

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 2017
Volume XL, No. 2



Economic and Revenue Forecast Council Members

Senator Kevin Ranker, Chair
Senator John Braun
Representative Terry Nealey
Representative Timm Ormsby

Treasurer Duane Davidson
David Schumacher, Director, OFM
Vikki Smith, Director, DOR

Forecast Council Staff

Dr. Steve Lerch, Executive Director, Chief Economist
Mr. Bret Bertolin, Senior Economist
Mr. Eric Swenson, Senior Economist
Mr. Lance Carey, Senior Economist
Ms. desirée Monroy, Assistant Director of Administrative Services

This Publication is available on the Internet at <http://www.erfc.wa.gov>

Washington State Economic and Revenue Forecast

Prepared by the
Economic and Revenue Forecast Council

June 2017
Volume XL, No. 2

This page left intentionally blank.

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 in public; 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 29, 2017.

This page left intentionally blank.

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..... | 10 |
| Risks to the Forecast | 16 |
| | |
| Chapter 2: Washington Economy – Current Conditions and Forecast | 23 |
| Current Conditions | 23 |
| Washington State Forecast | 27 |
| Washington Payroll Employment | 28 |
| Washington Personal Income | 30 |
| Washington Building Permits | 30 |
| Seattle Consumer Price Index | 31 |
| Alternative Scenarios | 32 |
| | |
| Chapter 3: Washington State Revenue Forecast Summary | 47 |
| Overview..... | 47 |
| Recent Collection Experience | 49 |
| Legislative Changes to the Forecast | 51 |
| Revenue Forecasts by Source | 51 |
| Department of Revenue | 51 |
| Forecasted Revenue from Cannabis-Related Sales | 55 |
| Department of Licensing | 56 |
| The Office of Financial Management (Other Agencies) | 56 |
| State Treasurer..... | 56 |
| Insurance Commissioner | 57 |
| Liquor and Cannabis Board..... | 57 |
| Lottery Commission..... | 57 |
| Administrative Office of the Courts | 58 |
| Track Record for the 2015-17 Biennium | 58 |
| Track Record for the 2017-19 Biennium | 58 |
| The Relationship between the Cash and GAAP GF-S Revenue Forecasts | 58 |
| Budgetary Balance Sheet for the 2015-17 Biennium | 59 |
| Alternative Forecasts for the 2015-17 and 2017-19 Biennia..... | 59 |
| Near General Fund Forecasts for the 2015-17 - 2019-21 Biennia..... | 60 |
| | |
| Appendix | 77 |
| Glossary | 115 |

List of Tables

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

| | | |
|-----------|--|----|
| Table 1.1 | U.S. Economic Forecast Summary | 18 |
| Table 1.2 | Forecast Analysis, Comparison of Forecasts for 2015-17 | 19 |
| Table 1.3 | Forecast Analysis, Comparison of Forecasts for 2017-19 | 20 |
| Table 1.4 | Forecast Comparison, 2017 to 2021 | 21 |

Chapter 2: Washington Economy – Current Conditions and Forecast

| | | |
|-----------|--|----|
| Table 2.1 | Washington Economic Forecast Summary..... | 35 |
| Table 2.2 | Comparison of Alternative Forecasts | 36 |
| Table 2.3 | Governor’s Council of Economic Advisor’s Forecast | 37 |
| Table 2.4 | Forecast Analysis, Comparison of Forecasts for 2015-17 | 38 |
| Table 2.5 | Forecast Analysis, Comparison of Forecasts for 2017-19 | 39 |
| Table 2.6 | Forecast Comparison, 2017 to 2021 | 40 |

Chapter 3: Washington State Revenue Forecast Summary

| | | |
|------------|--|----|
| Table 3.1 | Revisions to the General Fund-State Forecast | 48 |
| Table 3.2 | Collection Variance of Major General Fund-State Taxes by Agency..... | 49 |
| Table 3.3 | General Fund-State Collections | 61 |
| Table 3.4 | Taxable Retail Sales | 62 |
| Table 3.5 | General Fund-State forecast by agency, 2015-17 biennium, Cash | 63 |
| Table 3.6 | General Fund-State forecast by agency, 2015-17 biennium, GAAP..... | 64 |
| Table 3.7 | General Fund-State forecast by agency, 2017-19 biennium, Cash | 65 |
| Table 3.8 | General Fund-State forecast by agency, 2017-19 biennium, GAAP..... | 66 |
| Table 3.9 | June 2017 General Fund-State History and Forecast | 67 |
| Table 3.10 | Track Record for the 2015-17 General Fund-State Cash Forecast | 68 |
| Table 3.11 | Track Record for the 2017-19 General Fund-State Cash Forecast | 69 |
| Table 3.12 | 2015-17 Enacted Budget Balance Sheet | 70 |
| Table 3.13 | Alternative Forecasts Compared to the Baseline Forecast, 2015-17 | 71 |
| Table 3.14 | Alternative Forecasts Compared to the Baseline Forecast, 2017-19 | 72 |
| Table 3.15 | Lottery Transfers by Fund, Cash..... | 73 |
| Table 3.16 | Lottery Transfers by Fund, GAAP..... | 73 |
| Table 3.17 | GF-S, ELTA and OPA: History and Forecast of Components..... | 74 |
| Table 3.18 | Forecasted Distribution of Excise Tax & License Fees from Cannabis Sales.. | 75 |
| Table 3.19 | Revenue Legislation Affecting General Fund-State Revenues..... | 76 |

Appendix: Detail Components of the State Economic and Revenue Forecast

| | | |
|------------|--|-----|
| Table A1.1 | U.S. Economic Forecast Summary, Annual | 79 |
| Table A1.2 | U.S. Economic Forecast Summary, Quarterly | 80 |
| Table A1.3 | Washington Economic Forecast Summary, Annual | 83 |
| Table A1.4 | Washington Economic Forecast Summary, Quarterly | 84 |
| Table A2.1 | U.S. Nonagricultural Employment by Industry, Annual | 87 |
| Table A2.2 | U.S. Nonagricultural Employment by Industry, Quarterly..... | 88 |
| Table A2.3 | Washington Nonagricultural Employment by Industry, Annual..... | 91 |
| Table A2.4 | Washington Nonagricultural Employment by Industry, Quarterly | 92 |
| Table A3.1 | U.S. Personal Income by Component, Annual | 95 |
| Table A3.2 | U.S. Personal Income by Component, Quarterly | 96 |
| Table A3.3 | Washington Personal Income by Component, Annual | 99 |
| Table A3.4 | Washington Personal Income by Component, Quarterly | 100 |
| Table A4.1 | Selected Inflation Indicators | 103 |
| Table A4.2 | Chain-Weighted Price Indices..... | 104 |
| Table A5.1 | Washington Resident Population and Components of Change | 105 |
| Table A5.2 | Washington Population..... | 106 |
| Table A6.1 | Summary of National and State Indicators | 107 |
| Table A6.2 | Washington Business Indicators | 108 |

List of Figures

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

| | | |
|------------|---|----|
| Figure 1.1 | U.S. Unemployment Rate | 6 |
| Figure 1.2 | Consumer Price Index | 8 |
| Figure 1.3 | Case-Shiller 20-City Home Price Index | 9 |
| Figure 1.4 | Real GDP Growth | 10 |
| Figure 1.5 | U.S. Field Production of Crude Oil | 11 |
| Figure 1.6 | Real Export Growth | 15 |

Chapter 2: Washington Economy – Current Conditions and Forecast

| | | |
|------------|---|----|
| Figure 2.1 | Washington Unemployment Rate | 24 |
| Figure 2.2 | Gross Domestic Product | 26 |
| Figure 2.3 | Washington Population Growth | 27 |
| Figure 2.4 | Electronic Shopping & Mail Order Employment | 29 |
| Figure 2.5 | Washington Personal Income | 30 |
| Figure 2.6 | Washington Housing Permits | 31 |
| Figure 2.7 | Comparison of Washington and U.S. Economic Forecasts | 41 |
| Figure 2.8 | Comparison of Alternative U.S. Economic Forecasts | 44 |
| Figure 2.9 | Comparison of Alternative Washington Economic Forecasts | 45 |

Chapter 3: Washington State Revenue Forecast Summary

| | | |
|------------|--|----|
| Figure 3.1 | GF-S Revenue as Percentage of State Personal Income | 48 |
| Figure 3.2 | Revenue Act Collections | 50 |
| Figure 3.3 | Taxable Real Estate Excise Activity | 51 |
| Figure 3.4 | Taxable Sales as a Percentage of State Personal Income | 52 |

Appendix:

Detail Components of the Washington State Economic and Revenue Forecast

| | | |
|-------------|--|-----|
| Figure A7.1 | Washington State Economic Indicators | 109 |
| Figure A7.2 | Washington State Leading Indicators | 110 |
| Figure A7.3 | Other State Economic Indicators | 111 |
| Figure A7.4 | Other Economic Indicators | 112 |

This page left intentionally blank.



Executive Summary

- **The national economy continues to expand at a moderate pace. Real GDP rose 1.4% (SAAR) in the first quarter after growing 2.1% (SAAR) in the fourth quarter.**
- **The Blue Chip Consensus GDP forecast calls for real GDP growth of 2.2% in 2017, down from 2.3% in March. Real GDP growth is expected to increase to 2.4% in 2018. We expect growth to moderate as the recovery.**
- **Since the November presidential election, no major policy changes have been enacted although the forecast includes an increase in infrastructure spending and tax changes.**
- **Washington personal income is lower than in the March forecast due to weaker than expected growth in the fourth quarter of 2016.**
- **Washington population growth has been stronger than we believed in March resulting in a higher housing construction forecast.**
- **Washington led the nation in gross domestic product growth in 2016 thanks to information technology.**
- **Revenue collections since the March 2017 forecast have come in \$67 million over the forecasted amount.**
- **The forecast of General Fund-State (GF-S) revenue for the 2015-17 biennium was increased by \$81 million, the forecast for the 2017-19 biennium was increased by \$87 million, and the forecast for the 2019-21 biennium was increased by \$34 million.**
- **Forecast increases were once again mainly in retail sales and real estate excise taxes.**

U.S. Economic Forecast

The national economy continues to expand at a moderate pace

The national economy continues to expand at a moderate pace. Real GDP rose 1.4% (SAAR) in the first quarter after growing 2.1% in the fourth quarter of last year. Job gains have slowed recently as the economy approaches full employment. The unemployment rate has dipped below pre-recession levels. Consumer and business confidence have improved and are now at cyclical highs. The housing market continues to improve at a slow pace. Oil prices have remained low, freeing up resources for

consumers. The global economy has improved but growth remains weak. Geopolitical risks, while elevated, have had little impact on the U.S. economy. As the current recovery approaches the seven-year mark, the duration alone has caused concerns as to whether the recovery will continue.

The economic outlook is slightly higher

The economic outlook is largely unchanged from the March forecast. Our June forecast calls for real GDP growth of 2.2% in 2017, down from 2.3% in March. Real GDP growth is expected to increase to 2.4% in 2018, unchanged from the previous forecast. We expect growth to moderate as the recovery matures. The forecast calls for growth of 2.1%, 2.0%, and 2.0% from 2019 through 2021, unchanged from the March forecast. The U.S. economy is forecasted to grow 2.2% on average from 2017 through 2020, which is stronger than the potential GDP growth rate estimated by the Congressional Budget Office.

The fiscal policy outlook now includes potential policy changes

Since November presidential election, no major policy changes have been enacted. Potential fiscal policy changes are still included in the outlook. While several proposals for healthcare reform are being discussed, no legislation has passed, so we have not incorporated any related changes to the forecast. The forecast does include a \$25 billion annual increase in infrastructure spending beginning in 2018. Also included are lower personal and corporate federal tax rates, somewhat consistent with the House Republican plan (but excluding the border adjustment tax), removal of some tax loopholes, \$800 billion in overseas profits repatriated to face a 10% tax, and an additional \$20 billion in federal defense spending in fiscal years 2018 and 2019.

Washington Economic Forecast

The Washington economy is expanding at a rapid pace

The Washington economy is expanding at a rapid pace. In recent months, Washington employment has grown about as expected in the March forecast but Washington personal income was weaker than expected in the fourth quarter. The state's unemployment rate reached an all-time low 4.5% in May. Revised data from the Bureau of Economic Analysis indicate that Washington population growth has been even stronger than we believed in March. Washington exports continue to decline due to transportation equipment. Seattle area consumer price inflation is well above the national average due to higher shelter cost inflation. Washington led the nation in gross domestic product growth in 2016 thanks to information technology.

Our June forecast for Washington State is very similar to the forecast adopted in March

Our June forecast for Washington State is very similar to the forecast adopted in March. Washington employment is expected to grow 2.4% this year, up from 2.3% in the March forecast. We expect employment growth to average 1.4% per year in 2018 through 2021, which is the same rate assumed in March. Our forecast for nominal personal income growth this year is 4.7%,

down from 5.0% in the March forecast. Our new forecast for nominal personal income growth in 2018 through 2021 averages 5.1% per year, which is the same rate we assumed in March. We expect total housing units authorized by building permits to decline 1.9% this year to 43,300 units, which is higher than the 40,900 units in the March forecast. We expect permits to average 42,100 during the remainder of the forecast, which is also higher than the 40,800 expected in March. We expect the all-items Seattle CPI to rise 3.0% this year, up from 2.8% in the March forecast. As in March, we expect Seattle area inflation to average 2.2% per year in 2018 through 2021.

Revenue Forecast

The revenue forecast has increased slightly, due mainly to retail sales and real estate excise

Revenue collections have come in slightly higher than expected in the previous forecast. As was the case when the forecast was last updated in March 2017, most of the surplus revenue stemmed from retail sales and real estate excise taxes. The strengthening real estate market has prompted another increase in forecasted real estate excise taxes. Forecasted retail sales tax collections have also been increased, due to both stronger-than-expected collections and a slight increase in forecasted construction activity. Changes in forecasted revenue from other sources were slight, reflecting the small changes in the June 2017 economic forecast relative to the March 2017 forecast.

GF-S forecast change by biennium (millions):

15-17: +\$81
17-19: +\$87
19-21: +\$34

Since the March 2017 forecast, revenue sources that are tracked monthly came in \$66.6 million higher than forecasted. There were no non-economic changes in expected revenue for the current biennium. Changes to the economic forecast resulted in a \$14.6 million increase to projected collections for the rest of the biennium. The total of these components was an \$81.2 million increase in projected revenue for the current 2015-17 biennium. The forecast for the 2017-19 biennium has been increased by \$86.5 million, with a \$0.5 million reduction in forecasted revenue from legislative changes. The forecast for the 2019-21 biennium has been increased by \$33.5 million, also with a \$0.5 million reduction in forecasted revenue from legislative changes. GF-S revenue is now forecasted to total \$38,308.3 million in the 2015-17 biennium, \$40,903.2 million in the 2017-19 biennium, and \$43,875.2 million in the 2019-21 biennium.

This page left intentionally blank.



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

- **The national economy continues to expand at a moderate pace. Real GDP rose 1.4% (SAAR) in the first quarter after growing 2.1% (SAAR) in the fourth quarter.**
- **Employment growth has slowed recently as the economy has approached full employment.**
- **Consumer and business confidence has declined but remains high.**
- **The manufacturing sector continues to grow while construction has hit a soft patch.**
- **Headline inflation is moderating.**
- **Exports are no longer declining. Foreign growth has stabilized and the dollar is no longer appreciating.**
- **The Blue Chip Consensus GDP forecast calls for real GDP growth of 2.2% in 2017, down from 2.3% in March. Real GDP growth is expected to increase to 2.4% in 2018. We expect growth to moderate as the recovery matures.**
- **Since the November presidential election, no major policy changes have been enacted although the forecast includes an increase in infrastructure spending and tax changes.**
- **Higher business and consumer confidence leading to more hiring and spending is the most significant upside risk. A slowdown in global growth is the major downside risk.**

Current Conditions

The national economy continues to expand at a moderate pace

The national economy continues to expand at a moderate pace. Real GDP rose 1.4% (SAAR) in the first quarter after growing 2.1% in the fourth quarter of last year. Job gains have slowed recently as the economy approaches full employment. The unemployment rate has dipped below pre-recession levels. Consumer and business confidence have improved and are now at cyclical highs. The housing market continues to improve at a slow pace. Oil prices have remained low, freeing up resources for consumers. The global economy has improved but growth remains weak. Geopolitical risks, while elevated, have had little impact on the U.S. economy. As the current recovery approaches

the seven-year mark, the duration alone has caused concerns as to whether the recovery will continue.

U.S. real GDP rose 1.4% (SAAR) in the first quarter

U.S. real GDP rose 1.4% (SAAR) in the first quarter of 2017 after growing 2.1% (SAAR) in the fourth quarter. Growth in consumer spending slowed from the previous quarter, increasing 1.1% (SAAR) and adding 0.75 points to GDP growth. A late winter snowstorm in the Northeast and delayed tax refunds weighed down spending. Fixed investment was the primary driver of growth, increasing 11.0% (SAAR) and adding 1.7 points to GDP growth. Both nonresidential and residential investment were strong. Inventory investment was a large drag, subtracting 1.1 points from overall growth. Final sales, which exclude the impact from inventories, increased 2.6% (SAAR). Government spending declined 0.9% (SAAR) subtracting 0.2 points from overall GDP. Net exports added 0.2 points to growth. Real disposable income increased 1.7% (SAAR) after a 0.3% decline in the fourth quarter.

Employment growth has slowed recently

Employment growth has slowed recently. Nonfarm payrolls increased by 138,000 in May following a 174,000 increase in April. As the economy has moved closer to full employment, job gains have slowed. The three-month moving average of employment gains declined to 121,000 jobs, the weakest since 2012. The goods-producing sector increased just 16,000 due to gains from construction (+11,000) and support activities for mining (+7,900). The manufacturing sector lost 1,000 jobs. Private service-providing industries increased by 131,000 jobs over the month with strong gains in education and health services (+47,000), professional and business services (+38,000), and leisure and hospitality (+31,000). Retail trade declined 6,100 due to continued competition from e-commerce.

Figure 1.1: U.S. Unemployment Rate

The unemployment rate has fallen to a new cyclical low



Source: U.S. Bureau of Labor Statistics; data from through May 2017

Government employment declined 9,000 in June, due to losses at the state and local government levels. Continued job gains have fueled a steady decline in unemployment. The unemployment rate fell to a new cyclical low of 4.3% in May (see Figure 1.1).

Consumer attitudes have declined but remain high

Consumer attitudes have declined slightly in recent months but remain high. The two primary measures of confidence have both come down from their recent highs earlier in the year. In June, the Conference Board measure of consumer confidence improved 1.3 points to 118.9. Confidence is down slightly from the peak of 124.9 reached in March, but still higher than 97.4 from a year ago. Respondents to the survey indicated they are more confident about present conditions while future expectations weakened. The University of Michigan Consumer Sentiment Index fell by 2.6 points to 94.5 in June. The University of Michigan measure is down from the peak of 98.5 reached in January, but still above the year ago reading of 93.5. Both the current conditions and future expectations components declined in June.

Small business confidence remains high

Small business confidence remains high. After averaging below 94 for the first ten months of 2016, the National Federation of Independent Business (NFIB) Index of Small Business Optimism has been above 104 in each of the past six months. In May, the index was unchanged at 104.5, but remains near its 10-year high of 105.9 in January. The level of the index is just below the all-time high of 107.4 reached in November 2004 (data back to 1986). Small business expectations of general business conditions, expansion, sales, and earnings have all remained high. Actual earnings and sales of small businesses have improved as well, but to a much smaller degree. Actual employment changes have also turned positive. Taxes remain the most cited concern for small businesses. Quality of labor is now the second most cited concern, surpassing government regulation.

Oil prices remain low

Oil prices have trended down recently. West Texas Intermediate (WTI) reached \$48 per barrel in May, down from \$51 last month. Brent crude oil was \$50 per barrel in May, down from \$52 last month. Both prices are up from \$47 last year. U.S. crude production has stabilized as prices have firmed around the \$50 range. In June, U.S. field production of crude oil was 9.4 million barrels per day, up from 9.3 million barrels a year ago. Crude oil inventories declined in recent months. For the week ending June 16, crude inventories were at 509 million barrels, down from 528 million barrels at the end of April. Internationally, the impact of Organization of Petroleum Exporting Countries' (OPEC) attempt to reduce supply appears limited. Previously, OPEC had hoped that some of the more expensive drilling techniques deployed in the U.S. would no longer be profitable and would be shut down. Even if OPEC members can maintain the discipline of supply

quotas, U.S. production is likely to ramp up, keeping prices in check.

Inflation dropped below 2%

Headline inflation has slowed (see Figure 1.2). Energy prices have fallen in three of the past four months contributing to the top line deceleration. The Consumer Price Index (CPI) fell 0.1% over the month in May, resulting in an increase of 1.9% since last year. Food price inflation is slowly starting to pick up with prices rising 0.2% over the month and now up 0.9% since last year. Shelter costs have been the primary driver of higher overall prices. Shelter costs increased 0.2% in May and are now up 3.3% year over year. Core inflation, which excludes food and energy, increased 0.1% in May. Year-over-year, core inflation remains modest at 1.7%.

Figure 1.2: Consumer Price Index

Inflation has slowed



Source: U.S. Bureau of Labor Statistics; data through May 2017

New home construction continues to trend up

New home construction has again hit a soft patch, although the trend remains positive. Housing starts declined in May to 1.092 million units (SAAR) from 1.156 million units (SAAR) in April. Starts are now down 2.4% since last year. Single-family starts fell by 3.9% but remain up 8.5% from last year. Multi-family starts fell 9.7% and are now down 23.0% from a year ago. The multi-family segment, while somewhat sporadic, appears to have fully recovered from the housing downturn. Single-family starts remain significantly below the average of the last decade. Housing permits remain on a trend similar to that of starts. Total permits fell 4.9% in May and are down 0.8% from a year ago. Single-family permits are up 6.0% while multi-family permits are down 12.2% since last year. Homebuilder confidence declined in June but remains high. The National Association of Homebuilders (NAHB) Housing Market Index, which measures confidence of homebuilders, declined 2 points from last month to 67 (readings above 50 indicate a positive view of conditions). While builders are confident, there remain headwinds that suggest a surge in

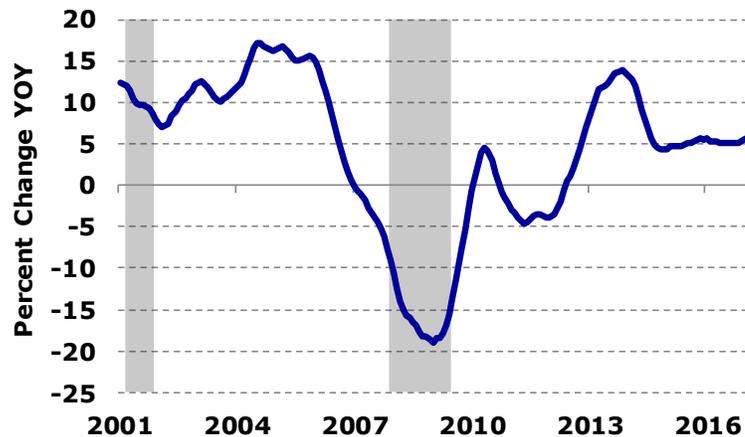
activity is unlikely. An increase in state and federal regulations, rising material costs, higher mortgage rates, lack of building lots, and shortages of labor will keep growth from taking off.

Home price appreciation remains solid

Home price appreciation remains solid. The seasonally adjusted Case-Shiller 20-city Home Price Index increased 0.3% over the month in April. Home prices are now 5.6% higher than a year ago. Home prices appear to be settling into a consistent growth pattern, averaging 5.2% annual growth over the past two and a half years (see figure 1.3). Prices have increased 40.9% since the trough of the recession, and are now only 4.0% below their previous peak. Rising prices encourage new construction and are contributing to the increase in homebuilder confidence. Home price appreciation also enables previously underwater homeowners to sell their homes and trade up for more expensive houses. Despite the Federal Reserve tightening monetary policy, mortgage rates have declined to 3.9%. Lending standards are no longer easing, but instead are neutral. Continued positive wage growth should also help keep homes affordable.

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

Home price growth has hovered around 5% annually



Source: S&P CoreLogic Case-Shiller; data through April 2017

The manufacturing sector continues to expand

The manufacturing sector has continued to expand. The Institute of Supply Management (ISM) Report on Business indicated that activity in the manufacturing sector improved slightly in May to 54.9 from 54.8 (index levels above 50 indicate expansion). The new orders component increased 2.0 points to 59.5. Production declined 1.5 points but remains strong at 57.1. The latest G-17 report from the Federal Reserve, which measures manufacturing output, indicated a decrease in May of 0.4% after a strong gain in April. The production of durable goods fell 0.8% as most industry groups declined. Nondurable goods output increased 0.1%. Manufacturing output is now 0.7% higher than last year. New orders for core capital goods (nondefense capital goods excluding aircraft) declined 0.2% in May after increasing by the

same amount the month before. New orders are now 2.3% above year-ago levels.

U.S. exports have returned to growth

Over-the-year U.S. exports increased again the first quarter by 7.5%. Oil and gas exports were over twice as high as a year ago and are now at an all-time high. Global economic growth remains weak, but major economies are no longer declining. The U.S. dollar has stopped appreciating although it remains strong. Exports to the rest of North America have started to recover. Exports to Canada increased 4.5% while exports to Mexico were up 6.0%. Exports to China and Japan, our third and fourth largest trading partners, increased 17.1% and 6.7% respectively.

Forecast

Our forecast is based on the June Blue Chip Consensus forecast

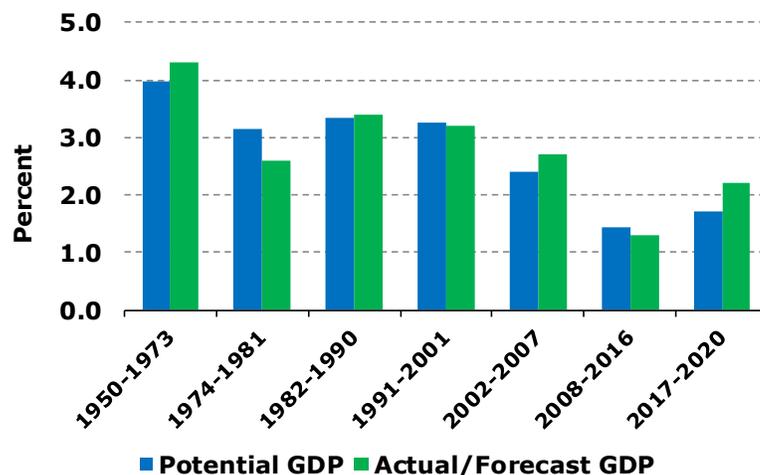
The economic forecast was based on a modified version of the June IHS Markit (formerly Global Insight) Control forecast for the U.S. economy. Consistent with our standard practice, the U.S. real GDP forecast was adjusted to match the June Blue Chip Consensus GDP forecasts for 2017 and 2018. We also matched the latest long-term Blue Chip GDP forecast for 2019 through 2021. Our oil price forecast was adjusted to reflect futures prices for both Brent crude oil and for West Texas Intermediate crude.

The economic outlook is largely unchanged

The economic outlook is largely unchanged from the March forecast. Our June forecast calls for real GDP growth of 2.2% in 2017, down from 2.3% in March. Real GDP growth is expected to increase to 2.4% in 2018, unchanged from the previous forecast. We expect growth to moderate as the recovery matures. The forecast calls for growth of 2.1%, 2.0%, and 2.0% from 2019 through 2020, which is stronger than the potential GDP growth

Figure 1.4: Real GDP Growth

GDP growth is forecasted to be temporarily higher than potential



Source: Congressional Budget Office, BEA, March 2017 ERFC forecast; historical data through 2016

rate estimated by the Congressional Budget Office (see Figure 1.4).

This recovery will be the longest on record

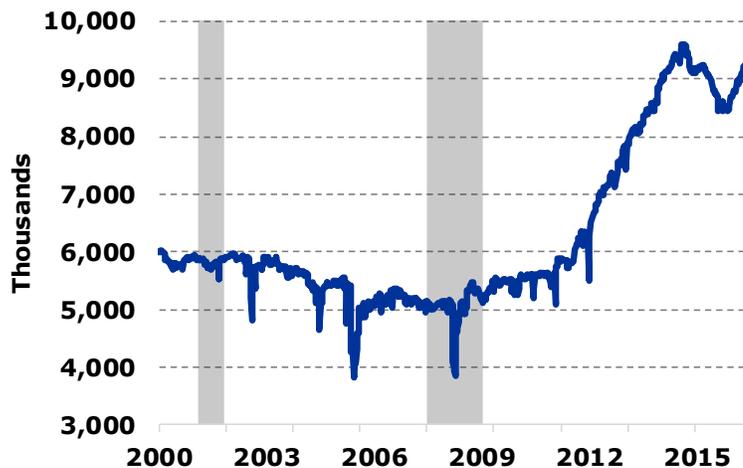
The positive GDP growth throughout the forecast will make the recovery from the 2007-09 recession the longest on record. From the second quarter of 2009 through the end of our forecast in 2021, the recovery is forecasted to be at least 150 months. Through May, this recovery has already lasted 95 months. Prior to this, the longest recovery was from the 1990-91 recession and lasted 120 months. The primary 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 the duration of recoveries from the point at which the previous employment peak was reached, this expansion appears more in line with other long post-war expansionary periods. 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 2021, which would result in 92 months of employment gains after reaching the previous employment peak.

Oil prices will remain low

The oil price forecast was changed by only a small amount since the March forecast. Prices are slightly lower compared to the previous forecast. The refiner acquisition price of crude oil increased to \$50 per barrel in the first quarter of this year from \$47 per barrel the quarter before. The forecast calls for \$50 to be the peak in the current quarter before declining to \$45 in the third quarter. We expect prices to increase slightly and reach \$49 per barrel in 2021. Oil prices will remain well below the levels

Figure 1.5: U.S. Field Production of Crude Oil

U.S. crude oil production is increasing



Source: U.S. Energy Information Administration, June 2017 ERFC forecast; historical data through June 2017

seen earlier in the recovery. Oil production in the U.S. increased recently to 9.4 million barrels per day. Production is approaching the previous peak reached in the summer of 2015 when production hit 9.6 million barrels per day (see Figure 1.5). While the number of drilling structures has also been increasing lately, the Baker Hughes rig count hit a modern low of 404 at the end of May of 2016 and has since climbed to 933. A year ago the rig count was 424.

U.S. inflation was just 1.1% in 2016

Inflation (as measured by the implicit price deflator for personal consumption expenditures) was just 1.1% in 2016, helped by a decline in energy prices. While energy prices will remain low, they are no longer declining and pulling inflation down. Rising housing costs have put upward pressure on inflation. We expect low to moderate inflation throughout the forecast. Absent the downward pressure from energy prices, inflation will move towards the Federal Reserve's goal of 2%. We expect inflation to be 1.7% this year and then range from 1.5% to 2.0% per year from 2018 through 2021.

Spending growth will outperform overall GDP growth in the near term

Real consumer spending was weaker than expected in the first quarter of 2017, growing 0.6% (SAAR) compared to 1.9% (SAAR) expected in the previous forecast. We now expect real consumer spending to grow 2.4% this year compared to 2.6% in the March forecast. Consumer optimism has strengthened in recent months. Rising home prices and a stronger stock market make consumers feel more confident in their financial situation. Wages are also increasing. Unemployment continues to fall and more part-time workers are finding full-time jobs. We expect real spending growth to continue to slightly outpace overall real GDP growth next year. The forecast calls for real consumption growth of 2.5% in 2018. The June forecast assumes a federal tax cut that boosts disposable personal income in 2018. Consumer spending growth is then expected to slow to 2.3% in 2019, 2.2% in 2020, and 2.1% in 2021, unchanged since the March forecast. We expect consumer spending to contribute 1.6 percentage points to real GDP growth on average for each year of the forecast through 2021.

Disposable personal income growth is expected to slow

Real disposable personal income growth is expected to slow this year to 1.9% from 2.6% in 2016. The boost to real incomes from falling energy prices has ended. Growth is expected to increase to 3.1% in 2018 due to the assumption of modest tax cuts. We expect growth to moderate to 2.7% in 2019. Growth is expected to dip further in 2020 and 2021 to 2.1% per year. Nominal disposable income is projected to grow 3.7% this year, led by strong growth in rental income of 7.4%. Interest income is expected to grow 3.5% in 2017 as the Federal Reserve slowly tightens monetary policy. Private sector wages and salaries are forecasted to grow 3.5%. Wage growth in the public sector will again lag, with growth of 3.0% in 2017. Total wages and salaries are expected to grow 3.4% this year after increasing 3.9% in

2016. The forecast then calls for growth in wages and salaries to average 4.1% in 2018 through 2021. Growth in government transfer payments is expected to be 3.8% this year. We expect growth to pick up an average of 5.4% per year in 2018 through 2021 as an increasingly older population results in rising Medicare and Social Security payments. Income will be boosted in the latter part of the forecast by rising interest income, as interest rates return to pre-recession levels, as well as by dividend income.

The outlook for employment is only minimally changed

The forecast for employment is only minimally changed from the March forecast. Growth in payrolls is anticipated to be 1.4% this year after growing 1.8% in 2016. The March forecast had expected 1.6% growth for 2017. We expect employment growth to slowly trend down to 0.6% through 2021 as the economy nears full employment. By 2021, the forecast expects 100,000 fewer jobs than in March, a difference of only 0.1%. Due to the steady job growth, we expect the unemployment rate to average 4.4% in 2017, down from 4.6% the year before. We expect the unemployment rate to decline to 4.2% in 2018 and level off before increasing to 4.3% in 2021. The continued strengthening of the labor market and corresponding fall in the unemployment rate will create an incentive for more and more marginally attached workers to begin looking for a job. We expect the decline in the labor force participation rate to temporarily end, with a trough of 61.3% in 2017. The labor force participation rate will grow as the economy reaches full employment, reaching a peak of 61.4% in 2019 and 2020. Going forward, the participation rate will resume its long-term secular decline.

Private sector hiring will continue to outpace public sector hiring

Employment growth in nonfarm payrolls has been led by private sector hiring throughout the recovery as the public sector has been weighed down by budget concerns. While state and local governments have largely worked through their budgetary issues and have started hiring again, the pace of hiring has been slow. Federal government employment is expected to peak this year and then decline throughout the forecast except for the temporary hiring of census workers in 2020. The declines in federal government jobs will be offset by modest gains in state and local government employment, keeping total government employment growth flat throughout the forecast. We expect private sector job growth of 1.6% this year, after growing by 1.9% in 2016. The forecast calls for private sector job growth of 1.2% in 2018 and then slowly declining to 0.7% in 2021.

Business investment is expected to rebound this year

Real nonresidential fixed investment is expected to grow 5.1% this year after falling 0.1% in 2016. The drop in oil prices, which is good for overall growth, lowered the incentive for additional investment by energy companies. The capital-intensive manufacturing sector is beginning to firm up after the strong U.S. dollar resulted in a drop in exports. Service sector businesses are expanding and filling up office buildings. Office

vacancy rates continue to trend downward, although they remain somewhat elevated at 15.8%. We expect real nonresidential construction to rebound this year, growing 9.3%. The forecast calls for growth to remain strong in 2018 at 3.6%. We then expect growth to average 2.5% per year through 2021. Real equipment investment is expected to grow 3.9% this year after declining 2.9% in 2016. We expect growth throughout the forecast as businesses expand and improve productivity. Although we do not expect to see the double-digit growth experienced early in the recovery, we do expect capital equipment to remain an important driver of GDP growth after this year. The forecast calls for growth of 5.5% in 2018, trending down to 3.4% by 2021. We expect overall real nonresidential fixed investment to grow 4.6% next year. We then expect growth to average 3.7% through 2021.

The housing recovery will continue

The forecast for housing starts is only minimally changed. The near-term forecast for housing starts is slightly higher, although by 2021 the forecast is essentially unchanged. We expect housing starts to grow 6.6% this year, compared to 7.4% in March, due to lower starts in the first half of the year. The June forecast calls for growth of 6.5% in 2018 before tapering to 2.5% in 2021. Existing home sales have continued to trend upward and prices are increasing. For the first time since 2009, the median size of a new single family home declined in 2016. Mortgage rates continue to trend upward, but remain low by historical standards. The forecast calls for growth in single-family housing starts of 9.4% this year after growing by 10.1% in 2016. The forecast expects the growth in single-family housing starts will trend down through 2021, reaching 2.1%. We expect growth in the multi-family segment of 1.0% this year. The forecast calls for the multi-family housing segment to grow at an average rate of 4.8% through the remainder of the forecast.

Foreign growth appears to be slowly improving

Major foreign economies appear to be slowly improving. The Canadian economy grew 3.7% (SAAR) in the first quarter. Strong consumer spending made up for weak exports due to low oil and other commodity prices. Business investment rebounded from over two years of weak growth, increasing 10.3% (SAAR). The latest Blue Chip forecast expects growth of 2.3% in Canada for 2017 and 2.0% in 2018. Low oil prices have also taken a toll on the Mexican economy. Rating agencies have put the country on a negative outlook for a possible downgrade as public debt continues to increase. Uncertainty surrounding the North American Free Trade Agreement (NAFTA) has hampered business sentiment. GDP growth is expected to grow 1.9% this year followed by 2.1% in 2018. The recovery in the Eurozone remains weak with real GDP increasing 1.7% in 2016. The latest Blue Chip forecast calls for 1.8% growth this year and 1.7% in 2018. China, which is the largest U.S. export market outside of North America, continues to slow. Export demand for Chinese goods has weakened and the Chinese have had difficulty transitioning to a more domestic consumer driven economy. Chinese GDP

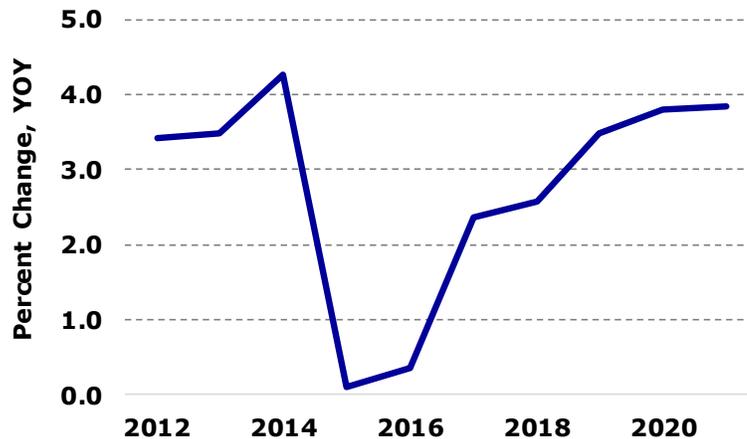
growth in 2016 was 6.7%, well below the 2005-11 average of 11%. The most recent Blue Chip forecast calls for Chinese growth to slow further, with growth of 6.6% this year and 6.1% in 2018. Japan's economy continues to expand, but at a weaker pace than other advanced economies. Japan's long run potential GDP growth is roughly 0.7% due primarily to demographics. GDP grew 1.0% (SAAR) in the first quarter, equal to the growth of 2016. The most recent Blue Chip forecast expects slow growth to pick up to 1.4% this year followed by 1.0% in 2018.

Economic growth of U.S. trading partners has improved

Economic growth of major U.S. trading partners is expected to accelerate in 2017. GDP growth of U.S. trading partners was the weakest since the recession in 2016, growing just 2.1%. The forecast calls for GDP of U.S. trading partners to grow 2.6% this year. The June forecast now calls for GDP of U.S. trading partners to grow 2.6% in 2018 through 2020 and 2.8% in 2021. The dollar has declined recently and the drag on exports has diminished. Real U.S. exports are forecasted to grow 2.4% this year after just 0.4% growth in 2016. Export growth is forecasted to accelerate through throughout the forecast, reaching 3.9% in 2021 (see Figure 1.6). Export growth is more than offset by increased imports in the forecast. Net exports are expected to reduce GDP growth by 0.2 percentage points on average through 2021.

Figure 1.6: Real Export Growth

Export growth is expected to increase



Source: BEA, June 2017 ERFC forecast; historical data through 2016

The fiscal policy outlook includes potential policy changes from the new administration

Since the November presidential election, no major policy changes have been enacted. Potential fiscal policy changes are still included in the outlook. While several proposals for healthcare reform are being discussed, no legislation has passed, so we have not incorporated any related changes to the forecast. The forecast does include a \$25 billion annual increase in infrastructure spending beginning in 2018. Also included are lower personal and corporate federal tax rates, somewhat

consistent with the House Republican plan (but excluding the border adjustment tax), removal of some tax loopholes, \$800 billion in overseas profits repatriated to face a 10% tax, and an additional \$20 billion in federal defense spending in fiscal years 2018 and 2019.

The federal budget deficit increased to \$665 billion in 2016

The federal budget deficit began increasing again after reaching a trough of \$570 billion in 2015. The deficit increased to \$665 billion in 2016 and is projected to reach \$712 billion this year. The forecast assumes the cuts in real defense spending that started in 2011 will pause in 2017 and 2018 consistent with the administration's policy preferences. The forecast calls for real nondefense spending to grow 0.2% this year. We then expect real defense spending to decline through 2021. State and local governments, having worked through the majority of their budget difficulties, will more than offset the decline in spending at the federal level. We expect total real government spending to grow 0.1% this year and 0.9% in 2018. We then expect growth to trend downward and reach 0.1% in 2020 and 0.2% in 2021.

The Fed is gradually tightening monetary policy

The Federal Reserve is gradually tightening monetary policy after years of measures aimed at supporting the economy. The Federal Reserve is facing a more upbeat economic outlook but also a more uncertain policy environment. As expected, the Federal Open Market Committee raised the federal funds rate by 25 basis points again in June. The forecast assumes one more 25 basis point rate hike this year. The Federal Reserve is near achieving its goals for employment and inflation. Employment growth has been solid and core inflation is approaching 2.0% per year. We expect three more rate hikes per year until a Federal Funds rate of 3.0% is achieved.

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 outweigh upside risks

Our view of the risks to the forecast is unchanged since the March forecast. The recovery is forecasted to be the longest on record, creating some concern. The outlook for U.S. trading partners, although improving, remains weak. The level of uncertainty in the baseline remains elevated, and downside risks once again outweigh upside risks.

Downside Risks

- A breakdown in trade relations
- Infrastructure spending assumed in the baseline fails to materialize
- Chinese economy experiences a "hard landing" (annual growth under 5%); growth is weaker in emerging market economies

- Too aggressive tightening of monetary policy
- Weaker than expected employment growth
- Real wage growth stagnates, leading to slower consumer spending
- Slower household formation
- Slowdown in economic growth and negative effects to financial markets due to Brexit
- Increasing geopolitical tensions negatively impact consumer confidence
- U.S. dollar appreciates further against other currencies, limiting exports
- Weak global growth persists, further impacting exports

Upside Risks

- 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 as OPEC fails to cut global supply
- 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 decline in U.S. dollar continues, making U.S. exports cheaper abroad
- Wage growth picks up faster than expected.

Table 1.1
U.S. Economic Forecast Summary
 Forecast 2017 to 2021

Fiscal Years

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| Real National Income Accounts (Billions of Chained 2009 Dollars) | | | | | | | | |
| Real Gross Domestic Product | 15,770.8 | 16,231.1 | 16,513.4 | 16,846.3 | 17,234.8 | 17,629.4 | 17,975.7 | 18,343.7 |
| % Ch | 2.1 | 2.9 | 1.7 | 2.0 | 2.3 | 2.3 | 2.0 | 2.0 |
| Real Consumption | 10,690.4 | 11,058.2 | 11,356.3 | 11,674.0 | 11,951.5 | 12,239.4 | 12,509.1 | 12,783.0 |
| % Ch | 2.0 | 3.4 | 2.7 | 2.8 | 2.4 | 2.4 | 2.2 | 2.2 |
| Real Nonresidential Fixed Investment | 2,090.3 | 2,188.0 | 2,195.3 | 2,234.4 | 2,353.1 | 2,456.2 | 2,542.0 | 2,640.8 |
| % Ch | 4.9 | 4.7 | 0.3 | 1.8 | 5.3 | 4.4 | 3.5 | 3.9 |
| Real Residential Fixed Investment | 495.1 | 531.0 | 588.2 | 602.8 | 631.9 | 656.0 | 666.7 | 687.4 |
| % Ch | 6.3 | 7.2 | 10.8 | 2.5 | 4.8 | 3.8 | 1.6 | 3.1 |
| Real Personal Income | 13,282.5 | 13,862.8 | 14,293.5 | 14,558.9 | 14,904.9 | 15,340.1 | 15,778.6 | 16,159.2 |
| % Ch | 1.2 | 4.4 | 3.1 | 1.9 | 2.4 | 2.9 | 2.9 | 2.4 |
| Real Per Capita Income (\$/Person) | 41,728 | 43,226 | 44,218 | 44,682 | 45,377 | 46,332 | 47,281 | 48,046 |
| % Ch | 0.4 | 3.6 | 2.3 | 1.1 | 1.6 | 2.1 | 2.0 | 1.6 |
| Price and Wage Indexes | | | | | | | | |
| U.S. Implicit Price Deflator, PCE (2009=1.0) | 1.084 | 1.093 | 1.100 | 1.117 | 1.135 | 1.152 | 1.173 | 1.196 |
| % Ch | 1.4 | 0.9 | 0.7 | 1.5 | 1.5 | 1.5 | 1.8 | 2.0 |
| U.S. Consumer Price Index (1982-84=1.0) | 2.350 | 2.367 | 2.383 | 2.428 | 2.474 | 2.522 | 2.575 | 2.635 |
| % Ch | 1.6 | 0.7 | 0.7 | 1.9 | 1.9 | 1.9 | 2.1 | 2.3 |
| Employment Cost Index (Dec. 2005=1.0) | 1.193 | 1.221 | 1.248 | 1.279 | 1.319 | 1.362 | 1.409 | 1.457 |
| % Ch | 1.9 | 2.3 | 2.2 | 2.5 | 3.2 | 3.3 | 3.4 | 3.5 |
| Current Dollar National Income (Billions of Dollars) | | | | | | | | |
| Gross Domestic Product | 17,015.0 | 17,760.9 | 18,274.1 | 18,955.8 | 19,820.0 | 20,711.0 | 21,554.5 | 22,450.1 |
| % Ch | 3.8 | 4.4 | 2.9 | 3.7 | 4.6 | 4.5 | 4.1 | 4.2 |
| Personal Income | 14,394.7 | 15,155.4 | 15,729.0 | 16,267.1 | 16,910.7 | 17,673.7 | 18,509.0 | 19,334.8 |
| % Ch | 2.6 | 5.3 | 3.8 | 3.4 | 4.0 | 4.5 | 4.7 | 4.5 |
| Employment (Millions) | | | | | | | | |
| U.S. Civilian Labor Force | 155.5 | 156.6 | 158.0 | 159.8 | 161.3 | 162.9 | 164.6 | 165.9 |
| Total U.S. Employment | 145.0 | 147.7 | 150.1 | 152.4 | 154.3 | 156.1 | 157.7 | 158.8 |
| Unemployment Rate (%) | 6.77 | 5.68 | 4.98 | 4.66 | 4.28 | 4.19 | 4.22 | 4.26 |
| Nonfarm Payroll Employment | 137.56 | 140.42 | 143.09 | 145.42 | 147.01 | 148.31 | 149.56 | 150.62 |
| % Ch | 1.7 | 2.1 | 1.9 | 1.6 | 1.1 | 0.9 | 0.8 | 0.7 |
| Manufacturing | 12.09 | 12.28 | 12.35 | 12.36 | 12.44 | 12.66 | 12.91 | 13.05 |
| % Ch | 0.9 | 1.6 | 0.6 | 0.1 | 0.6 | 1.8 | 2.0 | 1.1 |
| Durable Manufacturing | 7.60 | 7.74 | 7.75 | 7.72 | 7.77 | 7.96 | 8.18 | 8.32 |
| % Ch | 1.1 | 1.9 | 0.1 | -0.4 | 0.6 | 2.6 | 2.7 | 1.7 |
| Nondurable Manufacturing | 4.49 | 4.54 | 4.61 | 4.65 | 4.67 | 4.70 | 4.73 | 4.74 |
| % Ch | 0.5 | 1.0 | 1.5 | 0.9 | 0.5 | 0.5 | 0.8 | 0.1 |
| Construction | 5.99 | 6.31 | 6.61 | 6.80 | 7.02 | 7.36 | 7.61 | 7.79 |
| % Ch | 4.3 | 5.4 | 4.7 | 3.0 | 3.2 | 4.8 | 3.4 | 2.4 |
| Service-Providing | 118.61 | 120.96 | 123.40 | 125.57 | 126.81 | 127.54 | 128.29 | 129.02 |
| % Ch | 1.7 | 2.0 | 2.0 | 1.8 | 1.0 | 0.6 | 0.6 | 0.6 |
| Miscellaneous Indicators | | | | | | | | |
| Oil-WTI (\$ per barrel) | 101.3 | 69.3 | 41.7 | 48.7 | 47.0 | 47.9 | 48.6 | 49.5 |
| Personal Saving/Disposable Income (%) | 5.3 | 5.6 | 6.0 | 5.3 | 5.5 | 6.1 | 6.4 | 6.3 |
| Auto Sales (Millions) | 7.6 | 7.7 | 7.2 | 6.5 | 6.4 | 6.3 | 6.4 | 6.4 |
| % Ch | 2.1 | 1.0 | -5.9 | -9.7 | -2.4 | -1.5 | 1.6 | 1.0 |
| Housing Starts (Millions) | 0.955 | 1.056 | 1.149 | 1.215 | 1.301 | 1.366 | 1.422 | 1.472 |
| % Ch | 8.9 | 10.5 | 8.9 | 5.8 | 7.0 | 5.0 | 4.1 | 3.5 |
| Federal Budget Surplus (Billions) | -612.0 | -592.4 | -621.5 | -682.9 | -794.9 | -902.6 | -951.4 | -995.5 |
| Net Exports (Billions) | -489.5 | -513.7 | -511.0 | -524.6 | -498.9 | -461.0 | -457.8 | -477.7 |
| 3-Month Treasury Bill Rate (%) | 0.04 | 0.02 | 0.18 | 0.56 | 1.27 | 2.07 | 2.79 | 2.83 |
| 10-Year Treasury Note Yield (%) | 2.71 | 2.23 | 2.02 | 2.12 | 2.80 | 3.48 | 3.99 | 3.93 |
| Bond Index of 20 G.O. Munis. (%) | 4.55 | 3.83 | 3.51 | 3.54 | 4.31 | 4.82 | 4.97 | 4.93 |
| 30-Year Fixed Mortgage Rate (%) | 4.33 | 3.92 | 3.80 | 3.87 | 4.57 | 5.39 | 5.99 | 5.94 |

Table 1.2
Forecast Analysis
 Comparison of Forecasts for 2015-17

| U.S. | Average Annual Rate of Growth (Percent) 2015:2-2017:2 | | Average Rate (Percent) 2015:3 to 2017:2 | |
|-------------|--|--------------------------------|--|----------------------|
| | Real GDP | Implicit Price Deflator | 3 Month T-Bill Rate | Mortgage Rate |
| 2012 | | | | |
| September | 2.9 | 1.9 | 2.17 | 5.92 |
| November | 2.9 | 1.6 | 2.56 | 6.08 |
| 2013 | | | | |
| March | 2.9 | 1.6 | 1.71 | 5.68 |
| June | 2.8 | 1.5 | 1.98 | 5.63 |
| September | 2.9 | 1.5 | 2.13 | 5.66 |
| November | 2.7 | 1.5 | 2.12 | 5.67 |
| 2014 | | | | |
| February | 2.7 | 1.3 | 2.13 | 5.75 |
| June | 2.8 | 1.4 | 2.13 | 5.78 |
| September | 2.8 | 1.5 | 1.96 | 5.59 |
| November | 2.8 | 1.6 | 1.72 | 5.48 |
| 2015 | | | | |
| February | 2.8 | 1.7 | 1.69 | 5.19 |
| June | 2.8 | 1.7 | 1.29 | 4.73 |
| September | 2.7 | 1.5 | 0.84 | 4.38 |
| November | 2.5 | 1.6 | 0.82 | 4.35 |
| 2016 | | | | |
| February | 2.2 | 1.1 | 0.56 | 4.09 |
| June | 2.0 | 1.5 | 0.43 | 3.91 |
| September | 1.8 | 1.4 | 0.36 | 3.76 |
| November | 1.8 | 1.3 | 0.32 | 3.72 |
| 2017 | | | | |
| March | 1.9 | 1.3 | 0.35 | 3.89 |
| June | 1.8 | 1.3 | 0.37 | 3.84 |

Table 1.3

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 | Implicit Price Deflator | 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 |

Table 1.4

Fiscal Years

Forecast Comparison

Forecast 2017 to 2021

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| U.S. | | | | | | | |
| Real GDP | | | | | | | |
| June Baseline | 16231.1 | 16513.4 | 16846.3 | 17234.8 | 17629.4 | 17975.7 | 18343.7 |
| % Ch | 2.9 | 1.7 | 2.0 | 2.3 | 2.3 | 2.0 | 2.0 |
| March Baseline | 16231.1 | 16513.4 | 16850.8 | 17244.8 | 17638.1 | 17987.3 | 18353.2 |
| % Ch | 2.9 | 1.7 | 2.0 | 2.3 | 2.3 | 2.0 | 2.0 |
| Implicit Price Deflator | | | | | | | |
| June Baseline | 1.093 | 1.100 | 1.117 | 1.135 | 1.152 | 1.173 | 1.196 |
| % Ch | 0.9 | 0.7 | 1.5 | 1.5 | 1.5 | 1.8 | 2.0 |
| March Baseline | 1.093 | 1.100 | 1.117 | 1.134 | 1.152 | 1.173 | 1.195 |
| % Ch | 0.9 | 0.7 | 1.5 | 1.6 | 1.6 | 1.8 | 1.9 |
| Unemployment Rate | | | | | | | |
| June Baseline | 5.68 | 4.98 | 4.66 | 4.28 | 4.19 | 4.22 | 4.26 |
| March Baseline | 5.68 | 4.98 | 4.73 | 4.43 | 4.27 | 4.36 | 4.46 |
| Mortgage Rate | | | | | | | |
| June Baseline | 3.92 | 3.80 | 3.87 | 4.57 | 5.39 | 5.99 | 5.94 |
| March Baseline | 3.92 | 3.80 | 3.99 | 4.75 | 5.40 | 5.98 | 5.93 |
| 3 Month T-Bill Rate | | | | | | | |
| June Baseline | 0.02 | 0.18 | 0.56 | 1.27 | 2.07 | 2.79 | 2.83 |
| March Baseline | 0.02 | 0.18 | 0.53 | 1.26 | 2.06 | 2.77 | 2.83 |

This page left intentionally blank.



