth of 1.8% and 0.2% in the baseline forecast. The unemployment rate in this scenario rises from 3.5% in the fourth quarter of this year to 7.5% in the first quarter of 2024, before declining to 5.0% by the end of the forecast horizon.

The pessimistic 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 begins to decline again in late-2023. Software employment declines rather than continuing to grow as in the baseline forecast. Construction employment declines faster than in the baseline and the decline continues through 2027. The relatively weak local economy also puts downward pressure on Washington wages and the Seattle CPI. By the end of 2027, Washington nonfarm payroll employment is 180,400 (4.9%) lower than in the baseline forecast and Washington personal income is \$62.7 billion (8.1%) 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 Governor's Council of Economic Advisors' (GCEA) national forecast has slightly higher real growth and inflation

The Governor's Council of Economic Advisors' (GCEA) national forecast has slightly higher real growth and inflation than does our baseline forecast. The GCEA real GDP growth forecast averages 1.7% per year in 2022 through 2027 which is slightly higher than our 1.6% average rate. Their forecast of 1.9% average real consumer spending growth matches our forecast. The GCEA members' personal consumption expenditures (PCE) inflation forecast averages 3.1% per year which is slightly higher than the 2.9% average rate in our forecast. The Council members' mortgage rate forecast averages 5.4% over the six-year forecast horizon, which is the same as our average mortgage rate forecast. The GCEA oil price forecast averages \$82 per barrel which is slightly lower than our \$86 average oil price.

The Governor's Council of Economic Advisors' Washington forecast is similar to our baseline forecast

The Governor's Council of Economic Advisors' Washington forecast is similar to our baseline forecast. The GCEA scenario for Washington real personal income growth averages 1.8% per year in 2022 through 2027 which is the same as the average growth rate in our forecast. Because their inflation forecast is slightly higher than ours, however, their implied average nominal income growth is 4.9% compared to our 4.8% average growth rate. The Council members' forecast for total employment growth over the five-year period averages 1.6% per year, which is the same average rate as in our forecast. The GCEA forecasts for average manufacturing employment growth and average construction employment growth are both slightly higher than their counterparts in our forecast. The GCEA housing permit forecast averages 46,400 units per year as does our forecast. At the end of 2027, the GCEA forecast for Washington nonfarm payroll employment is 3,200 (0.1%) higher than in our forecast and Washington personal income is \$6.0 billion (0.8%) higher.

Table 2.3 compares the Governor's Council of Economic Advisors' forecast with the baseline forecast.

Table 2.1

Fiscal Years

Washington Economic Forecast Summary
 Forecast 2022 to 2027

	2020	2021	2022	2023	2024	2025	2026	2027
Real Income (Billions of Chained 2012 Dollars)								
Real Personal Income	462.407	489.404	480.563	481.954	493.373	508.612	525.245	542.033
% Ch	6.7	5.8	-1.8	0.3	2.4	3.1	3.3	3.2
Real Wage and Salary Disb.	233.431	245.749	254.546	255.465	259.342	268.124	277.298	286.155
% Ch	3.7	5.3	3.6	0.4	1.5	3.4	3.4	3.2
Real Nonwage Income	228.976	243.656	226.017	226.489	234.030	240.488	247.947	255.878
% Ch	9.9	6.4	-7.2	0.2	3.3	2.8	3.1	3.2
Real Per Capita Income (\$/Person)	60,180	63,322	61,972	61,742	62,607	63,905	65,344	66,766
% Ch	5.4	5.2	-2.1	-0.4	1.4	2.1	2.3	2.2
Price and Wage Indexes								
U.S. Implicit Price Deflator, PCE (2012=1.0)	1.105	1.127	1.193	1.255	1.288	1.313	1.337	1.361
% Ch	1.3	2.0	5.8	5.2	2.6	2.0	1.8	1.8
Seattle Cons. Price Index (1982-84=1.0)	2.803	2.871	3.089	3.325	3.426	3.501	3.568	3.637
% Ch	2.1	2.4	7.6	7.6	3.0	2.2	1.9	1.9
Average Nonfarm Annual Wage	73,926	82,203	85,526	87,437	91,300	95,201	99,118	103,120
% Ch	6.1	11.2	4.0	2.2	4.4	4.3	4.1	4.0
Avg. Hourly Earnings-Mfg. (\$/Hour)	28.92	27.87	29.08	30.57	31.90	33.23	34.55	35.81
% Ch	0.0	-3.6	4.3	5.1	4.4	4.2	4.0	3.6
Current Dollar Income (Billions of Dollars)								
Personal Income	511.011	551.903	573.279	604.944	635.333	668.013	702.077	737.747
% Ch	8.0	8.0	3.9	5.5	5.0	5.1	5.1	5.1
Disposable Personal Income	452.888	486.944	493.507	519.532	555.252	586.321	616.128	647.746
% Ch	8.5	7.5	1.3	5.3	6.9	5.6	5.1	5.1
Per Capita Income (\$/Person)	66,505	71,408	73,927	77,497	80,620	83,933	87,342	90,872
% Ch	6.8	7.4	3.5	4.8	4.0	4.1	4.1	4.0
Employment (Thousands)								
Washington Civilian Labor Force	3,968.2	3,882.3	3,972.2	4,023.4	4,058.7	4,096.5	4,133.6	4,171.2
Total Washington Employment	3,706.3	3,617.5	3,795.9	3,857.9	3,843.0	3,894.4	3,942.8	3,985.2
Unemployment Rate (%)	6.59	6.82	4.44	4.11	5.32	4.93	4.62	4.46
Nonfarm Payroll Employment	3,399.9	3,280.4	3,461.7	3,575.9	3,566.8	3,607.5	3,647.6	3,684.7
% Ch	-1.0	-3.5	5.5	3.3	-0.3	1.1	1.1	1.0
Manufacturing	287.3	260.4	264.2	277.0	273.6	271.3	271.6	272.2
% Ch	-1.6	-9.4	1.5	4.8	-1.2	-0.8	0.1	0.2
Durable Manufacturing	202.5	178.3	177.8	187.4	185.5	184.2	184.6	185.2
% Ch	-1.5	-11.9	-0.3	5.4	-1.0	-0.7	0.2	0.3
Aerospace	87.7	71.0	68.0	73.4	75.9	76.7	76.8	77.1
% Ch	1.3	-19.0	-4.2	7.9	3.5	1.0	0.1	0.4
Nondurable Manufacturing	84.9	82.0	86.4	89.6	88.1	87.1	87.0	87.0
% Ch	-1.7	-3.3	5.3	3.7	-1.6	-1.2	-0.2	0.1
Construction	216.2	219.2	229.2	236.9	230.4	230.0	229.7	231.0
% Ch	-0.3	1.3	4.6	3.3	-2.7	-0.2	-0.1	0.6
Service-Providing	2,890.7	2,795.3	2,962.6	3,056.7	3,058.2	3,101.8	3,141.9	3,177.1
% Ch	-0.9	-3.3	6.0	3.2	0.0	1.4	1.3	1.1
Software Publishers	73.6	77.6	81.7	85.8	86.6	87.9	89.2	90.3
% Ch	8.7	5.4	5.3	5.0	0.9	1.5	1.5	1.3
Electronic Shopping and Mail-Order	69.3	77.3	76.0	80.4	78.0	79.4	81.1	82.7
% Ch	19.1	11.6	-1.7	5.8	-2.9	1.7	2.1	2.1
Housing Indicators (Thousands)								
Housing Units Authorized by Bldg. Permit	47.445	49.765	58.283	42.715	44.250	47.515	46.760	45.625
% Ch	3.1	4.9	17.1	-26.7	3.6	7.4	-1.6	-2.4
Single-Family	22.804	25.978	23.811	20.250	22.910	25.687	25.866	25.566
% Ch	1.8	13.9	-8.3	-15.0	13.1	12.1	0.7	-1.2
Multi-Family	24.641	23.787	34.473	22.466	21.340	21.828	20.894	20.058
% Ch	4.3	-3.5	44.9	-34.8	-5.0	2.3	-4.3	-4.0
30-Year Fixed Mortgage Rate (%)	3.53	2.89	3.72	6.60	6.14	5.25	4.91	4.83

Table 2.2
Comparison of Alternative Forecasts

Fiscal Years

	2022	2023	2024	2025	2026	2027
U.S.						
Real GDP, Percent Change						
Optimistic	4.0	0.9	0.9	1.6	1.9	1.7
Baseline	4.0	0.5	0.6	2.0	2.1	2.0
Pessimistic	4.0	-0.2	-0.3	1.5	1.9	2.1
PCE Price Index, Percent Change						
Optimistic	5.8	4.9	2.8	2.4	2.1	2.1
Baseline	5.8	5.2	2.6	2.0	1.8	1.8
Pessimistic	5.8	5.4	3.1	1.9	1.5	1.4
Mortgage Rate, Percent						
Optimistic	3.72	6.58	6.24	5.36	5.06	4.95
Baseline	3.72	6.60	6.14	5.25	4.91	4.83
Pessimistic	3.72	6.70	6.03	4.73	4.24	4.07
3 Month T-Bill Rate, Percent						
Optimistic	0.37	4.05	4.76	3.53	2.69	2.41
Baseline	0.37	3.96	4.50	3.24	2.42	2.35
Pessimistic	0.37	4.05	3.71	1.53	0.63	0.57
Washington						
Real Personal Income, Percent Change						
Optimistic	-1.8	2.1	3.6	3.4	3.5	3.6
Baseline	-1.8	0.3	2.4	3.1	3.3	3.2
Pessimistic	-1.8	-1.2	-0.7	2.0	2.6	2.4
Personal Income, Percent Change						
Optimistic	3.9	7.1	6.5	5.9	5.6	5.7
Baseline	3.9	5.5	5.0	5.1	5.1	5.1
Pessimistic	3.9	4.1	2.4	3.9	4.1	3.8
Employment, Percent Change						
Optimistic	5.5	3.6	0.0	1.5	1.4	1.3
Baseline	5.5	3.3	-0.3	1.1	1.1	1.0
Pessimistic	5.5	2.7	-2.1	-0.1	0.4	0.6
Housing Permits, Thousands of Authorized Units						
Optimistic	58.3	43.3	45.4	49.1	48.8	48.5
Baseline	58.3	42.7	44.3	47.5	46.8	45.6
Pessimistic	58.3	41.8	39.9	41.5	39.7	38.1

Table 2.3

Calendar Years

Governor's Council of Economic Advisor's Forecast

	2022	2023	2024	2025	2026	2027
U.S.						
Real GDP						
<i>Growth</i>						
ERFC	1.8	0.2	1.5	2.1	2.1	1.9
GCEA Average	1.4	0.3	2.0	2.3	2.1	1.9
Real Consumption						
<i>Growth</i>						
ERFC	2.6	0.6	1.5	2.2	2.2	2.1
GCEA Average	2.3	0.7	1.8	2.4	2.3	2.1
PCE Price Index						
<i>Growth</i>						
ERFC	6.3	3.6	2.2	1.8	1.8	1.9
GCEA Average	6.1	3.7	2.3	2.2	2.2	1.9
Mortgage Rate						
<i>Percent</i>						
ERFC	5.4	6.7	5.6	5.0	4.9	4.8
GCEA Average	5.7	6.4	5.5	5.1	4.8	4.7
Oil Price (Brent)						
<i>Dollars per barrel</i>						
ERFC	101.9	87.6	80.2	76.2	73.5	71.6
GCEA Average	101.4	90.2	83.7	81.4	79.1	77.7
Washington State						
Real Personal Income						
<i>Growth</i>						
ERFC	-3.2	1.8	2.9	3.2	3.2	3.2
GCEA Average	-3.3	1.1	3.3	3.4	3.3	3.3
Wage and Salary Employment						
<i>Growth</i>						
ERFC	5.2	0.9	0.4	1.2	1.1	0.9
GCEA Average	4.6	0.3	1.1	1.4	1.2	1.1
Manufacturing Employment						
<i>Growth</i>						
ERFC	4.9	1.8	-1.8	-0.1	0.2	0.2
GCEA Average	4.4	0.4	0.1	0.3	0.3	0.4
Construction Employment						
<i>Growth</i>						
ERFC	5.7	-1.4	-1.0	-0.4	0.3	0.9
GCEA Average	4.6	-2.2	0.1	0.5	0.7	0.9
Housing Permits						
<i>Thousands of authorized units</i>						
ERFC	50.7	42.8	46.1	47.5	46.2	45.3
GCEA Average	47.6	41.7	47.7	47.7	47.1	46.7
Washington Average Annual Wage						
<i>Growth</i>						
ERFC	2.1	3.5	4.5	4.1	4.1	4.1
GCEA Average	2.8	4.0	5.0	4.3	4.2	4.2

Table 2.4
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
June	3.7	3.0	1.0	47.0
September	3.5	3.9	1.8	47.1
November	3.6	3.7	1.1	48.0
2022				
February	3.6	4.6	1.1	50.1
June	3.4	4.3	-0.6	52.4
September	3.5	4.1	-0.7	52.4
November	3.5	4.5	-0.6	50.5

Table 2.5
Forecast Analysis
 Comparison of Forecasts for 2023-25

Washington	Average Annual Rate of Growth (Percent) 2023:2-2025:2			Average Annual Rate (Thousands) 2023:3 to 2025:2
	Employment	Personal Income	Real Personal Income	Housing Units Authorized
2020				
February	0.6	5.0	2.9	42.3
June	0.9	4.1	2.4	38.2
September	1.2	4.4	2.6	39.7
November	1.1	4.7	2.8	41.4
2021				
March	1.4	5.3	3.4	43.5
June	1.4	4.9	3.0	45.2
September	1.3	5.2	3.2	44.1
November	1.0	5.2	3.0	43.4
2022				
February	1.0	5.3	3.1	44.2
June	0.7	5.4	3.6	48.8
September	0.7	5.1	3.1	46.8
November	0.7	5.1	3.0	45.9

Table 2.6
Forecast Comparison
 Forecast 2022 to 2025

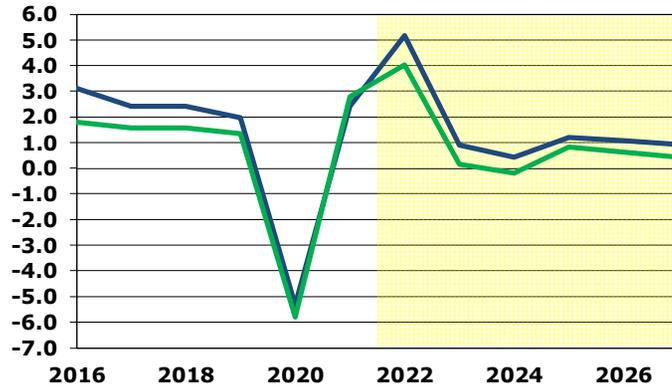
Fiscal Years

	2021	2022	2023	2024	2025	2026	2027
Washington							
Real Personal Income							
Novtember	489.404	480.563	481.954	493.373	508.612	525.245	542.033
% Ch	5.8	-1.8	0.3	2.4	3.1	3.3	3.2
September	477.572	469.563	470.060	480.024	495.834	511.797	528.762
% Ch	5.6	-1.7	0.1	2.1	3.3	3.2	3.3
Personal Income							
Novtember	551.903	573.279	604.944	635.333	668.013	702.077	737.747
% Ch	8.0	3.9	5.5	5.0	5.1	5.1	5.1
September	538.701	559.393	587.777	613.127	645.006	678.367	714.259
% Ch	7.8	3.8	5.1	4.3	5.2	5.2	5.3
Employment							
Novtember	3280.4	3461.7	3575.9	3566.8	3607.5	3647.6	3684.7
% Ch	-3.5	5.5	3.3	-0.3	1.1	1.1	1.0
September	3280.4	3461.7	3565.1	3581.7	3611.7	3644.9	3680.0
% Ch	-3.5	5.5	3.0	0.5	0.8	0.9	1.0
Housing Permits							
Novtember	49.765	58.283	42.715	44.250	47.515	46.760	45.625
% Ch	4.9	17.1	-26.7	3.6	7.4	-1.6	-2.4
September	49.765	58.283	46.492	45.974	47.703	47.034	46.214
% Ch	4.9	17.1	-20.2	-1.1	3.8	-1.4	-1.7

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

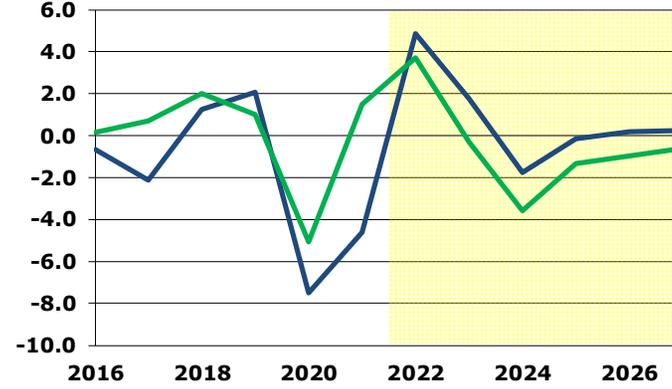
Forecast

Total Nonfarm Payroll Employment



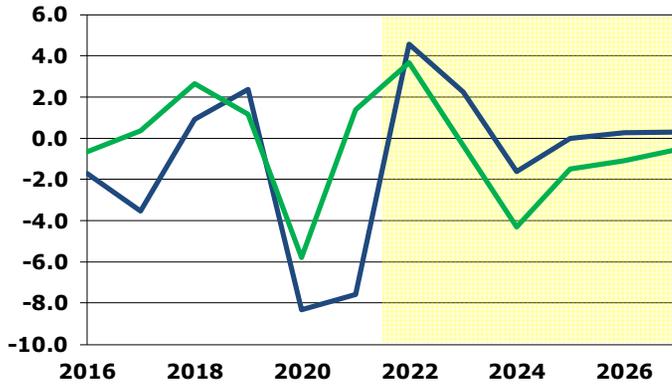
Source: WA State Employment Security Dept. 2021, ERFC 2027

Manufacturing Employment



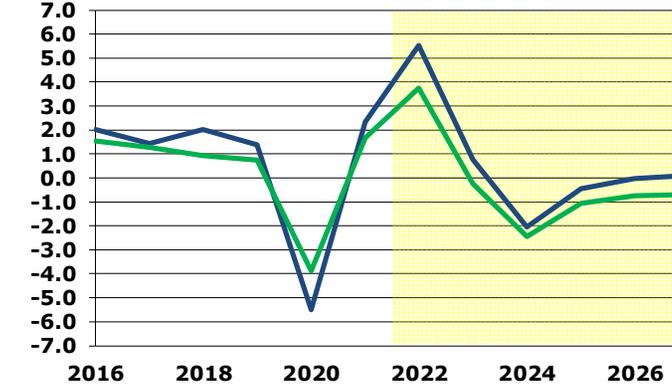
Source: WA State Employment Security Dept. 2021, ERFC 2027

Durable Manufacturing Employment



Source: WA State Employment Security Dept. 2021, ERFC 2027

Nondurable Manufacturing Employment



Source: WA State Employment Security Dept. 2021, ERFC 2027

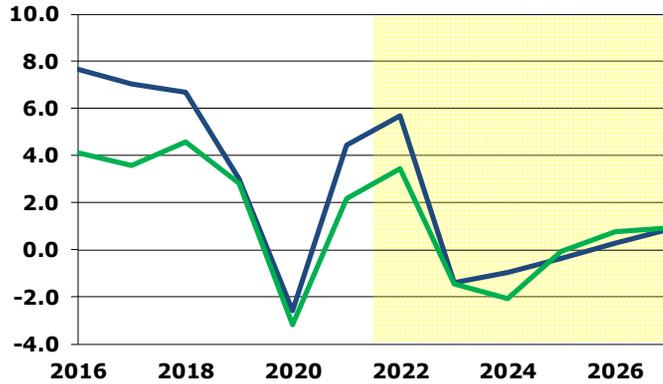
Washington

U.S.

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

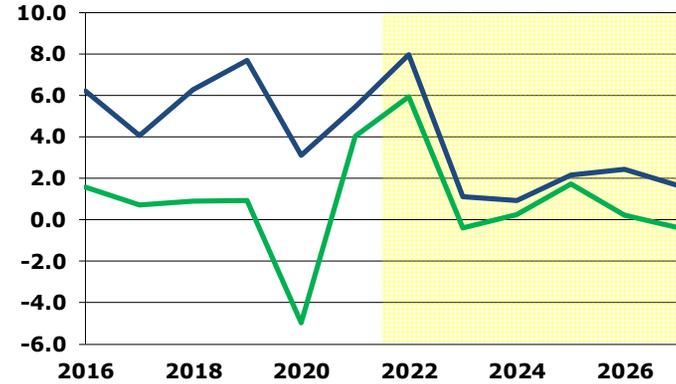
Forecast

Construction Employment



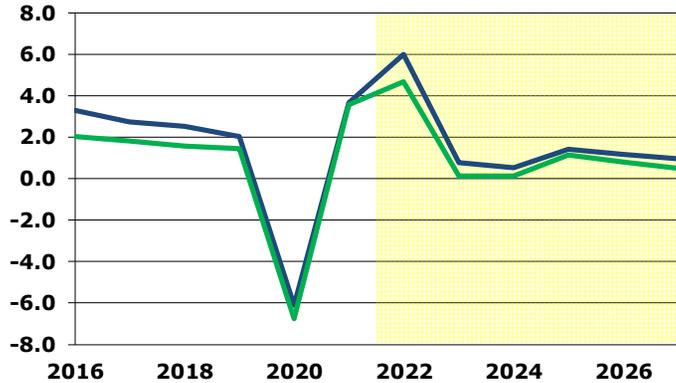
Source: WA State Employment Security Dept. 2021, ERFC 2027

Information Employment



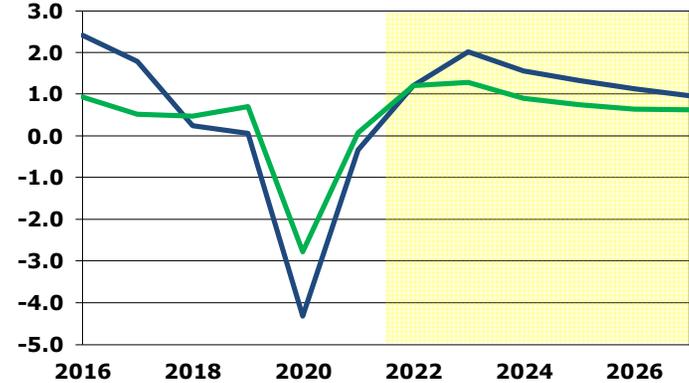
Source: WA State Employment Security Dept. 2021, ERFC 2027

Other Private Employment



Source: WA State Employment Security Dept. 2021, ERFC 2027

Government Employment



Source: WA State Employment Security Dept. 2021, ERFC 2027

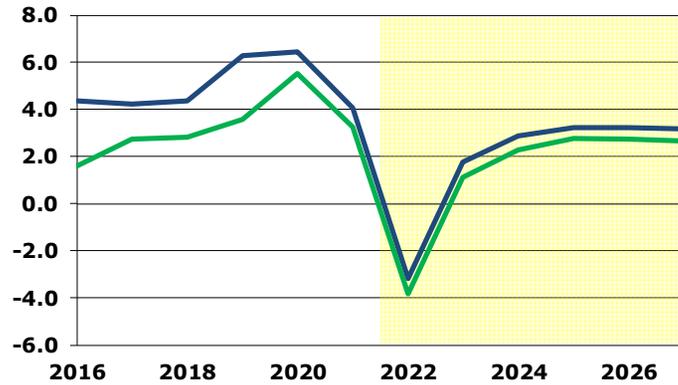
Washington

U.S.

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

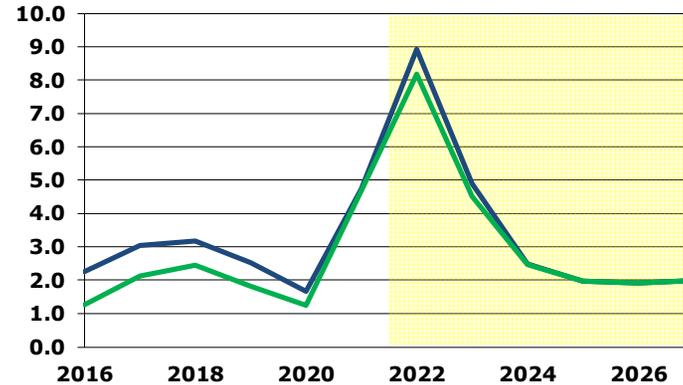
Forecast

Real Personal Income



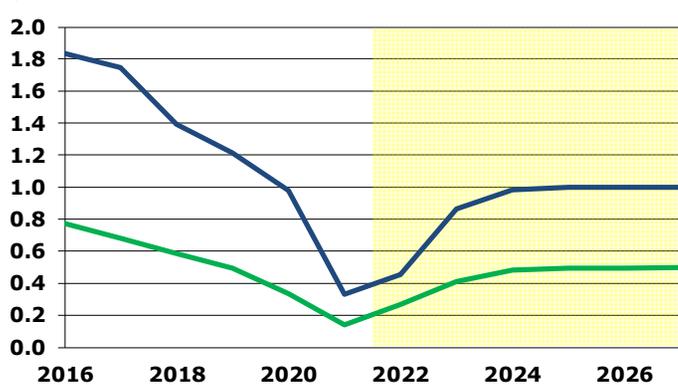
Source: Bureau of Economic Analysis 2021, ERFC 2027

Consumer Price Indices



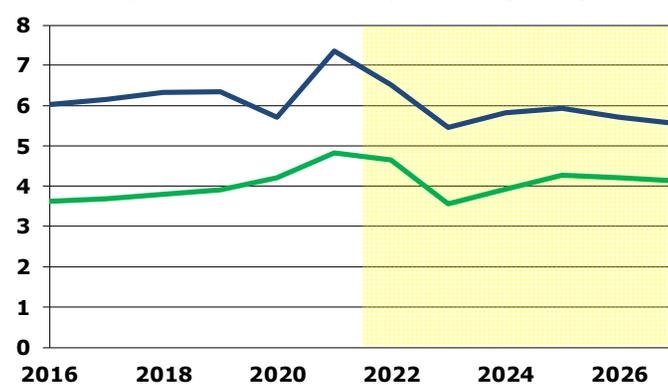
Source: Bureau of Labor Statistics 2021, ERFC 2027

Population



Source: Bureau of Economic Analysis 2021, ERFC 2027

New Housing Units Per 1,000 Population (Level)



Source: Census Bureau, Bureau of Economic Analysis 2021, ERFC 2027

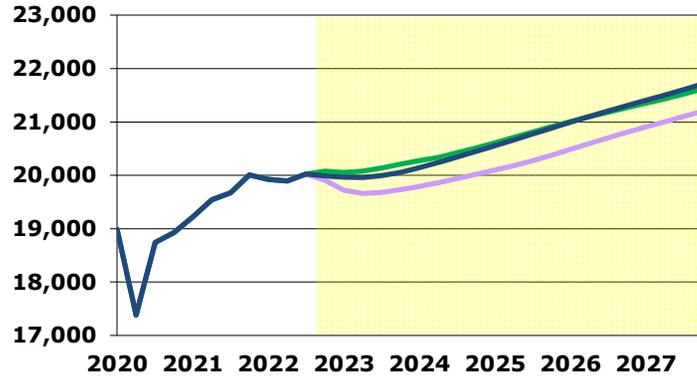
Washington

U.S.

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

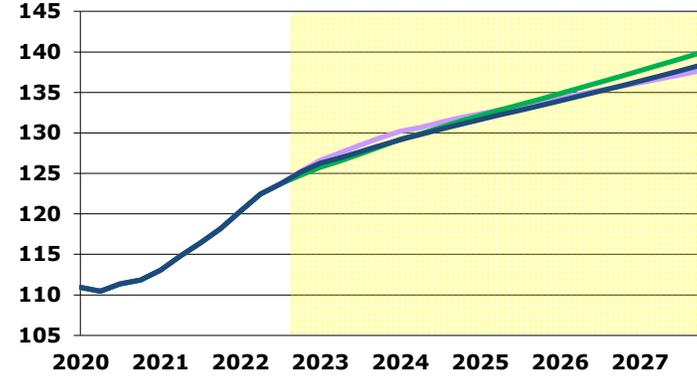
Forecast

Real GDP, Billions of 2012 Dollars



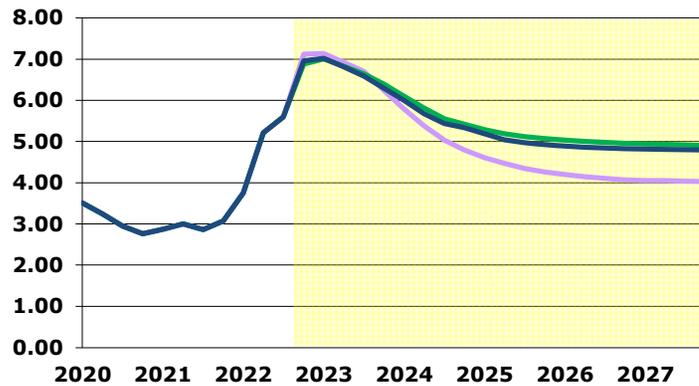
Source: Bureau of Economic Analysis 2022 Q3, ERFC 2027 Q4

PCE Price Index, 2012 = 100



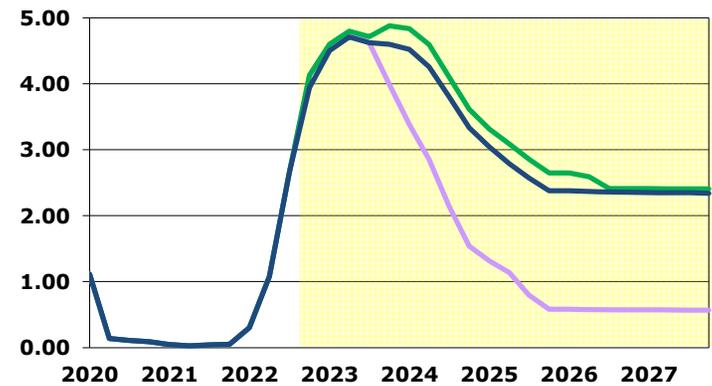
Source: Bureau of Economic Analysis 2022 Q3, ERFC 2027 Q4

Mortgage Rate, Percent



Source: Freddie Mac 2022 Q3, ERFC 2027 Q4

Three Month T-Bill Rate, Percent



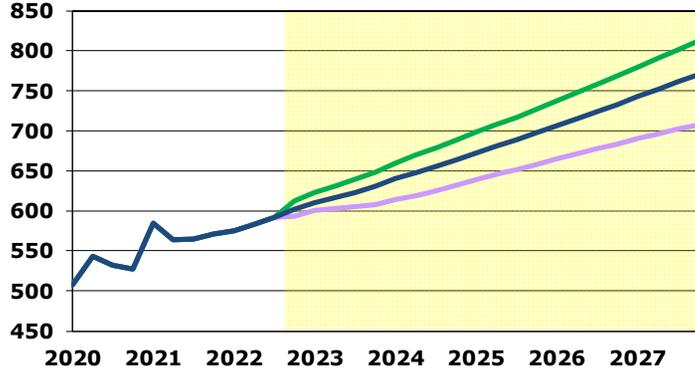
Source: Federal Reserve Board 2022 Q3, ERFC 2027 Q4

■ Baseline ■ Optimistic ■ Pessimistic

Figure 2.9: Comparison of Alternative Washington Economic Forecasts

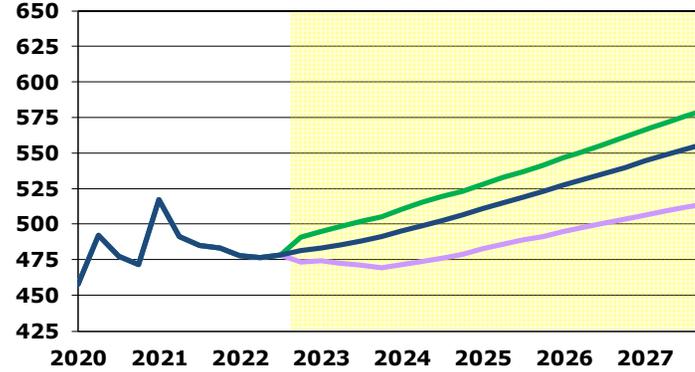
Forecast

Personal Income, Billions of Dollars



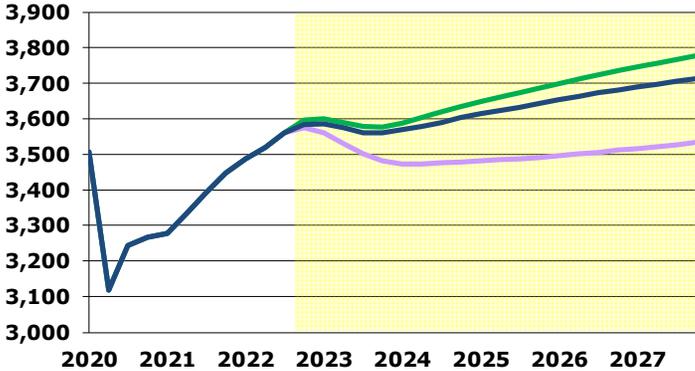
Source: Bureau of Economic Analysis 2022 Q2, ERFC 2027 Q4

Real Personal Income, Billions of 2012 Dollars



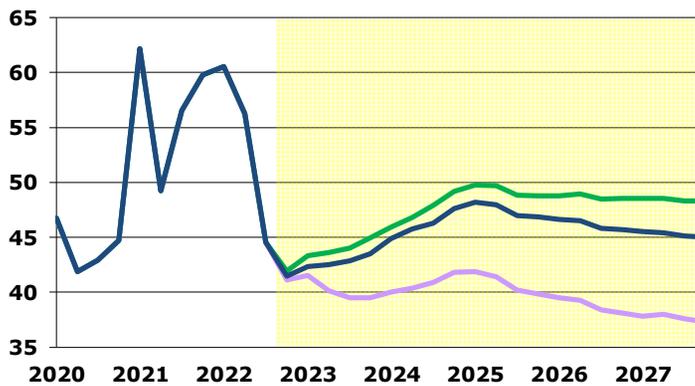
Source: Bureau of Economic Analysis 2022 Q2, ERFC 2027 Q4

Total Nonfarm Payroll Employment, Thousands



Source: WA State Employment Security 2022 Q3, ERFC 2027 Q4

Housing Permits, Thousands



Source: Census Bureau 2022 Q3, ERFC 2027 Q4

■ Baseline ■ Optimistic ■ Pessimistic



Chapter 3: Washington State Revenue Forecast Summary

- **Tracked collections since September have come in well above their forecasted amounts, indicating the expected slowdown in taxable activity was not occurring as early as previously thought. The November forecast still expects a slowdown, but it begins later and starts from a higher level. This has raised forecasted revenue through the 2027 biennium.**
- **One exception to the forecast increase was real estate excise tax, which has been decreased due to higher interest rates and lower expected prices.**
- **The total forecast for funds subject to the budget outlook process was increased by \$762 million in the 2021-23 biennium, \$681 million in the 2023-25 biennium and \$747 million in the 2025-27 biennium.**

Overview

Except for real estate taxes, tracked revenue has come in well above the September forecast, raising expectations for future receipts

Since the September forecast, taxable activity has been much stronger than expected, with tracked collections coming in well above the forecast. While the forecast had expected year-over-year growth in collections of Revenue Act taxes (the largest category of general revenue that includes sale and business taxes) to slow, growth instead increased. While the November forecast still expects a slowdown in the growth of taxable activity, the slowdown is now expected to begin later and start from a higher level. As a result, forecasted revenue has been increased through FY 2027. One exception to the forecast increase, however, is real estate excise tax. While real estate excise tax collections have come in only slightly below the forecast, increases in mortgage rates and the expectation of decreasing prices have lowered forecasted collections.

