

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

June 2019
Volume XLII, No. 2



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Washington State Economic and Revenue Forecast

Prepared by the
Economic and Revenue Forecast Council

June 2019
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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 six members, two appointed by the Governor and four appointed by the Legislature – one from each caucus of the Senate and House of Representatives. 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. 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 Global Insight, Inc. 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 June 27, 2019.

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Table of Contents

Preface	iii
List of Tables	vi
List of Figures	vii
Executive Summary	1
U.S. Economic Forecast.....	1
Washington Economic Forecast	2
Revenue Forecast.....	3
Chapter 1: U.S. Economy – Current Conditions and Forecast	5
Current Conditions	5
Forecast.....	9
Risks to the Forecast	13
Chapter 2: Washington Economy – Current Conditions and Forecast	19
Current Conditions	19
Washington State Forecast	23
Washington Payroll Employment	23
Washington Personal Income	25
Washington Building Permits	25
Seattle Consumer Price Index	26
Alternative Scenarios	27
Chapter 3: Washington State Revenue Forecast Summary	41
Overview.....	41
Recent Collection Experience	43
Legislative Changes to the Forecast	45
Revenue Forecasts by Source	46
Department of Revenue	46
Forecasted Revenue from Cannabis-Related Sales	50
The Office of Financial Management (Other Agencies)	50
State Treasurer.....	51
Insurance Commissioner	51
Liquor and Cannabis Board.....	51
Lottery Commission.....	52
Administrative Office of the Courts	52
Track Record for the 2017-19 Biennium	53
Track Record for the 2019-21 Biennium	53
The Relationship between the Cash and GAAP GF-S Revenue Forecasts	53
Budgetary Balance Sheet for the 2017-19 and 2019-21 Biennia.....	54
Alternative Forecasts for the 2017-19 and 2019-21 Biennia.....	54
Near General Fund Forecasts for the 2017-19, 2019-21, and 2021-23 Biennia.....	54
Appendix	73
Glossary	111

List of Tables

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

Table 1.1	U.S. Economic Forecast Summary	15
Table 1.2	Forecast Analysis, Comparison of Forecasts for 2017-19	16
Table 1.3	Forecast Analysis, Comparison of Forecasts for 2019-21	17
Table 1.4	Forecast Comparison, 2019 to 2023	18

Chapter 2: Washington Economy – Current Conditions and Forecast

Table 2.1	Washington Economic Forecast Summary.....	30
Table 2.2	Comparison of Alternative Forecasts	31
Table 2.3	Governor’s Council of Economic Advisor’s Forecast	32
Table 2.4	Forecast Analysis, Comparison of Forecasts for 2017-19	33
Table 2.5	Forecast Analysis, Comparison of Forecasts for 2019-21	34
Table 2.6	Forecast Comparison, 2019 to 2023	35

Chapter 3: Washington State Revenue Forecast Summary

Table 3.1	Revisions to the General Fund-State Forecast	42
Table 3.2	Collection Variance of Major General Fund-State Taxes by Agency.....	44
Table 3.3	General Fund-State Collections	56
Table 3.4	Taxable Retail Sales	57
Table 3.5	General Fund-State forecast by agency, 2017-19 biennium, Cash	58
Table 3.6	General Fund-State forecast by agency, 2017-19 biennium, GAAP.....	59
Table 3.7	General Fund-State forecast by agency, 2019-21 biennium, Cash	60
Table 3.8	General Fund-State forecast by agency, 2019-21 biennium, GAAP.....	61
Table 3.9	June 2019 General Fund-State Forecast Detail	62
Table 3.10	Track Record for the 2017-19 General Fund-State Cash Forecast	63
Table 3.11	Track Record for the 2019-21 General Fund-State Cash Forecast	64
Table 3.12	2017-19 with Enacted Budget Balance Sheet	65
Table 3.13	Alternative Forecasts Compared to the Baseline Forecast, 2017-19	66
Table 3.14	Alternative Forecasts Compared to the Baseline Forecast, 2019-21	67
Table 3.15	Lottery Transfers by Fund, Cash.....	68
Table 3.16	Lottery Transfers by Fund, GAAP.....	68
Table 3.17	GF-S, ELTA and OPA (Near General Fund-State)	69
Table 3.18	Forecasted Distribution of Excise Tax & License Fees from Cannabis Sales..	70
Table 3.19	Revenue Legislation passed in the 2019 Legislative Session.....	71

Appendix: Detail Components of the State Economic and Revenue Forecast

Table A1.1	U.S. Economic Forecast Summary, Annual	75
Table A1.2	U.S. Economic Forecast Summary, Quarterly	76
Table A1.3	Washington Economic Forecast Summary, Annual	79
Table A1.4	Washington Economic Forecast Summary, Quarterly	80
Table A2.1	U.S. Nonagricultural Employment by Industry, Annual	83
Table A2.2	U.S. Nonagricultural Employment by Industry, Quarterly.....	84
Table A2.3	Washington Nonagricultural Employment by Industry, Annual.....	87
Table A2.4	Washington Nonagricultural Employment by Industry, Quarterly	88
Table A3.1	U.S. Personal Income by Component, Annual	91
Table A3.2	U.S. Personal Income by Component, Quarterly	92
Table A3.3	Washington Personal Income by Component, Annual	95
Table A3.4	Washington Personal Income by Component, Quarterly	96
Table A4.1	Selected Inflation Indicators	99
Table A4.2	Price Indexes for Gross Domestic Product.....	100
Table A5.1	Washington Resident Population and Components of Change	101
Table A5.2	Washington Population.....	102
Table A6.1	Summary of National and State Indicators	103
Table A6.2	Washington Business Indicators	104

List of Figures

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

Figure 1.1	Nonfarm Employment Growth	6
Figure 1.2	Consumer Confidence and Sentiment.....	7
Figure 1.3	Case-Shiller 20-city Home Price Index	8
Figure 1.4	Average Price of Crude Oil	10
Figure 1.5	GDP Growth of Major U.S. Trading Partners	12
Figure 1.6	Federal Funds Rate.....	13

Chapter 2: Washington Economy – Current Conditions and Forecast

Figure 2.1	Unemployment Rates.....	20
Figure 2.2	Washington Housing Permits	21
Figure 2.3	Real GDP Growth	22
Figure 2.4	Washington Construction Employment	24
Figure 2.5	Washington Personal Income	25
Figure 2.6	Seattle Consumer Price Index	26
Figure 2.7	Comparison of Washington and U.S. Economic Forecasts	36
Figure 2.8	Comparison of Alternative U.S. Economic Forecasts.....	39
Figure 2.9	Comparison of Alternative Washington Economic Forecasts	40

Chapter 3: Washington State Revenue Forecast Summary

Figure 3.1	GF-S Revenue as Percentage of State Personal Income.....	42
Figure 3.2	Revenue Act Collections	44
Figure 3.3	Taxable Real Estate Excise Activity	45
Figure 3.4	Taxable Sales as a Percentage of State Personal Income	47

Appendix:

Detail Components of the Washington State Economic and Revenue Forecast

Figure A7.1	Washington State Economic Indicators.....	105
Figure A7.2	Washington State Leading Indicators	106
Figure A7.3	Other State Economic Indicators	107
Figure A7.4	Other Economic Indicators	108

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Executive Summary

- **The national economy is expanding at a solid but slowing pace. Real GDP rose 3.1% (SAAR) in the first quarter after growing 2.2% (SAAR) in the fourth quarter.**
- **The forecast for real GDP growth in 2019 was 2.5%, up from 2.4% in March. For 2020, the June Blue Chip forecast of real GDP growth is 1.8%, down from 1.9% in March. Real GDP growth rates for 2021 through 2023 remain unchanged at 1.7%, 1.9% and 2.0%.**
- **Washington job growth remains strong and the unemployment rate remains near its all-time low.**
- **Washington real GDP growth led the nation by a wide margin in 2018.**
- **The Washington economic forecast is similar to the March forecast with the exception of slightly higher personal income.**
- **General Fund-State (GF-S) revenue collections since the March 2019 forecast have come in \$30 million (0.5%) over the forecasted amount.**
- **A large expected refund, coupled with a legislated transfer of funds to the Education Legacy Trust Account, has decreased forecasted GF-S revenue for the remainder of the 2017-19 biennium.**
- **During the 2019 legislative session subsequent to the March forecast, several bills and a new operating budget were passed that increased forecasted GF-S revenue by a total of \$305 million for the 2017-19 through 2021-23 biennia and increased Near General Fund State revenue by \$932 million over the same period.**
- **Forecasted GF-S revenue has decreased by \$140 million in the current biennium but has increased by \$195 million in the 2019-21 biennium and \$347 million in the 2021-23 biennium.**
- **Near GF-S revenue, which includes all state revenue subject to the budget outlook process, is forecasted to decrease by \$47 million in the current biennium but increase by \$432 million in the 2019-21 biennium and \$678 million in the 2021-23 biennium.**

U.S. Economic Forecast

The national economy is expanding at a solid but slowing pace

The national economy is expanding at a solid but slowing pace. Real GDP rose 3.1% (SAAR) in the first quarter after growing

2.2% in the fourth quarter. Job gains were weak in the latest report, but the trend remains solid. The unemployment rate has fallen to below 4%. Consumer and business confidence has fallen but remain near cyclical highs. Oil prices are increasing but remain low. Monetary policy is starting to shift to a more dovish stance. The manufacturing sector has slowed but growth is still positive. On the downside, the housing market recovery remains slow. Geopolitical risks, while elevated, have had little impact on the U.S. economy to date.

The economic outlook is similar to the March forecast

The economic outlook is similar to the March forecast. The June Blue Chip forecast for real GDP growth in 2019 was 2.5%, up from 2.4% in March. For 2020, the June Blue Chip forecast of real GDP growth is 1.8%, down from 1.9% in March. Real GDP growth rates for 2021 through 2023 remain unchanged at 1.7%, 1.9% and 2.0%.

Washington Economic Forecast

The Washington economy is expanding at a rapid pace

The Washington economy is expanding at a rapid pace. Washington job growth remains strong and the unemployment rate remains near its all-time low. Washington real GDP growth led the nation by a wide margin in 2018. Seattle home prices continue to weaken though housing construction remains strong. Washington manufacturing activity continues to expand but exports declined over the year due to a reduction in transportation equipment exports. Seattle area consumer price inflation remains above the national average.

The Washington forecast is similar to the March forecast

The Washington economic forecast is similar to the March forecast with the exception of slightly higher personal income. We expect 2.2% Washington employment growth this year, which is the same rate we expected in the March forecast. As in March, we expect growth to decelerate. We expect employment growth will average 1.2% per year in 2020 through 2023, which is slightly higher than the 1.1% per year average in the March forecast. Our forecast for nominal personal income growth this year is 4.9%, up from 4.6% in the March forecast. Our new forecast for nominal personal income growth in 2020 through 2023 averages 4.9% per year, up slightly from the 4.8% rate in the March forecast. We expect 43,700 housing units authorized by building permits this year, up from 42,600 in the March forecast. The increase is due to a surge in multi-family permits in March and April. We expect permits to average 41,900 in 2020 through 2023, compared to 42,200 in the March forecast. We expect Seattle inflation to fall from 3.2% last year to 2.8% in 2019. We expect inflation to slow further to an average rate of 2.1% per year through the remainder of the forecast.

Revenue Forecast

Most of the June forecast revision is due to legislative changes.

Since the March 2019 forecast, General Fund – State (GF-S) revenue collections have come in only half a percent higher than forecasted. The small forecast variance, coupled with small changes in the economic forecast, would have produced slight changes in forecasted revenue. These changes, however, were outweighed by the effects of a new operating budget and other legislation and that were passed in the 2019 legislative session subsequent to the March forecast. In addition, a \$70 million refund expected to occur between the release of the forecast and the end of June has reduced total forecasted revenue for the 2017-19 biennium.

GF-S forecast change by biennium (millions):

17-19: *-\$140*
19-21: *+\$195*
21-23: *+\$347*

In the current biennium, GF-S revenue sources that are tracked monthly came in \$30.0 million higher than forecasted in March. Non-economic changes to the forecast, comprised mainly of a \$84.7 million transfer of funds to the Education Legacy Trust Account and the expected June refund, subtracted \$157 million from the forecast. Changes to the economic forecast relative to recent collections resulted in a \$12.8 million decrease in projected collections for the rest of the biennium, for a total GF-S forecast decrease of \$139.8 million in the current 2017-19 biennium. The total forecast increase for the 2019-21 biennium was \$195.5 million and the total for the 2021-23 biennium was \$346.7 million. Of these amounts, legislative changes added \$109.3 million to projected collections for the 2019-21 biennium and \$282.3 million for the 2021-23 biennium. The June 2019 forecast for GF-S revenue totals \$44,042.0 million in the 2017-19 biennium, \$49,804.1 million in the 2019-21 biennium and \$53,683.4 million in the 2021-23 biennium.

Near GF-S forecast change by biennium (millions):

17-19: *-\$47*
19-21: *+\$432*
21-23: *+\$678*

Near GF-S revenue, which includes all state revenue subject to the budget outlook process, is forecasted to decrease by \$47.3 million in the current biennium but increase by \$432.3 million in the 2019-21 biennium and \$677.5 million in the 2021-23 biennium. The June 2019 forecast for Near GF-S revenue totals \$46,059.1 million in the 2017-19 biennium, \$50,987.6 million in the 2019-21 biennium and \$55,036.0 million in the 2021-23 biennium.

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

- **The national economy is expanding at a solid but slowing pace. Real GDP rose 3.1% (SAAR) in the first quarter after growing 2.2% (SAAR) in the fourth quarter.**
- **The trend in employment growth may be slowing, although the unemployment rate is low.**
- **Consumer confidence is weakening but remains high.**
- **The manufacturing sector has slowed and the construction sector has stalled.**
- **U.S. oil production is near an all-time high; oil prices are no longer declining.**
- **Inflation remains low.**
- **The forecast for real GDP growth in 2019 was 2.5%, up from 2.4% in March. For 2020, the June Blue Chip forecast of real GDP growth is 1.8%, down from 1.9% in March. Real GDP growth rates for 2021 through 2023 remain unchanged at 1.7%, 1.9% and 2.0%.**
- **Higher business and consumer confidence leading to more hiring and spending is the most significant upside risk. A further slowdown in global growth is the major downside risk.**

Current Conditions

The national economy is expanding at a solid but slowing pace

The national economy is expanding at a solid but slowing pace. Real GDP rose 3.1% (SAAR) in the first quarter after growing 2.2% in the fourth quarter. Job gains were weak in the latest report, but the trend remains solid. The unemployment rate has fallen to below 4%. Consumer and business confidence has fallen but remain near cyclical highs. Oil prices are increasing but remain low. Monetary policy is starting to shift to a more dovish stance. The manufacturing sector has slowed but growth is still positive. On the downside, the housing market recovery remains slow. Geopolitical risks, while elevated, have had little impact on the U.S. economy to date.

U.S. real GDP rose 3.1% (SAAR) in the first quarter

U.S. real GDP rose 3.1% (SAAR) in the first quarter of 2019 after growing 2.2% (SAAR) in the fourth quarter. For all of 2018, GDP rose 2.9%, up from 2.2% in 2017. In the first quarter, final sales

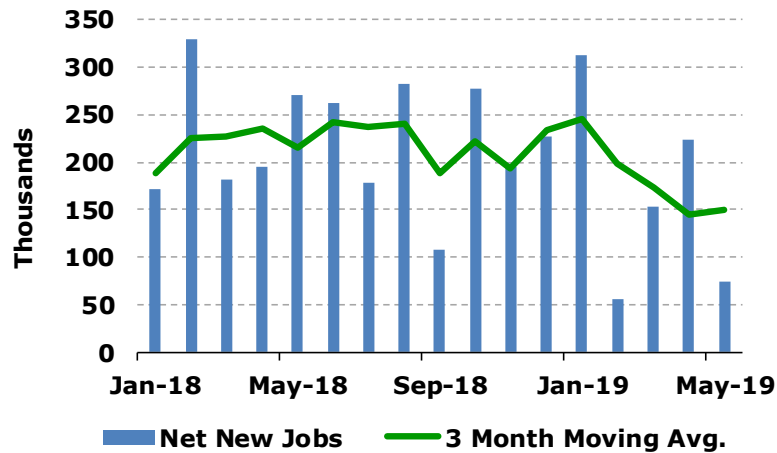
increased 2.6% (SAAR) after growing just 2.1% (SAAR) the quarter before. Consumer spending slowed, growing 0.9% (SAAR) after fourth quarter growth of 2.5% (SAAR). The slowdown was due to a 2.4% (SAAR) drop in durable goods spending. Consumer spending contributed just 0.6 points to top line GDP growth. Investment grew 6.0% (SAAR) in the first quarter, adding 1.1 percentage points to GDP growth. Nonresidential investment remained positive while residential investment declined. Government spending increased 2.8% (SAAR) with increases at the state and local level and in national defense. Exports increased 5.4% (SAAR), as imports fell 1.9% (SAAR), causing net exports to add 0.9 points from GDP growth. Real disposable income growth slowed to 2.0% (SAAR) from 3.2% (SAAR) in the fourth quarter.

Employment growth appears to be slowing

The trend in employment growth may be slowing. Nonfarm payrolls increased just 75,000 in May. In the past three months, the U.S. economy is averaging 151,000 net new jobs per month (see Figure 1.1). In 2018, the U.S. economy averaged 223,000 net new jobs each month, up from 179,000 in 2017. In May, the goods-producing sector added 8,000 jobs with small gains in manufacturing and construction. Private service-providing industries added 82,000 jobs in May. Sectors with the highest job gains were professional and technical services (+21,300), administrative and support services (+15,300), health care (+15,700) and accommodation and food services (+22,100). Notable employment declines were sporting goods, hobby, book, and music stores (-12,700) and state and local government (-19,000). The unemployment rate held steady at 3.6%. Average hourly earnings increased by \$0.06 or 0.2% and are up 3.1% since last year.

Figure 1.1: Nonfarm Employment Growth

Employment growth in May was weak



Source: Bureau of Labor Statistics; data through May 2019

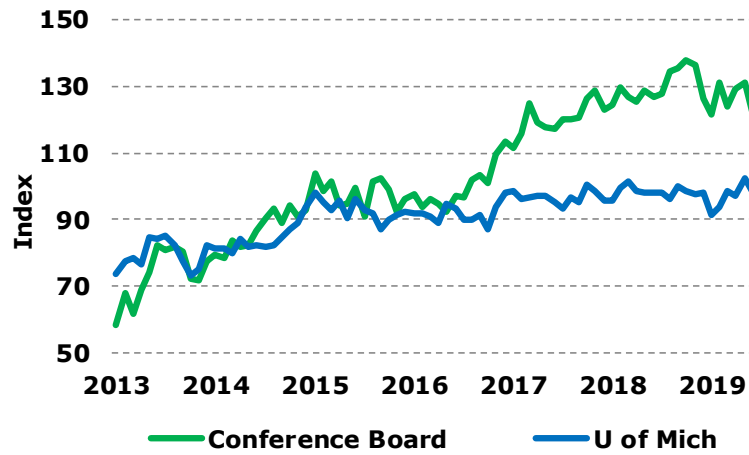
Consumer attitudes have declined

Consumer confidence is declining but remains relatively high (see Figure 1.2). The Conference Board measure of consumer

confidence fell 9.8 points to 121.5. Confidence is down 5.6 points from a year ago. The present situation component declined from 170.7 in May to 162.6 in June. Business conditions were rated less favorably with fewer respondents saying the current business climate is good. The expectations index fell as well. The University of Michigan Consumer Sentiment index also declined in June, dropping 4.5 points to 97.9. The index is now down 0.3 points from a year ago. Responses suggest the drop may be related to fears of an increase in tariffs.

Figure 1.2: Consumer Confidence and Sentiment

Despite the decline, consumer attitudes are still relatively high



Source: Conference Board, University of Michigan; data through June 2019

Oil prices are no longer declining

Oil prices are no longer falling. West Texas Intermediate (WTI) increased to \$55 per barrel for the week of June 21st, up from \$53 the week before. Brent crude oil has followed a similar path, increasing to \$64 from \$63 the previous week. Despite the recent uptick, prices are down roughly \$10 per barrel from a year ago. Oil production in the U.S. is at 11.9 million barrels per day (bpd), just off the all-time high of 12.0 million barrels per day reached in December. A year ago, production was at 10.5 million bpd. The number of drilling structures has fallen recently. The Baker Hughes rig count fell to 967 in the third week of June, a decline of 85 since last year. Geopolitical unrest has given support for oil prices, although U.S.-China trade tensions have led to expectations for slower energy demand.

Inflation has declined

Headline inflation has declined. The Consumer Price Index (CPI) was up 1.8% over the year in May, down from 2.0% the month before. A year ago, headline inflation was 2.8%. Much of the recent decline was due to a drop in energy prices. Energy prices fell 0.6% in May, and are down 0.5% since last year. Food price inflation is slowly starting to creep up. Prices were up 0.3% over the month and are up 2.0% from last year. Shelter costs continue to be a steady driver of overall price inflation as rents continue to rise. Shelter costs increased 0.2% in May and are now up 3.3% over the year. Core consumer prices, which

exclude food and energy, were up 0.1% in May and 2.0% over the year.

The housing market recovery has stalled

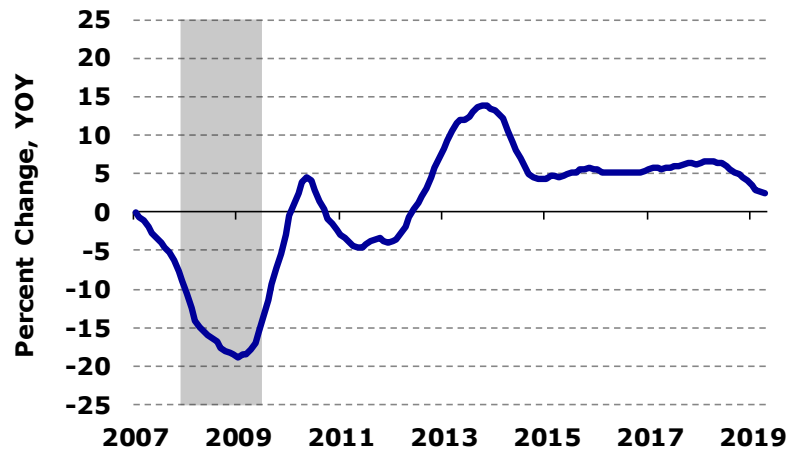
The housing market recovery has stalled. Housing starts fell 0.9% in May and are 4.7% below their May 2018 level. Single-family starts declined 6.4% and are down 12.5% from a year ago. Housing starts for the volatile multi-family sector increased 13.8% in May and are up 45.9% since May 2018. Housing permits increased 0.7% in May but remain down 0.2% from a year ago. Single-family permits are down 3.9% while multi-family permits are up 6.8% since last year. Despite the volatility, the multi-family segment has fully recovered from the housing downturn. New home sales fell 7.8% over the month in May, and are down 3.7% from a year ago.

Home price appreciation has slowed

Home price appreciation has slowed (see Figure 1.3). The seasonally adjusted Case-Shiller 20-city Home Price Index was flat over the month in April. Home prices are now 2.5% higher than a year ago. Prices have increased 53.1% since the trough, and are now 4.4% above their previous peak. Rising prices encourage new construction, and contribute to homebuilder confidence. The recent decline in mortgage rates should also help home prices, as more potential buyers are able to afford a house. The average rate on the 30 year fixed rate loan was 3.73% in the fourth week of June 2019, down from the recent peak of 4.94% in November 2018.

Figure 1.3: Case-Shiller 20-city Home Price Index

Home price growth has slowed



Source: S&P CoreLogic Case-Shiller; data through April 2019

The manufacturing sector has slowed

The manufacturing sector has slowed in recent months. The Institute of Supply Management (ISM) Report on Business indicates continued, but slowing growth in the manufacturing sector. The index declined to 52.1 in May from 52.8 in April. The new orders component increased 1.0 points to 52.7. Production declined 1.0 points to 51.3. The latest G-17 report from the

Federal Reserve indicates manufacturing output increased 0.2% in May after declining 0.4% per month, on average, in the first four months of the year. Manufacturing output is now 1.1% higher than last year. The index for durables increased 0.3% in May, while the index for nondurables increased 0.1%. Other manufacturing (publishing and logging) declined 0.9%. New orders for core capital goods (nondefense capital goods excluding aircraft) rose 0.4% in May after declining 1.0% the prior month. New orders are now 2.3% above year-ago levels.

U.S. export growth is slowing

U.S. export growth is slowing. Total exports in the first quarter increased 1.3% year over year after posting a 3.3% year-over-year gain in the fourth quarter. Transportation equipment exports grew 2.5% after increasing 2.7% in the fourth quarter. Petroleum and coal exports also slowed, increasing just 0.4% from last year after growing 15.2% in the fourth quarter. Oil and gas exports continue to surge, up 36.1% since last year. Global economic growth appears to be slowing. The U.S. dollar has strengthened recently, which could hinder exports further. Exports to the rest of North America have slowed. Exports in the first quarter to Canada declined 2.0% while exports to Mexico were up just 0.3% from a year ago. Trade with China appears to be affected by U.S.-China trade tensions. Exports to China declined 19.6% year over year in the first quarter, after a 31.6% decrease in the prior quarter.

Forecast

Our forecast was based on the June IHS Markit forecast

The economic forecast is based on a modified version of IHS Markit's June 2019 Control forecast for the U.S. economy. As usual, we have adjusted real gross domestic product (GDP) to match the Blue Chip "Consensus" GDP forecast. The economic outlook is similar to the March forecast. The June Blue Chip forecast for real GDP growth in 2019 was 2.5%, up from 2.4% in March. For 2020, the June Blue Chip forecast of real GDP growth is 1.8%, down from 1.9% in March. Real GDP growth rates for 2021 through 2023 remain unchanged at 1.7%, 1.9% and 2.0%.

This recovery will be the longest on record

The projected growth throughout the forecast will make the recovery from the 2007-09 recession the longest on record. From the June 2009 through the end of our forecast in 2023, the recovery will be at least 174 months. Through June, this recovery has already lasted 120 month, matching the longest recovery on record which was from the 1990-91 recession. A major reason for the exceptional length of the current recovery was the depth of the recession. Despite positive GDP growth, the labor market remained weak for an extended period. It took 58 months of recovery just to reach the previous peak in employment. When comparing recoveries in terms of the duration since reaching the previous employment peak, this expansion appears more in line with other post-war expansions. The two longest post-war expansions had 96 and 95 months of

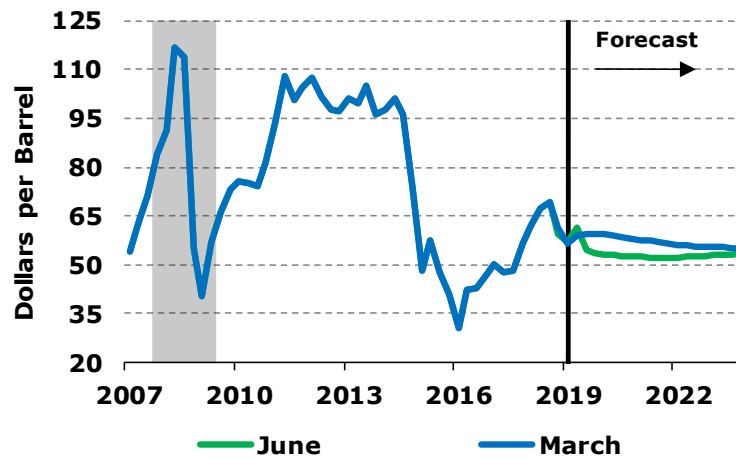
additional employment growth after reaching the previous peak. We expect growth to continue through the end of the forecast in 2023, which would result in 115 months of employment gains after reaching the previous employment peak.

Oil prices are expected to level off

Oil prices are slightly lower than the prices used in the March forecast. The refiner acquisition price of crude oil in 2020 – 2023 ranges from \$6 to \$2 per barrel lower than in the March forecast. The refiner acquisition price of crude oil in 2019 is now expected to average \$59 per barrel, dropping to \$57 in 2020 and to \$54 by 2023 (see Figure 1.4). Venezuela’s oil industry has collapsed due to the failing economy. Iran’s oil output is also down due to renewed sanctions. However, other members of OPEC and U.S. shale drillers have more than made up for any reduction in global supply. The United States will soon be a consistent net exporter of oil as new pipelines continue to come online. Oil prices will remain well below the levels seen earlier in the recovery.

Figure 1.4: Average Price of Crude Oil

Oil prices are lower for the majority of the forecast



Source: DOE, ERFC June 2019 forecast; historical data through 2019Q1

Inflation will remain moderate

Inflation (as measured by the price index for personal consumption expenditures) has risen in recent years but remained low at 2.0% in 2018. Inflation is expected to remain in check thanks to slowing global growth, restrained commodity prices, a strong dollar and steady inflation expectations. We expect low to moderate inflation throughout the forecast. We expect inflation to be 1.5% this year, down from 1.8% in the previous forecast. We then expect inflation to range from 1.8% to 1.9% each year from 2020 through 2023. Core inflation (minus food and energy) is expected to be 1.6% this year and 1.9% next year. The forecast calls for core inflation to match the Federal Reserve’s goal of 2% from 2021 to 2023.

Consumer spending growth is expected to slow

Real consumer spending growth is expected to slow. We expect real consumer spending to grow 2.4% this year, down from 2.5% in the previous forecast. Consumer optimism remains high

but has been trending downward. Wages are slowly increasing but home prices growth has slowed. Unemployment remains low and more part-time workers are finding full-time jobs. However, the stock market is no longer steadily increasing and has taken a bite out of household net worth recently. Disposable personal income is expected to grow 3.8% this year, down from the 4.9% growth in 2018. Growth in disposable income is expected to accelerate next year and average 4.4% for the remainder of the forecast. The forecast calls for real consumption growth to average 2.0% from 2020 through 2023.

The employment forecast is mostly unchanged

The employment forecast is changed slightly from the March forecast. Growth in payrolls is anticipated to be 1.7% this year, unchanged from the previous forecast. We then expect slightly stronger growth from 2020 through 2022 compared to March. Employment growth is expected to be 1.1% in 2020 then 0.6% from 2021 to 2023. By 2023, the forecast expects 518,000 more jobs than in March, a difference of 0.3%. Due to the steady job growth, we expect the unemployment rate to decline from 3.9% in 2018 to 3.6% in 2019. We expect the unemployment rate to increase slowly to 4.0% by 2023. The March forecast expected the unemployment rate to reach 4.1% in 2023.

Business investment is expected to strengthen gradually

Real nonresidential fixed investment is expected to grow 2.7% this year after growing 6.9% in 2018. The softening of oil prices has led to a downshift in investment by energy companies. The capital-intensive manufacturing sector has slowed. Demand for new office space appears to be slowing as well. The U.S. office vacancy rate continues to trend higher. Although we expect real nonresidential construction to decline 0.6% this year, the forecast calls for a gradual ramp up to 3.8% growth by 2023. Real equipment investment is expected to grow 0.5% this year. We expect growth to accelerate throughout the forecast as businesses expand and improve productivity. The forecast calls for growth to reach 5.5% in 2023. We expect real nonresidential fixed investment growth to average 3.8% from 2020 to 2023.

The housing market is in a slump

The housing market has yet to break out of its slump. Construction activity is declining and new home sales are weak. Homebuilder confidence is no longer declining, but recent gains have been minimal. The forecast calls for housing starts to decline 3.0% this year, compared to a 0.9% decline in the previous forecast. We expect single-family housing starts to decline 3.4% and multi-family segment to decline 2.0% this year. We expect the decline to be temporary and growth to resume throughout the remainder of the forecast. The forecast calls for growth of 2.9%, 0.8%, 3.9%, and 0.2% in 2020 through 2023.

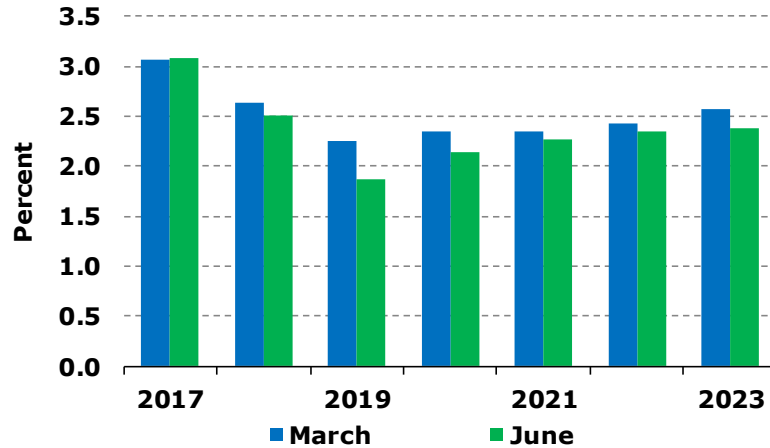
Economic growth of U.S. trading partners is expected to be weaker

Economic growth of major U.S. trading partners is expected to be weaker than in the March forecast. After growing 2.5% in 2018, we expect U.S. major trading partner growth of 1.9% this year. The forecast then expects growth to accelerate throughout

the forecast and to reach 2.4% in 2023. In March, the forecast expected growth of 2.3% this year, accelerating to 2.6% in 2023 (see Figure 1.5). Weaker foreign growth, a strengthening dollar, and uncertainty regarding international trade have all caused U.S. exports to weaken. Real U.S. exports are forecasted to grow 1.3% this year after increasing 4.0% in 2018. We then expect real export growth to slow and average 3.0% through 2023.

Figure 1.5: GDP Growth of Major U.S. Trading Partners

Growth in major U.S. trading partners has been revised down



Source: ERFC June 2019 forecast; historical data through 2019Q1

The federal budget deficit will increase this year

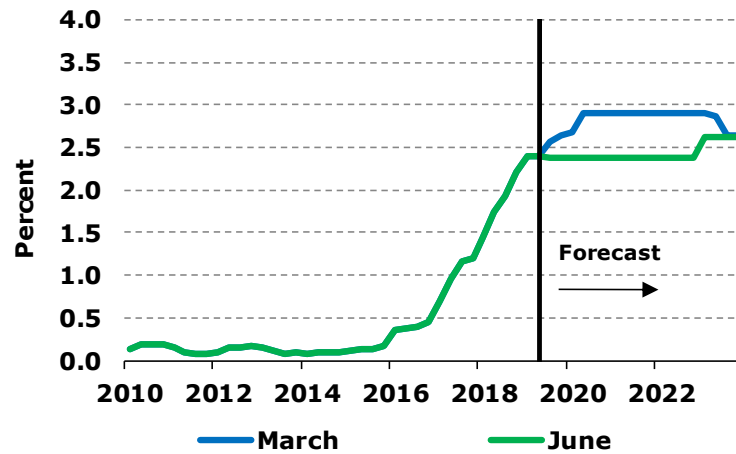
The federal budget deficit is expected to increase this federal fiscal year to \$1,024 billion from \$779 billion in 2018. Much of the increase in the deficit is due to the passage of the Tax Cuts and Jobs Act (TCJA). We expect the federal budget deficit to remain over \$1 trillion throughout the forecast, reaching a high point of \$1,135 billion in federal FY 2022. The March forecast expected the deficit to reach \$1,242 billion in federal FY 2022. The June forecast expects federal tax receipts to total \$3,352 billion this federal fiscal year, up 0.7% from the prior federal fiscal year. The forecast expects growth in tax receipts to average 4.5% each federal fiscal year from 2020 through 2023, reaching \$3,996 billion.

The Fed is pausing on raising the Federal Funds Rate

The Federal Reserve has continued the “pause” that began in early 2019. The threat of imposing escalating tariffs and broad worries over the fallout from trade policies have increased uncertainty. Growth appears to be slowing and financial markets have been turbulent. The June forecast now anticipates the Federal Reserve will keep its target for the federal funds rate at its current range of 2.25-2.5% for the near future. The June forecast assumes one rate increase in 2023. (See Figure 1.6).

The forecast for the Fed Funds rate is lower

Figure 1.6: Federal Funds Rate



Source: Federal Reserve, ERFC June 2019 forecast; historical data through 2019 Q1

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

Downside risks exceed upside risks

Our view of the risks to the forecast is balanced in the near term (2017-19 biennium) with a relatively high probability of the baseline scenario. In the outer years of the forecast (2019-21 and 2021-23 biennia), the level of uncertainty in the baseline remains elevated, and downside risks once again outweigh upside risks.

Downside Risks

- Increasing geopolitical tensions negatively affect consumer confidence
- An unexpected shift in monetary policy
- A breakdown in trade relations
- Unexpected fallout from Brexit
- Chinese economy experiences a “hard landing” (annual growth under 5%); growth is weaker in emerging market economies
- Weak employment growth continues
- Real wage growth stagnates, leading to slower consumer spending
- Slower household formation
- U.S. dollar appreciates against other currencies, limiting exports
- Weak global growth persists, further affecting exports

Upside Risks

- An infrastructure package passes

- Increased business confidence leads to more hiring
- Increased consumer confidence gives a boost to consumer spending
- The housing sector improves faster than anticipated
- Oil prices decline further as OPEC fails to impact prices
- Labor productivity growth returns to the higher rates seen in 1995-2005
- Employment growth expands faster than in the baseline
- China successfully transitions to a more consumption based economy
- European and emerging market economies grow faster than expected
- The U.S. dollar declines, making U.S. exports cheaper abroad
- Wage growth picks up faster than expected.

Table 1.1
U.S. Economic Forecast Summary
 Forecast 2019 to 2023

Fiscal Years

	2016	2017	2018	2019	2020	2021	2022	2023
Real National Income Accounts (Billions of Chained 2012 Dollars)								
Real Gross Domestic Product	17,510.2	17,837.3	18,295.0	18,830.3	19,209.3	19,537.8	19,885.3	20,280.6
% Ch	1.8	1.9	2.6	2.9	2.0	1.7	1.8	2.0
Real Consumption	12,084.4	12,402.6	12,714.0	13,055.5	13,338.7	13,592.3	13,861.0	14,138.5
% Ch	3.0	2.6	2.5	2.7	2.2	1.9	2.0	2.0
Real Nonresidential Fixed Investment	2,396.1	2,469.5	2,624.8	2,760.1	2,813.7	2,910.1	3,016.5	3,158.1
% Ch	-0.1	3.1	6.3	5.2	1.9	3.4	3.7	4.7
Real Residential Fixed Investment	579.2	601.0	613.4	599.2	592.3	589.9	597.2	608.8
% Ch	9.4	3.8	2.1	-2.3	-1.2	-0.4	1.2	1.9
Real Personal Income	15,377.9	15,650.0	16,047.7	16,433.0	16,850.0	17,284.8	17,700.9	18,133.1
% Ch	2.9	1.8	2.5	2.4	2.5	2.6	2.4	2.4
Real Per Capita Income (\$/Person)	47,639	48,136	49,010	49,825	50,727	51,672	52,550	53,466
% Ch	2.1	1.0	1.8	1.7	1.8	1.9	1.7	1.7
Price and Wage Indexes								
PCE Price Index (2012=100)	103.6	105.2	107.2	109.0	110.8	112.9	115.1	117.3
% Ch	0.6	1.6	1.9	1.7	1.7	1.9	1.9	1.9
U.S. Consumer Price Index (1982-84=1.0)	2.382	2.427	2.481	2.533	2.579	2.628	2.684	2.741
% Ch	0.7	1.9	2.2	2.1	1.8	1.9	2.1	2.1
Employment Cost Index (Dec. 2005=1.0)	1.248	1.278	1.314	1.353	1.395	1.442	1.491	1.543
% Ch	2.2	2.4	2.8	3.0	3.1	3.3	3.4	3.5
Current Dollar National Income (Billions of Dollars)								
Gross Domestic Product	18,433.8	19,075.1	19,968.2	20,955.8	21,780.4	22,655.3	23,588.4	24,610.1
% Ch	2.8	3.5	4.7	4.9	3.9	4.0	4.1	4.3
Personal Income	15,925.8	16,462.0	17,196.0	17,911.1	18,674.6	19,511.3	20,369.3	21,269.3
% Ch	3.5	3.4	4.5	4.2	4.3	4.5	4.4	4.4
Employment (Millions)								
U.S. Civilian Labor Force	158.0	159.8	161.2	162.7	164.1	165.6	166.9	167.9
Total U.S. Employment	150.1	152.4	154.5	156.6	158.3	159.5	160.4	161.3
Unemployment Rate (%)	4.99	4.66	4.11	3.76	3.50	3.70	3.86	3.95
Nonfarm Payroll Employment	143.11	145.53	147.77	150.38	152.57	153.65	154.55	155.48
% Ch	1.9	1.7	1.5	1.8	1.5	0.7	0.6	0.6
Manufacturing	12.36	12.37	12.55	12.80	12.82	12.69	12.59	12.55
% Ch	0.6	0.1	1.5	1.9	0.2	-1.0	-0.8	-0.3
Durable Manufacturing	7.75	7.70	7.83	8.03	8.07	7.99	7.93	7.92
% Ch	0.1	-0.6	1.7	2.5	0.5	-1.0	-0.8	-0.1
Nondurable Manufacturing	4.61	4.67	4.72	4.77	4.76	4.70	4.66	4.63
% Ch	1.6	1.4	1.1	1.0	-0.2	-1.2	-0.8	-0.6
Construction	6.61	6.84	7.12	7.42	7.56	7.65	7.79	7.99
% Ch	4.7	3.6	4.0	4.2	2.0	1.2	1.8	2.5
Service-Providing	123.42	125.66	127.39	129.42	131.42	132.54	133.40	134.17
% Ch	2.0	1.8	1.4	1.6	1.6	0.9	0.6	0.6
Miscellaneous Indicators								
Oil-WTI (\$ per barrel)	41.7	48.6	58.6	60.6	52.1	51.4	51.1	51.6
Personal Saving/Disposable Income (%)	7.3	6.6	6.7	6.5	6.5	7.0	7.3	7.6
Auto Sales (Millions)	7.2	6.5	5.7	5.1	4.8	4.8	4.8	4.9
% Ch	-5.8	-10.7	-11.6	-11.3	-4.3	-0.2	0.1	1.6
Housing Starts (Millions)	1.149	1.201	1.254	1.207	1.228	1.251	1.289	1.309
% Ch	9.0	4.5	4.4	-3.7	1.7	1.8	3.1	1.5
Federal Budget Surplus (Billions)	-614.8	-667.7	-856.9	-1,034.9	-1,071.3	-1,111.7	-1,155.1	-1,178.2
Net Exports (Billions)	-518.7	-553.1	-588.5	-628.7	-567.2	-499.0	-475.0	-438.5
3-Month Treasury Bill Rate (%)	0.18	0.55	1.41	2.28	2.29	2.17	2.15	2.26
10-Year Treasury Note Yield (%)	2.02	2.10	2.57	2.76	2.36	2.75	3.05	3.21
Bond Index of 20 G.O. Munis. (%)	3.51	3.51	3.67	4.02	3.96	4.29	4.55	4.69
30-Year Fixed Mortgage Rate (%)	3.80	3.85	4.16	4.45	4.10	4.42	4.65	4.79

Table 1.2
Forecast Analysis
 Comparison of Forecasts for 2017-19

U.S.	Average Annual Rate of Growth (Percent) 2017:2-2019:2		Average Rate (Percent) 2017:3 to 2019:2	
	Real GDP	PCE Price Index	3 Month T-Bill Rate	Mortgage Rate
2014				
February	2.6	1.3	3.72	6.57
June	2.6	1.5	3.73	6.63
September	2.6	1.6	3.51	6.15
November	2.5	1.9	3.53	6.14
2015				
February	2.5	1.8	3.53	5.71
June	2.5	1.8	3.48	5.75
September	2.5	1.8	2.66	5.16
November	2.3	1.8	2.67	5.23
2016				
February	2.3	1.8	2.28	5.02
June	2.1	1.9	2.09	4.97
September	2.1	1.7	1.63	4.85
November	2.1	1.8	1.39	4.63
2017				
March	2.3	1.6	1.66	5.07
June	2.3	1.6	1.67	4.98
September	2.3	1.7	1.67	4.91
November	2.3	1.8	1.50	4.41
2018				
February	2.6	1.9	1.79	4.49
June	2.8	2.1	1.88	4.46
September	2.8	2.1	1.91	4.44
November	2.8	2.0	1.91	4.49
2019				
March	2.7	1.9	1.87	4.36
June	2.7	1.8	1.85	4.30

Table 1.3
Forecast Analysis
 Comparison of Forecasts for 2019-21

U.S.	Average Annual Rate of Growth (Percent) 2019:2-2021:2		Average Rate (Percent) 2019:3 to 2021:2	
	Real GDP	PCE Price Index	3 Month T-Bill Rate	Mortgage Rate
2016				
February	2.2	1.7	2.79	5.60
June	2.2	1.9	2.81	5.67
September	2.2	1.9	2.79	5.77
November	2.1	2.0	2.55	5.57
2017				
March	2.0	1.9	2.80	5.96
June	2.0	2.0	2.81	5.97
September	2.0	1.9	2.83	6.00
November	2.1	2.0	2.56	5.08
2018				
February	2.0	2.0	3.00	5.26
June	1.9	2.1	3.09	5.28
September	1.9	2.0	3.09	5.11
November	1.8	2.0	3.10	5.17
2019				
March	1.8	2.1	2.66	4.77
June	1.8	1.8	2.23	4.26

Table 1.4
Forecast Comparison
 Forecast 2019 to 2023

Fiscal Years

	2017	2018	2019	2020	2021	2022	2023
U.S.							
Real GDP							
June	17837.3	18295.0	18830.3	19209.3	19537.8	19885.3	20280.6
% Ch	1.9	2.6	2.9	2.0	1.7	1.8	2.0
March	17837.3	18295.0	18818.2	19209.2	19530.8	19879.5	20274.5
% Ch	1.9	2.6	2.9	2.1	1.7	1.8	2.0
PCE Price Index							
June	105.2	107.2	109.0	110.8	112.9	115.1	117.3
% Ch	1.6	1.9	1.7	1.7	1.9	1.9	1.9
March	105.2	107.2	109.1	111.3	113.6	115.9	118.2
% Ch	1.6	1.9	1.8	2.0	2.1	2.1	2.0
Unemployment Rate							
June	4.66	4.11	3.76	3.50	3.70	3.86	3.95
March	4.66	4.11	3.72	3.56	3.81	4.00	4.04
Mortgage Rate							
June	3.85	4.16	4.45	4.10	4.42	4.65	4.79
March	3.85	4.16	4.57	4.68	4.87	4.92	4.92
3 Month T-Bill Rate							
June	0.55	1.41	2.28	2.29	2.17	2.15	2.26
March	0.55	1.41	2.33	2.62	2.70	2.67	2.66



Chapter 2: Washington Economy – Current Conditions and Forecast

- **The Washington economy is expanding at a rapid pace.**
- **Washington job growth remains strong and the unemployment rate remains near its all-time low.**
- **Washington real GDP growth led the nation by a wide margin in 2018.**
- **Seattle home prices continue to weaken but Washington housing construction remains strong.**
- **Washington manufacturing activity continues to expand but exports declined over the year due to a reduction in transportation equipment exports.**
- **Seattle area consumer price inflation remains above the national average.**
- **The Washington economic forecast is similar to the March forecast with the exception of slightly higher personal income.**
- **As in March, we expect the Washington economy to continue to outperform the U.S. economy.**

Current Conditions

The Washington economy is expanding at a rapid pace

The Washington economy is expanding at a rapid pace. Washington job growth remains strong and the unemployment rate remains near its all-time low. Washington real GDP growth led the nation by a wide margin in 2018. Seattle home prices continue to weaken though housing construction remains strong. Washington manufacturing activity continues to expand but exports declined over the year due to a reduction in transportation equipment exports. Seattle area consumer price inflation remains above the national average.