Chapter 2: Washington Economy – Current Conditions and Forecast

- **Washington employment has grown about as expected in the March forecast.**
- **Washington personal income is lower than in the March forecast due to weaker than expected growth in the fourth quarter of 2016.**
- **Washington population growth has been stronger than we believed in March resulting in a higher housing construction forecast.**
- **Washington led the nation in gross domestic product growth in 2016 thanks to information technology.**
- **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. In recent months, Washington employment has grown about as expected in the March forecast but Washington personal income was weaker than expected in the fourth quarter. The state's unemployment rate reached an all-time low 4.5% in May. Revised data from the Bureau of Economic Analysis indicate that Washington population growth has been even stronger than we believed in March. Washington exports continue to decline due to transportation equipment. Seattle area consumer price inflation is well above the national average due to higher shelter cost inflation. Washington led the nation in gross domestic product growth in 2016 thanks to information technology.

Employment growth has been on target

We have three months of new Washington employment data since the March forecast was released. Total nonfarm payroll employment rose 17,200 (seasonally adjusted) in March, April, and May, which was just 200 less than the 17,400 in the forecast. As is usually the case, most of the net new jobs were in private, service-providing sectors, which added 13,200 jobs in the three-month period. Manufacturing lost 1,800 jobs due to a decline of 2,100 jobs in aerospace. Construction employment

increased 2,600 in the three-month period and government payrolls expanded by 3,100 jobs.

Historical employment estimates were revised slightly lower

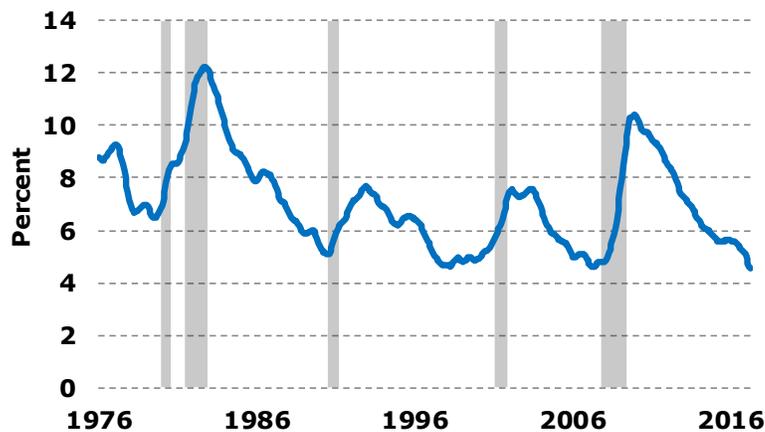
We have also incorporated another quarter of benchmark employment data from the Quarterly Census of Employment and Wages (QCEW). The new QCEW data and other revisions lowered the estimated level of total employment in February 2017 by 2,200 jobs (0.1%). As a result of the downward revision to history and slightly weaker-than-expected growth, the total effect is 2,400 (0.1%), fewer jobs in May 2017 than expected in the March forecast.

Unemployment continues to decline

Washington's unemployment rate declined to 4.5% in May from 4.6% in April and 5.6% in May 2016. May's unemployment rate was the lowest in the series that extends back to 1976 (see Figure 2.1).

Figure 2.1: Washington Unemployment Rate

The state's unemployment rate is at an all-time low



Source: BLS; data through May 2017

Washington UI claims remain near the post-recession low

Washington initial claims for unemployment insurance remained near the post-recession low in the most recent four-week period. The four-week moving average of seasonally adjusted claims remained at 6,300 in the week ending June 17. While the current level of claims is slightly above the post-recession low of 6,000 reached in January, it remains below the previous trough of 7,200 reached during the last expansion. Claims have fallen 62% since the peak in early 2009.

Average hourly earnings growth offset a decline in average weekly hours

Average weekly earnings for Washington private sector employees have improved recently despite a decline in average weekly hours. Private sector average weekly hours in the twelve months ending in May 2017 were down 1.0% compared to the twelve-month period ending in May 2016. However, average hourly earnings were up 3.4% in the most recent twelve-month period. Because of the growth in average hourly earnings, and despite the decline in average weekly hours, average weekly

earnings grew 2.4% in the twelve months ending in May 2017 compared to the twelve months ending in May 2016.

Exports are down because of transportation equipment

First quarter 2017 Washington exports were down 5.5% from the first quarter of 2016 because of a 14.7% decline in transportation equipment exports (mostly Boeing planes). Exports of agricultural products increased 14.0% over the year and exports of all other commodities rose 4.3% over the year. This was the first year-over-year increase in the "other" category, which consists mainly of manufactured goods, in nearly three years.

Washington housing permits declined in the first quarter

As expected in the March forecast, Washington housing construction came down to earth in the first quarter of 2017 after a fourth quarter spike. The number of housing units authorized by building permits fell from 51,900 units (SAAR) in the fourth quarter of 2016 to an average of 40,800 units (SAAR) in January, February, and March. The first quarter results were almost exactly on target. The March forecast had assumed 40,800 units (SAAR) in the first quarter. Washington housing construction got off to a strong start in the second quarter of 2017. In April and May, 45,700 units (SAAR) were permitted. The June forecast assumes an average rate of 45,300 units for the second quarter as a whole (SAAR).

Seattle home prices continue to rise very rapidly

Seattle home prices continue to rise very rapidly. According to the S&P/Case-Shiller Home Price Indices, seasonally adjusted Seattle area home prices rose 1.1% in April compared to a 0.3% increase in the Composite-20 index. However, the over-the-month changes are problematic due to seasonal adjustment issues. A more reliable measure is the over-the-year growth, which shows a 12.9% increase in prices since the previous April, more than double the 5.6% increase in the Composite-20 index. Seattle home prices are up 67% since the November 2011 trough and now exceed the May 2007 peak by 16%.

Manufacturing continues to struggle

The Institute of Supply Management - Western Washington Index (ISM-WW) moved sharply back into negative territory in May following expansionary readings in March and April. The index, which measures conditions in the manufacturing sector, declined from 59.2 in both March and April to 45.0 in May (index values above 50 indicate growth while values below 50 indicate contraction). The orders component indicated expansion while the inventory and deliveries components indicated contraction in May. The production and employment components were neutral at 50.

Washington car and truck sales declined in April

Washington car and truck sales declined in April after an uptick in March. Seasonally adjusted new vehicle registrations fell 6.5% in April following an increase of 4.7% in March. Car and truck sales are down 14.6% since the post-recession peak in January 2016 and 3.9% over the year.

Washington personal income growth was overstated in first quarter of 2017

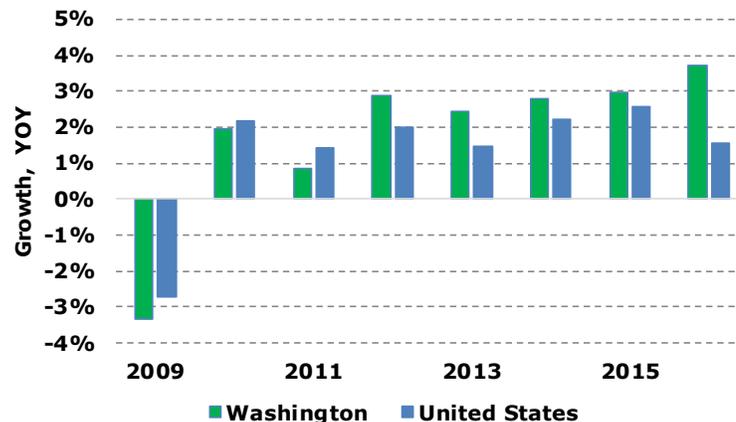
In June, after the forecast was complete, the U.S. Department of Commerce, Bureau of Economic Analysis (BEA) released state personal income estimates for the first quarter of 2017. According to these estimates, Washington personal income rose to \$401.9 billion (SAAR) in the first quarter of 2017 from \$397.0 billion in the fourth quarter of 2016. The reported 5.0% growth rate (SAAR) in Washington personal income was the sixth largest among the states and District of Columbia and was well above the 4.2% growth rate for the U.S. as a whole. However, the reported fourth quarter earnings growth was distorted by a change in the way Microsoft stock awards vest during the year. The result of the change is higher reported earnings growth in each fourth and first quarter and lower reported earnings growth in each second and third quarter. Excluding earnings from the information sector, Washington personal income grew at a 4.2% rate in the fourth quarter, which ranked 24th among the states and District of Columbia and equaled the national average 4.2% rate.

IT boosted Washington GDP growth in 2016

In May, the U.S. Department of Commerce, Bureau of Economic Analysis (BEA) released Real Gross Domestic Product (GDP) estimates by state through 2016. The 3.7% growth rate in Washington real GDP in 2016 was the largest among the states and District of Columbia and was significantly higher than the 1.5% growth rate for the U.S. as a whole (see Figure 2.2). This was the fifth consecutive year Washington GDP growth has exceeded the national average after lagging in 2009, 2010, and 2011. The 2.2 percentage point differential between Washington GDP growth and U.S. GDP growth in 2016 was mostly due to two sectors: information (which includes software publishing and other IT information services) and retail trade (which includes electronic shopping). Between the two of them, these sectors contributed 1.4 percentage points more to Washington GDP growth than to U.S. GDP growth.

Figure 2.2: Gross Domestic Product

Washington GDP growth exceeds the national average



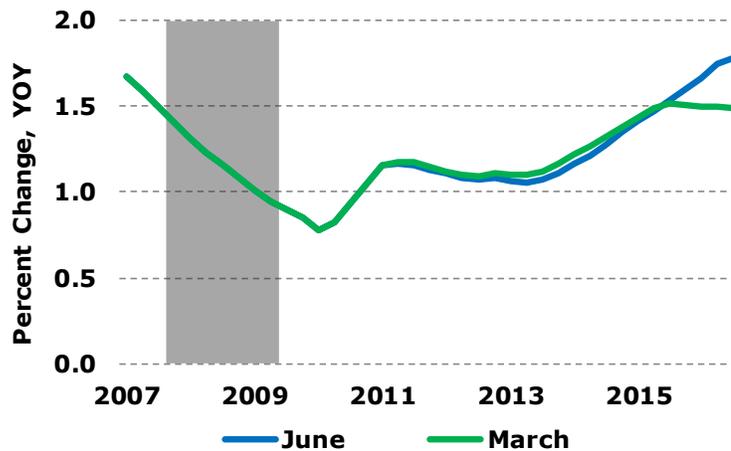
Source: Bureau of Economic Analysis; data through 2016

Recent Washington population growth has been very strong

After our March forecast was produced, the BEA released new state quarterly population estimates. The new estimates, which are incorporated in the current forecast, indicate that Washington population growth has been much stronger than previously believed. According to the new data, Washington population grew 1.78% in the four quarters ending in the third quarter of 2016 (see Figure 2.3). The previous estimate, which was used on the March forecast, was 1.49%. National population growth was 0.77% over the same interval.

Figure 2.3: Washington Population Growth

Population growth has been revised up since March



Source: Bureau of Economic Analysis; data through 2016 Q3

Seattle area consumer price inflation remains well above the national average

Seattle area consumer price inflation remains well above the national average. Over the last year, from April 2016 to April 2017, consumer prices in the Seattle area rose 3.0% compared to 2.2% for the U.S. city average. Core prices, which exclude food and energy, were up 2.6% in Seattle compared to 1.9% for the nation. The higher Seattle inflation is due to more rapid growth in shelter costs. During the year, shelter costs in Seattle rose 6.5% compared to 3.5% for the nation. Excluding shelter, Seattle inflation was slightly lower than the national average at 1.2% compared to 1.6%. This in spite of the fact that Seattle energy inflation was higher than U.S. city average energy inflation.

Washington State Forecast

The June forecast is based on a national forecast that is little changed since March

The June forecast is based on a national forecast that is little changed since March. Real GDP growth averages 2.1% per year in 2017 through 2021 compared to 2.2% in the March forecast. As in March, employment growth averages 0.9% per year. Real personal income growth averages 2.5% compared to 2.6% in March but inflation is higher, averaging 1.8% compared to 1.7% in March. As in March, the forecast incorporates some policies proposed by the new administration, including lower personal and

corporate federal tax rates, consistent with the House Republican plan, as well as \$250 billion in additional infrastructure spending over 10 years. The forecast does not assume a border adjustment tax nor does it assume a replacement of the Affordable Care Act. These revisions in the national forecast feed through to the state economic forecast.

Our June forecast for Washington State is very similar to the forecast adopted in March

Our June forecast for Washington State is very similar to the forecast adopted in March. Washington employment is expected to grow 2.4% this year, up from 2.3% in the March forecast. We expect employment growth to average 1.4% per year in 2018 through 2021, which is the same rate assumed in March. Our forecast for nominal personal income growth this year is 4.7%, down from 5.0% in the March forecast. Our new forecast for nominal personal income growth in 2018 through 2021 averages 5.1% per year, which is the same rate we assumed in March. We expect total housing units authorized by building permits to decline 1.9% this year to 43,300 units, which is higher than the 40,900 units in the March forecast. We expect permits to average 42,100 during the remainder of the forecast, which is also higher than the 40,800 expected in March. We expect the all-items Seattle CPI to rise 3.0% this year, up from 2.8% in the March forecast. As in March, we expect Seattle area inflation to average 2.2% per year in 2018 through 2021.

Washington Payroll Employment

Washington employment growth will slow

Washington employment growth in 2016 was 3.1%, which was the highest rate since 1998. We expect the employment growth rate to slow in the coming years as the economy approaches full employment. Employment growth will also be constrained by baby boomers leaving the work force, further reducing labor force growth. Washington employment is expected to grow 2.4% this year, up from 2.3% in the March forecast. As in March, we expect growth to decelerate gradually as the recovery matures. We expect employment growth to average 1.4% per year in 2018 through 2021, which is the same rate assumed in March. On a calendar year basis, we expect 1.7% employment growth in 2018, 1.5% in 2019, 1.4% growth in 2020, and 1.1% growth in 2021.

We expect more aerospace job cuts in 2017

Boeing has indicated that their 2017 job cuts will be similar to those experienced in 2016. In the current forecast, we assume a decline of 6,800 aerospace jobs from December 2016 through December 2017, which is slightly larger than the 6,100 decline experienced during 2016. The June aerospace employment forecast is about 100 lower than the March assumption from the end of this year through 2021. On an annual average basis, we expect aerospace employment to decline 8.0% in 2017, 4.4% in 2018, 2.0% in 2019, and 0.8% in 2020 with no change in 2021.

The software employment forecast is slightly higher

Software employment grew only 0.5% in 2015 after absorbing a series of Microsoft layoffs during the latter part of 2014. Growth rebounded to 5.5% in 2016. The June software employment forecast is slightly higher than in March mostly because actual employment in recent months has been higher than expected. We now expect 3.3% growth this year on an annual average basis compared to 2.2% in the March forecast. As in March, we expect slower growth through the remainder of the forecast. Software employment is expected to grow 0.4% in 2018, 0.6% in 2019, 0.9% in 2020, and 1.0% in 2021.

Construction employment is higher than expected in March

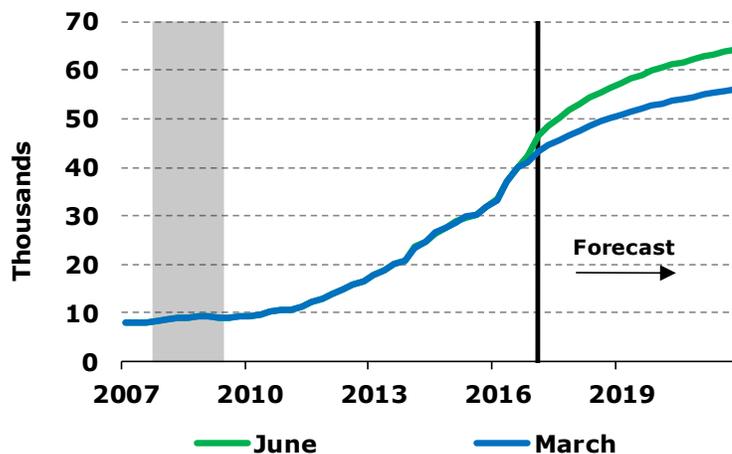
As of May, construction employment was 3,800 higher than expected in the March forecast due to a combination of upward revisions to historical data and stronger than expected growth in recent months. The forecast expects a slowing of growth in coming years similar to the pattern in the March forecast. Construction employment is expected to grow 7.1% this year, down from 7.6% in 2016 and a post-recession high of 8.5% in 2015. Growth will continue to slow to 3.9% in 2018, 1.6% in 2019, and 0.3% in 2020 before declining 0.1% in 2021.

Retail trade employment is benefitting from strong growth in electronic shopping

Washington retail trade employment growth has been much stronger than the national average due to an explosion in employment growth in the electronic shopping sector (see Figure 2.4). Retail trade employment grew at an average rate of 3.4% per year between 2011 and 2016 compared to 1.5% for the U.S. as a whole. Without the electronic shopping sector, which added 26,400 jobs in the five-year period, Washington retail trade employment would have grown at a 2.0% average annual rate. Retail trade employment growth is expected to slow due to technology and slower overall economic growth. Retail trade employment is expected to grow 3.2% this year, 1.6% in 2018, 1.3% in 2019, 0.9% in 2020, and 0.3% in 2021.

Figure 2.4: Electronic Shopping & Mail Order Employment

We have increased our electronic shopping forecast



Source: Source: Washington State Employment Security Department, ERFC; historical data through 2017 Q1

Washington Personal Income

Washington personal income is initially lower than believed in March

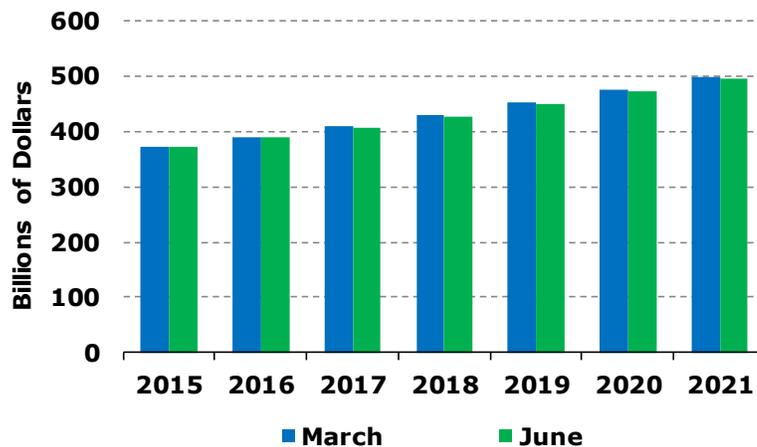
In March, the Bureau of Economic Analysis released estimates for state personal income through the fourth quarter of 2016. In producing our June forecast, we incorporated the new BEA estimates as well as additional Washington Quarterly Census of Employment and Wages (QCEW) and other wage data. Our estimate of Washington personal income for the fourth quarter of 2016 is \$393.6 billion (SAAR), which was \$3.5 billion (0.9%) lower than assumed in the March forecast. The variance was due to wages and salaries, which were \$3.6 billion lower than believed in March.

After this year, our forecast for nominal personal income growth is unchanged since March

Our forecast for nominal personal income growth this year is 4.7%, down from 5.0% in the March forecast. The lower growth in 2017 is a result of the weaker-than-expected growth in the fourth quarter of 2016. Our new forecast for nominal personal income growth in 2018 through 2021 averages 5.1% per year, which is the same rate we assumed in March. While our forecast for personal income growth is similar to the March forecast, the level is lower throughout the forecast due to the lower growth this year (see Figure 2.5). On an annual basis, we expect personal income to grow 5.1% in 2018, 5.4% in 2019, 5.1% in 2020, and 4.8% in 2021.

Figure 2.5: Washington Personal Income

The Washington personal income forecast is lower than in March but the growth rate is similar



Source: Bureau of Economic Analysis, ERFC; historical data through 2016

Washington Building Permits

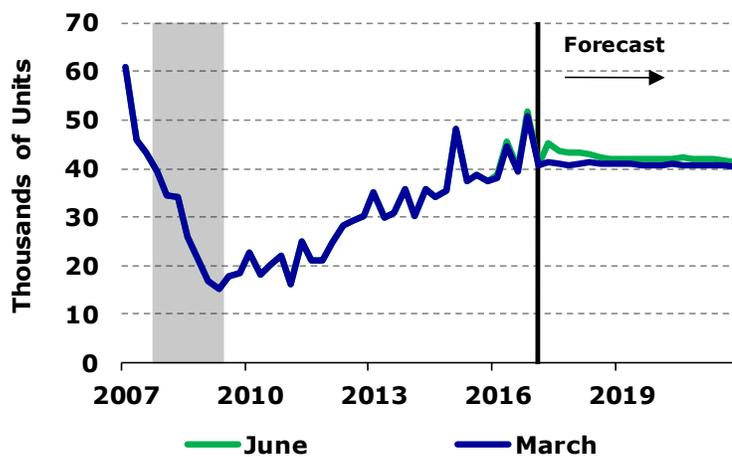
The housing recovery in Washington is essentially complete

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 21,600 in 2016. We believe 2016 was the peak in multi-family construction in this cycle and that permits

will decline to 15,500 by 2021. The recovery in single-family construction has been less robust, from 13,000 units in 2009 to 22,500 in 2016. We expect single-family construction to continue to strengthen with the number of units rising to 26,200 by 2021. The June housing construction forecast is higher than the forecast assumed in March (see Figure 2.6) due to a higher population growth forecast. We expect total housing units authorized by building permits to decline 1.9% this year to 43,300 units, 1.3% in 2018 to 42,700 units, and 1.9% in 2019 to 41,900. The number of units is then expected to increase 0.6% to 42,100 in 2020, declining 0.9% to 41,700 in 2021.

Figure 2.6: Washington Housing Permits

The June forecast expects more housing construction due to faster population growth



Source: Census Bureau, ERFC; historical data through 2017 Q1

Seattle Consumer Price Index

Rents are driving Seattle core inflation higher

Core inflation (excluding food and energy) in Seattle was 3.0% in 2016 while national core inflation was 2.2%. The reason for the difference was shelter costs, which were rising much faster in Seattle. Recent data show that shelter costs continue to rise faster in Seattle than in the U.S. city average. We expect core inflation in Seattle to moderate as shelter costs stabilize. Our forecast for core Seattle inflation is 2.8% in 2017, 2.2% in 2018, 2.0% in 2019, and 2.3% per year in 2020 and 2021.

Energy costs will not affect headline inflation

After working to reduce overall inflation considerably in 2015 and 2016, energy costs are leveling off in the forecast. As a result, they will not significantly affect headline inflation in the next few years. We expect the Seattle CPI to rise 3.0% this year, 2.2% in 2018, 2.1% in 2019, and 2.3% in 2020, and 2.4% in 2021.

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 prepared

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.

Optimistic

In the optimistic scenario, lower taxes and fewer regulations boost growth

In the optimistic scenario, the federal government provides a boost to both the supply and demand sides of the economy. On the supply side, a rollback of regulations and lower corporate taxes result in greater capital spending. Stronger growth in business fixed investment and an explosion of new technologies lead to stronger productivity gains, bringing economic growth above the baseline rate throughout the forecast period. Given the strengthening outlook, both consumer and business confidence improve and the stock market sees strong gains. On the demand side, higher incomes combine with lower oil prices, inflation, and interest rates to support robust consumer spending. Thanks to increased household formation, solid income growth, and a favorable financing environment, housing remains an engine of growth. Meanwhile, economic conditions in the rest of the world improve with the help of structural reforms and quantitative-easing programs.

The optimistic scenario also assumes a much 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 declines less in 2017 then gradually rises through 2021 rather than continuing to fall 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. Washington population growth is higher in the optimistic scenario as the strong local economy attracts migrants from other states. The recovery in construction employment is much stronger than in the baseline forecast with employment in the sector exceeding the previous peak in the first quarter of 2018. By the end of 2021, Washington nonfarm payroll employment is higher by 170,600 jobs (4.8%) than in the baseline forecast and Washington personal income is \$61.8 billion (12.3%) higher.

Pessimistic

In the pessimistic scenario, a crisis of confidence damages economic growth

In the pessimistic scenario, the U.S. economy suffers from a crisis of confidence, managing only feeble growth during the second half of 2018. In this scenario, the political and fiscal policy turmoil in Washington, D.C. escalates. Congress and the president make no progress on any major policy initiatives this year. There is no tax or healthcare reform, and no fiscal stimulus.

Even more routine action, including the omnibus budget bill and increase in the debt limit, is contentious and accomplished only at the last minute, provoking anxiety and a wait-and-see attitude. Uncertainty regarding future tax and healthcare policies causes business confidence to deteriorate, affecting capital spending and hiring plans. Consumers feel the pinch as well. With fewer job prospects and weaker wage gains, they pull back on spending. The U.S. economy manages growth of just 0.9% in each of the final two quarters of 2018. Unemployment climbs through 2019, reaching an eventual peak of 4.9%.

This scenario also assumes a weaker local economy

In addition to reflecting the impact of the weaker U.S. forecast on the state economy, aerospace employment declines much more rapidly than assumed in the baseline forecast. Software employment also declines rather than growing moderately as in the baseline forecast. Population growth is also weaker than in the baseline forecast as migration into Washington drops. Construction employment peaks in early 2018 then declines through 2021 rather than rising as in the baseline. The relatively weak local economy puts downward pressure on Washington wages and the Seattle CPI; largely offsetting this effect is the higher national inflation assumed in the pessimistic U.S. forecast. The net effect is that nominal Washington wages and the Seattle CPI are only slightly lower in the pessimistic alternative than they are in the baseline forecast. By the end of 2021, Washington nonfarm payroll employment is 104,000 (2.9%) lower than in the baseline forecast and Washington personal income is \$25.2 billion (5.0%) 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 slightly weaker than the baseline

At the national level, the GCEA forecast for real GDP growth is one-tenth of a percent lower than the baseline forecast in 2018, 2019, and 2021 but the same in 2017 and 2020. While slightly weaker on average, the GCEA forecast rounds off to the same 2.1% per year as the baseline forecast. The GCEA forecast of real consumer spending growth is similarly very slightly lower than the baseline forecast. However, the GCEA inflation forecast is a higher than the baseline forecast at 1.9% compared to 1.7%, offsetting the lower real growth. Consistent with their weaker real growth forecast, the Council members’ mortgage rate forecast is generally lower than the baseline forecast at 4.7% compared to 5.4% on average. The GCEA oil price forecast is slightly higher than the baseline forecast, averaging \$53 in 2017 through 2021 compared to \$52 in the baseline forecast.

The GCEA members also expect slightly weaker Washington income growth

The GCEA scenario for Washington real personal income growth averages 2.8% per year in 2017 through 2021 compared to the baseline forecast of 3.2%. Their inflation forecast is slightly higher, however, so their nominal personal income forecast is closer to ours, but still weaker. At an average rate of 1.5% per year, the Council members' forecast for total employment growth over the five-year period is the same as the baseline forecast. The GCEA forecasts for manufacturing employment growth and construction employment growth are both weaker than in the baseline forecast, however. The Council members' housing permit forecast is slightly higher than ours is, averaging 44,200 units per year through 2021 compared to 41,900 in the baseline forecast. At the end of 2021, the GCEA forecast for Washington nonfarm payroll employment is 9,700 (0.3%) lower than in the baseline forecast and Washington personal income is \$7.6 billion (1.5%) lower.

Table 2.3 compares the GCEA forecast with the baseline forecast.

Table 2.1
Washington Economic Forecast Summary
 Forecast 2017 to 2021

Fiscal Years

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Real Income (Billions of Chained 2009 Dollars) | | | | | | | | |
| Real Personal Income | 316.650 | 333.849 | 345.727 | 355.999 | 367.967 | 381.078 | 394.023 | 405.581 |
| % Ch | 2.3 | 5.4 | 3.6 | 3.0 | 3.4 | 3.6 | 3.4 | 2.9 |
| Real Wage and Salary Disb. | 162.191 | 170.803 | 180.404 | 187.109 | 193.697 | 199.884 | 205.381 | 210.800 |
| % Ch | 3.5 | 5.3 | 5.6 | 3.7 | 3.5 | 3.2 | 2.8 | 2.6 |
| Real Nonwage Income | 154.459 | 163.046 | 165.323 | 168.891 | 174.270 | 181.194 | 188.642 | 194.781 |
| % Ch | 1.1 | 5.6 | 1.4 | 2.2 | 3.2 | 4.0 | 4.1 | 3.3 |
| Real Per Capita Income (\$/Person) | 45,156 | 46,962 | 47,851 | 48,412 | 49,258 | 50,272 | 51,262 | 52,069 |
| % Ch | 1.2 | 4.0 | 1.9 | 1.2 | 1.7 | 2.1 | 2.0 | 1.6 |
| Price and Wage Indexes | | | | | | | | |
| U.S. Implicit Price Deflator, PCE (2009=1.0) | 1.084 | 1.093 | 1.100 | 1.117 | 1.135 | 1.152 | 1.173 | 1.196 |
| % Ch | 1.4 | 0.9 | 0.7 | 1.5 | 1.5 | 1.5 | 1.8 | 2.0 |
| Seattle Cons. Price Index (1982-84=1.0) | 2.437 | 2.473 | 2.521 | 2.589 | 2.656 | 2.710 | 2.770 | 2.836 |
| % Ch | 1.4 | 1.5 | 1.9 | 2.7 | 2.6 | 2.0 | 2.2 | 2.4 |
| Average Nonfarm Annual Wage | 55,988 | 57,971 | 59,917 | 61,455 | 63,373 | 65,388 | 67,472 | 69,812 |
| % Ch | 3.0 | 3.5 | 3.4 | 2.6 | 3.1 | 3.2 | 3.2 | 3.5 |
| Avg. Hourly Earnings-Mfg. (\$/Hour) | 24.76 | 25.28 | 26.00 | 26.84 | 27.67 | 28.49 | 29.38 | 30.32 |
| % Ch | 2.3 | 2.1 | 2.8 | 3.2 | 3.1 | 3.0 | 3.1 | 3.2 |
| Current Dollar Income (Billions of Dollars) | | | | | | | | |
| Personal Income | 343.162 | 364.967 | 380.443 | 397.772 | 417.495 | 439.057 | 462.220 | 485.297 |
| % Ch | 3.8 | 6.4 | 4.2 | 4.6 | 5.0 | 5.2 | 5.3 | 5.0 |
| Disposable Personal Income | 302.084 | 319.888 | 333.322 | 349.107 | 367.265 | 386.455 | 405.191 | 423.893 |
| % Ch | 3.1 | 5.9 | 4.2 | 4.7 | 5.2 | 5.2 | 4.8 | 4.6 |
| Per Capita Income (\$/Person) | 48,936 | 51,340 | 52,655 | 54,091 | 55,887 | 57,920 | 60,133 | 62,302 |
| % Ch | 2.6 | 4.9 | 2.6 | 2.7 | 3.3 | 3.6 | 3.8 | 3.6 |
| Employment (Thousands) | | | | | | | | |
| Washington Civilian Labor Force | 3,465.7 | 3,517.0 | 3,589.6 | 3,677.1 | 3,737.3 | 3,807.5 | 3,875.1 | 3,934.5 |
| Total Washington Employment | 3,240.7 | 3,313.2 | 3,388.8 | 3,492.8 | 3,572.6 | 3,644.9 | 3,709.6 | 3,765.6 |
| Unemployment Rate (%) | 6.49 | 5.80 | 5.59 | 5.01 | 4.41 | 4.27 | 4.27 | 4.29 |
| Nonfarm Payroll Employment | 3,017.1 | 3,102.5 | 3,193.2 | 3,283.2 | 3,348.6 | 3,402.2 | 3,450.5 | 3,492.5 |
| % Ch | 2.3 | 2.8 | 2.9 | 2.8 | 2.0 | 1.6 | 1.4 | 1.2 |
| Manufacturing | 287.5 | 290.5 | 292.3 | 285.9 | 282.3 | 286.6 | 291.1 | 294.4 |
| % Ch | 0.9 | 1.0 | 0.6 | -2.2 | -1.3 | 1.5 | 1.6 | 1.1 |
| Durable Manufacturing | 209.4 | 210.7 | 210.5 | 202.8 | 198.3 | 201.4 | 204.5 | 207.1 |
| % Ch | 0.4 | 0.6 | -0.1 | -3.6 | -2.3 | 1.6 | 1.5 | 1.2 |
| Aerospace | 94.7 | 94.3 | 93.2 | 87.4 | 81.1 | 79.1 | 77.8 | 77.7 |
| % Ch | -1.7 | -0.5 | -1.2 | -6.2 | -7.2 | -2.4 | -1.6 | -0.1 |
| Nondurable Manufacturing | 78.0 | 79.8 | 81.8 | 83.1 | 84.0 | 85.1 | 86.5 | 87.4 |
| % Ch | 2.3 | 2.2 | 2.6 | 1.6 | 1.1 | 1.4 | 1.7 | 0.9 |
| Construction | 153.7 | 168.0 | 178.8 | 193.1 | 204.3 | 209.4 | 211.2 | 211.5 |
| % Ch | 6.8 | 9.3 | 6.4 | 8.0 | 5.8 | 2.5 | 0.8 | 0.1 |
| Service-Providing | 2,569.7 | 2,637.7 | 2,715.8 | 2,797.9 | 2,855.7 | 2,899.8 | 2,941.7 | 2,980.0 |
| % Ch | 2.2 | 2.6 | 3.0 | 3.0 | 2.1 | 1.5 | 1.4 | 1.3 |
| Software Publishers | 55.0 | 55.5 | 57.2 | 60.3 | 61.1 | 61.3 | 61.8 | 62.3 |
| % Ch | 3.9 | 1.0 | 3.1 | 5.4 | 1.2 | 0.4 | 0.8 | 0.9 |
| Nonfarm Payroll Employment, EOP* | 3,037.8 | 3,137.3 | 3,234.2 | 3,311.1 | 3,370.8 | 3,421.2 | 3,472.3 | 3,506.2 |
| % Ch* | 2.2 | 3.3 | 3.1 | 2.4 | 1.8 | 1.5 | 1.5 | 1.0 |
| Housing Indicators (Thousands) | | | | | | | | |
| Housing Units Authorized by Bldg. Permit | 33.222 | 38.703 | 40.103 | 44.511 | 43.338 | 42.020 | 41.950 | 42.021 |
| % Ch | 6.5 | 16.5 | 3.6 | 11.0 | -2.6 | -3.0 | -0.2 | 0.2 |
| Single-Family | 17.383 | 18.652 | 21.822 | 22.183 | 24.713 | 25.642 | 25.962 | 26.210 |
| % Ch | -6.3 | 7.3 | 17.0 | 1.7 | 11.4 | 3.8 | 1.2 | 1.0 |
| Multi-Family | 15.839 | 20.051 | 18.281 | 22.328 | 18.625 | 16.378 | 15.988 | 15.811 |
| % Ch | 25.2 | 26.6 | -8.8 | 22.1 | -16.6 | -12.1 | -2.4 | -1.1 |
| 30-Year Fixed Mortgage Rate (%) | 4.33 | 3.92 | 3.80 | 3.87 | 4.57 | 5.39 | 5.99 | 5.94 |

*End of Period, for use in the Budget Stabilization Account calculation

Table 2.2
Comparison of Alternative Forecasts

Fiscal Years

| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|------|------|------|------|------|------|
| U.S. | | | | | | |
| Real GDP, Percent Change | | | | | | |
| Optimistic | 1.7 | 2.1 | 3.5 | 3.3 | 2.8 | 2.9 |
| Baseline | 1.7 | 2.0 | 2.3 | 2.3 | 2.0 | 2.0 |
| Pessimistic | 1.7 | 2.0 | 2.0 | 1.2 | 2.2 | 2.5 |
| Implicit Price Deflator, Percent Change | | | | | | |
| Optimistic | 0.7 | 1.5 | 1.6 | 1.6 | 2.0 | 2.3 |
| Baseline | 0.7 | 1.5 | 1.5 | 1.5 | 1.8 | 2.0 |
| Pessimistic | 0.7 | 1.5 | 1.5 | 1.5 | 2.0 | 2.3 |
| Mortgage Rate, Percent | | | | | | |
| Optimistic | 3.80 | 3.86 | 4.54 | 5.68 | 6.47 | 6.46 |
| Baseline | 3.80 | 3.87 | 4.57 | 5.39 | 5.99 | 5.94 |
| Pessimistic | 3.80 | 3.87 | 4.47 | 4.64 | 5.02 | 5.54 |
| 3 Month T-Bill Rate, Percent | | | | | | |
| Optimistic | 0.18 | 0.53 | 1.17 | 2.07 | 2.95 | 3.12 |
| Baseline | 0.18 | 0.56 | 1.27 | 2.07 | 2.79 | 2.83 |
| Pessimistic | 0.18 | 0.56 | 1.13 | 0.88 | 1.17 | 2.07 |
| Washington | | | | | | |
| Real Personal Income, Percent Change | | | | | | |
| Optimistic | 3.6 | 3.3 | 5.9 | 6.4 | 5.9 | 4.7 |
| Baseline | 3.6 | 3.0 | 3.4 | 3.6 | 3.4 | 2.9 |
| Pessimistic | 3.6 | 2.7 | 2.0 | 1.8 | 2.0 | 2.5 |
| Personal Income, Percent Change | | | | | | |
| Optimistic | 4.2 | 4.9 | 7.6 | 8.2 | 8.0 | 7.1 |
| Baseline | 4.2 | 4.6 | 5.0 | 5.2 | 5.3 | 5.0 |
| Pessimistic | 4.2 | 4.3 | 3.5 | 3.4 | 4.0 | 4.8 |
| Employment, Percent Change | | | | | | |
| Optimistic | 2.9 | 2.9 | 2.9 | 2.6 | 2.5 | 2.2 |
| Baseline | 2.9 | 2.8 | 2.0 | 1.6 | 1.4 | 1.2 |
| Pessimistic | 2.9 | 2.8 | 1.5 | 0.6 | 0.6 | 0.8 |
| Housing Permits, Thousands of Authorized Units | | | | | | |
| Optimistic | 40.1 | 44.6 | 46.1 | 46.5 | 48.1 | 49.3 |
| Baseline | 40.1 | 44.5 | 43.3 | 42.0 | 41.9 | 42.0 |
| Pessimistic | 40.1 | 44.5 | 41.8 | 37.5 | 37.0 | 37.1 |

Table 2.3

Calendar Years

Governor's Council of Economic Advisor's Forecast

| | 2017 | 2018 | 2019 | 2020 | 2021 |
|---------------------------------------|------|------|------|------|------|
| U.S. | | | | | |
| Real GDP | | | | | |
| <i>Growth</i> | | | | | |
| ERFC | 2.1 | 2.4 | 2.1 | 2.0 | 2.0 |
| GCEA Average | 2.1 | 2.3 | 2.0 | 2.0 | 1.9 |
| Real Consumption | | | | | |
| <i>Growth</i> | | | | | |
| ERFC | 2.4 | 2.5 | 2.3 | 2.2 | 2.1 |
| GCEA Average | 2.4 | 2.4 | 2.2 | 2.2 | 2.2 |
| Implicit Price Deflator, PCE | | | | | |
| <i>Growth</i> | | | | | |
| ERFC | 1.8 | 1.5 | 1.5 | 1.7 | 1.9 |
| GCEA Average | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 |
| Mortgage Rate | | | | | |
| <i>Percent</i> | | | | | |
| ERFC | 4.3 | 5.1 | 5.8 | 6.0 | 5.9 |
| GCEA Average | 4.2 | 4.5 | 4.8 | 5.0 | 5.2 |
| Oil Price (Brent) | | | | | |
| <i>Dollars per barrel</i> | | | | | |
| ERFC | 52.1 | 51.9 | 51.9 | 52.3 | 53.1 |
| GCEA Average | 51.6 | 52.9 | 53.4 | 54.1 | 54.9 |
| Washington State | | | | | |
| Real Personal Income | | | | | |
| <i>Growth</i> | | | | | |
| ERFC | 3.0 | 3.6 | 3.8 | 3.1 | 2.7 |
| GCEA Average | 2.8 | 2.9 | 3.0 | 2.6 | 2.6 |
| Wage and Salary Employment | | | | | |
| <i>Growth</i> | | | | | |
| ERFC | 2.4 | 1.6 | 1.4 | 1.2 | 0.9 |
| GCEA Average | 2.3 | 1.7 | 1.4 | 1.2 | 1.2 |
| Manufacturing Employment | | | | | |
| <i>Growth</i> | | | | | |
| ERFC | -2.3 | 0.2 | 1.3 | 1.3 | 1.1 |
| GCEA Average | -2.4 | -0.7 | 0.1 | 0.2 | 0.1 |
| Construction Employment | | | | | |
| <i>Growth</i> | | | | | |
| ERFC | 7.2 | 3.8 | 1.5 | 0.1 | -0.5 |
| GCEA Average | 4.4 | 2.2 | 1.3 | 0.3 | 0.3 |
| Housing Permits | | | | | |
| <i>Thousands of authorized units</i> | | | | | |
| ERFC | 43.2 | 42.4 | 41.5 | 41.5 | 41.0 |
| GCEA Average | 43.8 | 44.0 | 44.2 | 44.4 | 44.7 |
| Washington Average Annual Wage | | | | | |
| <i>Growth</i> | | | | | |
| ERFC | 2.5 | 3.3 | 3.4 | 3.2 | 3.5 |
| GCEA Average | 2.7 | 3.3 | 3.4 | 3.3 | 3.4 |

Table 2.4

Forecast Analysis

Comparison of Forecasts for 2015-17

| Washington | Average Annual Rate of Growth (Percent) 2015:2-2017:2 | | | Average Annual Rate (Thousands) 2015:3 to 2017:2 |
|-------------------|--|------------------------|-----------------------------|---|
| | Employment | Personal Income | Real Personal Income | Housing Units Authorized |
| 2012 | | | | |
| September | 1.7 | 5.1 | 3.1 | 38.5 |
| November | 1.7 | 4.9 | 3.2 | 38.4 |
| 2013 | | | | |
| March | 1.7 | 5.1 | 3.5 | 41.6 |
| June | 1.7 | 5.0 | 3.5 | 42.2 |
| September | 1.6 | 5.1 | 3.5 | 40.6 |
| November | 1.7 | 5.1 | 3.6 | 40.6 |
| 2014 | | | | |
| February | 1.8 | 5.2 | 3.9 | 40.8 |
| June | 1.7 | 5.7 | 4.3 | 40.5 |
| September | 1.7 | 5.9 | 4.3 | 40.4 |
| November | 1.8 | 6.1 | 4.4 | 38.8 |
| 2015 | | | | |
| February | 2.0 | 6.1 | 4.2 | 38.8 |
| June | 1.8 | 5.5 | 3.7 | 40.2 |
| September | 1.8 | 5.2 | 3.6 | 39.1 |
| November | 1.6 | 4.8 | 3.2 | 39.2 |
| 2016 | | | | |
| February | 1.6 | 4.3 | 3.1 | 38.6 |
| June | 2.0 | 4.2 | 2.7 | 40.3 |
| September | 2.3 | 4.4 | 3.0 | 40.4 |
| November | 2.5 | 4.4 | 3.1 | 39.5 |
| 2017 | | | | |
| March | 2.7 | 4.7 | 3.3 | 41.4 |
| June | 2.7 | 4.3 | 3.0 | 42.3 |

Table 2.5

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 |

Table 2.6
Forecast Comparison
 Forecast 2017 to 2021

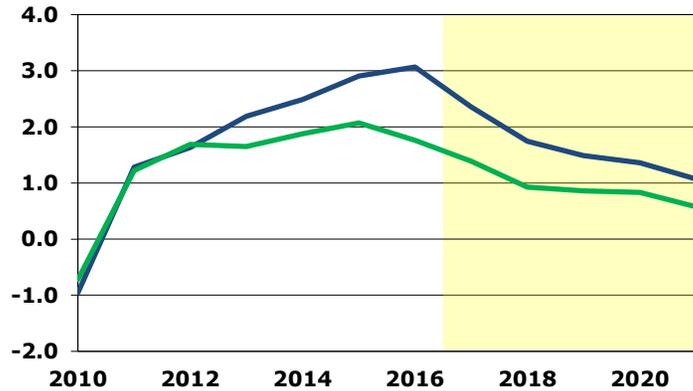
Fiscal Years

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Washington | | | | | | | |
| Real Personal Income | | | | | | | |
| June Baseline | 333.849 | 345.727 | 355.999 | 367.967 | 381.078 | 394.023 | 405.581 |
| % Ch | 5.4 | 3.6 | 3.0 | 3.4 | 3.6 | 3.4 | 2.9 |
| March Baseline | 333.849 | 345.793 | 358.108 | 370.462 | 384.126 | 396.580 | 407.877 |
| % Ch | 5.4 | 3.6 | 3.6 | 3.4 | 3.7 | 3.2 | 2.8 |
| Personal Income | | | | | | | |
| June Baseline | 364.967 | 380.443 | 397.772 | 417.495 | 439.057 | 462.220 | 485.297 |
| % Ch | 6.4 | 4.2 | 4.6 | 5.0 | 5.2 | 5.3 | 5.0 |
| March Baseline | 364.967 | 380.515 | 400.028 | 420.283 | 442.609 | 465.195 | 487.603 |
| % Ch | 6.4 | 4.3 | 5.1 | 5.1 | 5.3 | 5.1 | 4.8 |
| Employment | | | | | | | |
| June Baseline | 3102.5 | 3193.2 | 3283.2 | 3348.6 | 3402.2 | 3450.5 | 3492.5 |
| % Ch | 2.8 | 2.9 | 2.8 | 2.0 | 1.6 | 1.4 | 1.2 |
| March Baseline | 3102.6 | 3193.4 | 3285.9 | 3352.9 | 3406.5 | 3449.4 | 3485.8 |
| % Ch | 2.8 | 2.9 | 2.9 | 2.0 | 1.6 | 1.3 | 1.1 |
| Housing Permits | | | | | | | |
| June Baseline | 38.703 | 40.103 | 44.511 | 43.338 | 42.020 | 41.950 | 42.021 |
| % Ch | 16.5 | 3.6 | 11.0 | -2.6 | -3.0 | -0.2 | 0.2 |
| March Baseline | 38.703 | 39.703 | 43.065 | 41.029 | 40.929 | 40.752 | 40.705 |
| % Ch | 16.5 | 2.6 | 8.5 | -4.7 | -0.2 | -0.4 | -0.1 |

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

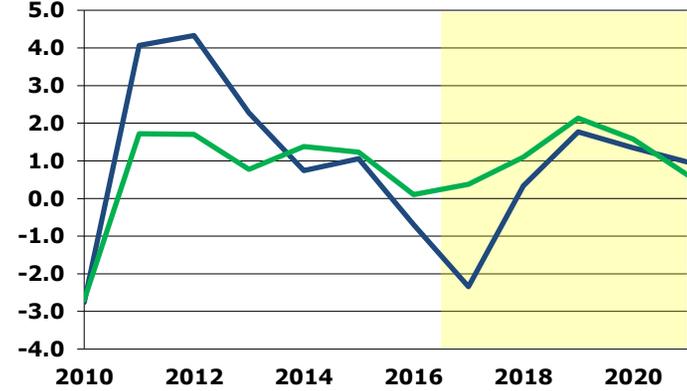
Forecast

Total nonfarm payroll employment



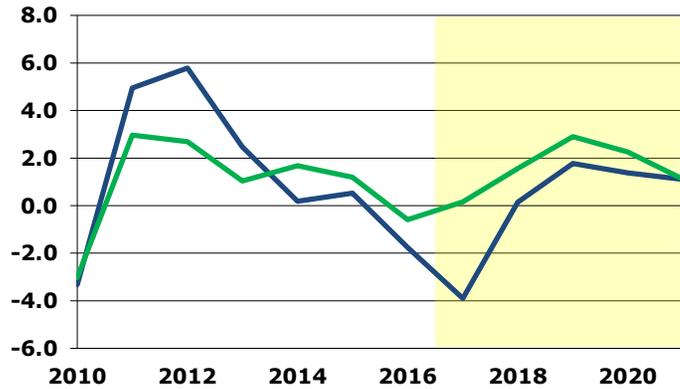
Source: WA State Employment Security Dept. 2016, ERFC 2021

Manufacturing employment



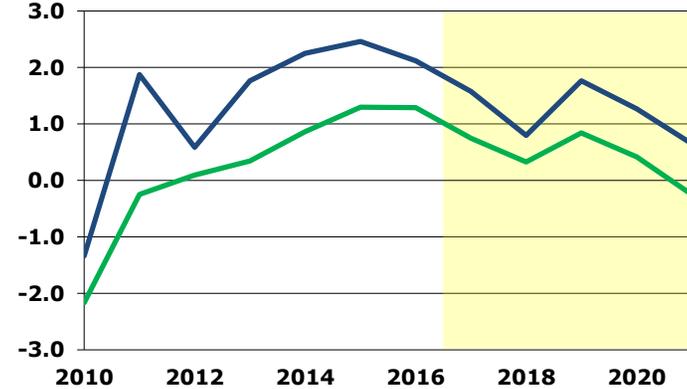
Source: WA State Employment Security Dept. 2016, ERFC 2021

Durable manufacturing employment



Source: WA State Employment Security Dept. 2016, ERFC 2021

Nondurable manufacturing employment



Source: WA State Employment Security Dept. 2016, ERFC 2021

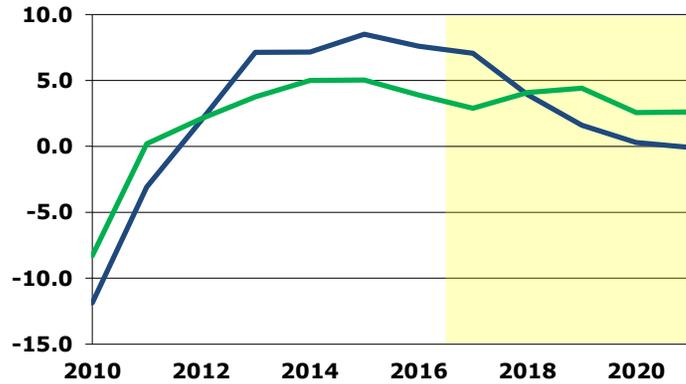
Washington

U.S.