Total forecast change by biennium (millions):

21-23: \$762
23-25: \$681
25-27: \$747

Table 3.1 summarizes the changes to forecasted revenue in funds subject to the budget outlook process for the 2021-23 through the 2025-27 biennia. In the 2021-23 biennium, the forecast was increased by \$761.5 million. In the 2023-25 biennium, the forecast was increased by \$681.3 million and in the 2025-27 biennium, the forecast was increased by \$747.0 million. There were no non-economic changes to the forecast. The November 2022 forecast for these funds total \$63,952.2

million in the 2021-23 biennium, \$66,185.0 million in the 2023-25 biennium and \$70,882.8 million in the 2025-27 biennium.

November
forecast by
biennium
(\$billions):

2021-23:
\$63.952

2023-25:
\$66.185

2025-27:
\$70.883

Table 3.1: Revisions to the forecast of funds subject to the budget outlook*

	2021-23 Biennium	2023-25 Biennium	2025-27 Biennium
Non-Economic Change	\$0.0	\$0.0	\$0.0
Forecast Change	\$761.5	\$681.3	\$747.0
Total Change	\$761.5	\$681.3	\$747.0

(*cash basis, millions of dollars)

The budget
outlook process
ensures the
current biennial
budget will be
sustainable in
the next
biennium

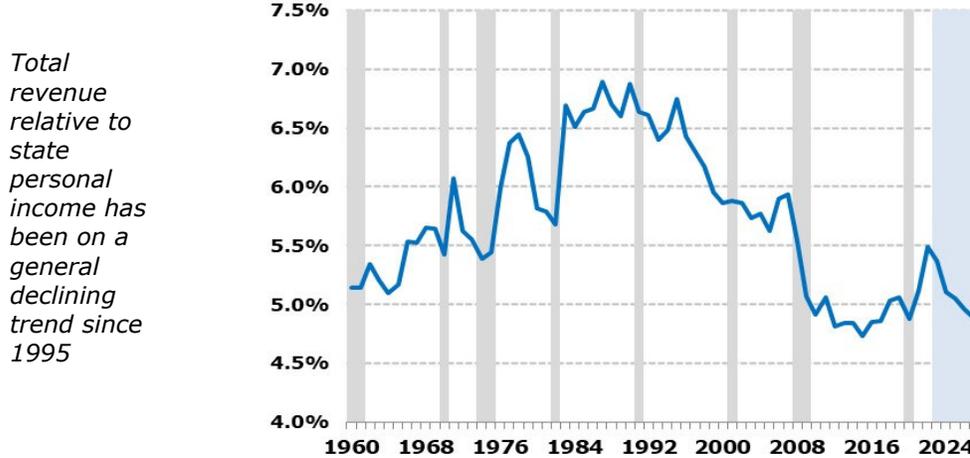
The budget outlook process ensures that the budget adopted for the current biennium will also be sustainable in the next biennium given forecasted revenue. The funds that are currently included when establishing the outlook are the General Fund-State, the Education Legacy Trust Account, the Washington Opportunity Pathways Account and the Workforce Education Investment Account. Once funded, the planned Fair Start for Kids Account will also be subject to the outlook. The recent history and forecast of these funds can be found in Table 3.17.

Though the
ratio of total
collections to
income has
increased from
the FY 2015
trough, it is
expected to
peak in FY
2022

Figure 3.1 shows the ratio of revenue collected for funds subject to the budget outlook relative to state personal income. Through FY 2005, the revenue represented in the chart is what is currently defined as General Fund-State (GF-S) revenue. From FY 2006 onward the revenue includes the Education Legacy Trust Account (ELTA), which in its early years was wholly funded by the estate tax and a portion of the cigarette tax. From FY 2011 onward, the total includes the Washington Opportunity Pathways account (OPA), which is funded by Lottery receipts. From FY 2020 onward the total includes the Workforce Education Investment Account (WEIA), funded by a surtax on large service providers and companies that involve advanced computing. As can be seen in the chart, the ratio of revenue to income followed a downward trend from FY 1995 to FY 2015, 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 FY 2011. While the ratio grew slightly in FY 2016 and FY 2017, it increased rapidly in FY2018 and FY 2019 when the state property tax levy increased to partially displace local levies and increased further in FY 2020 with the establishment of the graduated real estate excise tax. The pandemic-related booms in real estate and spending on goods, coupled with the new WEIA surtax, increased the ratio further in FY 2021 and FY 2022. From FY 2023 onward,

however, total revenues are expected to grow at a rate lower than the rate of income growth, causing the ratio to continue its pre-FY 2015 downward trend through FY 2027.

Figure 3.1: Funds subject to the budget outlook as a Percentage of State Personal Income (Fiscal Years)



Source: ERFC, data through fiscal year 2022. Gray shaded area indicates recession; blue shaded area indicates forecast.

Track Record for the 2021-23 Biennium

The current forecast is \$6.94 billion higher than the forecasted revenue at the time of the initial 2021-23 budget

Table 3.10 summarizes the historical changes to the forecast of funds subject to the budget outlook for the 2021-23 biennium. The February 2018 forecast was the initial forecast for the biennium. The November 2022 forecast is \$11.16 billion (21.1%) higher than the initial forecast. Non-economic changes have increased the forecast by \$2.02 billion (3.8%). Excluding non-economic changes, the current forecast is \$9.14 billion (17.3%) higher than the initial forecast. The March 2021 forecast, coupled with a \$399 million revenue increase from legislative and budget-driven revenue changes passed in the 2021 legislative session after the March forecast, was the basis for the initial budget for the 2021-23 biennium. The November forecast of biennial revenue is \$6.94 billion (12.2%) higher than that sum.

Track Record for the 2023-25 Biennium

The current forecast is \$6.34 billion higher than the initial forecast in February 2020

Table 3.11 summarizes the historical changes to the forecast of funds subject to the budget outlook for the 2023-25 biennium. The February 2020 forecast was the initial forecast for the biennium. The November forecast of GF-S revenue is \$6.34 billion (10.6%) higher than the initial forecast. Non-economic changes have increased the forecast by \$0.59 billion (1.0%). Excluding non-economic changes, the current forecast is \$5.76 billion (9.6%) higher than the initial forecast.

Recent Collection Experience

Collections were \$283 million (6.5%) higher than forecasted in September

GF-S revenue collections from the Department of Revenue (DOR) and the Washington court system are tracked monthly. In the period since the September forecast, total revenue from the above sources came in \$282.8 million (6.5%) higher than expected (see Table 3.2). Revenue Act collections reported by the DOR were \$313.8 million (8.5%) higher than forecasted and revenue from other DOR tax sources was \$32.7 million (5.0%) less than forecasted.

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

<u>Agency/Source</u>	<u>Collection Variance</u>	<u>Percent of Estimate</u>
Department of Revenue		
Revenue Act	\$313.8	8.5%
Non-Revenue Act	(\$32.7)	-5.0%
Subtotal	\$281.1	6.5%
Washington court system	\$1.8	34.0%
Total*	\$282.8	6.5%

* Detail may not add to total due to rounding.

Source: ERFC; Period: September 11 - November 10, 2022

Non-Revenue Act tax collections were lower than forecasted

Property tax collections came in \$17.9 million (15.1%) lower than forecasted. Real estate excise tax (REET) came in \$1.8 million (0.8%) lower than forecasted. Cigarette tax collections came in \$1.7 million (3.2%) lower than forecasted, while liquor sales and liter tax receipts came in \$4.3 million (8.0%) higher than forecasted. Net transfers of unclaimed property into the GF-S were \$21.6 million (12.6% lower than forecasted). Revenue from all other DOR revenue sources came in \$6.0 million (20.8%) higher than forecasted. Revenue from the Washington court system was \$1.8 million (34.0%) higher than forecasted.

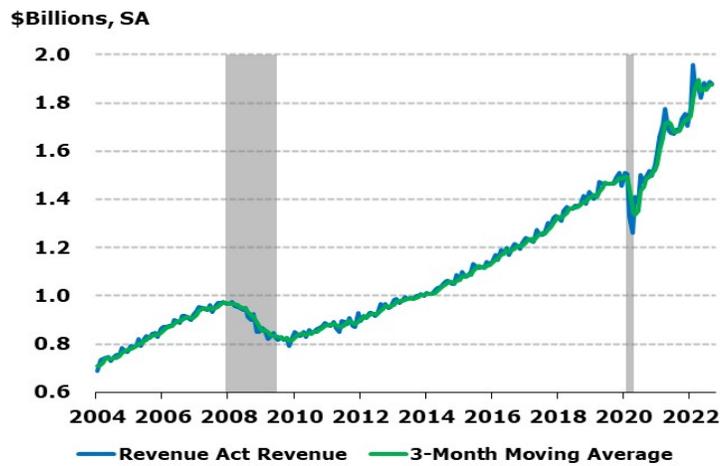
Adjusted Revenue Act collections were up 11.3% year over year for third quarter 2022 activity after 8.5% year over year growth for second quarter activity

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 during the early months of the pandemic, with a peak decline of 14.8% year over year in the May 11-June 10 collection period (April activity). Collections then recovered, and exceptional growth began in the spring of 2021. Adjusted year-over-year collections representing first quarter 2021 activity grew 14.6% year over year and collections representing second

quarter 2021 activity grew 26.0% year over year. Adjusted collections representing third quarter 2021 activity were up 13.9% year over year and collections representing fourth quarter 2021 activity were up 13.1%. Adjusted collections for first quarter 2022 activity were up 12.4% year over year and adjusted collections for second quarter 2022 activity (May 11 - August 10 collections) were up 8.5% year over year. Adjusted collections for third quarter 2022 activity (August 11 - November 10 collections) were up 11.3% year over year. Adjusted collections for August 2022 activity were up 11.8% year over year and collections for September 2022 activity were up 12.0% year over year.

Figure 3.2: Revenue Act Collections*

Year-over-year collections growth remained high in August and September



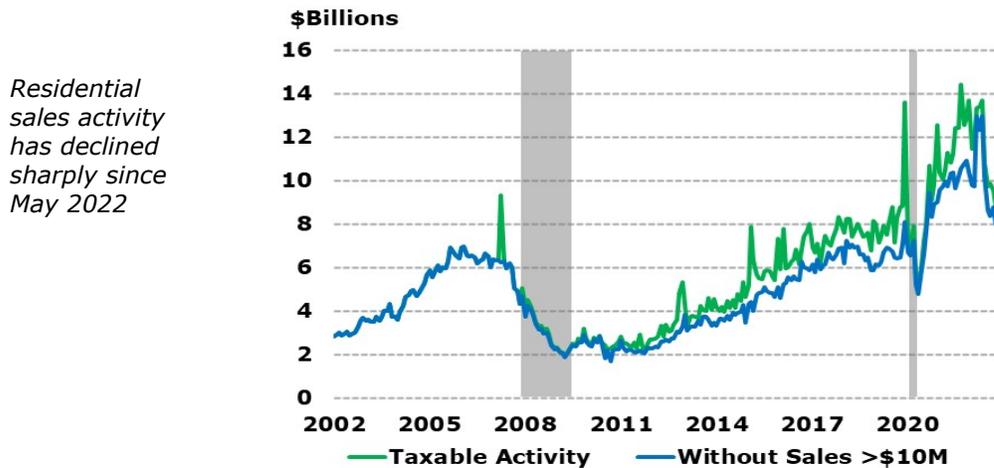
Source: ERFC; Data through November 10, 2022

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

Real estate activity was slightly lower than expected in September

Taxable real estate activity was only slightly below the September forecast. Sales of property valued below \$10 million continued to decline (see Figure 3.3). While most of the decrease in activity has been due to a drop in the number of transactions, the price per transaction has started to decline as well. While large commercial sales (sales greater than \$10 million) are down from their high levels of last year, they remain moderately strong, averaging \$1.1 billion per month over the last three months.

Figure 3.3: Taxable Real Estate Excise Activity, SA



Residential sales activity has declined sharply since May 2022

Source: ERFC; data through October 2022

General Fund-State Revenue Forecast by Source

The GF-S is the largest of the funds subject to the budget outlook

The General Fund-State (GF-S) is the largest of the funds subject to the budget outlook, consisting of most of the commonly paid state taxes. The history and forecast 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 2021-23 biennium can be found in Table 3.5 (cash) and Table 3.6 (GAAP). Forecast changes for the 2023-25 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 2025 can be found in Table 3.9.

Department of Revenue

Taxes collected by DOR are most of GF-S taxes

The Department of Revenue (DOR) collects and administers most of Washington's GF-S revenue, accounting for 95.3% of total GF-S revenue in FY 2021. 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 46.6% of GF-S revenue in FY 2022. 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. As can be seen in Figure 3.4, taxable sales as a share of personal income has long been on a declining trend. The share fell even more sharply than the previous trend from the 2008 recession through FY 2012. In that year, 34.0% 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 extended the tax to bottled water and online sales caused a continued increase in the ratio. The COVID-19-related collapse in late FY 2020, coupled with federal emergency income support, caused the ratio of sales to income to dip in FY 2020. In the last months of FY 2020 and continuing into FY 2021, however, the trend of increasing purchases of nontaxable services reversed due to pandemic-related shutdowns of services and stimulus payments to households. With the limited availability of services, consumers opted to buy goods. Car sales and construction activity also increased. These trends have continued into FY 2022, which, coupled with a slowdown in FY 2022 income growth after the stimulus-boosted income levels of FY 2021, brought the ratio of sales to income to a peak of 38.2%. After FY 2022, the ratio is forecasted to continue its historical downward trend through FY 2027. Forecasted and historical 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 historically



*Past tax base adjusted to represent current base. Gray shaded area indicates recession, blue shaded area indicates forecast.
Source: ERFC; Data through FY 2022, forecast through FY 2027

Retail sales tax receipt growth forecast:

- FY23: 5.9%
- FY24: 0.7%
- FY25: 4.0%
- FY26: 3.4%
- FY27: 3.4%

Growth in FY 2019 taxable activity was relatively strong at 7.6%. Taxable activity growth slowed to 1.0% in FY 2020 due to pandemic-related shutdowns in the latter part of the year, but then rebounded by 11.1% in FY 2021 and 11.2% in FY 2022, supported by rising inflation. Growth is forecasted at 5.9% in FY 2023 but slows to 2.2% in FY 2024. Growth is forecasted at 3.7% in FY 2025 and 3.4% in FY 2026 and FY 2027 (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 2020 was 1.7% and growth in FY 2021 was 10.3%. Collections increased by 12.4% in FY 2022, boosted by several large payments of past-due taxes and one large early payment of deferred taxes. Collections are forecasted to increase by 5.9% in FY 2023, 0.7% in FY 2024, 4.0% in FY 2025 and 3.4% in FY 2026 and FY 2027.

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 18.9% of GF-S revenue in FY 2022. 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 2021, 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 45% 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:

*FY23: 8.1%
FY24: 0.6%
FY25: 4.5%
FY26: 4.7%
FY27: 4.2%*

In FY 2019, B&O tax receipts grew by 6.9%. Despite a second quarter collapse in activity, FY 2020 growth remained positive at 3.6% followed by growth of 7.9% in FY 2021. Collections grew 14.5% in FY 2022 due to both strong activity and the receipt of several large one-time payments of past-due taxes. Continued strong growth of 8.1% is forecasted in FY 2023, falling to 0.6% in FY 2024. Growth is forecasted at 4.5% in FY 2025, 4.7% in FY 2026 and 4.2% in FY 2027.

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 14.7% of total revenue in FY 2022. 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:

*FY23: 1.8%
FY24: 2.6%
FY25: 2.4%
FY26: 2.4%
FY27: 2.4%*

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 collections grew by 27.3% due to a full year of collections at the unreduced levy rate along with the collection of some taxes that would have been collected in FY 2020 but were instead deferred due to the pandemic. Absent the extra payments from deferrals, growth slowed to

0.4% in FY 2022. Growth is expected to increase to 1.8% in FY 2023, 2.6% in FY 2024 and 2.4% in FY 2025 through FY 2027. Growth in property tax levies excluding new construction is once again restricted to the lesser of one percent per year or the rate of inflation beginning with the calendar year 2022 levy.

REET rates and distributions changed on January 1, 2020

The real estate excise tax (REET) was the fourth largest DOR source of GF-S revenue in FY 2022, accounting for 6.6% 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, 2020 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 Public Works 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:

*FY23: -40.7%
FY24: -11.8%
FY25: 16.5%
FY26: 5.0%
FY27: 12.3%*

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 FY 2020, residential sales remained strong, and commercial sales surged in December 2019 ahead of the January 1, 2020 change in tax rates. The COVID-induced real estate market downturn that began with April 2020 collections, however, brought a total decline of 0.7% in FY 2020. Sales then began to boom in July 2020, with strength in both the residential and commercial markets, bringing collections growth of 34.4% in FY 2021 and 35.9% in FY 2022. Due to the forecasted increase in mortgage rates and unaffordable high prices in many areas, both the number of transactions and prices are expected to fall, bringing a decline in REET receipts of 40.7% in FY 2023 and 11.8% in FY 2024. Growth is then expected to resume at 16.5% in FY 2025, 5.0% in FY 2026 and 12.3% in FY 2027.

Use tax was the fifth largest DOR GF-S source in FY 2021

The state use tax was the fifth largest DOR GF-S revenue source in FY 2022 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:

FY23: 2.2%
FY24: -2.9%
FY25: 3.9%
FY26: 4.3%
FY27: 4.2%

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 increased by 16.1% in FY 2021 and 7.4% in FY 2022 due to record high used car sales. Used car sales are expected to moderate in FY 2023, with use tax growth of 2.2%, and decline in FY 2024, causing total use tax to shrink by 2.9%. Growth in total receipts then continues at 3.9% in FY 2025, 4.3% in FY 2026 and 4.2% in FY 2027.

Public utility taxes were the sixth largest DOR GF-S source in FY 2021

Public utility taxes were the sixth largest DOR source of GF-S revenue in FY 2022, bringing in 1.6% 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:

FY23: 12.2%
FY24: -0.2%
FY25: 1.0%
FY26: 2.0%
FY27: 2.8%

Public utility tax receipts grew by 0.3% in FY 2020. The expiration of a large tax credit plus growth in natural gas and electricity use increased collections by 4.2% in FY 2021. The resumption of business activities plus increases in utility prices boosted growth to 16.3% in FY 2022. Further increases in utility prices, led by increased prices for natural gas, is expected to bring growth of 12.2% in FY 2023. Natural gas prices are then expected to decrease, causing collections to decrease by 0.2% in FY 2024 before growing by 1.0% in FY 2025, 2.0% in FY 2026 and 2.8% in FY 2027.

Taxes on sales of spirits were the seventh largest DOR GF-S source in FY 2021

State taxes on sales of spirits were the seventh largest DOR GF-S revenue source in FY 2022 at 1.2% of total receipts. Spirits sales are taxed by both volume and price. The total tax rate by volume is \$3.7708 per liter. Liter tax receipts are deposited wholly into the GF-S. The price-based spirits tax is split between the GF-S (65% of receipts) and the Liquor Excise Tax fund (35% of receipts). The overall tax rate on sales to consumers is 20.5% of the sales price and the overall rate on sales to restaurant licensees is 13.7%.

Spirits tax growth forecast:

FY23: 0.2%
FY24: -1.6%
FY25: 0.6%
FY26: 1.0%
FY27: 1.5%

Total tax collections on spirits sales grew 5.2% in FY 2019. During the pandemic, spirit sales increased, with total tax collections growing by 8.2% FY 2020 and 9.9% in FY 2021. Collections increased a further 1.8% in FY 2022 and are expected to increase by 0.2% in FY 2023. Collections are then forecasted to decrease by 1.6% in FY 2024 before returning to growth of 0.6% in FY 2025, 1.0% in FY 2026 and 1.5% in FY 2027.

The cigarette tax was the eighth largest DOR GF-S source in FY 2021

The state tax on cigarettes was the eighth largest DOR GF-S revenue source in FY 2022 at 1.0% 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:

*FY23: -6.0%
FY24: -1.2%
FY25: -3.8%
FY26: -3.3%
FY27: -3.1%*

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 increased. 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. Collections declined 2.4% in FY 2021 and 2.1% in FY 2022. Collections are now expected to decline by 6.0% in FY 2023, 1.2% in FY 2024 and 3.8% in FY 2025. Collections are expected to decline by 3.3% in FY 2026 and 3.1% in FY 2027.

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. After 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 (LCB) 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):

*21-23: -\$5.6
23-25: -\$7.1
25-27: -\$6.0*

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 and \$361.0 million in the 2019-21 biennium. The forecast of GF-S distributions for the 2021-23 biennium has been decreased \$5.6 million to \$327.1 million and the forecast for the 2023-25 biennium has been decreased \$7.1 million to \$330.0 million. The forecast of GF-S distributions for the 2025-27 biennium has been decreased \$6.0 million to \$352.3 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):

21-23: \$7.9
23-25: \$7.9
25-27: \$4.6

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 2021-23 biennium was increased \$7.9 million to \$106.8 million. The forecast of revenue for the 2023-25 biennium was also increased \$7.9 million to \$10.7 million and the forecast for the 2025-27 biennium was increased \$4.6 million to -\$93.0 million. The negative number for the 2025-27 biennium indicates that more funds will be transferred out of the GF-S by the agencies overseen by the OFM than will be transferred into the GF-S from those agencies.

State Treasurer

Forecast change by biennium (millions):

21-23: \$29.4
23-25: \$188.8
25-27: \$132.7

The Office of the State Treasurer generates GF-S revenue by investing state short-term cash reserves. The forecast of GF-S revenue for the 2021-23 biennium has been increased \$29.4 million to \$206.7 million and the forecast of revenue for the 2023-25 biennium has been increased \$188.8 million to \$463.4 million. The forecast of GF-S revenue for the 2025-27 biennium has been increased \$132.7 million to \$354.1 million. The increases were mainly due to a forecasted rise in interest rates.

Insurance Commissioner

Forecast change by biennium (millions):

21-23: -\$2.1
23-25: -\$12.1
25-27: -\$13.6

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 2021-23 biennium has been decreased \$2.1 million to \$1,564.0 million and the forecast for the 2023-25 biennium has been decreased \$12.1 million to \$1,581.5 million. The forecast of GF-S revenue for the 2025-27 biennium has been decreased \$13.6 million to \$1,646.1 million.

Liquor and Cannabis Board

Forecast change by biennium (millions):

21-23: \$4.0
23-25: -\$11.2
25-27: -\$9.0

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 2021-23 biennium has been

increased \$4.0 million to \$674.7 million. The forecast for the 2023-25 biennium has been decreased \$11.2 million to \$665.2 million and the forecast of GF-S distributions for the 2025-27 biennium has been decreased \$9.0 million to \$695.3 million.

Lottery Commission

GF-S forecast change by biennium (millions):

21-23: \$0.2
23-25: \$14.2
25-27: \$0.7

While most of the proceeds from sales of lottery games go to the Washington Opportunity Pathways Account (OPA), distributions are also made to the Problem Gambling and Economic Development accounts. 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. 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. The forecast of GF-S transfers for the 2021-23 biennium has been increased \$0.2 million to \$62.3 million and the forecast for the 2023-25 biennium has been increased \$14.2 million to \$72.3 million. The forecast of GF-S transfers for the 2025-27 biennium is has been increased \$0.7 million to \$60.4 million.

Washington Court System

Forecast change by biennium (millions):

21-23: \$1.6
23-25: \$0.8
25-27: \$0.0

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 2021-23 biennium has been increased \$1.6 million to \$80.9 million and the forecast for the 2023-25 biennium has been increased \$0.8 million to \$69.6 million. The forecast of transfers for the 2025-27 biennium is unchanged at \$64.8 million.

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.

Alternative Forecasts for the 2021-23 and 2023-25 Biennia

Optimistic scenario (billions):

21-23: +\$1.16
23-25: +\$4.33

Pessimistic scenario (billions):

21-23: -\$1.36
23-25: -\$5.31

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, 15% to the optimistic scenario and 35% to the pessimistic scenario. The revenue implications of these alternative scenarios for the 2021-23 biennium are shown in Table 3.13 and those of the 2023-25 biennium are shown in Table 3.14. For the 2021-23 biennium, the optimistic forecast generates \$61.944 billion in GF-S revenue, \$1.165 billion (1.9%) more than the baseline scenario, while the pessimistic forecast produces \$59.419 billion in revenue, \$1.360 billion (2.2%) less than the baseline. For the 2021-23 biennium, the optimistic forecast generates \$67.295 billion in GF-S revenue, \$4.328 billion (6.9%) more than the baseline scenario, while the pessimistic forecast produces \$57.655 billion in revenue, \$5.311 billion (8.4%) less than the baseline.

Washington Opportunity Pathways Account

OPA forecast change by biennium (millions):

21-23: \$15.9
23-25: -\$6.4
25-27: -\$4.4

The Washington Opportunity Pathways Account (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 2021-23 biennium has been increased \$15.9 million to \$376.1 million due to higher-than-expected lottery sales. The forecast of OPA revenue for the 2023-25 biennium has been decreased \$6.4 million to \$340.5 million and the forecast for the 2025-27 biennium has been decreased \$4.4 million to \$345.0 million.

Education Legacy Trust Account

ELTA forecast change by biennium (millions):

21-23: \$196.3
23-25: -\$2.3
25-27: \$54.5

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 from FY 2016 – FY 2023 and a transfer of \$935 million from the additional property tax levy to the account in FY 2019. Forecasted revenue was further increased in the

2021 legislative session by ESSB 5096, which establishes a tax on certain transactions that produce capital gains above \$250,000. The forecast of ELTA revenue has been increased by \$196.3 million for the 2021-23 biennium due to higher-than-expected estate tax receipts. The forecast has been reduced by \$2.3 million for the 2023-25 biennium, with increased estate tax receipts outweighed by reduced REET receipts, but increased by \$54.5 million for the 2025-27 biennium due to increased capital gains and estate tax collections. Forecasted ELTA receipts are now \$2,045.4 million for the 2021-23 biennium, \$2,084.7 million for the 2023-25 biennium and \$2,386.0 million for the 2025-27 biennium.

Workforce Education Investment Account

WEIA forecast change by biennium (millions):

21-23: \$4.7
23-25: \$6.2
25-27: \$10.2

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 \$4.7 million in the 2021-23 biennium, \$6.2 million in the 2023-25 biennium and \$10.2 million in the 2025-27 biennium. WEIA revenue is now forecasted at \$751.5 million in the 2021-23 biennium, \$793.5 million in the 2023-25 biennium and \$843.8 million in the 2025-27 biennium. The WEIA forecast by fiscal year is presented in Table 3.19.

Budgetary Balance Sheet for the 2021-23 Biennium

The forecast implies total reserves of \$5.579 billion at the end of the 2021-23 biennium for GF-S, ELTA, OPA and WEIA

Table 3.12 shows the budgetary balance sheet for the 2021-23 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 2021-23 biennium was

\$3,673.7 million and the total beginning balance for GF-S, ELTA, OPA and WEIA combined was \$4,160.7 million. Based on the current enacted budget, the balance sheet projects total GF-S reserves of \$5,151.7 million at the end for the 2021-23 biennium and total reserves for the GF-S, ELTA, OPA and WEIA accounts of \$5,579.1 million.