Job growth has been slightly stronger than expected

We have three months of new Washington employment data since the March forecast was released. Total nonfarm payroll employment rose 25,300 (seasonally adjusted) in March, April, and May which was 6,100 more than expected in the March forecast. Private services-providing sectors added 15,400 jobs in

the three-month period and the construction sector added 5,900 jobs. Manufacturing gained only 200 jobs in spite of a 1,300 increase in aerospace employment. Government employment increased by 3,700 jobs.

New QCEW data lowered the estimated level of employment

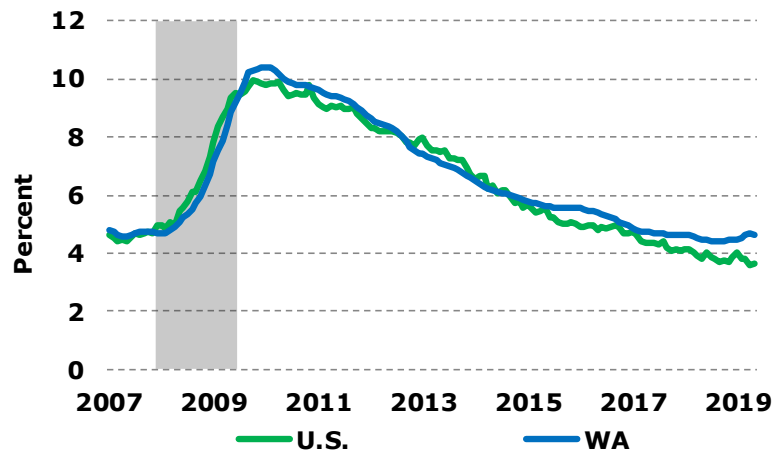
We have also incorporated another quarter of benchmark employment data from the Quarterly Census of Employment and Wages (QCEW). The new QCEW data and other revisions lowered the estimated level of total employment in February 2019 by 3,800 jobs (0.1%). As a result of the downward revision to history and stronger-than-expected growth, the combined effect is 2,200 (0.1%) more jobs in May 2019 than expected in the March forecast.

The unemployment rate remains low

Washington's unemployment rate remained at 4.7% in May after increasing in March and April (see Figure 2.1). The rate was at its all-time low of 4.4% as recently as October 2018. The reason for the increase in recent months is that although employment has continued to grow, the labor force has grown faster.

Figure 2.1: Unemployment Rates

The Washington unemployment rate has increased slightly



Source: Bureau of Labor Statistics; data through May 2018

Washington UI claims remain near the post-recession low

Washington initial claims for unemployment insurance remain near the post-recession low. The four-week moving average of seasonally adjusted claims declined to 6,100 in the week ending June 22, 2019 from 6,200 in the previous week. The current level of claims is close to the post-recession trough of 5,800. Claims have fallen 63% since the peak in early 2009.

Exports of transportation equipment fell 8.0% over the year

Washington exports declined over the year for a second consecutive quarter. Washington exports declined 3.8% in the first quarter of 2019 compared to the first quarter of 2018. Exports of transportation equipment (mostly Boeing planes) fell 8.0% over the year. Agricultural exports increased 3.1% while

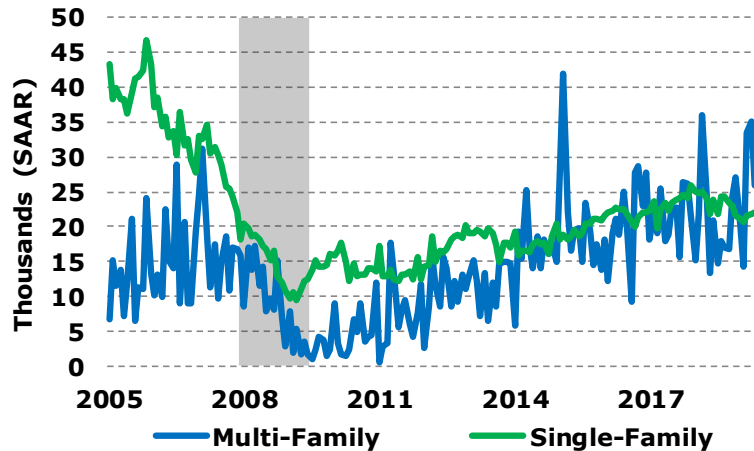
exports of all other commodities (mostly manufacturing) decreased 0.5%.

Washington housing construction was slightly higher than expected in the first quarter

Washington housing construction declined in the first quarter of 2019 but was still slightly higher than expected in the March forecast. Housing units authorized by building permits declined from 48,600 (SAAR) in the fourth quarter of 2018 to 43,800 in the first quarter of 2019. In the first quarter, 21,100 single-family and 22,700 multi-family units were permitted. The March forecast expected 42,900 units in the first quarter as a whole, consisting of 23,800 single-family units and 19,200 multi-family units. Washington housing construction strengthened in the first two months of the second quarter, mostly because of strong multi-family permits (see Figure 2.2). An average of 52,300 units (SAAR) were permitted in April and May consisting of 21,900 single-family permits and 30,400 multi-family permits. The March forecast assumed an average rate of 42,700 (SAAR) units for the second quarter as a whole.

Figure 2.2: Washington Housing Permits

Washington housing construction strengthened in the first two months of the second quarter



Source: Bureau of the Census, ERFC; data through May 2019

Seattle home prices were unchanged over the year

Seattle home price appreciation has cooled. According to the S&P/Case-Shiller Home Price Indices, seasonally adjusted Seattle area home prices declined 0.6% in April following a 0.1% increase in March. Monthly Seattle home prices have, on average, been trending down since May 2018. Seattle home prices were unchanged over the year in April compared to a 2.5% increase in the 20-City Composite Home Price Index. Seattle home prices are still up 88% since the December 2011 trough and exceed the May 2007 peak by 31%.

Manufacturing continues to expand

The Institute of Supply Management - Western Washington Index (ISM-WW) held steady in May and remained in positive territory. The index, which measures conditions in the

manufacturing sector, was 54.0 in April and May (index values above 50 indicate growth while values below 50 indicate contraction). The index has exceeded 50 in each of the last 22 months. The production, employment, and inventory components indicated expansion in May while the vendor deliveries component indicated contraction. The orders component was neutral at 50.

Car and truck sales declined in May

Car and truck sales declined in May after increasing the previous two months. Seasonally adjusted new vehicle registrations fell 2.7% to 292,800 (SAAR) in May. Car and truck sales are down 2.4% over the year and down 12.6% since the November 2017 post-recession peak. Monthly sales are erratic but have been trending down since mid-2016

Washington personal income grew 4.3% (SAAR) in the first quarter

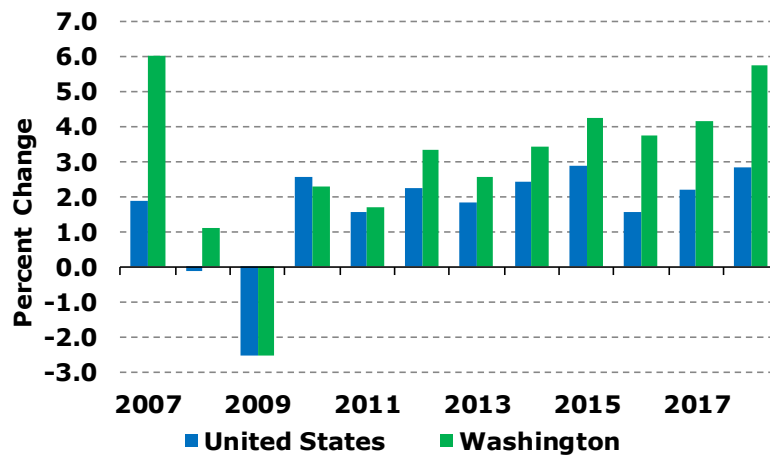
In June, after the forecast was complete, the U.S. Department of Commerce, Bureau of Economic Analysis (BEA) released state personal income estimates for the first quarter of 2019. According to these estimates, Washington personal income rose to \$471.5 billion (SAAR) in the first quarter from \$466.6 billion in the fourth quarter of 2018. The reported 4.3% growth rate (SAAR) in Washington personal income was the 15th largest among the states and District of Columbia and exceeded the 3.4% growth rate for the U.S. as a whole.

Washington GDP growth was the highest in the nation in 2018

Washington real Gross Domestic Product (GDP) rose 5.7% in 2018 which was the highest among the states and District of Columbia and was much greater than the 2.9% growth rate for the U.S. as a whole (see Figure 2.3). The difference between Washington and U.S. real GDP growth in 2018 was mostly due to two sectors: retail trade (which includes electronic shopping) and information (which includes software publishing and other IT services such as internet publishing and web search portals).

Figure 2.3: Real GDP Growth

Washington real GDP growth was much higher than the rate for the U.S. as a whole in 2018



Source: BEA; data through 2018

Seattle area consumer price inflation remains above the national average due to shelter cost inflation

Seattle area consumer price inflation remains above the national average due to shelter cost inflation. Over the last year, from April 2018 to April 2019, consumer prices in the Seattle area rose 2.4% (seasonally adjusted) compared to 2.0% for the U.S. city average. Core prices, which exclude food and energy, increased 2.6% in Seattle compared to 2.1% for the nation. Shelter costs rose 5.0% over the year in Seattle compared to the U.S. city average 3.4% rate. Seattle inflation excluding shelter costs was only 0.8% in Seattle during the year compared to the national rate of 1.3%.

Washington State Forecast

The Washington forecast is similar to the March forecast

The Washington economic forecast is similar to the March forecast with the exception of slightly higher personal income. We expect 2.2% Washington employment growth this year, which is the same rate we expected in the March forecast. As in March, we expect growth to decelerate. We expect employment growth will average 1.2% per year in 2020 through 2023, which is slightly higher than the 1.1% per year average in the March forecast. Our forecast for nominal personal income growth this year is 4.9%, up from 4.6% in the March forecast. Our new forecast for nominal personal income growth in 2020 through 2023 averages 4.9% per year, up slightly from the 4.8% rate in the March forecast. We expect 43,700 housing units authorized by building permits this year, up from 42,600 in the March forecast. The increase is due to a surge in multi-family permits in March and April. We expect permits to average 41,900 in 2020 through 2023, compared to 42,200 in the March forecast. We expect Seattle inflation to fall from 3.2% last year to 2.8% in 2019. We expect inflation to slow further to an average rate of 2.1% per year through the remainder of the forecast.

Washington Payroll Employment

Washington employment growth is very similar to the March forecast

The Washington employment forecast is very similar to the March forecast. We expect 2.2% Washington employment growth this year, which is the same rate we expected in the March forecast. As in March, we expect growth to decelerate. We expect employment growth will average 1.2% per year in 2020 through 2023, which is slightly higher than the 1.1% per year average in the March forecast. On an annual basis, we expect 1.6% employment growth in 2020, 1.1% in 2021 and 2022, and 1.0% in 2023.

The aerospace employment forecast is higher than in March

Washington aerospace employment peaked in the first quarter of 2013. As of the fourth quarter of 2017, 15,100 jobs had been lost with most of the decline in 2016 and 2017. Since then, the aerospace sector has added 6,000 jobs. We still believe employment will be flat but the level will be 1,500 higher through 2023 than in the March forecast. On an annual average basis, we

expect aerospace employment to increase 4.3% in 2019, 0.3% in 2020, and then remain unchanged through the rest of the forecast.

The software employment forecast is slightly higher than in March

We have slightly increased the software employment growth forecast in 2019 from 3.6% to 4.5% based on stronger-than-expected job growth in recent months. Growth during the remainder of the forecast is similar to the March assumption. On an annual average basis, we expect growth rates of 0.9% in 2020, 1.3% in 2021, 1.5% in 2022, and 1.7% in 2023.

The electronic shopping and mail order employment forecast is slightly higher than in June

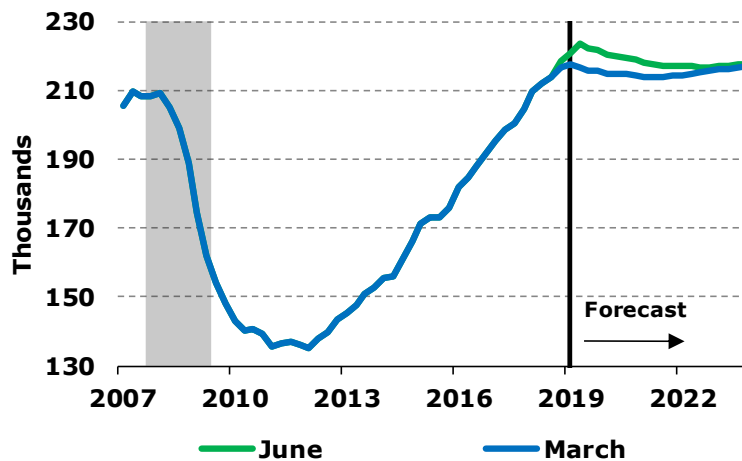
In Washington, the electronic shopping and mail order sector consists almost entirely of electronic shopping employment. After a dip in mid-2018, strong growth resumed in the fourth quarter. Our June forecast for this sector is slightly higher than the forecast adopted in March based on faster than expected employment growth through May 2019. We expect employment to continue growing but at a decelerating rate. On an annual basis, electronic shopping and mail order employment will grow 9.6% in 2019, 5.2% in 2020, 3.8%, 2021, 3.0% in 2022, and 2.5% in 2023.

Washington construction employment reached a new all-time high

Washington construction employment reached a new all-time high of 220,900 in the first quarter of 2019. Washington construction employment has grown by 85,800 (63.5%) since the trough in the first quarter of 2012 and exceeds its pre-recession peak by 10,900 (5.2%). We expect construction employment to peak at 223,500 in the second quarter of 2019 and remain near that level through 2023 (see Figure 2.4). On an annual average basis, we expect construction employment to

Figure 2.4: Washington Construction Employment

We expect construction employment to peak in the second quarter of 2019



Source: Employment Security Department, ERFC; historical data through Q1 2019

grow 4.1% this year then to decline 1.0% per year in in 2020 and 2021. We expect employment growth to remain relatively flat in the final two years of the forecast with growth rates of -0.3% in 2022 and +0.2% in 2023.

Washington Personal Income

Washington personal income in the fourth quarter was close to our assumption

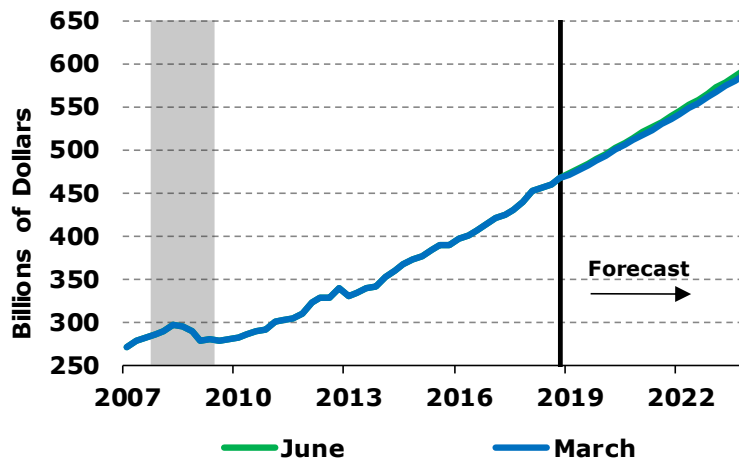
In March, the Bureau of Economic Analysis released estimates for state personal income through the fourth quarter of 2018. We have incorporated the new BEA estimates as well as additional Washington Quarterly Census of Employment and Wages (QCEW) data. Our current estimate of Washington personal income in the fourth quarter of 2018 is \$0.9 billion (0.2%) higher than assumed in the March forecast. Wages were \$1.1 billion (0.4%) higher than expected but nonwage income was \$0.2 billion (0.1%) below the forecast.

Forecast for Washington personal income growth is slightly higher

Our forecast for Washington personal income growth is slightly higher than in March (see Figure 2.5). Our forecast for nominal personal income growth this year is 4.9%, up from 4.6% in the March forecast. Our new forecast for nominal personal income growth in 2020 through 2023 averages 4.9% per year, up slightly from the 4.8% rate in the March forecast. On an annual basis, we expect personal income to grow 4.9% in 2020, 4.9% in 2021, 4.8% in 2022, and 5.0% in 2023.

The upward revision ranges from 0.4% in the current quarter to 1.0% by the end of 2023

Figure 2.5: Washington Personal Income



Source: Bureau of Economic Analysis, ERFC; historical data through Q4 2018

Washington Building Permits

The housing recovery in Washington is essentially complete

The housing recovery in Washington is essentially complete although the composition of new housing will change in coming years. Multi-family housing has recovered from a low of only

4,000 units in 2009 to 24,000 in 2018. We believe 2018 was the peak in multi-family construction in this cycle and that permits will decline to 17,600 by 2023. The recovery in single-family construction has been less robust, from 13,000 units in 2009 to 23,400 in 2018. We expect single-family construction to continue to strengthen with the number of units rising to 24,100 in 2022 and 2023.

The housing construction forecast is very close to the forecast adopted in March

Overall, the housing construction forecast is very close to the forecast adopted in March. We expect 43,700 housing units authorized by building permits this year, up from 42,600 in the March forecast. The increase is due to a surge in multi-family permits in March and April. We expect permits to average 41,900 in 2020 through 2023, compared to 42,200 in the March forecast. On a calendar year basis, we expect 42,000 units in 2020, 41,800 in 2021, 42,100 in 2022, and 41,800 in 2023.

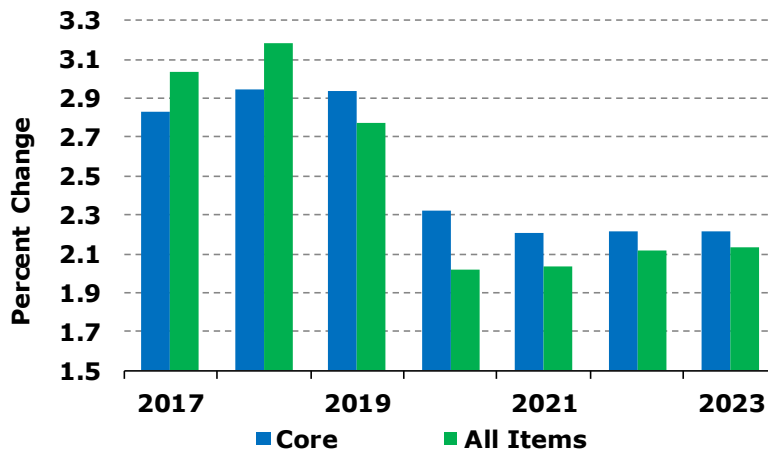
Seattle Consumer Price Index

We expect Seattle inflation to fall from 3.2% last year to 2.0% by 2020

Rising energy costs added to headline inflation in 2017 and 2018. However, lower energy costs will reduce headline inflation in 2019 through 2023 (see figure 2.6). We expect Seattle inflation to fall from 3.2% last year to 2.8% in 2019. We expect inflation to slow further to an average rate of 2.1% per year through the remainder of the forecast. On a calendar year basis, we expect inflation rates of 2.0%, 2.0%, 2.1%, and 2.1% in 2020, 2021, 2022, and 2023.

Lower energy costs will reduce headline inflation in 2019 through 2023

Figure 2.6: Seattle Consumer Price Index



Source: Bureau of Labor Statistics, ERFC; historical data through Q1 2019

Seattle shelter cost inflation is cooling

Core inflation (excluding food and energy) in Seattle was 2.9% in 2018 while national core inflation was 2.1%. The difference was mostly due to shelter costs, which were rising much faster in Seattle. Recent data indicate that Seattle shelter cost inflation is cooling

cooling while nationally it remains steady. As a result, we expect Seattle core inflation to move closer to the national average. Our forecast calls for core Seattle inflation to average 2.9% in 2019, 2.3% in 2020, and 2.2% per year in 2021, 2022, and 2023.

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 productivity growth and less inflation.

The optimistic forecast assumes productivity rises at an annual average rate of 2.5%, rebounding from a lackluster post-recession pace that averaged just 0.6% over 2011–2016. Wages grow more quickly as a result. With more real income to spend and brighter job prospects in a low inflation environment, consumers pick up their spending. Thanks to improved finances and higher employment, household formation accelerates. This spurs a sharp rise in housing starts, which peak at 1.38 million. The rest of the world also experiences stronger economic growth due to faster productivity gains, although to a lesser extent than enjoyed in the US.

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 continues to grow through 2023 rather than level off as in the baseline. Software employment growth is also much stronger than in the baseline forecast. In the optimistic scenario, the stronger regional economy drives Seattle consumer price inflation above the baseline. Washington average wage growth is also higher in the optimistic scenario than in the baseline. Construction employment continues to rise throughout the forecast rather than peaking in the second quarter of 2019 as in the baseline. By the end of 2023, Washington nonfarm payroll employment is higher by 89,500 jobs (2.4%) than in the baseline forecast and Washington personal income is \$50.1 billion (8.4%) higher.

Pessimistic

The pessimistic scenario assumes a loss in confidence and a three-quarter recession

In the pessimistic scenario, a broad loss in confidence and growing aversion to risk leads to drops in a wide range of investment and consumer spending categories to end the expansion. Rising prices have left the real-estate market vulnerable, and this market's growth has been slowing. The

slowdown turns into a decline, as real-estate prices correct and confidence plunges. Negative wealth effects and employment declines lead households to curtail their spending sharply. Foreign growth also slows. The result is a three-quarter recession starting in the second quarter of 2020 during which real GDP declines 1.9%. The unemployment rate climbs through 2019 and 2020, peaking at 6.0% in the fourth quarter of 2021.

This scenario also assumes a weaker local economy

In addition to reflecting the impact of the weaker U.S. forecast on the state economy, aerospace employment resumes its earlier decline rather than leveling off as in the baseline. Software employment also declines rather than growing moderately as in the baseline forecast. Construction employment declines much more sharply than in the baseline. The relatively weak local economy also puts downward pressure on Washington wages and the Seattle CPI. By the end of 2023, Washington nonfarm payroll employment is 194,000 (5.3%) lower than in the baseline forecast and Washington personal income is \$66.5 billion (11.2%) 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' national forecast is very close to the baseline forecast

The Governor's Council of Economic Advisors' national forecast is very close to the baseline forecast. The GCEA forecast for real GDP growth is close to the baseline forecast in each year of the forecast. The GCEA forecast averages 2.0% per year over the five-year interval through 2023, which is the same rate as in the baseline forecast. The GCEA forecast of 2.2% average real consumer spending growth is slightly higher than the baseline forecast of 2.1% growth. The GCEA members have the same average PCE inflation forecast at an annual rate of 1.8%. The Council members' mortgage rate forecast averages 4.1% compared to the baseline forecast of 4.5% and their oil price forecast averages \$63 per barrel compared to \$59 in the baseline forecast.

The Governor's Council of Economic Advisors' Washington forecast is also very close to the baseline forecast

The Governor's Council of Economic Advisors' Washington forecast is also very close to the baseline forecast. The GCEA scenario for Washington real personal income growth averages 3.0% per year in 2019 through 2023, which is the same rate as in the baseline forecast. Their nominal personal income growth forecast averages 4.9% per year, which is also the same as the baseline. The Council members' forecast for total employment growth over the five-year period averages 1.4% per year, as does the baseline forecast. The GCEA forecast for manufacturing employment growth is slightly more optimistic than the baseline

forecast at 0.7% per year compared to 0.6% per year. Their construction employment growth forecast is higher at an average of 1.2% per year compared to 0.4% per year and their housing permit forecast is higher, averaging 43,100 units per year compared to 42,300 in the baseline forecast. At the end of 2023, the GCEA forecast for Washington nonfarm payroll employment is 3,200 (0.1%) lower than in the baseline forecast but Washington personal income is \$0.7 billion (0.1%) higher.

Table 2.3 compares the GCEA forecast with the baseline forecast.

Table 2.1
Washington Economic Forecast Summary
 Forecast 2019 to 2023

Fiscal Years

	2016	2017	2018	2019	2020	2021	2022	2023
Real Income (Billions of Chained 2012 Dollars)								
Real Personal Income	380.413	395.757	414.344	431.259	444.400	458.073	470.976	484.633
% Ch	4.5	4.0	4.7	4.1	3.0	3.1	2.8	2.9
Real Wage and Salary Disb.	190.408	199.860	213.039	223.759	231.211	237.714	244.287	251.785
% Ch	5.0	5.0	6.6	5.0	3.3	2.8	2.8	3.1
Real Nonwage Income	190.005	195.897	201.305	207.501	213.189	220.358	226.690	232.848
% Ch	4.0	3.1	2.8	3.1	2.7	3.4	2.9	2.7
Real Per Capita Income (\$/Person)	52,615	53,761	55,383	56,792	57,656	58,613	59,483	60,451
% Ch	2.8	2.2	3.0	2.5	1.5	1.7	1.5	1.6
Price and Wage Indexes								
U.S. Implicit Price Deflator, PCE (2012=1.0)	1.036	1.052	1.071	1.090	1.108	1.129	1.151	1.173
% Ch	0.6	1.6	1.9	1.7	1.7	1.9	1.9	1.9
Seattle Cons. Price Index (1982-84=1.0)	2.521	2.589	2.670	2.749	2.816	2.870	2.931	2.993
% Ch	1.9	2.7	3.1	2.9	2.4	1.9	2.1	2.1
Average Nonfarm Annual Wage	59,583	61,918	65,760	68,715	70,862	73,300	75,954	78,971
% Ch	2.7	3.9	6.2	4.5	3.1	3.4	3.6	4.0
Avg. Hourly Earnings-Mfg. (\$/Hour)	26.00	26.81	27.93	28.94	29.75	30.70	31.71	32.75
% Ch	2.8	3.1	4.2	3.6	2.8	3.2	3.3	3.3
Current Dollar Income (Billions of Dollars)								
Personal Income	393.962	416.282	444.004	470.042	492.527	517.081	541.978	568.456
% Ch	5.1	5.7	6.7	5.9	4.8	5.0	4.8	4.9
Disposable Personal Income	345.944	365.885	391.181	415.064	434.157	455.766	477.467	500.120
% Ch	5.0	5.8	6.9	6.1	4.6	5.0	4.8	4.7
Per Capita Income (\$/Person)	54,488	56,548	59,346	61,898	63,899	66,162	68,449	70,905
% Ch	3.3	3.8	4.9	4.3	3.2	3.5	3.5	3.6
Employment (Thousands)								
Washington Civilian Labor Force	3,594.4	3,683.2	3,752.3	3,837.3	3,918.0	3,978.1	4,032.2	4,081.3
Total Washington Employment	3,396.1	3,501.1	3,579.5	3,664.0	3,739.0	3,790.3	3,837.0	3,881.2
Unemployment Rate (%)	5.52	4.94	4.61	4.52	4.57	4.72	4.84	4.90
Nonfarm Payroll Employment	3,193.3	3,283.8	3,363.9	3,442.0	3,508.5	3,552.7	3,592.6	3,631.1
% Ch	3.0	2.8	2.4	2.3	1.9	1.3	1.1	1.1
Manufacturing	292.7	287.1	284.0	290.9	292.5	291.9	292.6	294.9
% Ch	0.6	-1.9	-1.1	2.4	0.6	-0.2	0.2	0.8
Durable Manufacturing	210.6	203.8	199.5	204.9	206.6	206.4	207.0	209.0
% Ch	-0.1	-3.3	-2.1	2.7	0.8	-0.1	0.3	1.0
Aerospace	93.2	87.7	82.5	86.3	87.8	87.8	87.8	87.8
% Ch	-1.1	-5.9	-5.9	4.6	1.7	0.0	0.0	0.0
Nondurable Manufacturing	82.0	83.3	84.5	86.1	85.9	85.5	85.6	85.9
% Ch	2.5	1.6	1.4	1.8	-0.1	-0.5	0.1	0.3
Construction	178.9	193.5	206.6	219.1	221.3	218.6	217.1	217.0
% Ch	6.5	8.2	6.8	6.1	1.0	-1.2	-0.7	-0.1
Service-Providing	2,715.4	2,796.9	2,867.0	2,925.6	2,988.3	3,035.8	3,076.4	3,112.8
% Ch	3.0	3.0	2.5	2.0	2.1	1.6	1.3	1.2
Software Publishers	57.3	60.2	63.1	67.3	68.6	69.2	70.2	71.4
% Ch	3.2	5.1	4.7	6.6	2.0	1.0	1.4	1.6
Electronic Shopping and Mail-Order	33.2	44.0	53.5	57.3	61.8	64.5	66.6	68.4
% Ch	17.7	32.5	21.7	7.0	7.9	4.4	3.3	2.7
Housing Indicators (Thousands)								
Housing Units Authorized by Bldg. Permit	40.153	44.515	48.601	45.701	41.706	41.960	42.037	41.954
% Ch	3.3	10.9	9.2	-6.0	-8.7	0.6	0.2	-0.2
Single-Family	21.844	22.044	23.978	22.291	22.464	23.110	23.757	24.104
% Ch	17.0	0.9	8.8	-7.0	0.8	2.9	2.8	1.5
Multi-Family	18.310	22.471	24.623	23.410	19.243	18.849	18.280	17.850
% Ch	-9.4	22.7	9.6	-4.9	-17.8	-2.0	-3.0	-2.4
30-Year Fixed Mortgage Rate (%)	3.80	3.85	4.16	4.45	4.10	4.42	4.65	4.79

Table 2.2
Comparison of Alternative Forecasts

Fiscal Years

	2018	2019	2020	2021	2022	2023
U.S.						
Real GDP, Percent Change						
Optimistic	2.6	2.9	2.3	2.8	2.7	2.6
Baseline	2.6	2.9	2.0	1.7	1.8	2.0
Pessimistic	2.6	2.9	1.3	-1.2	1.8	1.7
PCE Price Index, Percent Change						
Optimistic	1.9	1.7	1.7	1.6	1.6	1.8
Baseline	1.9	1.7	1.7	1.9	1.9	1.9
Pessimistic	1.9	1.7	1.7	1.6	1.7	1.6
Mortgage Rate, Percent						
Optimistic	4.16	4.47	4.67	5.23	5.31	5.42
Baseline	4.16	4.45	4.10	4.42	4.65	4.79
Pessimistic	4.16	4.45	3.99	3.75	3.97	4.26
3 Month T-Bill Rate, Percent						
Optimistic	1.41	2.29	2.63	3.10	3.16	3.29
Baseline	1.41	2.28	2.29	2.17	2.15	2.26
Pessimistic	1.41	2.29	1.93	0.10	0.14	0.81
Washington						
Real Personal Income, Percent Change						
Optimistic	4.7	4.4	5.0	5.2	4.9	4.6
Baseline	4.7	4.1	3.0	3.1	2.8	2.9
Pessimistic	4.7	3.8	1.1	-0.7	0.3	1.7
Personal Income, Percent Change						
Optimistic	6.7	6.2	6.8	6.9	6.6	6.4
Baseline	6.7	5.9	4.8	5.0	4.8	4.9
Pessimistic	6.7	5.5	2.9	0.9	2.0	3.4
Employment, Percent Change						
Optimistic	2.4	2.3	2.1	1.8	1.9	1.6
Baseline	2.4	2.3	1.9	1.3	1.1	1.1
Pessimistic	2.4	2.3	1.1	-0.7	-0.1	0.3
Housing Permits, Thousands of Authorized Units						
Optimistic	48.6	45.7	42.1	43.6	45.0	45.8
Baseline	48.6	45.7	41.7	42.0	42.0	42.0
Pessimistic	48.6	45.6	39.0	32.9	33.3	32.2

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

Calendar Years

	2019	2020	2021	2022	2023
U.S.					
Real GDP					
<i>Growth</i>					
ERFC	2.5	1.8	1.7	1.9	2.0
GCEA Average	2.6	1.6	1.9	2.0	2.0
Real Consumption					
<i>Growth</i>					
ERFC	2.4	2.1	1.9	2.0	2.0
GCEA Average	2.6	2.2	2.0	2.0	2.0
PCE Price Index					
<i>Growth</i>					
ERFC	1.5	1.8	1.9	1.9	1.9
GCEA Average	1.7	2.0	1.9	1.8	1.8
Mortgage Rate					
<i>Percent</i>					
ERFC	4.1	4.3	4.6	4.7	4.8
GCEA Average	4.2	4.1	4.1	4.1	4.1
Oil Price (Brent)					
<i>Dollars per barrel</i>					
ERFC	62.8	58.4	57.8	58.0	58.7
GCEA Average	65.5	63.5	62.5	62.6	62.9
Washington State					
Real Personal Income					
<i>Growth</i>					
ERFC	3.4	3.0	2.9	2.8	3.0
GCEA Average	3.3	3.1	3.0	2.8	2.9
Wage and Salary Employment					
<i>Growth</i>					
ERFC	2.2	1.6	1.1	1.1	1.0
GCEA Average	2.0	1.4	1.3	1.1	1.1
Manufacturing Employment					
<i>Growth</i>					
ERFC	1.7	0.0	0.0	0.5	0.9
GCEA Average	1.7	0.5	0.3	0.5	0.7
Construction Employment					
<i>Growth</i>					
ERFC	4.1	-1.0	-1.0	-0.3	0.2
GCEA Average	3.8	0.6	0.5	0.5	0.5
Housing Permits					
<i>Thousands of authorized units</i>					
ERFC	43.7	42.0	41.8	42.1	41.8
GCEA Average	43.8	42.6	42.9	43.1	43.0
Washington Average Annual Wage					
<i>Growth</i>					
ERFC	3.3	3.2	3.6	3.7	4.2
GCEA Average	3.5	3.3	3.6	3.6	3.6

Table 2.4
Forecast Analysis
 Comparison of Forecasts for 2017-19

Washington	Average Annual Rate of Growth (Percent) 2017:2-2019:2			Average Annual Rate (Thousands) 2017:3 to 2019:2
	Employment	Personal Income	Real Personal Income	Housing Units Authorized
2014				
February	1.3	4.9	3.5	42.5
June	1.2	5.3	3.8	43.0
September	1.3	5.4	3.8	43.1
November	1.1	5.5	3.6	43.2
2015				
March	1.3	5.4	3.6	43.1
June	1.4	5.6	3.8	44.2
September	1.3	5.4	3.6	43.9
November	1.4	5.4	3.5	44.0
2016				
February	1.2	5.0	3.2	43.3
June	1.2	5.1	3.2	43.7
September	1.4	5.1	3.3	43.8
November	1.5	5.1	3.2	41.0
2017				
March	1.7	5.3	3.6	41.0
June	1.6	5.2	3.6	42.7
September	1.9	4.8	3.1	43.1
November	2.1	5.0	3.2	42.3
2018				
February	2.2	5.3	3.3	44.3
June	2.2	5.6	3.5	45.5
September	2.5	5.9	3.7	44.8
November	2.5	5.9	3.9	44.7
2019				
March	2.3	5.9	3.9	46.4
June	2.4	6.1	4.2	47.2

Table 2.5

Forecast Analysis

Comparison of Forecasts for 2019-21

Washington	Average Annual Rate of Growth (Percent) 2019:2-2021:2			Average Annual Rate (Thousands) 2019:3 to 2021:2
	Employment	Personal Income	Real Personal Income	Housing Units Authorized
2016				
February	1.1	4.7	3.0	44.3
June	1.1	5.0	3.1	44.3
September	1.1	5.1	3.0	44.3
November	1.2	5.0	3.0	41.5
2017				
March	1.1	4.9	2.9	40.7
June	1.2	5.1	3.0	42.0
September	1.2	5.3	3.3	42.0
November	1.2	5.3	3.2	42.6
2018				
February	1.4	5.2	3.1	42.8
June	1.2	5.0	2.9	43.2
September	1.2	5.0	2.9	44.0
November	1.3	4.9	2.8	43.5
2019				
March	1.3	4.8	2.7	42.1
June	1.4	4.9	3.0	41.8

Table 2.6
Forecast Comparison
 Forecast 2019 to 2023

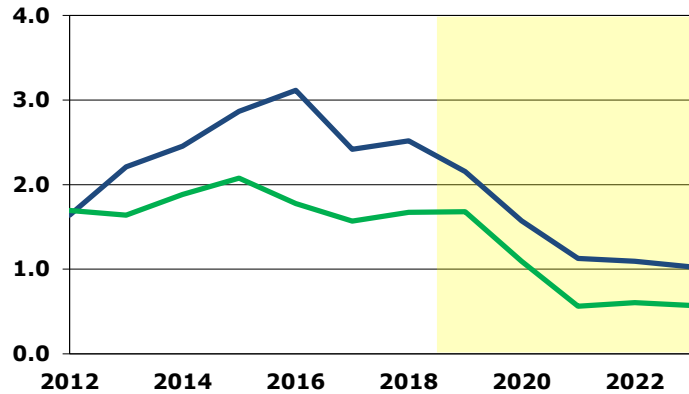
Fiscal Years

	2017	2018	2019	2020	2021	2022	2023
Washington							
Real Personal Income							
June	395.757	414.344	431.259	444.400	458.073	470.976	484.633
% Ch	4.0	4.7	4.1	3.0	3.1	2.8	2.9
March	395.757	414.342	429.666	441.158	452.904	464.920	477.724
% Ch	4.0	4.7	3.7	2.7	2.7	2.7	2.8
Personal Income							
June	416.282	444.004	470.042	492.527	517.081	541.978	568.456
% Ch	5.7	6.7	5.9	4.8	5.0	4.8	4.9
March	416.282	444.001	468.846	490.944	514.367	538.872	564.513
% Ch	5.7	6.7	5.6	4.7	4.8	4.8	4.8
Employment							
June	3283.8	3363.9	3442.0	3508.5	3552.7	3592.6	3631.1
% Ch	2.8	2.4	2.3	1.9	1.3	1.1	1.1
March	3283.8	3363.9	3441.5	3508.4	3547.9	3583.5	3621.9
% Ch	2.8	2.4	2.3	1.9	1.1	1.0	1.1
Housing Permits							
June	44.515	48.601	45.701	41.706	41.960	42.037	41.954
% Ch	10.9	9.2	-6.0	-8.7	0.6	0.2	-0.2
March	44.515	48.601	44.167	42.367	41.909	42.557	42.413
% Ch	10.9	9.2	-9.1	-4.1	-1.1	1.5	-0.3

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

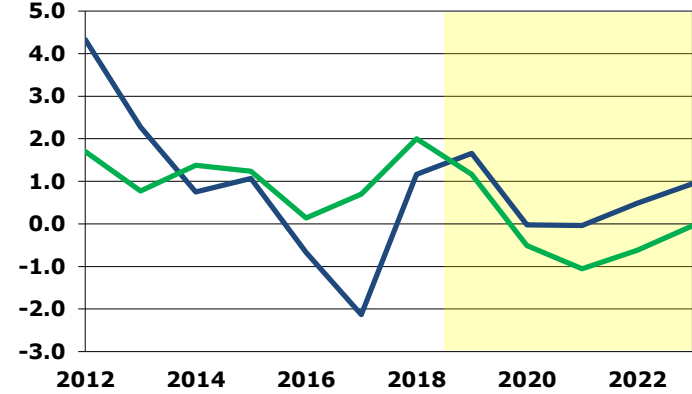
Forecast

Total Nonfarm Payroll Employment



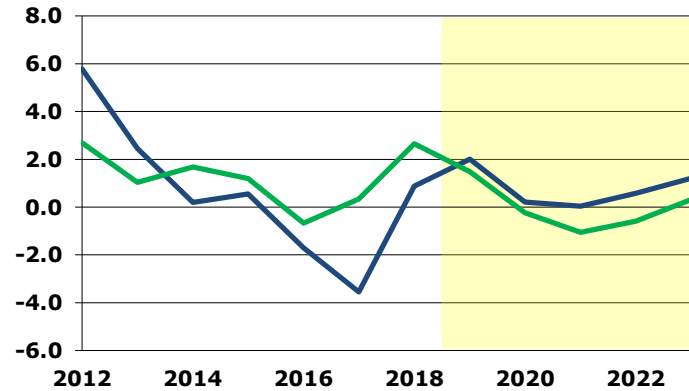
Source: WA State Employment Security Dept. 2018, ERFC 2023

Manufacturing Employment



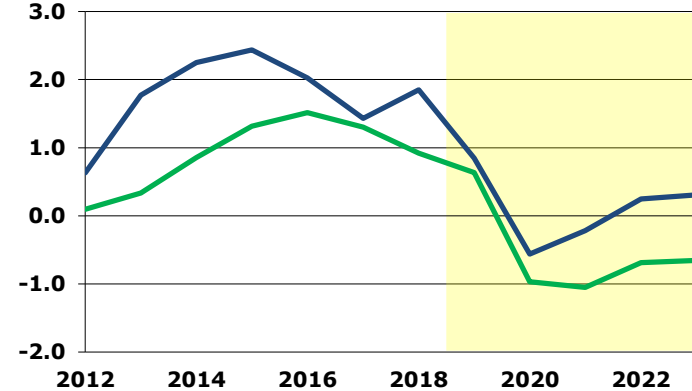
Source: WA State Employment Security Dept. 2018, ERFC 2023

Durable Manufacturing Employment



Source: WA State Employment Security Dept. 2018, ERFC 2023

Nondurable Manufacturing Employment



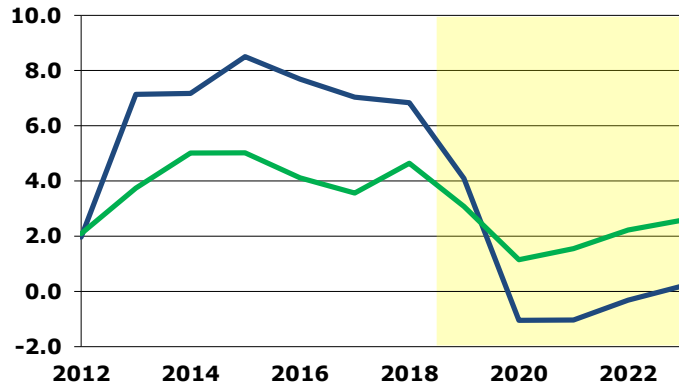
Source: WA State Employment Security Dept. 2018, ERFC 2023

Washington

U.S.