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

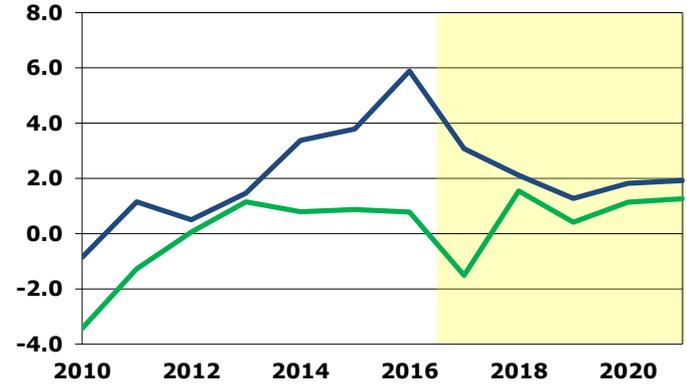
Forecast

Construction employment



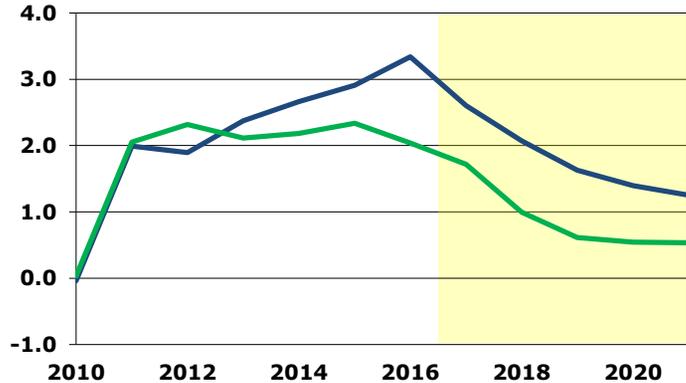
Source: WA State Employment Security Dept. 2016, ERFC 2021

Information employment



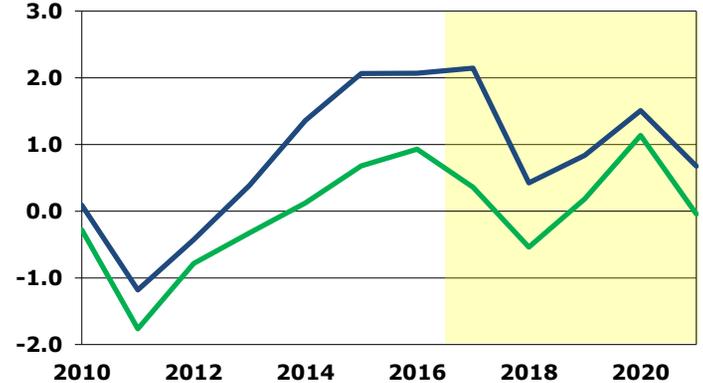
Source: WA State Employment Security Dept. 2016, ERFC 2021

Other private employment



Source: WA State Employment Security Dept. 2016, ERFC 2021

Government employment



Source: WA State Employment Security Dept. 2016, ERFC 2021

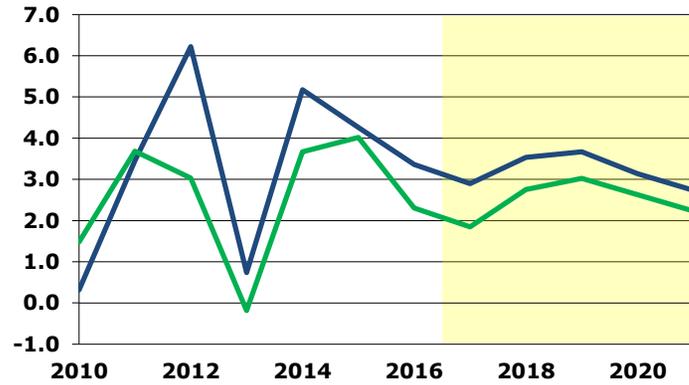
Washington

U.S.

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

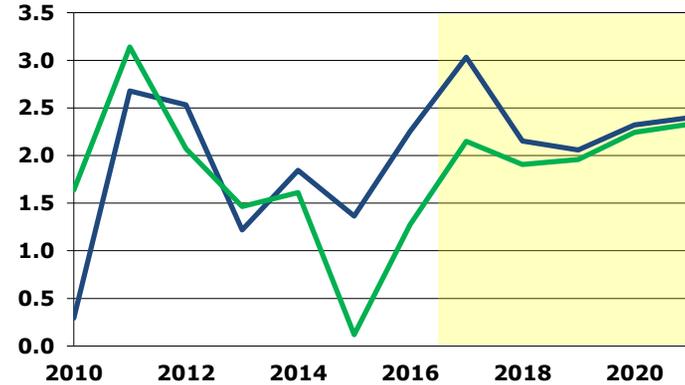
Forecast

Real personal income



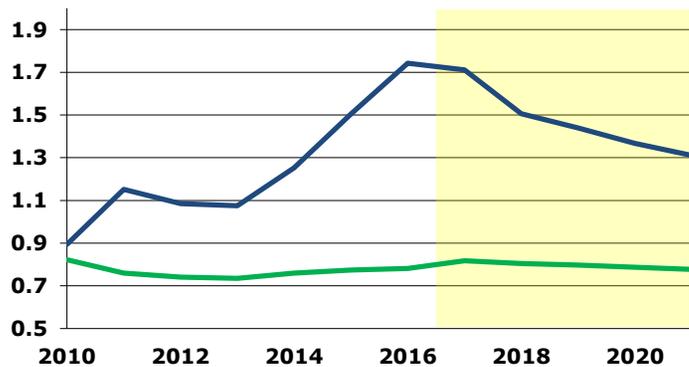
Source: Bureau of Economic Analysis 2015, ERFC 2021

Consumer price indices



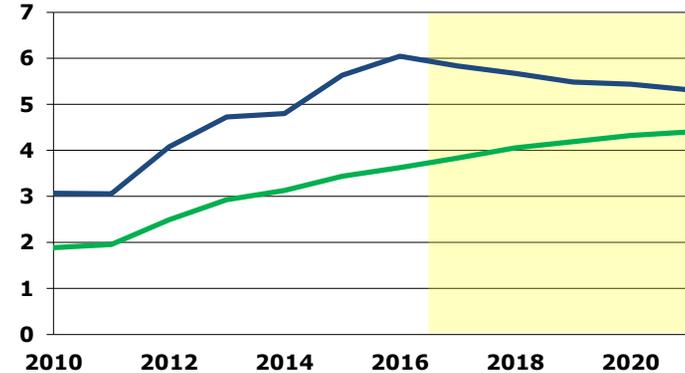
Source: Bureau of Labor Statistics 2016, ERFC 2021

Population



Source: Office of Financial Management/Census Bureau 2016, ERFC 2021

New Housing Units Per 1,000 population (level)



Source: Census Bureau 2016, ERFC 2021

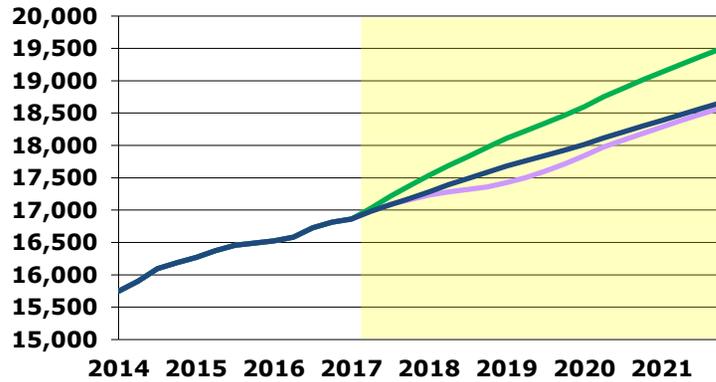
Washington

U.S.

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

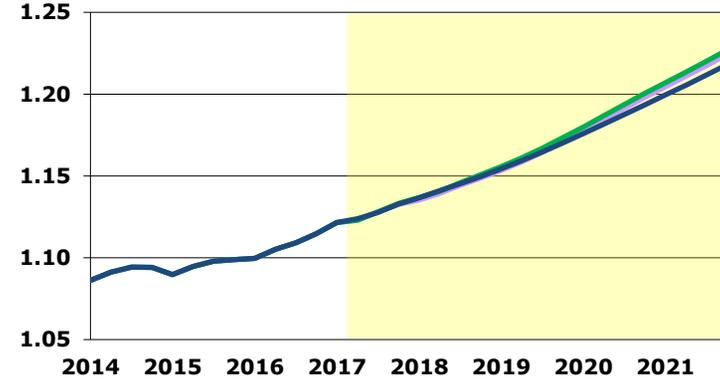
Forecast

Real GDP, billions of chained 2009 dollars



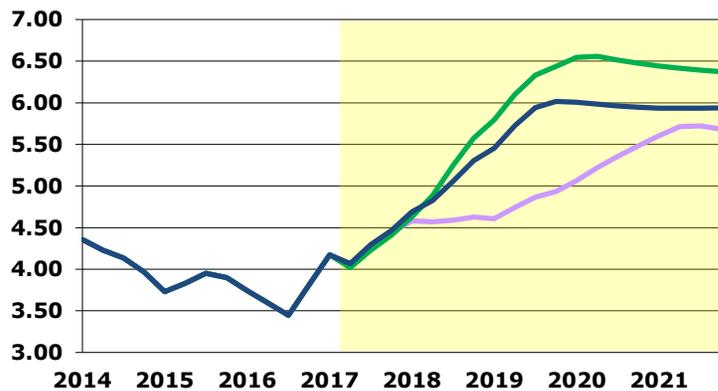
Source: Bureau of Economic Analysis 2017 Q1, ERFC 2021

Implicit price deflator, index 2009 = 1.0



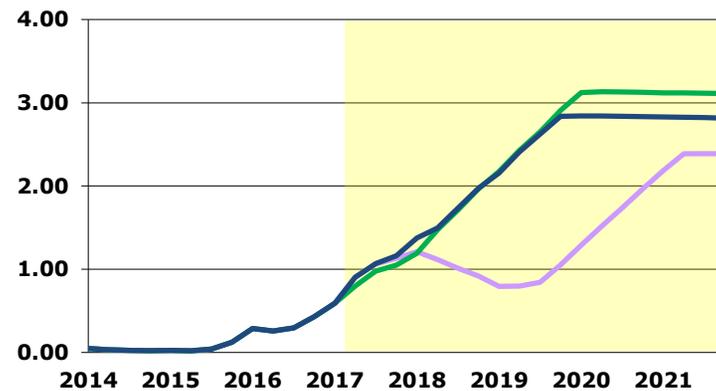
Source: Bureau of Economic Analysis 2017 Q1, ERFC 2021

Mortgage rate, percent



Source: Freddie Mac 2017 Q1, ERFC 2021

Three month T-bill rate, percent



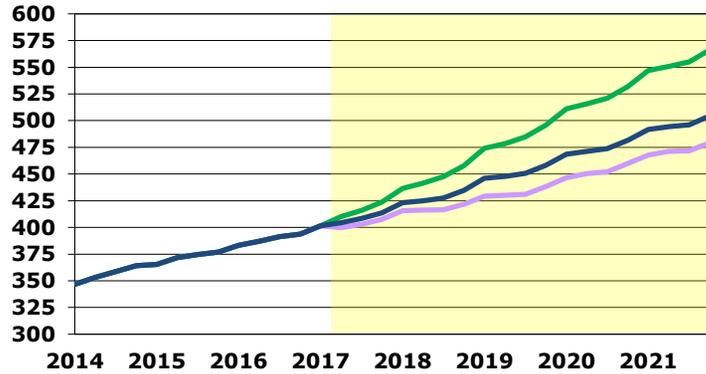
Source: Federal Reserve Board 2017 Q1, ERFC 2021

■ Baseline ■ Optimistic ■ Pessimistic

Figure 2.9: Comparison of Alternative Washington Economic Forecasts

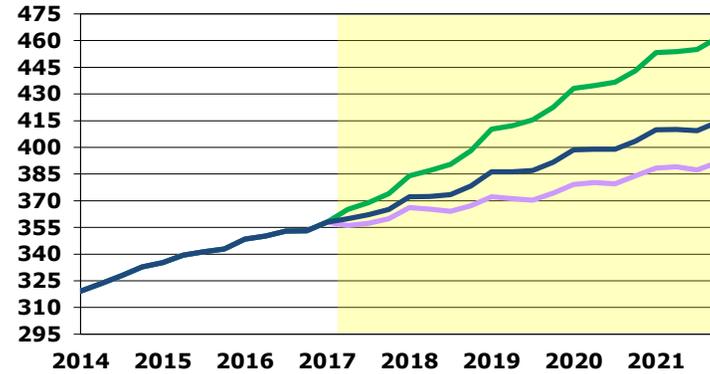
Forecast

Personal income, billions of dollars



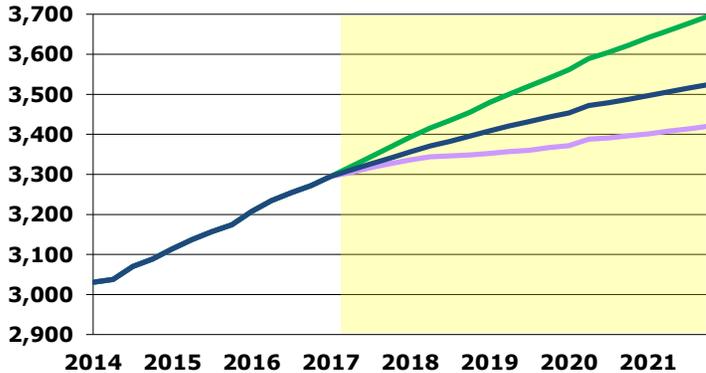
Source: Bureau of Economic Analysis 2015 Q4, ERFC 2021

Real personal income, billions of chained 2009 dollars



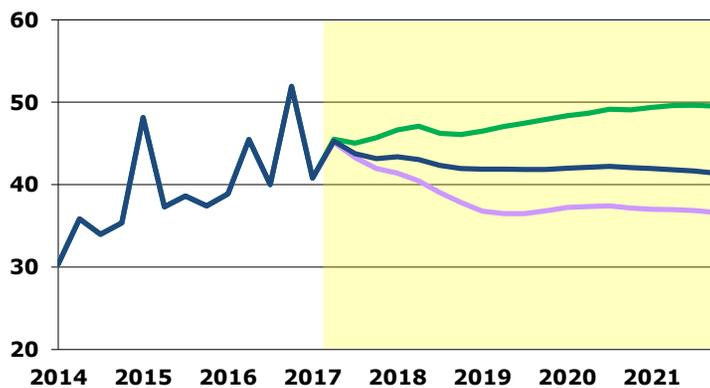
Source: Bureau of Economic Analysis 2015 Q4, ERFC 2021

Total nonfarm payroll employment, thousands



Source: WA State Employment Security 2017 Q1, ERFC 2021

Housing permits, thousands



Source: Census Bureau 2017 Q1, ERFC 2021

■ Baseline ■ Optimistic ■ Pessimistic

This page left intentionally blank.



Chapter 3: Washington State Revenue Forecast Summary

- **Revenue collections since the March 2017 forecast have come in \$67 million over the forecasted amount.**
- **The forecast of General Fund-State (GF-S) revenue for the 2015-17 biennium was increased by \$81 million, the forecast for the 2017-19 biennium was increased by \$87 million, and the forecast for the 2019-21 biennium was increased by \$34 million.**
- **Forecast increases were once again mainly in retail sales and real estate excise taxes.**

Overview

The revenue forecast has increased slightly, due mainly to retail sales and real estate excise

Revenue collections have come in slightly higher than expected in the previous forecast. As was the case when the forecast was last updated in March 2017, most of the surplus revenue stemmed from retail sales and real estate excise taxes. The strengthening real estate market has prompted another increase in forecasted real estate excise taxes. Forecasted retail sales tax collections have also been increased, due to both stronger-than-expected collections and a slight increase in forecasted construction activity. Changes in forecasted revenue from other sources were slight, reflecting the small changes in the June 2017 economic forecast relative to the March 2017 forecast.

GF-S forecast change by biennium (millions):

15-17: +\$81
17-19: +\$87
19-21: +\$34

Table 3.1 summarizes the changes to the forecasts of GF-S revenue for the 2015-17 through 2019-21 biennia. Since the March 2017 forecast, revenue sources that are tracked monthly came in \$66.6 million higher than forecasted. There were no non-economic changes in expected revenue for the current biennium. Changes to the economic forecast resulted in a \$14.6 million increase to projected collections for the rest of the biennium. The total of these components was an \$81.2 million increase in projected revenue for the current 2015-17 biennium. The forecast for the 2017-19 biennium has been increased by \$86.5 million, with a \$0.5 million reduction in forecasted revenue from legislative changes. The forecast for the 2019-21 biennium has been increased by \$33.5 million, also with a \$0.5 million

reduction in forecasted revenue from legislative changes. GF-S revenue is now forecasted to total \$38,308.3 million in the 2015-17 biennium, \$40,903.2 million in the 2017-19 biennium, and \$43,875.2 million in the 2019-21 biennium.

GF-S forecast (\$millions):

2015-17:
\$38,308

2017-19:
\$40,903

2019-21:
\$43,875

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

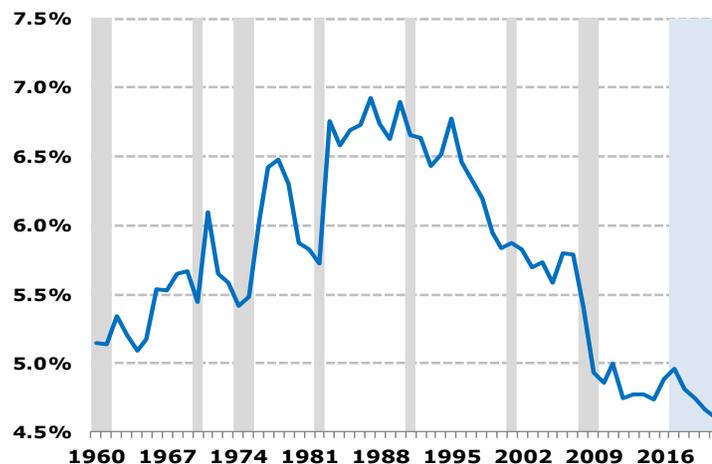
| | 2015-17 Biennium | 2017-19 Biennium | 2019-21 Biennium |
|-----------------------|-----------------------------|-----------------------------|-----------------------------|
| Collection Experience | \$66.6 | NA | NA |
| Non-Economic Change | \$0.0 | (\$0.5) | (\$0.5) |
| Forecast Change | \$14.6 | \$87.0 | \$34.0 |
| Total Change | \$81.2 | \$86.5 | \$33.5 |

The ratio of collections to income is at historical lows

As can be seen in Figure 3.1, the amount of GF-S revenue collected relative to state personal income is forecasted to reach its lowest levels in ERFC records. The ratio of revenue to income has 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 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. The ratio, however, is expected to resume its downward trend from FY

Figure 3.1: GF-S Revenue (Current Definition) 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 2016

2018 through the end of the forecast period in FY 2021. This forecast is shown in the blue shaded area in the figure. In fiscal year 2021, GF-S revenues are projected to be 4.6% of personal income.

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 2015-17 biennium can be found in Table 3.5 (cash) and Table 3.6 (GAAP). Forecast changes for the 2017-19 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 2019 can be found in Table 3.9.

Recent Collection Experience

Collections were \$67 million (1.4%) more than the March 2017 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 2017 forecast, total revenue from the above sources came in \$66.6 million (1.4%) higher than expected (see Table 3.2). Revenue Act collections reported by the DOR were \$48.4 million (1.4%) above the forecast. Revenue from other DOR tax sources was \$17.5 million (1.3%) above the forecast.

Much of the forecast variance was due to real estate excise taxes

Most of the positive variance in non-Revenue Act collections was due to real estate excise taxes (REET) which came in \$18.1 million (8.2%) higher than forecasted. Most of the surplus REET collections occurred in May, when collections came in \$15.4 million higher than forecasted. Property tax receipts came in \$10.4 million (1.1%) lower than forecasted. Cigarette tax receipts came in \$2.4 million (2.7%) lower than forecasted and liquor sales and liter tax receipts came in \$3.2 million (5.7%) higher than forecasted. Net refunds of unclaimed property out of the GF-S were \$4.1 million higher than forecasted. All other DOR

Table 3.2: Pre-Forecast Collection Variance of Major General Fund-State Taxes by Agency (relative to the March 2017 forecast, cash basis, millions of dollars)

| <u>Agency/Source</u> | <u>Collection Variance</u> | <u>Percent of Estimate</u> |
|-------------------------------------|----------------------------|----------------------------|
| Department of Revenue | | |
| Revenue Act | \$48.4 | 1.4% |
| Non-Revenue Act | \$17.5 | 1.3% |
| Subtotal | \$65.9 | 1.4% |
| Department of Licensing | | |
| | \$1.4 | 28.5% |
| Administrative Office of the Courts | | |
| | (\$0.8) | -3.9% |
| Total* | \$66.6 | 1.4% |

* Detail may not add to total due to rounding.

Source: ERFCS; Period: March 11 - June 10, 2017

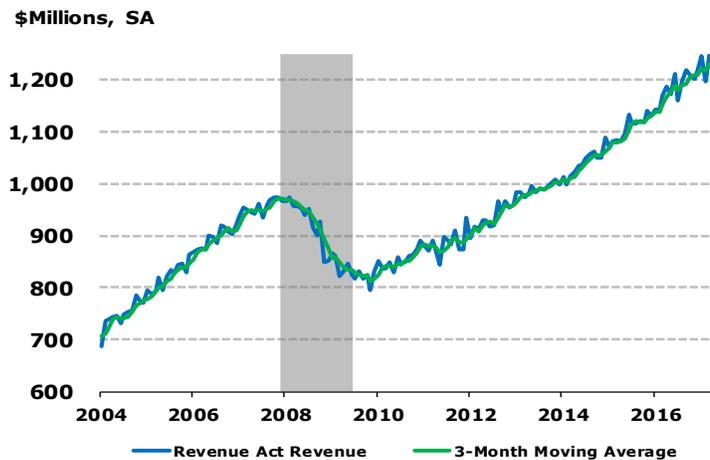
revenue sources came in \$13.1 million (22.3%) higher than forecasted, due mainly to PUD privilege taxes that were expected to arrive in June but arrived in May instead. Revenue from the Department of Licensing was \$1.5 million (28.5%) higher than forecasted due to strong payments of vessel excise taxes. Revenue from the Administrative Office of the Courts was \$0.8 million (3.9%) lower than forecasted.

Adjusted Revenue Act collections were up 1.8% year over year in the most recent collection period and up 6.8% in the previous period

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. Growth was aided by a temporary increase in the business and occupation tax rate paid by service industries that took effect in May 2010. This temporary increase expired on July 1, 2013. As can be seen in the figure, there have been some large swings in recent collections. Collections grew 1.8% year over year in the May 11 – June 10 collections period (the low growth rate was largely due to strong payments last year) after 6.8% growth in the previous period. Adjusted year-over-year growth in collections representing first quarter 2017 activity (February 11– May 12, 2017 collections) was 6.3%. Collections growth for fourth quarter 2016 activity (November 11, 2016 – February 10, 2017 collections) was 6.4%. Collections growth for adjusted third quarter 2016 activity was 7.2%, and adjusted collections growth for both first and second quarter 2016 was 7.6%.

Figure 3.2: Revenue Act Collections*

Year-over-year growth in adjusted Revenue Act collections has slowed in recent months



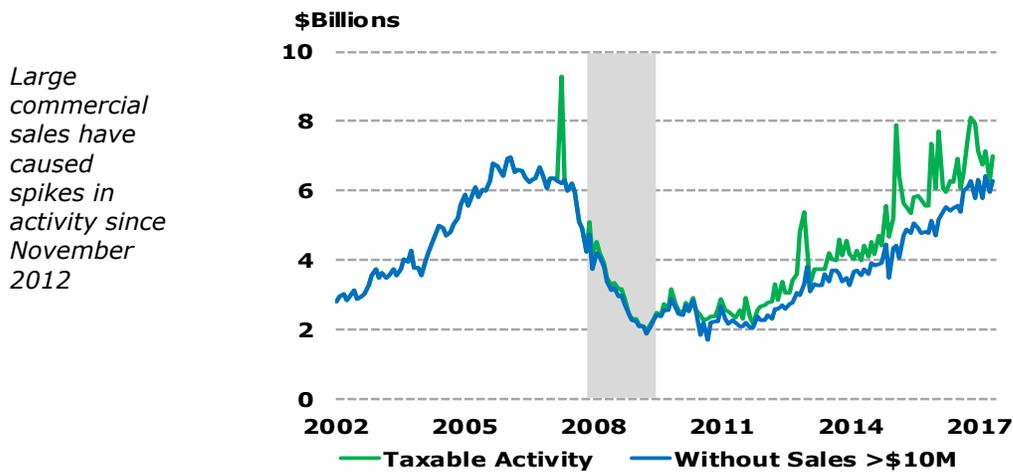
Source: ERFC; Data through June 10, 2017 preliminary allocation
*Adjusted for large payments/refunds and payment pattern change

Sales of large commercial properties were stronger than expected

Much of the large positive variance in REET collections was once again due to stronger-than-expected sales of large commercial property. Sales of property worth \$10 million or more totaled \$1.8 billion in the three months since the last forecast. These

sales had slowed from \$5.2 billion in the fourth quarter of 2016 to \$1.8 billion in the first quarter of 2017, but have stayed at about that level instead of declining further. Large commercial sales have been responsible for much of the increase in taxable activity since November 2012, creating many spikes in activity, many representing transfers of controlling interest during corporate mergers (see Figure 3.3). Residential sales and smaller commercial sales have also been stronger than expected since the March 2017 forecast. The increases in taxable activity have stemmed mostly from increased sale prices rather than an increased number of sales.

Figure 3.3: Taxable Real Estate Excise Activity, SA



Source: ERFC; data through May 2017

Legislative Changes to the Forecast

Legislative forecast changes were slight

A small number of bills passed in the 2017 regular and special sessions through June 20, 2017 had impacts on expected revenue. This legislation is detailed in Table 3.19. The total impact of the legislation was relatively small, amounting to forecasted reductions around \$0.5 million per biennium. Included are two bills involved increasing tax credits and one that redirects a fee from the GF-S to a dedicated account.

Revenue Forecasts by Source

Department of Revenue

Taxes collected by DOR are most of GF-S taxes

The Department of Revenue (DOR) collects and administers the majority of Washington's GF-S revenue, accounting for 95% of total GF-S revenue in FY 2016. The largest tax sources administered by the DOR are the retail sales tax, business and

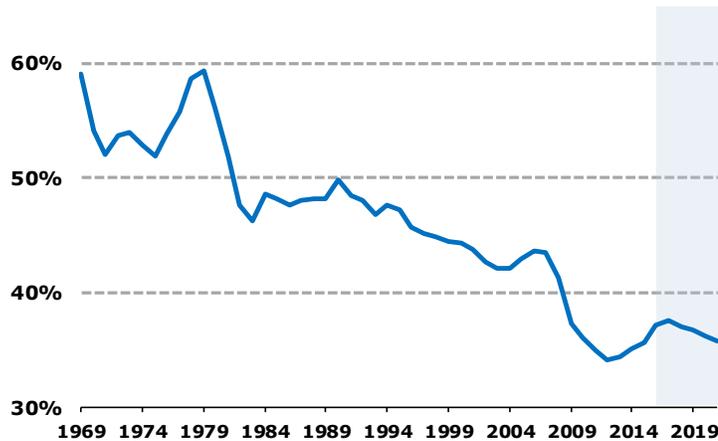
occupation tax, property tax, use tax, cigarette tax and real estate excise tax. The revenue forecasts discussed below can be found in Tables 3.5-3.8.

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 48.1% of GF-S revenue in FY 2016. 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, 34.1% 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 2016, reaching 37.1% of personal income. The same factors are expected to increase the share to 37.6% in FY 2017. From FY 2017 on, however, the share is expected to continue to decline through FY 2021, reaching 35.7% in that year. The historical and forecasted relationship between taxable sales and income is illustrated in Figure 3.4.

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 2016, forecast through FY 2021

Retail sales tax receipt growth forecast:

*FY17: 6.4%
FY18: 3.7%
FY19: 4.3%
FY20: 3.9%
FY21: 3.7%*

Strong growth in construction and auto sales brought taxable retail sales growth of 8.1% in FY 2015. The abovementioned 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 forecasted FY 2017 activity to 5.8%. Forecasted growth then slows to 3.5% in FY 2018 due to a slight decline in auto sales. Growth then increases to 4.3% in FY 2019 as auto sales level off, before declining to 3.8% in FY 2020 and 3.6% in FY 2021 (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 2016 was 8.8%. Collections growth is forecasted at 6.4% in FY 2017, 3.7% in FY 2018, 4.3% in FY 2019, 3.9% in FY 2020 and 3.7% in FY 2021.

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 19.5% of GF-S revenue in FY 2016. 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 2016, the largest contributor to total state B&O tax was the services sector, which had a gross tax rate of 1.5% and represented an estimated 45% of B&O taxes due. The next largest sector was retailing, which is taxed at 0.471% and represented an estimated 25% of taxes due, followed by the wholesaling sector, which is taxed at 0.484% and represented an estimated 20% of taxes due.

B&O tax growth forecast:

*FY17: 4.7 %
FY18: 4.2%
FY19: 5.3%
FY20: 5.0%
FY21: 5.1%*

In FY 2016, B&O tax receipts grew by 7.3%, due largely to legislative changes from the 2015 session. Growth is forecasted to decrease to 4.7% in FY 2017. Growth is then forecasted to slow to 4.2% in FY 2018, due mainly to the elevation of FY 2017 receipts from one-time remittance payments. Forecasted growth then increases to 5.3% in FY 2019. Growth is forecasted at 5.0% in FY 2020 and 5.1% FY 2021.

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 11.0% of total revenue in FY 2016. Although the tax goes into the GF-S, it is dedicated to the funding of basic education. By law, the total state tax levy on existing property can only increase by the lesser of 1% per year or the rate of inflation as measured by the year-over-year change in the U.S. Implicit Price Deflator in the second quarter of the year preceding the levy, unless a greater increase is approved by the voters. The year-to-year growth in the total amount levied, however, can exceed the aforementioned limits due to the value of new construction, property improvements, and other additions to real property assessed by the state. Collections can also grow faster or slower than the rate of assessment growth due to the payment of past due taxes or nonpayment of current taxes.

Property tax growth forecast:

*FY17: 1.9%
FY18: 2.6%
FY19: 2.7%
FY20: 2.7%
FY21: 2.7%*

Property tax collections grew by 2.3% in FY 2015. Second quarter 2015 year-over-year inflation of less than 1% restrained the growth rate of the calendar year 2016 levy, keeping collections growth to 2.1% in FY 2016 and expected growth of 1.9% in FY 2017. Forecasted inflation of over 1% in the second quarter of 2016 plus forecasted increases in the level of new construction boosts growth to 2.6% in FY 2018. Growth is expected at 2.7% in FY 2019 through FY 2021.

REET was the fourth largest GF-S source in FY 2016

The real estate excise tax (REET) was the fourth largest DOR source of GF-S revenue in FY 2016, accounting for 4.8% of total revenue. The state portion of REET is 1.28% of the sales price. The tax 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, from July 1, 2013 – June 30, 2019, the Education Legacy Trust Account (4.1%). The tax is applied to both residential and commercial real estate, including purchases of vacant land.

REET growth forecast:

*FY17: 12.9%
FY18: -12.1 %
FY19: -2.6%
FY20: -0.2%
FY21: 3.1%*

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% and FY 2016 growth to 19.4%. While large commercial sales have slowed somewhat in FY 2017, the residential market has accelerated, resulting in an expected further 12.9% increase in REET for the current fiscal year. Large commercial sales are expected to decline in FY 2018 as residential sales grow more slowly, resulting in a 12.1% decrease in collections. Price moderation in residential sales coupled with continuing declines in commercial sales is forecasted to cause collections to continue to decrease by 2.6% in FY 2019 and 0.2% in FY 2020, with growth resuming at 3.1% in FY 2021.

Use tax was the fifth largest GF-S source in FY 2016

The state use tax was the fifth largest GF-S revenue source in FY 2016 at 3.4% 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:

*FY17: 3.9%
FY18: -1.5%
FY19: 3.4%
FY20: 3.9%
FY21: 4.1%*

The legislated elimination of certain tax exemptions, along with several large one-time remittance payments, boosted use tax growth to 7.1% in FY 2016. Growth is expected to decrease to 3.9% in FY 2017. Lower used car sales and declines in expected used car prices are expected to cause collections to shrink by 1.5% in FY 2018. Growth is then expected to resume at more normal levels of 3.4% in FY 2019, 3.9% in FY 2020 and 4.1% in FY 2021.

Public utility taxes were the sixth largest GF-S source in FY 2016

Public utility taxes were the sixth largest DOR source of GF-S revenue in FY 2016, bringing in 2.2% 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:*

*FY17: 0.7%
FY18: 10.1%
FY19: 3.8%
FY20: 3.0%
FY21: 3.7%*

Public utility tax receipts grew by 4.5% in FY 2016. Lower natural gas prices reduced expected growth in receipts to 0.7% in FY 2017. A recovery in projected natural gas prices and increased electricity prices bring expected growth of 10.1% in FY 2018. Growth then slows to 3.8% in FY 2019, 3.0% in FY 2020 and 3.7% in FY 2021.

*The cigarette
tax was the
seventh
largest GF-S
source in FY
2016*

The state tax on cigarettes was the seventh largest DOR GF-S revenue source in FY 2016 at 2.1% 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:*

*FY17: -4.2%
FY18: -1.6%
FY19: -2.0%
FY20: -2.1%
FY21: -1.4%*

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. Despite an increase in tax enforcement established in the 2015 legislative session, collections decreased by 1.8% in FY 2016. Collections are forecasted to decrease by 4.2% in FY 2017, 1.6% in FY 2018, 2.0% in FY 2019, 2.1% in FY 2020 and 1.4% in FY 2021. While cigarette consumption and their associated taxes are expected to continue to decline, the forecasted rates of decline for FY 2018 onward have been lowered from the March forecast due to recent upward revisions to the state population forecast.

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):
15-17: \$4.4
17-19: \$4.9
19-21: -\$4.0

Distributions of cannabis excise taxes to the GF-S totaled \$15.3 million in the 2013-15 biennium. Forecasted GF-S distributions and fees for the 2015-17 biennium are now expected to total \$147.6 million, \$4.4 million more than forecasted in March 2017. GF-S distributions are forecasted at \$220.3 million in the 2017-19 biennium, an increase of \$4.9 million from the March forecast, and \$244.8 million in the 2019-21 biennium, a decrease of \$4.0 million. Details of the forecasted distributions from the account can be found in Table 3.18.

Department of Licensing

Forecast change by biennium (millions):

15-17: \$1.2
17-19: \$0.3
19-21: \$0.3

The majority of GF-S revenue collected by the Department of Licensing is from firearm and event licenses, watercraft excise tax, and boat registration fees. The department's forecast of revenue for the 2015-17 biennium has been increased \$1.2 million to \$38.8 million due to increased vessel excise tax payments. The department's forecast for the 2017-19 biennium has been increased \$0.3 million to \$37.5 million and the forecast for the 2019-21 biennium has been increased \$0.3 million to \$37.4 million.

The Office of Financial Management (Other Agencies)

Forecast change by biennium (millions):

15-17: \$4.9
17-19: -\$1.0
19-21: \$1.4

The Office of Financial Management (OFM) is responsible for preparing General Fund-State revenue and transfer forecasts for all agencies excluding the Department of Revenue, the Department of Licensing, the Liquor and Cannabis Board, the Insurance Commissioner, the Washington State Lottery, and the State Treasurer. The office's forecast for the 2015-17 biennium was increased \$4.9 million to \$227.7 million due mainly to increased fire cost recovery and other fees from the Department of Natural Resources. The office's forecast for the 2017-19 biennium was decreased \$1.0 million to \$220.3 million and the forecast for the 2019-21 biennium was increased \$1.4 million to \$105.4 million.

State Treasurer

Forecast change by biennium (millions):

15-17: \$1.5
17-19: \$9.3
19-21: -\$0.7

The Office of the State Treasurer generates GF-S revenue by investing state short-term cash reserves. The office's forecast for the 2015-17 biennium has been increased \$1.5 million to \$20.8 million and the forecast for the 2017-19 biennium has been increased \$9.3 million to \$40.5 million due to increases in forecasted interest rates and account balances. The office's forecast for the 2019-21 biennium has been decreased \$0.7 million to \$69.7 million due to a decrease in expected balances.

Insurance Commissioner

*Forecast
change by
biennium
(millions):*

15-17: $-\$0.2$
17-19: $\$1.4$
19-21: $\$1.9$

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 office's forecast of revenue for the 2015-17 biennium has been decreased \$0.2 million to \$1,087.3 million. The forecast for the 2017-19 biennium has been increased \$1.4 million to \$1,168.9 million and the forecast for the 2019-21 biennium has been increased \$1.9 million to \$1,276.3 million.

Liquor and Cannabis Board

*Forecast
change by
biennium
(millions):*

15-17: $\$5.5$
17-19: $\$9.3$
19-21: $-\$2.0$

The Liquor and Cannabis Board (LCB) collects fees from distributors and retailers on sales of spirits and surtaxes on sales of beer and wine (sales and liter taxes on spirits 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 LCB GF-S revenue for the 2015-17 biennium has been increased \$5.5 million to \$370.9 million. The forecast of revenue for the 2017-19 biennium has been increased \$9.3 million to \$474.7 million and the forecast for the 2019-21 biennium has been decreased \$2.0 million to \$514.9 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.

Lottery Commission

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

15-17: $\$0.0$
17-19: $-\$8.9$
19-21: $-\$5.9$

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. The forecast of transfers into the GF-S for the 2015-17 biennium is unchanged at \$31.9 million. Forecasted transfers for the 2017-19 biennium have been decreased \$8.9 million to \$29.4 million and forecasted transfers to the GF-S for the 2019-21 biennium have been decreased \$5.9 million to \$42.1 million.

*OPA forecast
change by
biennium
(millions):*

15-17: $\$2.2$
17-19: $\$0.6$
19-21: 5.2

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 2015-17 biennium has been increased \$2.2 million to \$266.3 million. The forecast for the 2017-19 biennium has been increased \$0.6

million to \$256.3 million and the forecast for the 2019-21 biennium has been increased \$5.2 million to \$256.6 million.

Administrative Office of the Courts

Forecast change by biennium (millions):

15-17: *-\$1.2*
17-19: *-\$7.3*
19-21: *-\$8.7*

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 of transfers to the GF-S for the 2015-17 biennium has been decreased \$1.2 million to \$154.6 million and the forecast for the 2017-19 biennium has been decreased \$7.3 million to \$139.3 million. The forecast of transfers for the 2019-21 biennium has been decreased \$8.7 million to \$142.4 million.

Track Record for the 2015-17 Biennium

The June 2017 forecast is \$1.36 billion (3.7%) higher than it was when the initial biennial budget in 2015 was adopted

Table 3.10 summarizes the historical changes to the GF-S revenue forecast for the 2015-17 biennium. The September 2012 forecast was the initial forecast for the biennium. The June 2017 forecast for the biennium is \$2.79 billion (7.9%) higher than the initial forecast. Non-economic changes have increased the forecast by \$499 million (1.4%). Excluding non-economic changes, the current forecast is \$2.29 billion (6.4%) higher than the initial forecast. The June 2015 forecast, coupled with the \$193 million in legislative and budget-driven revenue changes passed in the 2015 special legislative sessions, was the basis for the initial budget for the 2015-17 biennium. The June 2017 forecast is \$1.36 billion (3.7%) higher than that sum.

Track Record for the 2017-19 Biennium

The June 2017 forecast is \$2.19 billion (5.7%) higher than the initial February 2014 forecast

Table 3.11 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 2017 forecast is \$2.19 billion (5.7%) higher than the initial forecast. Non-economic changes have increased the forecast by \$399 million (1.0%). Excluding non-economic changes, the current forecast is \$1.80 billion (4.6%) 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 2015-17 and 2017-19 biennia are presented in Tables 3.6 and 3.8 and the GAAP forecast of Lottery revenue transfers for both 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 2015-17 Biennium

The forecast implies total GF-S reserves of \$2.43 billion at the end of the 2015-17 biennium and \$2.47 billion in reserves for GF-S, ELTA and OPA

Table 3.12 shows the budgetary balance sheet for the 2015-17 biennium as prepared by the Office of Financial Management and the House and Senate fiscal committees. The balance sheet shows not only projected GF-S spending and resources but also total projected spending and resources for the GF-S plus the other main non-transportation state-funded accounts: the Education Legacy Trust Account (ELTA) and the Washington Opportunity Pathways Account (OPA). As shown in the table, the GF-S beginning fund balance for the 2015-17 biennium is \$990.9 million and the total estimated beginning balance for GF-S, ELTA and OPA is \$1,011.2 million. Based on the June 2017 revenue forecast and currently enacted budgets, unrestricted GF-S reserves are projected to be \$882.2 million at the end of the 2015-17 biennium and GF-S, ELTA and OPA reserves are projected to be \$926.2 million. In addition, the Budget Stabilization Account is projected to have a balance of \$1,543.8 million, bringing total projected GF-S reserves to \$2,426.1 million. Projected combined reserves for the ELTA and OPA are \$44.0 million, for total projected reserves of \$2,470.1 million for GF-S, ELTA and OPA at the end of the 2015-17 biennium.

Alternative Forecasts for the 2015-17 and 2017-19 Biennia

Optimistic scenario (billions):

15-17: +\$0.1
17-19: +\$1.8

Pessimistic scenario:

15-17: -\$0.1
17-19: -\$2.0

Chapter 2 outlines optimistic and pessimistic economic scenarios relative to the baseline economic forecast. The forecast assigns a probability of 60% to the baseline forecast, 15% to a scenario based on the upside risks and 25% to a scenario based on the downside risks. The revenue implications of these alternative scenarios for the 2015-17 biennium are shown in Table 3.13 and those of the 2017-19 biennium are shown in Table 3.14. For the 2015-17 biennium, the optimistic forecast generates \$38,372.5 million in GF-S revenue, \$64.2 million (0.2%) more than the baseline scenario, while the pessimistic forecast produces \$38,237.8 million in revenue, \$70.6 million (0.2%) less than the

baseline. For the 2017-19 biennium, the optimistic forecast generates \$42,678.0 million in GF-S revenue, \$1,774.9 million (4.3%) more than the baseline scenario, while the pessimistic forecast produces \$38,866.6 million in revenue, \$2,036.6 million (5.0%) less than the baseline.

Near General Fund Forecasts for the 2015-17–2019-21 Biennia

| | |
|--|---|
| <p><i>Near General Fund Forecast (millions):</i></p> <p><i>2015-17: \$38,774.9</i></p> <p><i>2017-19: \$41,420.8</i></p> <p><i>2019-21: \$44,225.0</i></p> | <p>“Near General Fund” accounts are those included in the GF-S plus the Education Legacy Trust Account (ELTA). The ELTA is primarily funded by a tax on estates of over \$2 million. Legislation from the 2013 special session, however, added revenue from public utility and real estate excise taxes which had previously gone into non-GF-S accounts. Subsequent legislation also added revenue from solid waste taxes beginning in FY 2016. All of these added revenue sources will cease to be transferred into the ELTA beginning in FY 2020. The Near General Fund forecast for the 2015-17 biennium is \$38,774.9 million, \$76.5 million more than the March 2017 forecast. The forecast of Near General Fund revenue for the 2017-19 biennium is \$41,420.8 million, \$79.2 million more than the March forecast, and the forecast for the 2019-21 biennium is \$44,225.0 million, \$22.1 million more than the March forecast. The Near General Fund forecast and recent history by fiscal year are presented in Table 3.17. The table also includes projected revenue for the OPA and the sum of Near General Fund plus OPA revenues by fiscal year.</p> |
|--|---|

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

| Biennium | Current Dollars | Percent Change | 2009 Chained Dollars | Percent Change |
|----------------------|------------------------|-----------------------|-----------------------------|-----------------------|
| 1961-63 | \$817.1 | | \$4,300.0 | |
| 1963-65 | 866.2 | 6.0% | 4,439.3 | 3.2% |
| 1965-67 | 1,128.6 | 30.3% | 5,565.5 | 25.4% |
| 1967-69 | 1,440.5 | 27.6% | 6,658.6 | 19.6% |
| 1969-71 | 1,732.7 | 20.3% | 7,767.2 | 16.6% |
| 1971-73 | 1,922.1 | 10.9% | 7,971.8 | 2.6% |
| 1973-75 | 2,372.4 | 23.4% | 8,500.2 | 6.6% |
| 1975-77 | 3,395.0 | 43.1% | 10,580.8 | 24.5% |
| 1977-79 | 4,490.0 | 32.3% | 12,284.4 | 16.1% |
| 1979-81 | 5,356.4 | 19.3% | 12,197.3 | -0.7% |
| 1981-83 | 6,801.4 | 27.0% | 13,492.7 | 10.6% |
| 1983-85 | 8,202.4 | 20.6% | 15,008.4 | 11.2% |
| 1985-87 | 9,574.6 | 16.7% | 16,528.2 | 10.1% |
| 1987-89 | 10,934.1 | 14.2% | 17,618.6 | 6.6% |
| 1989-91 | 13,309.0 | 21.7% | 19,772.8 | 12.2% |
| 1991-93 | 14,862.2 | 11.7% | 20,789.0 | 5.1% |
| 1993-95 | 16,564.6 | 11.5% | 22,140.3 | 6.5% |
| 1995-97 | 17,637.7 | 6.5% | 22,629.9 | 2.2% |
| 1997-99 | 19,620.1 | 11.2% | 24,520.3 | 8.4% |
| 1999-01 | 21,262.1 | 8.4% | 25,587.4 | 4.4% |
| 2001-03 | 21,140.7 | -0.6% | 24,595.4 | -3.9% |
| 2003-05 | 23,388.5 | 10.6% | 26,077.7 | 6.0% |
| 2005-07 | 27,772.0 | 18.7% | 29,316.2 | 12.4% |
| 2007-09 | 27,703.0 | -0.2% | 27,888.3 | -4.9% |
| 2009-11 | 28,218.1 | 1.9% | 27,704.7 | -0.7% |
| 2011-13 | 30,657.0 | 8.6% | 28,906.9 | 4.3% |
| 2013-15 | 33,666.0 | 9.8% | 30,930.9 | 7.0% |
| 2015-17 ^F | 38,308.3 | 13.8% | 34,548.1 | 11.7% |
| 2017-19 ^F | 40,903.2 | 6.8% | 35,776.2 | 3.6% |
| 2019-21 ^F | 43,875.2 | 7.3% | 37,033.6 | 3.5% |

^F June 2017 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 2017 forecast.