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

<u>Biennium</u>	<u>Current Dollars</u>	<u>Percent Change</u>	2012 <u>Chained Dollars</u>	<u>Percent Change</u>
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%	8,287.6	24.5%
1971-73	1,922.1	10.9%	8,506.9	2.6%
1973-75	2,372.4	23.4%	9,071.9	6.6%
1975-77	3,395.0	43.1%	11,293.8	24.5%
1977-79	4,490.0	32.3%	13,117.2	16.1%
1979-81	5,356.4	19.3%	13,016.1	-0.8%
1981-83	6,801.4	27.0%	14,382.4	10.5%
1983-85	8,202.4	20.6%	16,006.5	11.3%
1985-87	9,574.6	16.7%	17,638.7	10.2%
1987-89	10,934.1	14.2%	18,811.9	6.7%
1989-91	13,309.0	21.7%	21,088.0	12.1%
1991-93	14,862.2	11.7%	22,155.5	5.1%
1993-95	16,564.6	11.5%	23,593.5	6.5%
1995-97	17,637.7	6.5%	24,106.2	2.2%
1997-99	19,620.1	11.2%	26,113.3	8.3%
1999-01	21,262.1	8.4%	27,233.5	4.3%
2001-03	21,140.7	-0.6%	26,166.2	-3.9%
2003-05	23,388.5	10.6%	27,699.2	5.9%
2005-07	27,772.0	18.7%	31,098.9	12.3%
2007-09	27,703.0	-0.2%	29,596.4	-4.8%
2009-11	28,218.1	1.9%	29,411.6	-0.6%
2011-13	30,657.0	8.6%	30,677.3	4.3%
2013-15	33,666.0	9.8%	32,817.7	7.0%
2015-17	38,317.4	13.8%	36,733.2	11.9%
2017-19	44,142.6	15.2%	40,813.8	11.1%
2019-21	50,803.4	15.1%	45,511.0	11.5%
2021-23 ^F	60,779.3	19.6%	49,651.8	9.1%
2023-25 ^F	62,966.3	3.6%	48,416.8	-2.5%
2025-27 ^F	67,308.0	6.9%	49,901.8	3.1%

^F November 2022 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 November 2022 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	196,651	11.1%
2022	218,633	11.2%
2023 ^F	227,494	4.1%
2024 ^F	232,532	2.2%
2025 ^F	241,198	3.7%
2026 ^F	249,282	3.4%
2027 ^F	257,788	3.4%

^F November 2022 forecast

Source: ERFC

* 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

2021-23 biennium; cash basis

(millions of dollars)

Forecast by Agency	Sept 2022 Forecast¹	Legislative Changes	Forecast Revision	Nov 2022 Forecast²	Total Change
Department of Revenue					
Retail Sales	\$28,558.6	\$0.0	\$263.4	\$28,822.0	\$263.4
Business & Occupation	11,495.4	0.0	317.0	11,812.4	317.0
Use	1,772.0	0.0	42.0	1,814.0	42.0
Public Utility	1,032.0	0.0	0.9	1,032.9	0.9
Liquor Sales/Liter	690.5	0.0	7.2	697.8	7.2
Cigarette	603.4	0.0	(1.2)	602.2	(1.2)
Property (State Levy)	8,946.0	0.0	(12.9)	8,933.1	(12.9)
Real Estate Excise	3,263.1	0.0	(104.4)	3,158.7	(104.4)
Timber Excise	7.2	0.0	0.0	7.2	0.0
Other	1,212.3	0.0	(8.6)	1,203.6	(8.6)
Subtotal	57,580.4	0.0	503.6	58,083.9	503.6
Insurance Commissioner					
Insurance Premiums	1,566.1	0.0	(2.1)	1,564.0	(2.1)
Liquor Control Board					
Fees, Cannabis Excise Tax	612.4	0.0	5.3	617.7	5.3
Beer & Wine Surtax	58.3	0.0	(1.3)	57.0	(1.3)
Lottery Commission					
Lottery Revenue	62.1	0.0	0.2	62.3	0.2
State Treasurer					
Interest Earnings	177.3	0.0	29.4	206.7	29.4
Office of Financial Management					
Other Agencies	98.9	0.0	7.9	106.8	7.9
Washington Court System					
Court Fees, Fines & Forfeitures	79.3	0.0	1.6	80.9	1.6
Total General Fund-State *	\$60,234.7	\$0.0	\$544.6	\$60,779.3	\$544.6

¹ Forecast for the 2021-23 biennium adopted by the Economic and Revenue Forecast Council September 21, 2022² Forecast for the 2021-23 biennium, adopted November 18, 2022

*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 3.6

Comparison of the General Fund-State forecast by agency

2021-23 biennium; GAAP basis

(millions of dollars)

Forecast by Agency	Sept 2022 Forecast¹	Legislative Changes	Forecast Revision	Nov 2022 Forecast²	Total Change
Department of Revenue					
Retail Sales	\$28,697.4	\$0.0	\$263.4	\$28,960.8	\$263.4
Business & Occupation	11,589.1	0.0	317.0	11,906.0	317.0
Use	1,791.5	0.0	42.0	1,833.5	42.0
Public Utility	1,035.3	0.0	0.9	1,036.2	0.9
Liquor Sales/Liter	696.1	0.0	14.3	710.5	14.3
Cigarette	595.4	0.0	(1.2)	594.3	(1.2)
Property (State Levy)	8,895.7	0.0	(12.9)	8,882.9	(12.9)
Real Estate Excise	3,267.1	0.0	(104.4)	3,162.7	(104.4)
Timber Excise	7.3	0.0	0.0	7.3	0.0
Other	1,224.0	0.0	(8.6)	1,215.4	(8.6)
Subtotal	57,798.9	0.0	510.7	58,309.6	510.7
Insurance Commissioner					
Insurance Premiums	1,566.1	0.0	(2.1)	1,564.0	(2.1)
Liquor Control Board					
Fees, Cannabis Excise Tax	612.4	0.0	5.3	617.7	5.3
Beer & Wine Surtax	58.3	0.0	(1.3)	57.0	(1.3)
Lottery Commission					
Lottery Revenue	62.7	0.0	13.9	76.6	13.9
State Treasurer					
Interest Earnings	187.3	0.0	33.7	221.0	33.7
Office of Financial Management					
Other Agencies	98.9	0.0	7.9	106.8	7.9
Washington Court System					
Court Fees, Fines & Forfeitures	79.3	0.0	1.6	80.9	1.6
Total General Fund-State *	\$60,464.0	\$0.0	\$569.6	\$61,033.6	\$569.6

¹ Forecast for the 2021-23 biennium adopted by the Economic and Revenue Forecast Council September 21, 2022² Forecast for the 2021-23 biennium, adopted November 18, 2022

*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 3.7

Comparison of the General Fund-State forecast by agency

2023-25 biennium; cash basis

(millions of dollars)

Forecast by Agency	Sept 2022 Forecast¹	Legislative Changes	Forecast Revision	Nov 2022 Forecast²	Total Change
Department of Revenue					
Retail Sales	\$30,257.0	\$0.0	\$194.9	\$30,451.9	\$194.9
Business & Occupation	12,151.4		467.6	12,619.0	467.6
Use	1,772.9	0.0	43.0	1,815.9	43.0
Public Utility	1,068.3	0.0	27.5	1,095.8	27.5
Liquor Sales/Liter	687.3	0.0	2.2	689.6	2.2
Cigarette	565.7	0.0	(0.1)	565.6	(0.1)
Property (State Levy)	9,388.8	0.0	(31.4)	9,357.5	(31.4)
Real Estate Excise	2,474.5		(228.1)	2,246.4	(228.1)
Timber Excise	2.8	0.0	0.1	2.9	0.1
Other	1,239.6		19.5	1,259.1	19.5
Subtotal	59,608.4	0.0	495.2	60,103.7	495.2
Insurance Commissioner					
Insurance Premiums	1,593.5	0.0	(12.1)	1,581.5	(12.1)
Liquor Control Board					
Fees, Cannabis Excise Tax	617.1	0.0	(9.7)	607.4	(9.7)
Beer & Wine Surtax	59.4	0.0	(1.5)	57.9	(1.5)
Lottery Commission					
Lottery Revenue	58.1	0.0	14.2	72.3	14.2
State Treasurer					
Interest Earnings	274.6	0.0	188.8	463.4	188.8
Office of Financial Management					
Other Agencies	2.7	0.0	7.9	10.7	7.9
Washington Court System					
Court Fees, Fines & Forfeitures	68.8	0.0	0.8	69.6	0.8
Total General Fund-State *	\$62,282.6	\$0.0	\$683.7	\$62,966.3	\$683.7

¹ Forecast for the 2023-25 biennium adopted by the Economic and Revenue Forecast Council September 21, 2022

² Forecast for the 2023-25 biennium, adopted November 18, 2022

*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

2023-25 biennium; GAAP basis

(millions of dollars)

Forecast by Agency	Sept 2022 Forecast¹	Legislative Changes	Forecast Revision	Nov 2022 Forecast²	Total Change
Department of Revenue					
Retail Sales	\$30,257.0	\$0.0	\$194.9	\$30,451.9	\$194.9
Business & Occupation	12,151.4	0.0	467.6	12,619.0	467.6
Use	1,772.9	0.0	43.0	1,815.9	43.0
Public Utility	1,068.3	0.0	27.5	1,095.8	27.5
Liquor Sales/Liter	687.3	0.0	2.2	689.6	2.2
Cigarette	565.7	0.0	(0.1)	565.6	(0.1)
Property (State Levy)	9,388.8	0.0	(31.4)	9,357.5	(31.4)
Real Estate Excise	2,474.5	0.0	(228.1)	2,246.4	(228.1)
Timber Excise	3.2	0.0	0.1	3.3	0.1
Other	1,239.6	0.0	19.5	1,259.1	19.5
Subtotal	59,608.8	0.0	495.2	60,104.0	495.2
Insurance Commissioner					
Insurance Premiums	1,593.5	0.0	(12.1)	1,581.5	(12.1)
Liquor Control Board					
Fees, Cannabis Excise Tax	617.1	0.0	(9.7)	607.4	(9.7)
Beer & Wine Surtax	59.4	0.0	(1.5)	57.9	(1.5)
Lottery Commission					
Lottery Revenue	58.3	0.0	0.5	58.8	0.5
State Treasurer					
Interest Earnings	273.3	0.0	194.7	468.0	194.7
Office of Financial Management					
Other Agencies	2.7	0.0	7.9	10.7	7.9
Washington Court System					
Court Fees, Fines & Forfeitures	68.8	0.0	0.8	69.6	0.8
Total General Fund-State *	\$62,281.9	\$0.0	\$676.0	\$62,957.8	\$676.0

¹ Forecast for the 2023-25 biennium adopted by the Economic and Revenue Forecast Council September 21, 2022

² Forecast for the 2023-25 biennium, adopted November 18, 2022

*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

**November 2022 General Fund-State forecast detail
2021-23 to 2025-27 Biennia; Cash Basis**
(Millions of Dollars)

Forecast by Source	Fiscal 2022	Fiscal 2023	2021-23 Biennium	Fiscal 2024	Fiscal 2025	2023-25 Biennium	Fiscal 2026	Fiscal 2027	2025-27 Biennium
State Taxes									
Retail sales**	\$14,001.0	\$14,821.0	\$28,822.0	\$14,930.8	\$15,521.1	\$30,451.9	\$16,051.1	\$16,593.0	\$32,644.1
Business & occupation Use**	5,677.3	6,135.0	11,812.4	6,172.0	6,447.0	12,619.0	6,746.9	7,027.5	13,774.4
Public Utility	486.7	546.2	1,032.9	545.2	550.6	1,095.8	561.8	577.5	1,139.3
Liquor sales/liter	348.5	349.3	697.8	343.8	345.8	689.6	349.1	354.3	703.4
Beer & wine surtax	28.9	28.1	57.0	28.8	29.0	57.9	29.2	29.4	58.6
Cigarette	318.9	300.0	618.8	296.5	285.7	582.2	276.6	268.4	545.0
Tobacco products	45.9	52.3	98.2	51.7	51.6	103.3	51.6	51.5	103.1
Cannabis Excise Taxes	173.0	146.0	319.0	158.0	163.6	321.7	169.1	174.8	343.9
Property (state school levy)	4,426.9	4,506.2	8,933.1	4,622.7	4,734.8	9,357.5	4,847.8	4,965.0	9,812.8
Leasehold Excise Tax	40.7	33.7	74.4	38.0	38.8	76.8	39.5	40.2	79.7
Public utility district	59.6	61.6	121.2	63.6	65.4	129.1	66.9	68.4	135.3
Brokered Natural Gas	40.7	43.3	84.0	43.5	44.0	87.5	44.5	45.1	89.6
Real estate excise***	1,982.9	1,175.8	3,158.7	1,037.6	1,208.8	2,246.4	1,269.6	1,425.1	2,694.7
Timber excise	5.5	1.7	7.2	1.4	1.5	2.9	1.6	1.7	3.3
Estate/inheritance	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Boat excise	18.4	13.2	31.6	13.3	13.3	26.6	13.4	13.5	26.9
Insurance premiums	784.5	779.5	1,564.0	782.3	799.1	1,581.5	815.1	831.0	1,646.1
Penalties and interest on past due taxes	118.0	176.7	294.8	156.7	163.9	320.5	170.6	177.5	348.1
Other	62.2	56.7	118.8	57.4	58.3	115.7	59.3	64.7	124.0
Total Taxes	29,516.8	30,143.2	59,660.0	30,234.1	31,447.6	61,681.7	32,528.7	33,713.7	66,242.4
State Non-Tax Sources									
Licenses, permits, fees	180.9	184.1	365.0	185.5	186.9	372.4	188.9	190.8	379.7
Liquor & Cannabis fees	160.9	137.8	298.7	141.8	143.9	285.7	145.0	147.9	292.9
Earnings on investments	36.7	170.0	206.7	227.9	235.4	463.4	185.1	169.0	354.1
Washington Court System	42.7	38.3	80.9	35.5	34.1	69.6	32.9	31.9	64.8
Transfers of unclaimed property	154.3	157.9	312.2	157.8	157.8	315.6	159.1	160.5	319.6
Other revenue & transfers	(62.6)	(81.7)	(144.3)	(87.4)	(134.6)	(222.0)	(166.5)	(178.8)	(345.4)
Total Non-Tax	512.9	606.4	1,119.3	661.3	623.4	1,284.7	544.4	521.3	1,065.6
Total General Fund-State *	\$30,029.7	\$30,749.7	\$60,779.3	\$30,895.4	\$32,071.0	\$62,966.3	\$33,073.1	\$34,235.0	\$67,308.0

* 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 2021-23 biennial forecast of funds subject to the budget outlook

February 2018 through November 2022

Cash Basis - Millions of Dollars

Date of Forecast	General Fund-State	Education Legacy Trust Acct.	Washington Opportunity Pathways Acct.	Workforce Education Investment Acct.	Subtotal	Non- economic changes	Total change	Total of funds
February 2018*	\$51,932	\$593	\$266	NA				\$52,790
Changes to Forecast								
June 2018	357	26	4	NA	387	(7) #1	380	53,170
September 2018	249	94	27	NA	369	46 #2	415	53,585
November 2018	201	2	7	NA	209	0	209	53,795
March 2019	369	0	5	NA	374	190 #3	564	54,358
June 2019	64	5	3	NA	73	605 #4	678	55,036
September 2019	(79)	21	(5)	NA	(63)	0	(63)	54,973
November 2019	175	(2)	8	NA	181	0	181	55,154
February 2020	512	25	(1)	NA	536	627 #5	1,163	56,317
June 2020	(4,570)	6	8	(56)	(4,612)	213 #6	(4,399)	51,919
September 2020	2,246	149	(5)	30	2,419	0	2,419	54,338
November 2020	297	22	6	4	328	0	328	54,666
March 2021	1,894	24	10	21	1,949	0	1,949	56,615
June 2021	1,340	6	18	35	1,399	399 #7	1,798	58,413
September 2021	845	73	1	8	927	0	927	59,341
November 2021	994	(179)	5	10	829	69 #8	898	60,238
February 2022	1,400	56	(10)	6	1,453	0	1,453	61,691
June 2022	1,392	80	(2)	83	1,552	(95) #9	1,457	63,147
September 2022	46	27	18	(19)	72	(29) #10	43	63,191
November 2022	545	196	16	5	761	0	761	63,952
Total change:								
From February 2018**	8,277	630	111	125	9,144	2,018	11,162	
Percent change	15.9	106.4	41.8	20.0	17.3	3.8	21.1	
Change in forecast since initial 2123 biennial budget***								
	6,562	259	46	127	6,994	-55	6,938	
Percent change	12.1	14.5	13.9	20.2	12.3	-0.1	12.2	

Table 3.11

Track Record for the 2023-25 Forecast of Funds Subject to the Budget Outlook

February 2020 through November 2022

Cash Basis - Millions of Dollars

Date of Forecast	General Fund-State	Education Legacy Trust Acct.	Washington Opportunity Pathways Acct.	Workforce Education Investment Acct.	Subtotal	Non- Economic Changes	Total Change	Total of Funds
February 2020*	\$57,930	\$925	\$321	\$667				\$59,843
Changes to Forecast								
June 2020	(4,682)	(9)	8	(3)	(4,685)	209 #6	(4,476)	55,367
September 2020	2,460	125	(7)	35	2,612	0	2,612	57,979
November 2020	16	14	2	(4)	28	0	28	58,007
March 2021	1,846	17	10	25	1,899	0	1,899	59,906
June 2021	1,419	(6)	16	7	1,436	810 #7	2,246	62,151
September 2021	891	31	(1)	9	931	0	931	63,082
November 2021	828	(44)	5	11	800	165 #8	965	64,047
February 2022	1,311	2	2	5	1,320	0	1,320	65,368
June 2022	1,036	21	(1)	55	1,112	(480) #9	632	65,999
September 2022	(332)	(18)	(8)	(21)	(378)	(117) #10	-495	65,504
November 2022	684	(2)	(6)	6	681	0	681	66,185
Total change:								
From February 2020	5,477	132	20	126	5,755	587	6,342	
Percent change	9.5	14.3	6.3	18.9	9.6	1.0	10.6	

*First official forecast for the 2021-23 biennium

**Change in Workforce Education Investment Account forecast represents change from the initial fiscal note estimate of \$627 million first recorded in February 2020 forecast

***Resources for the initial 2021-23 budget include forecasted March 2021 revenue plus legislative revenue changes from 2021 session subsequent to the March forecast

#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 Establishment of Workforce Education Investment Account

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

#7 Legislative and budget-driven revenue changes from the 2021 legislative session

#8 Addition of financial services tax to forecast after court approval and expected refunds from DOR rule change on apportionment

#9 Legislative and budget-driven revenue changes from the 2022 legislative session

#10 July 2022 BTA decision that allows machinery and equipment sales tax exemption for R&D equipment purchases

Table 3.12

2021-23 Enacted Budget Balance Sheet
General Fund-State (GFS), Education Legacy Trust Account (ELTA),
Washington Opportunity Pathways Account (OPA),
Workforce Education Investment Account (WEIA), Fair Start for Kids Account (FSKA),
Budget Stabilization Account (BSA) and Washington Rescue Plan Transition Account
Dollars in Millions

	2021-23		
	GFS	ELTA , OPA, WEIA, FSKA*	TOTAL
RESOURCES			
Beginning Fund Balance	3,673.7	487.0	4,160.7
September 2022 Revenue Forecast	60,234.7	2,956.0	63,190.8
November 2022 Revenue Forecast Change	544.6	216.8	761.5
Current Revenue Totals	60,779.3	3,172.9	63,952.2
Transfer to Budget Stabilization Account (1% of GSR)	(603.8)		(603.8)
Transfer to Budget Stabilization Account (EGSR)**	-		-
Enacted Fund Transfers	(1,181.6)	-	(1,181.6)
ACFR Adjustments	9.4	(33.7)	(24.3)
Actual/Assumed Prior Period Adjustments	79.8	0.2	80.0
Total Resources (Including Beginning Fund Balance)	62,757.0	3,626.3	66,383.3
EXPENDITURES			
Enacted Budgets			
2021-23 Biennium	56,187.8	2,878.8	59,066.6
2022 Supplemental Budget	4,738.0	320.1	5,058.0
Actual/Assumed Reversions	(575.1)	-	(575.1)
Total Expenditures	60,350.6	3,198.9	63,549.5
RESERVES			
Projected Ending Balance	2,406.4	427.4	2,833.8
Budget Stabilization Account			
Budget Stabilization Account Beginning Balance	19.2		19.2
Transfers from General Fund (1% of GSR)	603.8		603.8
Transfers from GFS (EGSR)**	-		-
Transfers from Disaster Response Acct (05H)- FY 22	4.8		4.8
Prior Period Adjustments-Actual FY 22	10.3		10.3
Actual/Assumed 21-23 Biennium-Interest Earnings	7.2		7.2
Projected Budget Stabilization Account Ending Balance	645.3		645.3
Washington Rescue Plan Transition Account			
Beginning Balance	1,000.0		1,000.0
Transfer from General Fund	1,100.0		1,100.0
Projected Wash Rescue Plan Transition Account Ending Balance	2,100.0		2,100.0
Total Reserves Including Budget Stabilization and Wa Rescue Plan	5,151.7	427.4	5,579.1

* No revenue or expenditures for 25H-Fair Start for Kids Account (FSKA).

** Based on the state constitution, no transfer of extraordinary revenue will occur in the 21-23 biennium because annual average state employment growth averaged less than one percent per fiscal year in the 19-21 biennium.

Acronyms

GSR- General State Revenues

EGSR- Extraordinary General State Revenues

ACFR- Annual Comprehensive Financial Report

Table 3.13

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

(cash basis, millions of dollars)

<u>Forecast by Source</u>	<u>Optimistic Forecast</u>	<u>Baseline Forecast</u>	<u>Pessimistic Forecast</u>
<i>Department of Revenue</i>			
Retail Sales	\$29,510.5	\$28,822.0	\$28,016.7
Business & Occupation	12,090.5	11,812.4	11,507.8
Use	1,857.7	1,814.0	1,762.1
Public Utility	1,059.7	1,032.9	1,001.3
Property (school levy)	8,941.3	8,933.1	8,891.7
Real Estate Excise	3,174.2	3,158.7	3,137.5
Other	2,530.2	2,510.8	2,494.2
Subtotal	59,164.2	58,083.9	56,811.2
<i>Insurance Commissioner¹</i>	1,603.0	1,564.0	1,525.0
<i>Lottery Commission</i>	64.7	62.3	59.9
<i>State Treasurer - Interest earnings</i>	243.8	206.7	172.3
<i>Liquor and Cannabis Surtaxes & Fees²</i>	679.4	674.7	663.7
<i>Office of Financial Management</i>			
Other agencies	107.2	106.8	106.3
<i>Washington Court System</i>			
Court Fees, Fines & Forfeitures	81.8	80.9	80.4
Total General Fund - State*	\$61,944.0	\$60,779.3	\$59,418.9
Difference from November 2022 Baseline	\$1,164.7		(\$1,360.4)

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 General Fund-State forecasts compared to the baseline forecast
2023-25 biennium**

(cash basis, millions of dollars)

Forecast by Source	Optimistic Forecast	Baseline Forecast	Pessimistic Forecast
Department of Revenue			
Retail Sales	\$33,055.2	\$30,451.9	\$27,221.4
Business & Occupation	13,627.6	12,619.0	11,483.9
Use	1,970.7	1,815.9	1,626.7
Public Utility	1,189.1	1,095.8	1,011.0
Property (school levy)	9,452.2	9,357.5	9,261.7
Real Estate Excise	2,312.2	2,246.4	1,993.5
Other	2,601.7	2,517.2	2,407.9
Subtotal	64,208.5	60,103.7	55,006.1
Insurance Commissioner¹	1,660.5	1,581.5	1,502.4
Lottery Commission	76.0	72.3	68.7
State Treasurer - Interest earnings	572.8	463.4	366.5
Liquor and Cannabis Surtaxes & Fees²	693.1	665.2	634.1
Office of Financial Management			
Other agencies	11.0	10.7	10.4
Washington Court System			
Court Fees, Fines & Forfeitures	72.6	69.6	66.9
Total General Fund - State*	\$67,294.5	\$62,966.3	\$57,655.1
Difference from November 2022 Baseline	\$4,328.2		(\$5,311.3)

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 3.15

Lottery transfers by fund

November 2022 Forecast
(cash basis, millions of dollars)

	Lottery: Total Transfers:*	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
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	231.6	27.7	0.0	14.2	0.0	0.0	0.5	4.8	184.4	0.0	0.0
2019-21 Biennium	418.0	44.4	0.0	27.9	0.0	0.0	0.8	8.0	336.9	0.0	0.0
2022	228.9	32.8	0.0	0.0	0.0	0.0	0.4	6.0	189.7	0.0	0.0
2023	221.2	29.5	0.0	0.0	0.0	0.0	0.4	4.9	186.4	0.0	0.0
2021-23 Biennium	450.1	62.3	0.0	0.0	0.0	0.0	0.9	10.9	376.1	0.0	0.0
2024	217.9	42.9	0.0	0.0	0.0	0.0	0.4	4.6	170.0	0.0	0.0
2025	205.0	29.4	0.0	0.0	0.0	0.0	0.4	4.7	170.5	0.0	0.0
2023-25 Biennium	422.9	72.3	0.0	0.0	0.0	0.0	0.9	9.3	340.5	0.0	0.0
2026	207.1	29.6	0.0	0.0	0.0	0.0	0.4	4.7	172.3	0.0	0.0
2027	208.5	30.7	0.0	0.0	0.0	0.0	0.4	4.7	172.7	0.0	0.0
2025-27 Biennium	415.6	60.4	0.0	0.0	0.0	0.0	0.9	9.4	345.0	0.0	0.0

Table 3.16

Lottery transfers by fund

November 2022 Forecast
(GAAP basis, millions of dollars)

	Lottery: Total Transfers:*	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
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	229.0	23.9	0.0	14.2	0.0	0.0	0.5	4.7	185.7	0.0	0.0
2019-21 Biennium	410.0	40.1	0.0	27.9	0.0	0.0	0.8	8.1	333.1	0.0	0.0
2022	216.8	33.6	0.0	0.0	0.0	0.0	0.4	6.2	176.6	0.0	0.0
2023	222.8	42.9	0.0	0.0	0.0	0.0	0.5	4.7	174.7	0.0	0.0
2021-23 Biennium	439.7	76.6	0.0	0.0	0.0	0.0	0.9	10.9	351.3	0.0	0.0
2024	201.8	29.4	0.0	0.0	0.0	0.0	0.4	4.7	167.3	0.0	0.0
2025	205.3	29.4	0.0	0.0	0.0	0.0	0.4	4.7	170.8	0.0	0.0
2023-25 Biennium	407.1	58.8	0.0	0.0	0.0	0.0	0.9	9.4	338.1	0.0	0.0
2026	207.3	29.7	0.0	0.0	0.0	0.0	0.4	4.7	172.5	0.0	0.0
2027	208.7	29.8	0.0	0.0	0.0	0.0	0.4	4.7	173.7	0.0	0.0
2025-27 Biennium	415.9	59.5	0.0	0.0	0.0	0.0	0.9	9.4	346.2	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)

November 2022 - 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 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%
FY 2021	\$26,986	13.3%	\$726	-20.5%	\$184	20.9%	\$320	905.5%	\$28,217	13.3%
FY 2022	\$30,030	11.3%	\$890	22.6%	\$190	2.9%	\$369	15.1%	\$31,478	11.6%
Forecast:										
FY 2023	\$30,750	2.4%	\$1,156	29.9%	\$186	-1.7%	\$383	3.8%	\$32,475	3.2%
FY 2024	\$30,895	0.5%	\$965	-16.5%	\$170	-8.8%	\$391	2.1%	\$32,421	-0.2%
FY 2025	\$32,071	3.8%	\$1,120	16.1%	\$170	0.3%	\$403	3.1%	\$33,764	4.1%
FY 2026	\$33,073	3.1%	\$1,163	3.8%	\$172	1.1%	\$415	3.1%	\$34,823	3.1%
FY 2027	\$34,235	3.5%	\$1,223	5.2%	\$173	0.2%	\$428	3.2%	\$36,059	3.5%
Biennial Totals										
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	\$50,803	15.1%	\$1,639	-0.9%	\$337	18.5%	\$352	NA	\$53,132	15.3%
21-23 Biennium	\$60,779	19.6%	\$2,045	24.8%	\$376	11.6%	\$751	113.3%	\$63,952	20.4%
23-25 Biennium	\$62,966	3.6%	\$2,085	1.9%	\$340	-9.5%	\$794	5.6%	\$66,185	3.5%
25-27 Biennium	\$67,308	6.9%	\$2,386	14.5%	\$345	1.3%	\$844	6.3%	\$70,883	7.1%

*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

November 2022

Cash forecast, 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	Local governments	
2016	\$168,051	\$16,342	\$151,709	\$12,814	\$7,500	\$345	\$79,750	\$0	\$251	\$0	\$51,049
2017	\$300,635	\$22,180	\$278,455	\$27,786	\$7,500	\$345	\$145,717	\$0	\$511	\$0	\$96,596
2018	\$360,608	\$31,388	\$329,220	\$27,786	\$9,761	\$365	\$173,418	\$0	\$513	\$0	\$117,377
2019	\$391,191	\$60,749	\$330,442	\$0	\$9,764	\$365	\$188,317	\$0	\$515	\$0	\$131,482
2020	\$448,427	\$66,894	\$381,533	\$0	\$10,786	\$374	\$215,096	\$0	\$522	\$0	\$154,754
2021	\$560,929	\$70,584	\$490,345	\$0	\$10,615	\$384	\$272,521	\$0	\$530	\$0	\$206,296
2022	\$527,090	\$17,993	\$509,097	\$0	\$10,584	\$401	\$264,470	\$56,056	\$520	\$0	\$177,066
2023	\$500,941	\$20,073	\$480,868	\$0	\$11,000	\$475	\$243,798	\$51,573	\$550	\$23,443	\$150,029
2024	\$536,996	\$17,140	\$519,856	\$0	\$11,839	\$511	\$263,595	\$55,761	\$592	\$25,346	\$162,212
2025	\$555,349	\$17,660	\$537,688	\$0	\$12,199	\$527	\$272,664	\$57,679	\$610	\$26,217	\$167,793
2026	\$573,157	\$18,049	\$555,108	\$0	\$12,467	\$538	\$281,569	\$59,563	\$623	\$27,074	\$173,273
2027	\$591,776	\$18,392	\$573,384	\$0	\$12,704	\$549	\$290,938	\$61,545	\$635	\$27,974	\$179,039
Biennial totals											
2015-17	\$468,686	\$38,522	\$430,164	\$40,600	\$15,000	\$690	\$225,467	\$0	\$762	\$0	\$147,645
2017-19	\$751,799	\$92,137	\$659,662	\$27,786	\$19,525	\$730	\$361,735	\$0	\$1,028	\$0	\$248,859
2019-21	\$1,009,356	\$137,478	\$871,878	\$0	\$21,401	\$758	\$487,617	\$0	\$1,052	\$0	\$361,050
2021-23	\$1,028,031	\$38,066	\$989,965	\$0	\$21,584	\$876	\$508,268	\$107,629	\$1,070	\$23,443	\$327,095
2023-25	\$1,092,345	\$34,800	\$1,057,545	\$0	\$24,038	\$1,038	\$536,259	\$113,440	\$1,202	\$51,563	\$330,005
2025-27	\$1,164,933	\$36,441	\$1,128,492	\$0	\$25,171	\$1,087	\$572,507	\$121,108	\$1,259	\$55,048	\$352,312

*Before distributions to local governments FY 2016-FY2022

Table 3.19

Workforce Education Investment Account

November 2022

Cash forecast, thousands of dollars

	FY22	FY23	2021-23 Biennium	FY24	FY25	2023-25 Biennium	FY26	FY27	2025-27 Biennium
September 2022 forecast	\$368,630	\$378,163	\$746,794	\$388,007	\$399,259	\$787,266	\$411,018	\$422,602	\$833,621
Forecast change	\$0	\$4,658	\$4,658	\$2,729	\$3,508	\$6,236	\$4,298	\$5,872	\$10,170
November 2022 forecast	\$368,630	\$382,822	\$751,452	\$390,736	\$402,767	\$793,502	\$415,316	\$428,475	\$843,791

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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 2022 to 2027

	2020	2021	2022	2023	2024	2025	2026	2027
Real National Income Accounts (Billions of Chained 2012 Dollars)								
Real Gross Domestic Product	18,509.1	19,609.8	19,956.9	19,992.8	20,292.7	20,718.9	21,154.0	21,555.9
% Ch	-2.8	5.9	1.8	0.2	1.5	2.1	2.1	1.9
Real Consumption	12,700.7	13,754.1	14,108.3	14,193.8	14,406.8	14,723.7	15,047.6	15,363.6
% Ch	-3.0	8.3	2.6	0.6	1.5	2.2	2.2	2.1
Real Nonresidential Fixed Investment	2,666.0	2,835.4	2,931.7	2,928.4	2,912.3	2,946.2	3,002.9	3,078.8
% Ch	-4.9	6.4	3.4	-0.1	-0.5	1.2	1.9	2.5
Real Residential Fixed Investment	649.8	719.4	645.2	551.3	582.1	625.9	642.8	649.5
% Ch	7.2	10.7	-10.3	-14.6	5.6	7.5	2.7	1.0
Real Personal Income	17,844.7	18,427.2	17,720.7	17,920.8	18,329.9	18,837.5	19,354.0	19,868.4
% Ch	5.5	3.3	-3.8	1.1	2.3	2.8	2.7	2.7
Real Per Capita Income (\$/Person)	53,788	55,467	53,198	53,579	54,540	55,775	57,023	58,250
% Ch	5.2	3.1	-4.1	0.7	1.8	2.3	2.2	2.2
Price and Wage Indexes								
PCE Price Index (2012=100)	111.1	115.6	122.9	127.3	130.1	132.5	134.9	137.4
% Ch	1.1	4.0	6.3	3.6	2.2	1.8	1.8	1.9
U.S. Consumer Price Index (1982-84=1.0)	2.588	2.710	2.931	3.064	3.139	3.201	3.262	3.327
% Ch	1.2	4.7	8.2	4.5	2.5	2.0	1.9	2.0
Employment Cost Index (Dec. 2005=1.0)	1.414	1.471	1.548	1.622	1.695	1.766	1.836	1.903
% Ch	2.9	4.0	5.3	4.8	4.5	4.2	4.0	3.6
Current Dollar National Income (Billions of Dollars)								
Gross Domestic Product	21,060.5	23,315.1	25,388.5	26,408.1	27,445.8	28,577.4	29,765.4	30,971.9
% Ch	-1.5	10.7	8.9	4.0	3.9	4.1	4.2	4.1
Personal Income	19,832.3	21,294.8	21,782.5	22,817.3	23,850.7	24,960.4	26,101.9	27,294.2
% Ch	6.7	7.4	2.3	4.8	4.5	4.7	4.6	4.6
Employment (Millions)								
U.S. Civilian Labor Force	160.8	161.2	164.4	165.5	166.2	166.8	167.4	167.9
Total U.S. Employment	147.8	152.6	158.3	157.7	157.8	159.3	160.3	160.9
Unemployment Rate (%)	8.10	5.35	3.67	4.72	5.04	4.51	4.21	4.14
Nonfarm Payroll Employment	142.15	146.10	152.01	152.25	151.97	153.24	154.18	154.85
% Ch	-5.8	2.8	4.0	0.2	-0.2	0.8	0.6	0.4
Manufacturing	12.17	12.35	12.80	12.77	12.31	12.14	12.02	11.95
% Ch	-5.1	1.5	3.7	-0.3	-3.6	-1.3	-1.0	-0.6
Durable Manufacturing	7.57	7.68	7.96	7.93	7.59	7.48	7.40	7.35
% Ch	-5.8	1.4	3.7	-0.3	-4.3	-1.5	-1.1	-0.6
Nondurable Manufacturing	4.59	4.67	4.84	4.83	4.72	4.66	4.63	4.60
% Ch	-3.9	1.7	3.7	-0.2	-2.4	-1.1	-0.8	-0.7
Construction	7.26	7.41	7.67	7.56	7.40	7.40	7.45	7.52
% Ch	-3.2	2.2	3.5	-1.4	-2.1	-0.1	0.8	0.9
Service-Providing	122.12	125.78	130.92	131.29	131.59	133.02	134.02	134.69
% Ch	-6.0	3.0	4.1	0.3	0.2	1.1	0.8	0.5
Miscellaneous Indicators								
Oil-WTI (\$ per barrel)	39.2	68.0	95.8	81.0	74.4	70.3	67.3	64.6
Personal Saving/Disposable Income (%)	16.8	11.9	3.7	5.3	7.1	7.6	8.1	8.7
Auto Sales (Millions)	3.4	3.4	2.8	2.9	3.1	3.2	3.2	3.2
% Ch	-27.9	-1.5	-15.0	2.6	6.7	3.2	0.9	-1.8
Housing Starts (Millions)	1.395	1.605	1.550	1.191	1.316	1.442	1.431	1.407
% Ch	8.1	15.1	-3.4	-23.2	10.6	9.6	-0.8	-1.7
Federal Budget Surplus (Billions)	-2,957.4	-2,835.3	-937.8	-1,292.8	-1,634.5	-1,723.0	-1,783.5	-1,910.8
Net Exports (Billions)	-627.5	-861.7	-987.4	-853.2	-799.8	-785.8	-720.0	-653.2
3-Month Treasury Bill Rate (%)	0.37	0.04	2.00	4.61	3.98	2.70	2.36	2.35
10-Year Treasury Note Yield (%)	0.89	1.44	3.00	3.93	3.31	3.12	3.07	3.03
Bond Index of 20 G.O. Munis. (%)	2.65	2.19	3.29	4.25	3.75	3.57	3.51	3.49
30-Year Fixed Mortgage Rate (%)	3.12	2.95	5.38	6.68	5.61	5.03	4.86	4.81