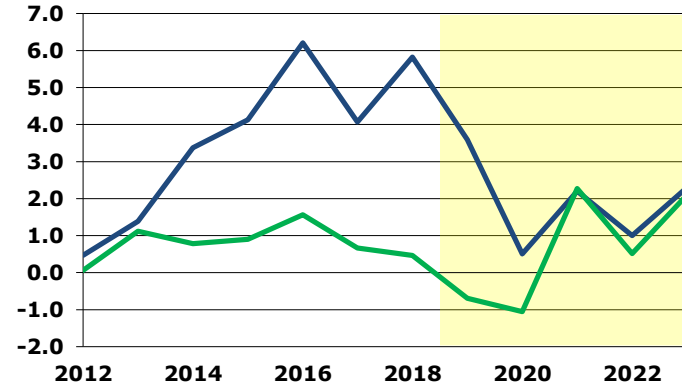
Figure 2.7: Comparison of Washington and U.S. Economic Forecasts (continued)
(Percent change)

Construction Employment



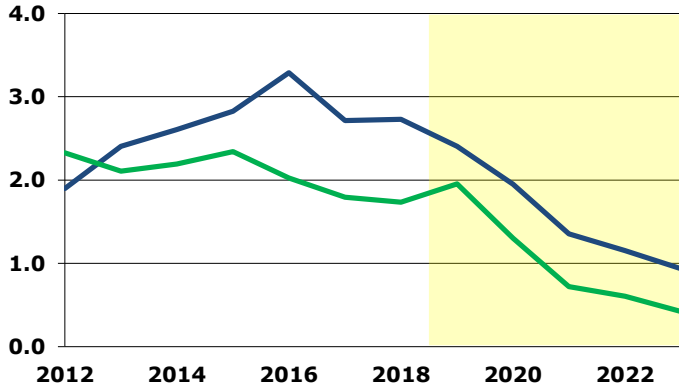
Source: WA State Employment Security Dept. 2018, ERFC 2023

Information Employment



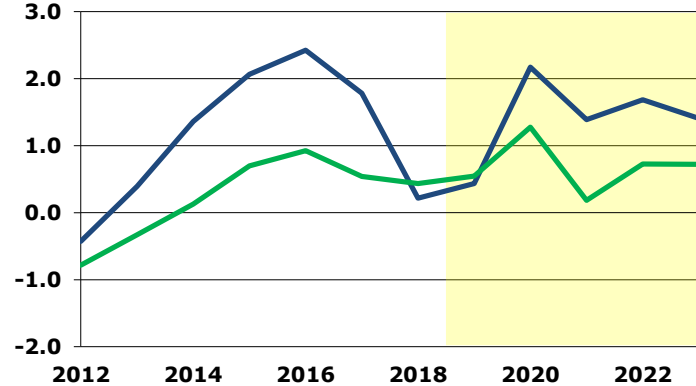
Source: WA State Employment Security Dept. 2018, ERFC 2023

Other Private Employment



Source: WA State Employment Security Dept. 2018, ERFC 2023

Government Employment



Source: WA State Employment Security Dept. 2018, ERFC 2023

■ Washington

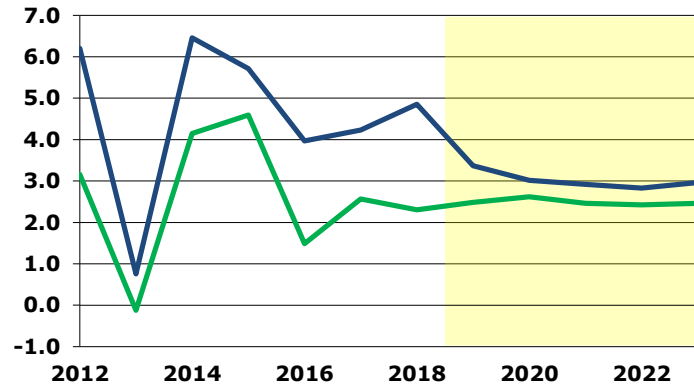
■ U.S.

□ Forecast

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

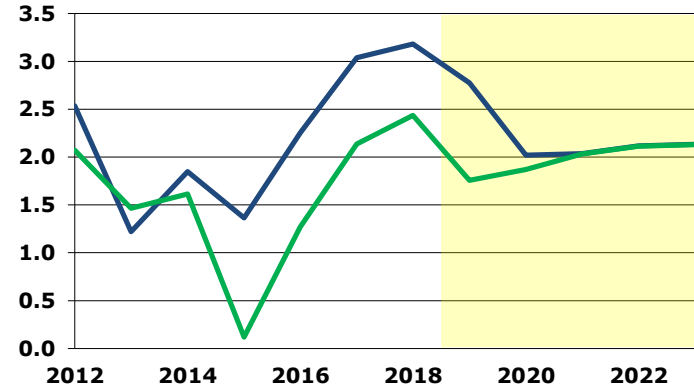
Forecast

Real Personal Income



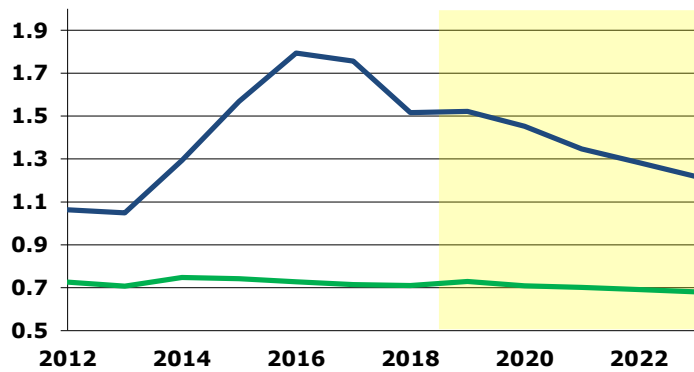
Source: Bureau of Economic Analysis 2017, ERFC 2023

Consumer Price Indices



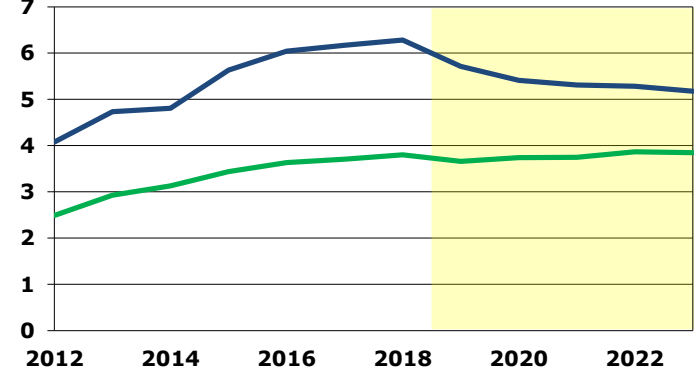
Source: Bureau of Labor Statistics 2018, ERFC 2023

Population



Source: Census Bureau 2018, ERFC 2023

New Housing Units Per 1,000 Population (Level)



Source: Census Bureau 2018, ERFC 2023

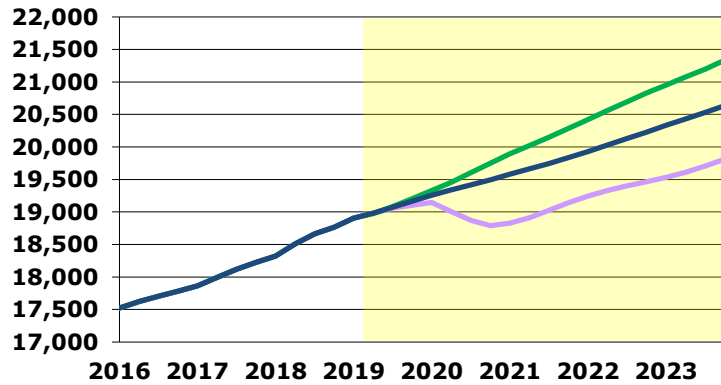
Washington

U.S.

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

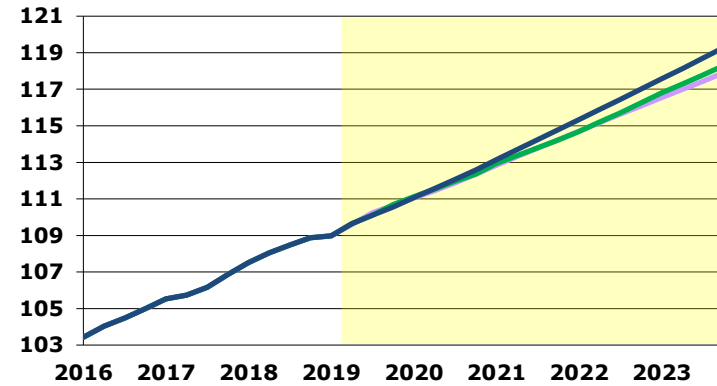
Forecast

Real GDP, Billions of 2012 Dollars



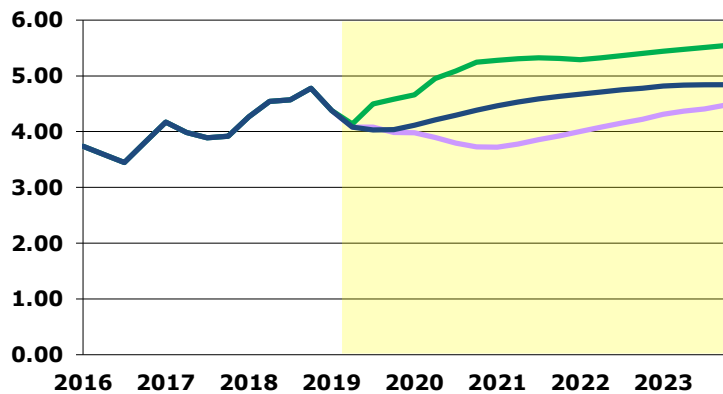
Source: Bureau of Economic Analysis 2018 Q3, ERFC 2023

PCE Price Index, 2012 = 100



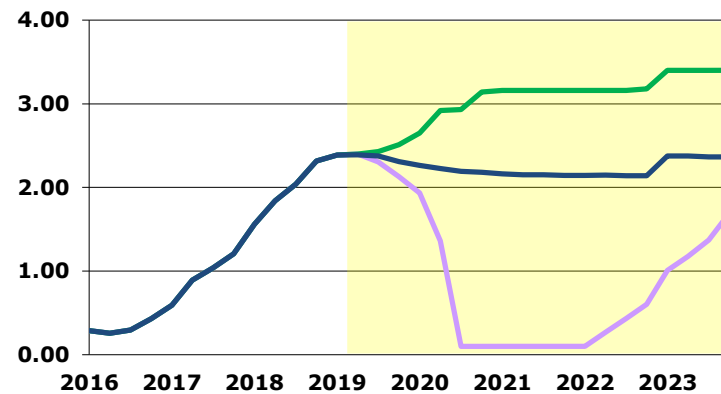
Source: Bureau of Economic Analysis 2018 Q3, ERFC 2023

Mortgage Rate, Percent



Source: Freddie Mac 2018 Q3, ERFC 2023

Three Month T-Bill Rate, Percent



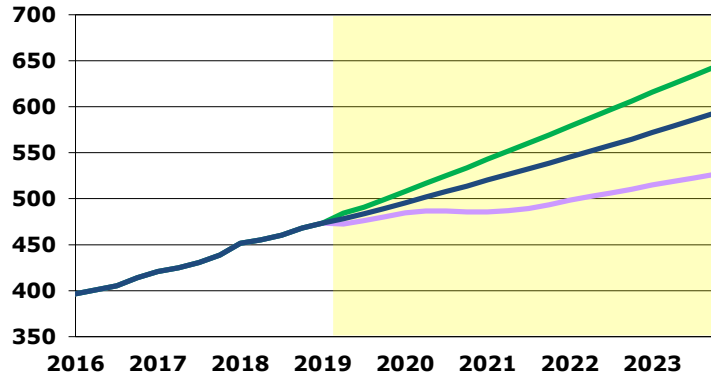
Source: Federal Reserve Board 2018 Q3, ERFC 2023

■ Baseline ■ Optimistic ■ Pessimistic

Figure 2.9: Comparison of Alternative Washington Economic Forecasts

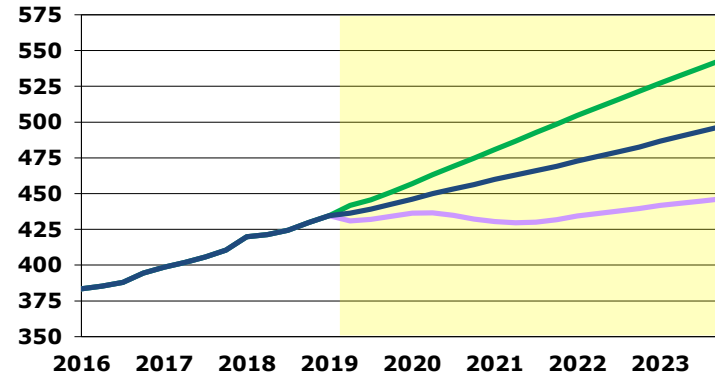
Forecast

Personal Income, Billions of Dollars



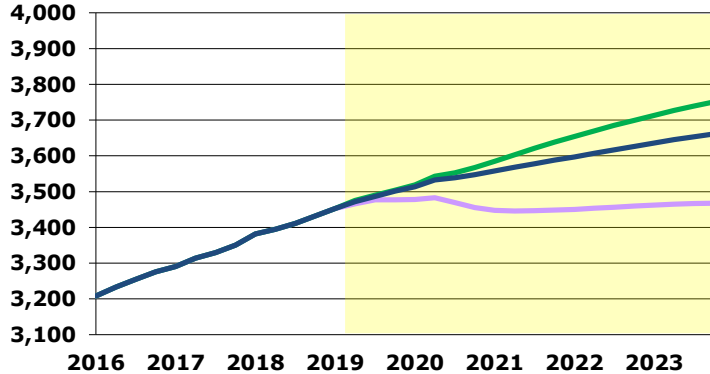
Source: Bureau of Economic Analysis 2017 Q4, ERFC 2023

Real Personal Income, Billions of 2012 Dollars



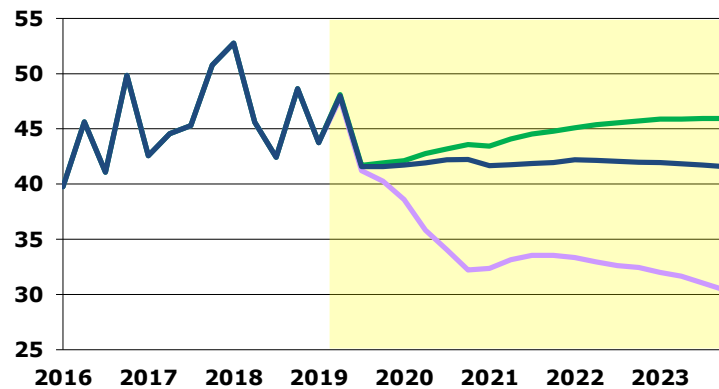
Source: Bureau of Economic Analysis 2017 Q4, ERFC 2023

Total Nonfarm Payroll Employment, Thousands



Source: WA State Employment Security 2018 Q4, ERFC 2023

Housing Permits, Thousands



Source: Census Bureau 2018 Q4, ERFC 2023

■ Baseline ■ Optimistic ■ Pessimistic



Chapter 3: Washington State Revenue Forecast Summary

- **General Fund-State (GF-S) revenue collections since the March 2019 forecast have come in \$30 million (0.5%) over the forecasted amount.**
- **A large expected refund, coupled with a legislated transfer of funds to the Education Legacy Trust Account, has decreased forecasted GF-S revenue for the remainder of the 2017-19 biennium.**
- **During the 2019 legislative session subsequent to the March forecast, several bills and a new operating budget were passed that increased forecasted GF-S revenue by a total of \$305 million for the 2017-19 through 2021-23 biennia and increased Near General Fund State revenue by \$932 million over the same period.**
- **Forecasted GF-S revenue has decreased by \$140 million in the current biennium but has increased by \$195 million in the 2019-21 biennium and \$347 million in the 2021-23 biennium.**
- **Near GF-S revenue, which includes all state revenue subject to the budget outlook process, is forecasted to decrease by \$47 million in the current biennium but increase by \$432 million in the 2019-21 biennium and \$678 million in the 2021-23 biennium.**

Overview

Most of the June forecast revision is due to legislative changes.

Since the March 2019 forecast, General Fund – State (GF-S) revenue collections have come in only half a percent higher than forecasted. The small forecast variance, coupled with small changes in the economic forecast, would have produced slight changes in forecasted revenue. These changes, however, were outweighed by the effects of a new operating budget and other legislation that were passed in the 2019 legislative session subsequent to the March forecast. In addition, a \$70 million refund expected to occur between the release of the forecast and the end of June has reduced total forecasted revenue for the 2017-19 biennium.

GF-S forecast change by biennium...

Table 3.1 summarizes the changes to the forecasts of GF-S revenue for the 2017-19 through 2021-23 biennia. For the current biennium, revenue sources that are tracked monthly came in \$30.0 million higher than forecasted in March. Non-

... (millions):

17-19: -\$140
 19-21: +\$195
 21-23: +\$347

economic changes to the forecast, comprised of legislative changes and an expected \$70 million refund in June, subtracted \$157 million from the forecast. Changes to the economic forecast relative to recent collections resulted in a \$12.8 million decrease in projected collections for the rest of the biennium, for a total GF-S forecast decrease of \$139.8 million in the current 2017-19 biennium. Legislative changes added \$109.3 million to projected collections for the 2019-21 biennium and \$282.3 million for the 2021-23 biennium. Changes to the economic forecast resulted in increases of \$86.1 million to projected collections for the 2019-21 biennium and \$64.4 million for the 2021-23 biennium. The June 2019 forecast for GF-S revenue totals \$44,042.0 million in the 2017-19 biennium, \$49,804.1 million in the 2019-21 biennium and \$53,683.4 million in the 2021-23 biennium.

GF-S forecast
 (\$millions):

2017-19:
 \$44,042

2019-21:
 \$49,804

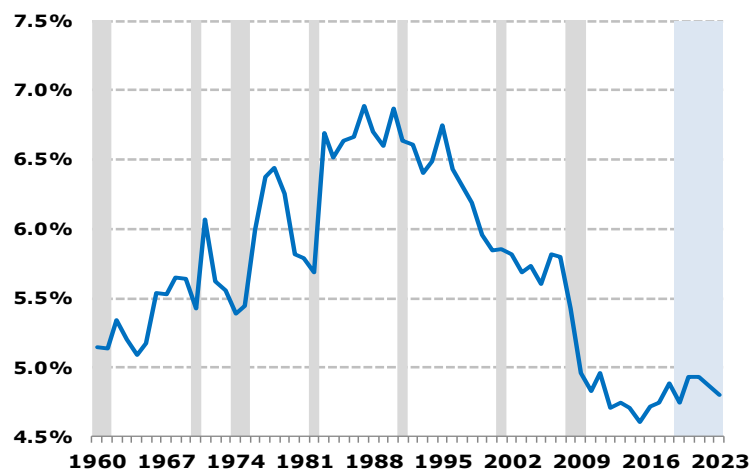
2021-23:
 \$53,683

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

	2017-19 Biennium	2019-21 Biennium	2021-23 Biennium
Collection Experience	\$30.0	NA	NA
Non-Economic Change	(\$157.0)	\$109.3	\$282.3
Forecast Change	(\$12.8)	\$86.1	\$64.4
Total Change	(\$139.8)	\$195.5	\$346.7

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

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



Source: ERFC, data through fiscal year 2018. Gray shaded area indicates recession; blue shaded area indicates forecast.

Though the ratio of collections to...

As can be seen in Figure 3.1, the ratio of GF-S revenue collected relative to state personal income has been increasing after reaching a trough in FY 2015. The ratio of revenue to income had

... income has increased from the FY 2015 trough, it is still near historical lows

been on a downward trend since 1995, broken only by the housing boom that raised the ratio from 2005 to mid-2008, and by temporary taxes and transfers of funds from non-GF-S sources into the GF-S that again boosted the ratio in fiscal years 2011 and 2013. The ratio increased slightly in FY 2014 due to low personal income growth and then decreased slightly in FY 2015. The ratio then increased in FY 2016 and 2017, largely due to revenue increases stemming from legislative changes. Additional legislative changes enacted in June of 2017 boosted the FY 2018 ratio, but legislative changes from the 2018 session reduced the expected ratio in FY 2019. The ratio rebounds in FY 2020 but then continues its downward trend. Despite the recent increases, the ratio of revenue to income in FY 2023 is forecasted to be below that of any fiscal year on record prior to FY 2012.

Forecast details are at the end of the chapter

The history of nominal and real GF-S revenue by biennium can be found in Table 3.3. GF-S forecast changes by agency and major revenue classification for the 2017-19 biennium can be found in Table 3.5 (cash) and Table 3.6 (GAAP). Forecast changes for the 2019-21 biennium can be found in Table 3.7 (cash) and Table 3.8 (GAAP). The GF-S forecast by fiscal year and major source category through FY 2023 can be found in Table 3.9. Legislative changes to the forecast can be found in Table 3.19.

Recent Collection Experience

Collections were \$30 million (0.5%) more than the March forecast

Revenue collections from the Department of Revenue (DOR), Department of Licensing, and Administrative Office of the Courts are tracked monthly. In the period since the March forecast, total revenue from the above sources came in \$30.0 million (0.5%) higher than expected (see Table 3.2). Revenue Act collections reported by the DOR were \$5.4 million (0.1%) higher than forecasted. Revenue from other DOR tax sources was \$25.1 million (1.3%) above the forecast.

Most of the non-Revenue Act forecast variance came from property taxes

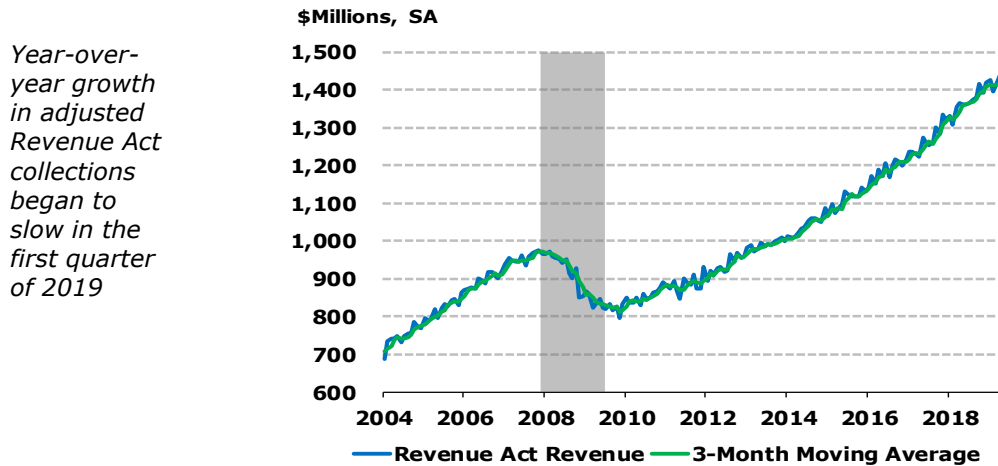
Most of the positive variance in non-Revenue Act collections came from property taxes, which came in \$13.7 million (0.9%) higher than forecasted. Real estate excise taxes (REET) were the second largest contributor to the variance, coming in \$11.3 million (4.5%) higher than forecasted. Liquor sales and liter tax receipts came in \$3.2 million (5.1%) higher than forecasted. Cigarette tax receipts came in \$2.8 million (3.4%) lower than forecasted. Net refunds of unclaimed property out of the GF-S came in \$8.6 million higher than forecasted. All other DOR revenue sources came in \$8.3 million (14.6%) higher than forecasted. Revenue from the Administrative Office of the Courts was \$0.5 million (2.5%) lower than forecasted.

Table 3.2: Pre-Forecast Collection Variance of Major General Fund-State Taxes by Agency (relative to the March 2019 forecast, cash basis, millions of dollars)

<u>Agency/Source</u>	<u>Collection Variance</u>	<u>Percent of Estimate</u>
Department of Revenue		
Revenue Act	\$5.4	0.1%
Non-Revenue Act	\$25.1	1.3%
Subtotal	\$30.5	0.5%
Administrative Office of the Courts	(\$0.5)	-2.5%
Total*	\$30.0	0.5%

* Detail may not add to total due to rounding.
Source: ERFC; Period: March 11 - June 10, 2019

Figure 3.2: Revenue Act Collections*



Source: ERFC; Data through June 10, 2019
*Adjusted for large payments/refunds and payment pattern change

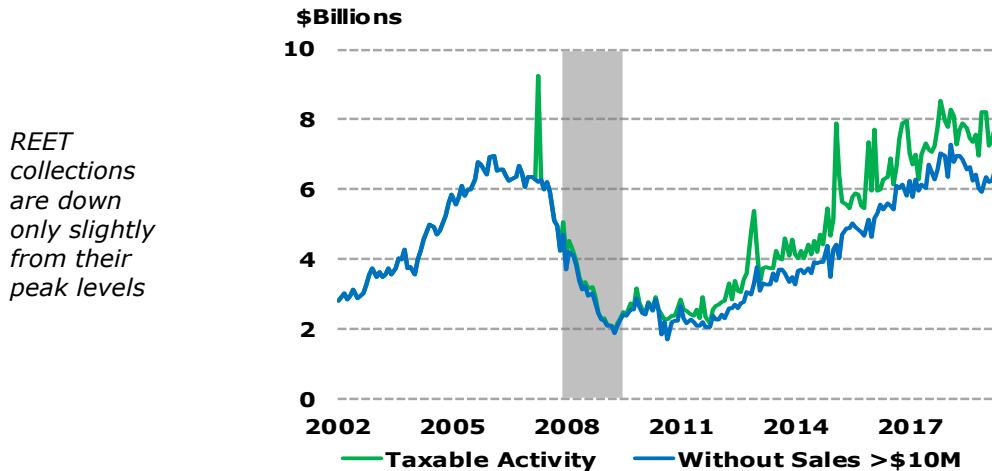
Adjusted Revenue Act collections were up 5.6% year over year for first quarter 2019 activity after 7.4% growth in the previous quarter

Figure 3.2 shows seasonally adjusted Revenue Act receipts excluding payments received under the tax amnesty program in early 2011 and other large payments. It is also adjusted for some changes in payment patterns. As shown in the figure, collections have been on an upward trend since November 2009. Despite large swings in monthly collections, the three-month moving average has maintained an upward trend. Adjusted for large one-time payments and refunds, collections grew 10.2% year over year in the May 11 – June 10, 2019 collections period after slow growth of 3.0% in the previous period. Adjusted year-over-year growth in collections representing first quarter 2019 activity (February 11 – May 10, 2019 collections) was 5.6% after 7.4% growth for fourth quarter 2018 activity (November 11, 2018 – February 10, 2019 collections). Collections growth for third quarter activity was 7.6% and growth in second quarter activity was 8.8%.

Residential real estate activity has begun to increase while sales of large commercial properties remain strong

Much of the positive variance in REET collections was due to stronger-than-expected sales of residential property. Total taxable activity in residential sales had been on a declining trend since February 2018 but began to increase again in January 2019. Residential activity accelerated in April and May while sales of large commercial properties decreased but remained strong. Sales of property worth \$10 million or more totaled \$3.0 billion in the three months since the last forecast, down from \$5 billion in the prior three months. Large commercial sales and transfers of controlling interest during corporate mergers have been responsible for much of the increase in taxable activity since November 2012, creating many spikes in activity (see Figure 3.3).

Figure 3.3: Taxable Real Estate Excise Activity, SA



Source: ERFC; data through May 2019

Legislative Changes to the Forecast

Legislative changes will add an estimated \$932 million to Near General Fund revenue from the current biennium through the 2021-23 biennium.

Since the March forecast, the State Legislature has passed and the Governor has signed legislation that will increase forecasted GF-S and Near General Fund revenue. The bill that produced the largest change was Engrossed Substitute Senate Bill 5998, which added graduated tax rates for REET based upon the transaction price and changed the distribution of the tax. This bill is estimated to increase GF-S revenue by \$55.5 million during the 2019-21 and 2021-23 biennia and increase Education Legacy Trust Account revenue by \$542.8 million over the same period. Other legislation changed the rules for retail sales tax exemptions for out-of-state buyers, implemented additional B&O taxes on certain financial institutions, and limited the eligibility of international investment management companies for preferential B&O rates. The effects of the legislation, including budget-driven revenue changes, increases GF-S revenue by a total of \$304.7 million from the 2017-19 through 2021-23 biennia and increases

Near General Fund revenue by \$932.2 million over the same period. The list of bills that affected the current forecast and their effects by fiscal year can be found in Table 3.19.

Revenue Forecasts by Source

Department of Revenue

Taxes collected by DOR are most of GF-S taxes

The Department of Revenue (DOR) collects and administers the majority of Washington’s GF-S revenue, accounting for 94.7% of total GF-S revenue in FY 2018. The largest tax sources administered by the DOR are the retail sales tax, business and occupation tax, property tax, use tax, cigarette tax and real estate excise tax. The revenue forecasts discussed below can be found in Tables 3.5-3.8.

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

The retail sales tax is the largest source of GF-S revenue, accounting for 47.1% of GF-S revenue in FY 2018. The state’s share of the tax is 6.5% of the sales price. While construction labor, repair services, and some other services are taxed, the tax does not apply to most services. Taxable sales as a share of personal income have been declining. Their share fell sharply during the recession and continued to fall through FY 2012. In that year, 33.8% of personal income was spent on taxable items and services, the lowest percentage on record. Increased spending on construction and autos, along with legislative changes to services and companies deemed taxable, caused the share to grow through FY 2017, reaching 36.1% of personal income. Legislation passed in 2017, 2018 and March 2019 that extends the tax to bottled water and online sales has caused the share to continue to increase. After FY 2019, however, the additional revenue will not grow as quickly as personal income, causing the ratio of sales to income to continue its downward trend. The historical and forecasted relationship between taxable sales and income is illustrated in Figure 3.4. Taxable retail sales by fiscal year can be found in Table 3.4.

Retail sales tax receipt growth forecast:

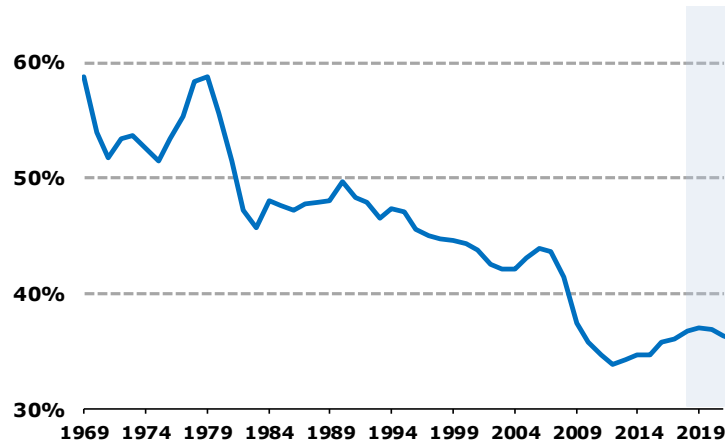
*FY19: 8.6%
FY20: 4.7%
FY21: 3.4%
FY22: 3.5%
FY23: 3.6%*

Strong growth in construction and auto sales brought taxable retail sales growth of 8.1% in FY 2015. Legislative changes coupled with continued growth in construction and auto sales boosted growth in FY 2016 taxable activity to 8.4%. Slowing construction growth and flat auto sales lowered growth in FY 2017 activity to 6.3%. Growth increased to 8.6% in FY 2018, due largely to increased taxation of online sales. Forecasted growth in FY 2019 taxable activity stays relatively strong at 6.9% despite slowing auto sales and construction because of continuing increases in the volume of taxable online sales. Growth then declines to 4.3% in FY 2020, 3.5% in FY 2021 and 2022 and 3.6% in FY 2023 as auto sales, construction and online sales growth slows (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 2018 was 8.2%. Collections growth is forecasted at 8.6% in FY 2019, 4.7% in FY 2020, 3.4% in FY 2021, 3.5% in FY 2022 and 3.6% in FY 2023.

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

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



*Past tax base adjusted to represent current base. Shaded area indicates forecast

Source: ERFC; Data through FY 2018, forecast through FY 2023

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

The business and occupation (B&O) tax is the second largest source of GF-S revenue, accounting for 19.1% of GF-S revenue in FY 2018. 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 2018, the largest contributor to total state B&O tax was the services sector, which had a gross tax rate of 1.5% and represented an estimated 43% of B&O taxes due. The next largest sector was retailing, which is taxed at 0.471% and represented an estimated 23% 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:

FY19: 7.0%
 FY20: 4.4%
 FY21: 6.2%
 FY22: 4.7%
 FY23: 4.9%

In FY 2018, B&O tax receipts grew by 8.6% due to several large one-time payments of past due taxes and legislative expansion of the tax base. Forecasted growth slows to a still-strong 7.0% in FY 2019, declining to 4.4% in FY 2020. Growth then increases to 6.2% in FY 2021, boosted by a newly adopted tax on financial institutions that takes effect on January 1, 2020. Growth then slows to 4.7% in FY 2022 and 4.9% in FY 2023.

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 12.6% of total revenue in FY 2018. 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:

*FY19: -12.9%
FY20: 57.8%
FY21: 10.0%
FY22: 3.4%
FY23: 2.7%*

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 2.1% in FY 2016 and 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 are forecasted to fall by 15.5% in FY 2019 due to a temporary reduction in the levy rate for calendar year 2019 and a \$1.02 billion transfer of collections from the levy to the Education Legacy Trust Account, \$84.7 million of which was newly mandated in the 2019 session. Collections then rebound by 57.8% in FY 2020 with the absence of a transfer and the end of the temporary levy reduction in the second half of the year. Growth remains high at 10.0% in FY 2021, due to a full year at the unreduced levy rate, before falling to 3.4% in FY 2022 and 2.7% in FY 2023.

REET rates and distributions are changing on January 1, 2020, which will result in additional revenue

The real estate excise tax (REET) was the fourth largest DOR source of GF-S revenue in FY 2018, accounting for 5.0% of total revenue. The tax is applied to both residential and commercial real estate, including purchases of vacant land. Currently, the state portion of REET is 1.28% of the sales price and is 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 the Education Legacy Trust Account (4.1%). These rates and distributions will be changed starting January 1, 2020 under Engrossed Substitute Senate Bill 5998, passed in the 2019 legislative session. Under the new law, 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 the Education Legacy Trust Account. Beginning July 1, 2023, distributions to the city-county assistance account increase to 5.2% and distributions to the Education Legacy Trust Account decrease to 14%. The new rates and distributions are forecasted to increase collections for the GF-S by about \$16 million per fiscal year by FY 2021 while increasing collections for the Education Legacy Trust Account by about \$160 million per year by that time. Details of the forecasted increases can be found in Table 3.19.

*REET growth forecast:
...*

Due to a high number of large sales of commercial property, REET receipts grew by 34.0% in FY 2013 and 15.2% in FY 2014. Even higher commercial sales coupled with strengthening residential sales boosted FY 2015 collections growth to 20.4%

...
FY19: -0.6%
FY20: -10.4%
FY21: 1.7%
FY22: 1.1%
FY23: 2.7%

and FY 2016 growth to 19.4%. While large commercial sales slowed somewhat in FY 2017, the residential market accelerated, resulting in a further 13.6% increase. The pattern continued into FY 2018, resulting in further growth of 8.3%. Large commercial sales are expected to decline in FY 2019 while residential sales hold steady, resulting in a 1.9% reduction in collections in FY 2019 and a 10.4% reduction in FY 2020. Growth then resumes slowly at 1.7% in FY 2021, 1.1% in FY 2022 and 2.7% in FY 2023.

Use tax was the fifth largest GF-S source in FY 2018

The state use tax was the fifth largest GF-S revenue source in FY 2018 at 3.2% 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:

FY19: 9.0%
FY20: -5.4%
FY21: 3.8%
FY22: 4.0%
FY23: 4.0%

Use tax collections grew 2.8% in FY 2018 after 6.0% growth in FY 2017. The low level of 2018 collections, coupled with high actual collections in the current year, boost expected growth to 9.0% in FY 2019. Collections for FY 2020 are expected to decrease by 5.4% due to FY 2019's elevated level and a reduction in forecasted used car sales. Growth then resumes at more normal levels of 3.8% in FY 2021 and 4.0% in both FY 2022 and FY 2023.

Public utility taxes were the sixth largest GF-S source in FY 2018

Public utility taxes were the sixth largest DOR source of GF-S revenue in FY 2018, bringing in 1.9% 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:

FY19: 4.1%
FY20: 2.3%
FY21: 9.9%
FY22: 3.3%
FY23: 3.7%

Public utility tax receipts shrank by 1.1% in FY 2018 after 1.4% growth in FY 2017. The low level of FY 2018 collections contribute to expected growth of 4.1% in FY 2019. Collections are forecasted to grow by 2.3% in FY 2020 before increasing by 9.9% in FY 2021, due mainly to the expiration of a large tax credit. Growth is forecasted at 3.3% in FY 2022 and 3.7% in FY 2023.

The cigarette tax was the seventh largest GF-S source in FY 2017

The state tax on cigarettes was the seventh largest DOR GF-S revenue source in FY 2018 at 1.6% 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:

FY19: -2.4%
FY20: -1.8%
FY21: -2.8%
FY22: -2.5%
FY23: -2.7%

The total number of taxed cigarettes has been on a downward trend due to a continuing decline in the number of smokers. Recently, the rate of decline has been increasing further due to increased consumption of e-cigarettes, which are not subject to the cigarette tax but are subject to retail sales taxes. Collections decreased by 5.4% in FY 2018 after decreasing by 3.5% in FY 2017. Collections are forecasted to decrease by 2.4% in FY 2019 and 1.8% in FY 2020. The forecasted rate of decline increases in FY 2021 due to the effects of House Bill 1074, passed in the 2019 session. Under the bill, the legal age to purchase cigarettes, tobacco products and vapor products increases from 18 to 21 on January 1, 2020. This helps increase the rate of decline in cigarette tax collections to 2.8% in FY 2021, 2.5% in FY 2022 and 2.7% in FY 2023.

Forecasted Revenue from Cannabis-Related Sales

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

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

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

17-19: \$1.5
19-21: -\$5.2
21-23: -\$6.6

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 are forecasted at \$248.9 million in the 2017-19 biennium, an increase of \$1.5 million from the March forecast, and \$267.0 million in the 2019-21 biennium, a decrease of \$5.2 million. The forecast of GF-S distributions for the 2021-23 biennium is \$284.2 million, a decrease of \$6.6 million from the previous forecast. Details of the forecasted distributions from the account can be found in Table 3.18.

The Office of Financial Management (Other Agencies)

The Office of Financial Management (OFM) is responsible for preparing General Fund-State revenue and transfer forecasts for

*Forecast
change by
biennium
(millions):*

17-19: *-\$14.7*
19-21: *\$41.2*
21-23: *\$26.8*

all agencies excluding the Department of Revenue, the Liquor and Cannabis Board, the Insurance Commissioner, the Washington State Lottery, and the State Treasurer. Starting with the September 2017 forecast cycle, the office also added the Department of Licensing to its list of covered agencies. The office's forecast for the 2017-19 biennium was decreased \$14.7 million to \$325.0 million, due mainly to the movement of the receipt of an expected payment from FY 2019 to FY 2020. The forecast for the 2019-21 biennium was increased \$41.2 million to \$217.1 million due mainly to legislative changes plus the movement of the \$15 million payment from FY 2019. The forecast for the 2021-23 biennium was increased \$26.8 million to \$189.3 million due mainly to legislative changes. The main legislative changes for the two biennia were increased fees at the Department of Financial Institutions and \$24.2 million (2019-21) and \$26.4 million (2021-23) in transfers from an outside account into the GF-S for reimbursement for retail sales tax exemptions for certain electric vehicles.

State Treasurer

*Forecast
change by
biennium
(millions):*

17-19: *-\$0.6*
19-21: *\$5.5*
21-23: *\$0.6*

The Office of the State Treasurer generates GF-S revenue by investing state short-term cash reserves. The office's forecast for the 2017-19 biennium has been decreased \$0.6 million to \$35.8 million. The office's forecast for the 2019-21 biennium has been increased \$5.5 million to \$46.5 million due to an increase in the projected balances of funds that generate earnings for the GF-S. The forecast for the 2021-23 biennium has been increased \$0.6 million to \$42.6 million.

Insurance Commissioner

*Forecast
change by
biennium
(millions):*

17-19: *\$6.7*
19-21: *\$14.9*
21-23: *\$15.6*

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 GF-S revenue forecast for the 2017-19 biennium has been increased \$6.7 million to \$1,200.5 million and the forecast for the 2019-21 biennium has been increased \$14.9 million to \$1,297.3 million. The forecast of revenue for the 2021-23 biennium has been increased \$15.6 million to \$1,408.3 million.

Liquor and Cannabis Board

*Forecast
change by
biennium
(millions):*

17-19: *\$2.9*
19-21: *-\$7.3*
21-23: *-\$1.8*

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 revenue for the 2017-19 biennium has been increased \$2.9 million to \$492.9 million and the forecast for the 2019-21 biennium has been decreased \$7.3 million to \$543.6 million. The forecast of revenue for the 2021-23 biennium has been decreased \$1.8 million to \$584.5 million. The forecast changes were a combination of changes to expected fees and taxes associated with beer, wine, and liquor distribution and the changes in expected distributions of cannabis excise taxes to the GF-S discussed above. Legislative changes reduced distributions by \$3.0 million in the 2017-19 biennium, \$15.9 million in the 2019-21 biennium, and \$6.0 million in the 2021-23 biennium. These changes were the result of increases in the board’s budget for enforcement and other priorities, which decreased the funds available for distribution to the GF-S.