Table 3.4
Taxable retail sales*
(millions of dollars)

| Fiscal Year | Amount | Percent Change |
|--------------------|---------------|-----------------------|
| 1979 | 22,309 | 5.6% |
| 1980 | 24,057 | 7.8% |
| 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 ^F | 149,217 | 5.8% |
| 2018 ^F | 154,474 | 3.5% |
| 2019 ^F | 161,116 | 4.3% |
| 2020 ^F | 167,256 | 3.8% |
| 2021 ^F | 173,305 | 3.6% |

^F June 2017 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).

Table 3.5

Comparison of the General Fund-State forecast by agency

2015-17 biennium; cash basis

(millions of dollars)

| Forecast by Agency | Mar. 2017 Forecast¹ | Non- Economic Changes | Forecast Revision | Jun. 2017 Forecast² | Total Change |
|--|---|--------------------------------------|------------------------------|---|-------------------------|
| Department of Revenue | | | | | |
| Retail Sales | \$18,390.4 | \$0.0 | \$35.0 | \$18,425.4 | \$35.0 |
| Business & Occupation Use | 7,440.2 | 0.0 | (11.4) | 7,428.8 | (11.4) |
| Public Utility | 1,285.1 | 0.0 | 11.1 | 1,296.2 | 11.1 |
| Liquor Sales/Liter | 793.2 | 0.0 | 10.8 | 804.0 | 10.8 |
| Cigarette | 513.1 | 0.0 | 1.2 | 514.3 | 1.2 |
| Property (State Levy) | 769.4 | 0.0 | (3.1) | 766.3 | (3.1) |
| Real Estate Excise | 4,132.1 | 0.0 | 0.3 | 4,132.4 | 0.3 |
| Timber Excise | 1,861.1 | 0.0 | 23.5 | 1,884.6 | 23.5 |
| Other | 3.8 | 0.0 | (0.0) | 3.8 | (0.0) |
| Subtotal | 1,118.5 | 0.0 | 2.2 | 1,120.7 | 2.2 |
| | 36,306.9 | 0.0 | 69.6 | 36,376.5 | 69.6 |
| Department of Licensing | | | | | |
| Boat excise, licenses, fees & other | 37.6 | 0.0 | 1.2 | 38.8 | 1.2 |
| Insurance Commissioner | | | | | |
| Insurance Premiums | 1,087.5 | 0.0 | (0.2) | 1,087.3 | (0.2) |
| Liquor Control Board | | | | | |
| Fees, Cannabis Excise Tax | 308.1 | 0.0 | 5.2 | 313.3 | 5.2 |
| Beer & Wine Surtax | 57.3 | 0.0 | 0.3 | 57.6 | 0.3 |
| Lottery Commission | | | | | |
| Lottery Revenue | 31.9 | 0.0 | 0.0 | 31.9 | 0.0 |
| State Treasurer | | | | | |
| Interest Earnings | 19.3 | 0.0 | 1.5 | 20.8 | 1.5 |
| Office of Financial Management | | | | | |
| Other Agencies | 222.8 | 0.0 | 4.9 | 227.7 | 4.9 |
| Administrative Office of the Courts | | | | | |
| Fines and Forfeitures | 155.8 | 0.0 | (1.2) | 154.6 | (1.2) |
| Total General Fund-State * | \$38,227.1 | \$0.0 | \$81.2 | \$38,308.3 | \$81.2 |

¹ Forecast for the 2015-17 biennium adopted by the Economic and Revenue Forecast Council March 16, 2017² Forecast for the 2015-17 biennium, adopted June 20, 2017

*Detail may not add to totals because of rounding.

Source: ERFC, Department of Licensing, 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

2015-17 biennium; GAAP basis

(millions of dollars)

| Forecast by Agency | Mar. 2017 Forecast¹ | Non- Economic Changes | Forecast Revision | Jun. 2017 Forecast² | Total Change |
|--|---|--------------------------------------|------------------------------|---|-------------------------|
| Department of Revenue | | | | | |
| Retail Sales | \$18,435.9 | \$0.0 | \$35.0 | \$18,470.9 | \$35.0 |
| Business & Occupation Use | 7,461.4 | 0.0 | (11.4) | 7,450.0 | (11.4) |
| Public Utility | 1,277.7 | 0.0 | 11.2 | 1,288.9 | 11.2 |
| Liquor Sales/Liter | 790.0 | 0.0 | 10.8 | 800.8 | 10.8 |
| Cigarette | 514.8 | 0.0 | 1.2 | 516.0 | 1.2 |
| Property (State Levy) | 769.6 | 0.0 | (3.1) | 766.5 | (3.1) |
| Real Estate Excise | 4,133.0 | 0.0 | 0.3 | 4,133.3 | 0.3 |
| Timber Excise | 1,863.0 | 0.0 | 23.4 | 1,886.4 | 23.4 |
| Other | 3.5 | 0.0 | (0.0) | 3.5 | (0.0) |
| Subtotal | 1,122.3 | 0.0 | 2.2 | 1,124.5 | 2.2 |
| | 36,371.2 | 0.0 | 69.6 | 36,440.8 | 69.6 |
| Department of Licensing | | | | | |
| Boat excise, licenses, fees & other | 37.5 | 0.0 | 1.2 | 38.7 | 1.2 |
| Insurance Commissioner | | | | | |
| Insurance Premiums | 1,087.5 | 0.0 | (0.2) | 1,087.3 | (0.2) |
| Liquor Control Board | | | | | |
| Fees, Cannabis Excise Tax | 308.1 | 0.0 | 5.2 | 313.3 | 5.2 |
| Beer & Wine Surtax | 57.3 | 0.0 | 0.3 | 57.6 | 0.3 |
| Lottery Commission | | | | | |
| Lottery Revenue | 43.1 | 0.0 | 0.8 | 43.9 | 0.8 |
| State Treasurer | | | | | |
| Interest Earnings | 19.4 | 0.0 | 2.0 | 21.4 | 2.0 |
| Office of Financial Management | | | | | |
| Other Agencies | 222.8 | 0.0 | 4.9 | 227.7 | 4.9 |
| Administrative Office of the Courts | | | | | |
| Fines and Forfeitures | 155.8 | 0.0 | (1.2) | 154.6 | (1.2) |
| Total General Fund-State * | \$38,302.7 | \$0.0 | \$82.5 | \$38,385.2 | \$82.5 |

¹ Forecast for the 2015-17 biennium adopted by the Economic and Revenue Forecast Council March 16, 2017² Forecast for the 2015-17 biennium, adopted June 20, 2017

*Detail may not add to totals because of rounding.

Source: ERFC, Department of Licensing, 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

2017-19 biennium; cash basis

(millions of dollars)

| Forecast by Agency | Mar. 2017 Forecast¹ | Non- Economic Changes | Forecast Revision | Jun. 2017 Forecast² | Total Change |
|--|---|--------------------------------------|------------------------------|---|-------------------------|
| Department of Revenue | | | | | |
| Retail Sales | \$20,089.1 | (0.2) | \$34.3 | \$20,123.2 | \$34.1 |
| Business & Occupation Use | 8,136.2 | (0.1) | (5.8) | 8,130.3 | (6.0) |
| Public Utility | 1,333.3 | 0.0 | (9.3) | 1,324.0 | (9.3) |
| Liquor Sales/Liter | 893.4 | 0.0 | 11.9 | 905.3 | 11.9 |
| Cigarette | 535.1 | 0.0 | 4.9 | 540.0 | 4.9 |
| Property (State Levy) | 729.2 | 0.0 | 1.4 | 730.5 | 1.4 |
| Real Estate Excise | 4,339.6 | 0.0 | (1.0) | 4,338.6 | (1.0) |
| Timber Excise | 1,692.9 | 0.0 | 41.4 | 1,734.3 | 41.4 |
| Other | 3.8 | 0.0 | (0.0) | 3.8 | (0.0) |
| Subtotal | 956.6 | 0.0 | 6.0 | 962.6 | 6.0 |
| | 38,709.3 | (0.4) | 83.6 | 38,792.6 | 83.3 |
| Department of Licensing | | | | | |
| Boat excise, licenses, fees & other | 37.1 | 0.0 | 0.3 | 37.5 | 0.3 |
| Insurance Commissioner | | | | | |
| Insurance Premiums | 1,167.4 | 0.0 | 1.4 | 1,168.9 | 1.4 |
| Liquor Control Board | | | | | |
| Fees, Cannabis Excise Tax | 408.6 | 0.0 | 8.6 | 417.2 | 8.6 |
| Beer & Wine Surtax | 56.8 | 0.0 | 0.7 | 57.5 | 0.7 |
| Lottery Commission | | | | | |
| Lottery Revenue | 38.2 | 0.0 | (8.9) | 29.4 | (8.9) |
| State Treasurer | | | | | |
| Interest Earnings | 31.2 | 0.0 | 9.3 | 40.5 | 9.3 |
| Office of Financial Management | | | | | |
| Other Agencies | 221.3 | (0.1) | (0.8) | 220.3 | (1.0) |
| Administrative Office of the Courts | | | | | |
| Fines and Forfeitures | 146.7 | 0.0 | (7.3) | 139.3 | (7.3) |
| Total General Fund-State * | \$40,816.7 | (\$0.5) | \$87.0 | \$40,903.2 | \$86.5 |

¹ Forecast for the 2017-19 biennium adopted by the Economic and Revenue Forecast Council March 16, 2017² Forecast for the 2017-19 biennium, adopted June 20, 2017

*Detail may not add to totals because of rounding.

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

Table 3.8

Comparison of the General Fund-State forecast by agency

2017-19 biennium; GAAP basis

(millions of dollars)

| Forecast by Agency | Mar. 2017 Forecast¹ | Non- Economic Changes | Forecast Revision | Jun. 2017 Forecast² | Total Change |
|--|---|--------------------------------------|------------------------------|---|-------------------------|
| Department of Revenue | | | | | |
| Retail Sales | \$20,089.1 | (\$0.2) | \$34.3 | \$20,123.2 | \$34.1 |
| Business & Occupation Use | 8,136.2 | (0.1) | (5.8) | 8,130.3 | (6.0) |
| Public Utility | 1,333.3 | 0.0 | (9.3) | 1,324.0 | (9.3) |
| Liquor Sales/Liter | 893.4 | 0.0 | 11.9 | 905.3 | 11.9 |
| Cigarette | 535.1 | 0.0 | 4.9 | 540.0 | 4.9 |
| Property (State Levy) | 729.2 | 0.0 | 1.4 | 730.5 | 1.4 |
| Real Estate Excise | 4,339.6 | 0.0 | (1.0) | 4,338.6 | (1.0) |
| Timber Excise | 1,692.9 | 0.0 | 41.4 | 1,734.3 | 41.4 |
| Other | 3.9 | 0.0 | (0.0) | 3.9 | (0.0) |
| Subtotal | 956.6 | 0.0 | 6.0 | 962.6 | 6.0 |
| | 38,709.4 | (0.4) | 83.6 | 38,792.7 | 83.3 |
| Department of Licensing | | | | | |
| Boat excise, licenses, fees & other | 37.1 | 0.0 | 0.3 | 37.5 | 0.3 |
| Insurance Commissioner | | | | | |
| Insurance Premiums | 1,167.4 | 0.0 | 1.4 | 1,168.9 | 1.4 |
| Liquor Control Board | | | | | |
| Fees, Cannabis Excise Tax | 408.6 | 0.0 | 8.6 | 417.2 | 8.6 |
| Beer & Wine Surtax | 56.8 | 0.0 | 0.7 | 57.5 | 0.7 |
| Lottery Commission | | | | | |
| Lottery Revenue | 39.9 | 0.0 | (6.4) | 33.5 | (6.4) |
| State Treasurer | | | | | |
| Interest Earnings | 32.1 | 0.0 | 9.5 | 41.6 | 9.5 |
| Office of Financial Management | | | | | |
| Other Agencies | 221.3 | (0.1) | (0.8) | 220.3 | (1.0) |
| Administrative Office of the Courts | | | | | |
| Fines and Forfeitures | 146.7 | 0.0 | (7.3) | 139.3 | (7.3) |
| Total General Fund-State * | \$40,819.3 | (\$0.5) | \$89.7 | \$40,908.5 | \$89.2 |

¹ Forecast for the 2017-19 biennium adopted by the Economic and Revenue Forecast Council March 16, 2017² Forecast for the 2017-19 biennium, adopted June 20, 2017

*Detail may not add to totals because of rounding.

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

Table 3.9

**June 2017 General Fund-State history and forecast
2015-17 to 2019-21 biennia; cash basis**
(Millions of Dollars)

| Forecast by Source | Fiscal 2016 | Fiscal 2017 | 2015-17 Biennium | Fiscal 2018 | Fiscal 2019 | 2017-19 Biennium | Fiscal 2020 | Fiscal 2021 | 2019-21 Biennium |
|--|------------------------|------------------------|-----------------------------|------------------------|------------------------|-----------------------------|------------------------|------------------------|-----------------------------|
| State Taxes | | | | | | | | | |
| Retail sales** | \$8,927.3 | \$9,498.1 | \$18,425.4 | \$9,850.1 | \$10,273.1 | \$20,123.2 | \$10,677.3 | \$11,071.7 | \$21,749.0 |
| Business & occupation Use** | 3,628.4 | 3,800.4 | 7,428.8 | 3,960.0 | 4,170.3 | 8,130.3 | 4,378.6 | 4,600.6 | 8,979.2 |
| Public Utility | 635.8 | 660.5 | 1,296.2 | 650.9 | 673.1 | 1,324.0 | 699.5 | 728.3 | 1,427.8 |
| Liquor sales/liter | 400.5 | 403.5 | 804.0 | 444.3 | 461.0 | 905.3 | 474.7 | 492.4 | 967.0 |
| Beer & wine surtax | 252.9 | 261.4 | 514.3 | 267.4 | 272.6 | 540.0 | 277.8 | 282.8 | 560.6 |
| Cigarette | 29.1 | 28.5 | 57.6 | 28.7 | 28.8 | 57.5 | 29.0 | 29.1 | 58.1 |
| Tobacco products | 400.6 | 384.1 | 784.7 | 377.9 | 370.5 | 748.4 | 362.9 | 357.9 | 720.7 |
| Cannabis Excise Taxes | 51.6 | 52.8 | 104.4 | 53.5 | 54.2 | 107.7 | 54.8 | 55.5 | 110.3 |
| Property (state school levy) | 48.1 | 92.9 | 141.1 | 103.8 | 110.3 | 214.0 | 116.1 | 122.1 | 238.3 |
| Leasehold Excise Tax | 2,047.1 | 2,085.3 | 4,132.4 | 2,140.2 | 2,198.4 | 4,338.6 | 2,258.1 | 2,318.3 | 4,576.4 |
| Public utility district | 32.9 | 33.0 | 65.9 | 31.1 | 31.4 | 62.6 | 31.7 | 32.0 | 63.7 |
| Brokered Natural Gas | 51.2 | 53.9 | 105.1 | 54.7 | 55.4 | 110.1 | 56.2 | 56.9 | 113.1 |
| Real estate excise*** | 21.4 | 21.4 | 42.8 | 20.9 | 21.1 | 41.9 | 21.3 | 21.6 | 42.8 |
| Timber excise | 885.1 | 999.5 | 1,884.6 | 878.4 | 855.9 | 1,734.3 | 854.4 | 881.1 | 1,735.5 |
| Estate/inheritance | 2.8 | 0.9 | 3.8 | 1.8 | 2.0 | 3.8 | 2.1 | 2.1 | 4.2 |
| Boat excise | 0.3 | 2.2 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Insurance premiums | 13.8 | 14.0 | 27.8 | 13.5 | 13.5 | 27.0 | 13.5 | 13.5 | 27.0 |
| Penalties and interest on past due taxes | 510.1 | 577.1 | 1,087.3 | 570.0 | 598.9 | 1,168.9 | 625.2 | 651.1 | 1,276.3 |
| Other | 178.9 | 281.9 | 460.8 | 157.6 | 163.6 | 321.2 | 169.9 | 176.6 | 346.5 |
| Total Taxes | 18,174.7 | 19,308.2 | 37,482.9 | 19,661.3 | 20,389.4 | 40,050.8 | 21,139.0 | 21,930.2 | 43,069.1 |
| State Non-Tax Sources | | | | | | | | | |
| Licenses, permits, fees | 141.9 | 149.7 | 291.6 | 149.9 | 150.9 | 300.7 | 153.8 | 157.4 | 311.2 |
| Liquor & Cannabis fees | 81.7 | 90.6 | 172.2 | 99.1 | 104.0 | 203.2 | 107.3 | 111.2 | 218.5 |
| Earnings on investments | 7.3 | 13.5 | 20.8 | 14.8 | 25.7 | 40.5 | 33.4 | 36.3 | 69.7 |
| Administrative Office of the Courts | 80.8 | 73.7 | 154.6 | 69.7 | 69.6 | 139.3 | 70.5 | 71.8 | 142.4 |
| Transfers of unclaimed property | 70.7 | 66.7 | 137.4 | 66.9 | 67.7 | 134.6 | 69.0 | 70.5 | 139.5 |
| Other revenue & transfers | 21.7 | 27.2 | 48.9 | 12.1 | 21.9 | 34.0 | (37.1) | (38.1) | (75.2) |
| Total Non-Tax | 404.0 | 421.5 | 825.5 | 412.5 | 439.9 | 852.4 | 396.9 | 409.1 | 806.0 |
| Total General Fund-State * | \$18,578.7 | \$19,729.7 | \$38,308.3 | \$20,073.9 | \$20,829.3 | \$40,903.2 | \$21,535.9 | \$22,339.3 | \$43,875.2 |

* 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 2015-17 General Fund-State Cash Forecast

September 2012 through June 2017

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> |
|-----------------------------------|--------------------------------------|------------------------------|-------------------------|--------------------------------------|----------------------------|---|
| September 2012[#] | \$34,102 | \$1,416 | | | | \$35,518 |
| Changes to Forecast | | | | | | |
| November 2012 | (196) | 33 | (163) | 0 | (163) | 35,355 |
| March 2013 | (92) | 44 | (49) | 0 | (49) | 35,306 |
| June 2013 | 56 | 2 | 58 | (7) ^{#1} | 51 | 35,357 |
| September 2013 | 95 | (2) | 93 | 249 ^{#2} | 342 | 35,699 |
| November 2013 | (47) | 3 | (44) | (41) ^{#3} | (85) | 35,615 |
| February 2014 | 5 | 26 | 31 | 51 ^{#4} | 82 | 35,697 |
| June 2014 | 194 | 40 | 233 | 5 ^{#5} | 238 | 35,935 |
| September 2014 | 168 | (25) | 143 | 0 | 143 | 36,078 |
| November 2014 | 239 | 3 | 241 | 0 | 241 | 36,319 |
| February 2015 | 108 | 22 | 129 | 0 | 129 | 36,449 |
| June 2015 | 201 | 70 | 270 | 39 ^{#6} | 309 | 36,758 |
| September 2015 | 80 | 60 | 139 | 193 ^{#7} | 333 | 37,091 |
| November 2015 | 107 | (8) | 99 | 15 ^{#8} | 113 | 37,204 |
| February 2016 | (101) | 33 | (67) | 0 | (67) | 37,137 |
| June 2016 | 330 | (32) | 298 | (5) ^{#9} | 294 | 37,431 |
| September 2016 | 327 | 8 | 334 | 0 | 334 | 37,765 |
| November 2016 | 205 | 9 | 215 | 0 | 215 | 37,980 |
| March 2017 | 210 | 38 | 247 | 0 | 247 | 38,227 |
| June 2017 | 70 | 12 | 81 | 0 | 81 | 38,308 |
| Total change***: | | | | | | |
| From September 2012 | 1,957 | 333 | 2,291 | 499 | 2,790 | |
| Percent change | 5.7 | 23.5 | 6.4 | 1.4 | 7.9 | |

* 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 2015-17 biennium.^{#1} Transfer of GF-S funds to Child and Family Reinvestment Account^{#2} Legislative and budget-driven revenue changes from 2013 second special session^{#3} Re-classification of prior period adjustments as non-revenue resources^{#4} Cannabis excise taxes and fees plus retail sales and B&O taxes on cannabis production and sales resulting from Initiative 502^{#5} Sum of legislative and budget-driven revenue changes from the 2014 regular legislative session^{#6} Legislative revenue changes from 2015 regular legislative session^{#7} Legislative and budget driven revenue changes from 2015 special legislative sessions^{#8} Sum of large expected audit payments^{#9} Legislative and budget-driven revenue changes from the 2016 regular and first special legislative sessions plus \$3.3 million AG settlement

Table 3.11

Track Record for the 2017-19 General Fund-State Cash Forecast

February 2014 through June 2017

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 |
| Total change***: | | | | | | |
| From February 2014 | 1,673 | 121 | 1,795 | 399 | 2,193 | |
| Percent change | 4.5 | 6.7 | 4.6 | 1.0 | 5.7 | |

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

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

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

First official forecast for the 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

Table 3.12

2015-17 Enacted Budget Balance Sheet
General Fund-State (GFS), Education Legacy Trust Account (ELTA),
Opportunity Pathways Account (OPA) and Budget Stabilization Account (BSA)
Dollars in Millions

| | 2015-17 | | |
|---|-----------------|-----------------|-----------------|
| | GFS | ELTA and OPA | TOTAL |
| RESOURCES | | | |
| Beginning Fund Balance | 990.9 | 20.3 | 1,011.2 |
| March 2017 Revenue Forecast | 38,227.1 | 735.3 | 38,962.5 |
| June 2017 Revenue Forecast Change | 81.2 | (2.5) | 78.7 |
| Current Revenue Totals | 38,308.3 | 732.8 | 39,041.1 |
| Transfer to Budget Stabilization Account (1% of GSR) | (382.4) | | (382.4) |
| Transfer to Budget Stabilization Account (EORG) | (868.8) | | (868.8) |
| Transfer from BSA (EORG) | 75.0 | | 75.0 |
| CAFR Adjustment | (8.3) | (10.0) | (18.3) |
| Other Enacted Fund Transfers | 208.8 | | 208.8 |
| Actual/Assumed Prior Period Adjustments | 87.6 | | 87.6 |
| Total Resources (including beginning fund balance) | 38,411.1 | 743.1 | 39,154.2 |
| EXPENDITURES | | | |
| 2015-17 Biennium | | | |
| Enacted Budget | 37,754.4 | 699.1 | 38,453.5 |
| Actual/Assumed Reversions | (225.5) | - | (225.5) |
| | - | | - |
| Total Expenditures | 37,528.9 | 699.1 | 38,228.0 |
| RESERVES | | | |
| Projected Ending Balance (GFS + ELTA + OPA) | 882.2 | 44.0 | 926.2 |
| Budget Stabilization Account | | | |
| Budget Stabilization Account Beginning Balance | 513.1 | | 513.1 |
| Plus Transfers from General Fund, Interest Earnings and Adjustments | 1,258.2 | | 1,258.2 |
| Less 2016 Appropriations and Reversions From BSA: Fires | (152.5) | | (152.5) |
| Less Transfers Out to GFS (EORG) | (75.0) | | (75.0) |
| Projected Budget Stabilization Account Ending Balance | 1,543.8 | | 1,543.8 |
| Total Reserves (Near General Fund plus Budget Stabilization) | 2,426.1 | 44.0 | 2,470.1 |

Acronyms

GSR- General State Revenues

EORG- Extraordinary General State Revenues

CAFR- Comprehensive Annual Financial Report

Table 3.13

**Alternative forecasts compared to the baseline forecast
2015-17 biennium**

(cash basis, millions of dollars)

| Forecast by Source | Optimistic Forecast | Baseline Forecast | Pessimistic Forecast |
|--|--------------------------------|------------------------------|---------------------------------|
| Department of Revenue | | | |
| Retail Sales | \$18,433.8 | \$18,425.4 | \$18,411.7 |
| Business & Occupation Use | 7,432.6 | 7,428.8 | 7,423.0 |
| Public Utility | 1,297.7 | 1,296.2 | 1,295.1 |
| Property (school levy) | 804.1 | 804.0 | 803.4 |
| Real Estate Excise | 4,132.4 | 4,132.4 | 4,132.4 |
| Other | 1,885.5 | 1,884.6 | 1,884.0 |
| Subtotal | 2,409.3 | 2,405.0 | 2,401.5 |
| | 36,395.5 | 36,376.5 | 36,351.2 |
| Department of Licensing | | | |
| | 39.1 | 38.8 | 38.4 |
| Insurance Commissioner¹ | | | |
| | 1,116.7 | 1,087.3 | 1,057.9 |
| Lottery Commission | | | |
| | 33.5 | 31.9 | 30.3 |
| State Treasurer - Interest earnings | | | |
| | 21.6 | 20.8 | 19.8 |
| Liquor and Cannabis Surtaxes & Fees² | | | |
| | 382.4 | 370.9 | 359.4 |
| Office of Financial Management | | | |
| Other agencies | 228.9 | 227.7 | 226.5 |
| Administrative Office of the Courts | | | |
| Fines and Forfeitures | 154.8 | 154.6 | 154.4 |
| Total General Fund - State* | \$38,372.5 | \$38,308.3 | \$38,237.8 |
| Difference from June 2017 Baseline | \$64.2 | | (\$70.6) |

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, Department of Licensing, 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
2017-19 biennium**

(cash basis, millions of dollars)

| Forecast by Source | Optimistic Forecast | Baseline Forecast | Pessimistic Forecast |
|--|--------------------------------|------------------------------|---------------------------------|
| Department of Revenue | | | |
| Retail Sales | \$21,027.0 | \$20,123.2 | \$18,975.1 |
| Business & Occupation Use | 8,482.6 | 8,130.3 | 7,693.2 |
| Public Utility | 1,389.0 | 1,324.0 | 1,248.2 |
| Property (school levy) | 926.8 | 905.3 | 863.5 |
| Real Estate Excise | 4,360.4 | 4,338.6 | 4,316.8 |
| Other | 1,991.7 | 1,734.3 | 1,588.3 |
| Subtotal | 2,258.2 | 2,236.9 | 2,181.8 |
| | 40,435.8 | 38,792.6 | 36,866.9 |
| Department of Licensing | | | |
| | 38.2 | 37.5 | 36.7 |
| Insurance Commissioner¹ | | | |
| | 1,227.9 | 1,168.9 | 1,109.9 |
| Lottery Commission | | | |
| | 30.8 | 29.4 | 27.9 |
| State Treasurer - Interest earnings | | | |
| | 76.0 | 40.5 | 19.0 |
| Liquor and Cannabis Surtaxes & Fees² | | | |
| | 497.1 | 474.7 | 456.5 |
| Office of Financial Management | | | |
| Other agencies | 226.9 | 220.3 | 213.7 |
| Administrative Office of the Courts | | | |
| Fines and Forfeitures | 145.3 | 139.3 | 135.9 |
| Total General Fund - State* | \$42,678.0 | \$40,903.2 | \$38,866.6 |
| Difference from June 2017 Baseline | \$1,774.9 | | (\$2,036.6) |

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, Department of Licensing, Insurance Commissioner, Lottery Commission, Office of the State Treasurer, Liquor Control Board, Office of Financial Management

Table 3.15

Lottery transfers by fund

June 2017 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 |
|------------------|---------------------------------------|----------------------------------|-----------------------------|--|--|--|---|---|---|--------------------------------------|---|
| 2010 | 126.4 | 12.9 | 5.1 | 9.2 | 0.0 | 95.6 | 0.3 | 3.3 | 0.0 | 0.0 | 0.0 |
| 2011 | 137.2 | 8.6 | 5.3 | 9.6 | 0.0 | 9.4 | 0.3 | 4.5 | 99.5 | 0.0 | 0.0 |
| 2009-11 Biennium | 263.6 | 21.5 | 10.4 | 18.8 | 0.0 | 105.0 | 0.5 | 7.9 | 99.5 | 0.0 | 0.0 |
| 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 | 160.0 | 14.8 | 0.0 | 12.2 | 0.0 | 0.0 | 0.3 | 4.7 | 127.1 | 0.0 | 0.0 |
| 2015-17 Biennium | 331.6 | 31.9 | 0.0 | 23.8 | 0.0 | 0.0 | 0.7 | 7.9 | 266.3 | 0.0 | 0.0 |
| 2018 | 157.0 | 11.2 | 0.0 | 12.6 | 0.0 | 0.0 | 0.3 | 3.7 | 128.5 | 0.0 | 0.0 |
| 2019 | 163.5 | 18.1 | 0.0 | 13.1 | 0.0 | 0.0 | 0.3 | 3.6 | 127.7 | 0.0 | 0.0 |
| 2017-19 Biennium | 320.4 | 29.4 | 0.0 | 25.8 | 0.0 | 0.0 | 0.7 | 7.4 | 256.3 | 0.0 | 0.0 |
| 2020 | 166.7 | 20.3 | 0.0 | 13.7 | 0.0 | 0.0 | 0.3 | 3.6 | 128.3 | 0.0 | 0.0 |
| 2021 | 168.8 | 21.8 | 0.0 | 14.2 | 0.0 | 0.0 | 0.4 | 3.6 | 128.3 | 0.0 | 0.0 |
| 2019-21 Biennium | 335.5 | 42.1 | 0.0 | 27.9 | 0.0 | 0.0 | 0.7 | 7.3 | 256.6 | 0.0 | 0.0 |

Table 3.16

Lottery transfers by fund

June 2017 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 |
|------------------|---------------------------------------|----------------------------------|-----------------------------|--|--|--|---|---|---|--------------------------------------|---|
| 2010 | 129.4 | 12.9 | 5.1 | 9.2 | 0.0 | 97.4 | 0.3 | 4.6 | 0.0 | 0.0 | 0.0 |
| 2011 | 138.2 | 7.0 | 5.3 | 9.6 | 0.0 | 0.0 | 0.3 | 3.7 | 112.3 | 0.0 | 0.0 |
| 2009-11 Biennium | 267.6 | 19.9 | 10.4 | 18.8 | 0.0 | 97.4 | 0.5 | 8.3 | 112.3 | 0.0 | 0.0 |
| 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 | 158.0 | 12.0 | 0.0 | 12.2 | 0.0 | 0.0 | 0.3 | 4.9 | 127.6 | 0.0 | 0.0 |
| 2015-17 Biennium | 333.5 | 43.9 | 0.0 | 23.8 | 0.0 | 0.0 | 0.7 | 7.8 | 256.3 | 0.0 | 0.0 |
| 2018 | 159.0 | 15.5 | 0.0 | 12.6 | 0.0 | 0.0 | 0.3 | 3.6 | 126.4 | 0.0 | 0.0 |
| 2019 | 163.9 | 18.1 | 0.0 | 13.1 | 0.0 | 0.0 | 0.3 | 3.6 | 128.2 | 0.0 | 0.0 |
| 2017-19 Biennium | 322.9 | 33.5 | 0.0 | 25.8 | 0.0 | 0.0 | 0.7 | 7.3 | 254.6 | 0.0 | 0.0 |
| 2020 | 166.9 | 20.5 | 0.0 | 13.7 | 0.0 | 0.0 | 0.3 | 3.6 | 128.3 | 0.0 | 0.0 |
| 2021 | 169.0 | 22.0 | 0.0 | 14.2 | 0.0 | 0.0 | 0.4 | 3.6 | 128.3 | 0.0 | 0.0 |
| 2019-21 Biennium | 335.9 | 42.5 | 0.0 | 27.9 | 0.0 | 0.0 | 0.7 | 7.3 | 256.6 | 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

History and Forecast by Fiscal Year (Cash basis)

June 2017 - 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 1997 | \$9,449 | 5.8% | | | \$9,449 | 5.8% | | | \$9,449 | 5.8% |
| FY 1998 | \$10,057 | 6.4% | | | \$10,057 | 6.4% | | | \$10,057 | 6.4% |
| 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% |
| Forecast: | | | | | | | | | | |
| FY 2017 | \$19,730 | 6.2% | \$252 | 17.2% | \$19,981 | 6.3% | \$127 | -8.6% | \$20,109 | 6.2% |
| FY 2018 | \$20,074 | 1.7% | \$247 | -1.9% | \$20,321 | 1.7% | \$129 | 1.1% | \$20,449 | 1.7% |
| FY 2019 | \$20,829 | 3.8% | \$271 | 9.5% | \$21,100 | 3.8% | \$128 | -0.6% | \$21,228 | 3.8% |
| FY 2020 | \$21,536 | 3.4% | \$173 | -36.0% | \$21,709 | 2.9% | \$128 | 0.4% | \$21,837 | 2.9% |
| FY 2021 | \$22,339 | 3.7% | \$177 | 2.1% | \$22,516 | 3.7% | \$128 | 0.0% | \$22,644 | 3.7% |
| 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 | \$38,308 | 13.8% | \$467 | 15.3% | \$38,775 | 13.8% | \$266 | 13.8% | \$39,041 | 13.8% |
| 17-19 Biennium | \$40,903 | 6.8% | \$518 | 11.0% | \$41,421 | 6.8% | \$256 | -3.8% | \$41,677 | 6.8% |
| 19-21 Biennium | \$43,875 | 7.3% | \$350 | -32.4% | \$44,225 | 6.8% | \$257 | 0.1% | \$44,482 | 6.7% |

*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 2017
 Thousands of dollars

| Fiscal year | Total of cannabis excise taxes plus license fees | Administrative expenses and pre-distribution allotments | Total to distribute | Distribution of remaining funds | | | | | | | General Fund-State* |
|------------------------|--|---|---------------------|---------------------------------|--|-----------------|---------------------------------|--|-------------------------|-----------|---------------------|
| | | | | DSHS substance abuse program | Dept. of Health cannabis education program | UW/WSU research | Basic Health Plan Trust Account | Health Care Authority community health centers | OSPI dropout prevention | | |
| 2015 | \$67,486 | \$22,074 | \$45,412 | \$5,166 | \$0 | \$0 | \$22,706 | \$2,271 | \$0 | \$15,269 | |
| 2016 | \$168,051 | \$8,551 | \$159,500 | \$12,814 | \$7,500 | \$345 | \$79,750 | \$7,791 | \$251 | \$51,049 | |
| 2017 | \$300,635 | \$9,201 | \$291,434 | \$27,786 | \$7,500 | \$345 | \$145,717 | \$12,979 | \$511 | \$96,596 | |
| 2018 | \$334,144 | \$9,201 | \$324,943 | \$27,786 | \$9,750 | \$1,702 | \$162,471 | \$16,247 | \$511 | \$106,475 | |
| 2019 | \$350,557 | \$9,201 | \$341,356 | \$27,786 | \$9,750 | \$1,702 | \$170,678 | \$17,068 | \$511 | \$113,861 | |
| 2020 | \$362,866 | \$9,201 | \$353,665 | \$27,786 | \$9,750 | \$1,702 | \$176,832 | \$17,683 | \$511 | \$119,400 | |
| 2021 | \$376,136 | \$9,201 | \$366,935 | \$27,786 | \$9,750 | \$1,702 | \$183,468 | \$18,347 | \$511 | \$125,372 | |
| 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 | \$684,701 | \$18,402 | \$666,299 | \$55,572 | \$19,500 | \$3,404 | \$333,149 | \$33,315 | \$1,022 | \$220,336 | |
| 2019-21 | \$739,002 | \$18,402 | \$720,600 | \$55,572 | \$19,500 | \$3,404 | \$360,300 | \$36,030 | \$1,022 | \$244,772 | |

*Before distributions to local governments

Table 3.19
Revenue Legislation Affecting General Fund-State Revenues
Passed in the 2017 Legislative Session
(Millions of dollars)

| <u>Bill ID</u> | <u>Description</u> | <u>Tax Type/Fee</u> | <u>FY18</u> | <u>FY19</u> | <u>2017-19</u> | <u>FY20</u> | <u>FY21</u> | <u>2019-21</u> | <u>Law</u> | <u>Tax or Fee</u> |
|----------------|------------------------------|---------------------|------------------|------------------|----------------------|------------------|------------------|----------------------|------------|---|
| SHB 1130 | Customized Training Program | B&O | (65,000) | (71,000) | (136,000) | (71,000) | (65,000) | (136,000) | C21 L17 | Participants in the program can earn a business and occupation (B&O) tax credit for 50 percent of the amount paid to the program through July 1, 2017. All credits must be applied to B&O tax returns filed with the Department of Revenue (Department) by July 1, 2021. |
| SHB 2138 | Adapted Housing/Veterans | Retail Sales Tax | (122,000) | (122,000) | (244,000) | (122,000) | (122,000) | (244,000) | C176 L17 | The bill creates a new sales and use tax exemption for the state portion of the sales and use tax. The exemption is in the form of a remittance (refund) for materials incorporated into and labor to construct adapted housing for disabled veterans who have federal grants to remodel their homes. |
| SB 5162 | Wastewater Operator Account | Transfer | (69,000) | (69,000) | (138,000) | (69,000) | (69,000) | (138,000) | C35 L17 | Fees for wastewater treatment plant operators are being deposited into a new account created by this bill verses GF-S (RCW) |
| EHB 1595 | Public Records Request Costs | Fee | Indeterminate | Indeterminate | Indeterminate | Indeterminate | Indeterminate | Indeterminate | C304 L17 | Fees from those requesting public records. |
| SSB5713 | Skilled Worker Program | Fee | Indeterminate | Indeterminate | Indeterminate | Indeterminate | Indeterminate | Indeterminate | C225 L17 | SSB 5713 creates the skilled worker outreach, recruitment, and career awareness training program account, coupled with the general fund as the recipient of the earnings from investments. |
| Total | | | (256,000) | (262,000) | (518,000) | (262,000) | (256,000) | (518,000) | | |

Source: Office of Financial Management 2017



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.

This page left intentionally blank.

Table A1.1
U.S. Economic Forecast Summary
Forecast 2017 to 2021

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| Real National Income Accounts (Billions of Chained 2009 Dollars) | | | | | | | | |
| Real Gross Domestic Product | 15,982.3 | 16,397.2 | 16,662.1 | 17,027.4 | 17,437.4 | 17,803.6 | 18,159.6 | 18,522.8 |
| % Ch | 2.4 | 2.6 | 1.6 | 2.2 | 2.4 | 2.1 | 2.0 | 2.0 |
| Real Consumption | 10,868.9 | 11,214.7 | 11,522.2 | 11,802.6 | 12,097.2 | 12,375.4 | 12,647.7 | 12,913.4 |
| % Ch | 2.9 | 3.2 | 2.7 | 2.4 | 2.5 | 2.3 | 2.2 | 2.1 |
| Real Nonresidential Fixed Investment | 2,155.6 | 2,200.2 | 2,188.6 | 2,300.3 | 2,406.8 | 2,498.3 | 2,591.2 | 2,685.7 |
| % Ch | 6.0 | 2.1 | -0.5 | 5.1 | 4.6 | 3.8 | 3.7 | 3.6 |
| Real Residential Fixed Investment | 505.4 | 564.5 | 592.0 | 620.2 | 647.0 | 660.8 | 676.5 | 697.4 |
| % Ch | 3.5 | 11.7 | 4.9 | 4.8 | 4.3 | 2.1 | 2.4 | 3.1 |
| Real Personal Income | 13,567.7 | 14,112.9 | 14,438.3 | 14,704.9 | 15,110.2 | 15,567.7 | 15,976.1 | 16,332.3 |
| % Ch | 3.7 | 4.0 | 2.3 | 1.8 | 2.8 | 3.0 | 2.6 | 2.2 |
| Real Per Capita Income (\$/Person) | 42,464 | 43,831 | 44,495 | 44,949 | 45,819 | 46,833 | 47,687 | 48,374 |
| % Ch | 2.9 | 3.2 | 1.5 | 1.0 | 1.9 | 2.2 | 1.8 | 1.4 |
| Price and Wage Indexes | | | | | | | | |
| U.S. Implicit Price Deflator, PCE (2009=1.0) | 1.091 | 1.095 | 1.107 | 1.126 | 1.143 | 1.162 | 1.185 | 1.209 |
| % Ch | 1.5 | 0.4 | 1.1 | 1.7 | 1.5 | 1.7 | 1.9 | 2.0 |
| U.S. Consumer Price Index (1982-84=1.0) | 2.367 | 2.370 | 2.400 | 2.452 | 2.498 | 2.547 | 2.605 | 2.665 |
| % Ch | 1.6 | 0.1 | 1.3 | 2.2 | 1.9 | 2.0 | 2.2 | 2.3 |
| Employment Cost Index (Dec. 2005=1.0) | 1.206 | 1.233 | 1.262 | 1.298 | 1.340 | 1.385 | 1.433 | 1.483 |
| % Ch | 2.0 | 2.3 | 2.4 | 2.9 | 3.2 | 3.4 | 3.4 | 3.5 |
| Current Dollar National Income (Billions of Dollars) | | | | | | | | |
| Gross Domestic Product | 17,393.1 | 18,036.7 | 18,569.1 | 19,362.0 | 20,277.5 | 21,128.2 | 22,001.0 | 22,893.8 |
| % Ch | 4.2 | 3.7 | 3.0 | 4.3 | 4.7 | 4.2 | 4.1 | 4.1 |
| Personal Income | 14,809.8 | 15,458.5 | 15,986.7 | 16,564.7 | 17,273.1 | 18,090.9 | 18,925.3 | 19,741.2 |
| % Ch | 5.2 | 4.4 | 3.4 | 3.6 | 4.3 | 4.7 | 4.6 | 4.3 |
| Employment (Millions) | | | | | | | | |
| U.S. Civilian Labor Force | 155.9 | 157.1 | 159.2 | 160.5 | 162.1 | 163.8 | 165.3 | 166.4 |
| Total U.S. Employment | 146.3 | 148.8 | 151.4 | 153.4 | 155.2 | 156.9 | 158.3 | 159.2 |
| Unemployment Rate (%) | 6.17 | 5.26 | 4.85 | 4.41 | 4.23 | 4.19 | 4.24 | 4.31 |
| Nonfarm Payroll Employment | 138.94 | 141.81 | 144.31 | 146.31 | 147.66 | 148.93 | 150.17 | 151.03 |
| % Ch | 1.9 | 2.1 | 1.8 | 1.4 | 0.9 | 0.9 | 0.8 | 0.6 |
| Manufacturing | 12.19 | 12.34 | 12.35 | 12.39 | 12.53 | 12.80 | 13.00 | 13.08 |
| % Ch | 1.4 | 1.2 | 0.1 | 0.4 | 1.1 | 2.1 | 1.6 | 0.6 |
| Durable Manufacturing | 7.67 | 7.77 | 7.72 | 7.73 | 7.85 | 8.08 | 8.26 | 8.35 |
| % Ch | 1.7 | 1.2 | -0.6 | 0.2 | 1.6 | 2.9 | 2.3 | 1.1 |
| Nondurable Manufacturing | 4.51 | 4.57 | 4.63 | 4.66 | 4.68 | 4.72 | 4.74 | 4.73 |
| % Ch | 0.9 | 1.3 | 1.3 | 0.7 | 0.3 | 0.8 | 0.4 | -0.3 |
| Construction | 6.15 | 6.46 | 6.71 | 6.90 | 7.19 | 7.50 | 7.69 | 7.90 |
| % Ch | 5.0 | 5.0 | 3.9 | 2.9 | 4.1 | 4.4 | 2.6 | 2.6 |
| Service-Providing | 119.71 | 122.21 | 124.57 | 126.29 | 127.20 | 127.87 | 128.72 | 129.30 |
| % Ch | 1.8 | 2.1 | 1.9 | 1.4 | 0.7 | 0.5 | 0.7 | 0.4 |
| Miscellaneous Indicators | | | | | | | | |
| Oil-WTI (\$ per barrel) | 93.3 | 48.7 | 43.2 | 48.3 | 47.7 | 48.2 | 49.0 | 50.0 |
| Personal Saving/Disposable Income (%) | 5.6 | 5.8 | 5.7 | 5.2 | 5.8 | 6.4 | 6.4 | 6.4 |
| Auto Sales (Millions) | 7.7 | 7.5 | 6.9 | 6.3 | 6.3 | 6.3 | 6.4 | 6.4 |
| % Ch | 1.6 | -2.5 | -8.5 | -8.3 | -0.6 | 0.4 | 2.2 | -1.1 |
| Housing Starts (Millions) | 1.001 | 1.107 | 1.177 | 1.255 | 1.337 | 1.393 | 1.450 | 1.486 |
| % Ch | 7.8 | 10.6 | 6.3 | 6.6 | 6.5 | 4.2 | 4.0 | 2.5 |
| Federal Budget Surplus (Billions) | -612.9 | -569.7 | -665.3 | -711.8 | -872.3 | -924.1 | -971.4 | -1,038.2 |
| Net Exports (Billions) | -508.8 | -522.0 | -501.3 | -530.2 | -473.6 | -456.9 | -466.9 | -482.0 |
| 3-Month Treasury Bill Rate (%) | 0.03 | 0.05 | 0.32 | 0.93 | 1.64 | 2.51 | 2.84 | 2.82 |
| 10-Year Treasury Note Yield (%) | 2.54 | 2.14 | 1.84 | 2.50 | 3.16 | 3.82 | 3.96 | 3.92 |
| Bond Index of 20 G.O. Munis. (%) | 4.24 | 3.66 | 3.27 | 3.98 | 4.63 | 4.92 | 4.95 | 4.91 |
| 30-Year Fixed Mortgage Rate (%) | 4.17 | 3.85 | 3.65 | 4.25 | 4.97 | 5.78 | 5.97 | 5.94 |

Table A1.2
U.S. Economic Forecast Summary
Forecast 2017 to 2021

| | 2016:1 | 2016:2 | 2016:3 | 2016:4 | 2017:1 | 2017:2 | 2017:3 | 2017:4 |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| Real National Income Accounts (Billions of Chained 2009 Dollars) | | | | | | | | |
| Real Gross Domestic Product | 16,525.0 | 16,583.1 | 16,727.0 | 16,813.3 | 16,861.6 | 16,983.3 | 17,083.2 | 17,181.7 |
| % Ch , Annual Rate | 0.8 | 1.4 | 3.5 | 2.1 | 1.2 | 2.9 | 2.4 | 2.3 |
| Real Consumption | 11,365.2 | 11,484.9 | 11,569.0 | 11,669.8 | 11,688.5 | 11,768.7 | 11,840.6 | 11,912.6 |
| % Ch , Annual Rate | 1.6 | 4.3 | 3.0 | 3.5 | 0.6 | 2.8 | 2.5 | 2.5 |
| Real Nonresidential Fixed Investment | 2,179.7 | 2,185.0 | 2,192.5 | 2,197.2 | 2,257.2 | 2,290.7 | 2,313.8 | 2,339.6 |
| % Ch , Annual Rate | -3.4 | 1.0 | 1.4 | 0.9 | 11.4 | 6.1 | 4.1 | 4.5 |
| Real Residential Fixed Investment | 600.7 | 588.7 | 582.5 | 596.0 | 615.5 | 617.3 | 621.9 | 626.1 |
| % Ch , Annual Rate | 7.8 | -7.8 | -4.1 | 9.6 | 13.7 | 1.2 | 3.0 | 2.7 |
| Real Personal Income | 14,313.2 | 14,413.3 | 14,524.8 | 14,501.8 | 14,560.6 | 14,648.4 | 14,763.8 | 14,846.7 |
| % Ch , Annual Rate | 1.0 | 2.8 | 3.1 | -0.6 | 1.6 | 2.4 | 3.2 | 2.3 |
| Real Per Capita Income (\$/Person) | 44,244 | 44,468 | 44,713 | 44,552 | 44,643 | 44,821 | 45,084 | 45,246 |
| % Ch , Annual Rate | 0.4 | 2.0 | 2.2 | -1.4 | 0.8 | 1.6 | 2.4 | 1.4 |
| Price and Wage Indexes | | | | | | | | |
| U.S. Implicit Price Deflator, PCE (2009=1.0) | 1.100 | 1.105 | 1.109 | 1.115 | 1.121 | 1.124 | 1.128 | 1.133 |
| % Ch , Annual Rate | 0.3 | 2.0 | 1.5 | 2.0 | 2.4 | 0.8 | 1.4 | 1.9 |
| U.S. Consumer Price Index (1982-84=1.0) | 2.380 | 2.394 | 2.404 | 2.422 | 2.441 | 2.443 | 2.453 | 2.470 |
| % Ch , Annual Rate | 0.1 | 2.3 | 1.8 | 3.0 | 3.1 | 0.3 | 1.6 | 2.7 |
| Employment Cost Index (Dec. 2005=1.0) | 1.251 | 1.260 | 1.266 | 1.272 | 1.283 | 1.293 | 1.304 | 1.314 |
| % Ch , Annual Rate | 2.6 | 2.9 | 1.9 | 1.9 | 3.5 | 3.3 | 3.2 | 3.1 |
| Current Dollar National Income (Billions of Dollars) | | | | | | | | |
| Gross Domestic Product | 18,281.6 | 18,450.1 | 18,675.3 | 18,869.4 | 19,027.6 | 19,251.0 | 19,464.0 | 19,705.4 |
| % Ch , Annual Rate | 1.3 | 3.7 | 5.0 | 4.2 | 3.4 | 4.8 | 4.5 | 5.1 |
| Personal Income | 15,740.1 | 15,929.4 | 16,111.1 | 16,166.2 | 16,329.7 | 16,461.3 | 16,648.2 | 16,819.8 |
| % Ch , Annual Rate | 1.3 | 4.9 | 4.6 | 1.4 | 4.1 | 3.3 | 4.6 | 4.2 |
| Employment (Millions) | | | | | | | | |
| U.S. Civilian Labor Force | 158.8 | 158.8 | 159.5 | 159.6 | 160.0 | 160.2 | 160.7 | 161.1 |
| Total U.S. Employment | 151.0 | 151.1 | 151.7 | 152.0 | 152.5 | 153.2 | 153.7 | 154.1 |
| Unemployment Rate (%) | 4.93 | 4.87 | 4.90 | 4.70 | 4.67 | 4.37 | 4.32 | 4.30 |
| Nonfarm Payroll Employment | 143.44 | 143.95 | 144.66 | 145.17 | 145.71 | 146.14 | 146.51 | 146.86 |
| % Ch , Annual Rate | 1.7 | 1.4 | 2.0 | 1.4 | 1.5 | 1.2 | 1.0 | 1.0 |
| Manufacturing | 12.37 | 12.35 | 12.34 | 12.33 | 12.37 | 12.41 | 12.40 | 12.40 |
| % Ch , Annual Rate | 0.6 | -0.8 | -0.1 | -0.4 | 1.4 | 1.0 | -0.3 | 0.2 |
| Durable Manufacturing | 7.75 | 7.72 | 7.71 | 7.70 | 7.72 | 7.74 | 7.73 | 7.73 |
| % Ch , Annual Rate | -0.1 | -1.6 | -0.7 | -0.4 | 1.3 | 0.9 | -0.5 | 0.2 |
| Nondurable Manufacturing | 4.62 | 4.63 | 4.64 | 4.63 | 4.65 | 4.67 | 4.67 | 4.67 |
| % Ch , Annual Rate | 1.9 | 0.4 | 1.0 | -0.4 | 1.6 | 1.3 | 0.1 | 0.3 |
| Construction | 6.67 | 6.69 | 6.71 | 6.77 | 6.85 | 6.88 | 6.91 | 6.97 |
| % Ch , Annual Rate | 5.3 | 1.6 | 1.1 | 3.2 | 5.3 | 1.7 | 1.7 | 3.8 |
| Service-Providing | 123.69 | 124.24 | 124.94 | 125.41 | 125.80 | 126.15 | 126.47 | 126.75 |
| % Ch , Annual Rate | 1.8 | 1.8 | 2.3 | 1.5 | 1.3 | 1.1 | 1.0 | 0.9 |
| Miscellaneous Indicators | | | | | | | | |
| Oil-WTI (\$ per barrel) | 33.2 | 45.4 | 44.9 | 49.3 | 51.9 | 48.5 | 46.1 | 46.8 |
| Personal Saving/Disposable Income (%) | 6.1 | 5.9 | 5.9 | 4.9 | 5.2 | 5.1 | 5.3 | 5.2 |
| Auto Sales (Millions) | 7.1 | 6.8 | 6.8 | 6.9 | 6.2 | 6.1 | 6.4 | 6.4 |
| % Ch , Annual Rate | -20.8 | -16.3 | 3.5 | 4.7 | -33.2 | -5.5 | 20.1 | 0.6 |
| Housing Starts (Millions) | 1.153 | 1.158 | 1.150 | 1.248 | 1.242 | 1.221 | 1.273 | 1.285 |
| % Ch , Annual Rate | 10.7 | 1.5 | -2.7 | 39.0 | -1.9 | -6.8 | 18.4 | 3.9 |
| Federal Budget Surplus (Billions) | -668.3 | -652.4 | -652.4 | -687.9 | -660.7 | -730.7 | -735.6 | -720.1 |
| Net Exports (Billions) | -507.4 | -492.4 | -460.0 | -545.2 | -557.9 | -535.2 | -526.0 | -501.8 |
| 3-Month Treasury Bill Rate (%) | 0.29 | 0.26 | 0.30 | 0.43 | 0.59 | 0.90 | 1.07 | 1.16 |
| 10-Year Treasury Note Yield (%) | 1.92 | 1.75 | 1.56 | 2.13 | 2.44 | 2.32 | 2.52 | 2.71 |
| Bond Index of 20 G.O. Munis. (%) | 3.36 | 3.26 | 2.90 | 3.57 | 3.88 | 3.80 | 4.03 | 4.21 |
| 30-Year Fixed Mortgage Rate (%) | 3.74 | 3.59 | 3.45 | 3.81 | 4.17 | 4.07 | 4.30 | 4.46 |