Table A1.2

U.S. Economic Forecast Summary

Forecast 2022 to 2027

	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	19,924.1	19,895.3	20,021.7	19,986.5	19,963.5	19,959.1	19,993.1	20,055.6
% Ch , Annual Rate	-1.6	-0.6	2.6	-0.7	-0.5	-0.1	0.7	1.3
Real Consumption	14,028.4	14,099.5	14,149.0	14,156.4	14,157.4	14,168.5	14,200.3	14,249.2
% Ch , Annual Rate	1.3	2.0	1.4	0.2	0.0	0.3	0.9	1.4
Real Nonresidential Fixed Investment	2,915.0	2,915.5	2,942.4	2,953.7	2,953.2	2,943.3	2,918.7	2,898.2
% Ch , Annual Rate	7.9	0.1	3.7	1.6	-0.1	-1.3	-3.3	-2.8
Real Residential Fixed Investment	704.7	671.0	621.5	583.7	565.3	549.8	544.5	545.4
% Ch , Annual Rate	-3.1	-17.8	-26.4	-22.2	-12.0	-10.5	-3.8	0.7
Real Personal Income	17,718.8	17,659.4	17,715.0	17,789.4	17,828.2	17,877.9	17,951.4	18,025.9
% Ch , Annual Rate	-4.2	-1.3	1.3	1.7	0.9	1.1	1.7	1.7
Real Per Capita Income (\$/Person)	53,261	53,040	53,160	53,332	53,393	53,483	53,641	53,800
% Ch , Annual Rate	-4.4	-1.6	0.9	1.3	0.5	0.7	1.2	1.2
Price and Wage Indexes								
PCE Price Index (2012=100)	120.3	122.5	123.7	125.2	126.3	126.9	127.7	128.4
% Ch , Annual Rate	7.5	7.3	4.2	4.8	3.5	2.2	2.4	2.3
U.S. Consumer Price Index (1982-84=1.0)	2.846	2.918	2.959	3.002	3.034	3.054	3.073	3.093
% Ch , Annual Rate	9.2	10.5	5.7	6.0	4.3	2.7	2.5	2.6
Employment Cost Index (Dec. 2005=1.0)	1.517	1.541	1.559	1.577	1.595	1.613	1.632	1.651
% Ch , Annual Rate	5.2	6.5	4.8	4.6	4.6	4.7	4.7	4.7
Current Dollar National Income (Billions of Dollars)								
Gross Domestic Product	24,740.5	25,248.5	25,663.3	25,901.9	26,108.1	26,289.4	26,499.9	26,734.9
% Ch , Annual Rate	6.6	8.5	6.7	3.8	3.2	2.8	3.2	3.6
Personal Income	21,319.8	21,625.5	21,916.8	22,267.7	22,509.1	22,693.2	22,920.0	23,146.9
% Ch , Annual Rate	3.0	5.9	5.5	6.6	4.4	3.3	4.1	4.0
Employment (Millions)								
U.S. Civilian Labor Force	164.0	164.1	164.5	164.8	165.1	165.4	165.6	165.8
Total U.S. Employment	157.8	158.2	158.7	158.6	158.6	157.9	157.1	157.1
Unemployment Rate (%)	3.81	3.62	3.53	3.74	3.96	4.54	5.10	5.26
Nonfarm Payroll Employment	150.35	151.58	152.74	153.37	153.37	152.59	151.74	151.32
% Ch , Annual Rate	4.7	3.3	3.1	1.7	0.0	-2.0	-2.2	-1.1
Manufacturing	12.63	12.77	12.86	12.95	12.93	12.90	12.73	12.50
% Ch , Annual Rate	4.0	4.4	2.9	2.7	-0.5	-1.2	-5.0	-7.0
Durable Manufacturing	7.85	7.93	8.00	8.06	8.05	8.04	7.91	7.73
% Ch , Annual Rate	3.3	3.9	3.5	3.4	-0.4	-0.8	-6.2	-9.1
Nondurable Manufacturing	4.78	4.84	4.87	4.89	4.88	4.86	4.82	4.78
% Ch , Annual Rate	5.0	5.3	2.0	1.7	-0.5	-2.0	-3.1	-3.6
Construction	7.60	7.65	7.70	7.73	7.71	7.58	7.48	7.46
% Ch , Annual Rate	5.1	2.9	2.8	1.3	-0.9	-6.3	-5.3	-1.3
Service-Providing	129.53	130.54	131.54	132.07	132.09	131.47	130.88	130.71
% Ch , Annual Rate	4.7	3.2	3.1	1.6	0.1	-1.9	-1.8	-0.5
Miscellaneous Indicators								
Oil-WTI (\$ per barrel)	94.4	108.7	93.2	86.8	84.3	81.9	79.7	77.9
Personal Saving/Disposable Income (%)	4.3	3.4	3.3	3.7	4.5	5.0	5.6	6.1
Auto Sales (Millions)	2.9	2.7	2.8	3.0	2.9	2.9	2.9	3.0
% Ch , Annual Rate	14.4	-15.6	6.8	31.2	-11.6	-3.1	4.7	14.3
Housing Starts (Millions)	1.720	1.647	1.461	1.372	1.244	1.190	1.165	1.163
% Ch , Annual Rate	10.0	-15.8	-38.2	-22.2	-32.3	-16.3	-8.2	-0.6
Federal Budget Surplus (Billions)	-929.0	-864.0	-986.1	-972.2	-1,120.1	-1,226.4	-1,364.3	-1,460.2
Net Exports (Billions)	-1,116.7	-1,035.6	-901.4	-895.9	-911.1	-840.0	-827.4	-834.3
3-Month Treasury Bill Rate (%)	0.31	1.08	2.66	3.94	4.50	4.71	4.62	4.60
10-Year Treasury Note Yield (%)	1.94	2.93	3.11	4.01	4.14	4.00	3.85	3.73
Bond Index of 20 G.O. Munis. (%)	2.40	3.25	3.37	4.13	4.31	4.30	4.23	4.17
30-Year Fixed Mortgage Rate (%)	3.75	5.21	5.60	6.96	7.02	6.81	6.58	6.29

Table A1.2 (continued)
U.S. Economic Forecast Summary
Forecast 2022 to 2027

	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	20,141.4	20,239.1	20,340.7	20,449.6	20,554.5	20,662.3	20,773.7	20,885.0
% Ch , Annual Rate	1.7	2.0	2.0	2.2	2.1	2.1	2.2	2.2
Real Consumption	14,300.2	14,366.5	14,441.3	14,519.0	14,599.0	14,682.1	14,766.8	14,846.9
% Ch , Annual Rate	1.4	1.9	2.1	2.2	2.2	2.3	2.3	2.2
Real Nonresidential Fixed Investment	2,902.3	2,909.1	2,915.6	2,922.1	2,929.7	2,939.3	2,951.5	2,964.4
% Ch , Annual Rate	0.6	0.9	0.9	0.9	1.1	1.3	1.7	1.8
Real Residential Fixed Investment	556.3	573.5	591.2	607.4	617.6	624.3	629.2	632.6
% Ch , Annual Rate	8.2	12.9	12.9	11.4	6.9	4.4	3.2	2.1
Real Personal Income	18,166.0	18,271.5	18,381.6	18,500.4	18,647.8	18,772.8	18,902.7	19,026.8
% Ch , Annual Rate	3.1	2.3	2.4	2.6	3.2	2.7	2.8	2.7
Real Per Capita Income (\$/Person)	54,152	54,400	54,661	54,946	55,316	55,618	55,934	56,232
% Ch , Annual Rate	2.6	1.8	1.9	2.1	2.7	2.2	2.3	2.1
Price and Wage Indexes								
PCE Price Index (2012=100)	129.2	129.8	130.4	131.1	131.6	132.2	132.8	133.4
% Ch , Annual Rate	2.4	1.9	2.0	1.9	1.8	1.8	1.7	1.8
U.S. Consumer Price Index (1982-84=1.0)	3.114	3.132	3.148	3.164	3.179	3.194	3.208	3.224
% Ch , Annual Rate	2.8	2.3	2.0	2.1	1.9	1.9	1.8	1.9
Employment Cost Index (Dec. 2005=1.0)	1.669	1.687	1.704	1.722	1.740	1.757	1.775	1.792
% Ch , Annual Rate	4.5	4.3	4.2	4.2	4.2	4.2	4.0	4.0
Current Dollar National Income (Billions of Dollars)								
Gross Domestic Product	27,023.3	27,308.7	27,585.8	27,865.4	28,142.1	28,428.0	28,719.1	29,020.5
% Ch , Annual Rate	4.4	4.3	4.1	4.1	4.0	4.1	4.2	4.3
Personal Income	23,467.1	23,716.1	23,974.6	24,244.8	24,547.9	24,821.5	25,098.3	25,373.9
% Ch , Annual Rate	5.6	4.3	4.4	4.6	5.1	4.5	4.5	4.5
Employment (Millions)								
U.S. Civilian Labor Force	166.0	166.1	166.3	166.4	166.6	166.7	166.9	167.0
Total U.S. Employment	157.2	157.5	158.1	158.5	158.8	159.1	159.4	159.7
Unemployment Rate (%)	5.26	5.21	4.94	4.75	4.64	4.55	4.46	4.37
Nonfarm Payroll Employment	151.51	151.71	152.11	152.56	152.87	153.11	153.35	153.61
% Ch , Annual Rate	0.5	0.5	1.1	1.2	0.8	0.6	0.6	0.7
Manufacturing	12.41	12.32	12.27	12.22	12.19	12.16	12.12	12.09
% Ch , Annual Rate	-3.0	-2.7	-1.5	-1.6	-1.1	-1.0	-1.3	-1.1
Durable Manufacturing	7.66	7.60	7.57	7.54	7.51	7.49	7.46	7.44
% Ch , Annual Rate	-3.6	-2.8	-1.6	-1.9	-1.4	-0.9	-1.5	-1.2
Nondurable Manufacturing	4.75	4.72	4.70	4.69	4.68	4.67	4.66	4.65
% Ch , Annual Rate	-2.1	-2.6	-1.3	-1.3	-0.6	-1.1	-1.0	-0.9
Construction	7.42	7.39	7.39	7.41	7.39	7.39	7.40	7.41
% Ch , Annual Rate	-2.1	-1.5	0.2	0.9	-1.2	0.4	0.2	0.5
Service-Providing	131.02	131.33	131.77	132.25	132.62	132.88	133.15	133.43
% Ch , Annual Rate	1.0	0.9	1.3	1.5	1.1	0.8	0.8	0.8
Miscellaneous Indicators								
Oil-WTI (\$ per barrel)	76.3	74.9	73.7	72.6	71.6	70.7	69.8	69.1
Personal Saving/Disposable Income (%)	6.8	7.0	7.2	7.2	7.5	7.6	7.6	7.7
Auto Sales (Millions)	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.2
% Ch , Annual Rate	7.8	6.1	2.3	5.3	4.3	0.6	2.5	1.6
Housing Starts (Millions)	1.231	1.294	1.334	1.405	1.437	1.449	1.439	1.443
% Ch , Annual Rate	25.6	22.1	13.0	22.9	9.4	3.4	-2.8	1.1
Federal Budget Surplus (Billions)	-1,586.7	-1,635.4	-1,653.5	-1,662.5	-1,699.9	-1,719.8	-1,726.0	-1,746.3
Net Exports (Billions)	-809.9	-794.0	-793.9	-801.5	-803.5	-796.7	-782.3	-760.6
3-Month Treasury Bill Rate (%)	4.52	4.26	3.80	3.33	3.05	2.79	2.57	2.38
10-Year Treasury Note Yield (%)	3.50	3.29	3.23	3.20	3.16	3.12	3.10	3.10
Bond Index of 20 G.O. Munis. (%)	3.94	3.73	3.67	3.64	3.61	3.57	3.55	3.54
30-Year Fixed Mortgage Rate (%)	6.00	5.68	5.44	5.33	5.19	5.04	4.97	4.92

Table A1.2 (continued)
U.S. Economic Forecast Summary
Forecast 2022 to 2027

	2026:1	2026:2	2026:3	2026:4	2027:1	2027:2	2027:3	2027:4
Real National Income Accounts (Billions of Chained 2012 Dollars)								
Real Gross Domestic Product	20,994.1	21,102.9	21,210.6	21,308.4	21,404.8	21,503.5	21,605.1	21,710.2
% Ch , Annual Rate	2.1	2.1	2.1	1.9	1.8	1.9	1.9	2.0
Real Consumption	14,925.5	15,006.5	15,089.2	15,169.3	15,247.3	15,324.9	15,402.6	15,479.7
% Ch , Annual Rate	2.1	2.2	2.2	2.1	2.1	2.1	2.0	2.0
Real Nonresidential Fixed Investment	2,978.9	2,994.1	3,010.6	3,028.1	3,045.9	3,065.9	3,088.8	3,114.3
% Ch , Annual Rate	2.0	2.1	2.2	2.3	2.4	2.7	3.0	3.3
Real Residential Fixed Investment	636.9	641.5	646.9	645.8	646.6	648.5	650.3	652.4
% Ch , Annual Rate	2.8	2.9	3.4	-0.7	0.5	1.2	1.1	1.3
Real Personal Income	19,166.8	19,295.6	19,417.7	19,535.8	19,684.2	19,806.8	19,931.5	20,051.0
% Ch , Annual Rate	3.0	2.7	2.6	2.5	3.1	2.5	2.5	2.4
Real Per Capita Income (\$/Person)	56,576	56,886	57,176	57,453	57,817	58,106	58,399	58,676
% Ch , Annual Rate	2.5	2.2	2.1	1.9	2.6	2.0	2.0	1.9
Price and Wage Indexes								
PCE Price Index (2012=100)	134.0	134.6	135.2	135.8	136.4	137.1	137.7	138.3
% Ch , Annual Rate	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.9
U.S. Consumer Price Index (1982-84=1.0)	3.239	3.255	3.270	3.286	3.302	3.319	3.335	3.352
% Ch , Annual Rate	2.0	1.9	1.9	1.9	2.0	2.0	1.9	2.1
Employment Cost Index (Dec. 2005=1.0)	1.810	1.828	1.845	1.861	1.878	1.894	1.911	1.928
% Ch , Annual Rate	4.1	4.0	3.7	3.7	3.6	3.5	3.6	3.5
Current Dollar National Income (Billions of Dollars)								
Gross Domestic Product	29,318.0	29,616.2	29,917.8	30,209.7	30,510.5	30,814.2	31,121.1	31,441.9
% Ch , Annual Rate	4.2	4.1	4.1	4.0	4.0	4.0	4.0	4.2
Personal Income	25,675.1	25,962.3	26,244.9	26,525.1	26,852.4	27,145.5	27,441.7	27,737.1
% Ch , Annual Rate	4.8	4.6	4.4	4.3	5.0	4.4	4.4	4.4
Employment (Millions)								
U.S. Civilian Labor Force	167.1	167.3	167.4	167.6	167.7	167.8	168.0	168.1
Total U.S. Employment	160.0	160.2	160.4	160.6	160.7	160.9	161.0	161.1
Unemployment Rate (%)	4.29	4.21	4.17	4.15	4.14	4.14	4.14	4.14
Nonfarm Payroll Employment	153.86	154.10	154.30	154.47	154.62	154.77	154.92	155.09
% Ch, Annual Rate	0.6	0.6	0.5	0.4	0.4	0.4	0.4	0.4
Manufacturing	12.06	12.04	12.01	11.99	11.98	11.96	11.94	11.93
% Ch, Annual Rate	-0.9	-0.9	-0.9	-0.8	-0.3	-0.6	-0.6	-0.5
Durable Manufacturing	7.42	7.40	7.39	7.37	7.37	7.36	7.35	7.34
% Ch, Annual Rate	-1.1	-1.0	-0.9	-0.8	-0.2	-0.5	-0.5	-0.3
Nondurable Manufacturing	4.64	4.63	4.62	4.62	4.61	4.60	4.59	4.58
% Ch, Annual Rate	-0.6	-0.6	-0.8	-0.8	-0.5	-0.7	-0.8	-0.9
Construction	7.42	7.44	7.47	7.47	7.49	7.51	7.53	7.55
% Ch, Annual Rate	0.9	1.1	1.4	0.3	1.0	0.9	1.2	1.3
Service-Providing	133.69	133.93	134.14	134.32	134.46	134.61	134.76	134.92
% Ch, Annual Rate	0.8	0.7	0.6	0.5	0.4	0.4	0.4	0.5
Miscellaneous Indicators								
Oil-WTI (\$ per barrel)	68.3	67.6	66.9	66.3	65.6	64.9	64.2	63.7
Personal Saving/Disposable Income (%)	7.9	8.1	8.1	8.2	8.5	8.6	8.8	8.9
Auto Sales (Millions)	3.2	3.3	3.2	3.2	3.2	3.2	3.2	3.2
% Ch, Annual Rate	0.8	0.9	-0.2	-1.8	-4.6	-0.7	-1.2	-1.3
Housing Starts (Millions)	1.445	1.446	1.417	1.414	1.413	1.412	1.401	1.401
% Ch, Annual Rate	0.6	0.3	-7.8	-0.7	-0.4	-0.2	-3.1	0.0
Federal Budget Surplus (Billions)	-1,760.4	-1,769.3	-1,778.5	-1,825.8	-1,869.4	-1,888.6	-1,915.0	-1,970.1
Net Exports (Billions)	-742.8	-725.7	-712.9	-698.6	-681.9	-664.2	-644.0	-622.8
3-Month Treasury Bill Rate (%)	2.38	2.37	2.36	2.35	2.35	2.35	2.35	2.34
10-Year Treasury Note Yield (%)	3.09	3.08	3.06	3.05	3.04	3.04	3.03	3.03
Bond Index of 20 G.O. Munis. (%)	3.53	3.52	3.50	3.50	3.49	3.49	3.49	3.50
30-Year Fixed Mortgage Rate (%)	4.89	4.86	4.84	4.83	4.82	4.81	4.80	4.80

Table A1.3
Washington Economic Forecast Summary
Forecast 2022 to 2027

	2020	2021	2022	2023	2024	2025	2026	2027
Real Income (Billions of Chained 2012 Dollars)								
Real Personal Income	474.774	494.112	478.413	486.858	500.802	516.889	533.599	550.531
% Ch	6.4	4.1	-3.2	1.8	2.9	3.2	3.2	3.2
Real Wage and Salary Disb.	238.087	252.203	254.570	256.591	263.544	272.710	281.803	290.484
% Ch	3.1	5.9	0.9	0.8	2.7	3.5	3.3	3.1
Real Nonwage Income	236.687	241.909	223.842	230.267	237.257	244.179	251.796	260.047
% Ch	10.1	2.2	-7.5	2.9	3.0	2.9	3.1	3.3
Real Per Capita Income (\$/Person)	61,545	63,841	61,532	62,082	63,237	64,624	66,054	67,476
% Ch	5.4	3.7	-3.6	0.9	1.9	2.2	2.2	2.2
Price and Wage Indexes								
U.S. Implicit Price Deflator, PCE (2012=1.0)	1.111	1.156	1.229	1.273	1.301	1.325	1.349	1.374
% Ch	1.1	4.0	6.3	3.6	2.2	1.8	1.8	1.9
Seattle Cons. Price Index (1982-84=1.0)	2.826	2.960	3.224	3.382	3.466	3.534	3.602	3.673
% Ch	1.7	4.7	8.9	4.9	2.5	2.0	1.9	2.0
Average Nonfarm Annual Wage	78,423	84,479	86,227	89,240	93,278	97,145	101,096	105,195
% Ch	10.0	7.7	2.1	3.5	4.5	4.1	4.1	4.1
Avg. Hourly Earnings-Mfg. (\$/Hour)	28.32	28.05	30.04	31.21	32.57	33.89	35.19	36.42
% Ch	-2.9	-1.0	7.1	3.9	4.4	4.0	3.8	3.5
Current Dollar Income (Billions of Dollars)								
Personal Income	527.582	570.921	587.962	619.888	651.642	684.902	719.648	756.297
% Ch	7.6	8.2	3.0	5.4	5.1	5.1	5.1	5.1
Disposable Personal Income	468.083	499.530	501.622	537.725	571.578	601.076	631.625	664.442
% Ch	8.3	6.7	0.4	7.2	6.3	5.2	5.1	5.2
Per Capita Income (\$/Person)	68,390	73,764	75,620	79,044	82,283	85,629	89,084	92,694
% Ch	6.6	7.9	2.5	4.5	4.1	4.1	4.0	4.1
Employment (Thousands)								
Washington Civilian Labor Force	3,929.2	3,910.5	4,012.3	4,038.9	4,078.2	4,114.9	4,152.6	4,189.7
Total Washington Employment	3,595.7	3,704.3	3,853.7	3,842.8	3,866.5	3,919.1	3,965.5	4,003.3
Unemployment Rate (%)	8.47	5.28	3.95	4.85	5.19	4.76	4.51	4.45
Nonfarm Payroll Employment	3,283.5	3,363.1	3,537.7	3,569.9	3,585.1	3,628.0	3,667.3	3,701.2
% Ch	-5.3	2.4	5.2	0.9	0.4	1.2	1.1	0.9
Manufacturing	271.7	259.2	271.9	276.7	271.8	271.4	271.9	272.5
% Ch	-7.5	-4.6	4.9	1.8	-1.8	-0.1	0.2	0.2
Durable Manufacturing	189.7	175.3	183.3	187.4	184.4	184.4	184.9	185.5
% Ch	-8.3	-7.6	4.6	2.2	-1.6	0.0	0.3	0.3
Aerospace	80.1	67.6	70.6	74.9	76.5	76.8	76.9	77.3
% Ch	-9.6	-15.6	4.4	6.1	2.1	0.3	0.2	0.5
Nondurable Manufacturing	82.0	83.9	88.6	89.2	87.4	87.0	87.0	87.1
% Ch	-5.5	2.3	5.5	0.8	-2.1	-0.5	0.0	0.1
Construction	213.8	223.4	236.1	232.8	230.5	229.6	230.3	232.2
% Ch	-2.6	4.5	5.7	-1.4	-1.0	-0.4	0.3	0.9
Service-Providing	2,792.3	2,874.8	3,024.1	3,055.6	3,078.4	3,122.6	3,160.7	3,191.9
% Ch	-5.3	3.0	5.2	1.0	0.7	1.4	1.2	1.0
Software Publishers	76.0	79.5	84.3	86.2	87.2	88.6	89.7	90.9
% Ch	8.0	4.6	6.1	2.3	1.1	1.6	1.3	1.3
Electronic Shopping and Mail-Order	75.9	75.4	78.4	79.0	78.5	80.2	81.9	83.6
% Ch	19.5	-0.6	4.0	0.7	-0.6	2.2	2.1	2.0
Housing Indicators (Thousands)								
Housing Units Authorized by Bldg. Permit	44.062	56.941	50.702	42.800	46.144	47.498	46.180	45.262
% Ch	-9.0	29.2	-11.0	-15.6	7.8	2.9	-2.8	-2.0
Single-Family	23.044	25.076	21.754	21.606	24.619	25.868	25.718	25.558
% Ch	-1.1	8.8	-13.2	-0.7	13.9	5.1	-0.6	-0.6
Multi-Family	21.018	31.865	28.948	21.194	21.524	21.630	20.462	19.704
% Ch	-16.3	51.6	-9.2	-26.8	1.6	0.5	-5.4	-3.7
30-Year Fixed Mortgage Rate (%)	3.12	2.95	5.38	6.68	5.61	5.03	4.86	4.81

Table A1.4
Washington Economic Forecast Summary
Forecast 2022 to 2027

	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	477.834	476.336	478.202	481.279	483.042	485.294	488.029	491.065
% Ch, Annual Rate	-4.2	-1.2	1.6	2.6	1.5	1.9	2.3	2.5
Real Wage and Salary Disb.	254.282	253.693	254.922	255.384	255.379	256.175	256.665	258.145
% Ch, Annual Rate	-3.6	-0.9	2.0	0.7	0.0	1.3	0.8	2.3
Real Nonwage Income	223.552	222.643	223.280	225.895	227.663	229.120	231.364	232.920
% Ch, Annual Rate	-4.9	-1.6	1.1	4.8	3.2	2.6	4.0	2.7
Real Per Capita Income (\$/Person)	61,592	61,342	61,463	61,732	61,816	61,959	62,159	62,393
% Ch, Annual Rate	-4.5	-1.6	0.8	1.8	0.5	0.9	1.3	1.5
Price and Wage Indexes								
U.S. Implicit Price Deflator, PCE (2012=1.0)	1.203	1.224	1.237	1.252	1.263	1.269	1.277	1.284
% Ch, Annual Rate	7.5	7.3	4.2	4.9	3.5	2.2	2.4	2.3
Seattle Cons. Price Index (1982-84=1.0)	3.107	3.213	3.263	3.314	3.349	3.372	3.393	3.414
% Ch, Annual Rate	8.0	14.3	6.5	6.4	4.3	2.7	2.5	2.6
Average Nonfarm Annual Wage	85,516	86,044	86,363	86,987	87,681	88,717	89,749	90,811
% Ch, Annual Rate	-1.1	2.5	1.5	2.9	3.2	4.8	4.7	4.8
Avg. Hourly Earnings-Mfg. (\$/Hour)	29.59	30.00	30.21	30.34	30.68	31.03	31.38	31.74
% Ch, Annual Rate	11.6	5.6	2.8	1.7	4.5	4.6	4.6	4.7
Current Dollar Income (Billions of Dollars)								
Personal Income	574.787	583.157	591.467	602.437	609.869	616.004	623.106	630.573
% Ch, Annual Rate	2.9	6.0	5.8	7.6	5.0	4.1	4.7	4.9
Disposable Personal Income	489.985	496.922	504.548	515.035	525.716	532.831	541.733	550.619
% Ch, Annual Rate	-4.0	5.8	6.3	8.6	8.6	5.5	6.9	6.7
Per Capita Income (\$/Person)	74,089	75,099	76,021	77,272	78,047	78,647	79,363	80,119
% Ch, Annual Rate	2.6	5.6	5.0	6.7	4.1	3.1	3.7	3.9
Employment (Thousands)								
Washington Civilian Labor Force	3,981.7	4,032.7	4,021.0	4,013.9	4,024.8	4,034.0	4,042.9	4,053.9
Total Washington Employment	3,811.8	3,873.8	3,871.6	3,857.7	3,857.7	3,844.7	3,832.1	3,836.8
Unemployment Rate (%)	4.27	3.94	3.72	3.89	4.15	4.69	5.21	5.36
Nonfarm Payroll Employment	3,487.3	3,519.9	3,560.0	3,583.7	3,585.7	3,574.0	3,560.3	3,559.4
% Ch, Annual Rate	4.7	3.8	4.6	2.7	0.2	-1.3	-1.5	-0.1
Manufacturing	266.4	270.1	274.4	276.7	278.6	278.2	276.2	273.6
% Ch, Annual Rate	6.7	5.7	6.5	3.4	2.8	-0.6	-2.8	-3.7
Durable Manufacturing	178.9	181.8	185.4	187.1	188.6	188.5	187.2	185.4
% Ch, Annual Rate	6.1	6.8	8.0	3.9	3.1	-0.1	-2.7	-3.8
Aerospace	68.1	69.3	71.8	73.1	73.9	74.6	75.3	75.8
% Ch, Annual Rate	3.1	7.7	14.7	7.8	4.5	3.7	3.6	2.9
Nondurable Manufacturing	87.5	88.3	89.0	89.5	90.0	89.7	89.0	88.3
% Ch, Annual Rate	7.7	3.5	3.4	2.5	2.3	-1.7	-2.9	-3.3
Construction	232.6	234.8	236.7	240.1	237.6	233.1	229.6	230.7
% Ch, Annual Rate	9.9	4.0	3.3	5.8	-4.2	-7.3	-5.8	1.9
Service-Providing	2,982.7	3,009.2	3,043.2	3,061.4	3,064.5	3,057.8	3,049.8	3,050.4
% Ch, Annual Rate	4.2	3.6	4.6	2.4	0.4	-0.9	-1.0	0.1
Software Publishers	82.3	83.7	85.5	85.7	86.0	86.1	86.3	86.4
% Ch, Annual Rate	2.2	7.3	8.5	1.2	1.4	0.6	0.7	0.7
Electronic Shopping and Mail-Order	75.8	76.5	79.9	81.5	80.5	79.5	78.5	77.4
% Ch, Annual Rate	0.5	3.5	19.0	8.3	-4.8	-4.9	-5.1	-5.2
Housing Indicators (Thousands)								
Housing Units Authorized by Bldg. Permit	60.520	56.278	44.515	41.496	42.357	42.493	42.864	43.487
% Ch, Annual Rate	5.1	-25.2	-60.9	-24.5	8.6	1.3	3.5	5.9
Single-Family	25.008	23.343	18.365	20.301	21.111	21.220	21.749	22.344
% Ch, Annual Rate	28.6	-24.1	-61.7	49.3	16.9	2.1	10.3	11.4
Multi-Family	35.512	32.934	26.149	21.195	21.246	21.273	21.115	21.143
% Ch, Annual Rate	-8.2	-26.0	-60.3	-56.8	1.0	0.5	-2.9	0.5
30-Year Fixed Mortgage Rate (%)	3.75	5.21	5.60	6.96	7.02	6.81	6.58	6.29

Table A1.4 (continued)
Washington Economic Forecast Summary
Forecast 2022 to 2027

	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	495.469	498.928	502.514	506.296	510.792	514.844	518.966	522.954
% Ch, Annual Rate	3.6	2.8	2.9	3.0	3.6	3.2	3.2	3.1
Real Wage and Salary Disb.	260.233	262.327	264.644	266.974	269.278	271.600	273.853	276.110
% Ch, Annual Rate	3.3	3.3	3.6	3.6	3.5	3.5	3.4	3.3
Real Nonwage Income	235.236	236.601	237.870	239.322	241.514	243.244	245.113	246.844
% Ch, Annual Rate	4.0	2.3	2.2	2.5	3.7	2.9	3.1	2.9
Real Per Capita Income (\$/Person)	62,798	63,080	63,376	63,695	64,101	64,450	64,805	65,141
% Ch, Annual Rate	2.6	1.8	1.9	2.0	2.6	2.2	2.2	2.1
Price and Wage Indexes								
U.S. Implicit Price Deflator, PCE (2012=1.0)	1.292	1.298	1.304	1.311	1.316	1.322	1.328	1.334
% Ch, Annual Rate	2.4	1.9	2.0	1.9	1.8	1.8	1.7	1.8
Seattle Cons. Price Index (1982-84=1.0)	3.438	3.458	3.475	3.493	3.510	3.526	3.542	3.559
% Ch, Annual Rate	2.8	2.3	2.0	2.1	1.9	1.9	1.8	1.9
Average Nonfarm Annual Wage	91,831	92,808	93,769	94,705	95,673	96,657	97,632	98,617
% Ch, Annual Rate	4.6	4.3	4.2	4.1	4.1	4.2	4.1	4.1
Avg. Hourly Earnings-Mfg. (\$/Hour)	32.09	32.41	32.74	33.07	33.40	33.73	34.06	34.38
% Ch, Annual Rate	4.4	4.1	4.1	4.1	4.1	4.1	3.9	3.9
Current Dollar Income (Billions of Dollars)								
Personal Income	640.054	647.599	655.415	663.501	672.406	680.731	689.065	697.406
% Ch, Annual Rate	6.2	4.8	4.9	5.0	5.5	5.0	5.0	4.9
Disposable Personal Income	560.496	568.159	575.292	582.366	590.080	597.545	604.684	611.996
% Ch, Annual Rate	7.4	5.6	5.1	5.0	5.4	5.2	4.9	4.9
Per Capita Income (\$/Person)	81,123	81,877	82,660	83,472	84,383	85,216	86,045	86,871
% Ch, Annual Rate	5.1	3.8	3.9	4.0	4.4	4.0	4.0	3.9
Employment (Thousands)								
Washington Civilian Labor Force	4,064.5	4,073.6	4,082.7	4,091.9	4,101.0	4,110.5	4,119.5	4,128.7
Total Washington Employment	3,846.8	3,856.4	3,874.1	3,888.9	3,901.2	3,913.4	3,924.9	3,936.7
Unemployment Rate (%)	5.36	5.33	5.11	4.96	4.87	4.79	4.72	4.65
Nonfarm Payroll Employment	3,569.7	3,577.7	3,589.8	3,603.1	3,613.6	3,623.7	3,632.6	3,642.2
% Ch, Annual Rate	1.2	0.9	1.4	1.5	1.2	1.1	1.0	1.1
Manufacturing	272.8	271.8	271.4	271.2	271.3	271.4	271.4	271.5
% Ch, Annual Rate	-1.2	-1.4	-0.6	-0.4	0.2	0.2	0.0	0.1
Durable Manufacturing	184.9	184.4	184.2	184.1	184.2	184.4	184.5	184.6
% Ch, Annual Rate	-1.0	-1.0	-0.5	-0.2	0.2	0.5	0.2	0.2
Aerospace	76.2	76.5	76.6	76.7	76.8	76.8	76.8	76.8
% Ch, Annual Rate	2.1	1.3	0.9	0.5	0.2	0.0	0.0	0.0
Nondurable Manufacturing	87.9	87.4	87.2	87.1	87.1	87.0	87.0	86.9
% Ch, Annual Rate	-1.6	-2.2	-0.8	-0.7	0.1	-0.4	-0.2	-0.2
Construction	230.8	230.5	230.2	230.5	229.6	229.8	229.6	229.5
% Ch, Annual Rate	0.2	-0.7	-0.3	0.4	-1.5	0.4	-0.4	-0.3
Service-Providing	3,061.6	3,071.1	3,083.8	3,097.1	3,108.4	3,118.1	3,127.2	3,136.8
% Ch, Annual Rate	1.5	1.2	1.7	1.7	1.5	1.3	1.2	1.2
Software Publishers	86.7	87.0	87.3	87.7	88.1	88.4	88.7	89.0
% Ch, Annual Rate	1.2	1.4	1.5	1.7	1.8	1.6	1.4	1.3
Electronic Shopping and Mail-Order	77.9	78.3	78.7	79.2	79.6	80.0	80.4	80.8
% 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	44.866	45.784	46.298	47.626	48.175	47.961	47.002	46.855
% Ch, Annual Rate	13.3	8.4	4.6	12.0	4.7	-1.8	-7.8	-1.2
Single-Family	23.218	24.331	25.121	25.809	25.901	25.918	25.794	25.861
% Ch, Annual Rate	16.6	20.6	13.6	11.4	1.4	0.3	-1.9	1.0
Multi-Family	21.649	21.453	21.177	21.818	22.274	22.043	21.209	20.994
% Ch, Annual Rate	9.9	-3.6	-5.0	12.7	8.6	-4.1	-14.3	-4.0
30-Year Fixed Mortgage Rate (%)	6.00	5.68	5.44	5.33	5.19	5.04	4.97	4.92