Lottery Commission

GF-S forecast change by biennium (millions):

17-19: \$8.5
19-21: -\$5.3
21-23: \$0.1

While most of the proceeds from sales of lottery games go to the Washington Opportunity Pathways Account (OPA), distributions are also made to programs such as Problem Gambling, Economic Development and the Stadium/Exhibition Center. Details of the forecast of the distribution of Lottery earnings can be found in Table 3.15 on a cash basis and Table 3.16 on a GAAP basis. When total profits from all Washington-only games plus the Powerball game exceed \$102 million per year, the amount above \$102 million is transferred to the GF-S. Forecasted transfers of lottery revenue into the GF-S for the 2017-19 biennium have been increased \$8.5 million to \$77.6 million and forecasted transfers for the 2019-21 biennium have been decreased \$5.3 million to \$53.7 million. The forecast of GF-S transfers for the 2021-23 biennium has been increased \$0.1 million to \$65.0 million.

OPA forecast change by biennium (millions):

17-19: \$1.0
19-21: \$10.8
21-23: \$3.3

The OPA receives all profits (excluding statutory transfers) from Washington-only lottery games plus all profits from the Mega Millions game. The forecast of OPA revenue for the 2017-19 biennium has been increased \$1.0 million to \$283.5 million. The forecast for the 2019-21 biennium has been increased \$10.8 million to \$284.7 million and the forecast for the 2021-23 biennium has been increased \$3.3 million to \$310.5 million.

Administrative Office of the Courts

Forecast change by biennium (millions):

17-19: -\$0.6
19-21: -\$2.0
21-23: -\$2.4

The Administrative Office of the Courts collects surcharges on certain filing fees, fines, and infraction penalties and transfers this revenue to the GF-S on a monthly basis. The forecast for the 2017-19 biennium has been decreased \$0.6 million to \$147.6 million. The forecast of transfers for the 2019-21 biennium has been decreased \$2.0 million to \$135.6 million and the forecast of revenue for the 2021-23 biennium has been decreased \$2.4 million to \$137.1 million.

Track Record for the 2017-19 Biennium

The June 2019 forecast is \$1.2 billion (2.8%) higher than the forecasted revenue at the time of the initial 2017-19 budget

Table 3.10 summarizes the historical changes to the GF-S revenue forecast for the 2017-19 biennium. The February 2014 forecast was the initial forecast for the biennium. The June 2019 forecast is \$5.3 billion (13.8%) higher than the initial forecast. Non-economic changes have increased the forecast by \$1.1 billion (3.0%). Excluding non-economic changes, the current forecast is \$4.2 billion (10.8%) higher than the initial forecast. The June 2017 forecast, coupled with the \$2,079 million in legislative and budget-driven revenue changes passed in the 2017 special legislative sessions, was the basis for the initial budget for the 2017-19 biennium. The June forecast of biennial revenue is \$1.06 billion (2.5%) higher than that sum.

Track Record for the 2019-21 Biennium

This forecast is \$6.4 billion (14.6%) higher than the initial February 2016 forecast, due mainly to legislative changes

Table 3.11 summarizes the historical changes to the GF-S revenue forecast for the 2019-21 biennium. The February 2016 forecast was the initial forecast for the biennium. The June 2019 forecast is \$6.4 billion (14.6%) higher than the initial forecast. Non-economic changes have increased the forecast by \$3.4 billion (7.7%). Excluding non-economic changes, the current forecast is \$3.0 billion (6.9%) higher than the initial forecast.

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

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

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

Budgetary Balance Sheet for the 2017-19 and 2019-21 Biennia

The forecast implies total GF-S reserves of \$2.41 billion at the end of the 2019-21 biennium and \$2.68 billion in reserves for GF-S, ELTA and OPA

Table 3.12 shows the budgetary balance sheets for the 2017-19 and 2019-21 biennia 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) and the Washington Opportunity Pathways Account (OPA). As shown in the table, the GF-S beginning fund balance for the 2019-21 biennium is \$750.6 million and the total beginning balance for GF-S, ELTA and OPA is \$1,783.9 million. Based on the June 2019 revenue forecast and currently enacted budgets, unrestricted GF-S reserves are projected to be \$105.7 million at the end of the 2019-21 biennium and GF-S, ELTA and OPA reserves are projected to be \$379.4 million. In addition, the Budget Stabilization Account is projected to have a balance of \$2,301.1 million, bringing total projected GF-S reserves to \$2,406.9 million. Projected combined reserves for the ELTA and OPA are \$273.6 million, for total projected reserves of \$2,680.5 million for GF-S, ELTA and OPA at the end of the 2019-21 biennium.

Alternative Forecasts for the 2017-19 and 2019-21 Biennia

*Optimistic scenario (billions):
17-19: +\$0.04
19-21: +\$1.9*

*Pessimistic scenario:
17-19: -\$0.05
19-21: -\$2.3*

Chapter 2 outlines optimistic and pessimistic economic scenarios relative to the baseline economic forecast. The forecast assigns a probability of 70% to the baseline forecast, 15% to a scenario based on the upside risks and 15% to a scenario based on the downside risks for the 2017-19 biennium. The probabilities for the 2019-21 biennium are 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 2017-19 biennium are shown in Table 3.13 and those of the 2019-21 biennium are shown in Table 3.14. For the 2017-19 biennium, the optimistic forecast generates \$44,082.8 million in GF-S revenue, \$40.9 million (0.1%) more than the baseline scenario, while the pessimistic forecast produces \$43,992.1 million in revenue, \$49.9 million (0.1%) less than the baseline. For the 2019-21 biennium, the optimistic forecast generates \$51,713.8 million in GF-S revenue, \$1,909.7 million (3.8%) more than the baseline scenario, while the pessimistic forecast produces \$47,515.9 million in revenue, \$2,288.2 million (4.6%) less than the baseline.

Near General Fund Forecasts for the 2017-19–2021-23 Biennia

“Near General Fund” accounts are those included in the GF-S plus the Education Legacy Trust Account (ELTA) and the Washington Opportunity Pathways Account (OPA). The ELTA is primarily funded by a tax on estates of over \$2 million.

*Near
General
Fund
Forecast
(millions):*

*2017-19:
\$46,059.1*

*2019-21:
\$50,987.6*

*2021-23:
\$55,036.0*

Legislation from the 2013 special session, however, added revenue from public utility and real estate excise taxes, which had previously gone into non-GF-S accounts. Subsequent legislation also added revenue from solid waste taxes beginning in FY 2016 and a transfer of \$935 million from the additional property tax levy to the account in FY 2019. The OPA is funded by lottery revenue as discussed above. The forecast of Near General Fund revenue for the 2017-19 biennium is \$46,059.1 million, \$47.3 million less than the March forecast. The forecast for the 2019-21 biennium is \$50,987.6 million, \$432.3 million more than the March forecast, and the forecast of Near General Fund revenue for the 2021-23 biennium is \$55,036.0 million, \$677.5 million more than the March forecast. Much of the increase in the Near General Fund forecast over and above the increase in the GF-S forecast was due to the newly adopted REET rates and distribution rules as illustrated in Table 3.19. The Near General Fund forecast and recent history by fiscal year are presented in Table 3.17.

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%	8,271.5	24.2%
1971-73	1,922.1	10.9%	8,490.3	2.6%
1973-75	2,372.4	23.4%	9,054.3	6.6%
1975-77	3,395.0	43.1%	11,271.8	24.5%
1977-79	4,490.0	32.3%	13,091.7	16.1%
1979-81	5,356.4	19.3%	12,990.7	-0.8%
1981-83	6,801.4	27.0%	14,354.4	10.5%
1983-85	8,202.4	20.6%	15,975.3	11.3%
1985-87	9,574.6	16.7%	17,604.4	10.2%
1987-89	10,934.1	14.2%	18,775.3	6.7%
1989-91	13,309.0	21.7%	21,047.1	12.1%
1991-93	14,862.2	11.7%	22,112.5	5.1%
1993-95	16,564.6	11.5%	23,547.7	6.5%
1995-97	17,637.7	6.5%	24,059.4	2.2%
1997-99	19,620.1	11.2%	26,059.1	8.3%
1999-01	21,262.1	8.4%	27,187.8	4.3%
2001-03	21,140.7	-0.6%	26,144.9	-3.8%
2003-05	23,388.5	10.6%	27,714.8	6.0%
2005-07	27,772.0	18.7%	31,145.3	12.4%
2007-09	27,703.0	-0.2%	29,633.3	-4.9%
2009-11	28,218.1	1.9%	29,418.7	-0.7%
2011-13	30,657.0	8.6%	30,679.6	4.3%
2013-15	33,666.0	9.8%	32,824.3	7.0%
2015-17	38,317.4	13.8%	36,713.2	11.8%
2017-19 ^F	44,042.0	14.9%	40,753.9	11.0%
2019-21 ^F	49,804.1	13.1%	44,527.2	9.3%
2021-23 ^F	53,683.4	7.8%	46,206.8	3.8%

^F June 2019 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 June 2019 forecast.

Table 3.4
Taxable retail sales*
(millions of dollars)

<u>Fiscal Year</u>	<u>Amount</u>	<u>Percent Change</u>
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 ^F	174,235	6.9%
2020 ^F	181,709	4.3%
2021 ^F	187,989	3.5%
2022 ^F	194,639	3.5%
2023 ^F	201,685	3.6%

^F June 2019 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

2017-19 biennium; cash basis

(millions of dollars)

Forecast by Agency	Mar 2019 Forecast¹	Non- Economic Changes	Forecast Revision	June 2019 Forecast²	Total Change
Department of Revenue					
Retail Sales	\$21,365.6	(\$25.9)	\$2.7	\$21,342.4	(\$23.2)
Business & Occupation	8,574.8	(13.1)	30.8	8,592.5	17.7
Use	1,466.5	0.0	(17.6)	1,448.9	(17.6)
Public Utility	826.0	0.0	(6.1)	819.9	(6.1)
Liquor Sales/Liter	557.5	0.0	4.2	561.7	4.2
Cigarette	713.8	0.0	(7.5)	706.3	(7.5)
Property (State Levy)	5,128.0	(84.7)	14.4	5,057.7	(70.3)
Real Estate Excise	2,157.7	0.0	13.3	2,171.0	13.3
Timber Excise	5.6	0.0	(1.4)	4.2	(1.4)
Other	1,109.0	(31.1)	(19.9)	1,057.9	(51.1)
Subtotal	41,904.5	(154.8)	12.8	41,762.6	(142.0)
Insurance Commissioner					
Insurance Premiums	1,193.8	0.0	6.7	1,200.5	6.7
Liquor Control Board					
Fees, Cannabis Excise Tax	432.5	(3.0)	6.0	435.5	3.0
Beer & Wine Surtax	57.5	0.0	(0.1)	57.4	(0.1)
Lottery Commission					
Lottery Revenue	69.1	(0.0)	8.5	77.6	8.5
State Treasurer					
Interest Earnings	36.5	0.0	(0.6)	35.8	(0.6)
Office of Financial Management**					
Other Agencies	339.7	0.8	(15.5)	325.0	(14.7)
Administrative Office of the Courts					
Fines and Forfeitures	148.2	0.0	(0.6)	147.6	(0.6)
Total General Fund-State *	\$44,181.7	(\$157.0)	\$17.2	\$44,042.0	(\$139.8)

¹ Forecast for the 2017-19 biennium adopted by the Economic and Revenue Forecast Council March 20, 2019² Forecast for the 2017-19 biennium, adopted June 25, 2019

*Detail may not add to totals because of rounding.

**OFM forecast now includes revenue from the Department of Licensing.

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

2017-19 biennium; GAAP basis

(millions of dollars)

Forecast by Agency	Mar 2019 Forecast¹	Non- Economic Changes	Forecast Revision	June 2019 Forecast²	Total Change
Department of Revenue					
Retail Sales	\$21,437.6	(\$25.9)	\$2.7	\$21,414.4	(\$23.2)
Business & Occupation Use	8,611.9	(13.1)	30.8	8,629.6	17.7
Public Utility	1,474.9	0.0	(17.6)	1,457.3	(17.6)
Liquor Sales/Liter	825.3	0.0	(6.1)	819.2	(6.1)
Cigarette	558.2	0.0	4.2	562.3	4.2
Property (State Levy)	722.7	0.0	(7.5)	715.2	(7.5)
Real Estate Excise	5,139.4	(84.7)	14.4	5,069.0	(70.3)
Timber Excise	2,158.4	0.0	13.3	2,171.7	13.3
Other	5.3	0.0	(1.4)	3.9	(1.4)
Subtotal	1,175.3	(31.1)	(30.4)	1,113.9	(61.5)
Insurance Commissioner	42,109.0	(154.8)	2.4	41,956.5	(152.4)
Insurance Premiums	1,193.8	0.0	6.7	1,200.5	6.7
Liquor Control Board					
Fees, Cannabis Excise Tax	432.5	(3.0)	6.0	435.5	3.0
Beer & Wine Surtax	57.5	0.0	(0.1)	57.4	(0.1)
Lottery Commission					
Lottery Revenue	61.4	(0.0)	1.4	62.8	1.4
State Treasurer					
Interest Earnings	35.4	0.0	1.0	36.3	1.0
Office of Financial Management**					
Other Agencies	339.7	0.8	(15.5)	325.0	(14.7)
Administrative Office of the Courts					
Fines and Forfeitures	148.2	0.0	(0.6)	147.6	(0.6)
Total General Fund-State *	\$44,377.4	(\$157.0)	\$1.3	\$44,221.7	(\$155.7)

¹ Forecast for the 2017-19 biennium adopted by the Economic and Revenue Forecast Council March 20, 2019² Forecast for the 2017-19 biennium, adopted June 25, 2019

*Detail may not add to totals because of rounding.

**OFM forecast now includes revenue from the Department of Licensing.

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

2019-21 biennium; cash basis

(millions of dollars)

Forecast by Agency	Mar 2019 Forecast¹	Non- Economic Changes	Forecast Revision	June 2019 Forecast²	Total Change
Department of Revenue					
Retail Sales	\$23,661.7	(\$70.3)	\$72.4	\$23,663.8	\$2.1
Business & Occupation Use	9,365.1	180.4	14.7	9,560.1	195.0
Public Utility	1,470.7	0.0	(14.4)	1,456.3	(14.4)
Liquor Sales/Liter	921.0	0.0	(23.3)	897.8	(23.3)
Cigarette	582.8	0.0	5.0	587.8	5.0
Property (State Levy)	691.2	(6.6)	(9.1)	675.5	(15.7)
Real Estate Excise	7,700.8	(20.3)	(1.4)	7,679.1	(21.7)
Timber Excise	1,918.3	22.8	14.9	1,956.0	37.6
Other	5.0	0.0	(0.3)	4.7	(0.3)
Subtotal	1,045.0	(1.1)	(14.8)	1,029.1	(15.9)
Insurance Commissioner	47,361.7	104.9	43.6	47,510.2	148.5
Insurance Premiums	1,282.4	0.0	14.9	1,297.3	14.9
Liquor Control Board					
Fees, Cannabis Excise Tax	493.2	(15.9)	8.8	486.2	(7.1)
Beer & Wine Surtax	57.6	0.0	(0.2)	57.4	(0.2)
Lottery Commission					
Lottery Revenue	59.0	(1.5)	(3.8)	53.7	(5.3)
State Treasurer					
Interest Earnings	41.0	0.0	5.5	46.5	5.5
Office of Financial Management**					
Other Agencies	176.0	21.9	19.3	217.1	41.2
Administrative Office of the Courts					
Fines and Forfeitures	137.6	0.0	(2.0)	135.6	(2.0)
Total General Fund-State *	\$49,608.6	\$109.3	\$86.1	\$49,804.1	\$195.5

¹ Forecast for the 2019-21 biennium adopted by the Economic and Revenue Forecast Council March 20, 2019² Forecast for the 2019-21 biennium, adopted June 25, 2019

*Detail may not add to totals because of rounding.

**OFM forecast now includes revenue from the Department of Licensing.

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

Table 3.8

Comparison of the General Fund-State forecast by agency

2019-21 biennium; GAAP basis

(millions of dollars)

Forecast by Agency	Mar 2019 Forecast¹	Non- Economic Changes	Forecast Revision	June 2019 Forecast²	Total Change
Department of Revenue					
Retail Sales	\$23,661.7	(\$70.3)	\$72.4	\$23,663.8	\$2.1
Business & Occupation Use	9,365.1	180.4	14.7	9,560.1	195.0
Public Utility	1,470.7	0.0	(14.4)	1,456.3	(14.4)
Liquor Sales/Liter	921.0	0.0	(23.3)	897.8	(23.3)
Cigarette	582.8	0.0	5.0	587.8	5.0
Property (State Levy)	691.2	(6.6)	(9.1)	675.5	(15.7)
Real Estate Excise	7,700.8	(20.3)	(1.4)	7,679.1	(21.7)
Timber Excise	1,918.3	22.8	14.9	1,956.0	37.6
Other	5.0	0.0	(0.3)	4.7	(0.3)
Subtotal	1,045.0	(1.1)	(14.8)	1,029.1	(15.9)
Insurance Commissioner					
Insurance Premiums	47,361.8	104.9	43.6	47,510.3	148.5
Liquor Control Board					
Fees, Cannabis Excise Tax	1,282.4	0.0	14.9	1,297.3	14.9
Beer & Wine Surtax	493.2	(15.9)	8.8	486.2	(7.1)
Lottery Commission					
Lottery Revenue	57.6	0.0	(0.2)	57.4	(0.2)
State Treasurer					
Interest Earnings	58.3	(1.5)	2.5	59.3	0.9
Office of Financial Management**					
Other Agencies	40.8	0.0	5.5	46.3	5.5
Administrative Office of the Courts					
Fines and Forfeitures	137.6	0.0	(2.0)	135.6	(2.0)
Total General Fund-State *	\$49,607.8	\$109.3	\$92.4	\$49,809.5	\$201.7

¹ Forecast for the 2019-21 biennium adopted by the Economic and Revenue Forecast Council March 20, 2019² Forecast for the 2019-21 biennium, adopted June 25, 2019

*Detail may not add to totals because of rounding.

**OFM forecast now includes revenue from the Department of Licensing.

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

Table 3.9
June 2019 General Fund-State forecast detail
2017-19 to 2021-23 biennia; cash basis
(Millions of Dollars)

Forecast by Source	Fiscal 2018	Fiscal 2019	2017-19 Biennium	Fiscal 2020	Fiscal 2021	2019-21 Biennium	Fiscal 2022	Fiscal 2023	2021-23 Biennium
State Taxes									
Retail sales**	\$10,231.4	\$11,111.0	\$21,342.4	\$11,635.2	\$12,028.7	\$23,663.8	\$12,446.5	\$12,896.9	\$25,343.4
Business & occupation	4,151.0	4,441.5	8,592.5	4,636.2	4,924.0	9,560.1	5,156.4	5,408.5	10,564.9
Use**	693.4	755.5	1,448.9	714.4	741.8	1,456.3	771.6	802.1	1,573.7
Public Utility	401.7	418.2	819.9	427.8	470.0	897.8	485.7	503.6	989.3
Liquor sales/liter	273.8	287.9	561.7	291.3	296.6	587.8	302.6	308.5	611.1
Beer & wine surtax	28.9	28.5	57.4	28.6	28.8	57.4	28.9	28.9	57.8
Cigarette	366.7	357.8	724.4	351.6	342.2	693.8	334.1	325.6	659.7
Tobacco products	57.1	58.6	115.7	55.4	56.8	112.2	57.4	58.1	115.5
Cannabis Excise Taxes	112.0	126.5	238.5	127.0	130.3	257.3	133.8	140.3	274.1
Property (state school levy)	2,739.8	2,317.9	5,057.7	3,657.4	4,021.7	7,679.1	4,157.3	4,271.1	8,428.5
Leasehold Excise Tax	34.1	36.5	70.6	37.0	37.4	74.4	37.8	38.1	75.8
Public utility district	56.9	58.6	115.5	59.8	61.0	120.8	62.1	63.2	125.3
Brokered Natural Gas	19.3	30.2	49.4	22.7	23.0	45.6	23.4	23.8	47.1
Real estate excise***	1,089.0	1,082.1	2,171.0	969.8	986.1	1,956.0	997.2	1,024.6	2,021.8
Timber excise	2.7	1.6	4.2	2.3	2.4	4.7	2.5	2.6	5.0
Estate/inheritance	(5.6)	0.2	(5.4)	0.0	0.0	0.0	0.0	0.0	0.0
Boat excise	15.8	16.5	32.2	16.1	15.5	31.6	15.5	15.5	31.1
Insurance premiums	600.6	599.9	1,200.5	634.5	662.8	1,297.3	689.9	718.4	1,408.3
Penalties and interest on past due taxes	224.8	99.5	324.3	167.0	172.5	339.5	178.0	187.3	365.3
Other	113.7	30.1	143.8	55.2	55.7	110.9	56.3	56.7	113.0
Total Taxes	21,206.8	21,858.5	43,065.3	23,889.3	25,057.2	48,946.5	25,937.0	26,873.8	52,810.8
State Non-Tax Sources									
Licenses, permits, fees	136.2	138.3	274.5	143.1	145.7	288.8	147.8	149.9	297.7
Liquor & Cannabis fees	89.1	107.9	197.0	110.6	118.3	228.9	124.5	128.1	252.6
Earnings on investments	10.6	25.2	35.8	23.7	22.7	46.5	21.6	21.0	42.6
Administrative Office of the Courts	75.6	72.0	147.6	67.8	67.8	135.6	68.2	68.9	137.1
Transfers of unclaimed property	98.8	79.1	177.9	74.3	75.7	150.0	77.2	78.6	155.8
Other revenue & transfers	95.2	48.7	143.8	7.4	0.4	7.8	(3.3)	(9.8)	(13.1)
Total Non-Tax	505.5	471.2	976.7	427.0	430.6	857.6	435.9	436.7	872.6
Total General Fund-State *	\$21,712.3	\$22,329.6	\$44,042.0	\$24,316.3	\$25,487.8	\$49,804.1	\$26,372.9	\$27,310.5	\$53,683.4

* 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 2017-19 General Fund-State Cash Forecast

February 2014 through June 2019

Cash Basis - Millions of Dollars

<u>Date of Forecast</u>	<u>Department of Revenue*</u>	<u>Other Agencies</u>	<u>Subtotal*</u>	<u>Non-Economic Changes**</u>	<u>Total Change</u>	<u>Total General Fund-State Cash Basis#</u>
February 2014##	\$36,887	\$1,823				\$38,710
Changes to Forecast						
June 2014	265	50	315	(1) #1	313	39,023
September 2014	227	(63)	164	0	164	39,188
November 2014	388	26	415	0	415	39,602
February 2015	126	28	154	0	154	39,757
June 2015	257	64	321	122 #2	443	40,200
September 2015	4	47	52	286 #3	338	40,538
November 2015	35	(5)	30	0	30	40,567
February 2016	(449)	7	(442)	0	(442)	40,125
June 2016	187	(53)	134	(8) #4	126	40,252
September 2016	135	(10)	125	0	125	40,377
November 2016	131	6	137	0	137	40,514
March 2017	281	22	303	0	303	40,817
June 2017	84	3	87	(1) #5	87	40,903
September 2017	269	11	279	2,079 #6	2,359	43,262
November 2017	297	7	304	0	304	43,566
February 2018	631	16	647	0	647	44,213
June 2018	447	46	493	(1,173) #7	(680)	43,532
September 2018	231	44	275	0	275	43,808
November 2018	118	1	118	0	118	43,926
March 2019	266	(10)	256	0	256	44,182
June 2019	15	2	17	(157) #8	(140)	44,042
Total change***:						
From February 2014	3,946	238	4,185	1,147	5,332	
Percent change	10.7	13.1	10.8	3.0	13.8	

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

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

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

First official forecast for the 2017-19 biennium.

#1 Sum of legislative and budget-driven revenue changes from the 2014 regular legislative session

#2 Legislative revenue changes from 2015 regular legislative session

#3 Legislative and budget driven revenue changes from 2015 special legislative sessions

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

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

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

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

#8 Sum of legislative and budget driven revenue changes from the 2019 legislative session plus large expected refund

Table 3.11

Track Record for the 2019-21 General Fund-State Cash Forecast

February 2016 through June 2019

Cash Basis - Millions of Dollars

<u>Date of Forecast</u>	<u>Department of Revenue*</u>	<u>Other Agencies</u>	<u>Subtotal*</u>	<u>Non-Economic Changes**</u>	<u>Total Change</u>	<u>Total General Fund-State Cash Basis</u>
February 2016[#]	\$36,887	\$1,823				\$43,441
Changes to Forecast						
June 2016	172	(31)	141	(7) ^{#1}	134	43,575
September 2016	86	(31)	55	0	55	43,630
November 2016	21	4	26	0	26	43,656
March 2017	241	(55)	186	0	186	43,842
June 2017	47	(13)	34	(1) ^{#2}	34	43,875
September 2017	245	(3)	243	3,278 ^{#3}	3,521	47,396
November 2017	188	(2)	186	0	186	47,582
February 2018	655	16	671	0	671	48,253
June 2018	426	22	448	(181) ^{#4}	267	48,520
September 2018	295	22	317	38 ^{#5}	355	48,875
November 2018	186	3	189	0	189	49,064
March 2019	465	(35)	430	115 ^{#6}	545	49,609
June 2019	57	29	86	109 ^{#7}	195	49,804
Total change***:						
From February 2016	3,086	(75)	3,011	3,352	6,363	
Percent change	8.4	(4.1)	6.9	7.7	14.6	

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

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

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

[#] First official forecast for the 2019-21 biennium.^{#1} Legislative revenue changes from the 2016 regular and first special legislative sessions^{#2} Sum of legislative revenue changes from 2017 legislative sessions through June 20, 2017^{#3} Sum of legislative and budget driven revenue changes from 2017 special legislative sessions since the June 2017 forecast^{#4} Sum of legislative and budget driven revenue changes from the 2018 legislative session^{#5} Estimated increase in sales tax collections due US Supreme Court ruling of June 21, 2018.^{#6} Effects of SSB 5581, passed in March of 2019 legislative session^{#7} Sum of legislative and budget driven revenue changes from the 2018 legislative session subsequent to the March 2019 forecast

Table 3.12

2017-19 with Enacted Supplementals and 2019-21 Budget Balance Sheet
 General Fund-State (GFS), Education Legacy Trust Account (ELTA),
 Washington Opportunity Pathways Account (OPA) and Budget Stabilization Account (BSA)
 Dollars in Millions

	2017-19			2019-21		
	GFS	ELTA and OPA	TOTAL	GFS	ELTA and OPA	TOTAL
RESOURCES						
Beginning Fund Balance	1,100.6	48.0	1,148.5	750.6	1,033.3	1,783.9
March 2019 Revenue Forecast	44,181.7	1,924.6	46,106.4	49,608.6	946.7	50,555.3
June 2019 Revenue Forecast change	(52.9)	7.8	(45.1)	86.1	16.4	102.6
Current Revenue Totals	44,128.9	1,932.4	46,061.3	49,694.7	963.1	50,657.8
Transfer to Budget Stabilization Account (1% of GSR)	(440.4)		(440.4)	(497.0)		(497.0)
Transfer to Budget Stabilization Account (EGSR)	(1,746.2)		(1,746.2)	-		-
Transfer from BSA (EGSR)	1,136.4		1,136.4	-		-
Enacted Fund Transfers	(92.3)	254.0	161.7	-	-	-
CAFR Adjustment	(39.5)	13.9	(25.6)	-	-	-
Actual/Assumed Prior Period Adjustments	111.2		111.2	40.8		40.8
2019 Legislative session						
Revenue legislation	(84.7)	84.7	-	274.2	220.5	494.7
Other legislation				(145.0)	(0.03)	(145.1)
Budget Driven Revenue	(2.2)		(2.2)	(19.8)		(19.8)
Fund transfers	73.0		73.0	49.0	160.0	209.0
Governor's vetoes	(38.0)		(38.0)			-
Total Resources (including beginning fund balance)	44,106.7	2,333.0	46,439.7	50,147.5	2,376.8	52,524.3
EXPENDITURES						
Enacted Budgets						
2017-19 Biennium	43,360.7	1,300.5	44,661.2	-	-	-
2019 Supplemental	187.5	(0.7)	186.8	-	-	-
2019-21 Biennium			-	50,374.4	2,103.0	52,477.3
Governor's vetoes	2.6		2.6	21.1	0.2	21.3
Actual/Assumed Reversions	(194.9)	-	(194.9)	(353.7)	-	(353.7)
Total Expenditures	43,356.0	1,299.8	44,655.8	50,041.8	2,103.2	52,144.9
RESERVES						
Projected Ending Balance (GFS + ELTA + OPA)	750.6	1,033.3	1,783.9	105.7	273.6	379.4
Budget Stabilization Account						
Budget Stabilization Account Beginning Balance	1,638.3		1,638.3	1,721.6		1,721.6
Transfers from General Fund (1% of GSR)	440.4		440.4	497.0		497.0
Actual/Assumed Interest Earnings and other	42.0		42.0	82.5		82.5
Transfers from GFS (EGSR)	1,746.2		1,746.2	-		-
Less 17-19 Appropriations from BSA	(41.5)		(41.5)	-		-
Less 17-19 Transfers to Pension Stabilization Account	(925.2)		(925.2)	-		-
Less Transfers out to GFS (EGSR)	(1,136.4)		(1,136.4)	-		-
Less 2019 Supplemental-DNR fires	(42.3)		(42.3)	-		-
Projected Budget Stabilization Account Ending Balance	1,721.6		1,721.6	2,301.1		2,301.1
Total Reserves (Near General Fund plus Budget Stabilization)	2,472.2	1,033.3	3,505.5	2,406.9	273.6	2,680.5

Acronyms

GSR- General State Revenues
 EGSR- Extraordinary General State Revenues
 CAFR- Comprehensive Annual Financial Report

Table 3.13

**Alternative forecasts compared to the baseline forecast
2017-19 biennium**

(cash basis, millions of dollars)

Forecast by Source	Optimistic Forecast	Baseline Forecast	Pessimistic Forecast
Department of Revenue			
Retail Sales	\$21,356.2	\$21,342.4	\$21,321.9
Business & Occupation	8,598.1	8,592.5	8,584.5
Use	1,449.9	1,448.9	1,447.4
Public Utility	820.3	819.9	819.1
Property (school levy)	5,059.6	5,057.7	5,055.8
Real Estate Excise	2,201.8	2,171.0	2,131.2
Other	2,303.6	2,330.2	2,366.8
Subtotal	41,789.6	41,762.6	41,726.5
Insurance Commissioner¹	1,200.5	1,200.5	1,200.5
Lottery Commission	80.5	77.6	74.7
State Treasurer - Interest earnings	35.8	35.8	35.8
Liquor and Cannabis Surtaxes & Fees²	502.2	492.9	483.5
Office of Financial Management			
Other agencies	326.4	325.0	323.6
Administrative Office of the Courts			
Fines and Forfeitures	147.8	147.6	147.4
Total General Fund - State*	\$44,082.8	\$44,042.0	\$43,992.1
Difference from June 2019 Baseline	\$40.9		(\$49.9)

1 Insurance premiums, General Fund-State portion.

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

* Detail may not add to total due to rounding.

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

Table 3.14

**Alternative forecasts compared to the baseline forecast
2019-21 biennium**

(cash basis, millions of dollars)

Forecast by Source	Optimistic Forecast	Baseline Forecast	Pessimistic Forecast
Department of Revenue			
Retail Sales	\$24,747.4	\$23,663.8	\$22,360.1
Business & Occupation Use	9,981.7	9,560.1	9,086.7
Public Utility	1,530.0	1,456.3	1,372.1
Property (school levy)	930.6	897.8	864.8
Real Estate Excise	7,725.6	7,679.1	7,650.8
Other	2,026.5	1,956.0	1,788.2
Subtotal	2,370.4	2,297.1	2,204.0
	49,312.3	47,510.2	45,326.6
Insurance Commissioner¹	1,329.8	1,297.3	1,264.9
Lottery Commission	56.4	53.7	51.0
State Treasurer - Interest earnings	85.8	46.5	13.7
Liquor and Cannabis Surtaxes & Fees²	565.9	543.6	518.9
Office of Financial Management			
Other agencies	223.7	217.1	210.6
Administrative Office of the Courts			
Fines and Forfeitures	139.9	135.6	130.1
Total General Fund - State*	\$51,713.8	\$49,804.1	\$47,515.9
Difference from June 2019 Baseline	\$1,909.7		(\$2,288.2)

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

June 2019 Forecast

(cash basis, millions of dollars)

	Lottery: Total Transfers:*	Mariners General Fund	Mariners Stadium	Exhibition Center & Stadium	Student Achievement Account	School Construction Account	Problem Gambling Account	Economic Development Account	Opportunity Pathways Account	Veteran's VIP Account	Education Legacy Trust Account
2012	135.1	0.0	2.7	10.0	0.0	0.0	0.3	3.3	118.5	0.2	0.0
2013	139.7	0.0	0.0	10.4	0.0	0.0	0.3	3.5	125.5	0.0	0.0
2011-13 Biennium	274.8	0.0	2.7	20.4	0.0	0.0	0.6	6.9	244.0	0.2	0.0
2014	147.9	9.3	0.0	10.8	0.0	0.0	0.3	3.7	113.7	0.0	10.1
2015	143.1	0.6	0.0	11.2	0.0	0.0	0.3	4.7	120.2	0.0	6.1
2013-15 Biennium	291.0	9.9	0.0	22.0	0.0	0.0	0.6	8.4	233.9	0.0	16.1
2016	171.6	17.1	0.0	11.7	0.0	0.0	0.3	3.3	139.1	0.0	0.0
2017	159.7	14.8	0.0	12.2	0.0	0.0	0.3	4.8	126.6	0.0	0.0
2015-17 Biennium	331.2	31.9	0.0	23.8	0.0	0.0	0.7	8.0	265.7	0.0	0.0
2018	183.6	38.5	0.0	12.6	0.0	0.0	0.3	3.5	128.5	0.0	0.0
2019	212.9	39.1	0.0	13.1	0.0	0.0	0.4	5.3	154.9	0.0	0.0
2017-19 Biennium	396.5	77.6	0.0	25.8	0.0	0.0	0.8	8.8	283.5	0.0	0.0
2020	186.8	22.6	0.0	13.7	0.0	0.0	0.4	4.1	146.1	0.0	0.0
2021	188.6	31.2	0.0	14.2	0.0	0.0	0.4	4.2	138.6	0.0	0.0
2019-21 Biennium	375.3	53.7	0.0	27.9	0.0	0.0	0.8	8.3	284.7	0.0	0.0
2022	191.1	34.8	0.0	0.0	0.0	0.0	0.4	4.2	151.7	0.0	0.0
2023	193.6	30.2	0.0	0.0	0.0	0.0	0.4	4.2	158.8	0.0	0.0
2021-23 Biennium	384.7	65.0	0.0	0.0	0.0	0.0	0.8	8.4	310.5	0.0	0.0

Table 3.16

Lottery transfers by fund

June 2019 Forecast

(GAAP basis, millions of dollars)

	Lottery: Total Transfers:*	Mariners General Fund	Mariners Stadium	Exhibition Center & Stadium	Student Achievement Account	School Construction Account	Problem Gambling Account	Economic Development Account	Opportunity Pathways Account	Veteran's VIP Account	Education Legacy Trust Account
2012	138.0	0.0	2.7	10.0	0.0	0.0	0.3	3.0	121.8	0.2	0.0
2013	139.2	9.3	0.0	10.4	0.0	0.0	0.3	3.6	115.5	0.0	0.0
2011-13 Biennium	277.2	9.3	2.7	20.4	0.0	0.0	0.6	6.6	237.4	0.2	0.0
2014	147.7	0.6	0.0	10.8	0.0	0.0	0.3	4.0	121.9	0.0	10.1
2015	141.3	0.0	0.0	11.2	0.0	0.0	0.3	4.7	119.0	0.0	6.1
2013-15 Biennium	288.9	0.6	0.0	22.0	0.0	0.0	0.6	8.7	240.9	0.0	16.1
2016	175.5	31.9	0.0	11.7	0.0	0.0	0.3	2.8	128.7	0.0	0.0
2017	161.9	16.8	0.0	12.2	0.0	0.0	0.3	4.9	126.8	0.0	0.0
2015-17 Biennium	337.4	48.7	0.0	23.8	0.0	0.0	0.7	7.7	255.5	0.0	0.0
2018	183.0	31.2	0.0	12.6	0.0	0.0	0.4	4.6	134.2	0.0	0.0
2019	208.8	31.7	0.0	13.1	0.0	0.0	0.4	4.2	159.4	0.0	0.0
2017-19 Biennium	391.8	62.8	0.0	25.8	0.0	0.0	0.8	8.8	293.5	0.0	0.0
2020	186.4	29.6	0.0	13.7	0.0	0.0	0.4	4.2	138.5	0.0	0.0
2021	188.8	29.7	0.0	14.2	0.0	0.0	0.4	4.2	140.3	0.0	0.0
2019-21 Biennium	375.2	59.3	0.0	27.9	0.0	0.0	0.8	8.4	278.8	0.0	0.0
2022	191.3	29.8	0.0	0.0	0.0	0.0	0.4	4.2	157.0	0.0	0.0
2023	193.8	29.8	0.0	0.0	0.0	0.0	0.4	4.2	159.4	0.0	0.0
2021-23 Biennium	385.1	59.6	0.0	0.0	0.0	0.0	0.8	8.4	316.4	0.0	0.0

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

Source: Lottery Commission, ERFC

Table 3.17

General Fund-State, Education Legacy Trust Account and Opportunity Pathways Account (Near General Fund-State)

History and Forecast by Fiscal Year (Cash basis)

June 2019 - Millions of Dollars

	General Fund-State (GF-S) (current definition)		Education Legacy Trust Fund* (ELTA)		Total GF-S plus ELTA		WA Opportunity Pathways Account (OPA)		Total GF-S plus ELTA and OPA	
	Level	% Chg.	Level	% Chg.	Level	% Chg.	Level	% Chg.	Level	% Chg.
History:										
FY 1999	\$10,414	3.6%			\$10,414	3.6%			\$10,414	3.6%
FY 2000	\$11,068	6.3%			\$11,068	6.3%			\$11,068	6.3%
FY 2001	\$11,560	4.4%			\$11,560	4.4%			\$11,560	4.4%
FY 2002	\$11,632	0.6%			\$11,632	0.6%			\$11,632	0.6%
FY 2003	\$11,721	0.8%			\$11,721	0.8%			\$11,721	0.8%
FY 2004	\$12,358	5.4%			\$12,358	5.4%			\$12,358	5.4%
FY 2005	\$13,036	5.5%			\$13,036	5.5%			\$13,036	5.5%
FY 2006	\$14,318	9.8%	\$115		\$14,432	10.7%			\$14,432	10.7%
FY 2007	\$15,467	8.0%	\$266	132.2%	\$15,734	9.0%			\$15,734	9.0%
FY 2008	\$15,659	1.2%	\$213	-20.1%	\$15,872	0.9%			\$15,872	0.9%
FY 2009	\$14,158	-9.6%	\$224	5.4%	\$14,382	-9.4%			\$14,382	-9.4%
FY 2010	\$13,571	-4.1%	\$157	-29.9%	\$13,728	-4.6%			\$13,728	-4.6%
FY 2011	\$14,648	7.9%	\$112	-29.0%	\$14,759	7.5%	\$99		\$14,859	8.2%
FY 2012	\$14,874	1.5%	\$114	2.3%	\$14,988	1.6%	\$118	19.1%	\$15,107	1.7%
FY 2013	\$15,783	6.1%	\$101	-11.5%	\$15,884	6.0%	\$126	5.9%	\$16,009	6.0%
FY 2014	\$16,383	3.8%	\$197	95.3%	\$16,580	4.4%	\$114	-9.4%	\$16,694	4.3%
FY 2015	\$17,283	5.5%	\$207	5.0%	\$17,491	5.5%	\$120	5.7%	\$17,611	5.5%
FY 2016	\$18,579	7.5%	\$215	3.6%	\$18,793	7.4%	\$139	15.7%	\$18,933	7.5%
FY 2017	\$19,739	6.2%	\$252	17.5%	\$19,991	6.4%	\$127	-9.0%	\$20,118	6.3%
FY 2018	\$21,712	10.0%	\$302	19.6%	\$22,014	10.1%	\$129	1.5%	\$22,143	10.1%
Forecast:										
FY 2019	\$22,330	2.8%	\$1,432	374.4%	\$23,761	7.9%	\$155	20.5%	\$23,916	8.0%
FY 2020	\$24,316	8.9%	\$398	-72.2%	\$24,714	4.0%	\$146	-5.7%	\$24,860	3.9%
FY 2021	\$25,488	4.8%	\$501	26.1%	\$25,989	5.2%	\$139	-5.1%	\$26,128	5.1%
FY 2022	\$26,373	3.5%	\$514	2.5%	\$26,886	3.5%	\$152	9.4%	\$27,038	3.5%
FY 2023	\$27,311	3.6%	\$528	2.9%	\$27,839	3.5%	\$159	4.7%	\$27,998	3.5%
Biennial Totals										
05-07 Biennium	\$29,785	17.3%	\$381	NA	\$30,166	18.8%	\$0	NA	\$30,166	18.8%
07-09 Biennium	\$29,817	0.1%	\$437	14.8%	\$30,254	0.3%	\$0	NA	\$30,254	0.3%
09-11 Biennium	\$28,218	-5.4%	\$269	-38.5%	\$28,487	-5.8%	\$99	NA	\$28,586	-5.5%
11-13 Biennium	\$30,657	8.6%	\$215	-19.9%	\$30,872	8.4%	\$244	145.2%	\$31,116	8.8%
13-15 Biennium	\$33,666	9.8%	\$405	88.0%	\$34,071	10.4%	\$234	-4.1%	\$34,305	10.2%
15-17 Biennium	\$38,317	13.8%	\$467	15.4%	\$38,785	13.8%	\$266	13.6%	\$39,050	13.8%
17-19 Biennium	\$44,042	14.9%	\$1,734	271.1%	\$45,776	18.0%	\$283	6.7%	\$46,059	17.9%
19-21 Biennium	\$49,804	13.1%	\$899	-48.2%	\$50,703	10.8%	\$285	0.4%	\$50,988	10.7%
21-23 Biennium	\$53,683	7.8%	\$1,042	15.9%	\$54,725	7.9%	\$311	9.1%	\$55,036	7.9%

*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
 June 2019
 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						
				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	General Fund-State*
2015	\$67,486	\$22,074	\$45,412	\$5,166	\$0	\$0	\$22,706	\$2,271	\$0	\$15,269
2016	\$168,051	\$8,551	\$159,500	\$12,814	\$7,500	\$345	\$79,750	\$7,791	\$251	\$51,049
2017	\$300,635	\$9,201	\$291,434	\$27,786	\$7,500	\$345	\$145,717	\$12,979	\$511	\$96,596
2018	\$360,608	\$13,772	\$346,836	\$27,786	\$9,761	\$365	\$173,418	\$17,616	\$513	\$117,377
2019	\$391,191	\$14,558	\$376,633	\$0	\$9,764	\$365	\$188,317	\$46,191	\$515	\$131,482
2020	\$397,283	\$16,906	\$380,377	\$0	\$10,786	\$377	\$190,188	\$46,741	\$522	\$131,762
2021	\$403,721	\$15,967	\$387,754	\$0	\$10,616	\$387	\$193,877	\$47,134	\$530	\$135,210
2022	\$412,266	\$15,695	\$396,571	\$0	\$10,616	\$387	\$198,285	\$47,834	\$530	\$138,918
2023	\$425,071	\$15,696	\$409,375	\$0	\$10,616	\$387	\$204,688	\$47,834	\$530	\$145,321
Biennial totals										
2013-15	\$67,486	\$22,074	\$45,412	\$5,166	\$0	\$0	\$22,706	\$2,271	\$0	\$15,269
2015-17	\$468,686	\$17,752	\$450,934	\$40,600	\$15,000	\$690	\$225,467	\$20,770	\$762	\$147,645
2017-19	\$751,799	\$28,330	\$723,469	\$27,786	\$19,525	\$730	\$361,735	\$63,807	\$1,028	\$248,859
2019-21	\$801,004	\$32,873	\$768,131	\$0	\$21,402	\$764	\$384,065	\$93,875	\$1,052	\$266,972
2021-23	\$837,337	\$31,391	\$805,946	\$0	\$21,232	\$774	\$402,973	\$95,668	\$1,060	\$284,239

*Before distributions to local governments

Table 3.19

Revenue legislation, budget driven revenue and other legislation affecting revenue

Passed in the 2019 Legislative Session (subsequent to March 2019 forecast)

(Millions of dollars)

Bill title (Number)	Tax Type/Fee	FY19	FY20	FY21	FY22	FY23
2019 Other legislation - General Fund-State						
Service contract providers (1001)	GFS		0.002	0.004	0.006	0.007
Tobacco & vapor products/age (1074)	GFS		-2.739	-6.162	-6.093	-5.984
Nonprofit Homeownership dev (1107)	GFS		-0.009	-0.034	-0.049	-0.049
Energy efficiency (1257)	GFS					-3.193
Arenas/leashold excise tax (1301)	GFS		-0.006	-0.022	-0.022	-0.022
Affordable Housing-sales tax (1406)	GFS		-25.000	-26.000	-26.000	-27.000
Paint stewardship (1652)	GFS			0.301	0.640	0.659
Arena projects (1839)	GFS		-22.863	-17.772	-0.200	44.990
Vapor Product Taxation (1873)	GFS		0.488	0.928	0.771	0.771
Medicaid incentive payments (2024)	GFS		-0.139	-0.132	-0.124	-0.124
Hospital Tax Preference (2168)	GFS		-6.840	-7.760	-8.090	-8.430
Self-help Housing Dev/Taxes (5025)	GFS		-0.097	-0.084	-0.084	-0.084
Renewable energy M&E extension (5116)	GFS		-4.831	-6.004	-6.539	-7.135
Sr's Disab. Vets/Prop Tx Ex (5160)	GFS		-6.900	-13.300	-13.600	-13.700
Manufactured mobile homes (5183)	GFS		-0.058	-0.093	-0.100	-0.101
Tiny Houses (5383)	GFS		0.025	0.049	0.049	0.049
Health science & service authority (5596)	GFS					-1.123
Total Other legislation-fiscal year-GFS		0.000	-68.967	-76.081	-59.435	-20.469
Biennium totals		0.000		-145.048		-79.904
2019 Other legislation - Education Legacy Trust Account						
Self-help Housing Dev/Taxes (5025)			-0.012	-0.019	-0.019	-0.019
Biennium totals		0.000		-0.031		-0.038
2018 Budget driven revenue						
Liquor Control Board (Liquor)	GFS		-5.523	-4.062	0.148	1.272
Liquor Control Board (Marijuana)	GFS		-3.014	-3.270	-3.041	-4.018
Lottery	GFS		-0.003	-0.568	-0.962	-0.942
Vessel renewal	GFS		0.807	0.815	0.815	0.815
Payment in lieu of taxes (DFW)	GFS		-1.996	-1.997		
Tota budget driven revenue-fiscal year-GFS		-2.210	-10.542	-9.247	-3.329	-2.873
Biennium totals		-2.210		-19.789		-6.202
2019 Revenue legislation - General Fund-State						
K-12 education funding (2140)	GFS	-84.716				
Specified financial institutions (2167)	GFS		36.600	96.600	100.700	104.900
State Tax Laws (5581) <i>(included in the March forecast)</i>	GFS					
Tax Preferences (5997)	GFS		25.423	28.414	29.112	29.810
Graduated REET (5998)	GFS		6.700	16.300	16.600	15.900
Travel Agents & Tour Ops/Tax (6004)	GFS		2.200	2.500	2.600	2.700
International investment management (6016)	GFS		27.669	31.748	32.210	33.910
Subtotal GFS		-84.716	98.592	175.562	181.222	187.220
Biennium totals		-84.716		274.154		368.442
2019 Revenue legislation - Education Legacy Trust Account						
Graduated REET (5998)	ELTA (08A)		63.600	156.900	159.300	163.000
K-12 education funding (2140)	ELTA (08A)	84.716				
Subtotal ELTA (08A)		84.716	63.600	156.900	159.300	163.000
Biennium totals		84.716		220.500		322.300
Total revenue legislation-GFS and ELTA		0.000	162.192	332.462	340.522	350.220
Biennium totals		0.000		494.654		690.742

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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.