Table A1.2 (continued)
U.S. Economic Forecast Summary
 Forecast 2017 to 2021

| | 2018:1 | 2018:2 | 2018:3 | 2018:4 | 2019:1 | 2019:2 | 2019:3 | 2019:4 |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| Real National Income Accounts (Billions of Chained 2009 Dollars) | | | | | | | | |
| Real Gross Domestic Product | 17,283.0 | 17,391.2 | 17,489.4 | 17,585.9 | 17,680.1 | 17,762.2 | 17,846.2 | 17,925.8 |
| % Ch , Annual Rate | 2.4 | 2.5 | 2.3 | 2.2 | 2.2 | 1.9 | 1.9 | 1.8 |
| Real Consumption | 11,987.7 | 12,065.1 | 12,135.9 | 12,200.2 | 12,277.7 | 12,343.9 | 12,408.2 | 12,471.8 |
| % Ch , Annual Rate | 2.5 | 2.6 | 2.4 | 2.1 | 2.6 | 2.2 | 2.1 | 2.1 |
| Real Nonresidential Fixed Investment | 2,364.1 | 2,394.7 | 2,417.7 | 2,450.5 | 2,468.9 | 2,487.5 | 2,508.0 | 2,528.7 |
| % Ch , Annual Rate | 4.2 | 5.3 | 3.9 | 5.5 | 3.0 | 3.0 | 3.3 | 3.4 |
| Real Residential Fixed Investment | 635.4 | 644.3 | 651.7 | 656.6 | 656.8 | 658.8 | 662.3 | 665.1 |
| % Ch , Annual Rate | 6.1 | 5.8 | 4.6 | 3.1 | 0.1 | 1.2 | 2.2 | 1.7 |
| Real Personal Income | 14,956.8 | 15,052.2 | 15,155.0 | 15,277.0 | 15,410.8 | 15,517.7 | 15,622.8 | 15,719.4 |
| % Ch , Annual Rate | 3.0 | 2.6 | 2.8 | 3.3 | 3.6 | 2.8 | 2.7 | 2.5 |
| Real Per Capita Income (\$/Person) | 45,490 | 45,689 | 45,910 | 46,187 | 46,500 | 46,730 | 46,953 | 47,151 |
| % Ch , Annual Rate | 2.2 | 1.8 | 1.9 | 2.4 | 2.7 | 2.0 | 1.9 | 1.7 |
| Price and Wage Indexes | | | | | | | | |
| U.S. Implicit Price Deflator, PCE (2009=1.0) | 1.137 | 1.141 | 1.145 | 1.150 | 1.154 | 1.159 | 1.165 | 1.170 |
| % Ch , Annual Rate | 1.3 | 1.5 | 1.5 | 1.5 | 1.6 | 1.7 | 1.8 | 1.9 |
| U.S. Consumer Price Index (1982-84=1.0) | 2.481 | 2.493 | 2.504 | 2.516 | 2.528 | 2.540 | 2.554 | 2.568 |
| % Ch , Annual Rate | 1.9 | 1.9 | 1.8 | 1.9 | 1.9 | 2.0 | 2.2 | 2.2 |
| Employment Cost Index (Dec. 2005=1.0) | 1.324 | 1.334 | 1.345 | 1.356 | 1.368 | 1.379 | 1.391 | 1.403 |
| % Ch , Annual Rate | 3.2 | 3.2 | 3.3 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 |
| Current Dollar National Income (Billions of Dollars) | | | | | | | | |
| Gross Domestic Product | 19,936.5 | 20,174.2 | 20,393.1 | 20,606.1 | 20,821.9 | 21,022.7 | 21,231.8 | 21,436.2 |
| % Ch , Annual Rate | 4.8 | 4.9 | 4.4 | 4.2 | 4.3 | 3.9 | 4.0 | 3.9 |
| Personal Income | 17,001.2 | 17,173.6 | 17,355.7 | 17,562.0 | 17,788.2 | 17,988.8 | 18,193.7 | 18,393.1 |
| % Ch , Annual Rate | 4.4 | 4.1 | 4.3 | 4.8 | 5.3 | 4.6 | 4.6 | 4.5 |
| Employment (Millions) | | | | | | | | |
| U.S. Civilian Labor Force | 161.5 | 161.8 | 162.2 | 162.7 | 163.1 | 163.6 | 164.0 | 164.4 |
| Total U.S. Employment | 154.5 | 155.0 | 155.4 | 155.9 | 156.3 | 156.7 | 157.1 | 157.5 |
| Unemployment Rate (%) | 4.28 | 4.23 | 4.22 | 4.19 | 4.18 | 4.18 | 4.19 | 4.21 |
| Nonfarm Payroll Employment | 147.14 | 147.53 | 147.82 | 148.15 | 148.50 | 148.79 | 149.07 | 149.34 |
| % Ch , Annual Rate | 0.8 | 1.1 | 0.8 | 0.9 | 0.9 | 0.8 | 0.8 | 0.7 |
| Manufacturing | 12.43 | 12.52 | 12.56 | 12.62 | 12.70 | 12.77 | 12.83 | 12.89 |
| % Ch , Annual Rate | 0.9 | 2.7 | 1.4 | 1.8 | 2.7 | 2.2 | 2.1 | 1.9 |
| Durable Manufacturing | 7.76 | 7.84 | 7.88 | 7.93 | 8.00 | 8.05 | 8.11 | 8.16 |
| % Ch , Annual Rate | 1.6 | 3.9 | 2.0 | 2.6 | 3.5 | 2.9 | 2.7 | 2.6 |
| Nondurable Manufacturing | 4.67 | 4.68 | 4.68 | 4.69 | 4.70 | 4.71 | 4.72 | 4.73 |
| % Ch , Annual Rate | -0.1 | 0.6 | 0.4 | 0.4 | 1.3 | 0.9 | 1.0 | 0.9 |
| Construction | 7.05 | 7.14 | 7.23 | 7.32 | 7.41 | 7.48 | 7.54 | 7.59 |
| % Ch , Annual Rate | 4.6 | 5.0 | 5.2 | 5.2 | 4.7 | 3.8 | 3.5 | 2.7 |
| Service-Providing | 126.91 | 127.13 | 127.28 | 127.46 | 127.64 | 127.80 | 127.95 | 128.11 |
| % Ch , Annual Rate | 0.5 | 0.7 | 0.5 | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 |
| Miscellaneous Indicators | | | | | | | | |
| Oil-WTI (\$ per barrel) | 47.3 | 47.6 | 47.8 | 47.9 | 48.0 | 48.1 | 48.3 | 48.5 |
| Personal Saving/Disposable Income (%) | 5.7 | 5.8 | 5.9 | 6.0 | 6.3 | 6.3 | 6.4 | 6.4 |
| Auto Sales (Millions) | 6.3 | 6.3 | 6.2 | 6.3 | 6.3 | 6.3 | 6.3 | 6.3 |
| % Ch , Annual Rate | -6.8 | -4.3 | -0.7 | 1.4 | -0.3 | 1.0 | 2.1 | 2.0 |
| Housing Starts (Millions) | 1.315 | 1.329 | 1.345 | 1.360 | 1.371 | 1.387 | 1.401 | 1.414 |
| % Ch , Annual Rate | 9.4 | 4.5 | 4.8 | 4.6 | 3.3 | 4.8 | 4.0 | 3.8 |
| Federal Budget Surplus (Billions) | -854.0 | -869.8 | -877.9 | -887.8 | -920.1 | -924.6 | -921.1 | -930.4 |
| Net Exports (Billions) | -488.5 | -479.4 | -469.0 | -457.4 | -458.7 | -459.0 | -455.5 | -454.5 |
| 3-Month Treasury Bill Rate (%) | 1.37 | 1.50 | 1.73 | 1.97 | 2.16 | 2.41 | 2.62 | 2.84 |
| 10-Year Treasury Note Yield (%) | 2.94 | 3.05 | 3.26 | 3.40 | 3.54 | 3.73 | 3.97 | 4.02 |
| Bond Index of 20 G.O. Munis. (%) | 4.42 | 4.59 | 4.73 | 4.80 | 4.85 | 4.89 | 4.96 | 4.98 |
| 30-Year Fixed Mortgage Rate (%) | 4.69 | 4.83 | 5.06 | 5.31 | 5.46 | 5.73 | 5.94 | 6.02 |

Table A1.2 (continued)
U.S. Economic Forecast Summary
 Forecast 2017 to 2021

| | 2020:1 | 2020:2 | 2020:3 | 2020:4 | 2021:1 | 2021:2 | 2021:3 | 2021:4 |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| Real National Income Accounts (Billions of Chained 2009 Dollars) | | | | | | | | |
| Real Gross Domestic Product | 18,013.9 | 18,116.7 | 18,208.5 | 18,299.4 | 18,387.8 | 18,479.0 | 18,567.3 | 18,657.2 |
| % Ch , Annual Rate | 2.0 | 2.3 | 2.0 | 2.0 | 1.9 | 2.0 | 1.9 | 2.0 |
| Real Consumption | 12,542.2 | 12,614.3 | 12,683.6 | 12,750.6 | 12,816.4 | 12,881.1 | 12,944.3 | 13,011.8 |
| % Ch , Annual Rate | 2.3 | 2.3 | 2.2 | 2.1 | 2.1 | 2.0 | 2.0 | 2.1 |
| Real Nonresidential Fixed Investment | 2,553.8 | 2,577.6 | 2,603.8 | 2,629.7 | 2,653.6 | 2,676.1 | 2,697.3 | 2,715.9 |
| % Ch , Annual Rate | 4.0 | 3.8 | 4.1 | 4.0 | 3.7 | 3.4 | 3.2 | 2.8 |
| Real Residential Fixed Investment | 667.1 | 672.3 | 680.3 | 686.4 | 688.8 | 693.8 | 700.9 | 706.0 |
| % Ch , Annual Rate | 1.2 | 3.2 | 4.8 | 3.6 | 1.4 | 2.9 | 4.2 | 2.9 |
| Real Personal Income | 15,835.9 | 15,936.1 | 16,025.3 | 16,107.0 | 16,209.7 | 16,294.9 | 16,371.9 | 16,452.8 |
| % Ch , Annual Rate | 3.0 | 2.6 | 2.3 | 2.1 | 2.6 | 2.1 | 1.9 | 2.0 |
| Real Per Capita Income (\$/Person) | 47,407 | 47,614 | 47,787 | 47,938 | 48,150 | 48,310 | 48,445 | 48,591 |
| % Ch , Annual Rate | 2.2 | 1.8 | 1.5 | 1.3 | 1.8 | 1.3 | 1.1 | 1.2 |
| Price and Wage Indexes | | | | | | | | |
| U.S. Implicit Price Deflator, PCE (2009=1.0) | 1.176 | 1.182 | 1.187 | 1.193 | 1.199 | 1.206 | 1.212 | 1.218 |
| % Ch , Annual Rate | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 |
| U.S. Consumer Price Index (1982-84=1.0) | 2.582 | 2.597 | 2.612 | 2.627 | 2.642 | 2.657 | 2.673 | 2.688 |
| % Ch , Annual Rate | 2.3 | 2.3 | 2.3 | 2.4 | 2.3 | 2.3 | 2.4 | 2.3 |
| Employment Cost Index (Dec. 2005=1.0) | 1.414 | 1.426 | 1.439 | 1.451 | 1.464 | 1.477 | 1.490 | 1.503 |
| % Ch , Annual Rate | 3.4 | 3.4 | 3.5 | 3.5 | 3.6 | 3.6 | 3.6 | 3.6 |
| Current Dollar National Income (Billions of Dollars) | | | | | | | | |
| Gross Domestic Product | 21,657.6 | 21,892.4 | 22,115.8 | 22,338.0 | 22,563.2 | 22,783.5 | 23,003.0 | 23,225.5 |
| % Ch , Annual Rate | 4.2 | 4.4 | 4.1 | 4.1 | 4.1 | 4.0 | 3.9 | 3.9 |
| Personal Income | 18,620.0 | 18,829.3 | 19,029.1 | 19,223.0 | 19,443.2 | 19,643.8 | 19,838.2 | 20,039.5 |
| % Ch , Annual Rate | 5.0 | 4.6 | 4.3 | 4.1 | 4.7 | 4.2 | 4.0 | 4.1 |
| Employment (Millions) | | | | | | | | |
| U.S. Civilian Labor Force | 164.8 | 165.2 | 165.6 | 165.8 | 166.0 | 166.3 | 166.5 | 166.7 |
| Total U.S. Employment | 157.8 | 158.2 | 158.5 | 158.8 | 159.0 | 159.1 | 159.3 | 159.5 |
| Unemployment Rate (%) | 4.23 | 4.23 | 4.24 | 4.25 | 4.27 | 4.29 | 4.32 | 4.35 |
| Nonfarm Payroll Employment | 149.63 | 150.21 | 150.34 | 150.49 | 150.70 | 150.94 | 151.14 | 151.35 |
| % Ch, Annual Rate | 0.8 | 1.6 | 0.3 | 0.4 | 0.6 | 0.6 | 0.5 | 0.5 |
| Manufacturing | 12.95 | 12.98 | 13.02 | 13.05 | 13.06 | 13.07 | 13.09 | 13.10 |
| % Ch, Annual Rate | 1.7 | 1.0 | 1.4 | 0.8 | 0.4 | 0.2 | 0.5 | 0.4 |
| Durable Manufacturing | 8.21 | 8.24 | 8.28 | 8.31 | 8.33 | 8.34 | 8.36 | 8.38 |
| % Ch, Annual Rate | 2.5 | 1.6 | 2.1 | 1.3 | 0.8 | 0.6 | 1.1 | 0.9 |
| Nondurable Manufacturing | 4.74 | 4.74 | 4.74 | 4.74 | 4.74 | 4.73 | 4.72 | 4.72 |
| % Ch, Annual Rate | 0.2 | 0.0 | 0.2 | 0.0 | -0.3 | -0.5 | -0.6 | -0.6 |
| Construction | 7.63 | 7.67 | 7.71 | 7.76 | 7.81 | 7.87 | 7.93 | 7.98 |
| % Ch, Annual Rate | 2.2 | 2.0 | 2.4 | 2.6 | 2.5 | 2.7 | 3.1 | 2.8 |
| Service-Providing | 128.30 | 128.81 | 128.85 | 128.92 | 129.07 | 129.25 | 129.37 | 129.51 |
| % Ch, Annual Rate | 0.6 | 1.6 | 0.1 | 0.2 | 0.5 | 0.5 | 0.4 | 0.4 |
| Miscellaneous Indicators | | | | | | | | |
| Oil-WTI (\$ per barrel) | 48.7 | 48.9 | 49.0 | 49.3 | 49.6 | 49.9 | 50.1 | 50.5 |
| Personal Saving/Disposable Income (%) | 6.5 | 6.4 | 6.3 | 6.2 | 6.4 | 6.4 | 6.3 | 6.3 |
| Auto Sales (Millions) | 6.4 | 6.4 | 6.5 | 6.5 | 6.4 | 6.4 | 6.3 | 6.3 |
| % Ch, Annual Rate | 2.9 | 2.6 | 2.0 | 0.2 | -2.1 | -3.5 | -2.5 | -1.1 |
| Housing Starts (Millions) | 1.430 | 1.443 | 1.459 | 1.466 | 1.479 | 1.485 | 1.491 | 1.489 |
| % Ch, Annual Rate | 4.6 | 3.6 | 4.6 | 1.9 | 3.4 | 1.8 | 1.5 | -0.5 |
| Federal Budget Surplus (Billions) | -971.6 | -982.6 | -964.7 | -966.5 | -1,018.1 | -1,032.6 | -1,043.8 | -1,058.1 |
| Net Exports (Billions) | -458.4 | -462.9 | -469.3 | -476.9 | -481.7 | -482.8 | -483.3 | -480.2 |
| 3-Month Treasury Bill Rate (%) | 2.84 | 2.84 | 2.84 | 2.83 | 2.83 | 2.83 | 2.82 | 2.82 |
| 10-Year Treasury Note Yield (%) | 3.99 | 3.97 | 3.95 | 3.93 | 3.92 | 3.92 | 3.92 | 3.92 |
| Bond Index of 20 G.O. Munis. (%) | 4.97 | 4.96 | 4.94 | 4.93 | 4.92 | 4.91 | 4.91 | 4.91 |
| 30-Year Fixed Mortgage Rate (%) | 6.01 | 5.98 | 5.96 | 5.95 | 5.94 | 5.93 | 5.94 | 5.94 |

Table A1.3
Washington Economic Forecast Summary
Forecast 2017 to 2021

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Real Income (Billions of Chained 2009 Dollars) | | | | | | | | |
| Real Personal Income | 325.856 | 339.740 | 351.152 | 361.317 | 374.081 | 387.812 | 399.965 | 410.890 |
| % Ch | 5.2 | 4.3 | 3.4 | 2.9 | 3.5 | 3.7 | 3.1 | 2.7 |
| Real Wage and Salary Disb. | 166.477 | 175.110 | 184.374 | 189.997 | 196.621 | 202.773 | 208.065 | 213.500 |
| % Ch | 4.9 | 5.2 | 5.3 | 3.0 | 3.5 | 3.1 | 2.6 | 2.6 |
| Real Nonwage Income | 159.379 | 164.631 | 166.778 | 171.320 | 177.460 | 185.039 | 191.900 | 197.390 |
| % Ch | 5.5 | 3.3 | 1.3 | 2.7 | 3.6 | 4.3 | 3.7 | 2.9 |
| Real Per Capita Income (\$/Person) | 46,167 | 47,422 | 48,176 | 48,736 | 49,709 | 50,803 | 51,688 | 52,413 |
| % Ch | 3.9 | 2.7 | 1.6 | 1.2 | 2.0 | 2.2 | 1.7 | 1.4 |
| Price and Wage Indexes | | | | | | | | |
| U.S. Implicit Price Deflator, PCE (2009=1.0) | 1.091 | 1.095 | 1.107 | 1.126 | 1.143 | 1.162 | 1.185 | 1.209 |
| % Ch | 1.5 | 0.4 | 1.1 | 1.7 | 1.5 | 1.7 | 1.9 | 2.0 |
| Seattle Cons. Price Index (1982-84=1.0) | 2.460 | 2.494 | 2.550 | 2.627 | 2.684 | 2.739 | 2.803 | 2.870 |
| % Ch | 1.8 | 1.4 | 2.3 | 3.0 | 2.2 | 2.1 | 2.3 | 2.4 |
| Average Nonfarm Annual Wage | 57,225 | 58,747 | 60,723 | 62,264 | 64,294 | 66,442 | 68,585 | 71,069 |
| % Ch | 4.2 | 2.7 | 3.4 | 2.5 | 3.3 | 3.3 | 3.2 | 3.6 |
| Avg. Hourly Earnings-Mfg. (\$/Hour) | 25.16 | 25.52 | 26.42 | 27.27 | 28.07 | 28.93 | 29.84 | 30.82 |
| % Ch | 3.4 | 1.4 | 3.5 | 3.2 | 2.9 | 3.1 | 3.1 | 3.3 |
| Current Dollar Income (Billions of Dollars) | | | | | | | | |
| Personal Income | 355.677 | 372.125 | 388.802 | 407.014 | 427.625 | 450.664 | 473.795 | 496.645 |
| % Ch | 6.8 | 4.6 | 4.5 | 4.7 | 5.1 | 5.4 | 5.1 | 4.8 |
| Disposable Personal Income | 312.758 | 325.456 | 341.113 | 357.317 | 376.791 | 395.983 | 414.351 | 433.666 |
| % Ch | 6.6 | 4.1 | 4.8 | 4.8 | 5.5 | 5.1 | 4.6 | 4.7 |
| Per Capita Income (\$/Person) | 50,391 | 51,942 | 53,340 | 54,899 | 56,823 | 59,035 | 61,228 | 63,351 |
| % Ch | 5.4 | 3.1 | 2.7 | 2.9 | 3.5 | 3.9 | 3.7 | 3.5 |
| Employment (Thousands) | | | | | | | | |
| Washington Civilian Labor Force | 3,487.9 | 3,544.8 | 3,641.6 | 3,704.4 | 3,772.4 | 3,842.0 | 3,906.3 | 3,960.6 |
| Total Washington Employment | 3,275.3 | 3,345.5 | 3,443.4 | 3,534.4 | 3,609.2 | 3,678.6 | 3,739.1 | 3,789.0 |
| Unemployment Rate (%) | 6.10 | 5.62 | 5.44 | 4.59 | 4.33 | 4.25 | 4.28 | 4.33 |
| Nonfarm Payroll Employment | 3,056.8 | 3,145.7 | 3,242.1 | 3,318.4 | 3,376.3 | 3,426.6 | 3,473.2 | 3,510.5 |
| % Ch | 2.5 | 2.9 | 3.1 | 2.4 | 1.7 | 1.5 | 1.4 | 1.1 |
| Manufacturing | 288.8 | 291.8 | 289.8 | 283.0 | 284.0 | 289.0 | 292.9 | 295.8 |
| % Ch | 0.7 | 1.1 | -0.7 | -2.3 | 0.3 | 1.8 | 1.3 | 1.0 |
| Durable Manufacturing | 210.0 | 211.1 | 207.4 | 199.3 | 199.6 | 203.1 | 205.9 | 208.2 |
| % Ch | 0.2 | 0.5 | -1.8 | -3.9 | 0.1 | 1.8 | 1.4 | 1.1 |
| Aerospace | 94.2 | 94.0 | 90.9 | 83.6 | 79.9 | 78.3 | 77.7 | 77.7 |
| % Ch | -1.9 | -0.2 | -3.3 | -8.0 | -4.4 | -2.0 | -0.8 | 0.0 |
| Nondurable Manufacturing | 78.8 | 80.8 | 82.5 | 83.8 | 84.4 | 85.9 | 87.0 | 87.6 |
| % Ch | 2.3 | 2.5 | 2.1 | 1.6 | 0.8 | 1.8 | 1.3 | 0.6 |
| Construction | 159.7 | 173.3 | 186.4 | 199.6 | 207.4 | 210.7 | 211.4 | 211.2 |
| % Ch | 7.2 | 8.5 | 7.6 | 7.1 | 3.9 | 1.6 | 0.3 | -0.1 |
| Service-Providing | 2,602.1 | 2,674.2 | 2,759.6 | 2,829.5 | 2,878.5 | 2,920.3 | 2,962.4 | 2,996.9 |
| % Ch | 2.4 | 2.8 | 3.2 | 2.5 | 1.7 | 1.5 | 1.4 | 1.2 |
| Software Publishers | 55.6 | 55.9 | 58.9 | 60.9 | 61.1 | 61.5 | 62.0 | 62.6 |
| % Ch | 3.3 | 0.5 | 5.5 | 3.3 | 0.4 | 0.6 | 0.9 | 1.0 |
| Housing Indicators (Thousands) | | | | | | | | |
| Housing Units Authorized by Bldg. Permit | 33.898 | 40.374 | 44.077 | 43.259 | 42.684 | 41.862 | 42.099 | 41.712 |
| % Ch | 2.8 | 19.1 | 9.2 | -1.9 | -1.3 | -1.9 | 0.6 | -0.9 |
| Single-Family | 17.905 | 19.797 | 22.463 | 23.312 | 25.312 | 25.809 | 26.111 | 26.202 |
| % Ch | -2.7 | 10.6 | 13.5 | 3.8 | 8.6 | 2.0 | 1.2 | 0.3 |
| Multi-Family | 15.993 | 20.577 | 21.614 | 19.947 | 17.372 | 16.052 | 15.988 | 15.510 |
| % Ch | 9.8 | 28.7 | 5.0 | -7.7 | -12.9 | -7.6 | -0.4 | -3.0 |
| 30-Year Fixed Mortgage Rate (%) | 4.17 | 3.85 | 3.65 | 4.25 | 4.97 | 5.78 | 5.97 | 5.94 |

Table A1.4
Washington Economic Forecast Summary
Forecast 2017 to 2021

| | 2016:1 | 2016:2 | 2016:3 | 2016:4 | 2017:1 | 2017:2 | 2017:3 | 2017:4 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Real Income (Billions of Chained 2009 Dollars) | | | | | | | | |
| Real Personal Income | 348.440 | 350.201 | 352.872 | 353.094 | 358.071 | 359.961 | 362.160 | 365.075 |
| % Ch, Annual Rate | 6.5 | 2.0 | 3.1 | 0.3 | 5.8 | 2.1 | 2.5 | 3.3 |
| Real Wage and Salary Disb. | 183.309 | 184.017 | 185.533 | 184.637 | 188.675 | 189.591 | 190.080 | 191.642 |
| % Ch, Annual Rate | 11.6 | 1.6 | 3.3 | -1.9 | 9.0 | 2.0 | 1.0 | 3.3 |
| Real Nonwage Income | 165.131 | 166.184 | 167.339 | 168.457 | 169.396 | 170.370 | 172.080 | 173.433 |
| % Ch, Annual Rate | 1.3 | 2.6 | 2.8 | 2.7 | 2.2 | 2.3 | 4.1 | 3.2 |
| Real Per Capita Income (\$/Person) | 48,125 | 48,159 | 48,304 | 48,116 | 48,586 | 48,640 | 48,754 | 48,964 |
| % Ch, Annual Rate | 4.8 | 0.3 | 1.2 | -1.5 | 4.0 | 0.4 | 0.9 | 1.7 |
| Price and Wage Indexes | | | | | | | | |
| U.S. Implicit Price Deflator, PCE (2009=1.0) | 1.100 | 1.105 | 1.109 | 1.115 | 1.121 | 1.124 | 1.128 | 1.133 |
| % Ch, Annual Rate | 0.3 | 2.0 | 1.5 | 2.0 | 2.4 | 0.8 | 1.4 | 1.9 |
| Seattle Cons. Price Index (1982-84=1.0) | 2.527 | 2.541 | 2.557 | 2.575 | 2.608 | 2.618 | 2.632 | 2.650 |
| % Ch, Annual Rate | 2.3 | 2.3 | 2.5 | 3.0 | 5.1 | 1.6 | 2.2 | 2.8 |
| Average Nonfarm Annual Wage | 60,550 | 60,633 | 61,010 | 60,702 | 61,992 | 62,116 | 62,201 | 62,747 |
| % Ch, Annual Rate | 7.0 | 0.6 | 2.5 | -2.0 | 8.8 | 0.8 | 0.5 | 3.6 |
| Avg. Hourly Earnings-Mfg. (\$/Hour) | 26.06 | 26.39 | 26.71 | 26.53 | 26.93 | 27.19 | 27.39 | 27.57 |
| % Ch, Annual Rate | 3.4 | 5.1 | 5.0 | -2.7 | 6.2 | 3.9 | 2.9 | 2.8 |
| Current Dollar Income (Billions of Dollars) | | | | | | | | |
| Personal Income | 383.168 | 387.031 | 391.400 | 393.610 | 401.568 | 404.510 | 408.385 | 413.591 |
| % Ch, Annual Rate | 6.8 | 4.1 | 4.6 | 2.3 | 8.3 | 3.0 | 3.9 | 5.2 |
| Disposable Personal Income | 336.120 | 339.602 | 343.240 | 345.489 | 352.524 | 355.174 | 358.560 | 363.011 |
| % Ch, Annual Rate | 8.0 | 4.2 | 4.4 | 2.6 | 8.4 | 3.0 | 3.9 | 5.1 |
| Per Capita Income (\$/Person) | 52,921 | 53,224 | 53,578 | 53,637 | 54,488 | 54,660 | 54,977 | 55,471 |
| % Ch, Annual Rate | 5.1 | 2.3 | 2.7 | 0.4 | 6.5 | 1.3 | 2.3 | 3.6 |
| Employment (Thousands) | | | | | | | | |
| Washington Civilian Labor Force | 3,605.2 | 3,631.1 | 3,656.5 | 3,673.8 | 3,685.9 | 3,692.3 | 3,711.0 | 3,728.5 |
| Total Washington Employment | 3,403.1 | 3,429.6 | 3,458.6 | 3,482.5 | 3,505.4 | 3,524.5 | 3,544.8 | 3,562.9 |
| Unemployment Rate (%) | 5.61 | 5.55 | 5.41 | 5.21 | 4.90 | 4.54 | 4.48 | 4.44 |
| Nonfarm Payroll Employment | 3,207.3 | 3,234.2 | 3,254.3 | 3,272.5 | 3,295.0 | 3,311.1 | 3,326.4 | 3,341.1 |
| % Ch, Annual Rate | 4.2 | 3.4 | 2.5 | 2.3 | 2.8 | 2.0 | 1.9 | 1.8 |
| Manufacturing | 292.5 | 291.8 | 289.1 | 285.8 | 285.2 | 283.5 | 282.2 | 281.3 |
| % Ch, Annual Rate | 0.5 | -0.9 | -3.6 | -4.5 | -0.9 | -2.3 | -1.9 | -1.3 |
| Durable Manufacturing | 210.3 | 209.0 | 206.9 | 203.2 | 201.5 | 199.8 | 198.4 | 197.4 |
| % Ch, Annual Rate | -1.0 | -2.4 | -4.0 | -7.0 | -3.4 | -3.2 | -2.7 | -2.1 |
| Aerospace | 93.0 | 92.0 | 90.7 | 88.0 | 86.5 | 84.4 | 82.7 | 80.9 |
| % Ch, Annual Rate | -2.0 | -4.1 | -5.5 | -11.5 | -6.6 | -9.2 | -8.0 | -8.1 |
| Nondurable Manufacturing | 82.2 | 82.8 | 82.2 | 82.7 | 83.7 | 83.7 | 83.7 | 83.9 |
| % Ch, Annual Rate | 4.4 | 2.7 | -2.7 | 2.2 | 5.3 | 0.0 | -0.1 | 0.8 |
| Construction | 182.3 | 184.9 | 187.3 | 191.2 | 195.5 | 198.5 | 200.8 | 203.6 |
| % Ch, Annual Rate | 16.5 | 5.9 | 5.4 | 8.7 | 9.1 | 6.4 | 4.7 | 5.6 |
| Service-Providing | 2,726.2 | 2,751.2 | 2,771.6 | 2,789.4 | 2,808.2 | 2,822.7 | 2,837.1 | 2,850.0 |
| % Ch, Annual Rate | 3.8 | 3.7 | 3.0 | 2.6 | 2.7 | 2.1 | 2.1 | 1.8 |
| Software Publishers | 57.5 | 58.4 | 59.3 | 60.4 | 60.7 | 60.7 | 61.0 | 61.1 |
| % Ch, Annual Rate | 4.8 | 6.4 | 6.6 | 7.7 | 2.0 | -0.2 | 2.1 | 0.2 |
| Housing Indicators (Thousands) | | | | | | | | |
| Housing Units Authorized by Bldg. Permit | 38.878 | 45.489 | 40.012 | 51.930 | 40.797 | 45.305 | 43.763 | 43.171 |
| % Ch, Annual Rate | 16.4 | 87.4 | -40.1 | 183.7 | -61.9 | 52.1 | -12.9 | -5.3 |
| Single-Family | 22.671 | 23.001 | 21.495 | 22.685 | 21.976 | 22.576 | 24.179 | 24.519 |
| % Ch, Annual Rate | 25.5 | 5.9 | -23.7 | 24.1 | -11.9 | 11.4 | 31.6 | 5.8 |
| Multi-Family | 16.206 | 22.488 | 18.517 | 29.245 | 18.821 | 22.729 | 19.585 | 18.652 |
| % Ch, Annual Rate | 5.0 | 270.7 | -54.0 | 522.1 | -82.8 | 112.7 | -44.9 | -17.7 |
| 30-Year Fixed Mortgage Rate (%) | 3.74 | 3.59 | 3.45 | 3.81 | 4.17 | 4.07 | 4.30 | 4.46 |

Table A1.4 (continued)
Washington Economic Forecast Summary
Forecast 2017 to 2021

| | 2018:1 | 2018:2 | 2018:3 | 2018:4 | 2019:1 | 2019:2 | 2019:3 | 2019:4 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Real Income (Billions of Chained 2009 Dollars) | | | | | | | | |
| Real Personal Income | 372.221 | 372.412 | 373.377 | 378.314 | 386.338 | 386.283 | 386.939 | 391.689 |
| % Ch, Annual Rate | 8.1 | 0.2 | 1.0 | 5.4 | 8.8 | -0.1 | 0.7 | 5.0 |
| Real Wage and Salary Disb. | 197.127 | 195.937 | 195.255 | 198.164 | 203.992 | 202.125 | 200.942 | 204.032 |
| % Ch, Annual Rate | 11.9 | -2.4 | -1.4 | 6.1 | 12.3 | -3.6 | -2.3 | 6.3 |
| Real Nonwage Income | 175.093 | 176.475 | 178.123 | 180.149 | 182.346 | 184.158 | 185.997 | 187.657 |
| % Ch, Annual Rate | 3.9 | 3.2 | 3.8 | 4.6 | 5.0 | 4.0 | 4.1 | 3.6 |
| Real Per Capita Income (\$/Person) | 49,737 | 49,578 | 49,525 | 49,998 | 50,876 | 50,690 | 50,600 | 51,045 |
| % Ch, Annual Rate | 6.5 | -1.3 | -0.4 | 3.9 | 7.2 | -1.5 | -0.7 | 3.6 |
| Price and Wage Indexes | | | | | | | | |
| U.S. Implicit Price Deflator, PCE (2009=1.0) | 1.137 | 1.141 | 1.145 | 1.150 | 1.154 | 1.159 | 1.165 | 1.170 |
| % Ch, Annual Rate | 1.3 | 1.5 | 1.5 | 1.5 | 1.6 | 1.7 | 1.8 | 1.9 |
| Seattle Cons. Price Index (1982-84=1.0) | 2.664 | 2.677 | 2.690 | 2.703 | 2.717 | 2.731 | 2.746 | 2.762 |
| % Ch, Annual Rate | 2.1 | 2.0 | 1.9 | 2.0 | 2.0 | 2.1 | 2.2 | 2.3 |
| Average Nonfarm Annual Wage | 64,496 | 64,047 | 63,822 | 64,812 | 66,753 | 66,166 | 65,853 | 66,995 |
| % Ch, Annual Rate | 11.6 | -2.8 | -1.4 | 6.3 | 12.5 | -3.5 | -1.9 | 7.1 |
| Avg. Hourly Earnings-Mfg. (\$/Hour) | 27.77 | 27.96 | 28.17 | 28.38 | 28.60 | 28.82 | 29.04 | 29.27 |
| % Ch, Annual Rate | 2.9 | 2.8 | 3.0 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 |
| Current Dollar Income (Billions of Dollars) | | | | | | | | |
| Personal Income | 423.100 | 424.901 | 427.598 | 434.899 | 445.936 | 447.795 | 450.614 | 458.310 |
| % Ch, Annual Rate | 9.5 | 1.7 | 2.6 | 7.0 | 10.5 | 1.7 | 2.5 | 7.0 |
| Disposable Personal Income | 372.893 | 374.597 | 376.856 | 382.817 | 392.477 | 393.670 | 395.727 | 402.059 |
| % Ch, Annual Rate | 11.3 | 1.8 | 2.4 | 6.5 | 10.5 | 1.2 | 2.1 | 6.6 |
| Per Capita Income (\$/Person) | 56,535 | 56,566 | 56,717 | 57,476 | 58,724 | 58,762 | 58,927 | 59,727 |
| % Ch, Annual Rate | 7.9 | 0.2 | 1.1 | 5.5 | 9.0 | 0.3 | 1.1 | 5.5 |
| Employment (Thousands) | | | | | | | | |
| Washington Civilian Labor Force | 3,746.5 | 3,763.3 | 3,780.8 | 3,799.1 | 3,816.3 | 3,833.7 | 3,850.6 | 3,867.2 |
| Total Washington Employment | 3,582.1 | 3,600.5 | 3,617.8 | 3,636.6 | 3,654.2 | 3,670.9 | 3,687.0 | 3,702.3 |
| Unemployment Rate (%) | 4.39 | 4.33 | 4.31 | 4.28 | 4.25 | 4.25 | 4.25 | 4.26 |
| Nonfarm Payroll Employment | 3,356.2 | 3,370.8 | 3,382.9 | 3,395.5 | 3,409.1 | 3,421.2 | 3,432.2 | 3,443.7 |
| % Ch, Annual Rate | 1.8 | 1.8 | 1.4 | 1.5 | 1.6 | 1.4 | 1.3 | 1.4 |
| Manufacturing | 282.0 | 283.6 | 284.6 | 285.8 | 287.3 | 288.6 | 289.6 | 290.6 |
| % Ch, Annual Rate | 1.0 | 2.4 | 1.4 | 1.6 | 2.2 | 1.7 | 1.5 | 1.3 |
| Durable Manufacturing | 198.0 | 199.3 | 200.1 | 200.9 | 202.0 | 202.8 | 203.5 | 204.1 |
| % Ch, Annual Rate | 1.2 | 2.7 | 1.5 | 1.8 | 2.1 | 1.7 | 1.4 | 1.1 |
| Aerospace | 80.5 | 80.1 | 79.7 | 79.3 | 78.9 | 78.5 | 78.1 | 77.7 |
| % Ch, Annual Rate | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 |
| Nondurable Manufacturing | 84.0 | 84.3 | 84.6 | 84.8 | 85.4 | 85.7 | 86.1 | 86.5 |
| % Ch, Annual Rate | 0.6 | 1.5 | 1.2 | 1.1 | 2.5 | 1.8 | 1.8 | 1.7 |
| Construction | 206.0 | 206.8 | 207.9 | 208.9 | 210.1 | 210.7 | 210.8 | 211.4 |
| % Ch, Annual Rate | 4.8 | 1.7 | 2.2 | 1.9 | 2.2 | 1.2 | 0.2 | 1.3 |
| Service-Providing | 2,861.9 | 2,874.0 | 2,883.9 | 2,894.4 | 2,905.2 | 2,915.5 | 2,925.3 | 2,935.2 |
| % Ch, Annual Rate | 1.7 | 1.7 | 1.4 | 1.5 | 1.5 | 1.4 | 1.3 | 1.4 |
| Software Publishers | 61.1 | 61.1 | 61.1 | 61.2 | 61.3 | 61.4 | 61.6 | 61.7 |
| % Ch, Annual Rate | -0.1 | 0.1 | 0.4 | 0.7 | 0.5 | 0.7 | 0.8 | 0.9 |
| Housing Indicators (Thousands) | | | | | | | | |
| Housing Units Authorized by Bldg. Permit | 43.379 | 43.038 | 42.342 | 41.976 | 41.872 | 41.889 | 41.831 | 41.856 |
| % Ch, Annual Rate | 1.9 | -3.1 | -6.3 | -3.4 | -1.0 | 0.2 | -0.6 | 0.2 |
| Single-Family | 24.949 | 25.206 | 25.463 | 25.629 | 25.711 | 25.763 | 25.829 | 25.934 |
| % Ch, Annual Rate | 7.2 | 4.2 | 4.1 | 2.6 | 1.3 | 0.8 | 1.0 | 1.6 |
| Multi-Family | 18.430 | 17.832 | 16.879 | 16.347 | 16.161 | 16.126 | 16.001 | 15.922 |
| % Ch, Annual Rate | -4.7 | -12.4 | -19.7 | -12.0 | -4.5 | -0.9 | -3.0 | -2.0 |
| 30-Year Fixed Mortgage Rate (%) | 4.69 | 4.83 | 5.06 | 5.31 | 5.46 | 5.73 | 5.94 | 6.02 |

Table A1.4 (continued)
Washington Economic Forecast Summary
Forecast 2017 to 2021

| | 2020:1 | 2020:2 | 2020:3 | 2020:4 | 2021:1 | 2021:2 | 2021:3 | 2021:4 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| Real Income (Billions of Chained 2009 Dollars) | | | | | | | | |
| Real Personal Income | 398.559 | 398.905 | 398.909 | 403.488 | 409.929 | 409.998 | 409.447 | 414.187 |
| % Ch, Annual Rate | 7.2 | 0.3 | 0.0 | 4.7 | 6.5 | 0.1 | -0.5 | 4.7 |
| Real Wage and Salary Disb. | 208.916 | 207.635 | 206.205 | 209.505 | 214.355 | 213.135 | 211.485 | 215.024 |
| % Ch, Annual Rate | 9.9 | -2.4 | -2.7 | 6.6 | 9.6 | -2.3 | -3.1 | 6.9 |
| Real Nonwage Income | 189.644 | 191.270 | 192.704 | 193.983 | 195.574 | 196.862 | 197.962 | 199.163 |
| % Ch, Annual Rate | 4.3 | 3.5 | 3.0 | 2.7 | 3.3 | 2.7 | 2.3 | 2.4 |
| Real Per Capita Income (\$/Person) | 51,765 | 51,636 | 51,466 | 51,886 | 52,543 | 52,382 | 52,145 | 52,582 |
| % Ch, Annual Rate | 5.8 | -1.0 | -1.3 | 3.3 | 5.2 | -1.2 | -1.8 | 3.4 |
| Price and Wage Indexes | | | | | | | | |
| U.S. Implicit Price Deflator, PCE (2009=1.0) | 1.176 | 1.182 | 1.187 | 1.193 | 1.199 | 1.206 | 1.212 | 1.218 |
| % Ch, Annual Rate | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 |
| Seattle Cons. Price Index (1982-84=1.0) | 2.778 | 2.794 | 2.811 | 2.828 | 2.844 | 2.861 | 2.878 | 2.895 |
| % Ch, Annual Rate | 2.3 | 2.3 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| Average Nonfarm Annual Wage | 68,758 | 68,282 | 67,995 | 69,304 | 71,102 | 70,845 | 70,461 | 71,869 |
| % Ch, Annual Rate | 10.9 | -2.7 | -1.7 | 7.9 | 10.8 | -1.4 | -2.2 | 8.2 |
| Avg. Hourly Earnings-Mfg. (\$/Hour) | 29.49 | 29.72 | 29.96 | 30.19 | 30.44 | 30.69 | 30.94 | 31.20 |
| % Ch, Annual Rate | 3.1 | 3.2 | 3.2 | 3.2 | 3.3 | 3.3 | 3.4 | 3.3 |
| Current Dollar Income (Billions of Dollars) | | | | | | | | |
| Personal Income | 468.630 | 471.327 | 473.680 | 481.544 | 491.703 | 494.260 | 496.137 | 504.480 |
| % Ch, Annual Rate | 9.3 | 2.3 | 2.0 | 6.8 | 8.7 | 2.1 | 1.5 | 6.9 |
| Disposable Personal Income | 410.576 | 412.402 | 413.904 | 420.523 | 429.562 | 431.582 | 433.170 | 440.348 |
| % Ch, Annual Rate | 8.7 | 1.8 | 1.5 | 6.6 | 8.9 | 1.9 | 1.5 | 6.8 |
| Per Capita Income (\$/Person) | 60,866 | 61,011 | 61,113 | 61,923 | 63,024 | 63,148 | 63,186 | 64,045 |
| % Ch, Annual Rate | 7.8 | 1.0 | 0.7 | 5.4 | 7.3 | 0.8 | 0.2 | 5.6 |
| Employment (Thousands) | | | | | | | | |
| Washington Civilian Labor Force | 3,883.1 | 3,899.3 | 3,914.5 | 3,928.1 | 3,941.4 | 3,954.1 | 3,966.9 | 3,979.9 |
| Total Washington Employment | 3,716.7 | 3,732.6 | 3,747.0 | 3,760.0 | 3,772.1 | 3,783.4 | 3,794.6 | 3,805.9 |
| Unemployment Rate (%) | 4.29 | 4.28 | 4.28 | 4.28 | 4.30 | 4.32 | 4.34 | 4.37 |
| Nonfarm Payroll Employment | 3,453.6 | 3,472.3 | 3,479.2 | 3,487.7 | 3,496.8 | 3,506.2 | 3,514.9 | 3,523.9 |
| % Ch, Annual Rate | 1.2 | 2.2 | 0.8 | 1.0 | 1.0 | 1.1 | 1.0 | 1.0 |
| Manufacturing | 291.7 | 292.4 | 293.4 | 294.2 | 294.8 | 295.3 | 296.1 | 296.8 |
| % Ch, Annual Rate | 1.5 | 1.0 | 1.4 | 1.1 | 0.8 | 0.7 | 1.0 | 1.0 |
| Durable Manufacturing | 205.0 | 205.5 | 206.3 | 206.9 | 207.3 | 207.8 | 208.5 | 209.2 |
| % Ch, Annual Rate | 1.8 | 1.1 | 1.4 | 1.2 | 0.9 | 0.9 | 1.3 | 1.4 |
| Aerospace | 77.7 | 77.7 | 77.7 | 77.7 | 77.7 | 77.7 | 77.7 | 77.7 |
| % Ch, Annual Rate | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Nondurable Manufacturing | 86.7 | 86.9 | 87.1 | 87.3 | 87.5 | 87.5 | 87.6 | 87.7 |
| % Ch, Annual Rate | 1.0 | 0.8 | 1.2 | 0.9 | 0.6 | 0.4 | 0.3 | 0.3 |
| Construction | 211.1 | 211.4 | 211.5 | 211.7 | 211.4 | 211.3 | 211.1 | 211.0 |
| % Ch, Annual Rate | -0.7 | 0.6 | 0.2 | 0.4 | -0.4 | -0.3 | -0.2 | -0.2 |
| Service-Providing | 2,944.3 | 2,962.0 | 2,967.8 | 2,975.3 | 2,984.0 | 2,993.0 | 3,001.1 | 3,009.5 |
| % Ch, Annual Rate | 1.3 | 2.4 | 0.8 | 1.0 | 1.2 | 1.2 | 1.1 | 1.1 |
| Software Publishers | 61.8 | 62.0 | 62.1 | 62.2 | 62.4 | 62.5 | 62.7 | 62.9 |
| % Ch, Annual Rate | 0.9 | 0.8 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 |
| Housing Indicators (Thousands) | | | | | | | | |
| Housing Units Authorized by Bldg. Permit | 42.006 | 42.107 | 42.226 | 42.058 | 41.975 | 41.826 | 41.662 | 41.387 |
| % Ch, Annual Rate | 1.4 | 1.0 | 1.1 | -1.6 | -0.8 | -1.4 | -1.6 | -2.6 |
| Single-Family | 25.992 | 26.093 | 26.168 | 26.192 | 26.222 | 26.257 | 26.219 | 26.111 |
| % Ch, Annual Rate | 0.9 | 1.6 | 1.2 | 0.4 | 0.5 | 0.5 | -0.6 | -1.6 |
| Multi-Family | 16.014 | 16.014 | 16.058 | 15.866 | 15.753 | 15.569 | 15.443 | 15.276 |
| % Ch, Annual Rate | 2.3 | 0.0 | 1.1 | -4.7 | -2.8 | -4.6 | -3.2 | -4.3 |
| 30-Year Fixed Mortgage Rate (%) | 6.01 | 5.98 | 5.96 | 5.95 | 5.94 | 5.93 | 5.94 | 5.94 |

Table A2.1

U.S. Nonagricultural Employment by Industry (Millions)