Table A1.4 (continued)
Washington Economic Forecast Summary
Forecast 2022 to 2027

	2026:1	2026:2	2026:3	2026:4	2027:1	2027:2	2027:3	2027:4
Real Income (Billions of Chained 2012 Dollars)								
Real Personal Income	527.420	531.641	535.688	539.648	544.345	548.449	552.641	556.687
% Ch, Annual Rate	3.5	3.2	3.1	3.0	3.5	3.1	3.1	3.0
Real Wage and Salary Disb.	278.461	280.768	282.931	285.053	287.238	289.398	291.598	293.702
% Ch, Annual Rate	3.4	3.4	3.1	3.0	3.1	3.0	3.1	2.9
Real Nonwage Income	248.959	250.873	252.757	254.594	257.107	259.052	261.044	262.985
% Ch, Annual Rate	3.5	3.1	3.0	2.9	4.0	3.1	3.1	3.0
Real Per Capita Income (\$/Person)	65,534	65,895	66,232	66,556	66,969	67,306	67,652	67,977
% Ch, Annual Rate	2.4	2.2	2.1	2.0	2.5	2.0	2.1	1.9
Price and Wage Indexes								
U.S. Implicit Price Deflator, PCE (2012=1.0)	1.340	1.346	1.352	1.358	1.364	1.371	1.377	1.383
% Ch, Annual Rate	1.8	1.8	1.8	1.8	1.9	1.9	1.8	1.9
Seattle Cons. Price Index (1982-84=1.0)	3.576	3.593	3.610	3.628	3.646	3.664	3.682	3.701
% Ch, Annual Rate	2.0	1.9	1.9	1.9	2.1	2.0	1.9	2.1
Average Nonfarm Annual Wage	99,616	100,607	101,581	102,581	103,637	104,680	105,722	106,739
% Ch, Annual Rate	4.1	4.0	3.9	4.0	4.2	4.1	4.0	3.9
Avg. Hourly Earnings-Mfg. (\$/Hour)	34.72	35.04	35.35	35.66	35.96	36.26	36.57	36.87
% Ch, Annual Rate	3.9	3.8	3.6	3.5	3.4	3.4	3.4	3.4
Current Dollar Income (Billions of Dollars)								
Personal Income	706.511	715.326	724.036	732.719	742.575	751.658	760.877	770.079
% Ch, Annual Rate	5.3	5.1	5.0	4.9	5.5	5.0	5.0	4.9
Disposable Personal Income	620.028	627.802	635.476	643.192	652.083	660.235	668.595	676.856
% Ch, Annual Rate	5.4	5.1	5.0	4.9	5.6	5.1	5.2	5.0
Per Capita Income (\$/Person)	87,787	88,662	89,519	90,368	91,356	92,244	93,143	94,035
% Ch, Annual Rate	4.3	4.0	3.9	3.8	4.4	3.9	4.0	3.9
Employment (Thousands)								
Washington Civilian Labor Force	4,138.3	4,148.0	4,157.5	4,166.8	4,175.8	4,184.9	4,194.4	4,203.9
Total Washington Employment	3,948.8	3,960.8	3,971.3	3,981.0	3,989.9	3,998.7	4,007.7	4,017.0
Unemployment Rate (%)	4.58	4.51	4.48	4.46	4.45	4.45	4.45	4.44
Nonfarm Payroll Employment	3,652.6	3,663.0	3,672.5	3,681.0	3,688.7	3,696.7	3,705.2	3,714.1
% Ch, Annual Rate	1.1	1.1	1.0	0.9	0.8	0.9	0.9	1.0
Manufacturing	271.7	271.8	271.9	272.1	272.3	272.4	272.6	272.8
% Ch, Annual Rate	0.3	0.2	0.1	0.2	0.4	0.2	0.2	0.3
Durable Manufacturing	184.7	184.8	184.9	185.1	185.2	185.4	185.5	185.7
% Ch, Annual Rate	0.3	0.3	0.2	0.3	0.4	0.3	0.3	0.4
Aerospace	76.8	76.9	77.0	77.1	77.2	77.3	77.4	77.5
% Ch, Annual Rate	0.2	0.3	0.5	0.7	0.6	0.6	0.5	0.4
Nondurable Manufacturing	87.0	87.0	87.0	87.0	87.1	87.1	87.1	87.1
% Ch, Annual Rate	0.2	0.1	0.0	0.0	0.3	0.1	0.0	-0.1
Construction	229.7	230.1	230.6	230.6	231.0	231.7	232.6	233.7
% Ch, Annual Rate	0.4	0.7	0.9	0.0	0.7	1.1	1.6	1.8
Service-Providing	3,146.8	3,156.6	3,165.5	3,173.8	3,180.8	3,188.1	3,195.5	3,203.2
% Ch, Annual Rate	1.3	1.2	1.1	1.1	0.9	0.9	0.9	1.0
Software Publishers	89.3	89.6	89.8	90.1	90.4	90.7	91.0	91.3
% Ch, Annual Rate	1.3	1.2	1.2	1.2	1.4	1.4	1.4	1.3
Electronic Shopping and Mail-Order	81.3	81.7	82.1	82.5	82.9	83.4	83.8	84.2
% Ch, Annual Rate	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0
Housing Indicators (Thousands)								
Housing Units Authorized by Bldg. Permit	46.652	46.531	45.845	45.691	45.546	45.417	45.097	44.988
% Ch, Annual Rate	-1.7	-1.0	-5.8	-1.3	-1.3	-1.1	-2.8	-1.0
Single-Family	25.898	25.914	25.508	25.553	25.588	25.617	25.495	25.532
% Ch, Annual Rate	0.6	0.2	-6.1	0.7	0.5	0.5	-1.9	0.6
Multi-Family	20.755	20.617	20.338	20.138	19.959	19.800	19.602	19.457
% Ch, Annual Rate	-4.5	-2.6	-5.3	-3.9	-3.5	-3.1	-3.9	-2.9
30-Year Fixed Mortgage Rate (%)	4.89	4.86	4.84	4.83	4.82	4.81	4.80	4.80

Table A2.1

U.S. Nonagricultural Employment by Industry (Millions)

Forecast 2022 to 2027

	2020	2021	2022	2023	2024	2025	2026	2027
Nonfarm Payroll Employment	142.15	146.10	152.01	152.25	151.97	153.24	154.18	154.85
% Ch	-5.8	2.8	4.0	0.2	-0.2	0.8	0.6	0.4
Manufacturing	12.17	12.35	12.80	12.77	12.31	12.14	12.02	11.95
% Ch	-5.1	1.5	3.7	-0.3	-3.6	-1.3	-1.0	-0.6
Durable Manufacturing	7.57	7.68	7.96	7.93	7.59	7.48	7.40	7.35
% Ch	-5.8	1.4	3.7	-0.3	-4.3	-1.5	-1.1	-0.6
Wood Products	0.40	0.41	0.43	0.35	0.29	0.32	0.33	0.35
% Ch	-3.2	3.6	4.6	-19.3	-15.6	7.8	6.1	4.7
Primary and Fabricated Metals	1.74	1.73	1.80	1.83	1.75	1.73	1.72	1.72
% Ch	-7.1	-0.3	4.0	1.7	-4.6	-1.1	-0.3	-0.5
Computer and Electronic Products	1.06	1.06	1.08	1.10	1.11	1.12	1.12	1.11
% Ch	-1.1	-0.4	2.4	1.9	0.7	0.7	-0.1	-0.7
Machinery and Electrical Equipment	1.44	1.45	1.51	1.51	1.42	1.37	1.34	1.33
% Ch	-5.9	0.6	4.0	0.5	-6.3	-3.7	-1.7	-0.8
Transportation Equipment	1.59	1.64	1.70	1.70	1.66	1.62	1.57	1.55
% Ch	-8.0	3.0	3.7	-0.1	-2.3	-2.2	-3.3	-1.5
Other Durables	1.34	1.39	1.44	1.43	1.36	1.32	1.30	1.30
% Ch	-5.5	3.1	3.6	-0.2	-5.4	-2.7	-1.3	-0.4
Nondurable Manufacturing	4.59	4.67	4.84	4.83	4.72	4.66	4.63	4.60
% Ch	-3.9	1.7	3.7	-0.2	-2.4	-1.1	-0.8	-0.7
Food Manufacturing	1.62	1.64	1.70	1.70	1.68	1.68	1.69	1.70
% Ch	-1.8	1.4	3.6	0.4	-1.1	0.0	0.5	0.6
Paper and Paper Products	0.35	0.35	0.36	0.36	0.35	0.35	0.34	0.34
% Ch	-2.9	-1.7	3.0	-0.1	-2.5	-1.0	-0.7	-0.7
Other Nondurables	2.62	2.68	2.79	2.77	2.68	2.63	2.59	2.55
% Ch	-5.2	2.3	3.9	-0.7	-3.2	-1.8	-1.6	-1.6
Natural Resources and Mining	0.60	0.57	0.62	0.64	0.67	0.68	0.68	0.69
% Ch	-17.6	-5.6	9.7	3.7	4.1	1.1	1.1	0.5
Construction	7.26	7.41	7.67	7.56	7.40	7.40	7.45	7.52
% Ch	-3.2	2.2	3.5	-1.4	-2.1	-0.1	0.8	0.9
Trade, Transportation, and Utilities	26.69	27.72	28.69	28.45	28.21	28.10	28.02	27.96
% Ch	-3.7	3.9	3.5	-0.8	-0.8	-0.4	-0.3	-0.2
Wholesale Trade	5.63	5.68	5.87	5.89	5.97	6.06	6.11	6.14
% Ch	-4.3	0.8	3.4	0.4	1.4	1.5	0.8	0.5
Retail Trade	14.87	15.41	15.79	15.61	15.26	14.96	14.76	14.65
% Ch	-4.7	3.6	2.5	-1.2	-2.2	-2.0	-1.3	-0.7
Trans., Warehousing, and Utilities	6.18	6.63	7.03	6.96	6.98	7.08	7.15	7.16
% Ch	-0.6	7.3	6.0	-1.0	0.4	1.4	1.0	0.2
Information	2.72	2.83	3.00	2.99	2.99	3.05	3.05	3.04
% Ch	-5.0	4.0	5.9	-0.4	0.3	1.7	0.2	-0.4
Publishing Industries	0.77	0.79	0.83	0.83	0.81	0.80	0.79	0.78
% Ch	0.5	3.0	4.9	-0.4	-2.4	-0.3	-1.5	-1.4
Other Information	1.95	2.04	2.17	2.16	2.19	2.24	2.26	2.26
% Ch	-7.0	4.4	6.3	-0.4	1.2	2.5	0.8	0.0
Financial Activities	8.70	8.78	8.94	8.78	8.91	9.12	9.21	9.22
% Ch	-0.6	0.8	1.9	-1.8	1.5	2.3	1.0	0.1
Professional and Business Services	20.31	21.24	22.26	21.69	20.93	21.50	22.03	22.36
% Ch	-4.5	4.6	4.8	-2.6	-3.5	2.7	2.5	1.5
Education and Health Services	23.27	23.67	24.42	24.95	25.36	25.65	25.80	25.95
% Ch	-3.7	1.7	3.2	2.2	1.7	1.1	0.6	0.6
Leisure and Hospitality	13.13	14.09	15.66	16.17	16.61	16.75	16.81	16.83
% Ch	-20.8	7.4	11.1	3.3	2.7	0.9	0.3	0.1
Other Services	5.33	5.45	5.69	5.71	5.81	5.93	6.03	6.13
% Ch	-9.6	2.4	4.3	0.3	1.8	2.0	1.7	1.6
Federal Government	2.93	2.89	2.87	2.87	2.87	2.87	2.87	2.89
% Ch	3.6	-1.6	-0.6	0.1	0.0	0.0	0.0	0.5
State and Local Government	19.05	19.11	19.39	19.68	19.88	20.05	20.20	20.33
% Ch	-3.7	0.3	1.5	1.5	1.0	0.9	0.7	0.7

Table A2.2

U.S. Nonagricultural Employment by Industry (Millions)

Forecast 2022 to 2027

	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4
Nonfarm Payroll Employment	150.35	151.58	152.74	153.37	153.37	152.59	151.74	151.32
% Ch, Annual Rate	4.7	3.3	3.1	1.7	0.0	-2.0	-2.2	-1.1
Manufacturing	12.63	12.77	12.86	12.95	12.93	12.90	12.73	12.50
% Ch, Annual Rate	4.0	4.4	2.9	2.7	-0.5	-1.2	-5.0	-7.0
Durable Manufacturing	7.85	7.93	8.00	8.06	8.05	8.04	7.91	7.73
% Ch, Annual Rate	3.3	3.9	3.5	3.4	-0.4	-0.8	-6.2	-9.1
Wood Products	0.42	0.43	0.43	0.43	0.40	0.36	0.32	0.30
% Ch, Annual Rate	7.8	6.9	0.2	-2.8	-21.7	-34.0	-38.7	-27.3
Primary and Fabricated Metals	1.78	1.79	1.81	1.83	1.84	1.86	1.84	1.80
% Ch, Annual Rate	4.6	2.8	3.2	4.5	3.5	2.4	-3.4	-9.2
Computer and Electronic Products	1.07	1.08	1.09	1.10	1.10	1.10	1.11	1.11
% Ch, Annual Rate	1.3	4.0	4.0	2.2	0.0	2.9	1.5	0.3
Machinery and Electrical Equipment	1.48	1.50	1.51	1.53	1.54	1.54	1.51	1.47
% Ch, Annual Rate	6.0	4.7	2.0	4.8	2.5	0.3	-6.5	-11.2
Transportation Equipment	1.66	1.69	1.72	1.73	1.72	1.72	1.69	1.66
% Ch, Annual Rate	-2.1	6.0	7.1	3.6	-2.2	-0.7	-6.0	-7.2
Other Durables	1.43	1.43	1.44	1.45	1.45	1.46	1.44	1.39
% Ch, Annual Rate	5.7	0.9	1.7	3.1	0.3	2.0	-5.8	-11.2
Nondurable Manufacturing	4.78	4.84	4.87	4.89	4.88	4.86	4.82	4.78
% Ch, Annual Rate	5.0	5.3	2.0	1.7	-0.5	-2.0	-3.1	-3.6
Food Manufacturing	1.67	1.70	1.70	1.71	1.71	1.71	1.70	1.69
% Ch, Annual Rate	5.7	5.0	2.3	1.9	0.3	-1.8	-1.3	-1.5
Paper and Paper Products	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.35
% Ch, Annual Rate	6.1	4.7	-0.8	2.1	0.3	-0.7	-3.2	-3.9
Other Nondurables	2.75	2.79	2.80	2.81	2.81	2.79	2.76	2.73
% Ch, Annual Rate	4.5	5.6	2.2	1.5	-1.2	-2.3	-4.1	-4.9
Natural Resources and Mining	0.60	0.62	0.63	0.63	0.63	0.64	0.65	0.66
% Ch, Annual Rate	10.7	15.5	8.2	-1.8	1.7	3.8	4.6	7.1
Construction	7.60	7.65	7.70	7.73	7.71	7.58	7.48	7.46
% Ch, Annual Rate	5.1	2.9	2.8	1.3	-0.9	-6.3	-5.3	-1.3
Trade, Transportation, and Utilities	28.49	28.67	28.78	28.82	28.66	28.58	28.25	28.32
% Ch, Annual Rate	5.9	2.5	1.6	0.5	-2.2	-1.0	-4.5	0.9
Wholesale Trade	5.79	5.85	5.90	5.94	5.94	5.88	5.86	5.88
% Ch, Annual Rate	4.0	4.7	2.8	2.8	0.3	-3.9	-1.3	1.1
Retail Trade	15.78	15.78	15.82	15.79	15.67	15.74	15.48	15.53
% Ch, Annual Rate	5.8	0.0	0.9	-0.6	-2.9	1.8	-6.5	1.1
Trans., Warehousing, and Utilities	6.92	7.03	7.07	7.09	7.04	6.95	6.91	6.92
% Ch, Annual Rate	7.9	6.4	2.2	1.0	-2.6	-4.8	-2.4	0.3
Information	2.92	2.98	3.03	3.05	3.02	3.00	2.98	2.95
% Ch, Annual Rate	3.2	8.3	6.7	3.0	-4.9	-1.7	-3.1	-4.4
Publishing Industries	0.81	0.82	0.84	0.84	0.84	0.83	0.82	0.81
% Ch, Annual Rate	5.9	7.5	7.9	0.9	-1.3	-4.5	-4.2	-4.1
Other Information	2.11	2.16	2.19	2.21	2.18	2.17	2.16	2.13
% Ch, Annual Rate	2.2	8.6	6.3	3.8	-6.3	-0.6	-2.7	-4.5
Financial Activities	8.89	8.94	8.96	8.96	8.92	8.76	8.71	8.74
% Ch, Annual Rate	2.1	2.6	0.9	0.0	-2.1	-6.8	-2.3	1.3
Professional and Business Services	22.00	22.21	22.41	22.43	22.53	21.95	21.33	20.94
% Ch, Annual Rate	5.2	3.8	3.7	0.3	1.8	-9.9	-10.8	-7.2
Education and Health Services	24.06	24.27	24.57	24.78	25.01	24.90	24.92	24.98
% Ch, Annual Rate	3.1	3.6	5.0	3.6	3.7	-1.8	0.4	0.9
Leisure and Hospitality	15.36	15.59	15.78	15.89	15.77	16.07	16.41	16.42
% Ch, Annual Rate	12.4	6.1	4.8	3.1	-3.0	7.7	8.7	0.4
Other Services	5.64	5.68	5.71	5.74	5.72	5.68	5.70	5.73
% Ch, Annual Rate	4.7	2.9	2.0	1.9	-0.9	-3.0	1.0	2.6
Federal Government	2.88	2.86	2.87	2.87	2.87	2.87	2.87	2.87
% Ch, Annual Rate	-0.3	-1.9	0.2	1.1	0.0	0.0	0.0	0.0
State and Local Government	19.29	19.33	19.44	19.52	19.59	19.65	19.71	19.76
% Ch, Annual Rate	1.0	0.9	2.3	1.6	1.6	1.1	1.2	1.1

Table A2.2 (continued)

U.S. Nonagricultural Employment by Industry (Millions)

Forecast 2022 to 2027

	2024Q1	2024Q2	2024Q3	2024Q4	2025Q1	2025Q2	2025Q3	2025Q4
Nonfarm Payroll Employment	151.51	151.71	152.11	152.56	152.87	153.11	153.35	153.61
% Ch, Annual Rate	0.5	0.5	1.1	1.2	0.8	0.6	0.6	0.7
Manufacturing	12.41	12.32	12.27	12.22	12.19	12.16	12.12	12.09
% Ch, Annual Rate	-3.0	-2.7	-1.5	-1.6	-1.1	-1.0	-1.3	-1.1
Durable Manufacturing	7.66	7.60	7.57	7.54	7.51	7.49	7.46	7.44
% Ch, Annual Rate	-3.6	-2.8	-1.6	-1.9	-1.4	-0.9	-1.5	-1.2
Wood Products	0.29	0.29	0.29	0.30	0.30	0.31	0.32	0.32
% Ch, Annual Rate	-6.8	-1.7	0.5	7.3	12.5	11.3	7.0	6.9
Primary and Fabricated Metals	1.77	1.75	1.74	1.73	1.73	1.73	1.73	1.73
% Ch, Annual Rate	-5.1	-4.4	-2.8	-1.6	-0.7	0.3	-0.3	-0.1
Computer and Electronic Products	1.11	1.11	1.11	1.12	1.12	1.12	1.12	1.12
% Ch, Annual Rate	0.4	0.2	0.8	1.1	1.0	0.6	0.3	-0.1
Machinery and Electrical Equipment	1.44	1.43	1.41	1.39	1.38	1.37	1.36	1.36
% Ch, Annual Rate	-6.1	-5.0	-4.1	-5.2	-4.3	-2.5	-2.2	-1.7
Transportation Equipment	1.66	1.66	1.67	1.66	1.65	1.63	1.62	1.60
% Ch, Annual Rate	-0.3	-0.2	1.3	-1.5	-2.5	-3.3	-4.3	-4.4
Other Durables	1.38	1.36	1.35	1.34	1.33	1.32	1.32	1.31
% Ch, Annual Rate	-5.1	-3.8	-3.3	-3.6	-2.7	-1.9	-2.3	-1.0
Nondurable Manufacturing	4.75	4.72	4.70	4.69	4.68	4.67	4.66	4.65
% Ch, Annual Rate	-2.1	-2.6	-1.3	-1.3	-0.6	-1.1	-1.0	-0.9
Food Manufacturing	1.69	1.68	1.68	1.68	1.68	1.68	1.68	1.69
% Ch, Annual Rate	-0.4	-2.1	-0.3	-0.4	0.7	0.0	0.3	0.2
Paper and Paper Products	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
% Ch, Annual Rate	-2.4	-2.9	-1.0	-0.9	-0.5	-1.0	-0.9	-0.8
Other Nondurables	2.70	2.69	2.67	2.66	2.65	2.64	2.63	2.62
% Ch, Annual Rate	-3.2	-2.8	-1.9	-1.8	-1.4	-1.7	-1.8	-1.7
Natural Resources and Mining	0.66	0.67	0.67	0.67	0.68	0.68	0.68	0.68
% Ch, Annual Rate	4.0	3.6	2.0	1.0	0.9	0.3	1.0	0.8
Construction	7.42	7.39	7.39	7.41	7.39	7.39	7.40	7.41
% Ch, Annual Rate	-2.1	-1.5	0.2	0.9	-1.2	0.4	0.2	0.5
Trade, Transportation, and Utilities	28.30	28.14	28.19	28.22	28.19	28.11	28.07	28.04
% Ch, Annual Rate	-0.2	-2.3	0.7	0.4	-0.5	-1.1	-0.5	-0.5
Wholesale Trade	5.92	5.96	5.99	6.01	6.04	6.06	6.07	6.08
% Ch, Annual Rate	3.0	2.7	1.6	1.8	1.9	0.9	1.0	0.9
Retail Trade	15.43	15.19	15.21	15.20	15.10	14.98	14.91	14.84
% Ch, Annual Rate	-2.4	-6.0	0.4	-0.3	-2.7	-3.0	-1.9	-1.8
Trans., Warehousing, and Utilities	6.95	6.98	6.99	7.01	7.05	7.07	7.09	7.11
% Ch, Annual Rate	2.0	1.7	0.6	1.0	2.4	1.3	1.3	1.1
Information	2.97	3.00	3.00	3.01	3.01	3.03	3.07	3.07
% Ch, Annual Rate	2.6	4.5	0.9	0.3	0.9	2.6	4.4	0.4
Publishing Industries	0.81	0.81	0.81	0.81	0.81	0.81	0.80	0.80
% Ch, Annual Rate	-1.9	-1.1	-0.7	0.0	0.6	-0.3	-1.3	-1.5
Other Information	2.16	2.19	2.20	2.20	2.21	2.23	2.26	2.27
% Ch, Annual Rate	4.4	6.6	1.5	0.4	1.0	3.7	6.5	1.1
Financial Activities	8.80	8.88	8.95	9.02	9.08	9.12	9.13	9.14
% Ch, Annual Rate	3.0	3.8	2.7	3.3	3.0	1.4	0.5	0.8
Professional and Business Services	20.89	20.89	20.91	21.05	21.27	21.43	21.57	21.72
% Ch, Annual Rate	-0.9	-0.2	0.4	2.8	4.2	3.0	2.8	2.7
Education and Health Services	25.18	25.32	25.42	25.53	25.61	25.63	25.67	25.71
% Ch, Annual Rate	3.3	2.3	1.5	1.7	1.2	0.4	0.5	0.7
Leisure and Hospitality	16.42	16.56	16.70	16.76	16.71	16.75	16.76	16.80
% Ch, Annual Rate	0.0	3.4	3.5	1.3	-1.1	1.0	0.4	0.9
Other Services	5.77	5.80	5.82	5.85	5.89	5.92	5.95	5.97
% Ch, Annual Rate	2.6	2.4	1.4	1.8	2.5	2.1	2.0	1.8
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	19.81	19.86	19.90	19.95	19.99	20.03	20.07	20.11
% Ch, Annual Rate	1.0	1.0	0.9	0.9	0.8	0.8	0.8	0.8

Table A2.2 (continued)

U.S. Nonagricultural Employment by Industry (Millions)

Forecast 2022 to 2027

	2026Q1	2026Q2	2026Q3	2026Q4	2027Q1	2027Q2	2027Q3	2027Q4
Nonfarm Payroll Employment	153.86	154.10	154.30	154.47	154.62	154.77	154.92	155.09
% Ch, Annual Rate	0.6	0.6	0.5	0.4	0.4	0.4	0.4	0.4
Manufacturing	12.06	12.04	12.01	11.99	11.98	11.96	11.94	11.93
% Ch, Annual Rate	-0.9	-0.9	-0.9	-0.8	-0.3	-0.6	-0.6	-0.5
Durable Manufacturing	7.42	7.40	7.39	7.37	7.37	7.36	7.35	7.34
% Ch, Annual Rate	-1.1	-1.0	-0.9	-0.8	-0.2	-0.5	-0.5	-0.3
Wood Products	0.33	0.33	0.34	0.34	0.34	0.35	0.35	0.36
% Ch, Annual Rate	6.3	5.3	4.0	3.4	4.9	4.9	5.6	6.5
Primary and Fabricated Metals	1.73	1.73	1.72	1.72	1.72	1.72	1.71	1.71
% Ch, Annual Rate	-0.3	-0.5	-0.7	-0.7	-0.1	-0.6	-0.7	-0.6
Computer and Electronic Products	1.12	1.12	1.12	1.12	1.12	1.11	1.11	1.11
% Ch, Annual Rate	0.0	-0.3	-0.3	-0.3	-0.9	-1.0	-0.9	-0.7
Machinery and Electrical Equipment	1.35	1.34	1.34	1.34	1.33	1.33	1.33	1.33
% Ch, Annual Rate	-1.8	-1.6	-1.4	-1.0	-0.5	-0.8	-0.6	-0.4
Transportation Equipment	1.58	1.57	1.57	1.56	1.56	1.55	1.54	1.54
% Ch, Annual Rate	-3.4	-2.8	-2.0	-1.7	-0.9	-1.3	-1.7	-1.6
Other Durables	1.31	1.31	1.30	1.30	1.30	1.30	1.30	1.30
% Ch, Annual Rate	-1.0	-1.1	-1.2	-1.0	0.2	-0.2	-0.2	-0.1
Nondurable Manufacturing	4.64	4.63	4.62	4.62	4.61	4.60	4.59	4.58
% Ch, Annual Rate	-0.6	-0.6	-0.8	-0.8	-0.5	-0.7	-0.8	-0.9
Food Manufacturing	1.69	1.69	1.69	1.70	1.70	1.70	1.71	1.71
% Ch, Annual Rate	0.8	0.7	0.6	0.7	0.8	0.6	0.4	0.1
Paper and Paper Products	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34
% Ch, Annual Rate	-0.5	-0.5	-0.8	-0.9	-0.5	-0.7	-0.9	-0.9
Other Nondurables	2.61	2.60	2.59	2.58	2.57	2.56	2.55	2.54
% Ch, Annual Rate	-1.4	-1.5	-1.7	-1.7	-1.4	-1.5	-1.5	-1.5
Natural Resources and Mining	0.68	0.68	0.69	0.69	0.69	0.69	0.69	0.69
% Ch, Annual Rate	1.0	1.6	1.3	0.8	0.5	0.1	-0.4	-0.7
Construction	7.42	7.44	7.47	7.47	7.49	7.51	7.53	7.55
% Ch, Annual Rate	0.9	1.1	1.4	0.3	1.0	0.9	1.2	1.3
Trade, Transportation, and Utilities	28.02	28.02	28.02	28.02	27.99	27.98	27.96	27.91
% Ch, Annual Rate	-0.2	0.0	0.0	0.0	-0.4	-0.2	-0.3	-0.6
Wholesale Trade	6.10	6.10	6.12	6.12	6.14	6.15	6.14	6.13
% Ch, Annual Rate	0.8	0.5	0.7	0.6	0.8	0.8	-0.3	-0.6
Retail Trade	14.79	14.77	14.74	14.72	14.68	14.66	14.65	14.62
% Ch, Annual Rate	-1.3	-0.6	-0.7	-0.6	-1.0	-0.5	-0.4	-0.7
Trans., Warehousing, and Utilities	7.13	7.14	7.16	7.17	7.17	7.17	7.16	7.16
% Ch, Annual Rate	1.0	0.7	0.8	0.8	-0.1	-0.2	-0.1	-0.4
Information	3.06	3.05	3.05	3.04	3.04	3.04	3.04	3.04
% Ch, Annual Rate	-0.9	-0.9	-0.7	-1.0	0.0	-0.2	-0.1	-0.2
Publishing Industries	0.80	0.79	0.79	0.79	0.78	0.78	0.78	0.78
% Ch, Annual Rate	-1.5	-1.7	-1.9	-1.9	-1.0	-1.2	-1.1	-1.5
Other Information	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26
% Ch, Annual Rate	-0.7	-0.6	-0.3	-0.7	0.4	0.1	0.2	0.3
Financial Activities	9.19	9.21	9.21	9.22	9.22	9.22	9.22	9.20
% Ch, Annual Rate	1.8	1.0	0.3	0.0	0.3	-0.1	-0.2	-0.6
Professional and Business Services	21.86	21.99	22.09	22.18	22.24	22.29	22.37	22.53
% Ch, Annual Rate	2.7	2.3	1.8	1.6	1.1	1.1	1.3	3.0
Education and Health Services	25.76	25.79	25.82	25.85	25.89	25.93	25.97	25.99
% Ch, Annual Rate	0.7	0.6	0.4	0.5	0.7	0.6	0.6	0.3
Leisure and Hospitality	16.79	16.80	16.82	16.83	16.82	16.83	16.84	16.82
% Ch, Annual Rate	-0.3	0.4	0.5	0.2	-0.3	0.2	0.1	-0.4
Other Services	6.00	6.02	6.04	6.07	6.09	6.12	6.14	6.17
% Ch, Annual Rate	1.9	1.4	1.5	1.5	1.8	1.5	1.7	1.5
Federal Government	2.87	2.87	2.87	2.87	2.89	2.89	2.89	2.89
% Ch, Annual Rate	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0
State and Local Government	20.14	20.18	20.21	20.25	20.28	20.31	20.34	20.37
% Ch, Annual Rate	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6

Table A2.3

Washington Nonagricultural Employment by Industry (Thousands)