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Table A1.1
U.S. Economic Forecast Summary
Forecast 2019 to 2023

	2016	2017	2018	2019	2020	2021	2022	2023
Real National Income Accounts (Billions of Chained 2012 Dollars)								
Real Gross Domestic Product	17,659.2	18,050.7	18,566.4	19,033.6	19,376.2	19,705.6	20,080.0	20,481.6
% Ch	1.6	2.2	2.9	2.5	1.8	1.7	1.9	2.0
Real Consumption	12,248.2	12,558.7	12,887.6	13,192.8	13,468.8	13,724.7	13,999.2	14,279.2
% Ch	2.7	2.5	2.6	2.4	2.1	1.9	2.0	2.0
Real Nonresidential Fixed Investment	2,411.2	2,538.1	2,713.6	2,785.9	2,858.1	2,959.9	3,083.8	3,233.4
% Ch	0.5	5.3	6.9	2.7	2.6	3.6	4.2	4.8
Real Residential Fixed Investment	591.3	611.1	609.2	593.8	590.7	591.4	604.3	611.9
% Ch	6.5	3.3	-0.3	-2.5	-0.5	0.1	2.2	1.3
Real Personal Income	15,469.7	15,866.8	16,232.9	16,635.9	17,071.3	17,491.0	17,914.6	18,356.3
% Ch	1.5	2.6	2.3	2.5	2.6	2.5	2.4	2.5
Real Per Capita Income (\$/Person)	47,752	48,630	49,401	50,261	51,213	52,107	53,002	53,941
% Ch	0.8	1.8	1.6	1.7	1.9	1.7	1.7	1.8
Price and Wage Indexes								
PCE Price Index (2012=100)	104.2	106.1	108.2	109.8	111.8	114.0	116.2	118.4
% Ch	1.1	1.8	2.0	1.5	1.8	1.9	1.9	1.9
U.S. Consumer Price Index (1982-84=1.0)	2.400	2.451	2.511	2.555	2.603	2.656	2.712	2.770
% Ch	1.3	2.1	2.4	1.8	1.9	2.0	2.1	2.1
Employment Cost Index (Dec. 2005=1.0)	1.262	1.295	1.334	1.373	1.418	1.466	1.517	1.570
% Ch	2.4	2.6	3.0	3.0	3.2	3.4	3.5	3.5
Current Dollar National Income (Billions of Dollars)								
Gross Domestic Product	18,707.2	19,485.4	20,494.1	21,356.7	22,214.3	23,109.9	24,092.9	25,134.3
% Ch	2.7	4.2	5.2	4.2	4.0	4.0	4.3	4.3
Personal Income	16,125.1	16,830.9	17,569.5	18,270.0	19,090.5	19,935.8	20,813.0	21,738.8
% Ch	2.6	4.4	4.4	4.0	4.5	4.4	4.4	4.4
Employment (Millions)								
U.S. Civilian Labor Force	159.2	160.3	162.1	163.3	165.0	166.3	167.4	168.4
Total U.S. Employment	151.4	153.3	155.8	157.4	159.0	159.9	160.9	161.7
Unemployment Rate (%)	4.87	4.35	3.89	3.61	3.59	3.79	3.91	4.00
Nonfarm Payroll Employment	144.35	146.61	149.06	151.57	153.23	154.09	155.02	155.90
% Ch	1.8	1.6	1.7	1.7	1.1	0.6	0.6	0.6
Manufacturing	12.35	12.44	12.69	12.84	12.77	12.64	12.56	12.55
% Ch	0.1	0.7	2.0	1.2	-0.5	-1.1	-0.6	0.0
Durable Manufacturing	7.71	7.74	7.94	8.06	8.04	7.96	7.91	7.94
% Ch	-0.7	0.3	2.7	1.5	-0.2	-1.1	-0.6	0.3
Nondurable Manufacturing	4.64	4.70	4.74	4.77	4.73	4.68	4.65	4.61
% Ch	1.5	1.3	0.9	0.6	-1.0	-1.1	-0.7	-0.7
Construction	6.73	6.97	7.29	7.51	7.60	7.72	7.89	8.09
% Ch	4.1	3.6	4.6	3.1	1.1	1.5	2.2	2.6
Service-Providing	124.60	126.53	128.36	130.47	132.10	132.98	133.80	134.48
% Ch	1.9	1.5	1.4	1.6	1.3	0.7	0.6	0.5
Miscellaneous Indicators								
Oil-WTI (\$ per barrel)	43.2	51.0	64.9	54.6	51.8	51.1	51.3	51.9
Personal Saving/Disposable Income (%)	6.7	6.7	6.7	6.4	6.7	7.2	7.4	7.7
Auto Sales (Millions)	6.9	6.1	5.3	4.9	4.9	4.8	4.9	5.0
% Ch	-8.6	-11.5	-12.8	-8.5	0.0	-0.5	0.8	2.4
Housing Starts (Millions)	1.178	1.209	1.250	1.213	1.248	1.258	1.307	1.309
% Ch	6.4	2.6	3.4	-3.0	2.9	0.8	3.9	0.2
Federal Budget Surplus (Billions)	-665.1	-695.4	-985.9	-1,068.5	-1,091.0	-1,133.9	-1,170.7	-1,183.6
Net Exports (Billions)	-520.6	-578.4	-625.4	-592.1	-529.3	-486.0	-460.0	-414.4
3-Month Treasury Bill Rate (%)	0.32	0.93	1.94	2.37	2.22	2.15	2.14	2.37
10-Year Treasury Note Yield (%)	1.84	2.33	2.91	2.41	2.54	2.92	3.14	3.23
Bond Index of 20 G.O. Munis. (%)	3.27	3.67	3.96	3.91	4.13	4.44	4.63	4.72
30-Year Fixed Mortgage Rate (%)	3.65	3.99	4.54	4.13	4.25	4.55	4.73	4.83

Table A1.2
U.S. Economic Forecast Summary
 Forecast 2019 to 2023

	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4
Real National Income Accounts (Billions of Chained 2012 Dollars)								
Real Gross Domestic Product	18,324.0	18,511.6	18,665.0	18,765.3	18,907.5	18,983.6	19,076.3	19,167.0
% Ch , Annual Rate	2.2	4.2	3.4	2.2	3.1	1.6	2.0	1.9
Real Consumption	12,722.8	12,842.0	12,953.3	13,032.3	13,075.1	13,161.3	13,231.9	13,302.8
% Ch , Annual Rate	0.5	3.8	3.5	2.5	1.3	2.7	2.2	2.2
Real Nonresidential Fixed Investment	2,654.0	2,710.1	2,727.0	2,763.3	2,778.9	2,771.4	2,786.9	2,806.5
% Ch , Annual Rate	11.5	8.7	2.5	5.4	2.3	-1.1	2.3	2.8
Real Residential Fixed Investment	615.3	613.2	607.7	600.4	595.1	593.6	592.4	593.9
% Ch , Annual Rate	-3.4	-1.3	-3.6	-4.7	-3.5	-1.0	-0.8	1.0
Real Personal Income	16,107.2	16,165.1	16,277.9	16,381.2	16,497.7	16,575.1	16,679.5	16,791.2
% Ch , Annual Rate	2.6	1.4	2.8	2.6	2.9	1.9	2.5	2.7
Real Per Capita Income (\$/Person)	49,157	49,246	49,488	49,713	49,977	50,122	50,348	50,596
% Ch , Annual Rate	2.0	0.7	2.0	1.8	2.1	1.2	1.8	2.0
Price and Wage Indexes								
PCE Price Index (2012=100)	107.5	108.1	108.5	108.9	109.0	109.6	110.1	110.6
% Ch , Annual Rate	2.5	2.0	1.6	1.5	0.4	2.5	1.7	1.6
U.S. Consumer Price Index (1982-84=1.0)	2.493	2.506	2.518	2.528	2.533	2.552	2.562	2.573
% Ch , Annual Rate	3.2	2.1	2.0	1.5	0.9	3.1	1.6	1.6
Employment Cost Index (Dec. 2005=1.0)	1.320	1.328	1.339	1.348	1.359	1.368	1.378	1.389
% Ch , Annual Rate	4.0	2.4	3.4	2.7	3.3	2.6	3.0	3.3
Current Dollar National Income (Billions of Dollars)								
Gross Domestic Product	20,041.0	20,411.9	20,658.2	20,865.1	21,048.8	21,251.2	21,464.8	21,662.0
% Ch , Annual Rate	4.3	7.6	4.9	4.1	3.6	3.9	4.1	3.7
Personal Income	17,319.2	17,466.7	17,657.3	17,835.0	17,978.7	18,173.2	18,365.1	18,563.0
% Ch , Annual Rate	5.2	3.5	4.4	4.1	3.3	4.4	4.3	4.4
Employment (Millions)								
U.S. Civilian Labor Force	161.6	161.8	162.0	162.9	163.1	162.9	163.4	163.7
Total U.S. Employment	155.0	155.4	155.9	156.8	156.8	157.0	157.6	158.1
Unemployment Rate (%)	4.09	3.91	3.79	3.77	3.88	3.59	3.50	3.45
Nonfarm Payroll Employment	148.05	148.74	149.41	150.06	150.69	151.36	151.91	152.32
% Ch , Annual Rate	1.8	1.9	1.8	1.7	1.7	1.8	1.5	1.1
Manufacturing	12.59	12.66	12.72	12.79	12.83	12.85	12.82	12.83
% Ch , Annual Rate	2.3	2.3	1.9	2.2	1.4	0.6	-0.8	0.3
Durable Manufacturing	7.86	7.92	7.97	8.02	8.06	8.07	8.05	8.07
% Ch , Annual Rate	3.4	3.0	2.7	2.4	1.8	0.6	-0.7	0.9
Nondurable Manufacturing	4.73	4.74	4.74	4.77	4.77	4.78	4.77	4.76
% Ch , Annual Rate	0.5	1.0	0.6	1.8	0.8	0.7	-0.9	-0.6
Construction	7.18	7.26	7.33	7.39	7.45	7.50	7.54	7.57
% Ch , Annual Rate	6.7	4.8	4.0	3.1	3.3	3.0	1.8	1.5
Service-Providing	127.58	128.09	128.62	129.13	129.65	130.26	130.80	131.16
% Ch , Annual Rate	1.4	1.6	1.6	1.6	1.6	1.9	1.7	1.1
Miscellaneous Indicators								
Oil-WTI (\$ per barrel)	62.9	68.0	69.8	58.9	54.8	59.0	52.1	52.4
Personal Saving/Disposable Income (%)	7.2	6.7	6.4	6.5	6.7	6.3	6.3	6.4
Auto Sales (Millions)	5.4	5.3	5.1	5.3	5.0	4.8	4.7	4.9
% Ch , Annual Rate	-32.1	-8.8	-13.4	16.4	-22.6	-16.3	-4.7	17.5
Housing Starts (Millions)	1.321	1.260	1.233	1.185	1.203	1.209	1.213	1.225
% Ch , Annual Rate	20.8	-17.2	-8.2	-14.7	6.1	2.1	1.3	4.2
Federal Budget Surplus (Billions)	-969.9	-993.7	-960.6	-1,019.5	-1,095.2	-1,064.4	-1,052.3	-1,062.1
Net Exports (Billions)	-639.2	-549.8	-653.5	-658.9	-607.2	-595.0	-585.8	-580.3
3-Month Treasury Bill Rate (%)	1.56	1.84	2.04	2.32	2.39	2.39	2.38	2.31
10-Year Treasury Note Yield (%)	2.76	2.92	2.93	3.03	2.65	2.41	2.29	2.27
Bond Index of 20 G.O. Munis. (%)	3.73	3.89	3.97	4.25	4.13	3.72	3.85	3.92
30-Year Fixed Mortgage Rate (%)	4.27	4.54	4.57	4.78	4.38	4.08	4.03	4.03

Table A1.2 (continued)
U.S. Economic Forecast Summary
 Forecast 2019 to 2023

	2020:1	2020:2	2020:3	2020:4	2021:1	2021:2	2021:3	2021:4
Real National Income Accounts (Billions of Chained 2012 Dollars)								
Real Gross Domestic Product	19,255.6	19,338.4	19,415.2	19,495.6	19,579.7	19,660.9	19,745.7	19,836.0
% Ch , Annual Rate	1.9	1.7	1.6	1.7	1.7	1.7	1.7	1.8
Real Consumption	13,377.2	13,442.9	13,500.0	13,555.0	13,623.3	13,690.9	13,758.3	13,826.2
% Ch , Annual Rate	2.3	2.0	1.7	1.6	2.0	2.0	2.0	2.0
Real Nonresidential Fixed Investment	2,821.4	2,839.9	2,870.3	2,900.8	2,923.3	2,946.1	2,971.3	2,999.0
% Ch , Annual Rate	2.1	2.6	4.4	4.3	3.1	3.2	3.5	3.8
Real Residential Fixed Investment	592.9	589.9	588.4	591.6	590.8	588.8	590.5	595.3
% Ch , Annual Rate	-0.7	-2.0	-1.1	2.2	-0.6	-1.3	1.2	3.3
Real Personal Income	16,906.5	17,022.7	17,129.8	17,226.4	17,342.2	17,440.7	17,540.0	17,641.1
% Ch , Annual Rate	2.8	2.8	2.5	2.3	2.7	2.3	2.3	2.3
Real Per Capita Income (\$/Person)	50,853	51,112	51,344	51,543	51,799	52,002	52,208	52,418
% Ch , Annual Rate	2.1	2.1	1.8	1.6	2.0	1.6	1.6	1.6
Price and Wage Indexes								
PCE Price Index (2012=100)	111.1	111.6	112.1	112.6	113.2	113.7	114.2	114.8
% Ch , Annual Rate	1.9	1.8	1.8	1.9	2.0	2.0	1.9	2.0
U.S. Consumer Price Index (1982-84=1.0)	2.586	2.597	2.609	2.620	2.635	2.649	2.663	2.677
% Ch , Annual Rate	2.0	1.7	1.8	1.8	2.2	2.2	2.1	2.1
Employment Cost Index (Dec. 2005=1.0)	1.401	1.413	1.424	1.435	1.448	1.460	1.472	1.485
% Ch , Annual Rate	3.3	3.5	3.2	3.3	3.5	3.4	3.5	3.4
Current Dollar National Income (Billions of Dollars)								
Gross Domestic Product	21,885.5	22,109.3	22,318.9	22,543.8	22,769.1	22,989.5	23,219.7	23,461.2
% Ch , Annual Rate	4.2	4.2	3.8	4.1	4.1	3.9	4.1	4.2
Personal Income	18,778.3	18,992.1	19,196.8	19,394.8	19,623.0	19,830.6	20,038.0	20,251.6
% Ch , Annual Rate	4.7	4.6	4.4	4.2	4.8	4.3	4.2	4.3
Employment (Millions)								
U.S. Civilian Labor Force	164.3	165.0	165.1	165.4	165.8	166.1	166.4	166.7
Total U.S. Employment	158.5	159.1	159.1	159.3	159.6	159.8	160.1	160.3
Unemployment Rate (%)	3.51	3.56	3.62	3.68	3.73	3.78	3.81	3.85
Nonfarm Payroll Employment	152.74	153.29	153.37	153.51	153.73	153.98	154.21	154.44
% Ch , Annual Rate	1.1	1.5	0.2	0.4	0.6	0.6	0.6	0.6
Manufacturing	12.84	12.80	12.74	12.70	12.67	12.65	12.62	12.59
% Ch , Annual Rate	0.3	-1.5	-1.7	-1.3	-0.8	-0.8	-0.8	-0.9
Durable Manufacturing	8.09	8.06	8.02	8.00	7.98	7.97	7.95	7.93
% Ch , Annual Rate	1.1	-1.6	-1.9	-1.2	-0.7	-0.7	-0.8	-1.1
Nondurable Manufacturing	4.75	4.73	4.72	4.70	4.69	4.68	4.67	4.66
% Ch , Annual Rate	-1.0	-1.4	-1.4	-1.4	-0.9	-0.9	-0.8	-0.7
Construction	7.57	7.58	7.60	7.64	7.67	7.70	7.73	7.77
% Ch , Annual Rate	0.3	0.7	1.0	1.9	1.8	1.3	1.6	2.1
Service-Providing	131.57	132.16	132.26	132.41	132.63	132.87	133.10	133.31
% Ch , Annual Rate	1.2	1.8	0.3	0.4	0.7	0.7	0.7	0.6
Miscellaneous Indicators								
Oil-WTI (\$ per barrel)	52.2	51.9	51.6	51.4	51.2	51.1	51.1	51.1
Personal Saving/Disposable Income (%)	6.5	6.7	6.8	6.9	7.1	7.1	7.2	7.2
Auto Sales (Millions)	4.9	4.9	4.8	4.8	4.8	4.8	4.8	4.8
% Ch , Annual Rate	-3.5	-1.6	-0.4	-1.3	-0.6	-0.1	0.5	0.3
Housing Starts (Millions)	1.236	1.239	1.254	1.262	1.239	1.247	1.264	1.281
% Ch , Annual Rate	3.5	1.2	4.8	2.7	-7.2	2.6	5.7	5.6
Federal Budget Surplus (Billions)	-1,077.4	-1,093.4	-1,095.1	-1,098.1	-1,122.6	-1,131.2	-1,137.0	-1,145.0
Net Exports (Billions)	-563.6	-539.1	-519.0	-495.6	-491.4	-489.9	-484.6	-478.2
3-Month Treasury Bill Rate (%)	2.26	2.23	2.19	2.18	2.16	2.15	2.15	2.14
10-Year Treasury Note Yield (%)	2.37	2.49	2.60	2.71	2.81	2.89	2.97	3.03
Bond Index of 20 G.O. Munis. (%)	4.00	4.08	4.17	4.26	4.34	4.40	4.47	4.53
30-Year Fixed Mortgage Rate (%)	4.11	4.21	4.30	4.38	4.46	4.53	4.59	4.63

Table A1.2 (continued)
U.S. Economic Forecast Summary
Forecast 2019 to 2023

	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	19,930.2	20,029.5	20,130.9	20,229.4	20,331.3	20,430.7	20,530.4	20,634.0
% Ch , Annual Rate	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Real Consumption	13,894.9	13,964.6	14,033.9	14,103.4	14,173.2	14,243.6	14,314.3	14,385.6
% Ch , Annual Rate	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Real Nonresidential Fixed Investment	3,030.6	3,065.0	3,101.3	3,138.5	3,177.6	3,214.8	3,252.0	3,289.2
% Ch , Annual Rate	4.3	4.6	4.8	4.9	5.1	4.8	4.7	4.7
Real Residential Fixed Investment	599.8	603.3	606.3	608.0	609.6	611.0	612.4	614.6
% Ch , Annual Rate	3.0	2.4	2.0	1.1	1.0	1.0	0.9	1.4
Real Personal Income	17,759.8	17,862.7	17,966.0	18,070.1	18,195.3	18,301.2	18,408.9	18,519.7
% Ch , Annual Rate	2.7	2.3	2.3	2.3	2.8	2.3	2.4	2.4
Real Per Capita Income (\$/Person)	52,680	52,894	53,109	53,326	53,604	53,825	54,051	54,285
% Ch , Annual Rate	2.0	1.6	1.6	1.6	2.1	1.7	1.7	1.7
Price and Wage Indexes								
PCE Price Index (2012=100)	115.3	115.9	116.4	117.0	117.6	118.1	118.7	119.3
% Ch , Annual Rate	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0
U.S. Consumer Price Index (1982-84=1.0)	2.691	2.705	2.719	2.733	2.748	2.762	2.777	2.792
% Ch , Annual Rate	2.1	2.1	2.1	2.1	2.2	2.0	2.2	2.2
Employment Cost Index (Dec. 2005=1.0)	1.498	1.511	1.523	1.536	1.550	1.563	1.577	1.591
% Ch , Annual Rate	3.5	3.5	3.4	3.5	3.6	3.5	3.6	3.6
Current Dollar National Income (Billions of Dollars)								
Gross Domestic Product	23,709.0	23,963.6	24,221.2	24,477.8	24,741.0	25,000.2	25,263.1	25,533.0
% Ch , Annual Rate	4.3	4.4	4.4	4.3	4.4	4.3	4.3	4.3
Personal Income	20,485.2	20,702.4	20,921.2	21,143.3	21,393.2	21,619.5	21,852.0	22,090.4
% Ch , Annual Rate	4.7	4.3	4.3	4.3	4.8	4.3	4.4	4.4
Employment (Millions)								
U.S. Civilian Labor Force	167.0	167.3	167.6	167.8	168.1	168.3	168.5	168.8
Total U.S. Employment	160.5	160.8	161.0	161.2	161.4	161.6	161.8	162.0
Unemployment Rate (%)	3.89	3.90	3.92	3.94	3.96	3.98	4.01	4.04
Nonfarm Payroll Employment	154.66	154.90	155.14	155.38	155.60	155.82	156.00	156.19
% Ch, Annual Rate	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5
Manufacturing	12.58	12.55	12.55	12.55	12.55	12.55	12.55	12.55
% Ch, Annual Rate	-0.6	-0.7	-0.2	0.0	0.0	0.0	0.1	-0.1
Durable Manufacturing	7.92	7.91	7.91	7.91	7.92	7.93	7.94	7.95
% Ch, Annual Rate	-0.5	-0.7	0.0	0.4	0.4	0.4	0.6	0.4
Nondurable Manufacturing	4.66	4.65	4.64	4.64	4.63	4.62	4.61	4.60
% Ch, Annual Rate	-0.7	-0.7	-0.5	-0.6	-0.6	-0.7	-0.8	-0.9
Construction	7.82	7.86	7.91	7.96	8.01	8.07	8.12	8.17
% Ch, Annual Rate	2.5	2.5	2.4	2.5	2.6	2.7	2.7	2.7
Service-Providing	133.50	133.71	133.91	134.09	134.26	134.42	134.55	134.68
% Ch, Annual Rate	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4
Miscellaneous Indicators								
Oil-WTI (\$ per barrel)	51.1	51.2	51.4	51.6	51.7	51.8	52.0	52.3
Personal Saving/Disposable Income (%)	7.4	7.4	7.5	7.5	7.6	7.7	7.7	7.7
Auto Sales (Millions)	4.8	4.8	4.9	4.9	4.9	5.0	5.0	5.0
% Ch, Annual Rate	0.8	0.5	1.4	3.1	2.3	2.1	3.5	2.3
Housing Starts (Millions)	1.305	1.308	1.308	1.309	1.310	1.309	1.309	1.309
% Ch, Annual Rate	7.5	0.9	0.0	0.3	0.3	-0.1	0.0	-0.2
Federal Budget Surplus (Billions)	-1,167.5	-1,171.0	-1,172.4	-1,171.7	-1,184.7	-1,184.1	-1,182.0	-1,183.7
Net Exports (Billions)	-472.2	-464.8	-457.2	-445.7	-431.8	-419.1	-407.8	-399.0
3-Month Treasury Bill Rate (%)	2.14	2.15	2.14	2.14	2.37	2.38	2.37	2.36
10-Year Treasury Note Yield (%)	3.08	3.13	3.17	3.20	3.22	3.24	3.23	3.23
Bond Index of 20 G.O. Munis. (%)	4.58	4.61	4.65	4.68	4.70	4.72	4.73	4.73
30-Year Fixed Mortgage Rate (%)	4.67	4.71	4.75	4.78	4.82	4.83	4.84	4.84

Table A1.3
Washington Economic Forecast Summary
Forecast 2019 to 2023

	2016	2017	2018	2019	2020	2021	2022	2023
Real Income (Billions of Chained 2012 Dollars)								
Real Personal Income	387.805	404.211	423.838	438.116	451.347	464.512	477.648	491.807
% Ch	4.0	4.2	4.9	3.4	3.0	2.9	2.8	3.0
Real Wage and Salary Disb.	195.037	205.585	219.383	227.949	234.527	240.962	247.867	255.871
% Ch	5.0	5.4	6.7	3.9	2.9	2.7	2.9	3.2
Real Nonwage Income	192.768	198.625	204.454	210.167	216.820	223.549	229.780	235.936
% Ch	3.0	3.0	2.9	2.8	3.2	3.1	2.8	2.7
Real Per Capita Income (\$/Person)	53,155	54,447	56,238	57,262	58,145	59,046	59,947	60,981
% Ch	2.1	2.4	3.3	1.8	1.5	1.5	1.5	1.7
Price and Wage Indexes								
U.S. Implicit Price Deflator, PCE (2012=1.0)	1.042	1.061	1.082	1.098	1.118	1.140	1.162	1.184
% Ch	1.1	1.8	2.0	1.5	1.8	1.9	1.9	1.9
Seattle Cons. Price Index (1982-84=1.0)	2.550	2.628	2.711	2.786	2.843	2.900	2.962	3.025
% Ch	2.3	3.0	3.2	2.8	2.0	2.0	2.1	2.1
Average Nonfarm Annual Wage	60,530	63,583	67,617	69,822	72,036	74,608	77,401	80,643
% Ch	3.0	5.0	6.3	3.3	3.2	3.6	3.7	4.2
Avg. Hourly Earnings-Mfg. (\$/Hour)	26.42	27.37	28.42	29.36	30.22	31.20	32.22	33.30
% Ch	3.5	3.6	3.8	3.3	2.9	3.2	3.3	3.4
Current Dollar Income (Billions of Dollars)								
Personal Income	404.232	428.765	458.727	481.149	504.734	529.440	554.930	582.435
% Ch	5.1	6.1	7.0	4.9	4.9	4.9	4.8	5.0
Disposable Personal Income	355.241	376.933	405.262	424.348	444.874	466.580	488.622	511.890
% Ch	5.3	6.1	7.5	4.7	4.8	4.9	4.7	4.8
Per Capita Income (\$/Person)	55,405	57,753	60,866	62,884	65,022	67,298	69,645	72,217
% Ch	3.2	4.2	5.4	3.3	3.4	3.5	3.5	3.7
Employment (Thousands)								
Washington Civilian Labor Force	3,643.9	3,719.3	3,790.5	3,880.9	3,950.1	4,005.7	4,057.3	4,104.2
Total Washington Employment	3,451.3	3,543.9	3,620.3	3,703.4	3,766.9	3,814.0	3,859.5	3,901.5
Unemployment Rate (%)	5.29	4.72	4.49	4.57	4.64	4.79	4.88	4.94
Nonfarm Payroll Employment	3,242.8	3,321.2	3,404.8	3,478.2	3,532.9	3,572.8	3,611.9	3,649.0
% Ch	3.1	2.4	2.5	2.2	1.6	1.1	1.1	1.0
Manufacturing	290.4	284.2	287.5	292.3	292.2	292.1	293.5	296.3
% Ch	-0.7	-2.1	1.2	1.7	0.0	0.0	0.5	0.9
Durable Manufacturing	207.7	200.3	202.1	206.1	206.5	206.6	207.8	210.3
% Ch	-1.7	-3.5	0.9	2.0	0.2	0.0	0.6	1.2
Aerospace	91.0	84.2	84.0	87.6	87.8	87.8	87.8	87.8
% Ch	-3.2	-7.5	-0.3	4.3	0.3	0.0	0.0	0.0
Nondurable Manufacturing	82.7	83.9	85.4	86.2	85.7	85.5	85.7	86.0
% Ch	2.0	1.4	1.8	0.8	-0.6	-0.2	0.2	0.3
Construction	186.6	199.8	213.4	222.2	219.8	217.6	216.9	217.3
% Ch	7.7	7.0	6.8	4.1	-1.0	-1.0	-0.3	0.2
Service-Providing	2,759.5	2,831.0	2,897.5	2,957.4	3,014.4	3,056.7	3,095.0	3,128.9
% Ch	3.2	2.6	2.4	2.1	1.9	1.4	1.3	1.1
Software Publishers	58.9	61.4	65.3	68.2	68.8	69.7	70.8	72.0
% Ch	5.3	4.2	6.4	4.5	0.9	1.3	1.5	1.7
Electronic Shopping and Mail-Order	38.2	49.7	54.8	60.1	63.2	65.6	67.6	69.3
% Ch	26.6	30.1	10.3	9.6	5.2	3.8	3.0	2.5
Housing Indicators (Thousands)								
Housing Units Authorized by Bldg. Permit	44.077	45.794	47.356	43.725	42.021	41.805	42.095	41.769
% Ch	9.2	3.9	3.4	-7.7	-3.9	-0.5	0.7	-0.8
Single-Family	22.463	23.115	23.356	21.998	22.906	23.279	24.054	24.141
% Ch	13.5	2.9	1.0	-5.8	4.1	1.6	3.3	0.4
Multi-Family	21.614	22.679	24.000	21.727	19.114	18.527	18.042	17.628
% Ch	5.0	4.9	5.8	-9.5	-12.0	-3.1	-2.6	-2.3
30-Year Fixed Mortgage Rate (%)	3.65	3.99	4.54	4.13	4.25	4.55	4.73	4.83

Table A1.4
Washington Economic Forecast Summary
Forecast 2019 to 2023

	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4
Real Income (Billions of Chained 2012 Dollars)								
Real Personal Income	419.875	421.254	424.441	429.781	434.565	436.250	439.108	442.542
% Ch, Annual Rate	9.5	1.3	3.1	5.1	4.5	1.6	2.6	3.2
Real Wage and Salary Disb.	217.736	217.680	219.459	222.657	226.257	226.661	228.525	230.353
% Ch, Annual Rate	17.5	-0.1	3.3	6.0	6.6	0.7	3.3	3.2
Real Nonwage Income	202.138	203.573	204.982	207.124	208.308	209.589	210.583	212.188
% Ch, Annual Rate	1.6	2.9	2.8	4.2	2.3	2.5	1.9	3.1
Real Per Capita Income (\$/Person)	56,024	56,007	56,215	56,708	57,121	57,124	57,283	57,518
% Ch, Annual Rate	8.0	-0.1	1.5	3.6	2.9	0.0	1.1	1.7
Price and Wage Indexes								
U.S. Implicit Price Deflator, PCE (2012=1.0)	1.075	1.080	1.085	1.089	1.090	1.096	1.101	1.106
% Ch, Annual Rate	2.5	2.0	1.6	1.5	0.4	2.5	1.7	1.6
Seattle Cons. Price Index (1982-84=1.0)	2.687	2.703	2.715	2.740	2.758	2.783	2.796	2.809
% Ch, Annual Rate	3.8	2.4	1.9	3.6	2.7	3.7	1.9	1.8
Average Nonfarm Annual Wage	67,137	67,178	67,648	68,507	69,269	69,435	70,005	70,579
% Ch, Annual Rate	16.5	0.2	2.8	5.2	4.5	1.0	3.3	3.3
Avg. Hourly Earnings-Mfg. (\$/Hour)	27.95	28.36	28.52	28.84	29.19	29.20	29.41	29.64
% Ch, Annual Rate	1.8	5.9	2.3	4.6	5.0	0.1	2.8	3.1
Current Dollar Income (Billions of Dollars)								
Personal Income	451.449	455.158	460.392	467.906	473.560	478.310	483.484	489.240
% Ch, Annual Rate	12.2	3.3	4.7	6.7	4.9	4.1	4.4	4.8
Disposable Personal Income	398.535	402.122	406.553	413.838	418.170	421.697	426.232	431.292
% Ch, Annual Rate	14.2	3.6	4.5	7.4	4.3	3.4	4.4	4.8
Per Capita Income (\$/Person)	60,237	60,515	60,976	61,738	62,247	62,631	63,072	63,588
% Ch, Annual Rate	10.6	1.9	3.1	5.1	3.3	2.5	2.8	3.3
Employment (Thousands)								
Washington Civilian Labor Force	3,759.0	3,777.4	3,802.5	3,823.0	3,849.0	3,874.9	3,892.0	3,907.7
Total Washington Employment	3,585.7	3,607.7	3,634.8	3,652.9	3,673.8	3,694.7	3,714.1	3,730.8
Unemployment Rate (%)	4.61	4.49	4.41	4.45	4.55	4.65	4.57	4.53
Nonfarm Payroll Employment	3,381.6	3,394.3	3,411.1	3,432.2	3,452.8	3,471.9	3,487.0	3,501.0
% Ch, Annual Rate	3.8	1.5	2.0	2.5	2.4	2.2	1.8	1.6
Manufacturing	284.8	285.9	288.0	291.4	292.2	292.1	292.1	292.8
% Ch, Annual Rate	3.2	1.5	3.0	4.8	1.1	-0.1	-0.1	1.0
Durable Manufacturing	199.6	200.9	202.8	205.0	205.8	205.9	206.0	206.7
% Ch, Annual Rate	2.8	2.5	3.8	4.4	1.6	0.3	0.2	1.4
Aerospace	82.3	83.0	84.6	86.0	86.8	87.8	87.8	87.8
% Ch, Annual Rate	2.3	3.6	8.0	6.9	3.8	4.7	0.0	0.0
Nondurable Manufacturing	85.2	85.0	85.2	86.4	86.4	86.2	86.0	86.0
% Ch, Annual Rate	4.0	-0.8	1.2	5.5	0.0	-0.9	-0.7	-0.1
Construction	209.7	211.9	213.7	218.5	220.9	223.5	222.4	221.9
% Ch, Annual Rate	10.5	4.4	3.5	9.2	4.5	4.8	-2.0	-0.8
Service-Providing	2,880.8	2,890.2	2,903.0	2,916.0	2,933.3	2,950.0	2,966.2	2,980.0
% Ch, Annual Rate	3.4	1.3	1.8	1.8	2.4	2.3	2.2	1.9
Software Publishers	63.5	64.7	66.0	67.0	67.5	68.5	68.5	68.5
% Ch, Annual Rate	7.0	7.9	8.0	6.5	2.9	5.7	0.1	0.2
Electronic Shopping and Mail-Order	54.3	54.3	54.2	56.4	58.7	59.7	60.6	61.4
% Ch, Annual Rate	6.8	0.1	-0.8	16.9	17.1	7.1	6.2	5.6
Housing Indicators (Thousands)								
Housing Units Authorized by Bldg. Permit	52.763	45.589	42.426	48.646	43.753	47.979	41.593	41.576
% Ch, Annual Rate	16.7	-44.3	-25.0	72.9	-34.6	44.6	-43.5	-0.2
Single-Family	24.680	23.029	23.288	22.427	21.060	22.389	22.193	22.350
% Ch, Annual Rate	1.9	-24.2	4.6	-14.0	-22.2	27.7	-3.5	2.9
Multi-Family	28.083	22.560	19.137	26.219	22.693	25.590	19.400	19.226
% Ch, Annual Rate	32.0	-58.4	-48.2	252.3	-43.9	61.7	-67.0	-3.5
30-Year Fixed Mortgage Rate (%)	4.27	4.54	4.57	4.78	4.38	4.08	4.03	4.03

Table A1.4 (continued)
Washington Economic Forecast Summary
Forecast 2019 to 2023

	2020:1	2020:2	2020:3	2020:4	2021:1	2021:2	2021:3	2021:4
Real Income (Billions of Chained 2012 Dollars)								
Real Personal Income	446.050	449.899	453.185	456.254	459.891	462.960	466.043	469.152
% Ch, Annual Rate	3.2	3.5	3.0	2.7	3.2	2.7	2.7	2.7
Real Wage and Salary Disb.	231.980	233.985	235.317	236.824	238.559	240.158	241.766	243.367
% Ch, Annual Rate	2.9	3.5	2.3	2.6	3.0	2.7	2.7	2.7
Real Nonwage Income	214.069	215.914	217.868	219.430	221.333	222.802	224.277	225.785
% Ch, Annual Rate	3.6	3.5	3.7	2.9	3.5	2.7	2.7	2.7
Real Per Capita Income (\$/Person)	57,765	58,058	58,281	58,477	58,747	58,945	59,144	59,347
% Ch, Annual Rate	1.7	2.0	1.5	1.4	1.9	1.4	1.4	1.4
Price and Wage Indexes								
U.S. Implicit Price Deflator, PCE (2012=1.0)	1.111	1.116	1.121	1.126	1.132	1.137	1.142	1.148
% Ch, Annual Rate	1.9	1.8	1.8	1.9	2.0	2.0	1.9	2.0
Seattle Cons. Price Index (1982-84=1.0)	2.824	2.836	2.849	2.862	2.878	2.893	2.908	2.923
% Ch, Annual Rate	2.1	1.8	1.9	1.8	2.2	2.2	2.1	2.1
Average Nonfarm Annual Wage	71,151	71,716	72,322	72,954	73,639	74,283	74,926	75,586
% Ch, Annual Rate	3.3	3.2	3.4	3.5	3.8	3.5	3.5	3.6
Avg. Hourly Earnings-Mfg. (\$/Hour)	29.86	30.11	30.33	30.57	30.82	31.07	31.32	31.57
% Ch, Annual Rate	3.1	3.3	3.0	3.2	3.3	3.2	3.3	3.2
Current Dollar Income (Billions of Dollars)								
Personal Income	495.433	501.949	507.868	513.686	520.372	526.398	532.414	538.574
% Ch, Annual Rate	5.2	5.4	4.8	4.7	5.3	4.7	4.7	4.7
Disposable Personal Income	436.703	442.400	447.640	452.752	458.698	463.973	469.168	474.482
% Ch, Annual Rate	5.1	5.3	4.8	4.6	5.4	4.7	4.6	4.6
Per Capita Income (\$/Person)	64,161	64,775	65,313	65,838	66,473	67,022	67,567	68,129
% Ch, Annual Rate	3.7	3.9	3.4	3.3	3.9	3.3	3.3	3.4
Employment (Thousands)								
Washington Civilian Labor Force	3,925.6	3,946.9	3,957.4	3,970.7	3,985.1	3,999.1	4,012.7	4,026.1
Total Washington Employment	3,745.9	3,765.0	3,772.9	3,783.9	3,796.2	3,808.2	3,820.0	3,831.5
Unemployment Rate (%)	4.58	4.61	4.66	4.70	4.74	4.77	4.80	4.83
Nonfarm Payroll Employment	3,513.8	3,532.3	3,538.5	3,547.0	3,557.5	3,567.8	3,577.9	3,587.9
% Ch, Annual Rate	1.5	2.1	0.7	1.0	1.2	1.2	1.1	1.1
Manufacturing	293.0	292.3	291.9	291.7	291.9	292.0	292.2	292.3
% Ch, Annual Rate	0.3	-0.9	-0.5	-0.2	0.2	0.2	0.2	0.2
Durable Manufacturing	207.1	206.5	206.3	206.3	206.4	206.6	206.7	206.8
% Ch, Annual Rate	0.6	-1.0	-0.5	0.0	0.3	0.3	0.2	0.3
Aerospace	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8
% Ch, Annual Rate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nondurable Manufacturing	85.9	85.8	85.6	85.5	85.5	85.5	85.5	85.5
% Ch, Annual Rate	-0.5	-0.8	-0.7	-0.6	0.0	0.0	0.1	0.2
Construction	220.6	220.1	219.6	219.1	218.3	217.5	217.2	217.2
% Ch, Annual Rate	-2.3	-0.8	-1.0	-1.0	-1.3	-1.4	-0.6	0.0
Service-Providing	2,993.7	3,013.4	3,020.6	3,029.8	3,040.8	3,051.8	3,062.1	3,071.9
% Ch, Annual Rate	1.9	2.7	0.9	1.2	1.5	1.5	1.4	1.3
Software Publishers	68.6	68.7	68.9	69.1	69.4	69.6	69.8	70.1
% Ch, Annual Rate	0.7	0.6	1.0	1.3	1.3	1.4	1.4	1.4
Electronic Shopping and Mail-Order	62.2	62.9	63.6	64.2	64.8	65.4	65.9	66.4
% Ch, Annual Rate	5.1	4.7	4.3	4.0	3.7	3.5	3.3	3.1
Housing Indicators (Thousands)								
Housing Units Authorized by Bldg. Permit	41.731	41.926	42.191	42.236	41.660	41.751	41.871	41.939
% Ch, Annual Rate	1.5	1.9	2.6	0.4	-5.3	0.9	1.1	0.6
Single-Family	22.570	22.742	23.043	23.270	23.007	23.121	23.351	23.635
% Ch, Annual Rate	4.0	3.1	5.4	4.0	-4.4	2.0	4.1	4.9
Multi-Family	19.161	19.184	19.148	18.965	18.653	18.631	18.519	18.304
% Ch, Annual Rate	-1.3	0.5	-0.8	-3.7	-6.4	-0.5	-2.4	-4.6
30-Year Fixed Mortgage Rate (%)	4.11	4.21	4.30	4.38	4.46	4.53	4.59	4.63