Forecast 2017 to 2021

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Nonfarm Payroll Employment | 138.94 | 141.81 | 144.31 | 146.31 | 147.66 | 148.93 | 150.17 | 151.03 |
| % Ch | 1.9 | 2.1 | 1.8 | 1.4 | 0.9 | 0.9 | 0.8 | 0.6 |
| Manufacturing | 12.19 | 12.34 | 12.35 | 12.39 | 12.53 | 12.80 | 13.00 | 13.08 |
| % Ch | 1.4 | 1.2 | 0.1 | 0.4 | 1.1 | 2.1 | 1.6 | 0.6 |
| Durable Manufacturing | 7.67 | 7.77 | 7.72 | 7.73 | 7.85 | 8.08 | 8.26 | 8.35 |
| % Ch | 1.7 | 1.2 | -0.6 | 0.2 | 1.6 | 2.9 | 2.3 | 1.1 |
| Wood Products | 0.37 | 0.38 | 0.39 | 0.40 | 0.41 | 0.44 | 0.47 | 0.49 |
| % Ch | 5.2 | 2.9 | 2.5 | 1.2 | 4.5 | 7.2 | 5.7 | 5.0 |
| Primary and Fabricated Metals | 1.85 | 1.85 | 1.80 | 1.81 | 1.84 | 1.92 | 1.98 | 2.01 |
| % Ch | 1.4 | 0.0 | -2.7 | 0.4 | 1.8 | 4.2 | 3.3 | 1.4 |
| Computer and Electronic Products | 1.05 | 1.05 | 1.05 | 1.04 | 1.07 | 1.09 | 1.08 | 1.08 |
| % Ch | -1.5 | 0.4 | -0.5 | -1.1 | 3.2 | 1.5 | -0.6 | 0.0 |
| Machinery and Electrical Equipment | 1.50 | 1.50 | 1.46 | 1.48 | 1.52 | 1.59 | 1.62 | 1.64 |
| % Ch | 1.8 | 0.0 | -2.7 | 1.0 | 3.2 | 4.1 | 2.2 | 1.0 |
| Transportation Equipment | 1.56 | 1.60 | 1.62 | 1.61 | 1.59 | 1.60 | 1.65 | 1.68 |
| % Ch | 3.3 | 2.9 | 1.3 | -0.8 | -1.7 | 1.0 | 3.4 | 1.2 |
| Other Durables | 1.34 | 1.37 | 1.39 | 1.40 | 1.41 | 1.44 | 1.45 | 1.46 |
| % Ch | 1.7 | 2.4 | 1.4 | 0.7 | 1.2 | 1.8 | 0.7 | 0.3 |
| Nondurable Manufacturing | 4.51 | 4.57 | 4.63 | 4.66 | 4.68 | 4.72 | 4.74 | 4.73 |
| % Ch | 0.9 | 1.3 | 1.3 | 0.7 | 0.3 | 0.8 | 0.4 | -0.3 |
| Food Manufacturing | 1.48 | 1.51 | 1.55 | 1.59 | 1.61 | 1.64 | 1.66 | 1.68 |
| % Ch | 0.7 | 1.8 | 2.8 | 2.4 | 1.3 | 2.0 | 1.2 | 0.9 |
| Paper and Paper Products | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 | 0.38 | 0.37 |
| % Ch | -1.2 | -0.2 | -0.5 | -0.2 | 0.2 | 0.6 | 0.7 | -0.2 |
| Other Nondurables | 2.65 | 2.69 | 2.70 | 2.70 | 2.70 | 2.70 | 2.70 | 2.67 |
| % Ch | 1.3 | 1.2 | 0.7 | -0.1 | -0.2 | 0.2 | -0.1 | -1.0 |
| Natural Resources and Mining | 0.89 | 0.81 | 0.68 | 0.71 | 0.75 | 0.75 | 0.75 | 0.76 |
| % Ch | 3.2 | -8.7 | -16.6 | 5.3 | 4.6 | 0.6 | 0.1 | 0.9 |
| Construction | 6.15 | 6.46 | 6.71 | 6.90 | 7.19 | 7.50 | 7.69 | 7.90 |
| % Ch | 5.0 | 5.0 | 3.9 | 2.9 | 4.1 | 4.4 | 2.6 | 2.6 |
| Trade, Transportation, and Utilities | 26.38 | 26.88 | 27.24 | 27.36 | 27.33 | 27.32 | 27.29 | 27.18 |
| % Ch | 2.0 | 1.9 | 1.3 | 0.5 | -0.1 | -0.1 | -0.1 | -0.4 |
| Wholesale Trade | 5.81 | 5.85 | 5.87 | 5.91 | 5.94 | 5.97 | 6.00 | 6.03 |
| % Ch | 1.4 | 0.7 | 0.2 | 0.8 | 0.5 | 0.5 | 0.6 | 0.4 |
| Retail Trade | 15.35 | 15.60 | 15.83 | 15.84 | 15.75 | 15.70 | 15.63 | 15.51 |
| % Ch | 1.9 | 1.6 | 1.4 | 0.1 | -0.6 | -0.3 | -0.4 | -0.8 |
| Trans., Warehousing, and Utilities | 5.21 | 5.43 | 5.54 | 5.61 | 5.65 | 5.65 | 5.65 | 5.64 |
| % Ch | 3.2 | 4.1 | 2.2 | 1.2 | 0.7 | 0.1 | -0.1 | -0.2 |
| Information | 2.73 | 2.75 | 2.77 | 2.73 | 2.77 | 2.78 | 2.82 | 2.85 |
| % Ch | 0.8 | 0.9 | 0.8 | -1.5 | 1.5 | 0.4 | 1.1 | 1.3 |
| Publishing Industries | 0.73 | 0.73 | 0.73 | 0.73 | 0.70 | 0.68 | 0.66 | 0.65 |
| % Ch | -0.8 | 0.0 | 0.5 | -0.4 | -3.7 | -3.3 | -2.4 | -2.1 |
| Other Information | 2.00 | 2.02 | 2.04 | 2.00 | 2.07 | 2.11 | 2.15 | 2.20 |
| % Ch | 1.4 | 1.2 | 0.9 | -1.9 | 3.4 | 1.7 | 2.3 | 2.3 |
| Financial Activities | 7.98 | 8.12 | 8.28 | 8.43 | 8.48 | 8.47 | 8.49 | 8.53 |
| % Ch | 1.1 | 1.8 | 2.0 | 1.8 | 0.5 | -0.1 | 0.3 | 0.4 |
| Professional and Business Services | 19.06 | 19.63 | 20.13 | 20.68 | 21.31 | 22.01 | 22.49 | 22.95 |
| % Ch | 2.9 | 3.0 | 2.6 | 2.7 | 3.0 | 3.3 | 2.2 | 2.0 |
| Education and Health Services | 21.44 | 22.02 | 22.62 | 23.10 | 23.29 | 23.32 | 23.40 | 23.55 |
| % Ch | 1.7 | 2.7 | 2.7 | 2.1 | 0.8 | 0.1 | 0.4 | 0.6 |
| Leisure and Hospitality | 14.69 | 15.15 | 15.61 | 15.93 | 16.11 | 16.11 | 16.18 | 16.25 |
| % Ch | 3.1 | 3.1 | 3.0 | 2.0 | 1.1 | 0.0 | 0.4 | 0.4 |
| Other Services | 5.57 | 5.62 | 5.69 | 5.74 | 5.72 | 5.63 | 5.56 | 5.52 |
| % Ch | 1.5 | 1.0 | 1.1 | 1.0 | -0.4 | -1.5 | -1.3 | -0.8 |
| Federal Government | 2.73 | 2.76 | 2.80 | 2.80 | 2.70 | 2.65 | 2.75 | 2.59 |
| % Ch | -1.4 | 0.8 | 1.5 | 0.3 | -3.6 | -1.9 | 3.9 | -6.0 |
| State and Local Government | 19.14 | 19.27 | 19.43 | 19.50 | 19.49 | 19.58 | 19.73 | 19.88 |
| % Ch | 0.3 | 0.7 | 0.8 | 0.4 | -0.1 | 0.5 | 0.8 | 0.8 |

Table A2.2

U.S. Nonagricultural Employment by Industry (Millions)

Forecast 2017 to 2021

| | 2016:1 | 2016:2 | 2016:3 | 2016:4 | 2017:1 | 2017:2 | 2017:3 | 2017:4 |
|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Nonfarm Payroll Employment | 143.44 | 143.95 | 144.66 | 145.17 | 145.71 | 146.14 | 146.51 | 146.86 |
| % Ch, Annual Rate | 1.7 | 1.4 | 2.0 | 1.4 | 1.5 | 1.2 | 1.0 | 1.0 |
| Manufacturing | 12.37 | 12.35 | 12.34 | 12.33 | 12.37 | 12.41 | 12.40 | 12.40 |
| % Ch, Annual Rate | 0.6 | -0.8 | -0.1 | -0.4 | 1.4 | 1.0 | -0.3 | 0.2 |
| Durable Manufacturing | 7.75 | 7.72 | 7.71 | 7.70 | 7.72 | 7.74 | 7.73 | 7.73 |
| % Ch, Annual Rate | -0.1 | -1.6 | -0.7 | -0.4 | 1.3 | 0.9 | -0.5 | 0.2 |
| Wood Products | 0.39 | 0.39 | 0.39 | 0.39 | 0.40 | 0.39 | 0.40 | 0.40 |
| % Ch, Annual Rate | 1.6 | 0.6 | 0.3 | 2.2 | 2.8 | -2.4 | 1.6 | 3.4 |
| Primary and Fabricated Metals | 1.82 | 1.80 | 1.80 | 1.80 | 1.80 | 1.81 | 1.82 | 1.81 |
| % Ch, Annual Rate | -2.7 | -2.8 | -1.7 | -0.3 | 1.8 | 2.4 | 0.4 | -0.7 |
| Computer and Electronic Products | 1.05 | 1.05 | 1.05 | 1.04 | 1.04 | 1.04 | 1.03 | 1.04 |
| % Ch, Annual Rate | 1.6 | -1.0 | -2.3 | -1.7 | -1.6 | 0.0 | -1.6 | 3.1 |
| Machinery and Electrical Equipment | 1.48 | 1.46 | 1.46 | 1.46 | 1.47 | 1.48 | 1.48 | 1.49 |
| % Ch, Annual Rate | -2.3 | -3.7 | -1.4 | -0.6 | 2.7 | 2.8 | 2.2 | 1.1 |
| Transportation Equipment | 1.62 | 1.63 | 1.63 | 1.62 | 1.62 | 1.62 | 1.61 | 1.60 |
| % Ch, Annual Rate | 1.7 | 0.4 | 0.7 | -2.0 | -0.2 | 0.6 | -4.0 | -1.5 |
| Other Durables | 1.39 | 1.38 | 1.39 | 1.39 | 1.40 | 1.40 | 1.40 | 1.39 |
| % Ch, Annual Rate | 2.1 | -1.3 | 0.6 | 1.9 | 2.5 | -1.2 | -0.1 | -0.7 |
| Nondurable Manufacturing | 4.62 | 4.63 | 4.64 | 4.63 | 4.65 | 4.67 | 4.67 | 4.67 |
| % Ch, Annual Rate | 1.9 | 0.4 | 1.0 | -0.4 | 1.6 | 1.3 | 0.1 | 0.3 |
| Food Manufacturing | 1.54 | 1.55 | 1.56 | 1.57 | 1.58 | 1.59 | 1.59 | 1.60 |
| % Ch, Annual Rate | 4.2 | 2.3 | 3.7 | 0.4 | 4.1 | 3.4 | -0.3 | 1.5 |
| Paper and Paper Products | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 |
| % Ch, Annual Rate | -0.1 | -1.5 | -2.0 | -1.8 | 1.6 | 1.4 | -2.3 | 1.8 |
| Other Nondurables | 2.71 | 2.70 | 2.70 | 2.70 | 2.70 | 2.70 | 2.71 | 2.70 |
| % Ch, Annual Rate | 0.9 | -0.3 | -0.1 | -0.6 | 0.1 | 0.1 | 0.7 | -0.6 |
| Natural Resources and Mining | 0.71 | 0.68 | 0.66 | 0.66 | 0.68 | 0.71 | 0.73 | 0.74 |
| % Ch, Annual Rate | -21.8 | -18.3 | -7.5 | 1.4 | 11.7 | 14.9 | 11.8 | 5.7 |
| Construction | 6.67 | 6.69 | 6.71 | 6.77 | 6.85 | 6.88 | 6.91 | 6.97 |
| % Ch, Annual Rate | 5.3 | 1.6 | 1.1 | 3.2 | 5.3 | 1.7 | 1.7 | 3.8 |
| Trade, Transportation, and Utilities | 27.12 | 27.19 | 27.28 | 27.35 | 27.38 | 27.34 | 27.35 | 27.37 |
| % Ch, Annual Rate | 1.6 | 1.0 | 1.4 | 1.0 | 0.5 | -0.6 | 0.1 | 0.4 |
| Wholesale Trade | 5.86 | 5.86 | 5.87 | 5.89 | 5.90 | 5.91 | 5.91 | 5.92 |
| % Ch, Annual Rate | 0.3 | 0.2 | 0.6 | 1.2 | 1.1 | 0.5 | 0.2 | 0.8 |
| Retail Trade | 15.76 | 15.81 | 15.86 | 15.88 | 15.88 | 15.83 | 15.82 | 15.82 |
| % Ch, Annual Rate | 2.3 | 1.1 | 1.5 | 0.3 | 0.2 | -1.4 | -0.3 | 0.1 |
| Trans., Warehousing, and Utilities | 5.50 | 5.53 | 5.55 | 5.59 | 5.60 | 5.60 | 5.62 | 5.63 |
| % Ch, Annual Rate | 1.0 | 1.6 | 1.8 | 2.7 | 0.6 | 0.6 | 0.8 | 0.6 |
| Information | 2.77 | 2.77 | 2.78 | 2.77 | 2.75 | 2.73 | 2.73 | 2.72 |
| % Ch, Annual Rate | 1.4 | -0.7 | 2.0 | -1.5 | -3.2 | -2.8 | 0.4 | -2.0 |
| Publishing Industries | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.73 | 0.72 |
| % Ch, Annual Rate | 1.8 | -0.2 | 1.1 | -1.2 | -0.1 | -1.2 | 2.1 | -4.4 |
| Other Information | 2.04 | 2.04 | 2.05 | 2.04 | 2.02 | 2.00 | 2.00 | 1.99 |
| % Ch, Annual Rate | 1.3 | -0.9 | 2.4 | -1.6 | -4.3 | -3.4 | -0.2 | -1.2 |
| Financial Activities | 8.22 | 8.26 | 8.31 | 8.35 | 8.40 | 8.42 | 8.45 | 8.47 |
| % Ch, Annual Rate | 2.0 | 2.3 | 2.4 | 1.6 | 2.6 | 1.2 | 1.1 | 1.2 |
| Professional and Business Services | 19.90 | 20.03 | 20.21 | 20.38 | 20.52 | 20.65 | 20.74 | 20.81 |
| % Ch, Annual Rate | 1.4 | 2.6 | 3.7 | 3.3 | 2.8 | 2.6 | 1.8 | 1.2 |
| Education and Health Services | 22.40 | 22.55 | 22.70 | 22.83 | 22.94 | 23.06 | 23.16 | 23.25 |
| % Ch, Annual Rate | 2.3 | 2.7 | 2.7 | 2.3 | 2.0 | 2.1 | 1.8 | 1.6 |
| Leisure and Hospitality | 15.49 | 15.57 | 15.67 | 15.73 | 15.78 | 15.89 | 15.99 | 16.07 |
| % Ch, Annual Rate | 3.1 | 2.2 | 2.5 | 1.4 | 1.5 | 2.8 | 2.4 | 2.2 |
| Other Services | 5.66 | 5.67 | 5.70 | 5.71 | 5.72 | 5.74 | 5.75 | 5.76 |
| % Ch, Annual Rate | 1.4 | 1.0 | 1.5 | 1.0 | 0.7 | 1.5 | 0.5 | 0.8 |
| Federal Government | 2.78 | 2.79 | 2.81 | 2.82 | 2.82 | 2.81 | 2.81 | 2.78 |
| % Ch, Annual Rate | 1.5 | 1.4 | 2.9 | 1.4 | -0.1 | -0.3 | -0.8 | -3.6 |
| State and Local Government | 19.36 | 19.40 | 19.48 | 19.48 | 19.50 | 19.50 | 19.50 | 19.51 |
| % Ch, Annual Rate | 1.0 | 0.9 | 1.7 | 0.1 | 0.3 | 0.0 | 0.0 | 0.2 |

Table A2.2 (continued)

U.S. Nonagricultural Employment by Industry (Millions)

Forecast 2017 to 2021

| | 2018:1 | 2018:2 | 2018:3 | 2018:4 | 2019:1 | 2019:2 | 2019:3 | 2019:4 |
|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Nonfarm Payroll Employment | 147.14 | 147.53 | 147.82 | 148.15 | 148.50 | 148.79 | 149.07 | 149.34 |
| % Ch, Annual Rate | 0.8 | 1.1 | 0.8 | 0.9 | 0.9 | 0.8 | 0.8 | 0.7 |
| Manufacturing | 12.43 | 12.52 | 12.56 | 12.62 | 12.70 | 12.77 | 12.83 | 12.89 |
| % Ch, Annual Rate | 0.9 | 2.7 | 1.4 | 1.8 | 2.7 | 2.2 | 2.1 | 1.9 |
| Durable Manufacturing | 7.76 | 7.84 | 7.88 | 7.93 | 8.00 | 8.05 | 8.11 | 8.16 |
| % Ch, Annual Rate | 1.6 | 3.9 | 2.0 | 2.6 | 3.5 | 2.9 | 2.7 | 2.6 |
| Wood Products | 0.40 | 0.41 | 0.42 | 0.43 | 0.43 | 0.44 | 0.45 | 0.45 |
| % Ch, Annual Rate | 3.7 | 8.7 | 6.9 | 7.0 | 8.3 | 6.9 | 6.1 | 6.0 |
| Primary and Fabricated Metals | 1.82 | 1.84 | 1.85 | 1.86 | 1.89 | 1.91 | 1.93 | 1.95 |
| % Ch, Annual Rate | 1.8 | 4.5 | 2.1 | 2.6 | 5.8 | 5.1 | 4.5 | 3.8 |
| Computer and Electronic Products | 1.05 | 1.07 | 1.08 | 1.08 | 1.09 | 1.09 | 1.09 | 1.08 |
| % Ch, Annual Rate | 4.9 | 5.5 | 3.5 | 3.1 | 1.1 | 0.1 | -0.5 | -0.6 |
| Machinery and Electrical Equipment | 1.50 | 1.52 | 1.53 | 1.55 | 1.57 | 1.58 | 1.59 | 1.61 |
| % Ch, Annual Rate | 2.0 | 6.6 | 4.2 | 4.3 | 4.0 | 3.8 | 3.4 | 2.8 |
| Transportation Equipment | 1.59 | 1.59 | 1.58 | 1.58 | 1.59 | 1.59 | 1.60 | 1.62 |
| % Ch, Annual Rate | -1.5 | -1.4 | -2.5 | 0.5 | 2.1 | 1.5 | 2.3 | 3.6 |
| Other Durables | 1.40 | 1.41 | 1.42 | 1.43 | 1.43 | 1.44 | 1.44 | 1.45 |
| % Ch, Annual Rate | 1.3 | 4.0 | 2.2 | 1.4 | 2.1 | 1.7 | 1.2 | 0.9 |
| Nondurable Manufacturing | 4.67 | 4.68 | 4.68 | 4.69 | 4.70 | 4.71 | 4.72 | 4.73 |
| % Ch, Annual Rate | -0.1 | 0.6 | 0.4 | 0.4 | 1.3 | 0.9 | 1.0 | 0.9 |
| Food Manufacturing | 1.60 | 1.61 | 1.62 | 1.62 | 1.63 | 1.64 | 1.65 | 1.65 |
| % Ch, Annual Rate | 1.0 | 1.8 | 1.6 | 1.3 | 3.0 | 1.8 | 1.7 | 1.6 |
| Paper and Paper Products | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 | 0.37 |
| % Ch, Annual Rate | -0.7 | 0.8 | 0.6 | 0.1 | 0.6 | 0.8 | 1.2 | 1.0 |
| Other Nondurables | 2.70 | 2.70 | 2.69 | 2.69 | 2.70 | 2.70 | 2.70 | 2.71 |
| % Ch, Annual Rate | -0.6 | -0.1 | -0.2 | -0.1 | 0.4 | 0.4 | 0.5 | 0.4 |
| Natural Resources and Mining | 0.74 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 | 0.75 |
| % Ch, Annual Rate | 2.6 | 1.7 | 1.7 | 1.6 | 0.2 | -0.4 | -0.3 | -0.1 |
| Construction | 7.05 | 7.14 | 7.23 | 7.32 | 7.41 | 7.48 | 7.54 | 7.59 |
| % Ch, Annual Rate | 4.6 | 5.0 | 5.2 | 5.2 | 4.7 | 3.8 | 3.5 | 2.7 |
| Trade, Transportation, and Utilities | 27.34 | 27.33 | 27.32 | 27.34 | 27.35 | 27.33 | 27.31 | 27.29 |
| % Ch, Annual Rate | -0.5 | -0.1 | -0.2 | 0.2 | 0.1 | -0.3 | -0.2 | -0.3 |
| Wholesale Trade | 5.92 | 5.93 | 5.94 | 5.96 | 5.96 | 5.96 | 5.97 | 5.98 |
| % Ch, Annual Rate | -0.3 | 0.7 | 0.9 | 1.1 | 0.2 | 0.2 | 0.2 | 0.6 |
| Retail Trade | 15.79 | 15.75 | 15.72 | 15.72 | 15.73 | 15.71 | 15.69 | 15.66 |
| % Ch, Annual Rate | -0.9 | -1.0 | -0.8 | -0.1 | 0.3 | -0.5 | -0.4 | -0.7 |
| Trans., Warehousing, and Utilities | 5.63 | 5.65 | 5.66 | 5.66 | 5.66 | 5.66 | 5.65 | 5.65 |
| % Ch, Annual Rate | 0.4 | 1.4 | 0.4 | 0.5 | -0.3 | -0.2 | -0.3 | 0.0 |
| Information | 2.76 | 2.78 | 2.77 | 2.77 | 2.77 | 2.78 | 2.79 | 2.80 |
| % Ch, Annual Rate | 6.2 | 4.0 | -1.5 | -0.2 | -0.2 | 0.9 | 1.3 | 1.5 |
| Publishing Industries | 0.71 | 0.70 | 0.70 | 0.69 | 0.68 | 0.68 | 0.67 | 0.67 |
| % Ch, Annual Rate | -5.6 | -5.0 | -4.0 | -3.0 | -3.5 | -3.1 | -2.6 | -2.3 |
| Other Information | 2.05 | 2.08 | 2.08 | 2.08 | 2.09 | 2.10 | 2.11 | 2.13 |
| % Ch, Annual Rate | 10.8 | 7.3 | -0.6 | 0.8 | 1.0 | 2.2 | 2.6 | 2.7 |
| Financial Activities | 8.48 | 8.48 | 8.48 | 8.48 | 8.47 | 8.47 | 8.46 | 8.47 |
| % Ch, Annual Rate | 0.4 | 0.0 | -0.1 | -0.1 | -0.3 | -0.3 | -0.1 | 0.4 |
| Professional and Business Services | 20.99 | 21.23 | 21.42 | 21.59 | 21.78 | 21.94 | 22.09 | 22.21 |
| % Ch, Annual Rate | 3.4 | 4.7 | 3.7 | 3.2 | 3.5 | 3.0 | 2.8 | 2.1 |
| Education and Health Services | 23.25 | 23.29 | 23.30 | 23.30 | 23.30 | 23.32 | 23.32 | 23.35 |
| % Ch, Annual Rate | 0.0 | 0.7 | 0.2 | 0.0 | 0.0 | 0.3 | 0.0 | 0.5 |
| Leisure and Hospitality | 16.10 | 16.09 | 16.11 | 16.13 | 16.12 | 16.11 | 16.11 | 16.11 |
| % Ch, Annual Rate | 0.7 | -0.3 | 0.6 | 0.5 | -0.2 | -0.4 | 0.0 | 0.1 |
| Other Services | 5.75 | 5.72 | 5.71 | 5.70 | 5.67 | 5.65 | 5.62 | 5.59 |
| % Ch, Annual Rate | -0.9 | -1.7 | -0.8 | -0.9 | -1.7 | -1.8 | -1.8 | -1.9 |
| Federal Government | 2.74 | 2.71 | 2.69 | 2.67 | 2.66 | 2.66 | 2.65 | 2.64 |
| % Ch, Annual Rate | -5.7 | -4.4 | -3.6 | -2.2 | -1.1 | -1.1 | -1.1 | -1.1 |
| State and Local Government | 19.51 | 19.49 | 19.47 | 19.48 | 19.51 | 19.56 | 19.60 | 19.64 |
| % Ch, Annual Rate | -0.1 | -0.4 | -0.4 | 0.1 | 0.6 | 1.0 | 0.9 | 0.9 |

Table A2.2 (continued)

U.S. Nonagricultural Employment by Industry (Millions)

Forecast 2017 to 2021

| | 2020:1 | 2020:2 | 2020:3 | 2020:4 | 2021:1 | 2021:2 | 2021:3 | 2021:4 |
|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Nonfarm Payroll Employment | 149.63 | 150.21 | 150.34 | 150.49 | 150.70 | 150.94 | 151.14 | 151.35 |
| % Ch, Annual Rate | 0.8 | 1.6 | 0.3 | 0.4 | 0.6 | 0.6 | 0.5 | 0.5 |
| Manufacturing | 12.95 | 12.98 | 13.02 | 13.05 | 13.06 | 13.07 | 13.09 | 13.10 |
| % Ch, Annual Rate | 1.7 | 1.0 | 1.4 | 0.8 | 0.4 | 0.2 | 0.5 | 0.4 |
| Durable Manufacturing | 8.21 | 8.24 | 8.28 | 8.31 | 8.33 | 8.34 | 8.36 | 8.38 |
| % Ch, Annual Rate | 2.5 | 1.6 | 2.1 | 1.3 | 0.8 | 0.6 | 1.1 | 0.9 |
| Wood Products | 0.46 | 0.47 | 0.47 | 0.48 | 0.49 | 0.49 | 0.50 | 0.50 |
| % Ch, Annual Rate | 5.5 | 4.6 | 6.1 | 5.9 | 5.0 | 3.9 | 4.6 | 4.8 |
| Primary and Fabricated Metals | 1.97 | 1.98 | 1.99 | 2.00 | 2.00 | 2.01 | 2.01 | 2.02 |
| % Ch, Annual Rate | 3.4 | 2.2 | 2.7 | 1.8 | 0.7 | 0.5 | 1.5 | 1.7 |
| Computer and Electronic Products | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 |
| % Ch, Annual Rate | -0.6 | -1.1 | -0.6 | -0.2 | 0.0 | 0.3 | 0.7 | 0.7 |
| Machinery and Electrical Equipment | 1.62 | 1.62 | 1.63 | 1.63 | 1.63 | 1.63 | 1.64 | 1.65 |
| % Ch, Annual Rate | 2.6 | 1.1 | 1.4 | 0.6 | 0.7 | 0.9 | 1.7 | 1.8 |
| Transportation Equipment | 1.63 | 1.65 | 1.66 | 1.67 | 1.68 | 1.68 | 1.68 | 1.67 |
| % Ch, Annual Rate | 3.8 | 3.6 | 4.2 | 2.2 | 0.8 | 0.2 | -0.4 | -1.6 |
| Other Durables | 1.45 | 1.45 | 1.45 | 1.45 | 1.45 | 1.45 | 1.46 | 1.46 |
| % Ch, Annual Rate | 1.0 | -0.1 | 0.5 | 0.1 | 0.2 | 0.1 | 1.0 | 0.9 |
| Nondurable Manufacturing | 4.74 | 4.74 | 4.74 | 4.74 | 4.74 | 4.73 | 4.72 | 4.72 |
| % Ch, Annual Rate | 0.2 | 0.0 | 0.2 | 0.0 | -0.3 | -0.5 | -0.6 | -0.6 |
| Food Manufacturing | 1.66 | 1.66 | 1.67 | 1.67 | 1.67 | 1.68 | 1.68 | 1.68 |
| % Ch, Annual Rate | 0.9 | 0.7 | 1.2 | 0.9 | 0.9 | 0.8 | 0.7 | 0.6 |
| Paper and Paper Products | 0.38 | 0.38 | 0.38 | 0.38 | 0.38 | 0.37 | 0.37 | 0.37 |
| % Ch, Annual Rate | 0.5 | 0.3 | 0.6 | 0.2 | -0.5 | -0.6 | -0.7 | -0.5 |
| Other Nondurables | 2.70 | 2.70 | 2.70 | 2.69 | 2.69 | 2.68 | 2.67 | 2.66 |
| % Ch, Annual Rate | -0.2 | -0.5 | -0.4 | -0.7 | -1.1 | -1.2 | -1.4 | -1.4 |
| Natural Resources and Mining | 0.75 | 0.75 | 0.75 | 0.75 | 0.76 | 0.76 | 0.76 | 0.76 |
| % Ch, Annual Rate | 0.0 | 0.2 | 1.0 | 0.8 | 0.7 | 1.2 | 1.1 | 0.8 |
| Construction | 7.63 | 7.67 | 7.71 | 7.76 | 7.81 | 7.87 | 7.93 | 7.98 |
| % Ch, Annual Rate | 2.2 | 2.0 | 2.4 | 2.6 | 2.5 | 2.7 | 3.1 | 2.8 |
| Trade, Transportation, and Utilities | 27.30 | 27.28 | 27.29 | 27.28 | 27.24 | 27.20 | 27.16 | 27.12 |
| % Ch, Annual Rate | 0.1 | -0.2 | 0.1 | -0.2 | -0.6 | -0.5 | -0.7 | -0.6 |
| Wholesale Trade | 5.99 | 6.00 | 6.01 | 6.01 | 6.02 | 6.03 | 6.03 | 6.03 |
| % Ch, Annual Rate | 0.8 | 0.5 | 0.7 | 0.5 | 0.5 | 0.3 | 0.2 | 0.2 |
| Retail Trade | 15.65 | 15.64 | 15.63 | 15.62 | 15.57 | 15.53 | 15.49 | 15.45 |
| % Ch, Annual Rate | -0.2 | -0.4 | -0.1 | -0.5 | -1.2 | -0.9 | -1.1 | -0.9 |
| Trans., Warehousing, and Utilities | 5.65 | 5.65 | 5.65 | 5.65 | 5.65 | 5.65 | 5.64 | 5.63 |
| % Ch, Annual Rate | 0.0 | -0.2 | 0.1 | -0.1 | 0.0 | -0.3 | -0.4 | -0.5 |
| Information | 2.80 | 2.81 | 2.82 | 2.83 | 2.84 | 2.85 | 2.86 | 2.87 |
| % Ch, Annual Rate | 1.0 | 0.9 | 1.5 | 0.9 | 1.3 | 1.4 | 1.4 | 1.3 |
| Publishing Industries | 0.67 | 0.66 | 0.66 | 0.66 | 0.65 | 0.65 | 0.65 | 0.64 |
| % Ch, Annual Rate | -2.3 | -2.5 | -2.1 | -2.3 | -1.9 | -2.1 | -1.9 | -1.8 |
| Other Information | 2.14 | 2.15 | 2.16 | 2.17 | 2.18 | 2.20 | 2.21 | 2.22 |
| % Ch, Annual Rate | 2.0 | 2.0 | 2.6 | 1.9 | 2.3 | 2.5 | 2.4 | 2.2 |
| Financial Activities | 8.48 | 8.48 | 8.50 | 8.51 | 8.52 | 8.53 | 8.53 | 8.53 |
| % Ch, Annual Rate | 0.5 | 0.1 | 0.5 | 0.7 | 0.6 | 0.3 | 0.1 | 0.0 |
| Professional and Business Services | 22.30 | 22.43 | 22.57 | 22.68 | 22.79 | 22.90 | 23.01 | 23.12 |
| % Ch, Annual Rate | 1.7 | 2.3 | 2.5 | 2.0 | 1.9 | 1.9 | 1.9 | 1.9 |
| Education and Health Services | 23.38 | 23.38 | 23.41 | 23.45 | 23.50 | 23.54 | 23.56 | 23.60 |
| % Ch, Annual Rate | 0.4 | 0.1 | 0.5 | 0.6 | 1.0 | 0.6 | 0.3 | 0.7 |
| Leisure and Hospitality | 16.15 | 16.17 | 16.20 | 16.23 | 16.22 | 16.25 | 16.26 | 16.26 |
| % Ch, Annual Rate | 0.8 | 0.5 | 0.8 | 0.7 | -0.1 | 0.6 | 0.3 | 0.1 |
| Other Services | 5.58 | 5.57 | 5.56 | 5.55 | 5.54 | 5.53 | 5.51 | 5.49 |
| % Ch, Annual Rate | -1.0 | -0.9 | -0.8 | -0.7 | -0.5 | -0.7 | -1.2 | -1.2 |
| Federal Government | 2.64 | 2.99 | 2.77 | 2.63 | 2.60 | 2.59 | 2.59 | 2.58 |
| % Ch, Annual Rate | -0.1 | 63.5 | -26.2 | -19.0 | -3.8 | -1.0 | -0.9 | -0.8 |
| State and Local Government | 19.68 | 19.71 | 19.74 | 19.78 | 19.82 | 19.86 | 19.90 | 19.94 |
| % Ch, Annual Rate | 0.7 | 0.6 | 0.7 | 0.8 | 0.8 | 0.9 | 0.8 | 0.7 |

Table A2.3

Washington Nonagricultural Employment by Industry (Thousands)

Forecast 2017 to 2021

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|--------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Nonfarm Payroll Employment | 3,056.8 | 3,145.7 | 3,242.1 | 3,318.4 | 3,376.3 | 3,426.6 | 3,473.2 | 3,510.5 |
| % Ch | 2.5 | 2.9 | 3.1 | 2.4 | 1.7 | 1.5 | 1.4 | 1.1 |
| Manufacturing | 288.8 | 291.8 | 289.8 | 283.0 | 284.0 | 289.0 | 292.9 | 295.8 |
| % Ch | 0.7 | 1.1 | -0.7 | -2.3 | 0.3 | 1.8 | 1.3 | 1.0 |
| Durable Manufacturing | 210.0 | 211.1 | 207.4 | 199.3 | 199.6 | 203.1 | 205.9 | 208.2 |
| % Ch | 0.2 | 0.5 | -1.8 | -3.9 | 0.1 | 1.8 | 1.4 | 1.1 |
| Wood Products | 13.4 | 13.3 | 13.1 | 13.3 | 13.6 | 14.2 | 14.7 | 15.1 |
| % Ch | 3.0 | -1.0 | -1.5 | 1.4 | 2.5 | 4.5 | 3.2 | 2.6 |
| Primary and Fabricated Metals | 25.6 | 25.7 | 25.2 | 24.8 | 25.5 | 26.9 | 28.2 | 28.6 |
| % Ch | 2.5 | 0.5 | -2.0 | -1.5 | 2.5 | 5.8 | 4.7 | 1.5 |
| Computer and Electronic Products | 20.0 | 19.9 | 20.1 | 19.8 | 21.0 | 21.7 | 21.7 | 21.9 |
| % Ch | -1.0 | -0.3 | 0.7 | -1.2 | 6.0 | 3.2 | 0.0 | 0.9 |
| Machinery and Electrical Equipment | 20.8 | 20.8 | 20.5 | 20.9 | 22.5 | 24.7 | 26.4 | 27.7 |
| % Ch | 4.9 | -0.3 | -1.5 | 2.1 | 7.9 | 9.5 | 6.9 | 5.1 |
| Aerospace | 94.2 | 94.0 | 90.9 | 83.6 | 79.9 | 78.3 | 77.7 | 77.7 |
| % Ch | -1.9 | -0.2 | -3.3 | -8.0 | -4.4 | -2.0 | -0.8 | 0.0 |
| Other Transportation Equip. | 9.7 | 10.1 | 10.1 | 9.7 | 9.5 | 9.3 | 9.1 | 8.9 |
| % Ch | -0.7 | 4.7 | -0.8 | -3.2 | -2.6 | -2.1 | -2.0 | -2.3 |
| Other Durables | 26.2 | 27.3 | 27.6 | 27.1 | 27.5 | 28.0 | 28.2 | 28.3 |
| % Ch | 2.1 | 3.9 | 1.2 | -1.7 | 1.7 | 1.5 | 0.7 | 0.4 |
| Nondurable Manufacturing | 78.8 | 80.8 | 82.5 | 83.8 | 84.4 | 85.9 | 87.0 | 87.6 |
| % Ch | 2.3 | 2.5 | 2.1 | 1.6 | 0.8 | 1.8 | 1.3 | 0.6 |
| Food Manufacturing | 36.4 | 36.8 | 37.5 | 38.2 | 38.3 | 39.0 | 39.2 | 39.3 |
| % Ch | 2.0 | 1.2 | 1.9 | 1.7 | 0.4 | 1.7 | 0.6 | 0.1 |
| Paper and Paper Products | 8.0 | 8.0 | 7.8 | 8.0 | 7.9 | 7.9 | 7.9 | 7.8 |
| % Ch | -1.2 | 0.0 | -3.5 | 2.7 | -0.8 | -0.3 | -0.3 | -1.3 |
| Other Nondurables | 34.4 | 35.9 | 37.2 | 37.6 | 38.2 | 39.1 | 40.0 | 40.6 |
| % Ch | 3.4 | 4.4 | 3.6 | 1.2 | 1.6 | 2.3 | 2.3 | 1.5 |
| Natural Resources and Mining | 6.2 | 6.3 | 6.3 | 6.3 | 6.4 | 6.5 | 6.6 | 6.6 |
| % Ch | 1.7 | 1.8 | -1.1 | 0.6 | 1.3 | 1.7 | 1.2 | 0.7 |
| Construction | 159.7 | 173.3 | 186.4 | 199.6 | 207.4 | 210.7 | 211.4 | 211.2 |
| % Ch | 7.2 | 8.5 | 7.6 | 7.1 | 3.9 | 1.6 | 0.3 | -0.1 |
| Trade, Transportation, and Utilities | 569.3 | 587.9 | 607.2 | 622.0 | 631.6 | 638.8 | 644.3 | 646.9 |
| % Ch | 3.4 | 3.3 | 3.3 | 2.5 | 1.5 | 1.2 | 0.9 | 0.4 |
| Wholesale Trade | 129.9 | 132.0 | 133.0 | 134.7 | 136.9 | 138.5 | 140.0 | 141.2 |
| % Ch | 2.4 | 1.6 | 0.8 | 1.2 | 1.6 | 1.2 | 1.1 | 0.8 |
| Retail Trade | 342.1 | 355.0 | 369.8 | 381.7 | 387.7 | 392.9 | 396.6 | 397.9 |
| % Ch | 3.6 | 3.8 | 4.2 | 3.2 | 1.6 | 1.3 | 0.9 | 0.3 |
| Trans., Warehousing, and Utilities | 97.3 | 100.9 | 104.3 | 105.7 | 106.9 | 107.4 | 107.7 | 107.9 |
| % Ch | 4.0 | 3.8 | 3.3 | 1.3 | 1.2 | 0.4 | 0.3 | 0.2 |
| Information | 109.8 | 114.0 | 120.7 | 124.4 | 127.1 | 128.7 | 131.0 | 133.6 |
| % Ch | 3.4 | 3.8 | 5.9 | 3.1 | 2.1 | 1.3 | 1.8 | 1.9 |
| Software Publishers | 55.6 | 55.9 | 58.9 | 60.9 | 61.1 | 61.5 | 62.0 | 62.6 |
| % Ch | 3.3 | 0.5 | 5.5 | 3.3 | 0.4 | 0.6 | 0.9 | 1.0 |
| Other Publishing Industries | 6.6 | 6.2 | 5.9 | 5.2 | 4.6 | 4.1 | 3.7 | 3.4 |
| % Ch | -4.9 | -6.6 | -4.0 | -11.8 | -11.1 | -10.7 | -9.7 | -9.7 |
| Other Information | 47.6 | 51.9 | 55.9 | 58.3 | 61.3 | 63.0 | 65.3 | 67.5 |
| % Ch | 4.8 | 9.1 | 7.5 | 4.4 | 5.1 | 2.9 | 3.5 | 3.5 |
| Financial Activities | 145.3 | 147.6 | 150.5 | 154.0 | 155.0 | 154.2 | 154.1 | 154.1 |
| % Ch | 1.1 | 1.6 | 1.9 | 2.3 | 0.6 | -0.5 | 0.0 | 0.0 |
| Professional and Business Services | 372.3 | 389.2 | 402.8 | 411.4 | 428.1 | 445.9 | 459.6 | 472.6 |
| % Ch | 3.0 | 4.5 | 3.5 | 2.1 | 4.1 | 4.2 | 3.1 | 2.8 |
| Education and Health Services | 444.0 | 448.5 | 463.6 | 479.5 | 488.8 | 495.3 | 502.1 | 509.8 |
| % Ch | 1.6 | 1.0 | 3.4 | 3.4 | 1.9 | 1.3 | 1.4 | 1.5 |
| Leisure and Hospitality | 297.0 | 309.9 | 323.4 | 332.3 | 338.3 | 341.9 | 345.9 | 349.5 |
| % Ch | 3.4 | 4.4 | 4.3 | 2.8 | 1.8 | 1.1 | 1.2 | 1.1 |
| Other Services | 113.9 | 115.1 | 117.7 | 119.9 | 121.4 | 122.3 | 123.1 | 124.1 |
| % Ch | 2.3 | 1.1 | 2.3 | 1.9 | 1.3 | 0.7 | 0.7 | 0.8 |
| Federal Government | 71.3 | 73.2 | 74.5 | 75.2 | 73.4 | 72.6 | 74.9 | 71.9 |
| % Ch | -0.5 | 2.6 | 1.9 | 0.9 | -2.4 | -1.0 | 3.1 | -4.0 |
| State and Local Government | 479.3 | 488.8 | 499.1 | 510.7 | 515.0 | 520.7 | 527.3 | 534.4 |
| % Ch | 1.6 | 2.0 | 2.1 | 2.3 | 0.8 | 1.1 | 1.3 | 1.3 |

Table A2.4

Washington Nonagricultural Employment by Industry (Thousands)

Forecast 2017 to 2021

| | 2016:1 | 2016:2 | 2016:3 | 2016:4 | 2017:1 | 2017:2 | 2017:3 | 2017:4 |
|--------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Nonfarm Payroll Employment | 3,207.3 | 3,234.2 | 3,254.3 | 3,272.5 | 3,295.0 | 3,311.1 | 3,326.4 | 3,341.1 |
| % Ch, Annual Rate | 4.2 | 3.4 | 2.5 | 2.3 | 2.8 | 2.0 | 1.9 | 1.8 |
| Manufacturing | 292.5 | 291.8 | 289.1 | 285.8 | 285.2 | 283.5 | 282.2 | 281.3 |
| % Ch, Annual Rate | 0.5 | -0.9 | -3.6 | -4.5 | -0.9 | -2.3 | -1.9 | -1.3 |
| Durable Manufacturing | 210.3 | 209.0 | 206.9 | 203.2 | 201.5 | 199.8 | 198.4 | 197.4 |
| % Ch, Annual Rate | -1.0 | -2.4 | -4.0 | -7.0 | -3.4 | -3.2 | -2.7 | -2.1 |
| Wood Products | 13.2 | 13.1 | 13.2 | 13.0 | 13.2 | 13.3 | 13.3 | 13.3 |
| % Ch, Annual Rate | -1.6 | -0.9 | 0.5 | -5.5 | 8.1 | 2.6 | -0.5 | 1.1 |
| Primary and Fabricated Metals | 25.5 | 25.3 | 25.1 | 25.0 | 24.7 | 24.8 | 24.9 | 24.9 |
| % Ch, Annual Rate | -2.8 | -4.5 | -2.6 | -1.8 | -4.0 | 1.8 | 1.5 | -0.8 |
| Computer and Electronic Products | 20.1 | 20.1 | 20.2 | 19.9 | 19.6 | 19.8 | 19.8 | 20.0 |
| % Ch, Annual Rate | 1.3 | 0.8 | 0.7 | -5.7 | -4.5 | 4.2 | -1.6 | 5.5 |
| Machinery and Electrical Equipment | 20.5 | 20.5 | 20.4 | 20.4 | 20.5 | 20.7 | 21.1 | 21.3 |
| % Ch, Annual Rate | -1.1 | -0.6 | -1.8 | -0.2 | 2.0 | 4.2 | 6.8 | 4.9 |
| Aerospace | 93.0 | 92.0 | 90.7 | 88.0 | 86.5 | 84.4 | 82.7 | 80.9 |
| % Ch, Annual Rate | -2.0 | -4.1 | -5.5 | -11.5 | -6.6 | -9.2 | -8.0 | -8.1 |
| Other Transportation Equip. | 10.2 | 10.2 | 9.9 | 9.9 | 9.8 | 9.7 | 9.7 | 9.7 |
| % Ch, Annual Rate | -3.2 | -1.6 | -8.1 | -2.1 | -2.2 | -6.4 | -0.9 | 3.4 |
| Other Durables | 27.8 | 27.9 | 27.5 | 27.1 | 27.1 | 27.0 | 27.1 | 27.2 |
| % Ch, Annual Rate | 3.6 | 1.0 | -5.6 | -5.0 | -0.9 | -0.2 | 0.7 | 1.3 |
| Nondurable Manufacturing | 82.2 | 82.8 | 82.2 | 82.7 | 83.7 | 83.7 | 83.7 | 83.9 |
| % Ch, Annual Rate | 4.4 | 2.7 | -2.7 | 2.2 | 5.3 | 0.0 | -0.1 | 0.8 |
| Food Manufacturing | 37.7 | 37.9 | 37.0 | 37.6 | 38.3 | 38.2 | 38.0 | 38.1 |
| % Ch, Annual Rate | 7.7 | 2.3 | -9.2 | 6.7 | 8.3 | -1.4 | -1.7 | 0.9 |
| Paper and Paper Products | 7.8 | 7.8 | 7.8 | 7.7 | 8.0 | 8.0 | 7.9 | 7.9 |
| % Ch, Annual Rate | -8.4 | 1.2 | -1.5 | -1.8 | 13.8 | 1.3 | -3.5 | 0.9 |
| Other Nondurables | 36.8 | 37.1 | 37.5 | 37.3 | 37.4 | 37.5 | 37.7 | 37.8 |
| % Ch, Annual Rate | 3.9 | 3.5 | 4.1 | -1.4 | 0.8 | 1.1 | 2.3 | 0.6 |
| Natural Resources and Mining | 6.3 | 6.3 | 6.3 | 6.1 | 6.2 | 6.3 | 6.3 | 6.3 |
| % Ch, Annual Rate | 1.1 | 2.0 | -5.2 | -10.2 | 6.4 | 8.3 | 0.8 | 0.2 |
| Construction | 182.3 | 184.9 | 187.3 | 191.2 | 195.5 | 198.5 | 200.8 | 203.6 |
| % Ch, Annual Rate | 16.5 | 5.9 | 5.4 | 8.7 | 9.1 | 6.4 | 4.7 | 5.6 |
| Trade, Transportation, and Utilities | 598.0 | 605.6 | 610.7 | 614.4 | 618.2 | 620.2 | 623.3 | 626.6 |
| % Ch, Annual Rate | 3.7 | 5.2 | 3.5 | 2.4 | 2.5 | 1.3 | 2.0 | 2.1 |
| Wholesale Trade | 132.5 | 133.1 | 133.2 | 133.3 | 134.0 | 134.1 | 134.9 | 135.7 |
| % Ch, Annual Rate | 0.8 | 1.6 | 0.5 | 0.3 | 2.2 | 0.3 | 2.2 | 2.4 |
| Retail Trade | 363.0 | 368.6 | 372.5 | 375.3 | 379.3 | 380.4 | 382.4 | 384.7 |
| % Ch, Annual Rate | 6.1 | 6.3 | 4.3 | 3.1 | 4.3 | 1.1 | 2.2 | 2.4 |
| Trans., Warehousing, and Utilities | 102.5 | 103.9 | 105.1 | 105.7 | 104.8 | 105.7 | 106.0 | 106.2 |
| % Ch, Annual Rate | -0.9 | 5.8 | 4.3 | 2.7 | -3.6 | 3.3 | 1.2 | 1.0 |
| Information | 118.0 | 119.8 | 121.6 | 123.5 | 124.1 | 124.3 | 124.7 | 124.6 |
| % Ch, Annual Rate | 3.6 | 6.4 | 6.1 | 6.3 | 2.1 | 0.5 | 1.5 | -0.5 |
| Software Publishers | 57.5 | 58.4 | 59.3 | 60.4 | 60.7 | 60.7 | 61.0 | 61.1 |
| % Ch, Annual Rate | 4.8 | 6.4 | 6.6 | 7.7 | 2.0 | -0.2 | 2.1 | 0.2 |
| Other Publishing Industries | 6.0 | 6.0 | 5.9 | 5.8 | 5.4 | 5.2 | 5.2 | 5.1 |
| % Ch, Annual Rate | -2.5 | -4.3 | -3.9 | -2.8 | -26.6 | -13.9 | 0.9 | -11.6 |
| Other Information | 54.4 | 55.5 | 56.4 | 57.2 | 58.0 | 58.3 | 58.5 | 58.4 |
| % Ch, Annual Rate | 3.1 | 7.8 | 6.7 | 5.9 | 5.6 | 2.6 | 0.8 | -0.2 |
| Financial Activities | 148.9 | 150.0 | 151.5 | 151.7 | 153.0 | 153.7 | 154.4 | 155.0 |
| % Ch, Annual Rate | 2.3 | 2.8 | 4.1 | 0.7 | 3.3 | 1.9 | 1.8 | 1.7 |
| Professional and Business Services | 399.2 | 402.9 | 404.5 | 404.8 | 406.6 | 410.1 | 413.1 | 415.6 |
| % Ch, Annual Rate | 4.3 | 3.7 | 1.6 | 0.3 | 1.7 | 3.5 | 3.0 | 2.4 |
| Education and Health Services | 458.6 | 462.0 | 465.5 | 468.5 | 475.3 | 477.6 | 481.0 | 484.2 |
| % Ch, Annual Rate | 5.1 | 2.9 | 3.1 | 2.6 | 6.0 | 1.9 | 2.9 | 2.7 |
| Leisure and Hospitality | 319.4 | 322.3 | 324.6 | 327.2 | 329.0 | 331.4 | 333.5 | 335.5 |
| % Ch, Annual Rate | 4.8 | 3.6 | 2.9 | 3.3 | 2.1 | 3.0 | 2.5 | 2.4 |
| Other Services | 116.6 | 117.8 | 117.6 | 118.8 | 119.1 | 119.6 | 120.1 | 120.7 |
| % Ch, Annual Rate | 4.4 | 4.2 | -0.9 | 4.2 | 1.2 | 1.6 | 1.7 | 1.8 |
| Federal Government | 74.2 | 74.5 | 74.5 | 75.0 | 75.1 | 75.4 | 75.4 | 74.9 |
| % Ch, Annual Rate | 1.4 | 1.6 | 0.3 | 2.5 | 0.4 | 1.9 | 0.0 | -2.4 |
| State and Local Government | 493.3 | 496.5 | 501.0 | 505.4 | 507.9 | 510.4 | 511.6 | 512.9 |
| % Ch, Annual Rate | 2.7 | 2.6 | 3.7 | 3.6 | 1.9 | 2.0 | 0.9 | 1.0 |