Forecast 2022 to 2027

	2020	2021	2022	2023	2024	2025	2026	2027
Nonfarm Payroll Employment	3,283.5	3,363.1	3,537.7	3,569.9	3,585.1	3,628.0	3,667.3	3,701.2
% Ch	-5.3	2.4	5.2	0.9	0.4	1.2	1.1	0.9
Manufacturing	271.7	259.2	271.9	276.7	271.8	271.4	271.9	272.5
% Ch	-7.5	-4.6	4.9	1.8	-1.8	-0.1	0.2	0.2
Durable Manufacturing	189.7	175.3	183.3	187.4	184.4	184.4	184.9	185.5
% Ch	-8.3	-7.6	4.6	2.2	-1.6	0.0	0.3	0.3
Wood Products	12.6	13.2	13.7	11.0	9.3	9.6	9.9	10.0
% Ch	-2.8	5.3	3.3	-19.3	-15.9	3.8	2.5	1.3
Primary and Fabricated Metals	24.4	23.0	23.7	24.0	22.8	22.5	22.5	22.3
% Ch	-9.1	-5.8	3.1	1.0	-4.9	-1.2	-0.4	-0.6
Computer and Electronic Products	18.8	17.9	17.9	18.8	19.3	19.8	20.0	20.0
% Ch	-5.3	-5.0	0.3	4.7	2.7	2.7	1.2	0.1
Machinery and Electrical Equipment	19.3	19.1	20.3	20.9	19.6	19.0	19.1	19.5
% Ch	-8.9	-0.9	6.4	3.1	-6.6	-2.7	0.5	2.0
Aerospace	80.1	67.6	70.6	74.9	76.5	76.8	76.9	77.3
% Ch	-9.6	-15.6	4.4	6.1	2.1	0.3	0.2	0.5
Other Transportation Equip.	9.1	9.1	10.2	10.4	10.1	9.9	9.7	9.4
% Ch	-6.2	-0.3	12.7	1.7	-2.8	-2.0	-1.5	-3.1
Other Durables	25.5	25.4	26.9	27.4	26.9	26.8	26.7	26.8
% Ch	-8.6	-0.1	5.6	2.0	-1.9	-0.4	-0.1	0.2
Nondurable Manufacturing	82.0	83.9	88.6	89.2	87.4	87.0	87.0	87.1
% Ch	-5.5	2.3	5.5	0.8	-2.1	-0.5	0.0	0.1
Food Manufacturing	37.6	38.7	40.6	39.9	39.0	38.6	38.4	38.3
% Ch	-4.4	2.8	4.8	-1.7	-2.1	-1.0	-0.5	-0.4
Paper and Paper Products	7.5	7.4	7.5	7.4	7.1	6.9	6.8	6.6
% Ch	-3.5	-0.7	0.9	-2.0	-3.9	-2.2	-1.9	-2.0
Other Nondurables	36.9	37.8	40.5	42.0	41.3	41.5	41.8	42.1
% Ch	-6.9	2.5	7.2	3.7	-1.7	0.4	0.7	0.9
Natural Resources and Mining	5.6	5.7	5.7	4.8	4.4	4.4	4.5	4.5
% Ch	-5.1	2.1	-0.3	-15.8	-8.9	0.3	2.5	0.6
Construction	213.8	223.4	236.1	232.8	230.5	229.6	230.3	232.2
% Ch	-2.6	4.5	5.7	-1.4	-1.0	-0.4	0.3	0.9
Trade, Transportation, and Utilities	630.0	653.7	677.6	675.5	672.5	673.4	675.2	678.0
% Ch	-2.0	3.8	3.7	-0.3	-0.5	0.1	0.3	0.4
Wholesale Trade	130.0	131.4	140.0	141.6	144.1	146.9	148.6	150.1
% Ch	-4.4	1.0	6.6	1.1	1.8	1.9	1.2	1.0
Retail Trade	387.7	403.4	415.9	412.7	406.3	402.9	401.6	402.4
% Ch	-0.7	4.0	3.1	-0.8	-1.6	-0.8	-0.3	0.2
Electronic Shopping and Mail-Order	75.9	75.4	78.4	79.0	78.5	80.2	81.9	83.6
% Ch	19.5	-0.6	4.0	0.7	-0.6	2.2	2.1	2.0
Other Retail Trade	311.9	328.0	337.5	333.7	327.8	322.7	319.7	318.8
% Ch	-4.6	5.2	2.9	-1.1	-1.8	-1.6	-0.9	-0.3
Trans., Warehousing, and Utilities	112.2	118.9	121.7	121.2	122.1	123.7	125.0	125.5
% Ch	-3.5	5.9	2.4	-0.4	0.7	1.3	1.0	0.4
Information	149.0	157.1	169.6	171.5	173.1	176.8	181.1	184.0
% Ch	3.1	5.4	8.0	1.1	0.9	2.1	2.4	1.6
Software Publishers	76.0	79.5	84.3	86.2	87.2	88.6	89.7	90.9
% Ch	8.0	4.6	6.1	2.3	1.1	1.6	1.3	1.3
Other Publishing Industries	4.1	3.8	3.6	3.4	2.9	2.6	2.2	1.8
% Ch	-15.2	-7.5	-3.9	-7.8	-14.3	-9.2	-14.8	-16.8
Other Information	69.0	73.8	81.7	82.0	83.1	85.7	89.2	91.3
% Ch	-0.5	7.1	10.6	0.3	1.3	3.1	4.1	2.4
Financial Activities	158.4	160.5	165.5	162.6	165.3	169.1	170.5	170.3
% Ch	-1.3	1.3	3.1	-1.7	1.6	2.3	0.8	-0.1
Professional and Business Services	425.3	448.3	476.8	472.3	463.3	476.4	489.2	498.6
% Ch	-2.1	5.4	6.3	-0.9	-1.9	2.8	2.7	1.9
Education and Health Services	488.2	498.5	520.0	532.3	543.1	552.0	558.6	565.2
% Ch	-2.8	2.1	4.3	2.4	2.0	1.6	1.2	1.2
Leisure and Hospitality	262.9	282.8	327.5	340.7	349.2	352.9	355.3	357.1
% Ch	-24.3	7.6	15.8	4.0	2.5	1.1	0.7	0.5
Other Services	116.2	113.5	120.0	122.4	124.5	126.7	128.8	130.9
% Ch	-9.9	-2.3	5.7	2.0	1.7	1.8	1.7	1.7
Federal Government	78.5	76.8	75.1	74.2	74.5	74.8	75.1	75.7
% Ch	3.6	-2.2	-2.1	-1.2	0.4	0.4	0.4	0.9
State and Local Government	483.7	483.5	491.9	504.3	513.0	520.4	526.9	532.0
% Ch	-5.5	0.0	1.7	2.5	1.7	1.5	1.2	1.0

Table A2.4

Washington Nonagricultural Employment by Industry (Thousands)

Forecast 2022 to 2027

	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4
Nonfarm Payroll Employment	3,487.3	3,519.9	3,560.0	3,583.7	3,585.7	3,574.0	3,560.3	3,559.4
% Ch, Annual Rate	4.7	3.8	4.6	2.7	0.2	-1.3	-1.5	-0.1
Manufacturing	266.4	270.1	274.4	276.7	278.6	278.2	276.2	273.6
% Ch, Annual Rate	6.7	5.7	6.5	3.4	2.8	-0.6	-2.8	-3.7
Durable Manufacturing	178.9	181.8	185.4	187.1	188.6	188.5	187.2	185.4
% Ch, Annual Rate	6.1	6.8	8.0	3.9	3.1	-0.1	-2.7	-3.8
Wood Products	13.8	13.7	13.8	13.4	12.7	11.5	10.3	9.6
% Ch, Annual Rate	14.3	-4.0	3.3	-11.8	-18.4	-31.9	-36.1	-26.1
Primary and Fabricated Metals	23.6	23.8	23.8	23.8	24.1	24.3	24.1	23.5
% Ch, Annual Rate	5.6	2.6	-0.5	-0.2	6.6	2.6	-3.7	-9.6
Computer and Electronic Products	17.8	17.7	17.9	18.2	18.4	18.7	18.9	19.0
% Ch, Annual Rate	-1.0	-1.8	4.4	6.6	4.4	6.8	4.2	1.9
Machinery and Electrical Equipment	19.9	20.3	20.4	20.7	21.2	21.4	21.0	20.2
% Ch, Annual Rate	13.0	8.3	1.1	6.3	10.5	3.4	-7.2	-14.0
Aerospace	68.1	69.3	71.8	73.1	73.9	74.6	75.3	75.8
% Ch, Annual Rate	3.1	7.7	14.7	7.8	4.5	3.7	3.6	2.9
Other Transportation Equip.	9.5	10.2	10.7	10.5	10.5	10.4	10.3	10.3
% Ch, Annual Rate	10.4	31.7	21.1	-5.4	-0.1	-3.6	-3.6	-2.5
Other Durables	26.1	26.8	27.1	27.5	27.7	27.5	27.3	27.1
% Ch, Annual Rate	9.0	10.5	4.6	5.9	2.6	-1.5	-2.9	-3.9
Nondurable Manufacturing	87.5	88.3	89.0	89.5	90.0	89.7	89.0	88.3
% Ch, Annual Rate	7.7	3.5	3.4	2.5	2.3	-1.7	-2.9	-3.3
Food Manufacturing	40.9	41.0	40.2	40.1	40.3	40.0	39.8	39.5
% Ch, Annual Rate	14.8	0.8	-6.9	-1.0	1.3	-2.7	-2.3	-2.5
Paper and Paper Products	7.6	7.6	7.4	7.4	7.4	7.4	7.3	7.2
% Ch, Annual Rate	1.8	-1.3	-6.4	-1.1	1.3	-1.8	-4.7	-5.4
Other Nondurables	39.0	39.7	41.3	42.0	42.3	42.3	41.9	41.5
% Ch, Annual Rate	2.0	7.2	16.9	6.8	3.3	-0.6	-3.2	-3.7
Natural Resources and Mining	5.6	5.8	5.8	5.6	5.1	4.8	4.6	4.6
% Ch, Annual Rate	-2.6	9.6	1.7	-13.9	-31.2	-17.3	-17.4	1.9
Construction	232.6	234.8	236.7	240.1	237.6	233.1	229.6	230.7
% Ch, Annual Rate	9.9	4.0	3.3	5.8	-4.2	-7.3	-5.8	1.9
Trade, Transportation, and Utilities	673.1	674.6	679.2	683.7	679.9	678.3	671.4	672.4
% Ch, Annual Rate	4.5	0.8	2.8	2.7	-2.2	-0.9	-4.0	0.6
Wholesale Trade	136.3	139.5	141.7	142.5	142.5	141.2	141.0	141.5
% Ch, Annual Rate	7.3	9.7	6.5	2.3	0.0	-3.4	-0.6	1.4
Retail Trade	414.5	413.7	417.2	418.3	415.2	416.0	409.8	410.0
% Ch, Annual Rate	5.4	-0.7	3.4	1.0	-2.9	0.8	-5.8	0.2
Electronic Shopping and Mail-Order	75.8	76.5	79.9	81.5	80.5	79.5	78.5	77.4
% Ch	0.5	3.5	19.0	8.3	-4.8	-4.9	-5.1	-5.2
Other Retail Trade	338.6	337.2	337.3	336.8	334.7	336.5	331.3	332.5
% Ch	6.6	-1.7	0.1	-0.6	-2.5	2.2	-6.0	1.5
Trans., Warehousing, and Utilities	122.4	121.4	120.3	122.9	122.2	121.1	120.6	120.9
% Ch, Annual Rate	-1.6	-3.3	-3.5	8.9	-2.2	-3.6	-1.6	1.0
Information	165.2	167.9	172.2	173.3	172.1	172.0	171.5	170.5
% Ch, Annual Rate	5.2	6.5	10.7	2.6	-2.8	-0.2	-1.2	-2.2
Software Publishers	82.3	83.7	85.5	85.7	86.0	86.1	86.3	86.4
% Ch, Annual Rate	2.2	7.3	8.5	1.2	1.4	0.6	0.7	0.7
Other Publishing Industries	3.5	3.6	3.7	3.7	3.6	3.4	3.3	3.1
% Ch, Annual Rate	-25.0	7.2	15.2	-1.4	-9.7	-18.5	-18.3	-18.9
Other Information	79.4	80.5	83.0	83.9	82.5	82.4	81.9	81.0
% Ch, Annual Rate	10.2	5.8	12.8	4.3	-6.6	-0.1	-2.4	-4.5
Financial Activities	163.9	165.4	165.7	166.9	165.6	162.2	161.0	161.7
% Ch, Annual Rate	2.0	3.7	0.7	3.0	-3.1	-8.1	-2.9	1.8
Professional and Business Services	471.2	475.9	477.8	482.2	484.8	476.2	466.9	461.2
% Ch, Annual Rate	6.8	4.1	1.6	3.7	2.2	-6.9	-7.6	-4.8
Education and Health Services	511.1	518.1	523.9	526.9	531.7	530.9	532.3	534.2
% Ch, Annual Rate	3.5	5.6	4.6	2.4	3.6	-0.6	1.0	1.5
Leisure and Hospitality	322.6	324.0	328.1	335.3	333.8	338.9	344.6	345.3
% Ch, Annual Rate	15.8	1.8	5.2	9.1	-1.8	6.2	6.9	0.8
Other Services	117.9	119.9	120.7	121.5	121.9	122.0	122.5	123.1
% Ch, Annual Rate	3.2	6.6	3.0	2.7	1.1	0.6	1.5	1.9
Federal Government	76.0	75.6	74.9	74.0	74.1	74.2	74.2	74.3
% Ch, Annual Rate	-1.2	-1.8	-3.8	-4.5	0.4	0.4	0.4	0.4
State and Local Government	481.7	487.9	500.6	497.5	500.6	503.2	505.5	507.8
% Ch, Annual Rate	-3.5	5.2	10.8	-2.5	2.6	2.0	1.9	1.8

Table A2.4 (continued)

Washington Nonagricultural Employment by Industry (Thousands)

Forecast 2022 to 2027

	2024:1	2024:2	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4
Nonfarm Payroll Employment	3,569.7	3,577.7	3,589.8	3,603.1	3,613.6	3,623.7	3,632.6	3,642.2
% Ch, Annual Rate	1.2	0.9	1.4	1.5	1.2	1.1	1.0	1.1
Manufacturing	272.8	271.8	271.4	271.2	271.3	271.4	271.4	271.5
% Ch, Annual Rate	-1.2	-1.4	-0.6	-0.4	0.2	0.2	0.0	0.1
Durable Manufacturing	184.9	184.4	184.2	184.1	184.2	184.4	184.5	184.6
% Ch, Annual Rate	-1.0	-1.0	-0.5	-0.2	0.2	0.5	0.2	0.2
Wood Products	9.4	9.3	9.2	9.3	9.5	9.6	9.7	9.8
% Ch, Annual Rate	-8.4	-4.1	-2.3	3.4	7.8	6.8	3.2	3.2
Primary and Fabricated Metals	23.1	22.9	22.7	22.6	22.5	22.6	22.5	22.5
% Ch, Annual Rate	-5.3	-4.7	-3.1	-1.8	-0.8	0.4	-0.3	-0.2
Computer and Electronic Products	19.1	19.2	19.3	19.5	19.6	19.7	19.8	19.9
% Ch, Annual Rate	2.1	1.6	2.9	3.4	3.2	2.4	1.9	1.1
Machinery and Electrical Equipment	19.9	19.6	19.5	19.2	19.1	19.0	19.0	19.0
% Ch, Annual Rate	-6.3	-4.7	-3.4	-5.0	-3.5	-0.7	-0.2	0.6
Aerospace	76.2	76.5	76.6	76.7	76.8	76.8	76.8	76.8
% Ch, Annual Rate	2.1	1.3	0.9	0.5	0.2	0.0	0.0	0.0
Other Transportation Equip.	10.2	10.1	10.0	10.0	10.0	9.9	9.9	9.8
% Ch, Annual Rate	-2.5	-3.0	-2.9	-1.8	-1.5	-2.1	-1.9	-1.7
Other Durables	27.0	26.9	26.8	26.8	26.8	26.8	26.8	26.8
% Ch, Annual Rate	-1.0	-1.4	-1.1	-0.7	-0.2	0.1	-0.1	-0.2
Nondurable Manufacturing	87.9	87.4	87.2	87.1	87.1	87.0	87.0	86.9
% Ch, Annual Rate	-1.6	-2.2	-0.8	-0.7	0.1	-0.4	-0.2	-0.2
Food Manufacturing	39.4	39.1	38.9	38.8	38.8	38.7	38.6	38.5
% Ch, Annual Rate	-1.4	-3.1	-1.4	-1.4	-0.3	-1.1	-0.7	-0.8
Paper and Paper Products	7.2	7.1	7.0	7.0	7.0	6.9	6.9	6.9
% Ch, Annual Rate	-3.7	-4.4	-2.2	-2.1	-1.7	-2.2	-2.2	-2.0
Other Nondurables	41.4	41.3	41.3	41.3	41.4	41.4	41.5	41.6
% Ch, Annual Rate	-1.4	-1.0	0.0	0.2	0.8	0.5	0.5	0.7
Natural Resources and Mining	4.5	4.4	4.3	4.3	4.3	4.4	4.4	4.4
% Ch, Annual Rate	-12.4	-11.1	-3.3	-2.4	3.1	3.8	2.2	2.9
Construction	230.8	230.5	230.2	230.5	229.6	229.8	229.6	229.5
% Ch, Annual Rate	0.2	-0.7	-0.3	0.4	-1.5	0.4	-0.4	-0.3
Trade, Transportation, and Utilities	673.0	670.5	672.4	673.9	673.9	673.2	673.3	673.4
% Ch, Annual Rate	0.4	-1.5	1.1	0.9	0.0	-0.4	0.0	0.1
Wholesale Trade	142.8	143.9	144.6	145.3	146.1	146.6	147.1	147.6
% Ch, Annual Rate	3.6	3.4	1.7	1.9	2.3	1.5	1.4	1.3
Retail Trade	408.7	404.6	405.7	406.2	404.7	403.0	402.2	401.5
% Ch, Annual Rate	-1.2	-4.0	1.1	0.5	-1.4	-1.7	-0.8	-0.7
Electronic Shopping and Mail-Order	77.9	78.3	78.7	79.2	79.6	80.0	80.4	80.8
% Ch	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.1
Other Retail Trade	330.9	326.3	326.9	327.0	325.2	323.0	321.8	320.7
% Ch	-2.0	-5.5	0.8	0.1	-2.2	-2.6	-1.5	-1.4
Trans., Warehousing, and Utilities	121.5	122.0	122.2	122.5	123.1	123.5	123.9	124.2
% Ch, Annual Rate	2.1	1.6	0.6	0.9	2.1	1.3	1.2	1.1
Information	171.8	172.8	173.6	174.2	175.0	176.5	177.5	178.3
% Ch, Annual Rate	3.1	2.2	1.9	1.4	1.9	3.3	2.4	1.7
Software Publishers	86.7	87.0	87.3	87.7	88.1	88.4	88.7	89.0
% Ch, Annual Rate	1.2	1.4	1.5	1.7	1.8	1.6	1.4	1.3
Other Publishing Industries	3.0	2.9	2.8	2.8	2.7	2.7	2.6	2.5
% Ch, Annual Rate	-13.1	-11.0	-10.2	-8.0	-6.1	-9.2	-12.9	-14.0
Other Information	82.2	82.9	83.4	83.7	84.2	85.4	86.2	86.8
% Ch, Annual Rate	5.9	3.6	2.7	1.5	2.3	5.5	4.0	2.7
Financial Activities	163.1	164.8	165.9	167.3	168.6	169.2	169.2	169.5
% Ch, Annual Rate	3.5	4.2	2.8	3.4	3.1	1.3	0.2	0.6
Professional and Business Services	461.3	462.0	463.3	466.6	471.2	474.8	478.2	481.6
% Ch, Annual Rate	0.1	0.7	1.1	2.9	4.0	3.1	2.9	2.9
Education and Health Services	538.6	542.0	544.6	547.4	549.7	551.1	552.7	554.5
% Ch, Annual Rate	3.4	2.5	1.9	2.1	1.7	1.1	1.1	1.3
Leisure and Hospitality	345.6	348.2	350.8	352.0	351.6	352.6	353.2	354.2
% Ch, Annual Rate	0.4	3.0	3.0	1.4	-0.5	1.2	0.7	1.1
Other Services	123.7	124.2	124.7	125.3	125.8	126.4	126.9	127.5
% Ch, Annual Rate	1.9	1.8	1.6	1.7	1.9	1.8	1.7	1.7
Federal Government	74.4	74.5	74.5	74.6	74.7	74.8	74.8	74.9
% Ch, Annual Rate	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
State and Local Government	510.0	512.1	514.0	515.9	517.8	519.6	521.3	523.1
% Ch, Annual Rate	1.8	1.6	1.5	1.5	1.5	1.4	1.3	1.3

Table A2.4 (continued)

Washington Nonagricultural Employment by Industry (Thousands)

Forecast 2022 to 2027

	2026:1	2026:2	2026:3	2026:4	2027:1	2027:2	2027:3	2027:4
Nonfarm Payroll Employment	3,652.6	3,663.0	3,672.5	3,681.0	3,688.7	3,696.7	3,705.2	3,714.1
% Ch, Annual Rate	1.1	1.1	1.0	0.9	0.8	0.9	0.9	1.0
Manufacturing	271.7	271.8	271.9	272.1	272.3	272.4	272.6	272.8
% Ch, Annual Rate	0.3	0.2	0.1	0.2	0.4	0.2	0.2	0.3
Durable Manufacturing	184.7	184.8	184.9	185.1	185.2	185.4	185.5	185.7
% Ch, Annual Rate	0.3	0.3	0.2	0.3	0.4	0.3	0.3	0.4
Wood Products	9.8	9.9	9.9	9.9	9.9	10.0	10.0	10.1
% Ch, Annual Rate	2.6	1.8	0.7	0.2	1.5	1.5	2.1	2.9
Primary and Fabricated Metals	22.5	22.5	22.4	22.4	22.4	22.3	22.3	22.3
% Ch, Annual Rate	-0.3	-0.5	-0.8	-0.8	-0.1	-0.7	-0.7	-0.6
Computer and Electronic Products	20.0	20.0	20.0	20.1	20.1	20.0	20.0	20.0
% Ch, Annual Rate	1.3	0.9	0.8	0.8	-0.2	-0.4	-0.3	0.1
Machinery and Electrical Equipment	19.1	19.1	19.1	19.2	19.3	19.4	19.6	19.7
% Ch, Annual Rate	0.4	0.7	1.1	1.7	2.5	2.1	2.3	2.7
Aerospace	76.8	76.9	77.0	77.1	77.2	77.3	77.4	77.5
% Ch, Annual Rate	0.2	0.3	0.5	0.7	0.6	0.6	0.5	0.4
Other Transportation Equip.	9.8	9.8	9.7	9.7	9.6	9.5	9.4	9.3
% Ch, Annual Rate	-0.8	-0.8	-2.0	-3.3	-3.7	-3.5	-3.3	-3.0
Other Durables	26.7	26.7	26.7	26.7	26.8	26.8	26.8	26.8
% Ch, Annual Rate	-0.2	-0.1	0.0	-0.1	0.3	0.2	0.3	0.4
Nondurable Manufacturing	87.0	87.0	87.0	87.0	87.1	87.1	87.1	87.1
% Ch, Annual Rate	0.2	0.1	0.0	0.0	0.3	0.1	0.0	-0.1
Food Manufacturing	38.5	38.5	38.4	38.4	38.4	38.3	38.3	38.2
% Ch, Annual Rate	-0.2	-0.3	-0.4	-0.3	-0.2	-0.4	-0.7	-0.9
Paper and Paper Products	6.8	6.8	6.8	6.7	6.7	6.7	6.6	6.6
% Ch, Annual Rate	-1.6	-1.7	-2.0	-2.1	-1.7	-2.0	-2.1	-2.2
Other Nondurables	41.6	41.7	41.8	41.9	42.0	42.1	42.2	42.3
% Ch, Annual Rate	1.0	0.8	0.6	0.6	1.0	1.0	1.0	1.1
Natural Resources and Mining	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
% Ch, Annual Rate	3.3	2.6	1.1	0.0	0.8	0.7	-0.1	-0.2
Construction	229.7	230.1	230.6	230.6	231.0	231.7	232.6	233.7
% Ch, Annual Rate	0.4	0.7	0.9	0.0	0.7	1.1	1.6	1.8
Trade, Transportation, and Utilities	673.9	674.8	675.7	676.6	677.0	677.8	678.4	678.7
% Ch, Annual Rate	0.3	0.5	0.5	0.5	0.2	0.5	0.4	0.1
Wholesale Trade	148.1	148.4	148.8	149.2	149.7	150.1	150.3	150.3
% Ch, Annual Rate	1.3	1.0	1.1	1.0	1.2	1.2	0.4	0.1
Retail Trade	401.2	401.5	401.7	402.0	401.9	402.2	402.6	402.8
% Ch, Annual Rate	-0.3	0.2	0.2	0.3	-0.1	0.3	0.4	0.2
Electronic Shopping and Mail-Order	81.3	81.7	82.1	82.5	82.9	83.4	83.8	84.2
% Ch	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0
Other Retail Trade	320.0	319.8	319.6	319.4	318.9	318.8	318.8	318.6
% Ch	-0.9	-0.2	-0.2	-0.2	-0.6	-0.1	0.0	-0.3
Trans., Warehousing, and Utilities	124.6	124.8	125.1	125.4	125.4	125.4	125.5	125.5
% Ch, Annual Rate	1.1	0.8	0.9	0.9	0.1	0.1	0.2	0.0
Information	179.4	180.5	181.7	182.8	183.3	183.8	184.2	184.7
% Ch, Annual Rate	2.5	2.5	2.7	2.5	1.1	0.9	1.1	1.1
Software Publishers	89.3	89.6	89.8	90.1	90.4	90.7	91.0	91.3
% Ch, Annual Rate	1.3	1.2	1.2	1.2	1.4	1.4	1.4	1.3
Other Publishing Industries	2.4	2.3	2.2	2.1	2.0	1.9	1.8	1.7
% Ch, Annual Rate	-14.7	-16.1	-17.5	-18.0	-14.9	-16.7	-17.0	-19.4
Other Information	87.7	88.6	89.7	90.6	90.9	91.1	91.4	91.7
% Ch, Annual Rate	4.2	4.4	4.8	4.4	1.2	1.0	1.2	1.3
Financial Activities	170.2	170.6	170.6	170.5	170.5	170.4	170.3	169.9
% Ch, Annual Rate	1.8	0.8	0.1	-0.2	0.1	-0.3	-0.3	-0.8
Professional and Business Services	485.0	488.0	490.6	493.1	495.1	497.1	499.2	503.0
% Ch, Annual Rate	2.9	2.5	2.2	2.1	1.6	1.6	1.8	3.1
Education and Health Services	556.2	557.9	559.4	561.0	562.7	564.4	566.2	567.6
% Ch, Annual Rate	1.3	1.2	1.1	1.1	1.3	1.2	1.2	1.0
Leisure and Hospitality	354.3	355.0	355.7	356.2	356.5	357.0	357.5	357.6
% Ch, Annual Rate	0.2	0.8	0.8	0.6	0.2	0.6	0.5	0.1
Other Services	128.0	128.5	129.0	129.6	130.1	130.6	131.2	131.7
% Ch, Annual Rate	1.7	1.6	1.6	1.6	1.7	1.6	1.7	1.6
Federal Government	75.0	75.1	75.1	75.2	75.6	75.7	75.8	75.8
% Ch, Annual Rate	0.4	0.4	0.4	0.4	2.2	0.4	0.4	0.4
State and Local Government	524.8	526.3	527.6	528.9	530.0	531.3	532.7	534.1
% Ch, Annual Rate	1.3	1.2	1.0	0.9	0.9	1.0	1.1	1.1

Table A3.1

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

Forecast 2022 to 2027

	2020	2021	2022	2023	2024	2025	2026	2027
Personal Income	19,832.3	21,294.8	21,782.5	22,817.3	23,850.7	24,960.4	26,101.9	27,294.2
% Ch	6.7	7.4	2.3	4.8	4.5	4.7	4.6	4.6
Total Wage and Salary Disbursements	9,457.4	10,290.1	11,198.1	11,672.6	12,183.2	12,793.2	13,386.8	13,973.7
% Ch	1.4	8.8	8.8	4.2	4.4	5.0	4.6	4.4
Nonwage Personal Income	10,374.9	11,004.7	10,584.4	11,144.7	11,667.4	12,167.2	12,715.1	13,320.5
% Ch	12.0	6.1	-3.8	5.3	4.7	4.3	4.5	4.8
Supplements to Wages and Salaries	2,135.4	2,248.4	2,375.4	2,465.6	2,565.6	2,687.4	2,805.4	2,919.3
% Ch	0.6	5.3	5.7	3.8	4.1	4.7	4.4	4.1
Proprietor's Income	1,643.1	1,753.6	1,842.9	1,861.9	1,873.0	1,903.7	1,993.2	2,086.7
% Ch	2.6	6.7	5.1	1.0	0.6	1.6	4.7	4.7
Farm	45.2	51.3	90.5	95.6	97.5	97.8	96.8	96.5
% Ch	...	...	...	...	...	...	...	...
Nonfarm	1,597.9	1,702.2	1,752.4	1,766.3	1,775.5	1,806.0	1,896.4	1,990.2
% Ch	1.6	6.5	2.9	0.8	0.5	1.7	5.0	4.9
Less: Contribution For Govt. Soc. Ins.	1,450.0	1,540.8	1,673.6	1,748.0	1,824.6	1,915.8	2,003.3	2,071.1
% Ch	1.8	6.3	8.6	4.4	4.4	5.0	4.6	3.4
Dividends/Int./Rent	3,815.3	3,926.2	4,138.4	4,517.4	4,787.7	5,000.8	5,210.5	5,425.3
% Ch	-0.1	2.9	5.4	9.2	6.0	4.4	4.2	4.1
Transfer Payments	4,231.2	4,617.3	3,901.2	4,047.8	4,265.7	4,491.0	4,709.2	4,960.2
% Ch	34.5	9.1	-15.5	3.8	5.4	5.3	4.9	5.3

Table A3.2

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

Forecast 2022 to 2027

	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4
Personal Income	21,319.8	21,625.5	21,916.8	22,267.7	22,509.1	22,693.2	22,920.0	23,146.9
% Ch, Annual Rate	3.0	5.9	5.5	6.6	4.4	3.3	4.1	4.0
Total Wage and Salary Disbursements	10,925.5	11,108.4	11,307.0	11,451.3	11,552.7	11,631.0	11,699.7	11,806.9
% Ch, Annual Rate	6.8	6.9	7.3	5.2	3.6	2.7	2.4	3.7
Nonwage Personal Income	10,394.3	10,517.1	10,609.8	10,816.4	10,956.4	11,062.1	11,220.3	11,340.0
% Ch, Annual Rate	-0.7	4.8	3.6	8.0	5.3	3.9	5.8	4.3
Supplements to Wages and Salaries	2,334.2	2,360.5	2,389.6	2,417.3	2,446.6	2,458.8	2,470.5	2,486.6
% Ch, Annual Rate	6.8	4.6	5.0	4.7	4.9	2.0	1.9	2.6
Proprietor's Income	1,811.4	1,835.4	1,859.5	1,865.5	1,853.2	1,847.4	1,875.2	1,871.9
% Ch, Annual Rate	4.9	5.4	5.4	1.3	-2.6	-1.3	6.2	-0.7
Farm	74.4	95.7	95.7	96.3	94.9	93.9	95.7	98.0
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	1,737.0	1,739.7	1,763.8	1,769.2	1,758.3	1,753.4	1,779.5	1,774.0
% Ch, Annual Rate	-2.0	0.6	5.7	1.2	-2.4	-1.1	6.1	-1.2
Less: Contribution For Govt. Soc. Ins.	1,634.7	1,660.9	1,688.8	1,709.9	1,732.9	1,742.7	1,751.2	1,765.1
% Ch, Annual Rate	10.1	6.6	6.9	5.1	5.5	2.3	2.0	3.2
Dividends/Int./Rent	4,014.7	4,098.9	4,167.5	4,272.4	4,393.3	4,475.2	4,560.6	4,640.4
% Ch, Annual Rate	1.7	8.7	6.9	10.5	11.8	7.7	7.9	7.2
Transfer Payments	3,868.7	3,883.2	3,882.0	3,971.0	3,996.2	4,023.5	4,065.3	4,106.2
% Ch, Annual Rate	-5.7	1.5	-0.1	9.5	2.6	2.8	4.2	4.1

Table A3.2 (continued)

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

Forecast 2022 to 2027

	2024:1	2024:2	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4
Personal Income	23,467.1	23,716.1	23,974.6	24,244.8	24,547.9	24,821.5	25,098.3	25,373.9
% Ch, Annual Rate	5.6	4.3	4.4	4.6	5.1	4.5	4.5	4.5
Total Wage and Salary Disbursements	11,956.9	12,100.5	12,258.4	12,417.3	12,570.9	12,720.1	12,866.4	13,015.6
% Ch, Annual Rate	5.2	4.9	5.3	5.3	5.0	4.8	4.7	4.7
Nonwage Personal Income	11,510.2	11,615.6	11,716.3	11,827.6	11,977.0	12,101.4	12,231.9	12,358.3
% Ch, Annual Rate	6.1	3.7	3.5	3.9	5.2	4.2	4.4	4.2
Supplements to Wages and Salaries	2,519.2	2,550.8	2,581.4	2,611.1	2,644.6	2,673.1	2,701.6	2,730.4
% Ch, Annual Rate	5.3	5.1	4.9	4.7	5.2	4.4	4.3	4.3
Proprietor's Income	1,876.8	1,875.1	1,868.2	1,871.8	1,877.2	1,891.8	1,911.7	1,934.2
% Ch, Annual Rate	1.0	-0.4	-1.5	0.8	1.2	3.1	4.3	4.8
Farm	97.9	96.6	97.2	98.2	98.2	97.9	97.6	97.4
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	1,778.9	1,778.5	1,771.0	1,773.6	1,779.1	1,793.9	1,814.0	1,836.9
% Ch, Annual Rate	1.1	-0.1	-1.7	0.6	1.2	3.4	4.6	5.1
Less: Contribution For Govt. Soc. Ins.	1,793.8	1,813.3	1,834.8	1,856.4	1,885.8	1,906.0	1,925.6	1,945.6
% Ch, Annual Rate	6.7	4.4	4.8	4.8	6.5	4.3	4.2	4.2
Dividends/Int./Rent	4,705.3	4,758.7	4,816.1	4,870.8	4,925.8	4,975.3	5,025.4	5,076.7
% Ch, Annual Rate	5.7	4.6	4.9	4.6	4.6	4.1	4.1	4.1
Transfer Payments	4,202.7	4,244.3	4,285.4	4,330.2	4,415.2	4,467.1	4,518.9	4,562.6
% Ch, Annual Rate	9.7	4.0	3.9	4.2	8.1	4.8	4.7	3.9