Table A1.4 (continued)
Washington Economic Forecast Summary
Forecast 2019 to 2023

	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	472.728	475.983	479.251	482.629	486.604	490.048	493.529	497.046
% Ch, Annual Rate	3.1	2.8	2.8	2.8	3.3	2.9	2.9	2.9
Real Wage and Salary Disb.	245.112	246.902	248.755	250.701	252.823	254.860	256.885	258.916
% Ch, Annual Rate	2.9	3.0	3.0	3.2	3.4	3.3	3.2	3.2
Real Nonwage Income	227.617	229.081	230.496	231.928	233.781	235.189	236.644	238.130
% Ch, Annual Rate	3.3	2.6	2.5	2.5	3.2	2.4	2.5	2.5
Real Per Capita Income (\$/Person)	59,609	59,831	60,054	60,292	60,605	60,852	61,105	61,363
% Ch, Annual Rate	1.8	1.5	1.5	1.6	2.1	1.6	1.7	1.7
Price and Wage Indexes								
U.S. Implicit Price Deflator, PCE (2012=1.0)	1.153	1.159	1.164	1.170	1.176	1.181	1.187	1.193
% Ch, Annual Rate	1.9	1.9	1.9	1.9	2.0	1.9	1.9	2.0
Seattle Cons. Price Index (1982-84=1.0)	2.939	2.954	2.970	2.985	3.001	3.017	3.033	3.049
% Ch, Annual Rate	2.1	2.1	2.1	2.1	2.2	2.0	2.2	2.2
Average Nonfarm Annual Wage	76,293	77,011	77,759	78,540	79,380	80,206	81,058	81,930
% Ch, Annual Rate	3.8	3.8	3.9	4.1	4.3	4.2	4.3	4.4
Avg. Hourly Earnings-Mfg. (\$/Hour)	31.83	32.09	32.35	32.61	32.89	33.16	33.44	33.73
% Ch, Annual Rate	3.3	3.3	3.2	3.3	3.4	3.4	3.4	3.4
Current Dollar Income (Billions of Dollars)								
Personal Income	545.273	551.653	558.083	564.712	572.126	578.902	585.835	592.878
% Ch, Annual Rate	5.1	4.8	4.7	4.8	5.4	4.8	4.9	4.9
Disposable Personal Income	480.367	485.852	491.316	496.954	503.267	508.943	514.738	520.612
% Ch, Annual Rate	5.1	4.6	4.6	4.7	5.2	4.6	4.6	4.6
Per Capita Income (\$/Person)	68,757	69,343	69,933	70,546	71,256	71,885	72,533	73,194
% Ch, Annual Rate	3.7	3.5	3.4	3.6	4.1	3.6	3.7	3.7
Employment (Thousands)								
Washington Civilian Labor Force	4,038.8	4,051.3	4,063.4	4,075.5	4,087.4	4,098.9	4,109.9	4,120.7
Total Washington Employment	3,842.6	3,854.1	3,865.1	3,876.1	3,886.8	3,897.0	3,906.5	3,915.7
Unemployment Rate (%)	4.86	4.87	4.88	4.89	4.91	4.92	4.95	4.97
Nonfarm Payroll Employment	3,597.2	3,607.2	3,616.7	3,626.5	3,636.1	3,645.2	3,653.4	3,661.3
% Ch, Annual Rate	1.0	1.1	1.1	1.1	1.1	1.0	0.9	0.9
Manufacturing	292.7	293.1	293.8	294.5	295.3	296.0	296.7	297.2
% Ch, Annual Rate	0.5	0.5	0.9	1.0	1.1	1.0	0.8	0.7
Durable Manufacturing	207.1	207.5	208.0	208.7	209.4	210.1	210.7	211.2
% Ch, Annual Rate	0.7	0.6	1.0	1.3	1.4	1.3	1.1	1.0
Aerospace	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8
% Ch, Annual Rate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nondurable Manufacturing	85.6	85.7	85.8	85.8	85.9	86.0	86.0	86.0
% Ch, Annual Rate	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.1
Construction	217.0	217.0	216.8	216.9	217.0	217.2	217.4	217.7
% Ch, Annual Rate	-0.5	0.1	-0.4	0.2	0.3	0.3	0.4	0.4
Service-Providing	3,081.1	3,090.6	3,099.7	3,108.6	3,117.3	3,125.4	3,132.8	3,139.9
% Ch, Annual Rate	1.2	1.2	1.2	1.2	1.1	1.0	1.0	0.9
Software Publishers	70.4	70.6	70.9	71.2	71.5	71.8	72.1	72.5
% Ch, Annual Rate	1.5	1.6	1.6	1.7	1.8	1.7	1.7	1.7
Electronic Shopping and Mail-Order	66.9	67.4	67.8	68.2	68.7	69.1	69.5	69.9
% Ch, Annual Rate	2.9	2.8	2.7	2.6	2.5	2.4	2.4	2.3
Housing Indicators (Thousands)								
Housing Units Authorized by Bldg. Permit	42.202	42.137	42.054	41.990	41.937	41.836	41.727	41.577
% Ch, Annual Rate	2.5	-0.6	-0.8	-0.6	-0.5	-1.0	-1.0	-1.4
Single-Family	23.974	24.066	24.076	24.097	24.121	24.123	24.149	24.171
% Ch, Annual Rate	5.9	1.5	0.2	0.3	0.4	0.0	0.4	0.4
Multi-Family	18.227	18.070	17.977	17.893	17.815	17.713	17.578	17.406
% Ch, Annual Rate	-1.7	-3.4	-2.0	-1.9	-1.7	-2.3	-3.0	-3.8
30-Year Fixed Mortgage Rate (%)	4.67	4.71	4.75	4.78	4.82	4.83	4.84	4.84

Table A2.1

U.S. Nonagricultural Employment by Industry (Millions)

Forecast 2019 to 2023

	2016	2017	2018	2019	2020	2021	2022	2023
Nonfarm Payroll Employment	144.35	146.61	149.06	151.57	153.23	154.09	155.02	155.90
% Ch	1.8	1.6	1.7	1.7	1.1	0.6	0.6	0.6
Manufacturing	12.35	12.44	12.69	12.84	12.77	12.64	12.56	12.55
% Ch	0.1	0.7	2.0	1.2	-0.5	-1.1	-0.6	0.0
Durable Manufacturing	7.71	7.74	7.94	8.06	8.04	7.96	7.91	7.94
% Ch	-0.7	0.3	2.7	1.5	-0.2	-1.1	-0.6	0.3
Wood Products	0.39	0.40	0.41	0.41	0.42	0.44	0.45	0.47
% Ch	2.7	1.1	2.4	1.4	2.9	3.1	3.8	3.6
Primary and Fabricated Metals	1.80	1.80	1.84	1.87	1.86	1.83	1.83	1.87
% Ch	-3.0	0.0	2.7	1.3	-0.3	-1.9	-0.1	2.2
Computer and Electronic Products	1.05	1.04	1.06	1.08	1.07	1.08	1.09	1.09
% Ch	-0.5	-0.9	1.6	2.1	-0.3	0.4	0.7	0.8
Machinery and Electrical Equipment	1.46	1.47	1.52	1.55	1.55	1.56	1.57	1.60
% Ch	-3.0	0.4	3.7	1.9	0.4	0.2	0.8	1.8
Transportation Equipment	1.63	1.64	1.70	1.73	1.70	1.65	1.59	1.52
% Ch	1.6	0.8	3.6	1.5	-1.6	-2.7	-3.9	-4.4
Other Durables	1.39	1.40	1.42	1.43	1.43	1.41	1.39	1.39
% Ch	1.3	0.9	1.3	0.7	0.1	-1.6	-1.3	0.2
Nondurable Manufacturing	4.64	4.70	4.74	4.77	4.73	4.68	4.65	4.61
% Ch	1.5	1.3	0.9	0.6	-1.0	-1.1	-0.7	-0.7
Food Manufacturing	1.56	1.60	1.62	1.64	1.65	1.66	1.68	1.69
% Ch	3.0	2.7	1.3	1.2	0.8	0.8	0.9	0.6
Paper and Paper Products	0.37	0.37	0.37	0.37	0.36	0.35	0.35	0.34
% Ch	-0.5	-1.2	0.2	0.1	-2.3	-2.3	-1.4	-0.8
Other Nondurables	2.71	2.73	2.76	2.77	2.72	2.66	2.62	2.58
% Ch	1.0	0.9	0.8	0.4	-1.8	-2.0	-1.6	-1.5
Natural Resources and Mining	0.67	0.68	0.73	0.75	0.76	0.76	0.77	0.78
% Ch	-17.8	1.1	8.3	2.9	0.6	0.6	1.5	1.1
Construction	6.73	6.97	7.29	7.51	7.60	7.72	7.89	8.09
% Ch	4.1	3.6	4.6	3.1	1.1	1.5	2.2	2.6
Trade, Transportation, and Utilities	27.20	27.40	27.65	27.87	27.76	27.57	27.35	27.13
% Ch	1.4	0.7	0.9	0.8	-0.4	-0.7	-0.8	-0.8
Wholesale Trade	5.79	5.81	5.85	5.95	5.98	5.99	6.00	6.00
% Ch	0.1	0.5	0.7	1.6	0.5	0.2	0.1	0.1
Retail Trade	15.84	15.84	15.82	15.80	15.68	15.51	15.32	15.13
% Ch	1.4	0.0	-0.1	-0.1	-0.8	-1.1	-1.2	-1.3
Trans., Warehousing, and Utilities	5.57	5.75	5.97	6.12	6.11	6.07	6.03	5.99
% Ch	2.6	3.1	3.9	2.5	-0.3	-0.6	-0.7	-0.6
Information	2.79	2.81	2.83	2.81	2.78	2.84	2.85	2.91
% Ch	1.6	0.7	0.5	-0.7	-1.1	2.3	0.5	2.1
Publishing Industries	0.73	0.73	0.73	0.72	0.68	0.66	0.64	0.63
% Ch	0.5	-0.2	0.5	-1.4	-5.6	-3.5	-2.4	-1.5
Other Information	2.06	2.08	2.09	2.08	2.09	2.18	2.21	2.28
% Ch	1.9	1.0	0.5	-0.5	0.5	4.1	1.4	3.1
Financial Activities	8.29	8.45	8.57	8.66	8.70	8.72	8.74	8.71
% Ch	2.0	2.0	1.4	1.1	0.4	0.3	0.2	-0.3
Professional and Business Services	20.11	20.51	21.00	21.61	22.57	23.27	23.85	24.47
% Ch	2.1	2.0	2.4	2.9	4.4	3.1	2.5	2.6
Education and Health Services	22.64	23.19	23.67	24.20	24.38	24.58	24.68	24.72
% Ch	2.8	2.4	2.1	2.3	0.7	0.8	0.4	0.2
Leisure and Hospitality	15.66	16.05	16.35	16.82	17.19	17.26	17.48	17.57
% Ch	3.3	2.5	1.9	2.8	2.2	0.4	1.3	0.5
Other Services	5.69	5.77	5.84	5.93	5.88	5.83	5.78	5.73
% Ch	1.2	1.4	1.3	1.4	-0.8	-0.7	-0.9	-0.9
Federal Government	2.79	2.80	2.80	2.81	2.94	2.81	2.81	2.81
% Ch	1.4	0.4	-0.3	0.5	4.5	-4.2	0.0	0.0
State and Local Government	19.44	19.55	19.65	19.76	19.92	20.09	20.26	20.42
% Ch	0.9	0.6	0.5	0.6	0.8	0.8	0.8	0.8

Table A2.2

U.S. Nonagricultural Employment by Industry (Millions)

Forecast 2019 to 2023

	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4
Nonfarm Payroll Employment	148.05	148.74	149.41	150.06	150.69	151.36	151.91	152.32
% Ch, Annual Rate	1.8	1.9	1.8	1.7	1.7	1.8	1.5	1.1
Manufacturing	12.59	12.66	12.72	12.79	12.83	12.85	12.82	12.83
% Ch, Annual Rate	2.3	2.3	1.9	2.2	1.4	0.6	-0.8	0.3
Durable Manufacturing	7.86	7.92	7.97	8.02	8.06	8.07	8.05	8.07
% Ch, Annual Rate	3.4	3.0	2.7	2.4	1.8	0.6	-0.7	0.9
Wood Products	0.40	0.41	0.41	0.41	0.41	0.41	0.41	0.42
% Ch, Annual Rate	6.1	2.4	1.6	0.2	1.6	1.5	1.1	3.5
Primary and Fabricated Metals	1.83	1.84	1.85	1.86	1.87	1.87	1.87	1.88
% Ch, Annual Rate	3.5	3.1	2.7	1.2	2.0	0.0	-0.4	2.1
Computer and Electronic Products	1.05	1.05	1.06	1.06	1.07	1.08	1.08	1.08
% Ch, Annual Rate	1.2	1.9	1.9	2.2	3.6	1.3	1.5	-0.6
Machinery and Electrical Equipment	1.49	1.51	1.53	1.54	1.54	1.54	1.54	1.56
% Ch, Annual Rate	3.8	5.3	3.6	2.8	1.5	-0.1	-0.2	4.0
Transportation Equipment	1.68	1.69	1.71	1.73	1.74	1.74	1.73	1.71
% Ch, Annual Rate	4.9	3.3	4.0	4.5	1.8	1.4	-3.8	-3.3
Other Durables	1.41	1.41	1.42	1.42	1.43	1.43	1.43	1.43
% Ch, Annual Rate	2.2	1.1	1.0	1.8	0.3	0.3	-0.1	1.4
Nondurable Manufacturing	4.73	4.74	4.74	4.77	4.77	4.78	4.77	4.76
% Ch, Annual Rate	0.5	1.0	0.6	1.8	0.8	0.7	-0.9	-0.6
Food Manufacturing	1.61	1.62	1.62	1.63	1.63	1.64	1.64	1.65
% Ch, Annual Rate	1.1	1.5	0.6	2.5	0.8	1.0	-0.2	2.4
Paper and Paper Products	0.36	0.37	0.37	0.37	0.37	0.37	0.37	0.36
% Ch, Annual Rate	-0.1	1.8	2.5	1.8	0.4	-1.8	-2.4	-1.6
Other Nondurables	2.75	2.75	2.76	2.77	2.77	2.78	2.77	2.75
% Ch, Annual Rate	0.3	0.7	0.3	1.3	0.8	0.8	-1.2	-2.2
Natural Resources and Mining	0.71	0.73	0.74	0.75	0.76	0.75	0.75	0.75
% Ch, Annual Rate	9.6	13.3	6.6	5.5	3.4	-3.7	1.0	0.8
Construction	7.18	7.26	7.33	7.39	7.45	7.50	7.54	7.57
% Ch, Annual Rate	6.7	4.8	4.0	3.1	3.3	3.0	1.8	1.5
Trade, Transportation, and Utilities	27.55	27.61	27.68	27.76	27.83	27.86	27.91	27.89
% Ch, Annual Rate	1.2	0.9	0.9	1.2	0.9	0.5	0.7	-0.2
Wholesale Trade	5.83	5.83	5.86	5.89	5.92	5.93	5.96	5.97
% Ch, Annual Rate	0.5	-0.1	2.4	1.8	1.9	1.1	1.8	0.8
Retail Trade	15.83	15.84	15.82	15.81	15.82	15.82	15.80	15.78
% Ch, Annual Rate	0.2	0.3	-0.5	-0.1	0.0	0.1	-0.4	-0.6
Trans., Warehousing, and Utilities	5.90	5.95	5.99	6.06	6.09	6.11	6.15	6.14
% Ch, Annual Rate	4.4	3.5	3.2	4.4	2.2	1.0	2.6	-0.3
Information	2.82	2.83	2.83	2.83	2.81	2.82	2.81	2.78
% Ch, Annual Rate	-0.1	2.1	-0.5	0.4	-2.3	0.5	-0.9	-3.6
Publishing Industries	0.73	0.73	0.73	0.73	0.73	0.73	0.72	0.71
% Ch, Annual Rate	0.8	0.4	0.6	0.1	0.2	-0.5	-7.5	-7.3
Other Information	2.08	2.10	2.09	2.10	2.08	2.08	2.09	2.08
% Ch, Annual Rate	-0.4	2.6	-0.9	0.5	-3.2	0.9	1.5	-2.3
Financial Activities	8.52	8.55	8.58	8.61	8.63	8.65	8.69	8.68
% Ch, Annual Rate	1.4	1.5	1.4	1.4	0.7	1.0	1.8	-0.4
Professional and Business Services	20.77	20.93	21.07	21.22	21.30	21.53	21.67	21.95
% Ch, Annual Rate	2.2	3.0	2.8	2.8	1.6	4.4	2.6	5.3
Education and Health Services	23.48	23.59	23.74	23.86	24.02	24.16	24.30	24.33
% Ch, Annual Rate	2.3	1.9	2.6	2.0	2.7	2.4	2.4	0.5
Leisure and Hospitality	16.23	16.30	16.38	16.50	16.66	16.76	16.88	16.97
% Ch, Annual Rate	1.5	1.8	2.0	2.9	4.0	2.4	2.9	2.2
Other Services	5.81	5.84	5.85	5.87	5.90	5.93	5.95	5.92
% Ch, Annual Rate	0.8	2.2	0.8	1.2	1.8	2.0	1.7	-1.9
Federal Government	2.79	2.79	2.80	2.80	2.80	2.81	2.81	2.81
% Ch, Annual Rate	-0.8	0.1	0.4	0.5	0.0	1.5	0.0	0.0
State and Local Government	19.60	19.64	19.69	19.68	19.71	19.75	19.78	19.82
% Ch, Annual Rate	0.4	0.8	0.9	0.0	0.5	0.7	0.6	0.9

Table A2.2 (continued)

U.S. Nonagricultural Employment by Industry (Millions)

Forecast 2019 to 2023

	2020:1	2020:2	2020:3	2020:4	2021:1	2021:2	2021:3	2021:4
Nonfarm Payroll Employment	152.74	153.29	153.37	153.51	153.73	153.98	154.21	154.44
% Ch, Annual Rate	1.1	1.5	0.2	0.4	0.6	0.6	0.6	0.6
Manufacturing	12.84	12.80	12.74	12.70	12.67	12.65	12.62	12.59
% Ch, Annual Rate	0.3	-1.5	-1.7	-1.3	-0.8	-0.8	-0.8	-0.9
Durable Manufacturing	8.09	8.06	8.02	8.00	7.98	7.97	7.95	7.93
% Ch, Annual Rate	1.1	-1.6	-1.9	-1.2	-0.7	-0.7	-0.8	-1.1
Wood Products	0.42	0.42	0.43	0.43	0.43	0.44	0.44	0.44
% Ch, Annual Rate	4.8	1.8	2.3	2.6	4.5	3.4	2.4	2.4
Primary and Fabricated Metals	1.88	1.87	1.86	1.85	1.84	1.83	1.82	1.82
% Ch, Annual Rate	0.8	-2.5	-2.0	-2.5	-1.6	-1.9	-1.7	-1.1
Computer and Electronic Products	1.08	1.07	1.07	1.07	1.08	1.08	1.08	1.08
% Ch, Annual Rate	-0.6	-1.6	-0.3	0.4	0.8	0.7	0.7	0.6
Machinery and Electrical Equipment	1.56	1.55	1.55	1.55	1.55	1.56	1.56	1.56
% Ch, Annual Rate	1.3	-2.6	-1.2	0.4	0.9	0.6	0.5	0.5
Transportation Equipment	1.72	1.71	1.69	1.68	1.67	1.66	1.65	1.64
% Ch, Annual Rate	1.5	-0.8	-5.2	-2.8	-2.9	-1.6	-1.8	-3.6
Other Durables	1.44	1.43	1.43	1.42	1.42	1.41	1.40	1.39
% Ch, Annual Rate	1.1	-1.2	-1.0	-1.7	-1.4	-1.9	-2.2	-2.0
Nondurable Manufacturing	4.75	4.73	4.72	4.70	4.69	4.68	4.67	4.66
% Ch, Annual Rate	-1.0	-1.4	-1.4	-1.4	-0.9	-0.9	-0.8	-0.7
Food Manufacturing	1.65	1.65	1.65	1.65	1.66	1.66	1.67	1.67
% Ch, Annual Rate	1.1	0.2	0.0	0.0	1.5	1.0	1.3	1.0
Paper and Paper Products	0.36	0.36	0.36	0.36	0.35	0.35	0.35	0.35
% Ch, Annual Rate	-2.5	-2.6	-2.6	-2.8	-2.3	-1.8	-1.8	-1.5
Other Nondurables	2.74	2.72	2.71	2.70	2.68	2.67	2.66	2.64
% Ch, Annual Rate	-2.0	-2.2	-2.0	-2.0	-2.2	-1.9	-1.9	-1.7
Natural Resources and Mining	0.75	0.76	0.76	0.76	0.76	0.76	0.76	0.77
% Ch, Annual Rate	0.6	1.4	1.0	0.2	-0.3	0.5	1.9	1.8
Construction	7.57	7.58	7.60	7.64	7.67	7.70	7.73	7.77
% Ch, Annual Rate	0.3	0.7	1.0	1.9	1.8	1.3	1.6	2.1
Trade, Transportation, and Utilities	27.82	27.78	27.75	27.68	27.64	27.61	27.54	27.48
% Ch, Annual Rate	-1.0	-0.6	-0.5	-1.0	-0.5	-0.5	-1.0	-1.0
Wholesale Trade	5.97	5.97	5.98	5.98	5.98	5.99	5.99	5.99
% Ch, Annual Rate	0.1	-0.2	0.4	0.3	0.2	0.2	0.2	0.1
Retail Trade	15.73	15.70	15.67	15.61	15.58	15.55	15.48	15.43
% Ch, Annual Rate	-1.3	-0.7	-0.8	-1.6	-0.8	-0.8	-1.6	-1.4
Trans., Warehousing, and Utilities	6.12	6.11	6.10	6.09	6.08	6.08	6.07	6.06
% Ch, Annual Rate	-1.2	-0.8	-0.6	-0.6	-0.5	-0.5	-0.6	-0.8
Information	2.77	2.77	2.78	2.78	2.82	2.84	2.85	2.85
% Ch, Annual Rate	-1.9	-0.4	2.0	0.0	5.2	3.3	1.2	-0.2
Publishing Industries	0.69	0.68	0.68	0.67	0.67	0.66	0.66	0.65
% Ch, Annual Rate	-5.7	-5.8	-4.4	-3.3	-3.2	-3.1	-2.9	-2.8
Other Information	2.08	2.08	2.11	2.11	2.15	2.18	2.19	2.20
% Ch, Annual Rate	-0.6	1.5	4.2	1.1	8.0	5.3	2.5	0.6
Financial Activities	8.69	8.69	8.70	8.71	8.71	8.71	8.72	8.74
% Ch, Annual Rate	0.4	0.1	0.4	0.4	0.2	0.1	0.6	0.6
Professional and Business Services	22.25	22.46	22.66	22.88	23.08	23.20	23.33	23.46
% Ch, Annual Rate	5.6	3.8	3.6	4.0	3.4	2.2	2.2	2.2
Education and Health Services	24.35	24.34	24.39	24.44	24.51	24.57	24.62	24.64
% Ch, Annual Rate	0.2	-0.1	0.8	0.9	1.2	0.9	0.8	0.4
Leisure and Hospitality	17.06	17.17	17.27	17.26	17.17	17.21	17.28	17.37
% Ch, Annual Rate	2.3	2.5	2.2	-0.1	-2.0	0.8	1.6	2.2
Other Services	5.90	5.88	5.87	5.86	5.85	5.84	5.83	5.81
% Ch, Annual Rate	-1.6	-1.2	-0.7	-0.8	-0.5	-0.6	-0.9	-1.0
Federal Government	2.86	3.16	2.90	2.81	2.81	2.81	2.81	2.81
% Ch, Annual Rate	7.8	48.9	-29.0	-12.2	0.0	0.0	0.0	0.0
State and Local Government	19.86	19.90	19.94	19.99	20.03	20.07	20.11	20.15
% Ch, Annual Rate	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8

Table A2.2 (continued)

U.S. Nonagricultural Employment by Industry (Millions)

Forecast 2019 to 2023

	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4
Nonfarm Payroll Employment	154.66	154.90	155.14	155.38	155.60	155.82	156.00	156.19
% Ch, Annual Rate	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5
Manufacturing	12.58	12.55	12.55	12.55	12.55	12.55	12.55	12.55
% Ch, Annual Rate	-0.6	-0.7	-0.2	0.0	0.0	0.0	0.1	-0.1
Durable Manufacturing	7.92	7.91	7.91	7.91	7.92	7.93	7.94	7.95
% Ch, Annual Rate	-0.5	-0.7	0.0	0.4	0.4	0.4	0.6	0.4
Wood Products	0.45	0.45	0.46	0.46	0.47	0.47	0.47	0.47
% Ch, Annual Rate	4.5	4.2	4.7	4.8	3.4	2.8	2.3	2.3
Primary and Fabricated Metals	1.82	1.82	1.83	1.84	1.85	1.86	1.87	1.88
% Ch, Annual Rate	0.2	0.4	1.5	2.1	2.6	2.8	2.4	2.0
Computer and Electronic Products	1.08	1.08	1.09	1.09	1.09	1.09	1.10	1.10
% Ch, Annual Rate	1.0	0.5	0.9	0.9	0.9	0.7	0.6	0.3
Machinery and Electrical Equipment	1.56	1.57	1.57	1.58	1.59	1.60	1.60	1.60
% Ch, Annual Rate	0.7	0.8	1.5	2.2	2.3	1.8	1.3	1.1
Transportation Equipment	1.62	1.60	1.58	1.56	1.54	1.52	1.51	1.50
% Ch, Annual Rate	-4.2	-5.0	-4.4	-4.5	-5.0	-4.7	-2.8	-2.5
Other Durables	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39
% Ch, Annual Rate	-1.1	-1.3	-0.4	0.2	0.4	0.5	0.3	0.2
Nondurable Manufacturing	4.66	4.65	4.64	4.64	4.63	4.62	4.61	4.60
% Ch, Annual Rate	-0.7	-0.7	-0.5	-0.6	-0.6	-0.7	-0.8	-0.9
Food Manufacturing	1.68	1.68	1.68	1.68	1.69	1.69	1.69	1.69
% Ch, Annual Rate	1.0	0.8	0.8	0.6	0.6	0.7	0.5	0.5
Paper and Paper Products	0.35	0.35	0.35	0.34	0.34	0.34	0.34	0.34
% Ch, Annual Rate	-1.4	-1.2	-0.8	-0.8	-0.7	-0.8	-0.9	-0.9
Other Nondurables	2.63	2.62	2.61	2.61	2.60	2.59	2.58	2.56
% Ch, Annual Rate	-1.6	-1.5	-1.3	-1.3	-1.4	-1.5	-1.7	-1.8
Natural Resources and Mining	0.77	0.77	0.78	0.78	0.78	0.78	0.78	0.79
% Ch, Annual Rate	1.4	1.7	1.5	1.0	1.1	0.4	1.3	1.3
Construction	7.82	7.86	7.91	7.96	8.01	8.07	8.12	8.17
% Ch, Annual Rate	2.5	2.5	2.4	2.5	2.6	2.7	2.7	2.7
Trade, Transportation, and Utilities	27.42	27.37	27.33	27.28	27.21	27.16	27.10	27.04
% Ch, Annual Rate	-0.9	-0.6	-0.7	-0.7	-1.0	-0.8	-0.9	-0.8
Wholesale Trade	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.01
% Ch, Annual Rate	0.2	0.1	0.2	0.1	0.3	0.0	0.0	0.1
Retail Trade	15.37	15.34	15.30	15.26	15.20	15.15	15.11	15.06
% Ch, Annual Rate	-1.4	-0.8	-1.0	-1.1	-1.7	-1.1	-1.3	-1.3
Trans., Warehousing, and Utilities	6.05	6.04	6.03	6.02	6.01	6.00	5.99	5.98
% Ch, Annual Rate	-0.6	-0.7	-0.6	-0.7	-0.5	-0.8	-0.7	-0.7
Information	2.85	2.85	2.86	2.86	2.89	2.90	2.92	2.94
% Ch, Annual Rate	-0.3	0.6	0.7	1.3	3.0	2.5	2.9	2.3
Publishing Industries	0.65	0.64	0.64	0.64	0.64	0.63	0.63	0.63
% Ch, Annual Rate	-2.3	-2.2	-1.9	-1.7	-1.2	-1.4	-1.4	-1.4
Other Information	2.20	2.21	2.21	2.23	2.25	2.27	2.29	2.31
% Ch, Annual Rate	0.3	1.4	1.5	2.2	4.3	3.6	4.1	3.3
Financial Activities	8.75	8.74	8.73	8.73	8.73	8.72	8.71	8.70
% Ch, Annual Rate	0.4	-0.3	-0.3	-0.2	0.0	-0.5	-0.5	-0.5
Professional and Business Services	23.61	23.77	23.93	24.10	24.27	24.42	24.54	24.66
% Ch, Annual Rate	2.7	2.7	2.8	2.8	3.0	2.4	2.0	2.0
Education and Health Services	24.66	24.67	24.69	24.69	24.71	24.72	24.72	24.72
% Ch, Annual Rate	0.4	0.2	0.2	0.1	0.3	0.1	0.0	0.1
Leisure and Hospitality	17.41	17.46	17.50	17.54	17.52	17.55	17.58	17.61
% Ch, Annual Rate	0.8	1.3	1.0	0.7	-0.3	0.7	0.6	0.6
Other Services	5.80	5.79	5.78	5.76	5.75	5.74	5.73	5.71
% Ch, Annual Rate	-0.8	-0.9	-0.9	-1.0	-0.7	-0.9	-0.8	-0.8
Federal Government	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81
% Ch, Annual Rate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
State and Local Government	20.19	20.23	20.28	20.32	20.36	20.40	20.44	20.48
% Ch, Annual Rate	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8

Table A2.3

Washington Nonagricultural Employment by Industry (Thousands)

Forecast 2019 to 2023

	2016	2017	2018	2019	2020	2021	2022	2023
Nonfarm Payroll Employment	3,242.8	3,321.2	3,404.8	3,478.2	3,532.9	3,572.8	3,611.9	3,649.0
% Ch	3.1	2.4	2.5	2.2	1.6	1.1	1.1	1.0
Manufacturing	290.4	284.2	287.5	292.3	292.2	292.1	293.5	296.3
% Ch	-0.7	-2.1	1.2	1.7	0.0	0.0	0.5	0.9
Durable Manufacturing	207.7	200.3	202.1	206.1	206.5	206.6	207.8	210.3
% Ch	-1.7	-3.5	0.9	2.0	0.2	0.0	0.6	1.2
Wood Products	13.1	12.9	13.0	12.8	12.9	13.0	13.1	13.2
% Ch	-1.6	-1.7	0.9	-1.2	0.5	0.5	1.1	1.0
Primary and Fabricated Metals	25.2	25.1	26.1	26.5	26.5	25.9	25.9	26.5
% Ch	-2.0	-0.6	4.0	1.8	-0.3	-2.0	-0.1	2.4
Computer and Electronic Products	20.1	19.6	19.8	20.2	20.4	20.7	21.2	21.7
% Ch	0.7	-2.3	0.8	2.2	0.6	1.7	2.3	2.4
Machinery and Electrical Equipment	20.5	20.7	21.3	21.5	22.0	22.6	23.5	24.8
% Ch	-1.2	1.0	2.8	0.8	2.3	3.1	4.0	5.3
Aerospace	91.0	84.2	84.0	87.6	87.8	87.8	87.8	87.8
% Ch	-3.2	-7.5	-0.3	4.3	0.3	0.0	0.0	0.0
Other Transportation Equip.	10.2	10.2	9.9	9.9	9.5	9.1	8.8	8.5
% Ch	-0.9	0.1	-3.1	0.0	-4.1	-3.6	-3.5	-3.1
Other Durables	27.6	27.7	28.1	27.6	27.6	27.5	27.5	27.8
% Ch	1.2	0.2	1.6	-1.7	-0.1	-0.5	0.1	1.0
Nondurable Manufacturing	82.7	83.9	85.4	86.2	85.7	85.5	85.7	86.0
% Ch	2.0	1.4	1.8	0.8	-0.6	-0.2	0.2	0.3
Food Manufacturing	37.6	38.0	38.9	40.0	40.0	40.0	40.1	40.0
% Ch	1.9	1.3	2.2	2.9	0.1	0.0	0.1	-0.2
Paper and Paper Products	7.8	7.7	7.6	7.5	7.3	7.0	6.8	6.7
% Ch	-3.5	-0.2	-1.8	-1.3	-3.2	-3.5	-2.5	-1.8
Other Nondurables	37.4	38.1	39.0	38.7	38.4	38.5	38.8	39.3
% Ch	3.4	1.9	2.2	-0.8	-0.7	0.2	0.9	1.2
Natural Resources and Mining	6.3	6.2	6.3	6.3	6.4	6.4	6.4	6.5
% Ch	-0.8	-1.0	1.5	0.7	1.4	-0.5	0.7	0.8
Construction	186.6	199.8	213.4	222.2	219.8	217.6	216.9	217.3
% Ch	7.7	7.0	6.8	4.1	-1.0	-1.0	-0.3	0.2
Trade, Transportation, and Utilities	605.7	624.6	637.3	645.0	649.0	650.4	650.3	649.6
% Ch	3.1	3.1	2.0	1.2	0.6	0.2	0.0	-0.1
Wholesale Trade	132.1	133.3	136.4	139.1	140.4	141.3	141.9	142.5
% Ch	0.6	0.9	2.4	1.9	1.0	0.6	0.5	0.4
Retail Trade	365.2	378.7	386.2	391.3	394.1	394.9	394.6	393.7
% Ch	3.2	3.7	2.0	1.3	0.7	0.2	-0.1	-0.2
Electronic Shopping and Mail-Order	38.2	49.7	54.8	60.1	63.2	65.6	67.6	69.3
% Ch	26.6	30.1	10.3	9.6	5.2	3.8	3.0	2.5
Other Retail Trade	327.0	329.0	331.4	331.2	330.9	329.3	327.0	324.4
% Ch	1.0	0.6	0.7	-0.1	-0.1	-0.5	-0.7	-0.8
Trans., Warehousing, and Utilities	108.4	112.6	114.6	114.6	114.4	114.2	113.8	113.4
% Ch	6.0	3.8	1.8	0.0	-0.1	-0.2	-0.3	-0.3
Information	121.4	126.3	133.6	138.4	139.1	142.2	143.6	146.9
% Ch	6.2	4.1	5.8	3.6	0.5	2.2	1.0	2.3
Software Publishers	58.9	61.4	65.3	68.2	68.8	69.7	70.8	72.0
% Ch	5.3	4.2	6.4	4.5	0.9	1.3	1.5	1.7
Other Publishing Industries	5.9	5.5	5.1	4.5	3.7	3.2	2.7	2.4
% Ch	-4.0	-6.8	-7.8	-11.8	-17.5	-14.4	-13.7	-12.9
Other Information	56.5	59.4	63.2	65.7	66.6	69.3	70.1	72.6
% Ch	8.4	5.0	6.5	3.9	1.4	4.1	1.1	3.5
Financial Activities	151.0	154.0	157.5	158.7	159.0	158.6	158.1	156.7
% Ch	2.1	2.0	2.3	0.8	0.1	-0.2	-0.3	-0.9
Professional and Business Services	401.5	413.4	426.1	438.9	459.3	475.5	489.6	504.1
% Ch	3.5	3.0	3.1	3.0	4.6	3.5	3.0	3.0
Education and Health Services	463.5	475.6	491.4	507.9	516.1	524.3	530.4	535.2
% Ch	3.4	2.6	3.3	3.4	1.6	1.6	1.2	0.9
Leisure and Hospitality	323.3	331.5	342.7	354.8	363.6	367.2	372.7	375.9
% Ch	4.3	2.6	3.4	3.5	2.5	1.0	1.5	0.9
Other Services	117.6	119.7	121.7	123.9	125.8	127.6	129.1	130.6
% Ch	2.3	1.8	1.7	1.8	1.5	1.4	1.2	1.1
Federal Government	74.5	74.8	74.7	76.3	79.4	77.4	77.7	78.0
% Ch	1.9	0.4	-0.2	2.1	4.1	-2.6	0.4	0.4
State and Local Government	501.1	511.0	512.4	513.4	523.1	533.5	543.4	551.9
% Ch	2.5	2.0	0.3	0.2	1.9	2.0	1.9	1.6

Table A2.4

Washington Nonagricultural Employment by Industry (Thousands)

Forecast 2019 to 2023

	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4
Nonfarm Payroll Employment	3,381.6	3,394.3	3,411.1	3,432.2	3,452.8	3,471.9	3,487.0	3,501.0
% Ch, Annual Rate	3.8	1.5	2.0	2.5	2.4	2.2	1.8	1.6
Manufacturing	284.8	285.9	288.0	291.4	292.2	292.1	292.1	292.8
% Ch, Annual Rate	3.2	1.5	3.0	4.8	1.1	-0.1	-0.1	1.0
Durable Manufacturing	199.6	200.9	202.8	205.0	205.8	205.9	206.0	206.7
% Ch, Annual Rate	2.8	2.5	3.8	4.4	1.6	0.3	0.2	1.4
Wood Products	13.1	13.0	12.9	12.9	12.8	12.9	12.8	12.8
% Ch, Annual Rate	4.0	-1.5	-3.1	1.0	-4.8	2.1	-1.1	0.9
Primary and Fabricated Metals	25.7	26.1	26.2	26.3	26.5	26.5	26.5	26.6
% Ch, Annual Rate	9.7	5.4	1.8	2.4	2.6	0.7	-0.6	2.2
Computer and Electronic Products	19.7	19.7	19.9	19.9	20.0	20.2	20.4	20.4
% Ch, Annual Rate	1.7	0.0	2.5	0.2	2.8	3.6	3.5	0.1
Machinery and Electrical Equipment	21.1	21.2	21.3	21.6	21.8	21.1	21.2	21.7
% Ch, Annual Rate	1.3	2.3	1.5	5.0	5.1	-12.8	2.8	8.6
Aerospace	82.3	83.0	84.6	86.0	86.8	87.8	87.8	87.8
% Ch, Annual Rate	2.3	3.6	8.0	6.9	3.8	4.7	0.0	0.0
Other Transportation Equip.	9.8	9.8	9.9	10.0	9.9	9.9	9.8	9.8
% Ch, Annual Rate	-6.5	0.2	2.7	5.6	-3.1	-0.4	-3.4	-0.3
Other Durables	28.0	28.1	28.1	28.3	27.9	27.5	27.5	27.6
% Ch, Annual Rate	3.0	1.6	-0.2	2.8	-4.8	-5.6	-0.7	1.5
Nondurable Manufacturing	85.2	85.0	85.2	86.4	86.4	86.2	86.0	86.0
% Ch, Annual Rate	4.0	-0.8	1.2	5.5	0.0	-0.9	-0.7	-0.1
Food Manufacturing	39.0	38.6	38.7	39.3	39.9	40.1	40.0	40.1
% Ch, Annual Rate	8.3	-4.4	1.0	7.0	6.0	1.8	-1.0	1.4
Paper and Paper Products	7.6	7.6	7.6	7.6	7.5	7.6	7.5	7.4
% Ch, Annual Rate	-1.9	0.4	-2.8	-0.8	-1.8	1.3	-3.6	-2.6
Other Nondurables	38.5	38.8	39.0	39.5	39.0	38.6	38.6	38.5
% Ch, Annual Rate	1.1	2.6	2.3	5.3	-5.3	-4.0	0.1	-1.1
Natural Resources and Mining	6.3	6.3	6.3	6.3	6.4	6.3	6.4	6.4
% Ch, Annual Rate	5.8	0.5	0.5	-4.6	7.6	-4.4	3.4	1.1
Construction	209.7	211.9	213.7	218.5	220.9	223.5	222.4	221.9
% Ch, Annual Rate	10.5	4.4	3.5	9.2	4.5	4.8	-2.0	-0.8
Trade, Transportation, and Utilities	636.8	636.2	637.8	638.4	641.9	643.9	646.4	647.8
% Ch, Annual Rate	4.0	-0.4	1.0	0.3	2.2	1.3	1.6	0.9
Wholesale Trade	135.6	136.2	136.7	137.3	138.2	138.8	139.4	139.9
% Ch, Annual Rate	5.0	1.8	1.5	1.7	2.8	1.7	1.9	1.3
Retail Trade	386.8	385.4	386.4	386.2	389.2	390.9	392.1	393.1
% Ch, Annual Rate	5.0	-1.4	1.0	-0.2	3.1	1.7	1.3	1.0
Electronic Shopping and Mail-Order	54.3	54.3	54.2	56.4	58.7	59.7	60.6	61.4
% Ch	6.8	0.1	-0.8	16.9	17.1	7.1	6.2	5.6
Other Retail Trade	332.5	331.1	332.2	329.8	330.5	331.2	331.5	331.6
% Ch	4.8	-1.6	1.3	-2.8	0.8	0.8	0.4	0.1
Trans., Warehousing, and Utilities	114.4	114.5	114.7	114.9	114.5	114.2	114.8	114.8
% Ch, Annual Rate	-0.3	0.3	0.6	0.6	-1.3	-0.9	2.2	0.0
Information	129.9	132.4	135.0	137.2	137.7	138.7	138.9	138.5
% Ch, Annual Rate	5.5	8.1	8.2	6.6	1.5	2.8	0.7	-1.3
Software Publishers	63.5	64.7	66.0	67.0	67.5	68.5	68.5	68.5
% Ch, Annual Rate	7.0	7.9	8.0	6.5	2.9	5.7	0.1	0.2
Other Publishing Industries	5.2	5.2	5.1	4.9	4.8	4.6	4.4	4.1
% Ch, Annual Rate	-7.9	-4.7	-6.0	-11.0	-6.9	-17.7	-19.0	-19.4
Other Information	61.2	62.5	64.0	65.2	65.3	65.6	66.1	65.8
% Ch, Annual Rate	5.2	9.4	9.5	8.1	0.7	1.5	2.8	-1.5
Financial Activities	156.8	157.8	157.9	157.5	157.8	158.8	159.4	159.1
% Ch, Annual Rate	4.5	2.5	0.1	-0.9	0.7	2.6	1.5	-0.8
Professional and Business Services	422.1	424.1	427.4	430.9	432.8	436.6	440.2	446.1
% Ch, Annual Rate	5.5	2.0	3.2	3.3	1.8	3.6	3.3	5.5
Education and Health Services	486.5	489.2	492.8	497.0	503.1	506.4	510.1	512.0
% Ch, Annual Rate	3.3	2.2	3.0	3.5	5.0	2.6	3.0	1.5
Leisure and Hospitality	339.7	341.1	342.5	347.5	351.3	353.5	356.1	358.3
% Ch, Annual Rate	6.0	1.7	1.5	6.0	4.5	2.5	3.0	2.5
Other Services	120.8	121.3	122.3	122.5	123.2	123.5	124.2	124.6
% Ch, Annual Rate	1.4	1.8	3.1	0.7	2.2	1.0	2.4	1.5
Federal Government	74.7	74.7	74.4	75.0	75.3	76.5	76.6	76.8
% Ch, Annual Rate	-0.7	-0.2	-1.2	3.1	1.4	6.9	0.6	0.6
State and Local Government	513.5	513.4	512.9	510.1	510.3	512.1	514.3	516.8
% Ch, Annual Rate	-0.4	-0.1	-0.4	-2.2	0.2	1.4	1.7	1.9