Table A2.4 (continued)

Washington Nonagricultural Employment by Industry (Thousands)

Forecast 2017 to 2021

| | 2018:1 | 2018:2 | 2018:3 | 2018:4 | 2019:1 | 2019:2 | 2019:3 | 2019:4 |
|--------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Nonfarm Payroll Employment | 3,356.2 | 3,370.8 | 3,382.9 | 3,395.5 | 3,409.1 | 3,421.2 | 3,432.2 | 3,443.7 |
| % Ch, Annual Rate | 1.8 | 1.8 | 1.4 | 1.5 | 1.6 | 1.4 | 1.3 | 1.4 |
| Manufacturing | 282.0 | 283.6 | 284.6 | 285.8 | 287.3 | 288.6 | 289.6 | 290.6 |
| % Ch, Annual Rate | 1.0 | 2.4 | 1.4 | 1.6 | 2.2 | 1.7 | 1.5 | 1.3 |
| Durable Manufacturing | 198.0 | 199.3 | 200.1 | 200.9 | 202.0 | 202.8 | 203.5 | 204.1 |
| % Ch, Annual Rate | 1.2 | 2.7 | 1.5 | 1.8 | 2.1 | 1.7 | 1.4 | 1.1 |
| Wood Products | 13.4 | 13.6 | 13.7 | 13.8 | 14.0 | 14.2 | 14.3 | 14.4 |
| % Ch, Annual Rate | 1.3 | 5.8 | 4.2 | 4.3 | 5.5 | 4.2 | 3.5 | 3.5 |
| Primary and Fabricated Metals | 25.0 | 25.4 | 25.6 | 25.8 | 26.3 | 26.7 | 27.2 | 27.5 |
| % Ch, Annual Rate | 2.8 | 6.1 | 2.4 | 3.4 | 8.0 | 7.2 | 6.4 | 5.6 |
| Computer and Electronic Products | 20.4 | 20.9 | 21.2 | 21.5 | 21.6 | 21.7 | 21.7 | 21.7 |
| % Ch, Annual Rate | 8.4 | 9.3 | 6.2 | 5.7 | 2.6 | 1.0 | 0.1 | -0.1 |
| Machinery and Electrical Equipment | 21.6 | 22.3 | 22.8 | 23.4 | 23.9 | 24.4 | 25.0 | 25.4 |
| % Ch, Annual Rate | 6.3 | 13.2 | 9.6 | 9.9 | 9.5 | 9.2 | 8.6 | 7.8 |
| Aerospace | 80.5 | 80.1 | 79.7 | 79.3 | 78.9 | 78.5 | 78.1 | 77.7 |
| % Ch, Annual Rate | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 | -2.0 |
| Other Transportation Equip. | 9.6 | 9.5 | 9.4 | 9.4 | 9.4 | 9.3 | 9.3 | 9.2 |
| % Ch, Annual Rate | -4.2 | -6.1 | -3.5 | -0.2 | -1.9 | -1.6 | -1.9 | -2.6 |
| Other Durables | 27.3 | 27.5 | 27.6 | 27.7 | 27.8 | 27.9 | 28.0 | 28.1 |
| % Ch, Annual Rate | 2.0 | 2.9 | 1.7 | 1.2 | 1.7 | 1.6 | 1.1 | 1.0 |
| Nondurable Manufacturing | 84.0 | 84.3 | 84.6 | 84.8 | 85.4 | 85.7 | 86.1 | 86.5 |
| % Ch, Annual Rate | 0.6 | 1.5 | 1.2 | 1.1 | 2.5 | 1.8 | 1.8 | 1.7 |
| Food Manufacturing | 38.2 | 38.3 | 38.4 | 38.5 | 38.8 | 38.9 | 39.0 | 39.2 |
| % Ch, Annual Rate | 0.2 | 1.4 | 1.1 | 0.8 | 3.2 | 1.5 | 1.3 | 1.2 |
| Paper and Paper Products | 7.9 | 7.9 | 7.9 | 7.9 | 7.9 | 7.9 | 7.9 | 7.9 |
| % Ch, Annual Rate | -1.7 | -0.1 | -0.4 | -0.9 | -0.4 | -0.1 | 0.3 | 0.1 |
| Other Nondurables | 37.9 | 38.1 | 38.3 | 38.5 | 38.7 | 38.9 | 39.2 | 39.4 |
| % Ch, Annual Rate | 1.6 | 1.9 | 1.7 | 1.9 | 2.5 | 2.5 | 2.6 | 2.5 |
| Natural Resources and Mining | 6.3 | 6.3 | 6.4 | 6.4 | 6.4 | 6.5 | 6.5 | 6.5 |
| % Ch, Annual Rate | 0.7 | 0.2 | 2.3 | 2.7 | 1.4 | 1.4 | 1.8 | 1.7 |
| Construction | 206.0 | 206.8 | 207.9 | 208.9 | 210.1 | 210.7 | 210.8 | 211.4 |
| % Ch, Annual Rate | 4.8 | 1.7 | 2.2 | 1.9 | 2.2 | 1.2 | 0.2 | 1.3 |
| Trade, Transportation, and Utilities | 628.6 | 630.6 | 632.4 | 634.7 | 636.8 | 638.2 | 639.5 | 640.8 |
| % Ch, Annual Rate | 1.3 | 1.3 | 1.2 | 1.4 | 1.4 | 0.9 | 0.8 | 0.8 |
| Wholesale Trade | 136.1 | 136.6 | 137.1 | 137.7 | 138.0 | 138.3 | 138.6 | 139.0 |
| % Ch, Annual Rate | 1.2 | 1.5 | 1.6 | 1.6 | 0.9 | 0.9 | 0.7 | 1.3 |
| Retail Trade | 386.0 | 387.1 | 388.2 | 389.7 | 391.5 | 392.5 | 393.5 | 394.2 |
| % Ch, Annual Rate | 1.4 | 1.1 | 1.1 | 1.6 | 1.9 | 1.0 | 1.1 | 0.7 |
| Trans., Warehousing, and Utilities | 106.5 | 106.9 | 107.1 | 107.3 | 107.3 | 107.4 | 107.4 | 107.5 |
| % Ch, Annual Rate | 1.1 | 1.5 | 0.7 | 0.7 | 0.2 | 0.2 | 0.1 | 0.4 |
| Information | 126.1 | 127.3 | 127.3 | 127.5 | 127.8 | 128.3 | 129.0 | 129.6 |
| % Ch, Annual Rate | 5.1 | 3.7 | -0.1 | 0.9 | 0.9 | 1.6 | 1.9 | 2.0 |
| Software Publishers | 61.1 | 61.1 | 61.1 | 61.2 | 61.3 | 61.4 | 61.6 | 61.7 |
| % Ch, Annual Rate | -0.1 | 0.1 | 0.4 | 0.7 | 0.5 | 0.7 | 0.8 | 0.9 |
| Other Publishing Industries | 4.9 | 4.7 | 4.6 | 4.4 | 4.3 | 4.2 | 4.1 | 4.0 |
| % Ch, Annual Rate | -14.1 | -13.3 | -11.7 | -9.9 | -11.2 | -10.5 | -9.6 | -9.3 |
| Other Information | 60.2 | 61.5 | 61.6 | 61.9 | 62.2 | 62.7 | 63.3 | 63.9 |
| % Ch, Annual Rate | 12.6 | 8.9 | 0.4 | 1.9 | 2.1 | 3.4 | 3.9 | 4.0 |
| Financial Activities | 155.2 | 155.1 | 154.9 | 154.7 | 154.5 | 154.2 | 154.0 | 154.0 |
| % Ch, Annual Rate | 0.6 | -0.4 | -0.5 | -0.5 | -0.7 | -0.7 | -0.6 | 0.2 |
| Professional and Business Services | 420.2 | 426.0 | 430.8 | 435.2 | 439.9 | 444.2 | 448.1 | 451.5 |
| % Ch, Annual Rate | 4.5 | 5.6 | 4.6 | 4.2 | 4.4 | 3.9 | 3.6 | 3.0 |
| Education and Health Services | 485.8 | 488.2 | 489.9 | 491.3 | 492.8 | 494.5 | 495.9 | 497.8 |
| % Ch, Annual Rate | 1.3 | 1.9 | 1.4 | 1.2 | 1.2 | 1.4 | 1.1 | 1.6 |
| Leisure and Hospitality | 336.8 | 337.6 | 338.8 | 340.0 | 340.7 | 341.4 | 342.2 | 343.1 |
| % Ch, Annual Rate | 1.6 | 0.9 | 1.5 | 1.4 | 0.9 | 0.8 | 1.0 | 1.0 |
| Other Services | 121.0 | 121.2 | 121.5 | 121.8 | 122.0 | 122.2 | 122.4 | 122.5 |
| % Ch, Annual Rate | 1.1 | 0.8 | 1.1 | 1.0 | 0.6 | 0.6 | 0.5 | 0.5 |
| Federal Government | 74.1 | 73.5 | 73.1 | 72.8 | 72.7 | 72.7 | 72.6 | 72.5 |
| % Ch, Annual Rate | -4.3 | -3.2 | -2.5 | -1.3 | -0.4 | -0.4 | -0.4 | -0.5 |
| State and Local Government | 513.9 | 514.6 | 515.2 | 516.3 | 517.9 | 519.8 | 521.6 | 523.4 |
| % Ch, Annual Rate | 0.8 | 0.5 | 0.5 | 0.9 | 1.2 | 1.5 | 1.4 | 1.3 |

Table A2.4 (continued)

Washington Nonagricultural Employment by Industry (Thousands)

Forecast 2017 to 2021

| | 2020:1 | 2020:2 | 2020:3 | 2020:4 | 2021:1 | 2021:2 | 2021:3 | 2021:4 |
|--------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| Nonfarm Payroll Employment | 3,453.6 | 3,472.3 | 3,479.2 | 3,487.7 | 3,496.8 | 3,506.2 | 3,514.9 | 3,523.9 |
| % Ch, Annual Rate | 1.2 | 2.2 | 0.8 | 1.0 | 1.0 | 1.1 | 1.0 | 1.0 |
| Manufacturing | 291.7 | 292.4 | 293.4 | 294.2 | 294.8 | 295.3 | 296.1 | 296.8 |
| % Ch, Annual Rate | 1.5 | 1.0 | 1.4 | 1.1 | 0.8 | 0.7 | 1.0 | 1.0 |
| Durable Manufacturing | 205.0 | 205.5 | 206.3 | 206.9 | 207.3 | 207.8 | 208.5 | 209.2 |
| % Ch, Annual Rate | 1.8 | 1.1 | 1.4 | 1.2 | 0.9 | 0.9 | 1.3 | 1.4 |
| Wood Products | 14.5 | 14.6 | 14.7 | 14.9 | 14.9 | 15.0 | 15.1 | 15.2 |
| % Ch, Annual Rate | 3.0 | 2.2 | 3.5 | 3.4 | 2.6 | 1.6 | 2.2 | 2.4 |
| Primary and Fabricated Metals | 27.9 | 28.1 | 28.3 | 28.5 | 28.5 | 28.5 | 28.6 | 28.8 |
| % Ch, Annual Rate | 4.8 | 3.2 | 3.5 | 2.3 | 0.5 | 0.2 | 1.4 | 1.7 |
| Computer and Electronic Products | 21.7 | 21.7 | 21.7 | 21.7 | 21.7 | 21.8 | 21.9 | 22.0 |
| % Ch, Annual Rate | 0.0 | -0.8 | 0.0 | 0.7 | 0.9 | 1.4 | 2.0 | 2.0 |
| Machinery and Electrical Equipment | 25.9 | 26.2 | 26.6 | 26.9 | 27.2 | 27.5 | 27.9 | 28.3 |
| % Ch, Annual Rate | 7.4 | 5.2 | 5.6 | 4.5 | 4.6 | 4.9 | 6.1 | 6.3 |
| Aerospace | 77.7 | 77.7 | 77.7 | 77.7 | 77.7 | 77.7 | 77.7 | 77.7 |
| % Ch, Annual Rate | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other Transportation Equip. | 9.2 | 9.1 | 9.1 | 9.0 | 9.0 | 8.9 | 8.9 | 8.8 |
| % Ch, Annual Rate | -2.1 | -1.7 | -1.6 | -1.7 | -2.1 | -2.6 | -3.3 | -3.6 |
| Other Durables | 28.1 | 28.1 | 28.2 | 28.2 | 28.2 | 28.3 | 28.3 | 28.3 |
| % Ch, Annual Rate | 0.7 | 0.0 | 0.4 | 0.3 | 0.4 | 0.4 | 0.6 | 0.5 |
| Nondurable Manufacturing | 86.7 | 86.9 | 87.1 | 87.3 | 87.5 | 87.5 | 87.6 | 87.7 |
| % Ch, Annual Rate | 1.0 | 0.8 | 1.2 | 0.9 | 0.6 | 0.4 | 0.3 | 0.3 |
| Food Manufacturing | 39.2 | 39.2 | 39.2 | 39.2 | 39.3 | 39.3 | 39.3 | 39.2 |
| % Ch, Annual Rate | 0.2 | -0.2 | 0.5 | 0.2 | 0.2 | 0.1 | -0.1 | -0.4 |
| Paper and Paper Products | 7.9 | 7.9 | 7.9 | 7.8 | 7.8 | 7.8 | 7.7 | 7.7 |
| % Ch, Annual Rate | -0.4 | -0.7 | -0.4 | -0.8 | -1.6 | -1.7 | -1.8 | -1.6 |
| Other Nondurables | 39.6 | 39.9 | 40.1 | 40.2 | 40.4 | 40.5 | 40.6 | 40.7 |
| % Ch, Annual Rate | 2.2 | 2.0 | 2.2 | 1.8 | 1.4 | 1.2 | 1.0 | 1.2 |
| Natural Resources and Mining | 6.5 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 |
| % Ch, Annual Rate | 1.2 | 0.5 | 0.8 | 0.8 | 0.8 | 0.3 | 0.6 | 0.6 |
| Construction | 211.1 | 211.4 | 211.5 | 211.7 | 211.4 | 211.3 | 211.1 | 211.0 |
| % Ch, Annual Rate | -0.7 | 0.6 | 0.2 | 0.4 | -0.4 | -0.3 | -0.2 | -0.2 |
| Trade, Transportation, and Utilities | 642.3 | 643.6 | 645.1 | 646.2 | 646.5 | 646.9 | 647.0 | 647.3 |
| % Ch, Annual Rate | 1.0 | 0.8 | 0.9 | 0.7 | 0.2 | 0.3 | 0.1 | 0.2 |
| Wholesale Trade | 139.4 | 139.8 | 140.2 | 140.6 | 140.9 | 141.1 | 141.3 | 141.5 |
| % Ch, Annual Rate | 1.2 | 1.2 | 1.2 | 0.9 | 0.9 | 0.7 | 0.5 | 0.5 |
| Retail Trade | 395.3 | 396.1 | 397.1 | 397.8 | 397.7 | 397.9 | 397.9 | 398.0 |
| % Ch, Annual Rate | 1.1 | 0.8 | 1.0 | 0.7 | 0.0 | 0.2 | 0.0 | 0.1 |
| Trans., Warehousing, and Utilities | 107.6 | 107.6 | 107.7 | 107.8 | 107.9 | 107.9 | 107.9 | 107.8 |
| % Ch, Annual Rate | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.0 | -0.1 | -0.1 |
| Information | 130.2 | 130.7 | 131.4 | 131.9 | 132.5 | 133.2 | 133.9 | 134.6 |
| % Ch, Annual Rate | 1.7 | 1.7 | 2.1 | 1.7 | 2.0 | 2.0 | 2.1 | 2.0 |
| Software Publishers | 61.8 | 62.0 | 62.1 | 62.2 | 62.4 | 62.5 | 62.7 | 62.9 |
| % Ch, Annual Rate | 0.9 | 0.8 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 |
| Other Publishing Industries | 3.9 | 3.8 | 3.7 | 3.6 | 3.5 | 3.4 | 3.3 | 3.3 |
| % Ch, Annual Rate | -9.4 | -10.1 | -9.5 | -10.0 | -9.4 | -9.9 | -9.6 | -9.8 |
| Other Information | 64.4 | 64.9 | 65.6 | 66.1 | 66.6 | 67.2 | 67.9 | 68.4 |
| % Ch, Annual Rate | 3.2 | 3.2 | 3.9 | 3.1 | 3.5 | 3.7 | 3.7 | 3.5 |
| Financial Activities | 154.1 | 154.0 | 154.1 | 154.3 | 154.3 | 154.3 | 154.1 | 153.9 |
| % Ch, Annual Rate | 0.1 | -0.1 | 0.2 | 0.5 | 0.1 | -0.2 | -0.4 | -0.6 |
| Professional and Business Services | 454.3 | 457.9 | 461.5 | 464.8 | 467.9 | 471.0 | 474.1 | 477.2 |
| % Ch, Annual Rate | 2.5 | 3.1 | 3.3 | 2.9 | 2.7 | 2.7 | 2.7 | 2.6 |
| Education and Health Services | 499.6 | 501.1 | 502.9 | 504.8 | 507.1 | 509.0 | 510.5 | 512.4 |
| % Ch, Annual Rate | 1.4 | 1.2 | 1.4 | 1.5 | 1.8 | 1.5 | 1.2 | 1.5 |
| Leisure and Hospitality | 344.2 | 345.3 | 346.4 | 347.5 | 348.2 | 349.2 | 350.0 | 350.7 |
| % Ch, Annual Rate | 1.3 | 1.2 | 1.3 | 1.3 | 0.8 | 1.1 | 0.9 | 0.8 |
| Other Services | 122.7 | 123.0 | 123.2 | 123.5 | 123.8 | 124.0 | 124.2 | 124.4 |
| % Ch, Annual Rate | 0.8 | 0.8 | 0.8 | 0.8 | 0.9 | 0.8 | 0.6 | 0.5 |
| Federal Government | 71.9 | 80.1 | 75.1 | 72.5 | 72.0 | 71.9 | 71.8 | 71.8 |
| % Ch, Annual Rate | -3.1 | 53.7 | -22.7 | -13.2 | -2.8 | -0.4 | -0.3 | -0.2 |
| State and Local Government | 525.0 | 526.4 | 528.1 | 529.9 | 531.6 | 533.5 | 535.4 | 537.2 |
| % Ch, Annual Rate | 1.2 | 1.1 | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 | 1.3 |

Table A3.1

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

Forecast 2017 to 2021

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|--|----------|----------|----------|----------|----------|----------|----------|----------|
| Personal Income | 14,809.8 | 15,458.5 | 15,986.7 | 16,564.7 | 17,273.1 | 18,090.9 | 18,925.3 | 19,741.2 |
| % Ch | 5.2 | 4.4 | 3.4 | 3.6 | 4.3 | 4.7 | 4.6 | 4.3 |
| Total Wage and Salary Disbursements | 7,476.3 | 7,854.8 | 8,162.6 | 8,442.6 | 8,777.9 | 9,137.6 | 9,512.2 | 9,909.0 |
| % Ch | 5.1 | 5.1 | 3.9 | 3.4 | 4.0 | 4.1 | 4.1 | 4.2 |
| Nonwage Personal Income | 7,333.4 | 7,603.7 | 7,824.1 | 8,122.1 | 8,495.2 | 8,953.4 | 9,413.1 | 9,832.2 |
| % Ch | 5.4 | 3.7 | 2.9 | 3.8 | 4.6 | 5.4 | 5.1 | 4.5 |
| Supplements to Wages and Salaries | 1,777.1 | 1,838.2 | 1,910.3 | 1,970.8 | 2,014.3 | 2,069.2 | 2,124.8 | 2,174.5 |
| % Ch | 3.0 | 3.4 | 3.9 | 3.2 | 2.2 | 2.7 | 2.7 | 2.3 |
| Proprietor's Income | 1,337.7 | 1,376.8 | 1,417.5 | 1,478.1 | 1,547.2 | 1,604.7 | 1,657.1 | 1,715.0 |
| % Ch | 4.1 | 2.9 | 3.0 | 4.3 | 4.7 | 3.7 | 3.3 | 3.5 |
| Farm | 68.5 | 40.0 | 27.8 | 17.4 | 18.0 | 19.5 | 22.0 | 24.6 |
| % Ch | ... | ... | ... | ... | ... | ... | ... | ... |
| Nonfarm | 1,269.2 | 1,336.8 | 1,389.7 | 1,460.7 | 1,529.2 | 1,585.3 | 1,635.1 | 1,690.4 |
| % Ch | 6.0 | 5.3 | 4.0 | 5.1 | 4.7 | 3.7 | 3.1 | 3.4 |
| Less: Contribution For Govt. Soc. Ins. | 1,154.9 | 1,203.5 | 1,246.8 | 1,294.3 | 1,342.6 | 1,396.4 | 1,453.9 | 1,516.0 |
| % Ch | 4.6 | 4.2 | 3.6 | 3.8 | 3.7 | 4.0 | 4.1 | 4.3 |
| Dividends/Int./Rent | 2,833.1 | 2,913.5 | 2,967.6 | 3,085.5 | 3,245.6 | 3,473.5 | 3,707.8 | 3,905.7 |
| % Ch | 8.0 | 2.8 | 1.9 | 4.0 | 5.2 | 7.0 | 6.7 | 5.3 |
| Transfer Payments | 2,540.4 | 2,678.7 | 2,775.4 | 2,882.0 | 3,030.7 | 3,202.3 | 3,377.3 | 3,553.0 |
| % Ch | 4.6 | 5.4 | 3.6 | 3.8 | 5.2 | 5.7 | 5.5 | 5.2 |

Table A3.2

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

Forecast 2017 to 2021

| | 2016:1 | 2016:2 | 2016:3 | 2016:4 | 2017:1 | 2017:2 | 2017:3 | 2017:4 |
|--|----------|----------|----------|----------|----------|----------|----------|----------|
| Personal Income | 15,740.1 | 15,929.4 | 16,111.1 | 16,166.2 | 16,329.7 | 16,461.3 | 16,648.2 | 16,819.8 |
| % Ch, Annual Rate | 1.3 | 4.9 | 4.6 | 1.4 | 4.1 | 3.3 | 4.6 | 4.2 |
| Total Wage and Salary Disbursements | 8,011.3 | 8,142.9 | 8,262.3 | 8,233.9 | 8,315.6 | 8,400.3 | 8,488.1 | 8,566.6 |
| % Ch, Annual Rate | -0.7 | 6.7 | 6.0 | -1.4 | 4.0 | 4.1 | 4.2 | 3.7 |
| Nonwage Personal Income | 7,728.8 | 7,786.5 | 7,848.8 | 7,932.3 | 8,014.1 | 8,061.0 | 8,160.0 | 8,253.2 |
| % Ch, Annual Rate | 3.3 | 3.0 | 3.2 | 4.3 | 4.2 | 2.4 | 5.0 | 4.6 |
| Supplements to Wages and Salaries | 1,881.3 | 1,903.5 | 1,924.5 | 1,931.8 | 1,951.6 | 1,966.7 | 1,977.8 | 1,986.9 |
| % Ch, Annual Rate | 2.9 | 4.8 | 4.5 | 1.5 | 4.2 | 3.1 | 2.3 | 1.8 |
| Proprietor's Income | 1,403.9 | 1,407.8 | 1,420.7 | 1,437.4 | 1,458.0 | 1,460.4 | 1,487.0 | 1,506.9 |
| % Ch, Annual Rate | 0.9 | 1.1 | 3.7 | 4.8 | 5.9 | 0.7 | 7.5 | 5.4 |
| Farm | 32.3 | 29.8 | 28.3 | 20.6 | 17.7 | 16.3 | 18.4 | 17.4 |
| % Ch, Annual Rate | ... | ... | ... | ... | ... | ... | ... | ... |
| Nonfarm | 1,371.6 | 1,378.0 | 1,392.4 | 1,416.8 | 1,440.3 | 1,444.2 | 1,468.7 | 1,489.5 |
| % Ch, Annual Rate | 2.6 | 1.9 | 4.2 | 7.2 | 6.8 | 1.1 | 7.0 | 5.8 |
| Less: Contribution For Govt. Soc. Ins. | 1,229.0 | 1,244.8 | 1,259.1 | 1,254.1 | 1,280.3 | 1,289.7 | 1,301.5 | 1,305.5 |
| % Ch, Annual Rate | 1.6 | 5.3 | 4.7 | -1.6 | 8.6 | 3.0 | 3.7 | 1.2 |
| Dividends/Int./Rent | 2,928.7 | 2,956.3 | 2,976.2 | 3,009.3 | 3,035.0 | 3,056.5 | 3,107.8 | 3,142.7 |
| % Ch, Annual Rate | 2.2 | 3.8 | 2.7 | 4.5 | 3.5 | 2.9 | 6.9 | 4.6 |
| Transfer Payments | 2,744.0 | 2,763.6 | 2,786.5 | 2,807.6 | 2,849.7 | 2,867.1 | 2,888.9 | 2,922.2 |
| % Ch, Annual Rate | 5.4 | 2.9 | 3.4 | 3.1 | 6.1 | 2.5 | 3.1 | 4.7 |

Table A3.2 (continued)

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

Forecast 2017 to 2021

| | 2018:1 | 2018:2 | 2018:3 | 2018:4 | 2019:1 | 2019:2 | 2019:3 | 2019:4 |
|--|----------|----------|----------|----------|----------|----------|----------|----------|
| Personal Income | 17,001.2 | 17,173.6 | 17,355.7 | 17,562.0 | 17,788.2 | 17,988.8 | 18,193.7 | 18,393.1 |
| % Ch, Annual Rate | 4.4 | 4.1 | 4.3 | 4.8 | 5.3 | 4.6 | 4.6 | 4.5 |
| Total Wage and Salary Disbursements | 8,650.4 | 8,734.6 | 8,818.5 | 8,908.2 | 9,003.4 | 9,092.9 | 9,182.3 | 9,271.8 |
| % Ch, Annual Rate | 4.0 | 4.0 | 3.9 | 4.1 | 4.3 | 4.0 | 4.0 | 4.0 |
| Nonwage Personal Income | 8,350.9 | 8,439.0 | 8,537.2 | 8,653.8 | 8,784.8 | 8,895.9 | 9,011.4 | 9,121.3 |
| % Ch, Annual Rate | 4.8 | 4.3 | 4.7 | 5.6 | 6.2 | 5.2 | 5.3 | 5.0 |
| Supplements to Wages and Salaries | 1,998.6 | 2,008.3 | 2,019.4 | 2,030.9 | 2,049.6 | 2,063.3 | 2,075.8 | 2,088.3 |
| % Ch, Annual Rate | 2.4 | 1.9 | 2.2 | 2.3 | 3.7 | 2.7 | 2.4 | 2.4 |
| Proprietor's Income | 1,521.5 | 1,541.7 | 1,554.3 | 1,571.2 | 1,586.0 | 1,599.2 | 1,610.9 | 1,622.7 |
| % Ch, Annual Rate | 3.9 | 5.4 | 3.3 | 4.4 | 3.8 | 3.4 | 2.9 | 3.0 |
| Farm | 16.7 | 17.8 | 18.5 | 18.8 | 19.1 | 18.8 | 19.5 | 20.4 |
| % Ch, Annual Rate | ... | ... | ... | ... | ... | ... | ... | ... |
| Nonfarm | 1,504.8 | 1,523.9 | 1,535.8 | 1,552.4 | 1,566.9 | 1,580.4 | 1,591.4 | 1,602.3 |
| % Ch, Annual Rate | 4.2 | 5.2 | 3.2 | 4.4 | 3.8 | 3.5 | 2.8 | 2.8 |
| Less: Contribution For Govt. Soc. Ins. | 1,326.9 | 1,337.7 | 1,347.4 | 1,358.5 | 1,381.1 | 1,391.2 | 1,401.2 | 1,412.1 |
| % Ch, Annual Rate | 6.7 | 3.3 | 3.0 | 3.3 | 6.8 | 3.0 | 2.9 | 3.1 |
| Dividends/Int./Rent | 3,178.9 | 3,213.7 | 3,264.1 | 3,325.7 | 3,382.4 | 3,441.3 | 3,505.8 | 3,564.6 |
| % Ch, Annual Rate | 4.7 | 4.5 | 6.4 | 7.8 | 7.0 | 7.2 | 7.7 | 6.9 |
| Transfer Payments | 2,978.8 | 3,013.0 | 3,046.8 | 3,084.4 | 3,147.9 | 3,183.2 | 3,220.1 | 3,257.8 |
| % Ch, Annual Rate | 8.0 | 4.7 | 4.6 | 5.0 | 8.5 | 4.6 | 4.7 | 4.8 |

Table A3.2 (continued)

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

Forecast 2017 to 2021

| | 2020:1 | 2020:2 | 2020:3 | 2020:4 | 2021:1 | 2021:2 | 2021:3 | 2021:4 |
|--|----------|----------|----------|----------|----------|----------|----------|----------|
| Personal Income | 18,620.0 | 18,829.3 | 19,029.1 | 19,223.0 | 19,443.2 | 19,643.8 | 19,838.2 | 20,039.5 |
| % Ch, Annual Rate | 5.0 | 4.6 | 4.3 | 4.1 | 4.7 | 4.2 | 4.0 | 4.1 |
| Total Wage and Salary Disbursements | 9,366.9 | 9,465.3 | 9,560.4 | 9,656.2 | 9,758.6 | 9,858.6 | 9,958.8 | 10,059.9 |
| % Ch, Annual Rate | 4.2 | 4.3 | 4.1 | 4.1 | 4.3 | 4.2 | 4.1 | 4.1 |
| Nonwage Personal Income | 9,253.1 | 9,364.0 | 9,468.7 | 9,566.7 | 9,684.6 | 9,785.2 | 9,879.4 | 9,979.6 |
| % Ch, Annual Rate | 5.9 | 4.9 | 4.5 | 4.2 | 5.0 | 4.2 | 3.9 | 4.1 |
| Supplements to Wages and Salaries | 2,106.6 | 2,119.1 | 2,131.4 | 2,141.9 | 2,158.9 | 2,168.6 | 2,179.5 | 2,191.2 |
| % Ch, Annual Rate | 3.6 | 2.4 | 2.3 | 2.0 | 3.2 | 1.8 | 2.0 | 2.2 |
| Proprietor's Income | 1,634.2 | 1,649.9 | 1,665.5 | 1,678.8 | 1,692.4 | 1,707.6 | 1,722.4 | 1,737.5 |
| % Ch, Annual Rate | 2.9 | 3.9 | 3.8 | 3.2 | 3.3 | 3.7 | 3.5 | 3.5 |
| Farm | 20.9 | 21.6 | 22.4 | 23.0 | 23.8 | 24.3 | 24.9 | 25.5 |
| % Ch, Annual Rate | ... | ... | ... | ... | ... | ... | ... | ... |
| Nonfarm | 1,613.3 | 1,628.3 | 1,643.1 | 1,655.8 | 1,668.5 | 1,683.3 | 1,697.5 | 1,712.1 |
| % Ch, Annual Rate | 2.8 | 3.8 | 3.7 | 3.1 | 3.1 | 3.6 | 3.4 | 3.5 |
| Less: Contribution For Govt. Soc. Ins. | 1,436.9 | 1,448.2 | 1,458.9 | 1,471.6 | 1,498.9 | 1,510.3 | 1,521.7 | 1,533.2 |
| % Ch, Annual Rate | 7.2 | 3.2 | 3.0 | 3.5 | 7.6 | 3.1 | 3.0 | 3.0 |
| Dividends/Int./Rent | 3,624.8 | 3,683.4 | 3,736.1 | 3,787.0 | 3,837.6 | 3,886.5 | 3,927.3 | 3,971.3 |
| % Ch, Annual Rate | 6.9 | 6.6 | 5.8 | 5.6 | 5.5 | 5.2 | 4.3 | 4.6 |
| Transfer Payments | 3,324.4 | 3,359.7 | 3,394.6 | 3,430.7 | 3,494.7 | 3,532.8 | 3,571.9 | 3,612.7 |
| % Ch, Annual Rate | 8.4 | 4.3 | 4.2 | 4.3 | 7.7 | 4.4 | 4.5 | 4.6 |

Table A3.3

Washington Personal Income by Component (Billions of Dollars)

Forecast 2017 to 2021

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| Personal Income | 355.677 | 372.125 | 388.802 | 407.014 | 427.625 | 450.664 | 473.795 | 496.645 |
| % Ch | 6.8 | 4.6 | 4.5 | 4.7 | 5.1 | 5.4 | 5.1 | 4.8 |
| Total Wage and Salary Disbursements | 181.710 | 191.805 | 204.141 | 214.025 | 224.760 | 235.629 | 246.467 | 258.054 |
| % Ch | 6.5 | 5.6 | 6.4 | 4.8 | 5.0 | 4.8 | 4.6 | 4.7 |
| Manufacturing | 21.773 | 21.799 | 21.781 | 21.961 | 22.477 | 23.432 | 24.429 | 25.476 |
| % Ch | 5.9 | 0.1 | -0.1 | 0.8 | 2.4 | 4.2 | 4.3 | 4.3 |
| Durable Manufacturing | 17.667 | 17.591 | 17.355 | 17.385 | 17.727 | 18.446 | 19.215 | 20.047 |
| % Ch | 6.5 | -0.4 | -1.3 | 0.2 | 2.0 | 4.1 | 4.2 | 4.3 |
| Nondurable Manufacturing | 4.106 | 4.208 | 4.427 | 4.576 | 4.750 | 4.987 | 5.214 | 5.429 |
| % Ch | 3.7 | 2.5 | 5.2 | 3.4 | 3.8 | 5.0 | 4.6 | 4.1 |
| Nonmanufacturing | 153.167 | 163.012 | 175.092 | 184.661 | 194.601 | 204.235 | 213.783 | 224.012 |
| % Ch | 7.0 | 6.4 | 7.4 | 5.5 | 5.4 | 5.0 | 4.7 | 4.8 |
| Other Private Wages | 1.111 | 1.135 | 1.244 | 1.172 | 1.216 | 1.261 | 1.305 | 1.351 |
| % Ch | 2.9 | 2.1 | 9.6 | -5.8 | 3.8 | 3.7 | 3.5 | 3.5 |
| Farm Wages | 1.534 | 1.756 | 1.805 | 1.878 | 1.969 | 2.062 | 2.156 | 2.256 |
| % Ch | -2.5 | 14.5 | 2.8 | 4.1 | 4.8 | 4.7 | 4.6 | 4.6 |
| Military Wages | 4.125 | 4.103 | 4.219 | 4.354 | 4.496 | 4.639 | 4.794 | 4.959 |
| % Ch | -4.3 | -0.6 | 2.8 | 3.2 | 3.3 | 3.2 | 3.3 | 3.4 |
| Nonwage Personal Income | 173.967 | 180.320 | 184.662 | 192.988 | 202.865 | 215.035 | 227.328 | 238.591 |
| % Ch | 7.1 | 3.7 | 2.4 | 4.5 | 5.1 | 6.0 | 5.7 | 5.0 |
| Supplements to Wages and Salaries | 42.724 | 43.783 | 46.576 | 48.447 | 50.038 | 51.794 | 53.508 | 55.091 |
| % Ch | 3.0 | 2.5 | 6.4 | 4.0 | 3.3 | 3.5 | 3.3 | 3.0 |
| Proprietor's Income | 27.307 | 30.359 | 31.024 | 32.488 | 33.758 | 34.837 | 35.837 | 36.975 |
| % Ch | 2.2 | 11.2 | 2.2 | 4.7 | 3.9 | 3.2 | 2.9 | 3.2 |
| Farm | 1.260 | 2.497 | 1.596 | 1.225 | 1.030 | 0.941 | 0.907 | 0.900 |
| % Ch | ... | ... | ... | ... | ... | ... | ... | ... |
| Nonfarm | 26.047 | 27.862 | 29.428 | 31.263 | 32.728 | 33.896 | 34.929 | 36.075 |
| % Ch | 3.7 | 7.0 | 5.6 | 6.2 | 4.7 | 3.6 | 3.0 | 3.3 |
| Less: Contribution For Govt. Soc. Ins. | 30.402 | 31.799 | 33.925 | 35.742 | 37.389 | 39.095 | 40.845 | 42.691 |
| % Ch | 4.9 | 4.6 | 6.7 | 5.4 | 4.6 | 4.6 | 4.5 | 4.5 |
| Plus: Residence Adjustment | 3.203 | 3.657 | 3.840 | 4.015 | 4.177 | 4.355 | 4.542 | 4.740 |
| % Ch | -2.1 | 14.2 | 5.0 | 4.6 | 4.0 | 4.2 | 4.3 | 4.4 |
| Dividends/Int./Rent | 75.706 | 77.925 | 79.605 | 83.516 | 88.462 | 95.282 | 102.298 | 108.334 |
| % Ch | 9.6 | 2.9 | 2.2 | 4.9 | 5.9 | 7.7 | 7.4 | 5.9 |
| Transfer Payments | 55.429 | 56.395 | 57.542 | 60.265 | 63.818 | 67.863 | 71.990 | 76.142 |
| % Ch | 8.8 | 1.7 | 2.0 | 4.7 | 5.9 | 6.3 | 6.1 | 5.8 |
| State U.I. Benefits | 1.052 | 0.972 | 0.947 | 0.932 | 0.822 | 0.772 | 0.788 | 0.822 |
| % Ch | -39.0 | -7.6 | -2.5 | -1.6 | -11.8 | -6.1 | 2.1 | 4.3 |
| Other Transfers | 54.377 | 55.423 | 56.595 | 59.333 | 62.996 | 67.091 | 71.201 | 75.320 |
| % Ch | 10.5 | 1.9 | 2.1 | 4.8 | 6.2 | 6.5 | 6.1 | 5.8 |

Table A3.4

Washington Personal Income by Component (Billions of Dollars)

Forecast 2017 to 2021

| | 2016:1 | 2016:2 | 2016:3 | 2016:4 | 2017:1 | 2017:2 | 2017:3 | 2017:4 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| Personal Income | 383.168 | 387.031 | 391.400 | 393.610 | 401.568 | 404.510 | 408.385 | 413.591 |
| % Ch, Annual Rate | 6.8 | 4.1 | 4.6 | 2.3 | 8.3 | 3.0 | 3.9 | 5.2 |
| Total Wage and Salary Disbursements | 201.579 | 203.370 | 205.790 | 205.823 | 211.595 | 213.055 | 214.341 | 217.111 |
| % Ch, Annual Rate | 11.9 | 3.6 | 4.8 | 0.1 | 11.7 | 2.8 | 2.4 | 5.3 |
| Manufacturing | 21.584 | 21.891 | 22.001 | 21.650 | 22.007 | 21.950 | 21.945 | 21.943 |
| % Ch, Annual Rate | -4.1 | 5.8 | 2.0 | -6.2 | 6.8 | -1.0 | -0.1 | 0.0 |
| Durable Manufacturing | 17.187 | 17.474 | 17.551 | 17.207 | 17.483 | 17.394 | 17.353 | 17.311 |
| % Ch, Annual Rate | -7.6 | 6.8 | 1.8 | -7.6 | 6.6 | -2.0 | -0.9 | -1.0 |
| Nondurable Manufacturing | 4.397 | 4.417 | 4.450 | 4.443 | 4.524 | 4.556 | 4.592 | 4.632 |
| % Ch, Annual Rate | 10.9 | 1.8 | 3.0 | -0.7 | 7.5 | 2.9 | 3.1 | 3.6 |
| Nonmanufacturing | 172.615 | 174.211 | 176.542 | 176.999 | 182.256 | 183.720 | 184.963 | 187.703 |
| % Ch, Annual Rate | 13.7 | 3.7 | 5.5 | 1.0 | 12.4 | 3.3 | 2.7 | 6.1 |
| Other Private Wages | 1.365 | 1.245 | 1.221 | 1.144 | 1.156 | 1.167 | 1.178 | 1.187 |
| % Ch, Annual Rate | 149.0 | -30.9 | -7.6 | -22.8 | 4.1 | 3.8 | 3.9 | 3.2 |
| Farm Wages | 1.787 | 1.799 | 1.811 | 1.823 | 1.846 | 1.867 | 1.890 | 1.910 |
| % Ch, Annual Rate | 2.1 | 2.7 | 2.7 | 2.7 | 5.1 | 4.8 | 4.9 | 4.2 |
| Military Wages | 4.228 | 4.224 | 4.215 | 4.207 | 4.330 | 4.351 | 4.365 | 4.368 |
| % Ch, Annual Rate | 8.1 | -0.3 | -0.8 | -0.8 | 12.3 | 1.9 | 1.3 | 0.2 |
| Nonwage Personal Income | 181.589 | 183.661 | 185.610 | 187.787 | 189.974 | 191.455 | 194.044 | 196.481 |
| % Ch, Annual Rate | 1.5 | 4.6 | 4.3 | 4.8 | 4.7 | 3.2 | 5.5 | 5.1 |
| Supplements to Wages and Salaries | 45.975 | 46.454 | 46.669 | 47.207 | 47.837 | 48.300 | 48.677 | 48.974 |
| % Ch, Annual Rate | 13.8 | 4.2 | 1.9 | 4.7 | 5.4 | 3.9 | 3.2 | 2.5 |
| Proprietor's Income | 30.496 | 30.775 | 31.164 | 31.662 | 32.118 | 32.177 | 32.640 | 33.015 |
| % Ch, Annual Rate | -6.1 | 3.7 | 5.2 | 6.5 | 5.9 | 0.7 | 5.9 | 4.7 |
| Farm | 1.654 | 1.649 | 1.631 | 1.449 | 1.335 | 1.245 | 1.191 | 1.128 |
| % Ch, Annual Rate | ... | ... | ... | ... | ... | ... | ... | ... |
| Nonfarm | 28.842 | 29.126 | 29.533 | 30.212 | 30.783 | 30.932 | 31.449 | 31.887 |
| % Ch, Annual Rate | 6.1 | 4.0 | 5.7 | 9.5 | 7.8 | 1.9 | 6.9 | 5.7 |
| Less: Contribution For Govt. Soc. Ins. | 33.450 | 33.792 | 34.026 | 34.431 | 35.259 | 35.588 | 35.977 | 36.145 |
| % Ch, Annual Rate | 13.7 | 4.2 | 2.8 | 4.9 | 10.0 | 3.8 | 4.4 | 1.9 |
| Plus: Residence Adjustment | 3.748 | 3.828 | 3.871 | 3.913 | 3.952 | 3.994 | 4.037 | 4.076 |
| % Ch, Annual Rate | -1.7 | 8.9 | 4.5 | 4.4 | 4.0 | 4.3 | 4.4 | 3.9 |
| Dividends/Int./Rent | 78.248 | 79.230 | 79.908 | 81.031 | 81.909 | 82.666 | 84.199 | 85.290 |
| % Ch, Annual Rate | 2.5 | 5.1 | 3.5 | 5.7 | 4.4 | 3.7 | 7.6 | 5.3 |
| Transfer Payments | 56.572 | 57.166 | 58.024 | 58.405 | 59.416 | 59.906 | 60.467 | 61.270 |
| % Ch, Annual Rate | 2.3 | 4.3 | 6.1 | 2.7 | 7.1 | 3.3 | 3.8 | 5.4 |
| State U.I. Benefits | 0.965 | 0.943 | 0.966 | 0.915 | 0.957 | 0.957 | 0.918 | 0.895 |
| % Ch, Annual Rate | -1.8 | -8.7 | 10.3 | -19.6 | 19.9 | 0.0 | -15.3 | -9.9 |
| Other Transfers | 55.608 | 56.224 | 57.058 | 57.491 | 58.459 | 58.949 | 59.549 | 60.375 |
| % Ch, Annual Rate | 2.4 | 4.5 | 6.1 | 3.1 | 6.9 | 3.4 | 4.1 | 5.7 |

Table A3.4 (continued)

Washington Personal Income by Component (Billions of Dollars)

Forecast 2017 to 2021

| | 2018:1 | 2018:2 | 2018:3 | 2018:4 | 2019:1 | 2019:2 | 2019:3 | 2019:4 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| Personal Income | 423.100 | 424.901 | 427.598 | 434.899 | 445.936 | 447.795 | 450.614 | 458.310 |
| % Ch, Annual Rate | 9.5 | 1.7 | 2.6 | 7.0 | 10.5 | 1.7 | 2.5 | 7.0 |
| Total Wage and Salary Disbursements | 224.073 | 223.553 | 223.609 | 227.805 | 235.461 | 234.312 | 234.009 | 238.735 |
| % Ch, Annual Rate | 13.5 | -0.9 | 0.1 | 7.7 | 14.1 | -1.9 | -0.5 | 8.3 |
| Manufacturing | 22.130 | 22.373 | 22.588 | 22.818 | 23.076 | 23.319 | 23.553 | 23.781 |
| % Ch, Annual Rate | 3.5 | 4.5 | 3.9 | 4.1 | 4.6 | 4.3 | 4.1 | 3.9 |
| Durable Manufacturing | 17.456 | 17.649 | 17.813 | 17.992 | 18.181 | 18.363 | 18.536 | 18.702 |
| % Ch, Annual Rate | 3.4 | 4.5 | 3.8 | 4.1 | 4.3 | 4.1 | 3.8 | 3.6 |
| Nondurable Manufacturing | 4.674 | 4.725 | 4.775 | 4.827 | 4.895 | 4.956 | 5.018 | 5.079 |
| % Ch, Annual Rate | 3.6 | 4.4 | 4.4 | 4.4 | 5.8 | 5.0 | 5.1 | 5.0 |
| Nonmanufacturing | 194.328 | 193.517 | 193.312 | 197.249 | 204.490 | 203.050 | 202.467 | 206.934 |
| % Ch, Annual Rate | 14.9 | -1.7 | -0.4 | 8.4 | 15.5 | -2.8 | -1.1 | 9.1 |
| Other Private Wages | 1.200 | 1.211 | 1.222 | 1.232 | 1.245 | 1.256 | 1.266 | 1.277 |
| % Ch, Annual Rate | 4.3 | 3.8 | 3.5 | 3.6 | 4.0 | 3.6 | 3.4 | 3.4 |
| Farm Wages | 1.935 | 1.958 | 1.980 | 2.002 | 2.027 | 2.051 | 2.073 | 2.096 |
| % Ch, Annual Rate | 5.4 | 4.9 | 4.5 | 4.6 | 5.1 | 4.7 | 4.5 | 4.5 |
| Military Wages | 4.480 | 4.494 | 4.507 | 4.503 | 4.622 | 4.637 | 4.649 | 4.648 |
| % Ch, Annual Rate | 10.7 | 1.3 | 1.1 | -0.4 | 11.0 | 1.3 | 1.1 | -0.1 |
| Nonwage Personal Income | 199.027 | 201.348 | 203.989 | 207.095 | 210.475 | 213.484 | 216.605 | 219.575 |
| % Ch, Annual Rate | 5.3 | 4.7 | 5.4 | 6.2 | 6.7 | 5.8 | 6.0 | 5.6 |
| Supplements to Wages and Salaries | 49.489 | 49.856 | 50.222 | 50.586 | 51.188 | 51.611 | 51.993 | 52.382 |
| % Ch, Annual Rate | 4.3 | 3.0 | 3.0 | 2.9 | 4.8 | 3.3 | 3.0 | 3.0 |
| Proprietor's Income | 33.296 | 33.661 | 33.879 | 34.197 | 34.478 | 34.739 | 34.954 | 35.175 |
| % Ch, Annual Rate | 3.4 | 4.5 | 2.6 | 3.8 | 3.3 | 3.1 | 2.5 | 2.6 |
| Farm | 1.075 | 1.043 | 1.014 | 0.987 | 0.965 | 0.944 | 0.931 | 0.923 |
| % Ch, Annual Rate | ... | ... | ... | ... | ... | ... | ... | ... |
| Nonfarm | 32.220 | 32.618 | 32.865 | 33.210 | 33.513 | 33.796 | 34.023 | 34.252 |
| % Ch, Annual Rate | 4.2 | 5.0 | 3.1 | 4.3 | 3.7 | 3.4 | 2.7 | 2.7 |
| Less: Contribution For Govt. Soc. Ins. | 36.857 | 37.232 | 37.558 | 37.908 | 38.603 | 38.933 | 39.250 | 39.595 |
| % Ch, Annual Rate | 8.1 | 4.1 | 3.5 | 3.8 | 7.5 | 3.5 | 3.3 | 3.6 |
| Plus: Residence Adjustment | 4.115 | 4.155 | 4.197 | 4.241 | 4.288 | 4.332 | 4.377 | 4.421 |
| % Ch, Annual Rate | 3.8 | 4.0 | 4.0 | 4.3 | 4.5 | 4.2 | 4.2 | 4.1 |
| Dividends/Int./Rent | 86.423 | 87.518 | 89.040 | 90.868 | 92.567 | 94.326 | 96.239 | 97.997 |
| % Ch, Annual Rate | 5.4 | 5.2 | 7.1 | 8.5 | 7.7 | 7.8 | 8.4 | 7.5 |
| Transfer Payments | 62.563 | 63.390 | 64.209 | 65.110 | 66.557 | 67.408 | 68.292 | 69.195 |
| % Ch, Annual Rate | 8.7 | 5.4 | 5.3 | 5.7 | 9.2 | 5.2 | 5.3 | 5.4 |
| State U.I. Benefits | 0.862 | 0.822 | 0.814 | 0.790 | 0.770 | 0.768 | 0.771 | 0.779 |
| % Ch, Annual Rate | -13.9 | -17.3 | -3.8 | -11.1 | -9.9 | -0.9 | 1.4 | 4.1 |
| Other Transfers | 61.701 | 62.568 | 63.395 | 64.319 | 65.787 | 66.640 | 67.521 | 68.416 |
| % Ch, Annual Rate | 9.1 | 5.7 | 5.4 | 6.0 | 9.4 | 5.3 | 5.4 | 5.4 |

Table A3.4 (continued)

Washington Personal Income by Component (Billions of Dollars)