Table A3.2 (continued)

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

Forecast 2022 to 2027

	2026:1	2026:2	2026:3	2026:4	2027:1	2027:2	2027:3	2027:4
Personal Income	25,675.1	25,962.3	26,244.9	26,525.1	26,852.4	27,145.5	27,441.7	27,737.1
% Ch, Annual Rate	4.8	4.6	4.4	4.3	5.0	4.4	4.4	4.4
Total Wage and Salary Disbursements	13,167.6	13,316.8	13,460.2	13,602.6	13,752.7	13,900.0	14,047.9	14,194.1
% Ch, Annual Rate	4.8	4.6	4.4	4.3	4.5	4.4	4.3	4.2
Nonwage Personal Income	12,507.5	12,645.5	12,784.8	12,922.6	13,099.7	13,245.5	13,393.8	13,542.9
% Ch, Annual Rate	4.9	4.5	4.5	4.4	5.6	4.5	4.6	4.5
Supplements to Wages and Salaries	2,763.4	2,791.5	2,820.0	2,846.5	2,877.8	2,906.5	2,932.1	2,961.0
% Ch, Annual Rate	4.9	4.1	4.1	3.8	4.5	4.1	3.6	4.0
Proprietor's Income	1,955.4	1,980.6	2,007.2	2,029.7	2,050.4	2,073.1	2,097.5	2,125.9
% Ch, Annual Rate	4.5	5.3	5.5	4.6	4.1	4.5	4.8	5.5
Farm	97.1	96.9	96.7	96.6	96.6	96.5	96.5	96.5
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	1,858.3	1,883.7	1,910.5	1,933.2	1,953.8	1,976.5	2,001.0	2,029.5
% Ch, Annual Rate	4.7	5.6	5.8	4.8	4.3	4.7	5.1	5.8
Less: Contribution For Govt. Soc. Ins.	1,975.3	1,995.4	2,014.6	2,027.9	2,048.6	2,065.1	2,075.7	2,094.9
% Ch, Annual Rate	6.2	4.1	3.9	2.6	4.2	3.3	2.1	3.8
Dividends/Int./Rent	5,133.0	5,185.7	5,237.0	5,286.4	5,344.1	5,399.0	5,452.1	5,505.8
% Ch, Annual Rate	4.5	4.2	4.0	3.8	4.4	4.2	4.0	4.0
Transfer Payments	4,631.0	4,683.1	4,735.1	4,787.8	4,876.1	4,932.0	4,987.7	5,045.1
% Ch, Annual Rate	6.1	4.6	4.5	4.5	7.6	4.7	4.6	4.7

Table A3.3

Washington Personal Income by Component (Billions of Dollars)

Forecast 2022 to 2027

	2020	2021	2022	2023	2024	2025	2026	2027
Personal Income	527.582	570.921	587.962	619.888	651.642	684.902	719.648	756.297
% Ch	7.6	8.2	3.0	5.4	5.1	5.1	5.1	5.1
Total Wage and Salary Disbursements	264.610	291.590	312.860	326.698	342.926	361.355	380.059	399.055
% Ch	4.2	10.2	7.3	4.4	5.0	5.4	5.2	5.0
Manufacturing	22.284	21.596	23.582	24.753	25.687	26.671	27.717	28.872
% Ch	-6.6	-3.1	9.2	5.0	3.8	3.8	3.9	4.2
Durable Manufacturing	17.227	16.226	17.996	18.898	19.672	20.452	21.267	22.167
% Ch	-8.3	-5.8	10.9	5.0	4.1	4.0	4.0	4.2
Nondurable Manufacturing	5.057	5.369	5.586	5.854	6.015	6.219	6.450	6.705
% Ch	-0.5	6.2	4.0	4.8	2.7	3.4	3.7	4.0
Nonmanufacturing	234.923	262.574	281.487	293.808	308.736	325.784	343.044	360.483
% Ch	5.2	11.8	7.2	4.4	5.1	5.5	5.3	5.1
Other Private Wages	1.365	1.392	1.554	1.624	1.698	1.782	1.865	1.947
% Ch	2.8	1.9	11.7	4.5	4.6	4.9	4.6	4.4
Farm Wages	1.988	1.749	1.897	2.029	2.165	2.317	2.469	2.623
% Ch	27.6	-12.0	8.4	7.0	6.7	7.0	6.6	6.2
Military Wages	4.050	4.280	4.340	4.484	4.641	4.800	4.963	5.130
% Ch	5.0	5.7	1.4	3.3	3.5	3.4	3.4	3.4
Nonwage Personal Income	262.972	279.330	275.102	293.190	308.716	323.548	339.589	357.242
% Ch	11.2	6.2	-1.5	6.6	5.3	4.8	5.0	5.2
Supplements to Wages and Salaries	57.635	60.788	64.289	67.041	70.092	73.646	77.198	80.651
% Ch	3.9	5.5	5.8	4.3	4.6	5.1	4.8	4.5
Proprietor's Income	38.885	40.202	41.308	42.242	42.524	43.172	45.193	47.316
% Ch	6.0	3.4	2.8	2.3	0.7	1.5	4.7	4.7
Farm	1.667	0.909	1.450	2.063	2.114	2.119	2.103	2.098
% Ch	...	...	...	...	...	...	...	...
Nonfarm	37.218	39.293	39.858	40.179	40.410	41.052	43.089	45.218
% Ch	5.9	5.6	1.4	0.8	0.6	1.6	5.0	4.9
Less: Contribution For Govt. Soc. Ins.	41.828	44.403	47.612	49.892	52.219	54.887	57.526	59.629
% Ch	5.2	6.2	7.2	4.8	4.7	5.1	4.8	3.7
Plus: Residence Adjustment	4.961	5.166	5.621	5.891	6.190	6.547	6.894	7.238
% Ch	4.2	4.1	8.8	4.8	5.1	5.8	5.3	5.0
Dividends/Int./Rent	110.446	114.052	121.247	133.090	141.762	148.811	155.830	163.065
% Ch	-0.1	3.3	6.3	9.8	6.5	5.0	4.7	4.6
Transfer Payments	92.874	103.525	90.249	94.819	100.368	106.258	112.000	118.601
% Ch	35.1	11.5	-12.8	5.1	5.9	5.9	5.4	5.9
State U.I. Benefits	12.276	8.282	0.605	0.727	0.831	0.870	0.888	0.898
% Ch	1,066.0	-32.5	-92.7	20.2	14.4	4.7	2.0	1.2
Other Transfers	80.598	95.243	89.645	94.092	99.536	105.388	111.112	117.703
% Ch	19.1	18.2	-5.9	5.0	5.8	5.9	5.4	5.9

Table A3.4

Washington Personal Income by Component (Billions of Dollars)

Forecast 2022 to 2027

	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4
Personal Income	574.787	583.157	591.467	602.437	609.869	616.004	623.106	630.573
% Ch, Annual Rate	2.9	6.0	5.8	7.6	5.0	4.1	4.7	4.9
Total Wage and Salary Disbursements	305.876	310.585	315.302	319.675	322.431	325.173	327.704	331.482
% Ch, Annual Rate	3.6	6.3	6.2	5.7	3.5	3.4	3.2	4.7
Manufacturing	24.413	22.614	23.429	23.872	24.291	24.678	24.924	25.120
% Ch, Annual Rate	71.1	-26.4	15.2	7.8	7.2	6.5	4.1	3.2
Durable Manufacturing	18.874	17.107	17.823	18.182	18.514	18.836	19.042	19.203
% Ch, Annual Rate	111.2	-32.5	17.8	8.3	7.5	7.1	4.4	3.4
Nondurable Manufacturing	5.539	5.508	5.606	5.690	5.777	5.842	5.882	5.917
% Ch, Annual Rate	-10.2	-2.3	7.4	6.1	6.3	4.6	2.8	2.4
Nonmanufacturing	273.806	280.250	284.025	287.865	290.109	292.394	294.610	298.118
% Ch, Annual Rate	-0.7	9.8	5.5	5.5	3.2	3.2	3.1	4.8
Other Private Wages	1.523	1.533	1.569	1.593	1.606	1.617	1.627	1.645
% Ch, Annual Rate	21.3	2.6	9.7	6.3	3.3	3.0	2.5	4.3
Farm Wages	1.820	1.870	1.928	1.969	1.994	2.017	2.038	2.069
% Ch, Annual Rate	12.5	11.4	13.1	8.8	5.1	4.7	4.1	6.3
Military Wages	4.314	4.319	4.351	4.375	4.432	4.467	4.505	4.530
% Ch, Annual Rate	-2.4	0.4	3.0	2.3	5.3	3.2	3.4	2.3
Nonwage Personal Income	268.911	272.571	276.165	282.762	287.438	290.831	295.401	299.091
% Ch, Annual Rate	2.2	5.6	5.4	9.9	6.8	4.8	6.4	5.1
Supplements to Wages and Salaries	63.285	63.618	64.667	65.587	66.374	66.799	67.209	67.781
% Ch, Annual Rate	11.3	2.1	6.8	5.8	4.9	2.6	2.5	3.5
Proprietor's Income	41.017	40.864	41.548	41.805	41.968	41.920	42.567	42.512
% Ch, Annual Rate	-1.6	-1.5	6.9	2.5	1.6	-0.5	6.3	-0.5
Farm	1.370	1.384	1.478	1.570	2.001	2.045	2.083	2.122
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	39.647	39.479	40.070	40.235	39.967	39.875	40.484	40.390
% Ch, Annual Rate	-5.1	-1.7	6.1	1.7	-2.6	-0.9	6.3	-0.9
Less: Contribution For Govt. Soc. Ins.	46.475	47.100	48.074	48.797	49.407	49.715	49.990	50.457
% Ch, Annual Rate	7.9	5.5	8.5	6.2	5.1	2.5	2.2	3.8
Plus: Residence Adjustment	5.482	5.562	5.678	5.762	5.821	5.867	5.907	5.970
% Ch, Annual Rate	9.5	5.9	8.6	6.1	4.2	3.2	2.8	4.3
Dividends/Int./Rent	117.122	120.123	122.264	125.477	129.188	131.762	134.443	136.967
% Ch, Annual Rate	2.1	10.7	7.3	10.9	12.4	8.2	8.4	7.7
Transfer Payments	88.481	89.506	90.083	92.928	93.493	94.199	95.265	96.318
% Ch, Annual Rate	0.4	4.7	2.6	13.2	2.5	3.1	4.6	4.5
State U.I. Benefits	0.754	0.630	0.502	0.533	0.620	0.700	0.770	0.817
% Ch, Annual Rate	-72.6	-51.2	-59.8	27.2	83.1	62.6	46.6	26.6
Other Transfers	87.728	88.876	89.581	92.395	92.873	93.499	94.495	95.501
% Ch, Annual Rate	1.7	5.3	3.2	13.2	2.1	2.7	4.3	4.3

Table A3.4 (continued)

Washington Personal Income by Component (Billions of Dollars)

Forecast 2022 to 2027

	2024:1	2024:2	2024:3	2024:4	2025:1	2025:2	2025:3	2025:4
Personal Income	640.054	647.599	655.415	663.501	672.406	680.731	689.065	697.406
% Ch, Annual Rate	6.2	4.8	4.9	5.0	5.5	5.0	5.0	4.9
Total Wage and Salary Disbursements	336.173	340.495	345.167	349.870	354.477	359.111	363.612	368.218
% Ch, Annual Rate	5.8	5.2	5.6	5.6	5.4	5.3	5.1	5.2
Manufacturing	25.353	25.552	25.803	26.039	26.291	26.546	26.794	27.052
% Ch, Annual Rate	3.8	3.2	4.0	3.7	3.9	3.9	3.8	3.9
Durable Manufacturing	19.396	19.569	19.768	19.956	20.151	20.355	20.550	20.752
% Ch, Annual Rate	4.1	3.6	4.1	3.9	4.0	4.1	3.9	4.0
Nondurable Manufacturing	5.957	5.983	6.035	6.083	6.141	6.191	6.244	6.300
% Ch, Annual Rate	2.7	1.8	3.5	3.2	3.8	3.3	3.5	3.6
Nonmanufacturing	302.456	306.488	310.809	315.189	319.427	323.711	327.868	332.130
% Ch, Annual Rate	5.9	5.4	5.8	5.8	5.5	5.5	5.2	5.3
Other Private Wages	1.667	1.687	1.709	1.731	1.752	1.772	1.792	1.813
% Ch, Annual Rate	5.6	4.9	5.3	5.2	4.9	4.9	4.6	4.6
Farm Wages	2.108	2.144	2.183	2.222	2.260	2.298	2.335	2.373
% Ch, Annual Rate	7.8	7.0	7.5	7.3	7.0	6.9	6.5	6.6
Military Wages	4.588	4.624	4.663	4.688	4.747	4.783	4.823	4.849
% Ch, Annual Rate	5.2	3.1	3.4	2.2	5.1	3.1	3.3	2.2
Nonwage Personal Income	303.882	307.104	310.248	313.631	317.929	321.620	325.453	329.188
% Ch, Annual Rate	6.6	4.3	4.2	4.4	5.6	4.7	4.9	4.7
Supplements to Wages and Salaries	68.767	69.665	70.539	71.397	72.377	73.227	74.064	74.917
% Ch, Annual Rate	5.9	5.3	5.1	4.9	5.6	4.8	4.7	4.7
Proprietor's Income	42.631	42.589	42.409	42.467	42.578	42.907	43.349	43.852
% Ch, Annual Rate	1.1	-0.4	-1.7	0.6	1.0	3.1	4.2	4.7
Farm	2.122	2.100	2.109	2.126	2.126	2.122	2.117	2.112
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	40.509	40.489	40.300	40.341	40.452	40.785	41.232	41.740
% Ch, Annual Rate	1.2	-0.2	-1.9	0.4	1.1	3.3	4.5	5.0
Less: Contribution For Govt. Soc. Ins.	51.325	51.895	52.517	53.139	53.996	54.600	55.180	55.774
% Ch, Annual Rate	7.1	4.5	4.9	4.8	6.6	4.5	4.3	4.4
Plus: Residence Adjustment	6.057	6.142	6.234	6.327	6.417	6.504	6.590	6.677
% Ch, Annual Rate	6.0	5.7	6.2	6.1	5.8	5.6	5.4	5.4
Dividends/Int./Rent	139.057	140.811	142.688	144.489	146.301	147.958	149.634	151.352
% Ch, Annual Rate	6.2	5.1	5.4	5.1	5.1	4.6	4.6	4.7
Transfer Payments	98.695	99.792	100.894	102.090	104.251	105.623	106.996	108.164
% Ch, Annual Rate	10.2	4.5	4.5	4.8	8.7	5.4	5.3	4.4
State U.I. Benefits	0.826	0.823	0.832	0.845	0.857	0.863	0.875	0.884
% Ch, Annual Rate	4.4	-1.5	4.4	6.4	6.2	2.9	5.5	4.1
Other Transfers	97.869	98.969	100.062	101.246	103.393	104.759	106.121	107.280
% Ch, Annual Rate	10.3	4.6	4.5	4.8	8.8	5.4	5.3	4.4

Table A3.4 (continued)

Washington Personal Income by Component (Billions of Dollars)

Forecast 2022 to 2027

	2026:1	2026:2	2026:3	2026:4	2027:1	2027:2	2027:3	2027:4
Personal Income	706.511	715.326	724.036	732.719	742.575	751.658	760.877	770.079
% Ch, Annual Rate	5.3	5.1	5.0	4.9	5.5	5.0	5.0	4.9
Total Wage and Salary Disbursements	373.015	377.775	382.409	387.038	391.840	396.624	401.472	406.285
% Ch, Annual Rate	5.3	5.2	5.0	4.9	5.1	5.0	5.0	4.9
Manufacturing	27.320	27.588	27.846	28.115	28.425	28.727	29.026	29.311
% Ch, Annual Rate	4.0	4.0	3.8	3.9	4.5	4.3	4.2	4.0
Durable Manufacturing	20.958	21.166	21.367	21.578	21.819	22.053	22.286	22.511
% Ch, Annual Rate	4.0	4.0	3.9	4.0	4.5	4.4	4.3	4.1
Nondurable Manufacturing	6.362	6.423	6.478	6.536	6.606	6.674	6.740	6.800
% Ch, Annual Rate	4.0	3.8	3.5	3.6	4.4	4.2	4.0	3.6
Nonmanufacturing	336.540	340.935	345.214	349.489	353.860	358.246	362.693	367.133
% Ch, Annual Rate	5.4	5.3	5.1	5.0	5.1	5.1	5.1	5.0
Other Private Wages	1.834	1.855	1.875	1.895	1.916	1.937	1.957	1.978
% Ch, Annual Rate	4.8	4.7	4.4	4.3	4.5	4.4	4.4	4.2
Farm Wages	2.412	2.451	2.488	2.525	2.564	2.603	2.642	2.681
% Ch, Annual Rate	6.8	6.6	6.3	6.1	6.3	6.2	6.2	6.0
Military Wages	4.909	4.946	4.986	5.014	5.074	5.112	5.153	5.182
% Ch, Annual Rate	5.0	3.1	3.3	2.2	4.9	3.0	3.3	2.2
Nonwage Personal Income	333.496	337.551	341.627	345.682	350.736	355.034	359.405	363.794
% Ch, Annual Rate	5.3	5.0	4.9	4.8	6.0	5.0	5.0	5.0
Supplements to Wages and Salaries	75.919	76.778	77.646	78.447	79.384	80.255	81.036	81.928
% Ch, Annual Rate	5.5	4.6	4.6	4.2	4.9	4.5	4.0	4.5
Proprietor's Income	44.333	44.905	45.511	46.023	46.488	47.003	47.562	48.210
% Ch, Annual Rate	4.5	5.3	5.5	4.6	4.1	4.5	4.8	5.6
Farm	2.108	2.105	2.101	2.099	2.099	2.099	2.098	2.097
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	42.224	42.800	43.410	43.924	44.389	44.904	45.464	46.113
% Ch, Annual Rate	4.7	5.6	5.8	4.8	4.3	4.7	5.1	5.8
Less: Contribution For Govt. Soc. Ins.	56.663	57.279	57.872	58.289	58.921	59.436	59.780	60.378
% Ch, Annual Rate	6.5	4.4	4.2	2.9	4.4	3.5	2.3	4.1
Plus: Residence Adjustment	6.766	6.853	6.937	7.021	7.109	7.195	7.281	7.367
% Ch, Annual Rate	5.4	5.3	5.0	4.9	5.1	4.9	4.9	4.8
Dividends/Int./Rent	153.220	154.989	156.718	158.392	160.323	162.173	163.972	165.793
% Ch, Annual Rate	5.0	4.7	4.5	4.3	5.0	4.7	4.5	4.5
Transfer Payments	109.921	111.305	112.687	114.088	116.352	117.845	119.334	120.875
% Ch, Annual Rate	6.7	5.1	5.1	5.1	8.2	5.2	5.2	5.3
State U.I. Benefits	0.885	0.888	0.888	0.889	0.894	0.897	0.899	0.902
% Ch, Annual Rate	0.4	1.5	0.0	0.5	2.2	1.5	0.9	1.0
Other Transfers	109.036	110.417	111.799	113.199	115.458	116.947	118.435	119.973
% Ch, Annual Rate	6.7	5.2	5.1	5.1	8.2	5.3	5.2	5.3

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	22.5	3.4	0.418	3.3	0.393	2.9
1973	23.8	5.4	0.444	6.3	0.418	6.4
1974	26.2	10.4	0.493	11.0	0.464	11.0
1975	28.4	8.3	0.538	9.1	0.511	10.2
1976	30.0	5.5	0.569	5.8	0.540	5.5
1977	31.9	6.5	0.606	6.5	0.583	8.0
1978	34.1	7.0	0.652	7.6	0.640	9.9
1979	37.2	8.9	0.726	11.3	0.709	10.8
1980	41.2	10.8	0.824	13.5	0.827	16.7
1981	44.9	9.0	0.909	10.4	0.916	10.8
1982	47.4	5.6	0.965	6.2	0.978	6.7
1983	49.4	4.3	0.996	3.2	0.993	1.5
1984	51.2	3.8	1.039	4.4	1.030	3.8
1985	53.0	3.5	1.076	3.5	1.056	2.5
1986	54.2	2.2	1.097	1.9	1.066	1.0
1987	55.9	3.1	1.136	3.6	1.092	2.4
1988	58.0	3.9	1.183	4.1	1.128	3.3
1989	60.6	4.4	1.239	4.8	1.181	4.7
1990	63.2	4.4	1.307	5.4	1.268	7.3
1991	65.3	3.3	1.362	4.2	1.341	5.8
1992	67.1	2.7	1.403	3.0	1.390	3.7
1993	68.8	2.5	1.445	3.0	1.429	2.8
1994	70.2	2.1	1.482	2.6	1.478	3.4
1995	71.7	2.1	1.524	2.8	1.522	3.0
1996	73.2	2.1	1.569	2.9	1.575	3.4
1997	74.5	1.7	1.605	2.3	1.630	3.5
1998	75.1	0.8	1.630	1.5	1.677	2.9
1999	76.2	1.5	1.666	2.2	1.728	3.0
2000	78.1	2.5	1.722	3.4	1.792	3.7
2001	79.7	2.0	1.770	2.8	1.857	3.6
2002	80.7	1.3	1.799	1.6	1.893	2.0
2003	82.4	2.1	1.840	2.3	1.924	1.6
2004	84.4	2.5	1.889	2.7	1.947	1.2
2005	86.9	2.9	1.953	3.4	2.002	2.8
2006	89.3	2.8	2.016	3.2	2.076	3.7
2007	91.6	2.6	2.073	2.9	2.157	3.9
2008	94.3	3.0	2.153	3.8	2.247	4.2
2009	94.1	-0.3	2.146	-0.3	2.260	0.6
2010	95.7	1.8	2.181	1.6	2.267	0.3
2011	98.2	2.5	2.249	3.1	2.328	2.7
2012	100.0	1.9	2.296	2.1	2.387	2.5
2013	101.4	1.4	2.330	1.5	2.416	1.2
2014	102.9	1.5	2.367	1.6	2.460	1.8
2015	103.1	0.2	2.370	0.1	2.494	1.4
2016	104.1	1.0	2.400	1.3	2.550	2.3
2017	106.1	1.8	2.451	2.1	2.627	3.0
2018	108.3	2.1	2.511	2.4	2.711	3.2
2019	109.9	1.5	2.556	1.8	2.779	2.5
2020	111.1	1.1	2.588	1.2	2.826	1.7
2021	115.6	4.0	2.710	4.7	2.960	4.7
Forecast						
2022	122.9	6.3	2.931	8.2	3.224	8.9
2023	127.3	3.6	3.064	4.5	3.382	4.9
2024	130.1	2.2	3.139	2.5	3.466	2.5
2025	132.5	1.8	3.201	2.0	3.534	2.0
2026	134.9	1.8	3.262	1.9	3.602	1.9
2027	137.4	1.9	3.327	2.0	3.673	2.0

* 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 A4.1
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	22.5	3.4	0.418	3.3	0.393	2.9
1973	23.8	5.4	0.444	6.3	0.418	6.4
1974	26.2	10.4	0.493	11.0	0.464	11.0
1975	28.4	8.3	0.538	9.1	0.511	10.2
1976	30.0	5.5	0.569	5.8	0.540	5.5
1977	31.9	6.5	0.606	6.5	0.583	8.0
1978	34.1	7.0	0.652	7.6	0.640	9.9
1979	37.2	8.9	0.726	11.3	0.709	10.8
1980	41.2	10.8	0.824	13.5	0.827	16.7
1981	44.9	9.0	0.909	10.4	0.916	10.8
1982	47.4	5.6	0.965	6.2	0.978	6.7
1983	49.4	4.3	0.996	3.2	0.993	1.5
1984	51.2	3.8	1.039	4.4	1.030	3.8
1985	53.0	3.5	1.076	3.5	1.056	2.5
1986	54.2	2.2	1.097	1.9	1.066	1.0
1987	55.9	3.1	1.136	3.6	1.092	2.4
1988	58.0	3.9	1.183	4.1	1.128	3.3
1989	60.6	4.4	1.239	4.8	1.181	4.7
1990	63.2	4.4	1.307	5.4	1.268	7.3
1991	65.3	3.3	1.362	4.2	1.341	5.8
1992	67.1	2.7	1.403	3.0	1.390	3.7
1993	68.8	2.5	1.445	3.0	1.429	2.8
1994	70.2	2.1	1.482	2.6	1.478	3.4
1995	71.7	2.1	1.524	2.8	1.522	3.0
1996	73.2	2.1	1.569	2.9	1.575	3.4
1997	74.5	1.7	1.605	2.3	1.630	3.5
1998	75.1	0.8	1.630	1.5	1.677	2.9
1999	76.2	1.5	1.666	2.2	1.728	3.0
2000	78.1	2.5	1.722	3.4	1.792	3.7
2001	79.7	2.0	1.770	2.8	1.857	3.6
2002	80.7	1.3	1.799	1.6	1.893	2.0
2003	82.4	2.1	1.840	2.3	1.924	1.6
2004	84.4	2.5	1.889	2.7	1.947	1.2
2005	86.9	2.9	1.953	3.4	2.002	2.8
2006	89.3	2.8	2.016	3.2	2.076	3.7
2007	91.6	2.6	2.073	2.9	2.157	3.9
2008	94.3	3.0	2.153	3.8	2.247	4.2
2009	94.1	-0.3	2.146	-0.3	2.260	0.6
2010	95.7	1.8	2.181	1.6	2.267	0.3
2011	98.2	2.5	2.249	3.1	2.328	2.7
2012	100.0	1.9	2.296	2.1	2.387	2.5
2013	101.4	1.4	2.330	1.5	2.416	1.2
2014	102.9	1.5	2.367	1.6	2.460	1.8
2015	103.1	0.2	2.370	0.1	2.494	1.4
2016	104.1	1.0	2.400	1.3	2.550	2.3
2017	106.1	1.8	2.451	2.1	2.627	3.0
2018	108.3	2.1	2.511	2.4	2.711	3.2
2019	109.9	1.5	2.556	1.8	2.779	2.5
2020	111.1	1.1	2.588	1.2	2.826	1.7
2021	115.6	4.0	2.710	4.7	2.960	4.7
Forecast						
2022	122.9	6.3	2.931	8.2	3.224	8.9
2023	127.3	3.6	3.064	4.5	3.382	4.9
2024	130.1	2.2	3.139	2.5	3.466	2.5
2025	132.5	1.8	3.201	2.0	3.534	2.0
2026	134.9	1.8	3.262	1.9	3.602	1.9
2027	137.4	1.9	3.327	2.0	3.673	2.0

* 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	16.7	5.5	21.4	2.3	4.9	6.4	9.1	0.7
1972	17.4	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	19.8	8.5	29.0	15.2	9.0	58.9	13.6	35.1
1975	21.5	8.6	31.2	7.5	9.8	8.5	14.6	6.7
1976	23.0	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	26.7	7.7	36.9	9.6	12.6	5.7	16.8	4.3
1979	28.9	8.4	40.5	9.8	17.3	37.9	22.5	34.0
1980	31.9	10.4	43.9	8.4	24.3	40.4	31.2	38.8
1981	35.2	10.2	47.1	7.1	29.8	22.3	34.7	11.3
1982	37.9	7.8	48.3	2.6	29.2	-1.9	32.9	-5.1
1983	40.3	6.1	48.8	1.1	26.9	-7.8	31.9	-3.3
1984	42.4	5.2	50.3	3.0	27.5	2.2	31.4	-1.5
1985	44.4	4.9	50.9	1.1	26.4	-3.9	31.6	0.8
1986	46.3	4.1	52.1	2.4	20.7	-21.7	24.8	-21.5
1987	47.7	3.0	53.7	3.2	21.2	2.6	25.8	3.8
1988	49.9	4.8	55.3	3.0	21.2	0.0	26.0	0.8
1989	52.3	4.7	58.2	5.3	22.5	5.9	28.4	9.2
1990	54.7	4.6	61.1	4.9	27.1	20.4	32.3	13.8
1991	56.8	3.9	63.0	3.1	25.8	-4.8	31.9	-1.3
1992	58.8	3.6	63.5	0.8	24.7	-4.1	31.8	-0.4
1993	60.9	3.5	64.3	1.4	24.6	-0.7	31.5	-1.0
1994	62.5	2.7	65.4	1.7	24.1	-1.8	31.6	0.5
1995	64.3	2.8	66.8	2.2	23.9	-0.9	32.1	1.6
1996	66.1	2.7	68.9	3.1	27.1	13.3	34.1	6.1
1997	67.9	2.8	70.2	1.9	27.1	0.2	34.1	0.0
1998	69.4	2.1	71.1	1.3	24.0	-11.4	29.7	-12.9
1999	70.7	2.0	72.2	1.6	24.4	1.7	32.3	8.9
2000	72.7	2.8	73.9	2.3	35.8	46.6	41.3	27.8
2001	75.1	3.2	76.1	2.9	35.1	-2.0	39.8	-3.6
2002	77.0	2.6	77.2	1.5	31.3	-10.8	37.4	-6.0
2003	79.6	3.3	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	84.8	3.4	82.6	1.7	58.7	33.0	62.3	21.6
2006	87.8	3.6	84.0	1.7	66.7	13.7	70.3	12.9
2007	90.8	3.3	87.2	3.9	71.3	6.9	76.3	8.4
2008	93.5	2.9	92.6	6.1	96.8	35.7	88.8	16.5
2009	94.2	0.8	93.7	1.2	66.2	-31.6	65.2	-26.6
2010	96.0	1.9	93.9	0.3	77.5	16.9	76.9	18.0
2011	97.9	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	104.9	2.5	102.9	1.9	98.3	-0.5	93.5	-3.8
2015	106.8	1.8	104.1	1.1	69.9	-28.8	68.7	-26.5
2016	109.2	2.2	103.0	-1.0	58.1	-17.0	61.1	-11.1
2017	112.0	2.5	102.9	-0.1	66.8	15.1	68.9	12.8
2018	115.1	2.8	103.4	0.5	80.8	21.0	78.0	13.2
2019	117.8	2.4	104.4	1.0	77.1	-4.6	75.3	-3.4
2020	120.1	2.0	108.0	3.4	59.9	-22.3	64.2	-14.8
2021	124.5	3.6	111.4	3.2	79.0	31.9	85.8	33.7
Forecast								
2022	130.7	5.0	122.9	10.3	126.9	60.6	114.6	33.5
2023	137.2	5.0	127.9	4.1	118.7	-6.5	104.7	-8.6
2024	142.2	3.6	129.5	1.3	115.3	-2.8	99.8	-4.7
2025	146.2	2.8	131.0	1.1	114.5	-0.8	98.9	-0.9
2026	150.1	2.7	132.5	1.2	113.7	-0.7	97.9	-1.0
2027	154.2	2.7	134.3	1.3	113.3	-0.3	97.2	-0.8

Table A5.1
Washington Resident Population and Components of Change*
 (Thousands)

	Population	Change	Percent Change	Births	Deaths	Net Migration
1970	3413.2	16.2	0.5	59.9	30.0	-13.7
1971	3436.3	23.1	0.7	60.0	29.8	-7.2
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	46.2
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	94.0
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	70.3	31.7	8.7
1983	4307.2	30.7	0.7	69.6	32.6	-6.3
1984	4354.1	46.8	1.1	68.6	33.3	11.5
1985	4415.8	61.7	1.4	69.2	34.0	26.5
1986	4462.2	46.4	1.1	70.3	34.0	10.1
1987	4527.1	64.9	1.5	69.4	34.4	29.8
1988	4616.9	89.8	2.0	71.1	36.0	54.7
1989	4728.1	111.2	2.4	73.2	36.1	74.0
1990	4866.7	138.6	2.9	76.7	36.3	98.3
1991	5000.4	133.7	2.7	79.3	36.7	91.1
1992	5091.1	90.8	1.8	80.6	37.2	47.5
1993	5188.0	96.9	1.9	79.5	39.4	56.7
1994	5291.6	103.6	2.0	78.3	39.6	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	6781.5	56.9	0.8	86.4	48.8	19.3
2012	6835.2	53.8	0.8	87.1	49.2	15.9
2013	6909.4	74.2	1.1	87.3	51.1	38.1
2014	7005.2	95.8	1.4	87.0	50.7	59.4
2015	7106.6	101.4	1.4	88.5	52.8	65.8
2016	7237.2	130.6	1.8	89.8	54.7	95.4
2017	7344.1	106.9	1.5	89.7	56.1	73.3
2018	7463.5	119.4	1.6	87.3	56.4	88.4
2019	7581.8	118.3	1.6	85.7	57.2	89.8
2020	7706.3	124.5	1.6	84.8	58.5	98.2
2021	7767.0	60.7	0.8	82.1	64.0	42.5
2022	7864.4	97.4	1.3	85.0	71.1	83.6
Forecast						
2023	7951.6	87.2	1.1	87.2	69.6	69.7
2024	8025.2	73.6	0.9	88.0	67.3	52.9
2025	8100.4	75.1	0.9	88.6	65.4	51.9
2026	8182.1	81.7	1.0	89.1	61.4	54.0
2027	8263.3	81.2	1.0	89.6	63.2	54.8

* As of April 1 of Each Year

Source: Office of Financial Management, November 2021 Forecast

Table A5.2
Washington Population*
 (Thousands)