Table A2.4 (continued)

Washington Nonagricultural Employment by Industry (Thousands)

Forecast 2019 to 2023

	2020:1	2020:2	2020:3	2020:4	2021:1	2021:2	2021:3	2021:4
Nonfarm Payroll Employment	3,513.8	3,532.3	3,538.5	3,547.0	3,557.5	3,567.8	3,577.9	3,587.9
% Ch, Annual Rate	1.5	2.1	0.7	1.0	1.2	1.2	1.1	1.1
Manufacturing	293.0	292.3	291.9	291.7	291.9	292.0	292.2	292.3
% Ch, Annual Rate	0.3	-0.9	-0.5	-0.2	0.2	0.2	0.2	0.2
Durable Manufacturing	207.1	206.5	206.3	206.3	206.4	206.6	206.7	206.8
% Ch, Annual Rate	0.6	-1.0	-0.5	0.0	0.3	0.3	0.2	0.3
Wood Products	12.9	12.9	12.9	12.9	12.9	13.0	13.0	13.0
% Ch, Annual Rate	1.9	-0.6	-0.1	0.1	1.7	0.8	-0.1	-0.1
Primary and Fabricated Metals	26.7	26.5	26.4	26.2	26.1	26.0	25.8	25.8
% Ch, Annual Rate	0.8	-2.6	-2.1	-2.7	-1.8	-2.1	-1.7	-1.1
Computer and Electronic Products	20.4	20.3	20.3	20.4	20.5	20.7	20.8	20.9
% Ch, Annual Rate	0.1	-1.4	0.6	1.7	2.4	2.3	2.2	2.1
Machinery and Electrical Equipment	21.9	21.9	21.9	22.1	22.3	22.5	22.7	22.9
% Ch, Annual Rate	4.6	-1.0	1.1	3.4	4.1	3.6	3.4	3.4
Aerospace	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8
% Ch, Annual Rate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Transportation Equip.	9.7	9.5	9.3	9.3	9.2	9.1	9.1	9.0
% Ch, Annual Rate	-4.4	-7.5	-7.0	-3.0	-4.2	-1.0	-1.8	-3.5
Other Durables	27.6	27.6	27.6	27.6	27.5	27.5	27.5	27.4
% Ch, Annual Rate	0.9	-0.2	-0.3	-0.6	-0.4	-0.6	-0.7	-0.2
Nondurable Manufacturing	85.9	85.8	85.6	85.5	85.5	85.5	85.5	85.5
% Ch, Annual Rate	-0.5	-0.8	-0.7	-0.6	0.0	0.0	0.1	0.2
Food Manufacturing	40.1	40.1	40.0	39.9	40.0	40.0	40.0	40.1
% Ch, Annual Rate	0.2	-0.6	-0.8	-0.8	0.6	0.1	0.4	0.2
Paper and Paper Products	7.4	7.3	7.2	7.2	7.1	7.0	7.0	6.9
% Ch, Annual Rate	-3.7	-3.8	-3.8	-4.1	-3.6	-2.9	-3.0	-2.7
Other Nondurables	38.4	38.4	38.4	38.4	38.4	38.4	38.5	38.6
% Ch, Annual Rate	-0.6	-0.5	0.0	0.3	0.1	0.3	0.4	0.7
Natural Resources and Mining	6.4	6.5	6.4	6.4	6.4	6.4	6.4	6.4
% Ch, Annual Rate	3.5	2.5	-2.0	-1.1	-0.6	-0.4	0.4	0.7
Construction	220.6	220.1	219.6	219.1	218.3	217.5	217.2	217.2
% Ch, Annual Rate	-2.3	-0.8	-1.0	-1.0	-1.3	-1.4	-0.6	0.0
Trade, Transportation, and Utilities	648.0	648.8	649.6	649.5	650.1	650.6	650.5	650.3
% Ch, Annual Rate	0.1	0.5	0.5	0.0	0.3	0.3	-0.1	-0.1
Wholesale Trade	140.1	140.3	140.6	140.8	141.0	141.2	141.4	141.6
% Ch, Annual Rate	0.6	0.5	0.8	0.7	0.5	0.5	0.7	0.5
Retail Trade	393.4	394.0	394.6	394.4	394.8	395.2	394.9	394.6
% Ch, Annual Rate	0.3	0.7	0.6	-0.2	0.4	0.4	-0.3	-0.3
Electronic Shopping and Mail-Order	62.2	62.9	63.6	64.2	64.8	65.4	65.9	66.4
% Ch	5.1	4.7	4.3	4.0	3.7	3.5	3.3	3.1
Other Retail Trade	331.1	331.1	331.0	330.2	330.0	329.9	329.0	328.2
% Ch	-0.6	0.0	-0.1	-1.0	-0.2	-0.2	-1.1	-0.9
Trans., Warehousing, and Utilities	114.6	114.5	114.4	114.3	114.3	114.2	114.2	114.0
% Ch, Annual Rate	-1.0	-0.3	-0.3	-0.2	-0.1	-0.2	-0.3	-0.4
Information	138.5	138.9	139.5	139.7	141.1	142.2	142.7	142.8
% Ch, Annual Rate	0.0	1.2	1.9	0.4	4.2	2.9	1.5	0.4
Software Publishers	68.6	68.7	68.9	69.1	69.4	69.6	69.8	70.1
% Ch, Annual Rate	0.7	0.6	1.0	1.3	1.3	1.4	1.4	1.4
Other Publishing Industries	4.0	3.8	3.6	3.5	3.4	3.2	3.1	3.0
% Ch, Annual Rate	-16.9	-17.7	-15.6	-13.7	-13.8	-14.0	-13.9	-14.2
Other Information	65.9	66.4	67.0	67.1	68.4	69.3	69.7	69.8
% Ch, Annual Rate	0.6	3.0	3.8	0.3	8.3	5.5	2.3	0.1
Financial Activities	159.0	158.9	158.9	158.9	158.7	158.6	158.6	158.7
% Ch, Annual Rate	-0.1	-0.2	0.0	-0.1	-0.4	-0.5	0.2	0.2
Professional and Business Services	452.3	457.0	461.5	466.3	470.7	473.9	477.1	480.4
% Ch, Annual Rate	5.7	4.2	4.0	4.3	3.8	2.8	2.7	2.7
Education and Health Services	513.6	514.8	516.9	519.0	521.4	523.5	525.5	526.9
% Ch, Annual Rate	1.2	0.9	1.6	1.6	1.8	1.6	1.5	1.1
Leisure and Hospitality	360.6	363.0	365.2	365.7	365.0	366.1	367.8	369.8
% Ch, Annual Rate	2.6	2.7	2.4	0.6	-0.8	1.2	1.8	2.2
Other Services	125.1	125.6	126.0	126.5	126.9	127.4	127.8	128.2
% Ch, Annual Rate	1.4	1.5	1.5	1.4	1.5	1.4	1.3	1.2
Federal Government	77.4	84.6	78.5	77.2	77.2	77.3	77.4	77.5
% Ch, Annual Rate	3.2	43.1	-25.8	-6.8	0.5	0.5	0.5	0.4
State and Local Government	519.2	521.8	524.4	527.0	529.6	532.2	534.8	537.3
% Ch, Annual Rate	1.9	2.0	2.0	2.0	2.0	2.0	2.0	1.9

Table A2.4 (continued)

Washington Nonagricultural Employment by Industry (Thousands)

Forecast 2019 to 2023

	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4
Nonfarm Payroll Employment	3,597.2	3,607.2	3,616.7	3,626.5	3,636.1	3,645.2	3,653.4	3,661.3
% Ch, Annual Rate	1.0	1.1	1.1	1.1	1.1	1.0	0.9	0.9
Manufacturing	292.7	293.1	293.8	294.5	295.3	296.0	296.7	297.2
% Ch, Annual Rate	0.5	0.5	0.9	1.0	1.1	1.0	0.8	0.7
Durable Manufacturing	207.1	207.5	208.0	208.7	209.4	210.1	210.7	211.2
% Ch, Annual Rate	0.7	0.6	1.0	1.3	1.4	1.3	1.1	1.0
Wood Products	13.0	13.1	13.1	13.2	13.2	13.2	13.2	13.2
% Ch, Annual Rate	1.7	1.5	1.9	2.0	0.8	0.3	-0.1	-0.1
Primary and Fabricated Metals	25.8	25.8	25.9	26.1	26.2	26.4	26.6	26.7
% Ch, Annual Rate	0.2	0.4	1.5	2.3	2.8	3.0	2.6	2.1
Computer and Electronic Products	21.0	21.1	21.2	21.4	21.5	21.6	21.8	21.8
% Ch, Annual Rate	2.7	2.0	2.5	2.6	2.6	2.3	2.1	1.7
Machinery and Electrical Equipment	23.1	23.4	23.6	24.0	24.3	24.6	24.9	25.2
% Ch, Annual Rate	3.8	3.9	5.0	5.9	6.0	5.3	4.6	4.4
Aerospace	87.8	87.8	87.8	87.8	87.8	87.8	87.8	87.8
% Ch, Annual Rate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Transportation Equip.	8.9	8.8	8.7	8.7	8.6	8.6	8.5	8.4
% Ch, Annual Rate	-4.5	-4.2	-3.8	-2.8	-2.9	-3.0	-3.0	-2.9
Other Durables	27.5	27.5	27.5	27.6	27.7	27.7	27.8	27.9
% Ch, Annual Rate	0.2	0.2	0.6	0.9	1.1	1.2	1.2	1.2
Nondurable Manufacturing	85.6	85.7	85.8	85.8	85.9	86.0	86.0	86.0
% Ch, Annual Rate	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.1
Food Manufacturing	40.1	40.1	40.1	40.0	40.0	40.0	40.0	39.9
% Ch, Annual Rate	0.1	0.0	0.0	-0.2	-0.2	-0.2	-0.3	-0.3
Paper and Paper Products	6.9	6.8	6.8	6.8	6.8	6.7	6.7	6.7
% Ch, Annual Rate	-2.5	-2.3	-1.8	-1.8	-1.7	-1.8	-1.9	-2.0
Other Nondurables	38.6	38.7	38.9	39.0	39.1	39.2	39.3	39.4
% Ch, Annual Rate	0.9	1.1	1.3	1.3	1.3	1.2	1.0	0.9
Natural Resources and Mining	6.4	6.4	6.5	6.5	6.5	6.5	6.5	6.5
% Ch, Annual Rate	1.0	0.9	0.7	0.8	0.7	0.8	0.7	0.9
Construction	217.0	217.0	216.8	216.9	217.0	217.2	217.4	217.7
% Ch, Annual Rate	-0.5	0.1	-0.4	0.2	0.3	0.3	0.4	0.4
Trade, Transportation, and Utilities	650.1	650.3	650.4	650.4	649.9	649.7	649.4	649.1
% Ch, Annual Rate	-0.1	0.1	0.0	0.0	-0.3	-0.1	-0.2	-0.2
Wholesale Trade	141.7	141.9	142.0	142.1	142.3	142.4	142.5	142.7
% Ch, Annual Rate	0.4	0.4	0.4	0.4	0.6	0.3	0.3	0.3
Retail Trade	394.4	394.6	394.6	394.6	394.0	393.8	393.6	393.2
% Ch, Annual Rate	-0.2	0.2	0.0	0.0	-0.6	-0.2	-0.3	-0.3
Electronic Shopping and Mail-Order	66.9	67.4	67.8	68.2	68.7	69.1	69.5	69.9
% Ch	2.9	2.8	2.7	2.6	2.5	2.4	2.4	2.3
Other Retail Trade	327.5	327.3	326.8	326.4	325.3	324.8	324.1	323.3
% Ch	-0.8	-0.3	-0.5	-0.6	-1.2	-0.7	-0.9	-0.9
Trans., Warehousing, and Utilities	113.9	113.8	113.7	113.6	113.6	113.5	113.3	113.2
% Ch, Annual Rate	-0.3	-0.4	-0.4	-0.4	-0.2	-0.4	-0.4	-0.4
Information	143.0	143.4	143.8	144.4	145.4	146.4	147.5	148.4
% Ch, Annual Rate	0.4	1.1	1.2	1.7	3.0	2.6	3.0	2.6
Software Publishers	70.4	70.6	70.9	71.2	71.5	71.8	72.1	72.5
% Ch, Annual Rate	1.5	1.6	1.6	1.7	1.8	1.7	1.7	1.7
Other Publishing Industries	2.9	2.8	2.7	2.6	2.5	2.4	2.3	2.3
% Ch, Annual Rate	-13.5	-13.6	-13.2	-13.0	-12.1	-13.0	-13.4	-13.8
Other Information	69.7	69.9	70.2	70.6	71.4	72.1	73.0	73.7
% Ch, Annual Rate	-0.1	1.2	1.3	2.3	4.8	4.1	4.9	4.0
Financial Activities	158.6	158.3	157.9	157.6	157.4	156.9	156.5	156.0
% Ch, Annual Rate	-0.1	-0.8	-1.0	-0.7	-0.5	-1.2	-1.2	-1.1
Professional and Business Services	484.0	487.7	491.5	495.2	499.2	502.6	505.7	508.7
% Ch, Annual Rate	3.1	3.1	3.1	3.1	3.3	2.8	2.4	2.4
Education and Health Services	528.4	529.7	531.1	532.2	533.6	534.7	535.7	536.8
% Ch, Annual Rate	1.1	1.0	1.0	0.9	1.0	0.8	0.8	0.8
Leisure and Hospitality	370.9	372.2	373.4	374.4	374.7	375.6	376.4	377.2
% Ch, Annual Rate	1.2	1.5	1.2	1.0	0.3	1.0	0.9	0.8
Other Services	128.6	129.0	129.3	129.7	130.1	130.4	130.8	131.1
% Ch, Annual Rate	1.3	1.2	1.2	1.1	1.2	1.1	1.0	1.0
Federal Government	77.6	77.7	77.8	77.8	77.9	78.0	78.1	78.1
% Ch, Annual Rate	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
State and Local Government	539.9	542.3	544.6	546.9	549.1	551.1	552.8	554.6
% Ch, Annual Rate	1.9	1.8	1.7	1.7	1.6	1.5	1.3	1.3

Table A3.1

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

Forecast 2019 to 2023

	2016	2017	2018	2019	2020	2021	2022	2023
Personal Income	16,125.1	16,830.9	17,569.5	18,270.0	19,090.5	19,935.8	20,813.0	21,738.8
% Ch	2.6	4.4	4.4	4.0	4.5	4.4	4.4	4.4
Total Wage and Salary Disbursements	8,080.7	8,453.8	8,821.3	9,174.8	9,590.8	10,005.8	10,468.0	10,969.1
% Ch	2.9	4.6	4.3	4.0	4.5	4.3	4.6	4.8
Nonwage Personal Income	8,044.5	8,377.1	8,748.3	9,095.2	9,499.7	9,930.0	10,345.1	10,769.7
% Ch	2.3	4.1	4.4	4.0	4.4	4.5	4.2	4.1
Supplements to Wages and Salaries	1,875.6	1,953.4	2,020.0	2,082.9	2,168.2	2,257.9	2,356.2	2,457.4
% Ch	1.8	4.1	3.4	3.1	4.1	4.1	4.4	4.3
Proprietor's Income	1,419.3	1,500.9	1,578.8	1,603.8	1,623.5	1,667.6	1,698.5	1,726.3
% Ch	-0.2	5.8	5.2	1.6	1.2	2.7	1.9	1.6
Farm	37.5	38.9	37.0	28.7	40.8	68.7	70.4	61.9
% Ch	...	...	...	...	...	...	...	...
Nonfarm	1,381.8	1,462.0	1,541.8	1,575.1	1,582.7	1,598.8	1,628.1	1,664.4
% Ch	1.2	5.8	5.5	2.2	0.5	1.0	1.8	2.2
Less: Contribution For Govt. Soc. Ins.	1,239.9	1,298.6	1,359.3	1,415.2	1,470.4	1,527.5	1,593.9	1,667.4
% Ch	2.9	4.7	4.7	4.1	3.9	3.9	4.3	4.6
Dividends/Int./Rent	3,211.4	3,361.8	3,528.1	3,624.8	3,821.3	4,011.3	4,195.7	4,377.4
% Ch	2.8	4.7	4.9	2.7	5.4	5.0	4.6	4.3
Transfer Payments	2,778.1	2,859.7	2,980.7	3,198.9	3,357.2	3,520.7	3,688.6	3,876.0
% Ch	3.5	2.9	4.2	7.3	4.9	4.9	4.8	5.1

Table A3.2

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

Forecast 2019 to 2023

	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4
Personal Income	17,319.2	17,466.7	17,657.3	17,835.0	17,978.7	18,173.2	18,365.1	18,563.0
% Ch, Annual Rate	5.2	3.5	4.4	4.1	3.3	4.4	4.3	4.4
Total Wage and Salary Disbursements	8,710.6	8,770.8	8,879.2	8,924.5	9,011.2	9,116.5	9,232.8	9,338.9
% Ch, Annual Rate	5.8	2.8	5.0	2.1	3.9	4.8	5.2	4.7
Nonwage Personal Income	8,608.5	8,695.9	8,778.1	8,910.6	8,967.5	9,056.7	9,132.3	9,224.1
% Ch, Annual Rate	4.5	4.1	3.8	6.2	2.6	4.0	3.4	4.1
Supplements to Wages and Salaries	1,999.4	2,012.0	2,028.7	2,040.0	2,055.8	2,072.8	2,090.3	2,112.5
% Ch, Annual Rate	3.9	2.5	3.3	2.2	3.2	3.3	3.4	4.3
Proprietor's Income	1,549.9	1,568.5	1,580.0	1,616.7	1,606.1	1,600.1	1,606.5	1,602.7
% Ch, Annual Rate	6.4	4.9	3.0	9.6	-2.6	-1.5	1.6	-0.9
Farm	35.2	37.0	27.9	47.9	35.5	25.0	26.1	28.3
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	1,514.7	1,531.5	1,552.0	1,568.9	1,570.6	1,575.1	1,580.4	1,574.5
% Ch, Annual Rate	6.6	4.5	5.5	4.4	0.4	1.2	1.3	-1.5
Less: Contribution For Govt. Soc. Ins.	1,343.6	1,352.4	1,367.4	1,373.9	1,394.1	1,407.4	1,423.9	1,435.5
% Ch, Annual Rate	8.2	2.7	4.5	1.9	6.0	3.9	4.8	3.3
Dividends/Int./Rent	3,468.8	3,502.0	3,539.6	3,602.0	3,563.0	3,605.0	3,638.7	3,692.3
% Ch, Annual Rate	3.6	3.9	4.4	7.3	-4.3	4.8	3.8	6.0
Transfer Payments	2,933.9	2,965.8	2,997.2	3,025.8	3,136.7	3,186.1	3,220.7	3,252.2
% Ch, Annual Rate	6.6	4.4	4.3	3.9	15.5	6.5	4.4	4.0

Table A3.2 (continued)

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

Forecast 2019 to 2023

	2020:1	2020:2	2020:3	2020:4	2021:1	2021:2	2021:3	2021:4
Personal Income	18,778.3	18,992.1	19,196.8	19,394.8	19,623.0	19,830.6	20,038.0	20,251.6
% Ch, Annual Rate	4.7	4.6	4.4	4.2	4.8	4.3	4.2	4.3
Total Wage and Salary Disbursements	9,440.9	9,547.5	9,638.6	9,736.0	9,842.4	9,950.4	10,059.1	10,171.3
% Ch, Annual Rate	4.4	4.6	3.9	4.1	4.4	4.5	4.4	4.5
Nonwage Personal Income	9,337.4	9,444.6	9,558.1	9,658.7	9,780.6	9,880.2	9,978.8	10,080.3
% Ch, Annual Rate	5.0	4.7	4.9	4.3	5.1	4.1	4.1	4.1
Supplements to Wages and Salaries	2,136.8	2,159.2	2,178.3	2,198.4	2,223.8	2,246.5	2,269.1	2,292.4
% Ch, Annual Rate	4.7	4.3	3.6	3.7	4.7	4.1	4.1	4.2
Proprietor's Income	1,608.6	1,615.5	1,628.8	1,640.9	1,654.5	1,663.6	1,671.6	1,680.4
% Ch, Annual Rate	1.5	1.7	3.3	3.0	3.4	2.2	1.9	2.1
Farm	31.5	36.3	43.8	51.4	60.5	67.8	72.4	74.3
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	1,577.1	1,579.2	1,585.0	1,589.5	1,594.1	1,595.9	1,599.3	1,606.1
% Ch, Annual Rate	0.7	0.5	1.5	1.1	1.2	0.4	0.9	1.7
Less: Contribution For Govt. Soc. Ins.	1,453.2	1,465.3	1,475.8	1,487.3	1,507.0	1,520.5	1,534.1	1,548.4
% Ch, Annual Rate	5.0	3.4	2.9	3.2	5.4	3.6	3.6	3.8
Dividends/Int./Rent	3,740.8	3,795.8	3,852.5	3,896.0	3,942.8	3,988.4	4,033.5	4,080.4
% Ch, Annual Rate	5.4	6.0	6.1	4.6	4.9	4.7	4.6	4.7
Transfer Payments	3,304.3	3,339.4	3,374.3	3,410.7	3,466.5	3,502.2	3,538.7	3,575.5
% Ch, Annual Rate	6.6	4.3	4.3	4.4	6.7	4.2	4.2	4.2

Table A3.2 (continued)

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

Forecast 2019 to 2023

	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4
Personal Income	20,485.2	20,702.4	20,921.2	21,143.3	21,393.2	21,619.5	21,852.0	22,090.4
% Ch, Annual Rate	4.7	4.3	4.3	4.3	4.8	4.3	4.4	4.4
Total Wage and Salary Disbursements	10,287.7	10,405.8	10,527.4	10,650.9	10,778.0	10,904.0	11,031.7	11,162.6
% Ch, Annual Rate	4.7	4.7	4.8	4.8	4.9	4.8	4.8	4.8
Nonwage Personal Income	10,197.5	10,296.6	10,393.8	10,492.4	10,615.2	10,715.5	10,820.3	10,927.8
% Ch, Annual Rate	4.7	3.9	3.8	3.8	4.8	3.8	4.0	4.0
Supplements to Wages and Salaries	2,319.6	2,343.7	2,368.3	2,393.0	2,421.1	2,445.2	2,469.4	2,494.1
% Ch, Annual Rate	4.8	4.2	4.3	4.2	4.8	4.0	4.0	4.1
Proprietor's Income	1,686.8	1,695.3	1,702.6	1,709.3	1,714.4	1,721.0	1,729.7	1,740.0
% Ch, Annual Rate	1.5	2.0	1.7	1.6	1.2	1.6	2.0	2.4
Farm	73.9	72.0	69.2	66.3	63.9	62.1	61.0	60.7
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	1,612.8	1,623.3	1,633.4	1,642.9	1,650.5	1,659.0	1,668.7	1,679.3
% Ch, Annual Rate	1.7	2.6	2.5	2.4	1.9	2.1	2.4	2.6
Less: Contribution For Govt. Soc. Ins.	1,570.3	1,585.7	1,601.6	1,617.8	1,641.9	1,658.7	1,675.7	1,693.2
% Ch, Annual Rate	5.8	4.0	4.1	4.1	6.1	4.1	4.2	4.2
Dividends/Int./Rent	4,126.2	4,172.6	4,218.2	4,265.7	4,310.1	4,353.7	4,399.5	4,446.1
% Ch, Annual Rate	4.6	4.6	4.4	4.6	4.2	4.1	4.3	4.3
Transfer Payments	3,635.2	3,670.6	3,706.2	3,742.3	3,811.6	3,854.3	3,897.4	3,940.8
% Ch, Annual Rate	6.9	4.0	3.9	3.9	7.6	4.6	4.5	4.5

Table A3.3

Washington Personal Income by Component (Billions of Dollars)

Forecast 2019 to 2023

	2016	2017	2018	2019	2020	2021	2022	2023
Personal Income	404.232	428.765	458.727	481.149	504.734	529.440	554.930	582.435
% Ch	5.1	6.1	7.0	4.9	4.9	4.9	4.8	5.0
Total Wage and Salary Disbursements	203.300	218.077	237.442	250.339	262.266	274.643	287.973	303.024
% Ch	6.1	7.3	8.9	5.4	4.8	4.7	4.9	5.2
Manufacturing	21.729	21.691	22.802	23.971	24.517	25.394	26.485	27.785
% Ch	-0.3	-0.2	5.1	5.1	2.3	3.6	4.3	4.9
Durable Manufacturing	17.316	17.080	17.938	18.913	19.317	20.018	20.887	21.941
% Ch	-1.6	-1.4	5.0	5.4	2.1	3.6	4.3	5.0
Nondurable Manufacturing	4.413	4.611	4.864	5.057	5.200	5.376	5.598	5.844
% Ch	4.8	4.5	5.5	4.0	2.8	3.4	4.1	4.4
Nonmanufacturing	174.575	189.496	207.431	218.891	229.985	241.173	253.087	266.492
% Ch	7.1	8.5	9.5	5.5	5.1	4.9	4.9	5.3
Other Private Wages	1.193	1.232	1.373	1.407	1.466	1.528	1.593	1.665
% Ch	4.1	3.3	11.4	2.5	4.2	4.2	4.3	4.5
Farm Wages	1.700	1.467	1.511	1.599	1.703	1.811	1.927	2.054
% Ch	11.5	-13.7	3.0	5.9	6.5	6.4	6.4	6.6
Military Wages	4.103	4.190	4.325	4.471	4.595	4.736	4.880	5.028
% Ch	0.1	2.1	3.2	3.4	2.8	3.1	3.0	3.0
Nonwage Personal Income	200.932	210.688	221.285	230.810	242.468	254.796	266.957	279.412
% Ch	4.1	4.9	5.0	4.3	5.1	5.1	4.8	4.7
Supplements to Wages and Salaries	46.393	48.687	51.683	53.758	56.107	58.591	61.259	64.134
% Ch	5.6	4.9	6.2	4.0	4.4	4.4	4.6	4.7
Proprietor's Income	32.419	35.590	37.355	37.737	37.874	38.687	39.355	40.012
% Ch	-0.2	9.8	5.0	1.0	0.4	2.1	1.7	1.7
Farm	2.016	1.922	1.699	1.178	1.170	1.629	1.656	1.513
% Ch	...	...	...	...	...	...	...	...
Nonfarm	30.403	33.667	35.655	36.558	36.704	37.058	37.699	38.499
% Ch	3.1	10.7	5.9	2.5	0.4	1.0	1.7	2.1
Less: Contribution For Govt. Soc. Ins.	33.509	36.007	39.127	41.130	42.767	44.467	46.382	48.597
% Ch	4.4	7.5	8.7	5.1	4.0	4.0	4.3	4.8
Plus: Residence Adjustment	4.190	4.301	4.389	4.567	4.810	5.053	5.324	5.617
% Ch	7.8	2.7	2.0	4.1	5.3	5.0	5.4	5.5
Dividends/Int./Rent	91.551	96.125	101.924	105.518	112.061	118.391	124.569	130.665
% Ch	3.8	5.0	6.0	3.5	6.2	5.6	5.2	4.9
Transfer Payments	59.888	61.992	65.061	70.361	74.382	78.540	82.832	87.581
% Ch	5.8	3.5	5.0	8.1	5.7	5.6	5.5	5.7
State U.I. Benefits	0.982	0.975	0.925	1.011	1.082	1.279	1.425	1.557
% Ch	1.2	-0.7	-5.2	9.3	7.0	18.2	11.5	9.2
Other Transfers	58.906	61.016	64.136	69.350	73.300	77.262	81.407	86.024
% Ch	5.9	3.6	5.1	8.1	5.7	5.4	5.4	5.7

Table A3.4

Washington Personal Income by Component (Billions of Dollars)

Forecast 2019 to 2023

	2018:1	2018:2	2018:3	2018:4	2019:1	2019:2	2019:3	2019:4
Personal Income	451.449	455.158	460.392	467.906	473.560	478.310	483.484	489.240
% Ch, Annual Rate	12.2	3.3	4.7	6.7	4.9	4.1	4.4	4.8
Total Wage and Salary Disbursements	234.110	235.200	238.048	242.409	246.560	248.514	251.620	254.661
% Ch, Annual Rate	20.4	1.9	4.9	7.5	7.0	3.2	5.1	4.9
Manufacturing	23.408	22.256	22.417	23.126	24.451	23.583	23.795	24.053
% Ch, Annual Rate	32.1	-18.3	2.9	13.3	25.0	-13.5	3.7	4.4
Durable Manufacturing	18.602	17.454	17.549	18.145	19.443	18.548	18.724	18.938
% Ch, Annual Rate	37.7	-22.5	2.2	14.3	31.8	-17.2	3.8	4.7
Nondurable Manufacturing	4.806	4.802	4.868	4.980	5.008	5.035	5.071	5.115
% Ch, Annual Rate	13.0	-0.3	5.6	9.6	2.2	2.2	2.9	3.5
Nonmanufacturing	203.623	205.766	208.334	212.002	214.719	217.487	220.314	223.044
% Ch, Annual Rate	19.7	4.3	5.1	7.2	5.2	5.3	5.3	5.1
Other Private Wages	1.331	1.405	1.388	1.367	1.388	1.398	1.414	1.429
% Ch, Annual Rate	14.9	23.9	-4.6	-5.8	6.3	2.7	4.7	4.4
Farm Wages	1.487	1.497	1.528	1.531	1.566	1.583	1.611	1.637
% Ch, Annual Rate	3.4	3.0	8.5	0.8	9.3	4.6	7.2	6.7
Military Wages	4.261	4.277	4.380	4.383	4.436	4.463	4.487	4.497
% Ch, Annual Rate	3.4	1.5	10.0	0.3	4.9	2.5	2.1	0.9
Nonwage Personal Income	217.339	219.958	222.345	225.498	227.000	229.796	231.864	234.579
% Ch, Annual Rate	4.1	4.9	4.4	5.8	2.7	5.0	3.6	4.8
Supplements to Wages and Salaries	50.872	51.314	52.066	52.481	52.995	53.501	53.976	54.560
% Ch, Annual Rate	11.0	3.5	6.0	3.2	4.0	3.9	3.6	4.4
Proprietor's Income	36.656	37.213	37.549	38.002	37.849	37.801	37.742	37.555
% Ch, Annual Rate	4.8	6.2	3.7	4.9	-1.6	-0.5	-0.6	-2.0
Farm	1.687	1.780	1.630	1.701	1.435	1.207	1.057	1.013
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	34.969	35.433	35.919	36.301	36.414	36.594	36.685	36.541
% Ch, Annual Rate	6.4	5.4	5.6	4.3	1.2	2.0	1.0	-1.6
Less: Contribution For Govt. Soc. Ins.	38.431	38.734	39.487	39.856	40.496	40.929	41.381	41.713
% Ch, Annual Rate	17.5	3.2	8.0	3.8	6.6	4.3	4.5	3.2
Plus: Residence Adjustment	4.360	4.386	4.390	4.420	4.471	4.533	4.601	4.663
% Ch, Annual Rate	-2.3	2.4	0.3	2.8	4.6	5.7	6.1	5.5
Dividends/Int./Rent	99.822	101.074	102.472	104.329	103.405	104.840	106.029	107.796
% Ch, Annual Rate	4.7	5.1	5.6	7.4	-3.5	5.7	4.6	6.8
Transfer Payments	64.061	64.705	65.356	66.122	68.777	70.050	70.897	71.719
% Ch, Annual Rate	5.5	4.1	4.1	4.8	17.1	7.6	4.9	4.7
State U.I. Benefits	0.984	0.914	0.902	0.898	1.056	1.056	0.985	0.946
% Ch, Annual Rate	5.1	-25.6	-5.1	-1.8	91.3	0.0	-24.6	-14.7
Other Transfers	63.077	63.790	64.454	65.223	67.720	68.993	69.912	70.773
% Ch, Annual Rate	5.5	4.6	4.2	4.9	16.2	7.7	5.4	5.0

Table A3.4 (continued)

Washington Personal Income by Component (Billions of Dollars)

Forecast 2019 to 2023

	2020:1	2020:2	2020:3	2020:4	2021:1	2021:2	2021:3	2021:4
Personal Income	495.433	501.949	507.868	513.686	520.372	526.398	532.414	538.574
% Ch, Annual Rate	5.2	5.4	4.8	4.7	5.3	4.7	4.7	4.7
Total Wage and Salary Disbursements	257.663	261.055	263.711	266.635	269.932	273.066	276.197	279.379
% Ch, Annual Rate	4.8	5.4	4.1	4.5	5.0	4.7	4.7	4.7
Manufacturing	24.263	24.421	24.589	24.794	25.033	25.271	25.511	25.762
% Ch, Annual Rate	3.5	2.6	2.8	3.4	3.9	3.9	3.9	4.0
Durable Manufacturing	19.113	19.238	19.374	19.541	19.732	19.922	20.111	20.309
% Ch, Annual Rate	3.7	2.6	2.9	3.5	4.0	3.9	3.9	4.0
Nondurable Manufacturing	5.150	5.183	5.215	5.253	5.301	5.349	5.400	5.453
% Ch, Annual Rate	2.7	2.6	2.5	2.9	3.8	3.6	3.9	4.0
Nonmanufacturing	225.743	228.902	231.319	233.977	236.935	239.756	242.569	245.434
% Ch, Annual Rate	4.9	5.7	4.3	4.7	5.2	4.8	4.8	4.8
Other Private Wages	1.444	1.461	1.473	1.488	1.505	1.520	1.536	1.552
% Ch, Annual Rate	4.2	4.8	3.5	4.0	4.6	4.3	4.2	4.2
Farm Wages	1.663	1.692	1.715	1.741	1.770	1.798	1.825	1.853
% Ch, Annual Rate	6.4	7.2	5.5	6.1	6.9	6.4	6.3	6.3
Military Wages	4.550	4.579	4.614	4.636	4.690	4.721	4.756	4.778
% Ch, Annual Rate	4.8	2.6	3.1	1.9	4.7	2.7	3.0	1.9
Nonwage Personal Income	237.770	240.894	244.157	247.051	250.440	253.332	256.217	259.196
% Ch, Annual Rate	5.6	5.4	5.5	4.8	5.6	4.7	4.6	4.7
Supplements to Wages and Salaries	55.230	55.875	56.385	56.941	57.674	58.285	58.894	59.511
% Ch, Annual Rate	5.0	4.8	3.7	4.0	5.2	4.3	4.2	4.3
Proprietor's Income	37.612	37.724	37.967	38.192	38.446	38.605	38.757	38.940
% Ch, Annual Rate	0.6	1.2	2.6	2.4	2.7	1.7	1.6	1.9
Farm	1.030	1.095	1.215	1.339	1.490	1.613	1.690	1.723
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	36.582	36.629	36.752	36.853	36.956	36.993	37.067	37.218
% Ch, Annual Rate	0.4	0.5	1.4	1.1	1.1	0.4	0.8	1.6
Less: Contribution For Govt. Soc. Ins.	42.234	42.632	42.929	43.273	43.879	44.268	44.659	45.060
% Ch, Annual Rate	5.1	3.8	2.8	3.2	5.7	3.6	3.6	3.6
Plus: Residence Adjustment	4.723	4.785	4.838	4.895	4.957	5.021	5.084	5.150
% Ch, Annual Rate	5.2	5.4	4.5	4.8	5.2	5.2	5.2	5.3
Dividends/Int./Rent	109.415	111.219	113.072	114.539	116.097	117.624	119.139	120.706
% Ch, Annual Rate	6.1	6.8	6.8	5.3	5.6	5.4	5.3	5.4
Transfer Payments	73.024	73.924	74.823	75.756	77.145	78.065	79.003	79.948
% Ch, Annual Rate	7.5	5.0	5.0	5.1	7.5	4.9	4.9	4.9
State U.I. Benefits	1.006	1.047	1.112	1.162	1.210	1.258	1.301	1.345
% Ch, Annual Rate	27.7	17.6	26.9	19.2	17.5	17.1	14.2	14.4
Other Transfers	72.018	72.876	73.711	74.594	75.935	76.806	77.702	78.603
% Ch, Annual Rate	7.2	4.9	4.7	4.9	7.4	4.7	4.7	4.7

Table A3.4 (continued)

Washington Personal Income by Component (Billions of Dollars)

Forecast 2019 to 2023

	2022:1	2022:2	2022:3	2022:4	2023:1	2023:2	2023:3	2023:4
Personal Income	545.273	551.653	558.083	564.712	572.126	578.902	585.835	592.878
% Ch, Annual Rate	5.1	4.8	4.7	4.8	5.4	4.8	4.9	4.9
Total Wage and Salary Disbursements	282.726	286.153	289.673	293.339	297.257	301.070	304.931	308.836
% Ch, Annual Rate	4.9	4.9	5.0	5.2	5.5	5.2	5.2	5.2
Manufacturing	26.040	26.321	26.627	26.950	27.285	27.618	27.950	28.285
% Ch, Annual Rate	4.4	4.4	4.7	5.0	5.1	5.0	4.9	4.9
Durable Manufacturing	20.531	20.754	21.000	21.262	21.535	21.805	22.075	22.347
% Ch, Annual Rate	4.4	4.4	4.8	5.1	5.2	5.1	5.1	5.0
Nondurable Manufacturing	5.509	5.566	5.627	5.688	5.750	5.813	5.875	5.938
% Ch, Annual Rate	4.2	4.2	4.4	4.4	4.5	4.4	4.4	4.3
Nonmanufacturing	248.403	251.471	254.602	257.873	261.350	264.746	268.188	271.684
% Ch, Annual Rate	4.9	5.0	5.1	5.2	5.5	5.3	5.3	5.3
Other Private Wages	1.568	1.585	1.602	1.619	1.638	1.656	1.674	1.692
% Ch, Annual Rate	4.3	4.3	4.3	4.4	4.7	4.5	4.4	4.4
Farm Wages	1.882	1.912	1.942	1.973	2.006	2.038	2.070	2.103
% Ch, Annual Rate	6.4	6.4	6.4	6.6	6.9	6.5	6.5	6.5
Military Wages	4.833	4.865	4.901	4.923	4.979	5.012	5.048	5.072
% Ch, Annual Rate	4.6	2.7	3.0	1.9	4.6	2.7	2.9	1.9
Nonwage Personal Income	262.546	265.499	268.410	271.373	274.868	277.832	280.904	284.042
% Ch, Annual Rate	5.3	4.6	4.5	4.5	5.3	4.4	4.5	4.5
Supplements to Wages and Salaries	60.261	60.918	61.587	62.272	63.097	63.785	64.478	65.177
% Ch, Annual Rate	5.1	4.4	4.5	4.5	5.4	4.4	4.4	4.4
Proprietor's Income	39.080	39.277	39.450	39.613	39.739	39.895	40.092	40.320
% Ch, Annual Rate	1.4	2.0	1.8	1.7	1.3	1.6	2.0	2.3
Farm	1.716	1.683	1.636	1.588	1.546	1.515	1.498	1.492
% Ch, Annual Rate	...	...	...	...	...	...	...	...
Nonfarm	37.363	37.594	37.814	38.025	38.193	38.380	38.594	38.828
% Ch, Annual Rate	1.6	2.5	2.4	2.3	1.8	2.0	2.3	2.4
Less: Contribution For Govt. Soc. Ins.	45.696	46.142	46.603	47.086	47.827	48.336	48.852	49.375
% Ch, Annual Rate	5.8	4.0	4.1	4.2	6.4	4.3	4.3	4.4
Plus: Residence Adjustment	5.218	5.287	5.358	5.431	5.505	5.579	5.654	5.730
% Ch, Annual Rate	5.4	5.4	5.5	5.5	5.6	5.5	5.5	5.5
Dividends/Int./Rent	122.241	123.796	125.327	126.913	128.408	129.878	131.410	132.965
% Ch, Annual Rate	5.2	5.2	5.0	5.2	4.8	4.7	4.8	4.8
Transfer Payments	81.443	82.363	83.291	84.231	85.946	87.031	88.122	89.223
% Ch, Annual Rate	7.7	4.6	4.6	4.6	8.4	5.1	5.1	5.1
State U.I. Benefits	1.387	1.410	1.438	1.466	1.498	1.532	1.577	1.621
% Ch, Annual Rate	12.8	6.8	8.4	7.9	8.9	9.4	12.3	11.8
Other Transfers	80.056	80.953	81.852	82.765	84.449	85.499	86.546	87.602
% Ch, Annual Rate	7.6	4.6	4.5	4.5	8.4	5.1	5.0	5.0

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

	PCE Price Index*		U.S. CPI#		Seattle CPI+	
	Index	Percent Change	Index	Percent Change	Index	Percent Change
1971	21.8	4.2	0.405	4.2	0.382	2.1
1972	22.6	3.4	0.418	3.3	0.393	2.9
1973	23.8	5.4	0.444	6.3	0.418	6.4
1974	26.3	10.4	0.493	11.0	0.464	11.0
1975	28.5	8.3	0.538	9.1	0.511	10.2
1976	30.0	5.5	0.569	5.8	0.540	5.5
1977	32.0	6.5	0.606	6.5	0.583	8.0
1978	34.2	7.0	0.652	7.6	0.640	9.9
1979	37.3	8.9	0.726	11.3	0.709	10.8
1980	41.3	10.8	0.824	13.5	0.827	16.7
1981	45.0	9.0	0.909	10.4	0.916	10.8
1982	47.5	5.6	0.965	6.2	0.978	6.7
1983	49.5	4.3	0.996	3.2	0.993	1.5
1984	51.3	3.8	1.039	4.4	1.030	3.8
1985	53.1	3.5	1.076	3.5	1.056	2.5
1986	54.3	2.2	1.097	1.9	1.066	1.0
1987	56.0	3.1	1.136	3.6	1.092	2.4
1988	58.2	3.9	1.183	4.1	1.128	3.3
1989	60.7	4.4	1.239	4.8	1.181	4.7
1990	63.4	4.4	1.307	5.4	1.268	7.3
1991	65.5	3.3	1.362	4.2	1.341	5.8
1992	67.2	2.7	1.403	3.0	1.390	3.7
1993	68.9	2.5	1.445	3.0	1.429	2.8
1994	70.3	2.1	1.482	2.6	1.478	3.4
1995	71.8	2.1	1.524	2.8	1.522	3.0
1996	73.3	2.1	1.569	2.9	1.575	3.4
1997	74.6	1.7	1.605	2.3	1.630	3.5
1998	75.2	0.8	1.630	1.5	1.677	2.9
1999	76.3	1.5	1.666	2.2	1.728	3.0
2000	78.2	2.5	1.722	3.4	1.792	3.7
2001	79.7	1.9	1.770	2.8	1.857	3.6
2002	80.8	1.3	1.799	1.6	1.893	2.0
2003	82.4	1.9	1.840	2.3	1.924	1.6
2004	84.4	2.5	1.889	2.7	1.947	1.2
2005	86.8	2.8	1.953	3.4	2.002	2.8
2006	89.2	2.7	2.016	3.2	2.076	3.7
2007	91.4	2.5	2.073	2.9	2.157	3.9
2008	94.2	3.0	2.153	3.8	2.247	4.2
2009	94.1	-0.1	2.146	-0.3	2.260	0.6
2010	95.7	1.7	2.181	1.6	2.267	0.3
2011	98.1	2.5	2.249	3.1	2.328	2.7
2012	100.0	1.9	2.296	2.1	2.387	2.5
2013	101.3	1.3	2.330	1.5	2.416	1.2
2014	102.9	1.5	2.367	1.6	2.460	1.8
2015	103.1	0.3	2.370	0.1	2.494	1.4
2016	104.2	1.1	2.400	1.3	2.550	2.3
2017	106.1	1.8	2.451	2.1	2.628	3.0
2018	108.2	2.0	2.511	2.4	2.711	3.2
Forecast						
2019	109.8	1.5	2.555	1.8	2.786	2.8
2020	111.8	1.8	2.603	1.9	2.843	2.0
2021	114.0	1.9	2.656	2.0	2.900	2.0
2022	116.2	1.9	2.712	2.1	2.962	2.1
2023	118.4	1.9	2.770	2.1	3.025	2.1

* GDP Price Index for Personal Consumption Expenditures

Consumer Price Index for all Urban Consumers

+ Consumer Price Index for the Seattle-Tacoma-Bremerton, WA CMSA

Consumer Price Index and PCE Price Index values shown here are annual averages of seasonally adjusted quarterly data and may differ slightly from the annual values published by the Bureau of Labor Statistics and Bureau of Economic Analysis.