Forecast 2017 to 2021

| | 2020:1 | 2020:2 | 2020:3 | 2020:4 | 2021:1 | 2021:2 | 2021:3 | 2021:4 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|
| Personal Income | 468.630 | 471.327 | 473.680 | 481.544 | 491.703 | 494.260 | 496.137 | 504.480 |
| % Ch, Annual Rate | 9.3 | 2.3 | 2.0 | 6.8 | 8.7 | 2.1 | 1.5 | 6.9 |
| Total Wage and Salary Disbursements | 245.645 | 245.332 | 244.856 | 250.035 | 257.116 | 256.939 | 256.262 | 261.900 |
| % Ch, Annual Rate | 12.1 | -0.5 | -0.8 | 8.7 | 11.8 | -0.3 | -1.0 | 9.1 |
| Manufacturing | 24.046 | 24.291 | 24.560 | 24.820 | 25.075 | 25.331 | 25.609 | 25.890 |
| % Ch, Annual Rate | 4.5 | 4.1 | 4.5 | 4.3 | 4.2 | 4.2 | 4.5 | 4.5 |
| Durable Manufacturing | 18.914 | 19.107 | 19.317 | 19.522 | 19.723 | 19.928 | 20.154 | 20.384 |
| % Ch, Annual Rate | 4.6 | 4.1 | 4.5 | 4.3 | 4.2 | 4.2 | 4.6 | 4.6 |
| Nondurable Manufacturing | 5.132 | 5.184 | 5.243 | 5.298 | 5.351 | 5.404 | 5.455 | 5.507 |
| % Ch, Annual Rate | 4.3 | 4.1 | 4.6 | 4.3 | 4.1 | 4.0 | 3.9 | 3.8 |
| Nonmanufacturing | 213.420 | 212.808 | 212.011 | 216.893 | 223.553 | 223.065 | 222.056 | 227.373 |
| % Ch, Annual Rate | 13.1 | -1.1 | -1.5 | 9.5 | 12.9 | -0.9 | -1.8 | 9.9 |
| Other Private Wages | 1.288 | 1.300 | 1.310 | 1.321 | 1.334 | 1.345 | 1.356 | 1.367 |
| % Ch, Annual Rate | 3.4 | 3.8 | 3.3 | 3.4 | 3.8 | 3.4 | 3.4 | 3.4 |
| Farm Wages | 2.120 | 2.145 | 2.168 | 2.193 | 2.219 | 2.244 | 2.269 | 2.294 |
| % Ch, Annual Rate | 4.5 | 4.9 | 4.4 | 4.5 | 4.9 | 4.5 | 4.5 | 4.5 |
| Military Wages | 4.772 | 4.788 | 4.806 | 4.808 | 4.935 | 4.953 | 4.972 | 4.975 |
| % Ch, Annual Rate | 11.1 | 1.3 | 1.5 | 0.1 | 11.0 | 1.4 | 1.6 | 0.2 |
| Nonwage Personal Income | 222.985 | 225.995 | 228.824 | 231.509 | 234.588 | 237.321 | 239.875 | 242.580 |
| % Ch, Annual Rate | 6.4 | 5.5 | 5.1 | 4.8 | 5.4 | 4.7 | 4.4 | 4.6 |
| Supplements to Wages and Salaries | 52.940 | 53.342 | 53.703 | 54.045 | 54.605 | 54.912 | 55.249 | 55.599 |
| % Ch, Annual Rate | 4.3 | 3.1 | 2.7 | 2.6 | 4.2 | 2.3 | 2.5 | 2.6 |
| Proprietor's Income | 35.388 | 35.697 | 35.999 | 36.262 | 36.525 | 36.828 | 37.122 | 37.424 |
| % Ch, Annual Rate | 2.4 | 3.5 | 3.4 | 3.0 | 2.9 | 3.4 | 3.2 | 3.3 |
| Farm | 0.914 | 0.909 | 0.905 | 0.902 | 0.901 | 0.899 | 0.899 | 0.899 |
| % Ch, Annual Rate | ... | ... | ... | ... | ... | ... | ... | ... |
| Nonfarm | 34.475 | 34.788 | 35.093 | 35.360 | 35.624 | 35.929 | 36.222 | 36.525 |
| % Ch, Annual Rate | 2.6 | 3.7 | 3.5 | 3.1 | 3.0 | 3.5 | 3.3 | 3.4 |
| Less: Contribution For Govt. Soc. Ins. | 40.319 | 40.679 | 40.998 | 41.383 | 42.189 | 42.525 | 42.859 | 43.192 |
| % Ch, Annual Rate | 7.5 | 3.6 | 3.2 | 3.8 | 8.0 | 3.2 | 3.2 | 3.1 |
| Plus: Residence Adjustment | 4.469 | 4.518 | 4.566 | 4.614 | 4.664 | 4.715 | 4.765 | 4.816 |
| % Ch, Annual Rate | 4.4 | 4.4 | 4.3 | 4.3 | 4.5 | 4.4 | 4.3 | 4.3 |
| Dividends/Int./Rent | 99.795 | 101.553 | 103.148 | 104.695 | 106.238 | 107.731 | 109.004 | 110.365 |
| % Ch, Annual Rate | 7.5 | 7.2 | 6.4 | 6.1 | 6.0 | 5.7 | 4.8 | 5.1 |
| Transfer Payments | 70.711 | 71.564 | 72.407 | 73.277 | 74.744 | 75.660 | 76.596 | 77.569 |
| % Ch, Annual Rate | 9.1 | 4.9 | 4.8 | 4.9 | 8.3 | 5.0 | 5.0 | 5.2 |
| State U.I. Benefits | 0.793 | 0.786 | 0.787 | 0.787 | 0.797 | 0.812 | 0.830 | 0.849 |
| % Ch, Annual Rate | 7.6 | -3.6 | 0.4 | 0.1 | 5.3 | 7.5 | 9.4 | 9.5 |
| Other Transfers | 69.918 | 70.778 | 71.620 | 72.490 | 73.947 | 74.849 | 75.765 | 76.720 |
| % Ch, Annual Rate | 9.1 | 5.0 | 4.8 | 4.9 | 8.3 | 5.0 | 5.0 | 5.1 |

Table A4.1
Selected Inflation Indicators
 (Deflator 2009=1; CPI 1982-84=1)

| | Price Deflator* | | U.S. CPI# | | Seattle CPI+ | |
|----------|-----------------|----------------|-----------|----------------|--------------|----------------|
| | Index | Percent Change | Index | Percent Change | Index | Percent Change |
| 1971 | 0.233 | 4.2 | 0.405 | 4.2 | 0.382 | 2.1 |
| 1972 | 0.241 | 3.4 | 0.418 | 3.3 | 0.393 | 2.9 |
| 1973 | 0.254 | 5.4 | 0.444 | 6.3 | 0.418 | 6.4 |
| 1974 | 0.280 | 10.4 | 0.493 | 11.0 | 0.464 | 11.0 |
| 1975 | 0.303 | 8.3 | 0.538 | 9.1 | 0.511 | 10.2 |
| 1976 | 0.320 | 5.5 | 0.569 | 5.8 | 0.540 | 5.5 |
| 1977 | 0.341 | 6.5 | 0.606 | 6.5 | 0.583 | 8.0 |
| 1978 | 0.365 | 7.0 | 0.652 | 7.6 | 0.640 | 9.9 |
| 1979 | 0.397 | 8.9 | 0.726 | 11.3 | 0.709 | 10.8 |
| 1980 | 0.440 | 10.7 | 0.824 | 13.5 | 0.827 | 16.7 |
| 1981 | 0.478 | 8.8 | 0.909 | 10.4 | 0.916 | 10.8 |
| 1982 | 0.505 | 5.5 | 0.965 | 6.2 | 0.978 | 6.7 |
| 1983 | 0.526 | 4.3 | 0.996 | 3.2 | 0.993 | 1.5 |
| 1984 | 0.546 | 3.8 | 1.039 | 4.4 | 1.030 | 3.8 |
| 1985 | 0.566 | 3.5 | 1.076 | 3.5 | 1.056 | 2.5 |
| 1986 | 0.578 | 2.2 | 1.097 | 1.9 | 1.066 | 1.0 |
| 1987 | 0.596 | 3.2 | 1.136 | 3.6 | 1.092 | 2.4 |
| 1988 | 0.620 | 3.9 | 1.183 | 4.1 | 1.128 | 3.3 |
| 1989 | 0.646 | 4.3 | 1.239 | 4.8 | 1.181 | 4.7 |
| 1990 | 0.674 | 4.3 | 1.307 | 5.4 | 1.268 | 7.3 |
| 1991 | 0.696 | 3.3 | 1.362 | 4.2 | 1.341 | 5.8 |
| 1992 | 0.715 | 2.6 | 1.403 | 3.0 | 1.390 | 3.7 |
| 1993 | 0.733 | 2.5 | 1.445 | 3.0 | 1.429 | 2.8 |
| 1994 | 0.748 | 2.1 | 1.482 | 2.6 | 1.478 | 3.4 |
| 1995 | 0.764 | 2.1 | 1.524 | 2.8 | 1.522 | 3.0 |
| 1996 | 0.780 | 2.1 | 1.569 | 2.9 | 1.575 | 3.4 |
| 1997 | 0.793 | 1.7 | 1.605 | 2.3 | 1.630 | 3.5 |
| 1998 | 0.799 | 0.8 | 1.630 | 1.5 | 1.677 | 2.9 |
| 1999 | 0.811 | 1.5 | 1.666 | 2.2 | 1.728 | 3.0 |
| 2000 | 0.831 | 2.5 | 1.722 | 3.4 | 1.792 | 3.7 |
| 2001 | 0.847 | 1.9 | 1.770 | 2.8 | 1.857 | 3.6 |
| 2002 | 0.859 | 1.3 | 1.799 | 1.6 | 1.893 | 2.0 |
| 2003 | 0.876 | 2.0 | 1.840 | 2.3 | 1.924 | 1.6 |
| 2004 | 0.897 | 2.4 | 1.889 | 2.7 | 1.947 | 1.2 |
| 2005 | 0.923 | 2.9 | 1.953 | 3.4 | 2.002 | 2.8 |
| 2006 | 0.947 | 2.7 | 2.016 | 3.2 | 2.076 | 3.7 |
| 2007 | 0.971 | 2.5 | 2.073 | 2.9 | 2.157 | 3.9 |
| 2008 | 1.001 | 3.1 | 2.153 | 3.8 | 2.247 | 4.2 |
| 2009 | 1.000 | -0.1 | 2.146 | -0.3 | 2.260 | 0.6 |
| 2010 | 1.016 | 1.7 | 2.181 | 1.6 | 2.267 | 0.3 |
| 2011 | 1.041 | 2.5 | 2.249 | 3.1 | 2.327 | 2.7 |
| 2012 | 1.061 | 1.9 | 2.296 | 2.1 | 2.386 | 2.5 |
| 2013 | 1.075 | 1.3 | 2.329 | 1.5 | 2.416 | 1.2 |
| 2014 | 1.091 | 1.5 | 2.367 | 1.6 | 2.460 | 1.8 |
| 2015 | 1.095 | 0.4 | 2.370 | 0.1 | 2.494 | 1.4 |
| 2016 | 1.107 | 1.1 | 2.400 | 1.3 | 2.550 | 2.3 |
| Forecast | | | | | | |
| 2017 | 1.126 | 1.7 | 2.452 | 2.2 | 2.627 | 3.0 |
| 2018 | 1.143 | 1.5 | 2.498 | 1.9 | 2.684 | 2.2 |
| 2019 | 1.162 | 1.7 | 2.547 | 2.0 | 2.739 | 2.1 |
| 2020 | 1.185 | 1.9 | 2.605 | 2.2 | 2.803 | 2.3 |
| 2021 | 1.209 | 2.0 | 2.665 | 2.3 | 2.870 | 2.4 |

* Chain-Weight Implicit Price Deflator 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 Implicit Price Deflator 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
Chain-Weighted Price Indices
 (2009=100)

| | Services | | Food | | Fuels | | Gasoline | |
|----------|--------------|-----------------------|--------------|-----------------------|--------------|-----------------------|--------------|-----------------------|
| | <u>Index</u> | <u>Percent Change</u> |
| 1971 | 17.9 | 5.5 | 22.8 | 2.3 | 7.4 | 6.4 | 14.0 | 0.7 |
| 1972 | 18.7 | 4.2 | 23.9 | 4.8 | 7.5 | 0.6 | 14.2 | 1.3 |
| 1973 | 19.6 | 4.8 | 26.9 | 12.7 | 8.6 | 14.6 | 15.5 | 9.6 |
| 1974 | 21.3 | 8.5 | 31.0 | 15.2 | 13.6 | 58.9 | 21.0 | 35.1 |
| 1975 | 23.1 | 8.6 | 33.3 | 7.5 | 14.8 | 8.5 | 22.4 | 6.7 |
| 1976 | 24.7 | 6.9 | 34.0 | 1.9 | 15.9 | 7.3 | 23.3 | 4.2 |
| 1977 | 26.6 | 7.5 | 36.0 | 5.9 | 17.9 | 13.2 | 24.7 | 5.8 |
| 1978 | 28.6 | 7.8 | 39.4 | 9.6 | 19.0 | 5.7 | 25.8 | 4.3 |
| 1979 | 31.0 | 8.4 | 43.3 | 9.8 | 26.2 | 37.9 | 34.5 | 34.0 |
| 1980 | 34.2 | 10.3 | 46.9 | 8.4 | 36.7 | 40.4 | 47.9 | 38.8 |
| 1981 | 37.7 | 10.2 | 50.3 | 7.1 | 44.9 | 22.3 | 53.3 | 11.3 |
| 1982 | 40.6 | 7.8 | 51.6 | 2.6 | 44.1 | -1.9 | 50.6 | -5.1 |
| 1983 | 43.2 | 6.2 | 52.2 | 1.1 | 40.6 | -7.8 | 48.9 | -3.3 |
| 1984 | 45.4 | 5.2 | 53.7 | 3.0 | 41.5 | 2.2 | 48.2 | -1.5 |
| 1985 | 47.7 | 5.0 | 54.3 | 1.1 | 39.9 | -3.9 | 48.6 | 0.8 |
| 1986 | 49.6 | 4.1 | 55.6 | 2.4 | 31.2 | -21.7 | 38.2 | -21.5 |
| 1987 | 51.1 | 2.9 | 57.4 | 3.2 | 32.1 | 2.6 | 39.6 | 3.8 |
| 1988 | 53.5 | 4.8 | 59.1 | 3.0 | 32.0 | 0.0 | 40.0 | 0.8 |
| 1989 | 56.0 | 4.6 | 62.2 | 5.3 | 34.0 | 6.0 | 43.7 | 9.2 |
| 1990 | 58.5 | 4.5 | 65.2 | 4.9 | 40.9 | 20.4 | 49.7 | 13.8 |
| 1991 | 60.7 | 3.8 | 67.3 | 3.1 | 38.9 | -4.8 | 49.1 | -1.3 |
| 1992 | 62.8 | 3.5 | 67.8 | 0.8 | 37.3 | -4.1 | 48.9 | -0.4 |
| 1993 | 65.0 | 3.5 | 68.7 | 1.4 | 37.1 | -0.7 | 48.4 | -1.0 |
| 1994 | 66.8 | 2.7 | 69.9 | 1.7 | 36.4 | -1.8 | 48.6 | 0.5 |
| 1995 | 68.6 | 2.7 | 71.4 | 2.2 | 36.1 | -0.9 | 49.4 | 1.6 |
| 1996 | 70.5 | 2.7 | 73.6 | 3.1 | 40.9 | 13.3 | 52.4 | 6.1 |
| 1997 | 72.4 | 2.8 | 75.0 | 1.9 | 41.0 | 0.2 | 52.4 | 0.0 |
| 1998 | 73.9 | 2.1 | 75.9 | 1.3 | 36.3 | -11.4 | 45.6 | -12.9 |
| 1999 | 75.4 | 2.0 | 77.2 | 1.6 | 36.9 | 1.7 | 49.6 | 8.9 |
| 2000 | 77.5 | 2.8 | 79.0 | 2.3 | 54.1 | 46.6 | 63.4 | 27.8 |
| 2001 | 79.9 | 3.1 | 81.3 | 2.9 | 53.1 | -2.0 | 61.2 | -3.6 |
| 2002 | 82.0 | 2.6 | 82.5 | 1.5 | 47.3 | -10.8 | 57.5 | -6.0 |
| 2003 | 84.5 | 3.1 | 84.1 | 1.9 | 57.2 | 20.9 | 67.0 | 16.5 |
| 2004 | 87.1 | 3.0 | 86.7 | 3.1 | 66.6 | 16.4 | 78.8 | 17.6 |
| 2005 | 89.9 | 3.3 | 88.2 | 1.7 | 88.6 | 33.0 | 95.8 | 21.6 |
| 2006 | 93.0 | 3.4 | 89.7 | 1.7 | 100.7 | 13.7 | 108.0 | 12.8 |
| 2007 | 96.0 | 3.2 | 93.2 | 3.9 | 107.7 | 6.9 | 117.1 | 8.4 |
| 2008 | 98.9 | 3.1 | 98.9 | 6.1 | 146.0 | 35.6 | 136.6 | 16.6 |
| 2009 | 100.0 | 1.1 | 100.0 | 1.2 | 100.0 | -31.5 | 100.0 | -26.8 |
| 2010 | 101.7 | 1.7 | 100.3 | 0.3 | 117.0 | 17.0 | 118.2 | 18.2 |
| 2011 | 103.5 | 1.8 | 104.3 | 4.0 | 148.8 | 27.2 | 149.3 | 26.3 |
| 2012 | 105.8 | 2.2 | 106.7 | 2.3 | 150.7 | 1.3 | 154.7 | 3.6 |
| 2013 | 108.3 | 2.3 | 107.8 | 1.1 | 148.9 | -1.2 | 149.7 | -3.2 |
| 2014 | 110.9 | 2.5 | 109.8 | 1.8 | 148.3 | -0.4 | 144.0 | -3.8 |
| 2015 | 113.1 | 2.0 | 111.0 | 1.1 | 105.5 | -28.8 | 106.2 | -26.3 |
| 2016 | 115.8 | 2.3 | 110.0 | -0.9 | 88.8 | -15.9 | 94.2 | -11.3 |
| Forecast | | | | | | | | |
| 2017 | 118.5 | 2.4 | 110.2 | 0.2 | 104.3 | 17.5 | 101.9 | 8.2 |
| 2018 | 121.1 | 2.2 | 111.6 | 1.3 | 109.8 | 5.3 | 101.3 | -0.6 |
| 2019 | 123.9 | 2.3 | 113.6 | 1.8 | 113.3 | 3.2 | 102.8 | 1.4 |
| 2020 | 127.0 | 2.6 | 115.8 | 1.9 | 117.7 | 3.8 | 105.0 | 2.2 |
| 2021 | 130.4 | 2.6 | 117.9 | 1.8 | 122.4 | 4.0 | 107.6 | 2.5 |

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 | 90.0 | 54.6 | 86.9 |
| Forecast | | | | | | |
| 2017 | 7299.9 | 116.2 | 1.6 | 91.6 | 55.9 | 80.5 |
| 2018 | 7410.6 | 110.7 | 1.5 | 93.2 | 56.5 | 74.0 |
| 2019 | 7511.9 | 101.3 | 1.4 | 94.4 | 57.4 | 64.2 |
| 2020 | 7604.0 | 92.1 | 1.2 | 95.4 | 58.3 | 55.1 |
| 2021 | 7690.7 | 86.7 | 1.1 | 96.0 | 59.3 | 50.0 |

* As of April 1 of Each Year

Source: Office of Financial Management

Table A5.2
Washington Population*
 (Thousands)

| | 2012 | 2013 | Actual 2014 | 2015 | 2016 | 2017 | 2018 | Forecast 2019 | 2020 | 2021 |
|------------------|-------------|-------------|------------------------|-------------|-------------|-------------|-------------|--------------------------|-------------|-------------|
| Total Population | 6817.8 | 6882.4 | 6968.2 | 7061.4 | 7183.7 | 7299.9 | 7410.6 | 7511.9 | 7604.0 | 7690.7 |
| Percent Change | 0.7 | 0.9 | 1.2 | 1.3 | 1.7 | 1.6 | 1.5 | 1.4 | 1.2 | 1.1 |
| Age 17 and Under | 1572.6 | 1577.2 | 1588.4 | 1602.8 | 1625.8 | 1647.3 | 1667.2 | 1685.4 | 1703.9 | 1721.0 |
| Percent of Total | 23.1 | 22.9 | 22.8 | 22.7 | 22.6 | 22.6 | 22.5 | 22.4 | 22.4 | 22.4 |
| Age 6-18 | 1137.5 | 1141.1 | 1151.0 | 1162.2 | 1178.6 | 1193.0 | 1207.1 | 1219.0 | 1229.1 | 1241.3 |
| Percent of Total | 16.7 | 16.6 | 16.5 | 16.5 | 16.4 | 16.3 | 16.3 | 16.2 | 16.2 | 16.1 |
| Age 18 and Over | 5245.2 | 5305.2 | 5379.8 | 5458.7 | 5557.9 | 5652.5 | 5743.4 | 5826.4 | 5900.1 | 5969.6 |
| Percent of Total | 76.9 | 77.1 | 77.2 | 77.3 | 77.4 | 77.4 | 77.5 | 77.6 | 77.6 | 77.6 |
| Age 21 and Over | 4965.3 | 5029.2 | 5107.4 | 5187.1 | 5283.8 | 5375.1 | 5462.7 | 5543.8 | 5618.6 | 5689.9 |
| Percent of Total | 72.8 | 73.1 | 73.3 | 73.5 | 73.6 | 73.6 | 73.7 | 73.8 | 73.9 | 74.0 |
| Age 20-34 | 1413.1 | 1426.9 | 1445.8 | 1458.8 | 1482.6 | 1502.6 | 1519.7 | 1534.6 | 1544.2 | 1551.6 |
| Percent of Total | 20.7 | 20.7 | 20.7 | 20.7 | 20.6 | 20.6 | 20.5 | 20.4 | 20.3 | 20.2 |
| Age 18-64 | 4349.5 | 4365.7 | 4396.9 | 4431.0 | 4484.6 | 4531.8 | 4571.2 | 4603.1 | 4623.7 | 4641.6 |
| Percent of Total | 63.8 | 63.4 | 63.1 | 62.7 | 62.4 | 62.1 | 61.7 | 61.3 | 60.8 | 60.4 |
| Age 65 and Over | 895.6 | 939.5 | 982.8 | 1027.7 | 1073.3 | 1120.7 | 1172.2 | 1223.4 | 1276.5 | 1328.1 |
| Percent of Total | 13.1 | 13.7 | 14.1 | 14.6 | 14.9 | 15.4 | 15.8 | 16.3 | 16.8 | 17.3 |

* 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 2017 | + |
| U.S. Real GDP Growth | 1st quarter 2017 | - |
| U.S. ISM Index | May 2017 | + |
| U.S. Employment YOY%Δ | May 2017 | + |
| U.S. Unemployment Rate | May 2017 | + |
| U.S. Consumer Confidence | June 2017 | + |
| U.S. Consumer Sentiment | June 2017 | - |
| U.S. Light Vehicle Sales | May 2017 | - |
| U.S. CPI YOY%Δ | May 2017 | + |
| U.S. Home Prices YOY%Δ | April 2017 | - |
| S&P 500 Index | June 2017 | + |
| WA Leading Index | May 2017 | + |
| WA ISM-WW Index | May 2017 | - |
| WA Employment YOY%Δ | May 2017 | + |
| WA Aerospace Empl. YOY%Δ | May 2017 | - |
| WA Unemployment Rate | May 2017 | + |
| WA Help Wanted Index | May 2017 | + |
| WA Business Cycle Indicator | May 2017 | + |
| WA Initial Unemploy. Claims | May 2017 | + |
| WA Housing Permits | May 2017 | - |
| WA Weekly Hours in Mfg. | May 2017 | - |
| WA New Vehicle Registration | May 2017 | + |
| WA In-Migration | May 2017 | - |
| WA Exports-Total YOY%Δ | 1st quarter 2017 | - |
| WA Exports- w/o Trans. Equip. YOY%Δ | 1st quarter 2017 | + |
| Seattle CPI YOY%Δ | April 2017 | + |
| Seattle Home Prices YOY%Δ | April 2017 | + |
| WA Construction Activity Index | May 2017 | - |

*Change from the previous reading

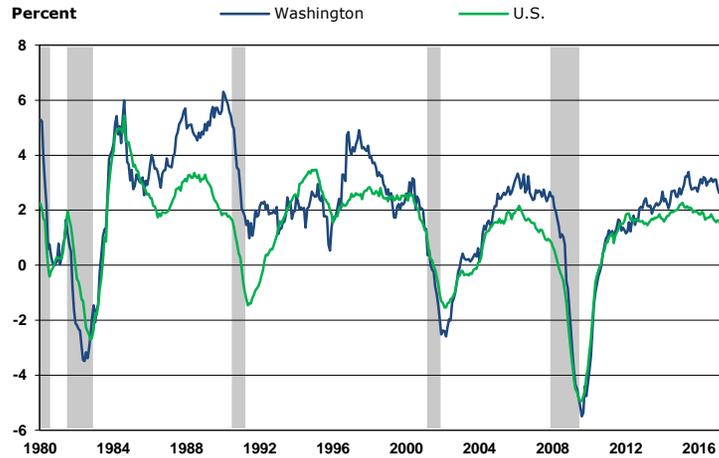
Table A6.2
Washington Business Indicators
 Historical Data

| | 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 | 115.9 | 113.7 | 44.4 | 94.8 | 118.2 | 63.5 | 51.8 |
| 2014:02 | 115.7 | 114.3 | 43.0 | 93.1 | 118.5 | 68.7 | 54.3 |
| 2014:03 | 116.4 | 115.4 | 43.8 | 93.8 | 118.6 | 63.6 | 54.4 |
| 2014:04 | 117.2 | 115.8 | 46.1 | 97.1 | 120.6 | 53.7 | 55.3 |
| 2014:05 | 117.4 | 116.5 | 46.8 | 95.7 | 118.7 | 59.6 | 55.6 |
| 2014:06 | 118.6 | 117.2 | 47.2 | 97.4 | 121.0 | 67.0 | 55.7 |
| 2014:07 | 118.8 | 118.4 | 48.7 | 97.4 | 121.3 | 50.1 | 56.4 |
| 2014:08 | 118.9 | 118.5 | 48.9 | 98.1 | 121.6 | 62.9 | 58.1 |
| 2014:09 | 118.5 | 119.2 | 49.0 | 98.5 | 114.3 | 60.3 | 56.1 |
| 2014:10 | 119.3 | 119.9 | 49.0 | 101.0 | 119.0 | 57.6 | 57.9 |
| 2014:11 | 120.0 | 120.5 | 51.2 | 101.7 | 128.0 | 63.1 | 57.6 |
| 2014:12 | 119.7 | 121.0 | 51.6 | 102.8 | 122.0 | 53.3 | 55.1 |
| 2015:01 | 119.4 | 121.2 | 52.9 | 98.5 | 127.6 | 66.6 | 53.5 |
| 2015:02 | 120.5 | 120.9 | 57.7 | 108.6 | 137.2 | 65.9 | 52.9 |
| 2015:03 | 120.0 | 121.5 | 57.8 | 100.4 | 138.8 | 64.1 | 51.5 |
| 2015:04 | 120.3 | 122.2 | 58.6 | 99.5 | 135.7 | 60.4 | 51.5 |
| 2015:05 | 120.6 | 122.8 | 58.8 | 98.0 | 139.0 | 60.3 | 52.8 |
| 2015:06 | 120.9 | 122.9 | 59.0 | 99.7 | 136.0 | 51.4 | 53.5 |
| 2015:07 | 120.6 | 122.8 | 59.9 | 99.9 | 141.0 | 53.6 | 52.7 |
| 2015:08 | 120.3 | 122.8 | 59.1 | 99.6 | 139.1 | 48.0 | 51.1 |
| 2015:09 | 118.8 | 122.6 | 58.2 | 94.7 | 126.6 | 48.0 | 50.2 |
| 2015:10 | 120.0 | 123.2 | 59.7 | 99.9 | 132.4 | 46.1 | 50.1 |
| 2015:11 | 120.3 | 123.7 | 60.1 | 100.4 | 134.3 | 50.0 | 48.6 |
| 2015:12 | 119.8 | 123.3 | 62.8 | 98.4 | 130.7 | 54.5 | 48.0 |
| 2016:01 | 119.5 | 123.0 | 64.5 | 100.4 | 128.7 | 57.2 | 48.2 |
| 2016:02 | 119.8 | 123.0 | 65.9 | 101.7 | 124.9 | 55.4 | 49.7 |
| 2016:03 | 120.8 | 123.0 | 64.5 | 104.7 | 128.9 | 55.7 | 51.7 |
| 2016:04 | 121.5 | 123.6 | 64.8 | 103.4 | 130.9 | 50.8 | 50.7 |
| 2016:05 | 122.5 | 123.4 | 67.6 | 106.0 | 148.2 | 49.2 | 51.0 |
| 2016:06 | 122.0 | 122.9 | 68.2 | 101.1 | 151.3 | 49.1 | 52.8 |
| 2016:07 | 122.4 | 123.5 | 69.2 | 101.2 | 156.3 | 50.8 | 52.3 |
| 2016:08 | 122.2 | 123.4 | 68.0 | 99.5 | 153.1 | 47.7 | 49.4 |
| 2016:09 | 122.3 | 123.7 | 68.5 | 102.4 | 143.4 | 51.4 | 51.7 |
| 2016:10 | 122.3 | 123.9 | 69.7 | 100.2 | 152.3 | 53.1 | 52.0 |
| 2016:11 | 122.2 | 124.1 | 71.3 | 102.1 | 148.8 | 53.3 | 53.5 |
| 2016:12 | 121.8 | 124.7 | 72.2 | 102.1 | 149.2 | 47.3 | 54.5 |
| 2017:01 | 122.5 | 125.4 | 71.1 | 100.3 | 152.5 | 54.2 | 56.0 |
| 2017:02 | 121.8 | 125.9 | 70.1 | 100.0 | 140.1 | 48.6 | 57.7 |
| 2017:03 | 122.9 | 126.4 | 73.6 | 101.2 | 143.4 | 59.2 | 57.2 |
| 2017:04 | 123.7 | 126.6 | 71.3 | 107.4 | 143.3 | 59.2 | 54.8 |
| 2017:05 | 123.8 | 127.0 | 72.6 | 100.9 | 149.2 | 45.0 | 54.9 |

Figure A7.1: Washington State Economic Indicators

Year-over-Year Employment Growth

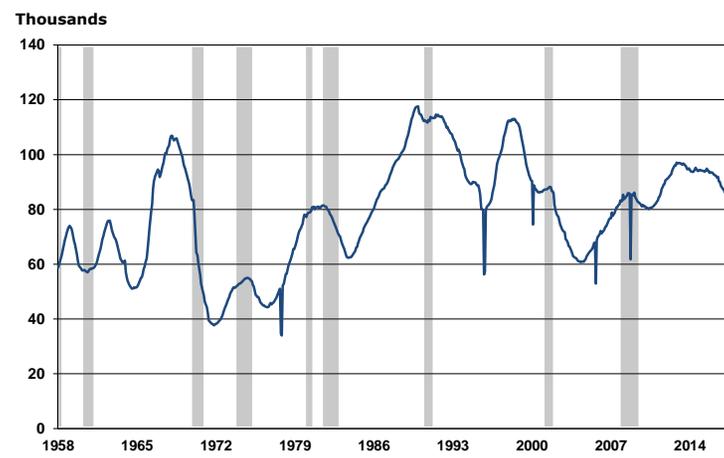
January 1980 to May 2017



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

Washington Aircraft and Parts Employment

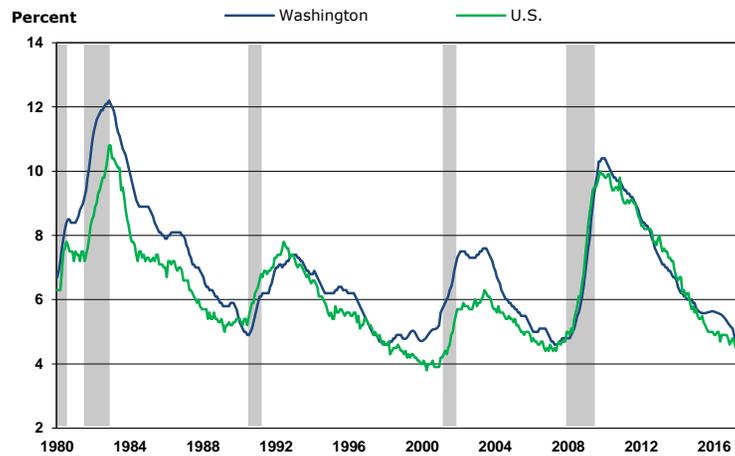
January 1958 to May 2017



* Source: Bureau of Labor Statistics, ERFC

Unemployment Rate, S.A.

January 1980 to May 2017



* Source: Bureau of Labor Statistics

Washington Business Cycle Indicator

January 1968 to May 2017



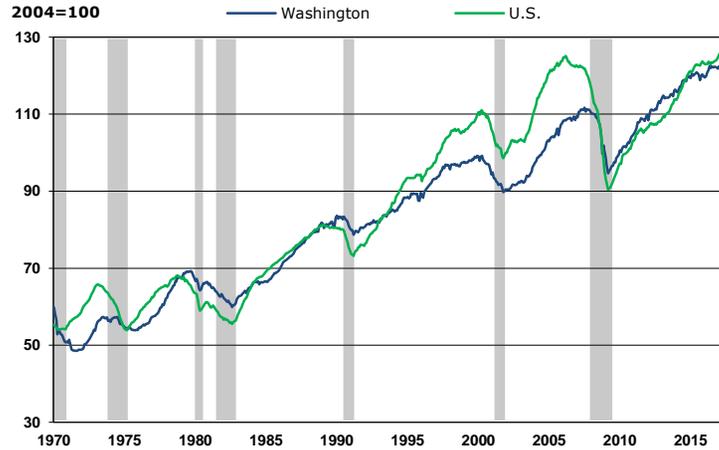
* Source: ERFC

* Shaded areas correspond with national recessions.
Appendix

Figure A7.2: Washington State Leading Indicators

The Washington and U.S. Indexes of Leading Indicators

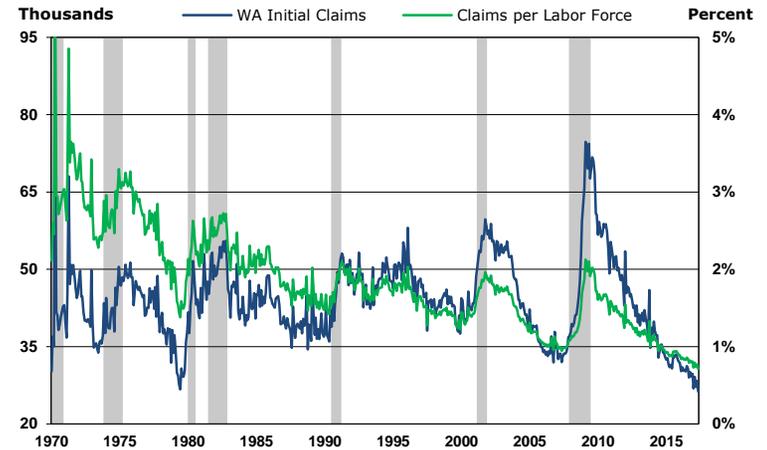
January 1970 to May 2017



* The Conference Board, ERFC

Washington Initial Claims for Unemployment Insurance

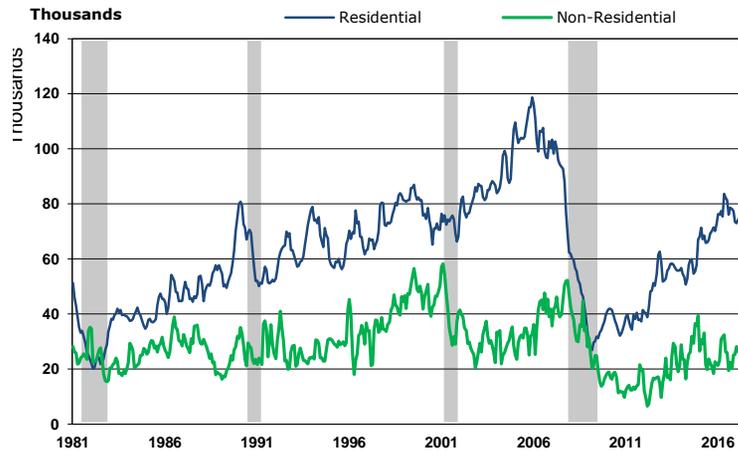
January 1970 to May 2017, S.A.



* Source: WA State Employment Security, ERFC

Square Footage of Construction Projects in WA State

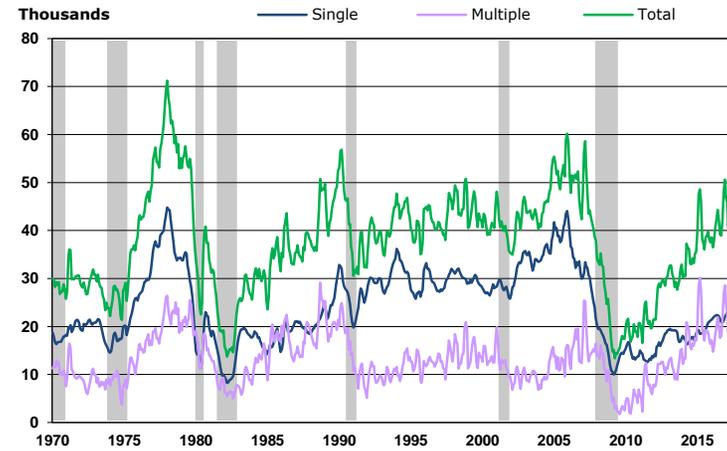
January 1981 to May 2017, 3mma, SAAR



* Source: McGraw-Hill Construction, ERFC

Housing Units Authorized in Washington State

January 1970 to May 2017, 3mma, SAAR



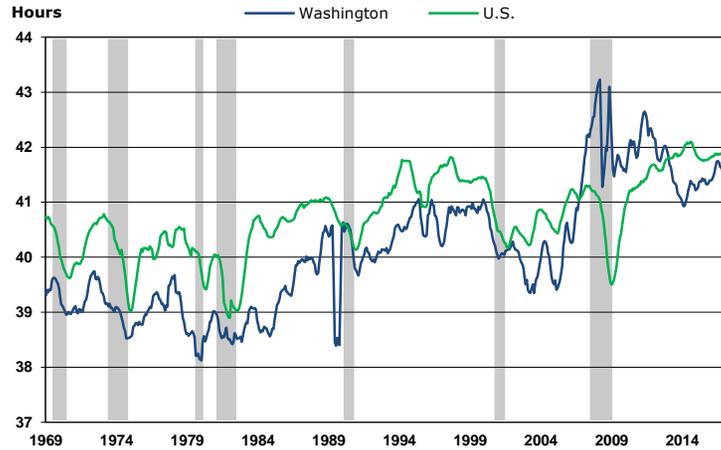
* Source: Census Bureau, ERFC

* Shaded areas correspond with national recessions.
Appendix

Figure A7.3: Other State Economic Indicators

Average Weekly Hours in Manufacturing

June 1969 to May 2017, 6-Mo. Moving Average, S.A.



* Bureau of Labor Statistics, ERFC

Washington Driver's License In-Migration

January 1988 to May 2017, 12-Month Moving Average



* Source: WA State Department of Licensing, ERFC

New Car and Truck Registrations in Washington

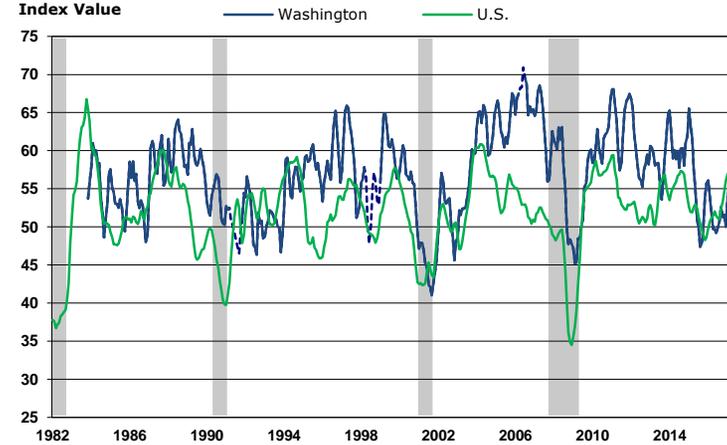
September 1970 to May 2017, 3-Month Moving Average, S.A.



* Source: WA State Department of Licensing, ERFC

Institute for Supply Management Index

March 1982 to May 2017, 3-Month Moving Average, S.A.



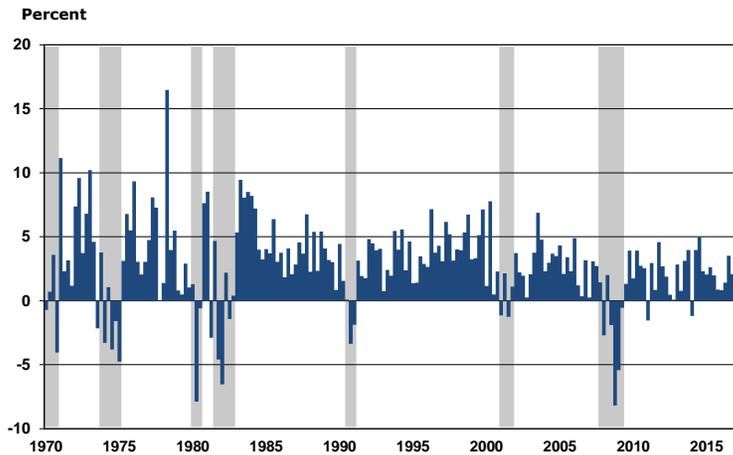
* Source: Institute for Supply Management, ISM-WW, ERFC

* Shaded areas correspond with national recessions.
Appendix

Figure A7.4: Other Economic Indicators

Quarterly U.S. Real GDP Growth

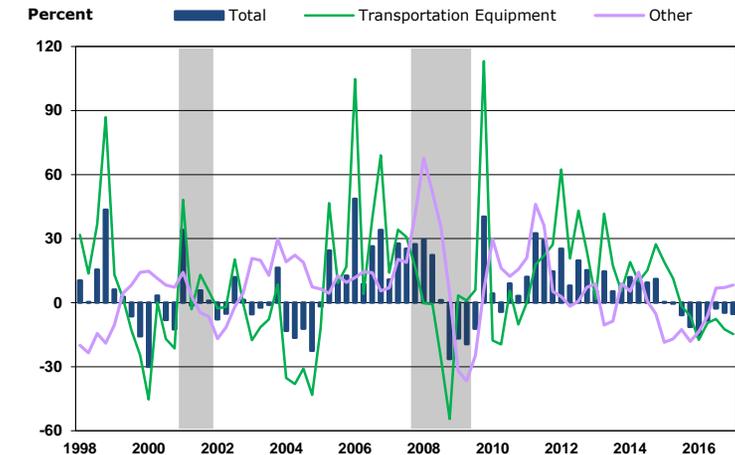
1970Q1 to 2017Q1, SAAR



* Source: Bureau of Economic Analysis

Washington State Export Composition

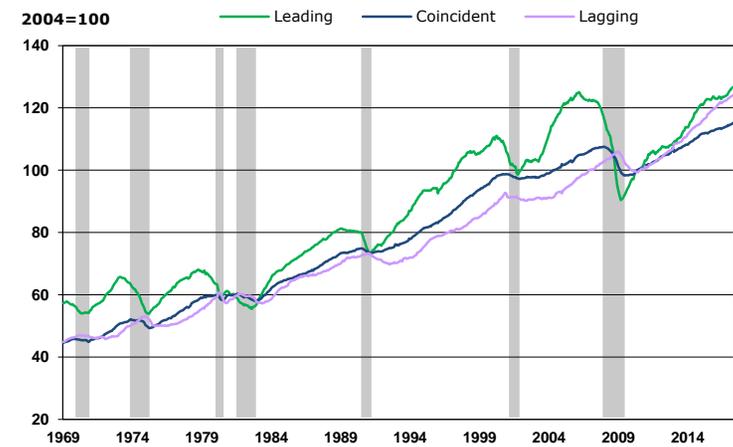
1998Q1 to 2017Q1, Year-over-year percent change



* Source: WISER

U.S. Economic Indicators

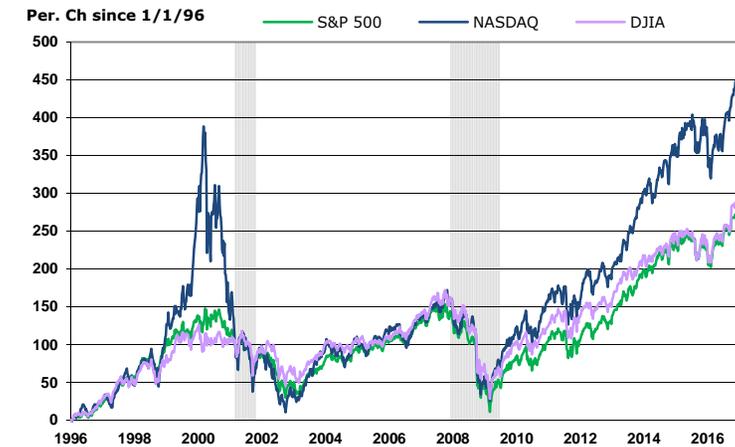
January 1969 to May 2017



* Source: The Conference Board

National Stock Indexes

January 1, 1996 to June 23, 2017



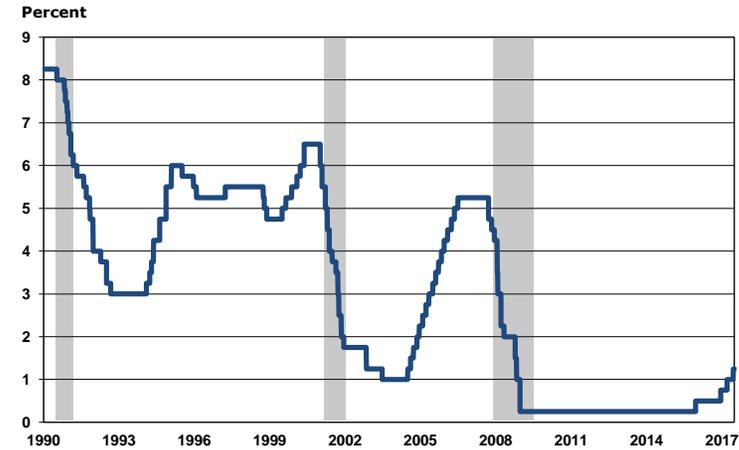
* Source: ERFC

* Shaded areas correspond with national recessions.
Appendix

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

Federal Funds Target Rate

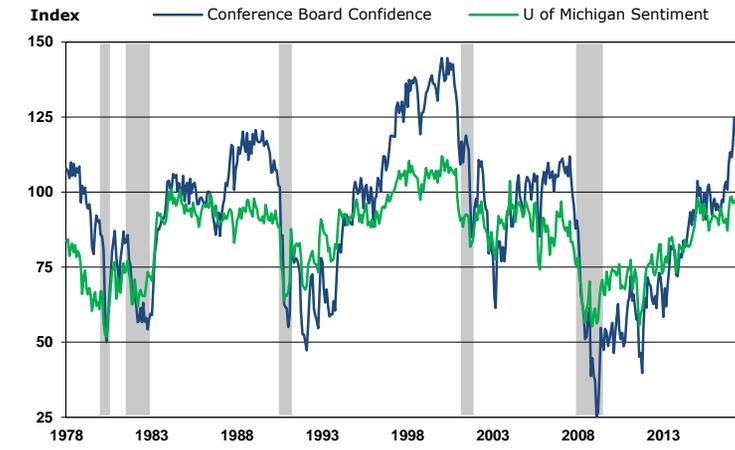
January 1, 1990 to June 29, 2017



* Federal Reserve

Consumer Confidence

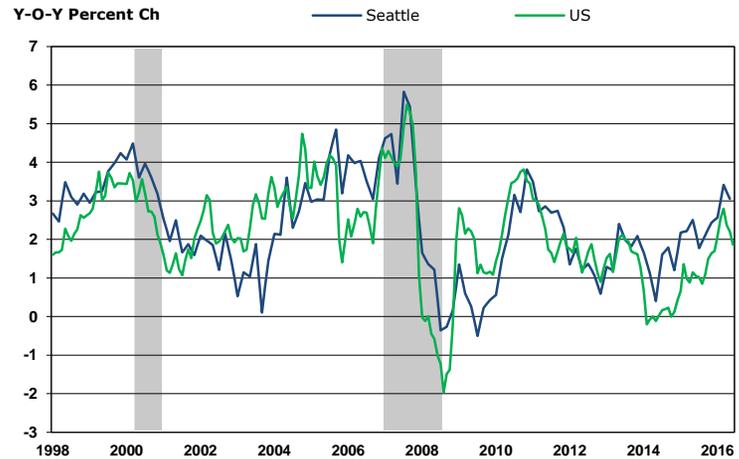
March 1978 to June 2017



* Source: The Conference Board, University of Michigan

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

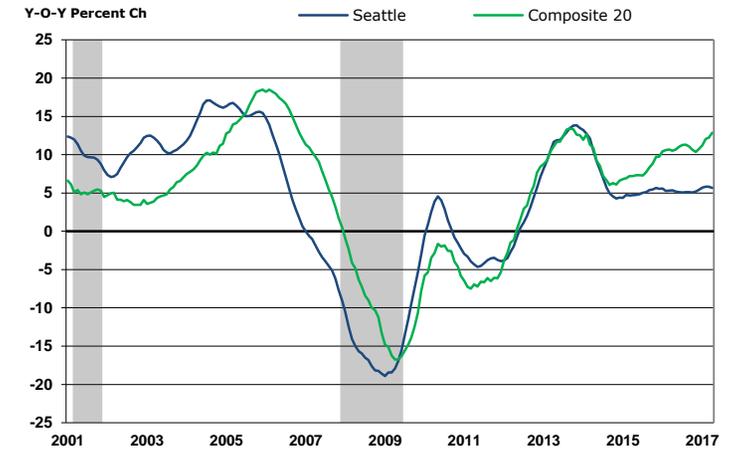
December 1998 to May 2017



* Source: Bureau of Labor Statistics

Case Shiller Home Price Index

January 2001 to April 2017, SA



* Source: Case Shiller, ERFC

* Shaded areas correspond with national recessions.
Appendix

This page left intentionally blank.



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 2016, for example, ran from July 1, 2015 through June 30, 2016.

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.

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.