	Actual				Forecast					
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Total Population	7463.5	7581.8	7706.3	7767.0	7864.4	7951.6	8025.2	8100.4	8182.1	8263.3
Percent Change	1.6	1.6	1.6	0.8	1.3	1.1	0.9	0.9	1.0	1.0
Age 17 and Under	1672.7	1688.3	1688.6	1688.2	1700.2	1708.5	1710.7	1711.4	1711.9	1712.1
Percent of Total	22.4	22.3	21.9	21.7	21.6	21.5	21.3	21.1	20.9	20.7
Age 6-18	1219.8	1236.3	1240.1	1248.5	1263.6	1275.0	1281.3	1284.9	1285.6	1279.4
Percent of Total	16.3	16.3	16.1	16.1	16.1	16.0	16.0	15.9	15.7	15.5
Age 18 and Over	5790.7	5893.5	6017.7	6078.8	6164.2	6243.2	6314.5	6388.9	6470.2	6551.2
Percent of Total	77.6	77.7	78.1	78.3	78.4	78.5	78.7	78.9	79.1	79.3
Age 21 and Over	5507.5	5606.8	5737.8	5798.5	5879.7	5954.0	6020.4	6089.1	6164.7	6241.4
Percent of Total	73.8	74.0	74.5	74.7	74.8	74.9	75.0	75.2	75.3	75.5
Age 20-34	1542.6	1567.1	1622.8	1619.1	1631.0	1636.9	1635.7	1633.7	1632.3	1631.6
Percent of Total	20.7	20.7	21.1	20.8	20.7	20.6	20.4	20.2	20.0	19.7
Age 18-64	4613.8	4663.4	4763.9	4777.2	4816.7	4848.4	4871.4	4896.2	4924.8	4955.2
Percent of Total	61.8	61.5	61.8	61.5	61.2	61.0	60.7	60.4	60.2	60.0
Age 65 and Over	1176.9	1230.1	1253.8	1301.5	1347.6	1394.8	1443.1	1492.8	1545.4	1596.0
Percent of Total	15.8	16.2	16.3	16.8	17.1	17.5	18.0	18.4	18.9	19.3

* As of April 1 of Each Year

Source: Office of Financial Management, November 2020 Forecast

Table A6.1

Summary of National and State Indicators

Indicator	Latest Data	Indication*
U.S. Leading Index	October 2022	-
U.S. Real GDP Growth	3rd quarter 2022	+
U.S. ISM Index	November 2022	-
U.S. Employment YOY%Δ	November 2022	-
U.S. Unemployment Rate	November 2022	=
U.S. Consumer Confidence	November 2022	-
U.S. Consumer Sentiment	November 2022	-
U.S. CPI YOY%Δ	October 2022	+
U.S. Home Prices YOY%Δ	September 2022	-
S&P 500 Index	November 2022	+
WA Leading Index	October 2022	-
WA Employment YOY%Δ	October 2022	-
WA Aerospace Empl. YOY%Δ	October 2022	+
WA Unemployment Rate	October 2022	-
WA Help Wanted Index	October 2022	-
WA Business Cycle Indicator	October 2022	+
WA Initial Unemploy. Claims	October 2022	-
WA Housing Permits	October 2022	+
WA Weekly Hours in Mfg.	October 2022	+
WA New Vehicle Registration	October 2022	+
WA In-Migration	September 2022	-
WA Exports-Total YOY%Δ	3rd quarter 2022	-
WA Exports- w/o Trans. Equip. YOY%Δ	3rd quarter 2022	-
Seattle CPI YOY%Δ	October 2022	+
Seattle Home Prices YOY%Δ	September 2022	-
WA Construction Activity Index	October 2022	-

*Change from the previous reading

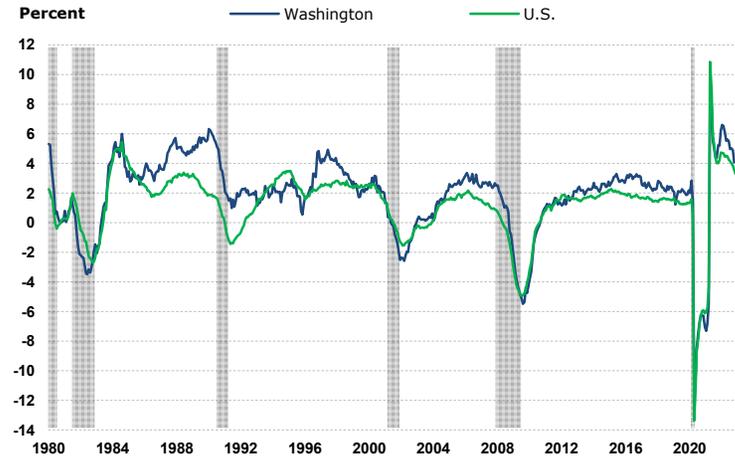
Table A6.2
Washington Business Indicators
 Historical Data

	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
2016:01	118.9	99.3	63.4	107.7	128.7	48.2
2016:02	119.2	99.2	65.7	109.6	124.9	49.7
2016:03	119.7	99.2	62.8	109.2	128.9	51.7
2016:04	120.8	99.7	63.4	109.9	130.9	50.7
2016:05	121.6	99.5	65.4	110.8	148.2	51.0
2016:06	121.7	99.8	66.7	110.9	151.3	52.8
2016:07	122.3	100.2	67.7	110.4	156.3	52.3
2016:08	121.6	100.2	66.9	108.1	153.1	49.4
2016:09	122.0	100.4	67.4	112.7	143.4	51.7
2016:10	122.2	100.5	68.3	112.4	152.3	52.0
2016:11	121.8	100.7	69.3	113.5	148.8	53.5
2016:12	121.8	101.2	70.7	114.6	149.2	54.5
2017:01	122.3	101.8	69.0	112.0	152.5	56.0
2017:02	122.2	102.1	68.8	112.7	140.1	57.7
2017:03	122.9	102.6	70.5	113.0	143.4	57.2
2017:04	123.6	102.8	69.4	113.6	143.3	54.8
2017:05	124.2	103.2	71.2	114.5	149.2	54.9
2017:06	124.6	103.8	70.9	115.5	145.4	57.8
2017:07	124.9	104.1	71.1	115.8	139.5	56.3
2017:08	125.0	104.5	72.1	116.4	135.1	58.8
2017:09	125.3	104.5	73.3	115.4	140.4	60.8
2017:10	125.6	105.9	73.0	119.2	132.7	58.7
2017:11	125.5	106.3	75.1	117.8	134.7	58.2
2017:12	126.5	107.1	74.8	118.2	138.6	59.7
2018:01	126.8	107.8	74.5	117.6	136.8	59.1
2018:02	128.3	108.5	76.8	120.2	133.3	60.8
2018:03	128.8	108.8	77.6	121.4	137.4	59.3
2018:04	128.0	109.3	76.8	119.3	133.7	57.3
2018:05	128.2	109.4	77.7	117.3	128.2	58.7
2018:06	127.9	110.0	78.5	119.7	128.0	60.2
2018:07	127.6	110.4	77.8	118.0	129.3	58.1
2018:08	127.7	110.9	76.3	119.8	129.2	61.3
2018:09	128.1	111.5	76.6	119.3	132.4	59.8
2018:10	127.7	111.4	77.0	120.7	133.0	57.7
2018:11	127.8	111.5	76.9	121.3	133.3	59.3
2018:12	128.8	111.3	78.1	123.3	140.1	54.1
2019:01	130.2	111.3	78.8	122.0	154.6	56.6
2019:02	127.9	111.5	75.7	112.6	156.5	54.2
2019:03	131.2	111.7	78.3	122.7	150.1	55.3
2019:04	131.8	111.8	80.2	124.4	154.0	52.8
2019:05	132.0	111.8	80.1	124.0	150.2	52.1
2019:06	131.4	111.6	81.0	123.1	149.9	51.7
2019:07	131.8	112.0	80.8	124.7	152.0	51.2
2019:08	131.1	111.8	79.1	122.4	153.3	49.1
2019:09	130.9	111.6	80.4	124.4	154.8	47.8
2019:10	130.0	111.4	80.1	124.2	147.2	48.3
2019:11	130.5	111.6	79.6	126.7	146.6	48.1
2019:12	130.9	111.4	83.6	127.5	147.9	47.2
2020:01	130.6	112.0	80.0	119.8	149.1	50.9
2020:02	132.2	111.8	81.5	123.8	149.4	50.1
2020:03	121.5	103.5	74.7	122.9	127.9	49.1
2020:04	113.2	96.9	41.9	104.5	97.5	41.5
2020:05	119.8	99.8	47.1	115.5	119.8	43.1
2020:06	122.6	102.8	58.4	116.2	136.5	52.6
2020:07	124.9	104.9	64.8	119.3	139.8	54.2
2020:08	126.1	106.5	66.1	119.6	134.3	56.0
2020:09	125.7	107.5	71.2	122.2	133.8	55.4
2020:10	126.7	108.2	72.6	121.7	137.7	59.3
2020:11	127.6	109.2	74.1	122.4	135.6	57.5
2020:12	129.5	109.6	77.2	127.8	136.0	60.7
2021:01	130.8	110.1	76.9	126.7	141.6	58.7
2021:02	132.2	110.1	80.9	126.4	150.6	60.8
2021:03	133.3	111.5	83.3	128.3	160.4	64.7
2021:04	134.9	113.1	88.4	127.3	175.3	60.7
2021:05	135.7	114.6	88.7	126.5	176.0	61.2
2021:06	137.4	116.2	88.4	125.5	189.5	60.6
2021:07	139.8	116.6	92.4	128.1	206.7	59.5
2021:08	139.0	117.4	90.0	131.1	187.9	59.9
2021:09	138.2	117.6	91.2	125.9	193.3	61.1
2021:10	138.5	118.1	91.2	129.4	193.3	60.8
2021:11	139.5	118.8	93.0	130.3	198.7	61.1
2021:12	139.0	119.3	94.1	131.0	198.7	58.7
2022:01	139.9	118.5	94.7	128.1	198.4	57.6
2022:02	142.8	119.4	102.5	130.9	204.5	58.6
2022:03	143.3	119.3	104.8	133.7	215.1	57.1
2022:04	142.8	118.7	105.0	129.8	206.9	55.4
2022:05	142.9	117.9	105.2	131.8	204.3	56.1
2022:06	140.2	117.1	101.8	132.2	194.1	53.0
2022:07	139.8	116.5	101.8	129.3	203.9	52.8
2022:08	138.2	116.4	97.5	128.3	182.4	52.8
2022:09	138.1	115.8	95.2	128.9	194.5	50.9
2022:10	136.5	114.9	95.6	127.1	192.8	50.2
2022:11						49.0

Figure A7.1: Washington State Economic Indicators

Year-over-Year Employment Growth

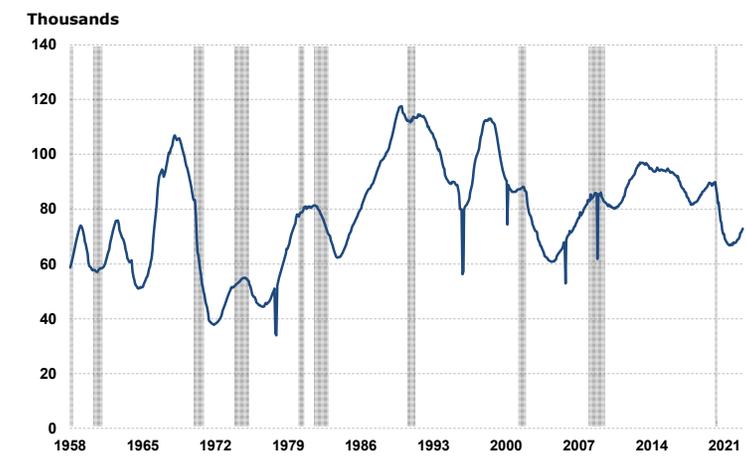
January 1980 to November 2022



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

Washington Aircraft and Parts Employment

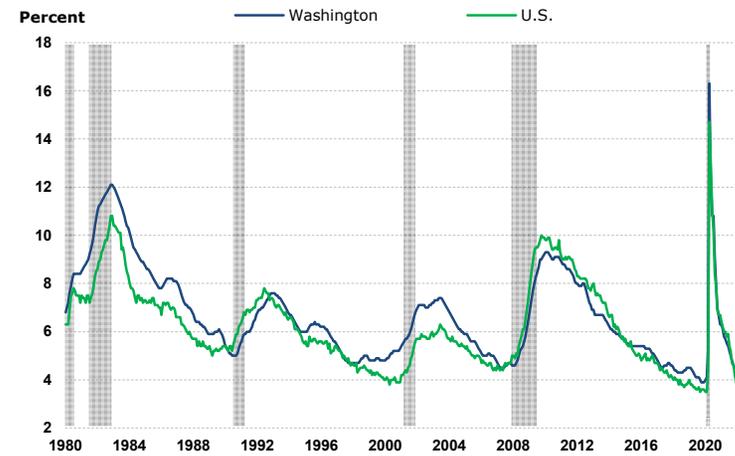
January 1958 to October 2022



* Source: Bureau of Labor Statistics, ERFC

Unemployment Rate, S.A.

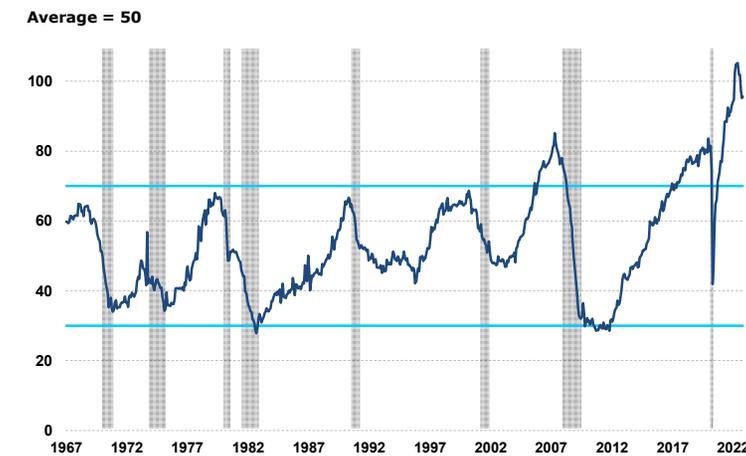
January 1980 to November 2022



* Source: Bureau of Labor Statistics

Washington Business Cycle Indicator

January 1968 to October 2022



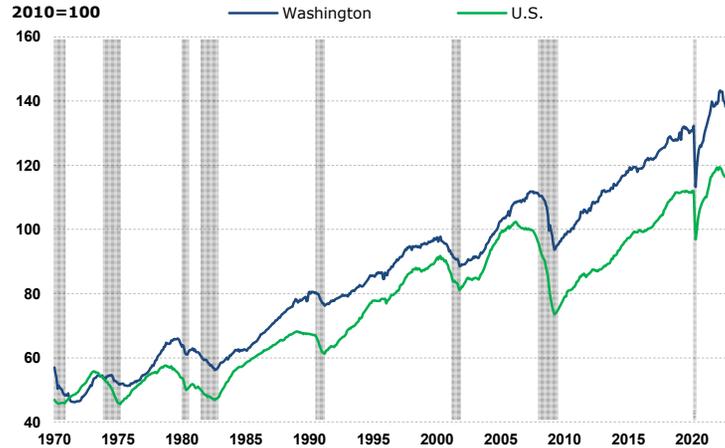
* Source: ERFC

* Shaded areas correspond with national recessions.
Appendix

Figure A7.2: Washington State Leading Indicators

The Washington and U.S. Indexes of Leading Indicators

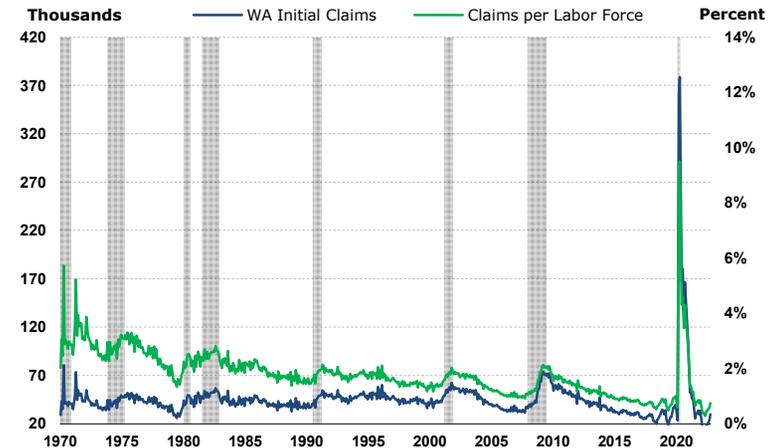
January 1970 to October 2022



* The Conference Board, ERFC

Washington Initial Claims for Unemployment Insurance

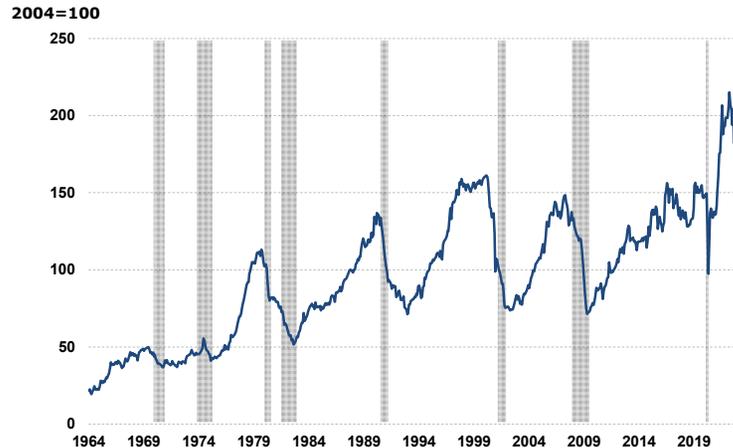
January 1970 to October 2022, S.A.



* Source: WA State Employment Security, ERFC

Washington State Help Wanted Index

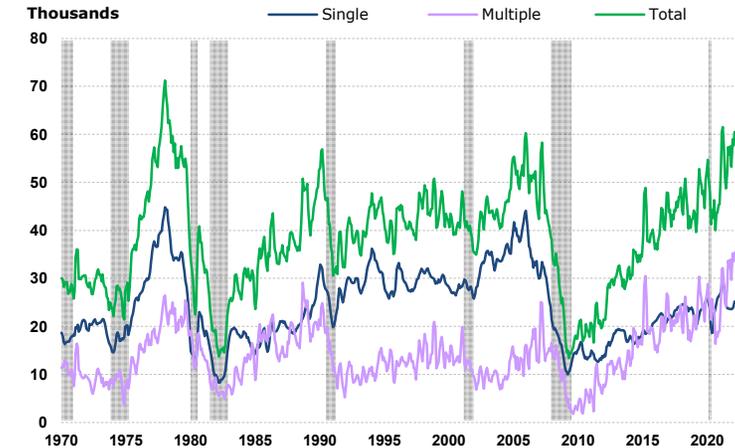
January 1964 to October 2022



* Source: The Conference Board, ERFC

Housing Units Authorized in Washington State

January 1970 to October 2022, 3mma, SAAR



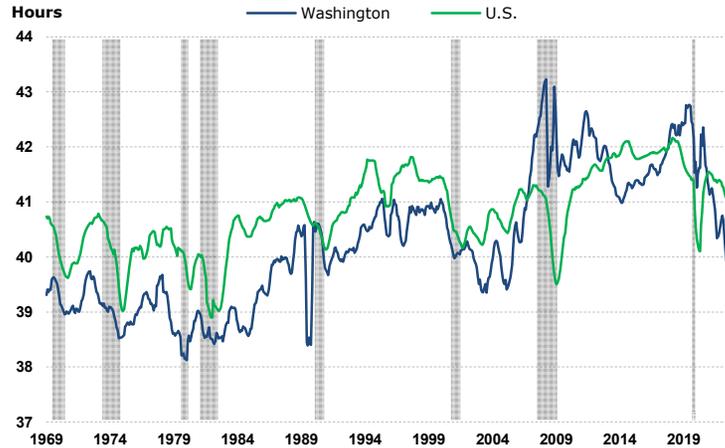
* Source: Census Bureau, ERFC

* Shaded areas correspond with national recessions.
Appendix

Figure A7.3: Other State Economic Indicators

Average Weekly Hours in Manufacturing

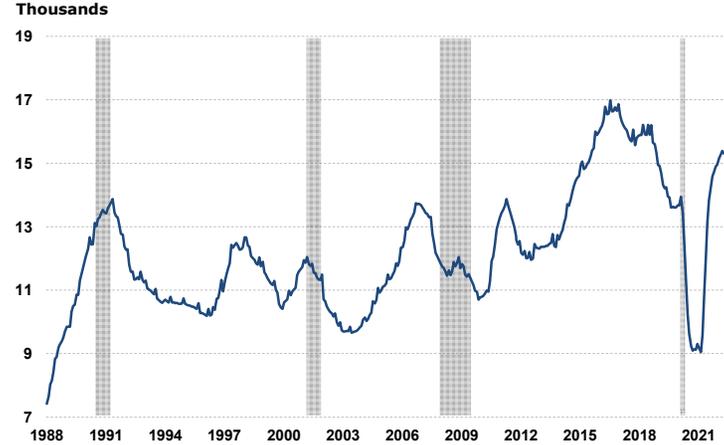
June 1969 to November 2022, 6-Mo. Moving Average, S.A.



* Bureau of Labor Statistics, ERFC

Washington Driver's License In-Migration

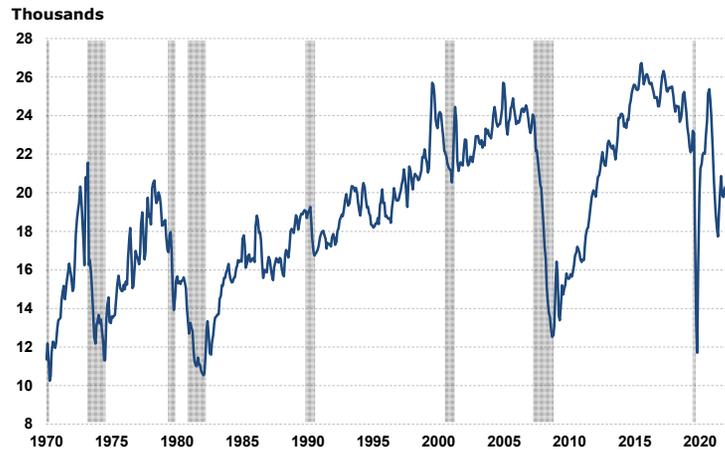
January 1988 to September 2022, 12-Month Moving Average



* Source: WA State Department of Licensing, ERFC

New Car and Truck Registrations in Washington

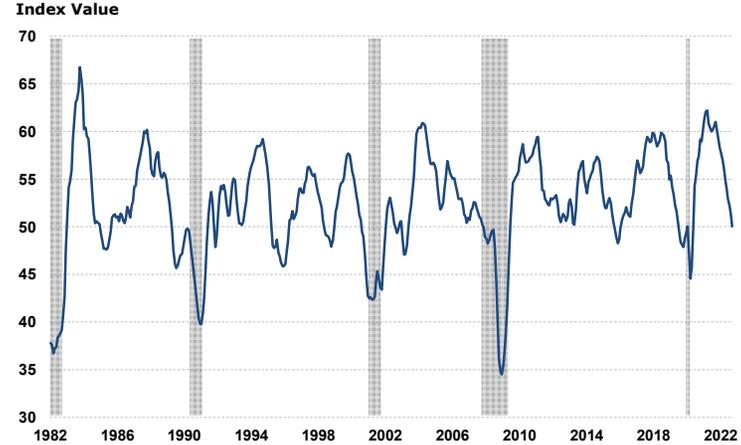
September 1970 to October 2022, 3-Month Moving Average, S.A.



* Source: WA State Department of Licensing, ERFC

U.S. Institute for Supply Management Index

March 1982 to November 2022, 3-Month Moving Average, S.A.



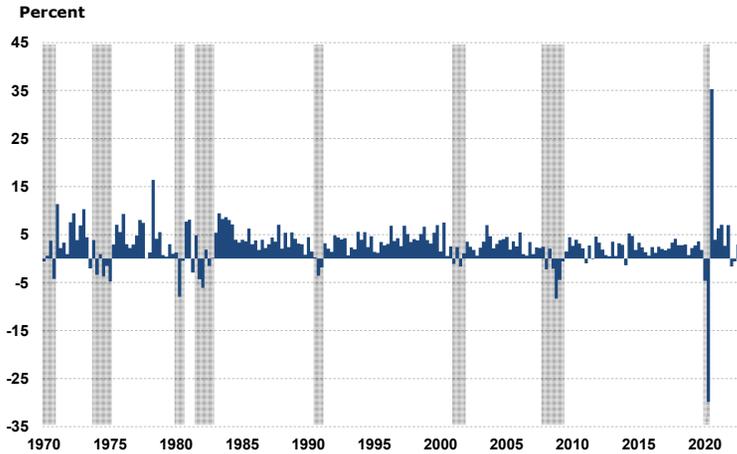
* Source: Institute for Supply Management, ISM-WW, ERFC

* Shaded areas correspond with national recessions.
Appendix

Figure A7.4: Other Economic Indicators

Quarterly U.S. Real GDP Growth

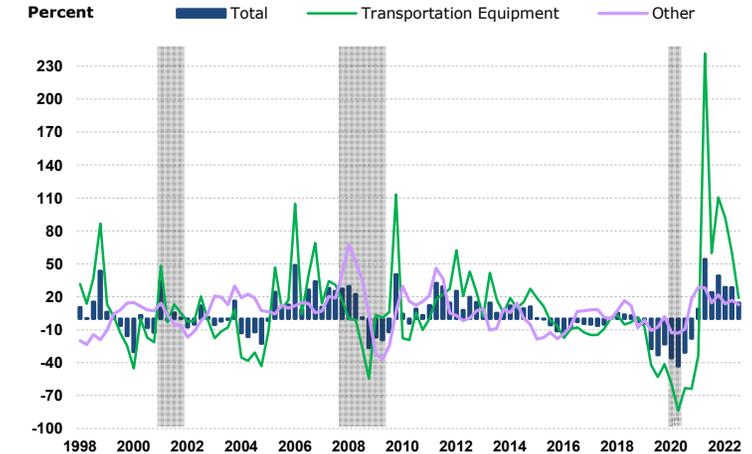
1970Q1 to 2022Q3, SAAR



* Source: Bureau of Economic Analysis

Washington State Export Composition

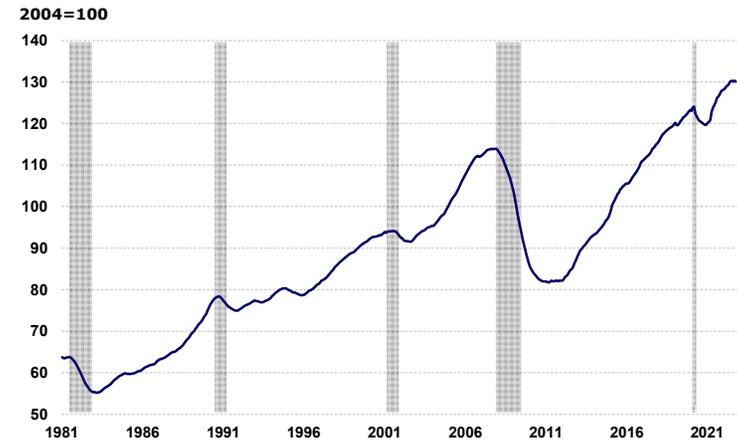
1998Q1 to 2022Q3, Year-over-year percent change



* Source: WISER

Washington State Construction Index

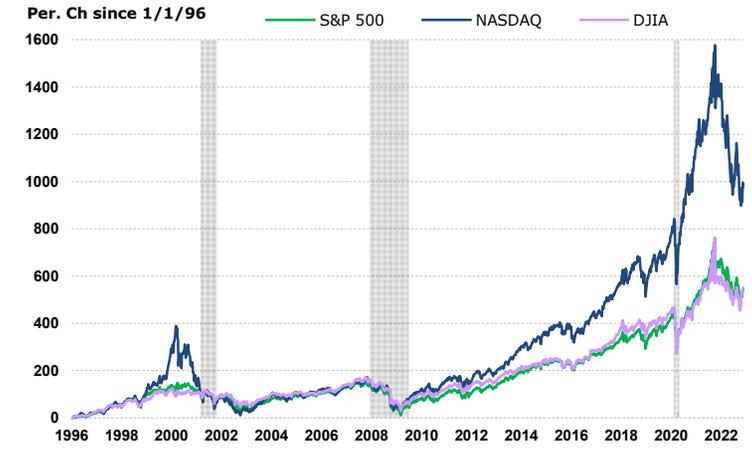
January 1981 to October 2022, 12mma



* Source: ERFC

National Stock Indexes

January 1, 1996 to November 28, 2022



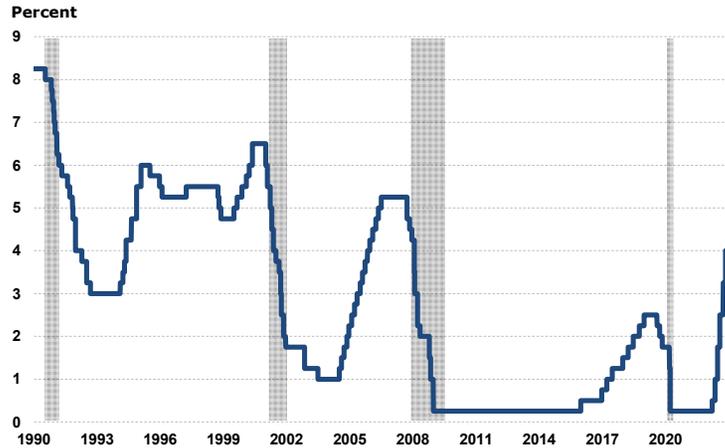
* Source: ERFC

* Shaded areas correspond with national recessions.
Appendix

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

Federal Funds Target Rate

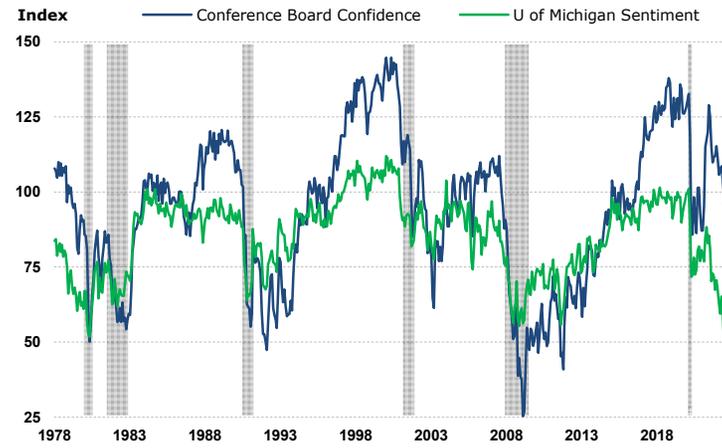
January 1, 1990 to December 2, 2022



* Federal Reserve

Consumer Confidence

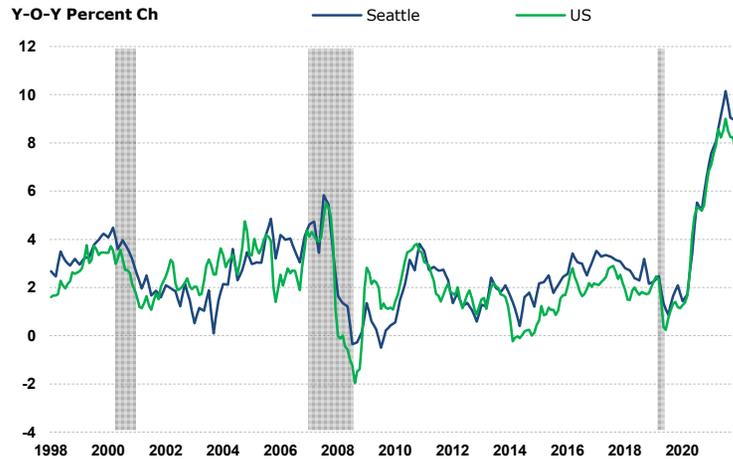
March 1978 to November 2022



* Source: The Conference Board, University of Michigan

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

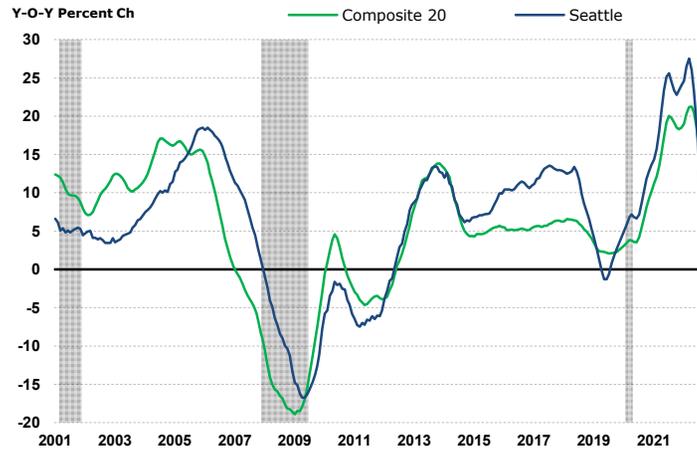
December 1998 to October 2022



* Source: Bureau of Labor Statistics

Case Shiller Home Price Index

January 2001 to September 2022, SA



* Source: Case Shiller, ERFC

* Shaded areas correspond with national recessions.
Appendix

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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.