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

	Services		Food		Fuels		Gasoline	
	Index	Percent Change	Index	Percent Change	Index	Percent Change	Index	Percent Change
1971	16.8	5.5	21.4	2.3	4.9	6.4	9.1	0.7
1972	17.5	4.2	22.4	4.8	5.0	0.6	9.2	1.3
1973	18.3	4.8	25.2	12.7	5.7	14.6	10.1	9.6
1974	19.9	8.5	29.0	15.2	9.0	58.9	13.6	35.1
1975	21.6	8.6	31.2	7.5	9.8	8.5	14.6	6.7
1976	23.1	6.9	31.8	1.9	10.5	7.3	15.2	4.2
1977	24.8	7.6	33.7	5.9	11.9	13.2	16.1	5.8
1978	26.8	7.7	36.9	9.6	12.6	5.7	16.8	4.3
1979	29.0	8.4	40.5	9.8	17.3	37.9	22.5	34.0
1980	32.0	10.4	43.9	8.4	24.3	40.4	31.2	38.8
1981	35.3	10.2	47.1	7.1	29.8	22.3	34.7	11.3
1982	38.1	7.8	48.3	2.6	29.2	-1.9	32.9	-5.1
1983	40.4	6.1	48.8	1.1	26.9	-7.8	31.9	-3.3
1984	42.5	5.2	50.3	3.0	27.5	2.2	31.4	-1.5
1985	44.6	4.9	50.9	1.1	26.4	-3.9	31.6	0.8
1986	46.4	4.1	52.1	2.4	20.7	-21.7	24.8	-21.5
1987	47.8	3.0	53.7	3.2	21.2	2.6	25.8	3.8
1988	50.1	4.8	55.3	3.0	21.2	0.0	26.0	0.8
1989	52.4	4.7	58.2	5.3	22.5	5.9	28.4	9.2
1990	54.8	4.6	61.1	4.9	27.1	20.4	32.3	13.8
1991	57.0	3.9	63.0	3.1	25.8	-4.8	31.9	-1.3
1992	59.0	3.6	63.5	0.8	24.7	-4.1	31.8	-0.4
1993	61.1	3.5	64.3	1.4	24.6	-0.7	31.5	-1.0
1994	62.7	2.7	65.4	1.7	24.1	-1.8	31.6	0.5
1995	64.5	2.8	66.8	2.2	23.9	-0.9	32.1	1.6
1996	66.2	2.7	68.9	3.1	27.1	13.3	34.1	6.1
1997	68.1	2.8	70.2	1.9	27.1	0.2	34.1	0.0
1998	69.5	2.1	71.1	1.3	24.0	-11.4	29.7	-12.9
1999	71.0	2.0	72.2	1.6	24.4	1.7	32.3	8.9
2000	72.9	2.8	73.9	2.3	35.8	46.6	41.3	27.8
2001	75.2	3.1	76.1	2.9	35.1	-2.0	39.8	-3.6
2002	77.1	2.6	77.2	1.5	31.3	-10.8	37.4	-6.0
2003	79.5	3.1	78.7	1.9	37.9	20.9	43.6	16.5
2004	82.0	3.1	81.2	3.1	44.1	16.4	51.3	17.6
2005	84.7	3.3	82.6	1.7	58.7	33.0	62.3	21.6
2006	87.6	3.5	84.0	1.7	66.7	13.7	70.3	12.9
2007	90.5	3.3	87.2	3.9	71.3	6.9	76.3	8.4
2008	93.2	3.0	92.6	6.1	96.8	35.7	88.8	16.5
2009	94.2	1.1	93.7	1.2	66.2	-31.6	65.2	-26.6
2010	96.0	1.8	93.9	0.3	77.5	16.9	76.9	18.0
2011	97.8	1.9	97.7	4.0	98.6	27.3	96.6	25.7
2012	100.0	2.2	100.0	2.4	100.0	1.4	100.0	3.5
2013	102.3	2.3	101.0	1.0	98.8	-1.2	97.2	-2.8
2014	104.9	2.5	102.9	1.9	98.3	-0.6	93.5	-3.8
2015	106.8	1.9	104.1	1.1	69.8	-29.0	68.7	-26.6
2016	109.3	2.3	103.0	-1.0	58.0	-16.9	61.0	-11.1
2017	112.0	2.4	102.9	-0.1	66.9	15.3	68.9	12.9
2018	115.0	2.7	103.4	0.5	81.1	21.2	77.9	13.1
Forecast								
2019	117.7	2.4	104.9	1.5	78.6	-3.0	74.5	-4.4
2020	120.8	2.6	106.9	1.8	76.9	-2.1	73.2	-1.8
2021	124.0	2.6	108.9	1.9	78.2	1.6	72.6	-0.9
2022	127.2	2.6	110.9	1.8	80.6	3.1	73.3	1.0
2023	130.5	2.6	112.9	1.8	83.3	3.3	74.2	1.3

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

	<u>Population</u>	<u>Change</u>	<u>Percent Change</u>	<u>Births</u>	<u>Deaths</u>	<u>Net Migration</u>
1970	3413.2	16.2	0.5	59.9	30.0	-13.7
1971	3436.3	23.1	0.7	60.0	29.8	-7.1
1972	3430.3	-6.0	-0.2	53.1	30.4	-28.7
1973	3444.3	14.0	0.4	47.7	30.4	-3.3
1974	3508.7	64.4	1.9	48.2	29.9	46.1
1975	3567.9	59.2	1.7	50.1	30.3	39.4
1976	3634.9	67.0	1.9	51.4	30.2	45.8
1977	3715.4	80.5	2.2	54.2	29.1	55.4
1978	3836.2	120.8	3.3	57.3	30.4	93.9
1979	3979.2	143.0	3.7	60.2	30.2	113.0
1980	4132.2	153.0	3.8	65.4	31.3	118.9
1981	4229.3	97.1	2.4	68.2	31.8	60.8
1982	4276.5	47.3	1.1	70.1	31.7	8.9
1983	4307.2	30.7	0.7	69.5	32.5	-6.2
1984	4354.1	46.8	1.1	68.5	33.2	11.6
1985	4415.8	61.7	1.4	69.1	34.0	26.6
1986	4462.2	46.4	1.1	70.2	34.0	10.2
1987	4527.1	64.9	1.5	69.3	34.4	30.0
1988	4616.9	89.8	2.0	71.0	36.0	54.8
1989	4728.1	111.2	2.4	73.0	36.0	74.2
1990	4866.7	138.6	2.9	76.4	36.2	98.5
1991	5000.4	133.7	2.7	79.1	36.6	91.2
1992	5091.1	90.8	1.8	80.2	37.2	47.7
1993	5188.0	96.9	1.9	79.1	39.4	57.1
1994	5291.6	103.6	2.0	78.2	39.5	64.9
1995	5396.6	105.0	2.0	77.5	40.0	67.5
1996	5483.1	86.5	1.6	77.0	41.2	50.7
1997	5579.1	96.0	1.8	78.0	42.6	60.6
1998	5685.5	106.3	1.9	78.8	41.6	69.1
1999	5792.2	106.8	1.9	79.8	43.1	70.1
2000	5894.1	101.9	1.8	79.9	43.7	65.8
2001	5970.5	76.3	1.3	80.7	43.9	39.5
2002	6059.7	89.2	1.5	79.3	44.9	54.9
2003	6126.9	67.2	1.1	79.1	44.7	32.9
2004	6208.5	81.6	1.3	81.0	46.0	46.7
2005	6298.8	90.3	1.5	81.8	45.6	54.0
2006	6420.2	121.4	1.9	83.2	45.3	83.5
2007	6525.1	104.9	1.6	87.8	46.2	63.3
2008	6608.2	83.1	1.3	89.6	47.9	41.5
2009	6672.3	64.0	1.0	89.8	48.1	22.3
2010	6724.5	52.3	0.8	88.4	47.7	11.5
2011	6767.9	43.4	0.6	86.4	48.8	5.8
2012	6817.8	49.9	0.7	87.1	49.2	12.0
2013	6882.4	64.6	0.9	87.3	51.1	28.5
2014	6968.2	85.8	1.2	87.0	50.7	49.5
2015	7061.4	93.2	1.3	88.5	52.8	57.6
2016	7183.7	122.3	1.7	89.8	54.7	87.1
2017	7310.3	126.6	1.8	89.7	56.1	93.0
2018	7427.6	117.3	1.6	88.7	56.6	85.2
Forecast						
2019	7539.8	112.2	1.5	90.0	57.4	79.6
2020	7649.8	110.1	1.5	91.0	58.4	77.4
2021	7753.2	103.3	1.4	92.0	59.5	70.8
2022	7850.2	97.0	1.3	94.0	60.6	63.7
2023	7942.4	92.3	1.2	94.8	61.9	59.4

* As of April 1 of Each Year

Source: Office of Financial Management

Table A5.2
Washington Population*
 (Thousands)

	2014	2015	Actual 2016	2017	2018	2019	2020	Forecast 2021	2022	2023
Total Population	6968.2	7061.4	7183.7	7310.3	7427.6	7539.8	7649.8	7753.2	7850.2	7942.4
Percent Change	1.2	1.3	1.7	1.8	1.6	1.5	1.5	1.4	1.3	1.2
Age 17 and Under	1588.4	1602.8	1625.6	1648.7	1666.9	1684.5	1704.1	1722.0	1737.8	1751.4
Percent of Total	22.8	22.7	22.6	22.6	22.4	22.3	22.3	22.2	22.1	22.1
Age 6-18	1151.0	1162.2	1178.7	1195.4	1211.7	1226.6	1241.1	1257.8	1273.3	1285.2
Percent of Total	16.5	16.5	16.4	16.4	16.3	16.3	16.2	16.2	16.2	16.2
Age 18 and Over	5379.8	5458.7	5558.1	5661.6	5760.7	5855.2	5945.7	6031.2	6112.4	6191.0
Percent of Total	77.2	77.3	77.4	77.4	77.6	77.7	77.7	77.8	77.9	77.9
Age 21 and Over	5107.4	5187.1	5284.0	5383.5	5478.6	5570.6	5661.1	5747.6	5828.2	5902.6
Percent of Total	73.3	73.5	73.6	73.6	73.8	73.9	74.0	74.1	74.2	74.3
Age 20-34	1445.8	1458.8	1482.7	1507.6	1529.1	1550.1	1568.5	1584.0	1596.3	1605.5
Percent of Total	20.7	20.7	20.6	20.6	20.6	20.6	20.5	20.4	20.3	20.2
Age 18-64	4396.9	4431.0	4484.7	4540.3	4587.2	4629.5	4665.2	4697.3	4725.9	4751.8
Percent of Total	63.1	62.7	62.4	62.1	61.8	61.4	61.0	60.6	60.2	59.8
Age 65 and Over	982.8	1027.7	1073.3	1121.3	1173.5	1225.7	1280.6	1333.9	1386.5	1439.2
Percent of Total	14.1	14.6	14.9	15.3	15.8	16.3	16.7	17.2	17.7	18.1

* As of April 1 of Each Year

Source: Office of Financial Management

Table A6.1

Summary of National and State Indicators

Indicator	Latest Data	Indication*
U.S. Leading Index	May 2019	unchanged
U.S. Real GDP Growth	1st quarter 2019	+
U.S. ISM Index	May 2019	-
U.S. Employment YOY%Δ	May 2019	-
U.S. Unemployment Rate	May 2019	unchanged
U.S. Consumer Confidence	June 2019	-
U.S. Consumer Sentiment	June 2019	-
U.S. Light Vehicle Sales	May 2019	+
U.S. CPI YOY%Δ	May 2019	+
U.S. Home Prices YOY%Δ	April 2019	-
S&P 500 Index	June 2019	+
WA Leading Index	May 2019	-
WA ISM-WW Index	May 2019	unchanged
WA Employment YOY%Δ	May 2019	unchanged
WA Aerospace Empl. YOY%Δ	May 2019	+
WA Unemployment Rate	May 2019	unchanged
WA Help Wanted Index	May 2019	-
WA Business Cycle Indicator	May 2019	-
WA Initial Unemploy. Claims	May 2019	-
WA Housing Permits	May 2019	-
WA Weekly Hours in Mfg.	May 2019	-
WA New Vehicle Registration	May 2019	-
WA In-Migration	May 2019	+
WA Exports-Total YOY%Δ	1st quarter 2019	-
WA Exports- w/o Trans. Equip. YOY%Δ	1st quarter 2019	+
Seattle CPI YOY%Δ	April 2019	+
Seattle Home Prices YOY%Δ	April 2019	-
WA Construction Activity Index	May 2019	+

*Change from the previous reading

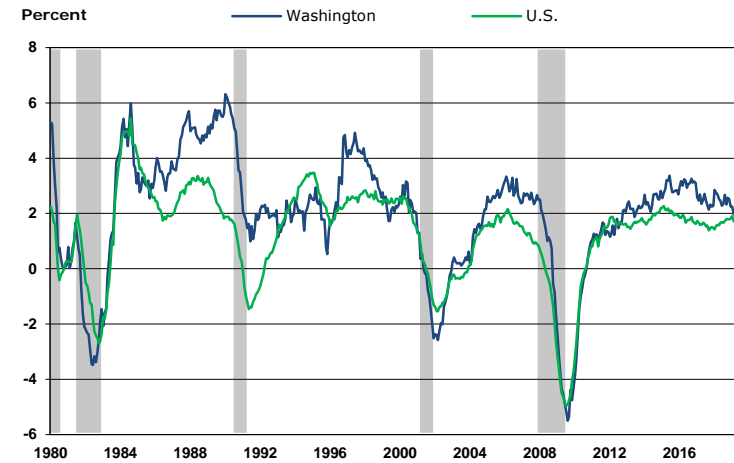
Table A6.2
Washington Business Indicators
 Historical Data

	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	WA Purchasing Management Index	U.S. Purchasing Management Index
2014:01	113.8	92.0	44.2	95.5	118.2	63.5	51.8
2014:02	113.7	92.5	43.0	93.5	118.5	68.7	54.3
2014:03	114.3	93.4	43.5	94.3	118.6	63.6	54.4
2014:04	115.0	93.5	46.1	96.8	120.6	53.7	55.3
2014:05	115.2	94.0	46.6	96.1	118.7	59.6	55.6
2014:06	116.3	94.7	47.2	97.4	121.0	67.0	55.7
2014:07	116.5	95.2	48.6	97.4	121.3	50.1	56.4
2014:08	116.6	95.5	49.0	97.7	121.6	62.9	58.1
2014:09	116.5	96.1	49.1	99.4	114.3	60.3	56.1
2014:10	117.0	96.4	49.0	100.9	119.0	57.6	57.9
2014:11	117.7	96.8	51.2	101.9	128.0	63.1	57.6
2014:12	117.4	97.3	51.7	103.2	122.0	53.3	55.1
2015:01	117.3	97.4	52.7	99.9	127.6	66.6	53.5
2015:02	118.4	97.4	57.9	109.0	137.2	65.9	52.9
2015:03	117.8	97.9	57.4	100.8	138.8	64.1	51.5
2015:04	118.0	98.4	58.4	98.9	135.7	60.4	51.5
2015:05	118.4	98.8	58.6	98.4	139.0	60.3	52.8
2015:06	118.8	99.3	58.9	99.8	136.0	51.4	53.5
2015:07	118.6	99.1	60.0	100.0	141.0	53.6	52.7
2015:08	118.2	99.1	59.2	99.4	139.1	48.0	51.1
2015:09	117.0	99.0	58.3	95.7	126.6	48.0	50.2
2015:10	118.0	99.4	59.6	99.6	132.4	46.1	50.1
2015:11	118.3	99.8	60.1	100.8	134.3	50.0	48.6
2015:12	117.9	99.6	62.7	98.7	130.7	54.5	48.0
2016:01	117.8	99.3	64.6	101.9	128.7	57.2	48.2
2016:02	118.0	99.2	66.5	102.3	124.9	55.4	49.7
2016:03	118.8	99.2	64.2	105.2	128.9	55.7	51.7
2016:04	119.4	99.7	65.3	102.4	130.9	50.8	50.7
2016:05	120.4	99.5	67.7	106.2	148.2	49.2	51.0
2016:06	120.4	99.8	68.1	104.1	151.3	49.1	52.8
2016:07	120.8	100.2	69.1	103.0	156.3	50.8	52.3
2016:08	120.8	100.2	67.9	102.2	153.1	47.7	49.4
2016:09	121.1	100.4	68.3	107.5	143.4	51.4	51.7
2016:10	120.8	100.5	69.4	102.3	152.3	53.1	52.0
2016:11	120.6	100.7	71.0	104.1	148.8	53.3	53.5
2016:12	120.2	101.2	72.1	103.1	149.2	47.3	54.5
2017:01	121.2	101.8	71.2	103.5	152.5	54.2	56.0
2017:02	120.6	102.1	70.4	104.4	140.1	48.6	57.7
2017:03	121.3	102.6	72.2	102.6	143.4	59.2	57.2
2017:04	122.1	102.8	71.6	107.9	143.3	59.2	54.8
2017:05	122.3	103.2	73.4	102.9	149.2	45.0	54.9
2017:06	123.0	103.8	73.1	106.2	145.4	50.0	57.8
2017:07	123.2	104.1	73.9	106.1	139.5	47.0	56.3
2017:08	123.5	104.5	75.5	106.2	135.1	58.2	58.8
2017:09	123.7	104.5	77.5	102.9	140.4	57.5	60.8
2017:10	124.4	105.9	78.3	108.1	132.7	51.8	58.7
2017:11	123.8	106.3	81.1	100.2	134.7	65.0	58.2
2017:12	125.2	107.1	80.3	107.3	138.6	65.8	59.7
2018:01	125.1	107.8	79.7	102.9	136.8	60.8	59.1
2018:02	125.7	108.5	81.0	104.6	133.3	68.3	60.8
2018:03	126.7	108.8	82.2	111.4	137.4	68.0	59.3
2018:04	126.7	109.3	81.9	106.6	133.7	55.8	57.3
2018:05	125.7	109.4	83.0	104.7	128.0	61.7	58.7
2018:06	125.3	110.0	82.9	104.8	123.1	56.0	60.2
2018:07	125.6	110.4	83.0	105.0	124.8	60.0	58.1
2018:08	125.2	110.9	82.4	102.9	123.4	61.1	61.3
2018:09	126.3	111.5	83.6	104.7	131.5	62.7	59.8
2018:10	126.4	111.4	84.7	105.4	129.3	55.0	57.7
2018:11	126.3	111.5	86.4	107.1	127.8	60.0	59.3
2018:12	126.7	111.3	87.1	107.7	131.2	52.7	54.1
2019:01	126.8	111.3	88.0	103.3	133.0	54.5	56.6
2019:02	123.7	111.5	84.2	92.4	131.9	61.1	54.2
2019:03	127.1	111.7	86.6	109.3	125.6	57.8	55.3
2019:04	127.4	111.8	87.2	109.3	125.5	54.0	52.8
2019:05	126.9	111.8	86.3	110.1	121.6	54.0	52.1

Figure A7.1: Washington State Economic Indicators

Year-over-Year Employment Growth

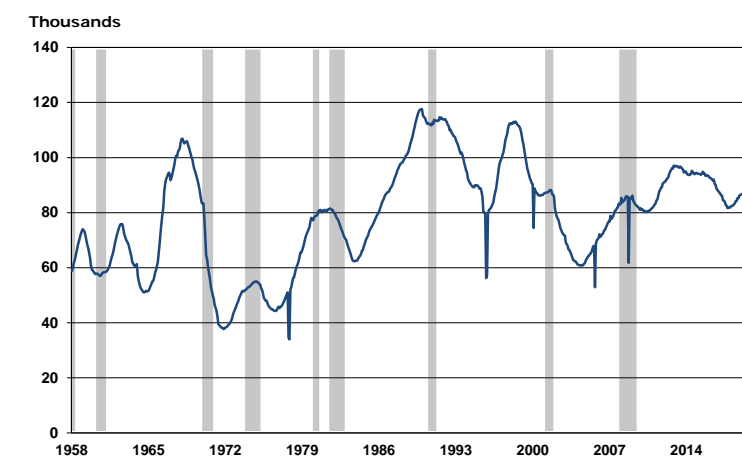
January 1980 to May 2019



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

Washington Aircraft and Parts Employment

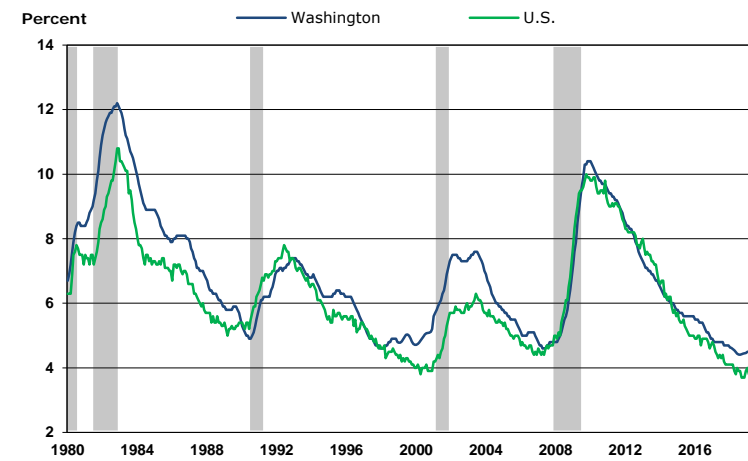
January 1958 to May 2019



* Source: Bureau of Labor Statistics, ERFC

Unemployment Rate, S.A.

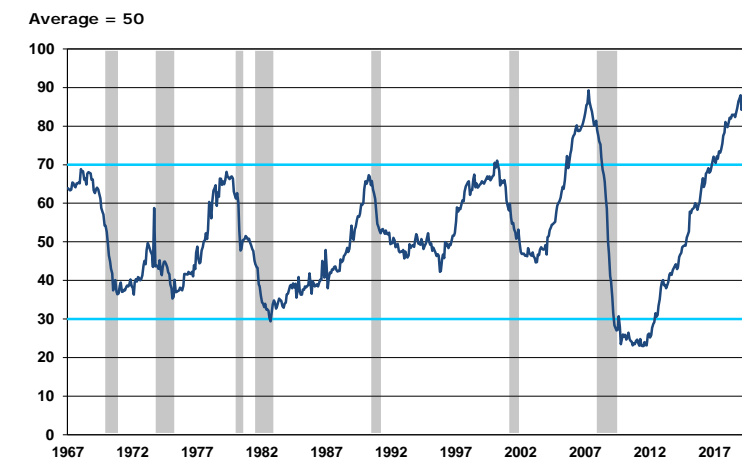
January 1980 to May 2019



* Source: Bureau of Labor Statistics

Washington Business Cycle Indicator

January 1968 to May 2019

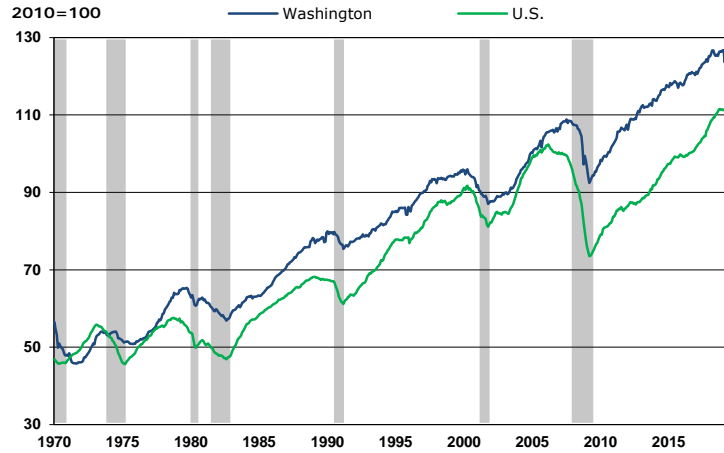


* Source: ERFC

Figure A7.2: Washington State Leading Indicators

The Washington and U.S. Indexes of Leading Indicators

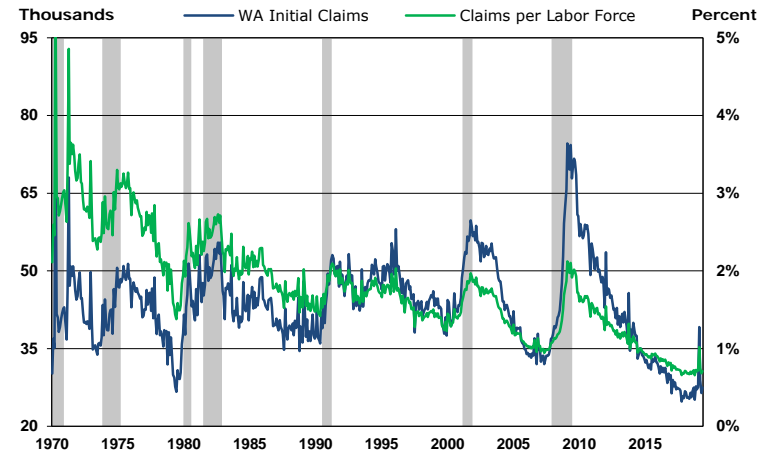
January 1970 to May 2019



* The Conference Board, ERFC

Washington Initial Claims for Unemployment Insurance

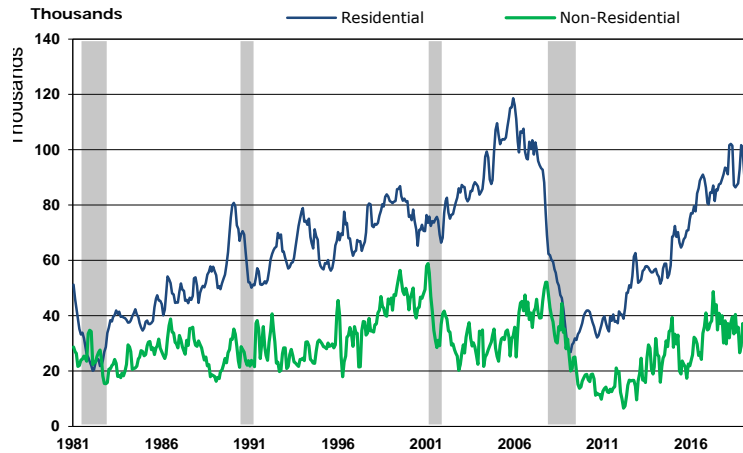
January 1970 to May 2019, S.A.



* Source: WA State Employment Security, ERFC

Square Footage of Construction Projects in WA State

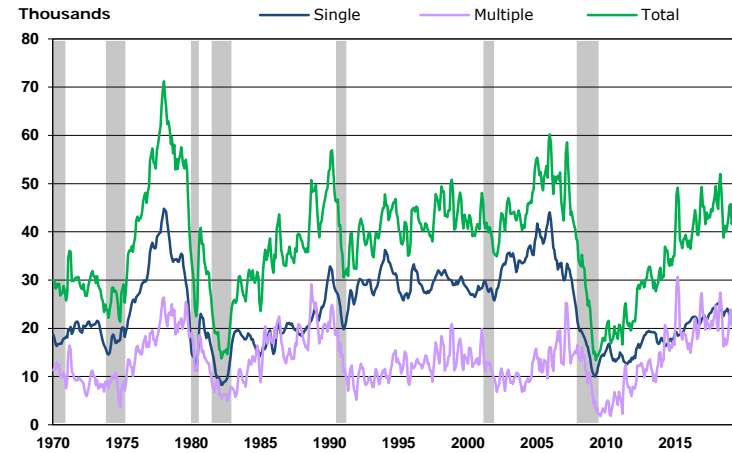
January 1981 to March 2019, 3mma, SAAR



* Source: McGraw-Hill Construction, ERFC

Housing Units Authorized in Washington State

January 1970 to May 2019, 3mma, SAAR

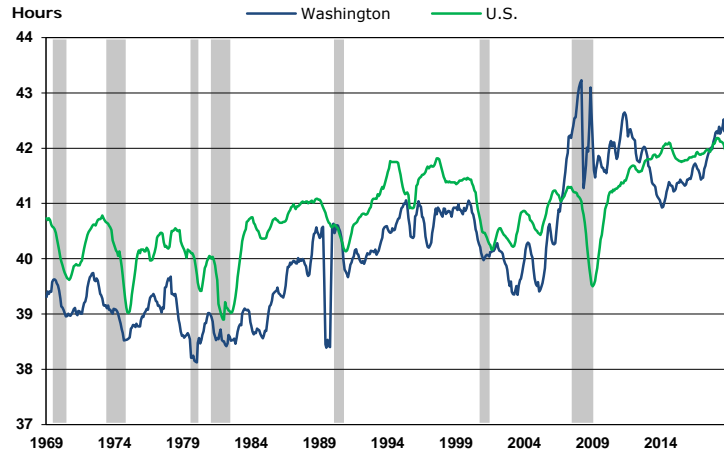


* Source: Census Bureau, ERFC

Figure A7.3: Other State Economic Indicators

Average Weekly Hours in Manufacturing

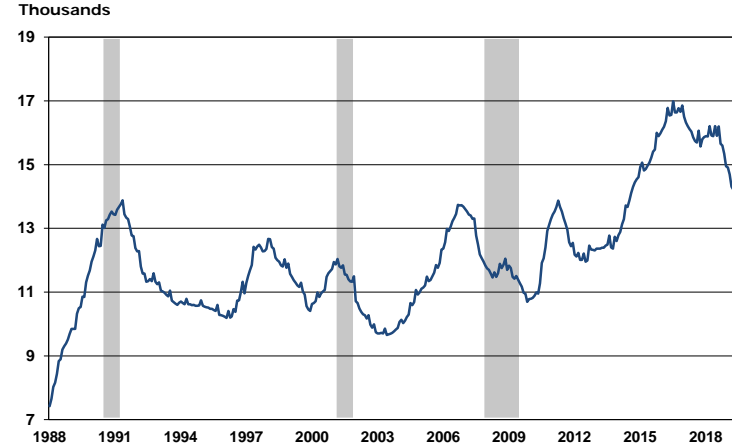
June 1969 to May 2019, 6-Mo. Moving Average, S.A.



* Bureau of Labor Statistics, ERFC

Washington Driver's License In-Migration

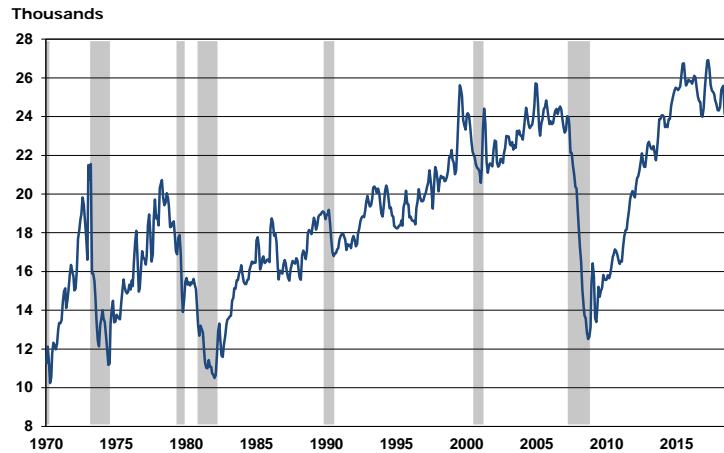
January 1988 to May 2019, 12-Month Moving Average



* Source: WA State Department of Licensing, ERFC

New Car and Truck Registrations in Washington

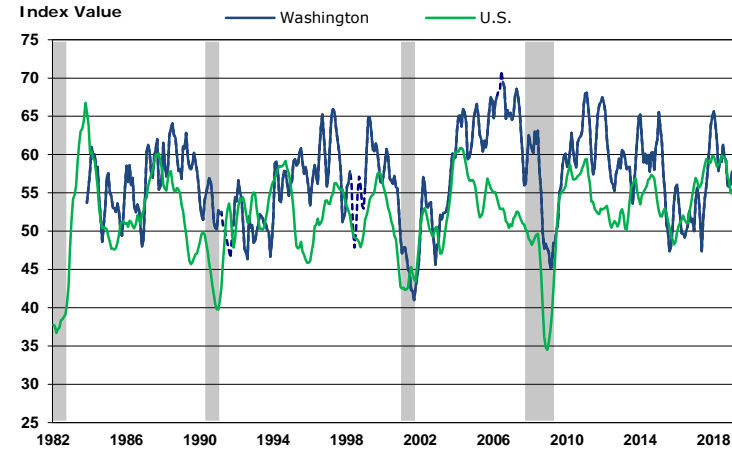
September 1970 to May 2019, 3-Month Moving Average, S.A.



* Source: WA State Department of Licensing, ERFC

Institute for Supply Management Index

March 1982 to May 2019, 3-Month Moving Average, S.A.

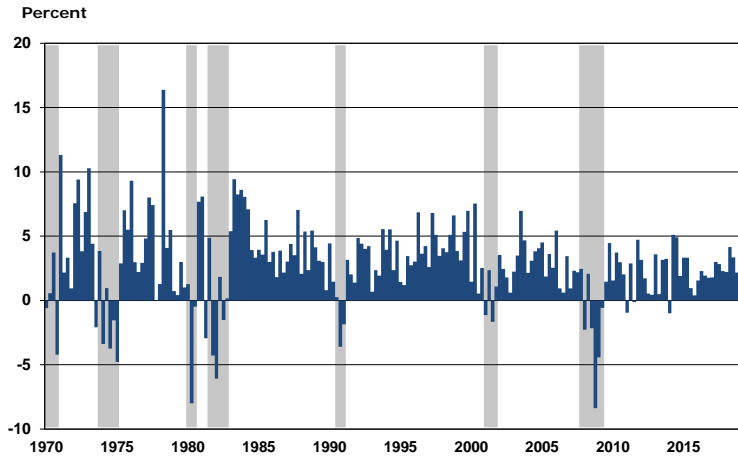


* Source: Institute for Supply Management, ISM-WW, ERFC

Figure A7.4: Other Economic Indicators

Quarterly U.S. Real GDP Growth

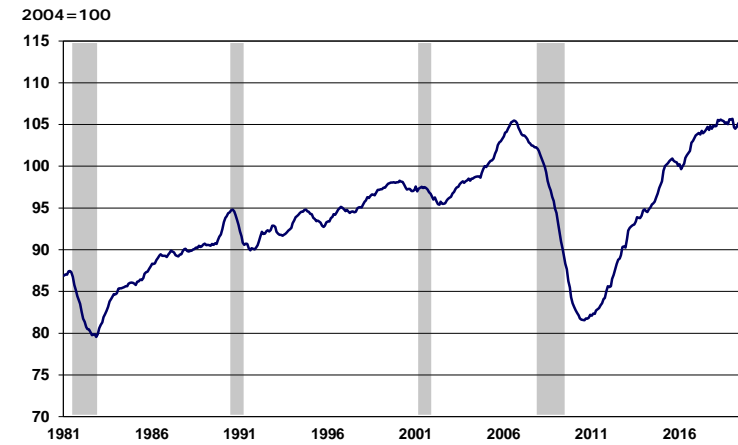
1970Q1 to 2019Q1, SAAR



* Source: Bureau of Economic Analysis

Washington Construction Index

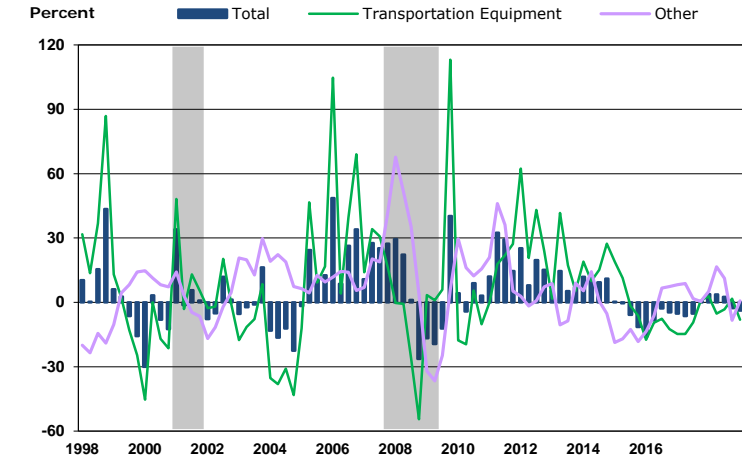
January 1981 to May 2019, 12mma



* Source: ERFC

Washington State Export Composition

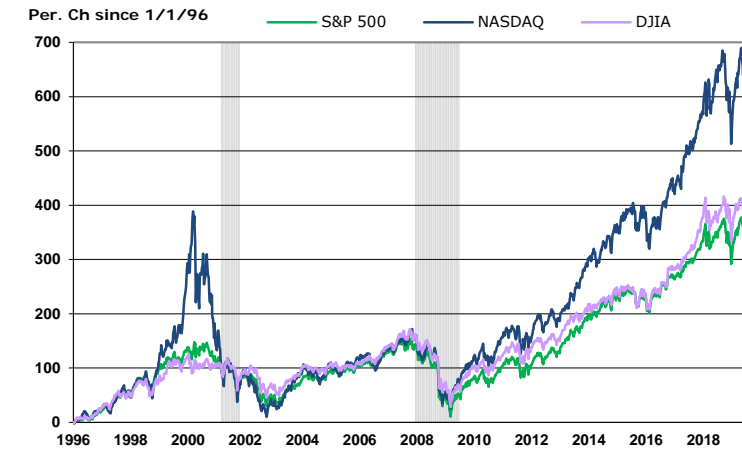
1998Q1 to 2019Q1, Year-over-year percent change



* Source: WISER

National Stock Indexes

January 1, 1996 to May 13, 2019

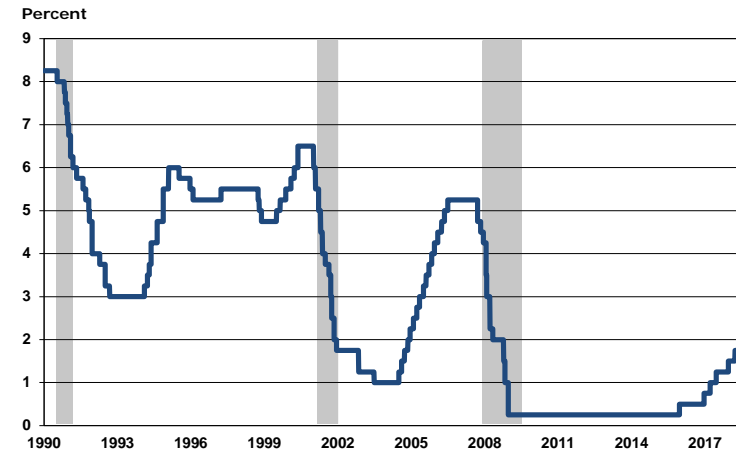


* Source: ERFC

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

Federal Funds Target Rate

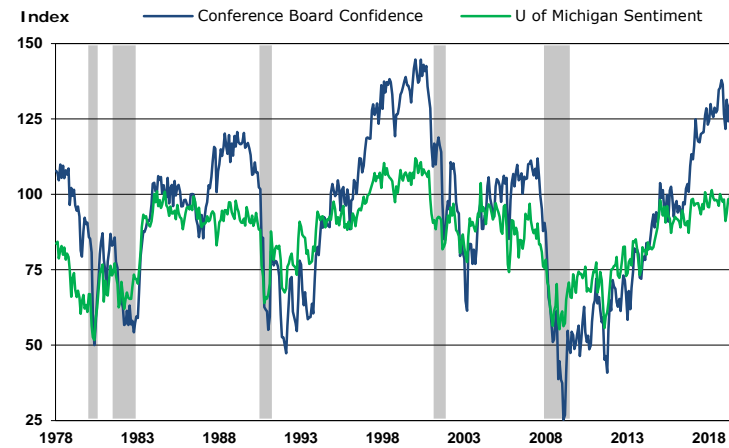
January 1, 1990 to June 27, 2019



* Federal Reserve

Consumer Confidence

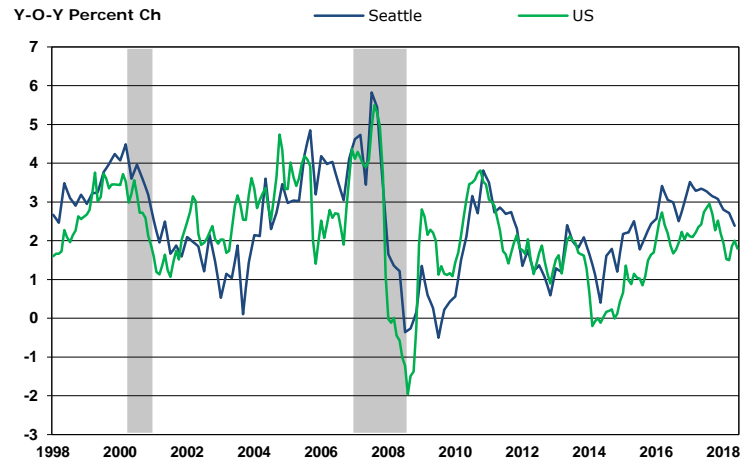
March 1978 to June 2019



* Source: The Conference Board, University of Michigan

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

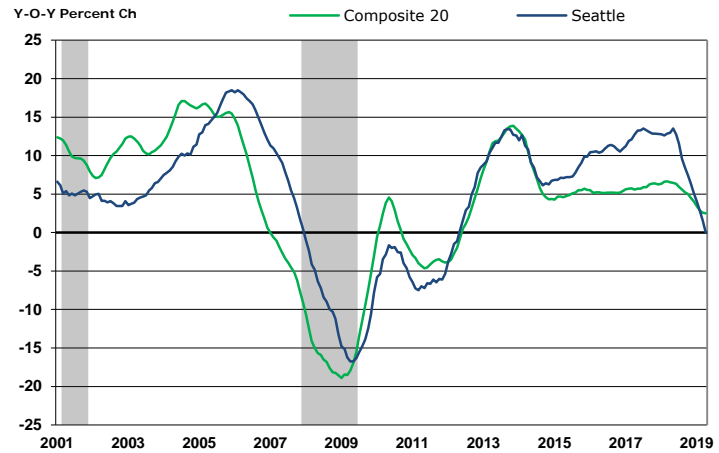
December 1998 to May 2019



* Source: Bureau of Labor Statistics

Case Shiller Home Price Index

January 2001 to April 2019, SA



* Source: Case Shiller, ERFC

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Glossary

Biennium: The state's two years budget cycle.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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