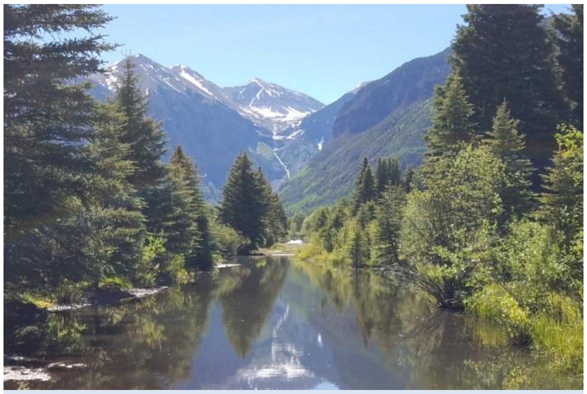

# FOCUS COLORADO:
# ECONOMIC AND REVENUE FORECAST

## COLORADO LEGISLATIVE COUNCIL STAFF
## ECONOMICS SECTION

SEPTEMBER 20, 2017

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*Photo captures Telluride Valley Floor Open Space, courtesy of Clare Pramuk.*

## HIGHLIGHTS

The **economy** will continue to grow at a moderate and steady pace through 2019. The U.S. economy has strengthened in business performance, employment, and consumer spending. Colorado's economy is among the nation's strongest and boasts very low unemployment alongside rising incomes. Structural factors, particularly demographics, will constrain growth. Risks to the forecast are skewed to the downside and include possible overheating, uncertain monetary policy, and political shocks.

**General Fund revenue** came in $41.1 million lower in FY 2016-17 than expected in June on lower individual and corporate income taxes. Expectations for revenue in FY 2017-18 and FY 2018-19 were reduced by $18.1 million and $25.3 million, respectively.

Preliminary data indicate that the General Fund ended **FY 2016-17** with a surplus of $28.7 million in excess of the 6.0 percent reserve.

In **FY 2017-18**, the General Fund is expected to end the year with a 6.3 percent reserve, $16.6 million lower than the budgeted 6.5 percent reserve.

Assuming current law, including a 6.5 percent required reserve, the General Assembly will have $666.5 million, or 6.0 percent, more to spend or save in the General Fund in **FY 2018-19** than what is budgeted for FY 2017-18. Any supplemental appropriations or other changes to revenue or expenditures in FY 2017-18 will change this amount.

Preliminary data indicate that revenue fell short of the **Referendum C cap** by $435.9 million in FY 2016-17. Revenue is expected to continue to fall short of the Referendum C cap each year throughout the forecast period.

In total, **Senate Bill 16-218** diverted $110.6 million from the General Fund to pay severance tax refunds during FY 2015-16 and FY 2016-17.

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# Executive Summary

This report presents the budget outlook based on current law and the September 2017 General Fund revenue, cash fund revenue, and TABOR forecasts. It also includes summaries of expectations for the U.S. and Colorado economies and summaries of current economic conditions in nine regions of the state.

## General Fund Budget Outlook

***FY 2016-17.*** Preliminary data indicate that the General Fund ended FY 2016-17 with a $613.0 million reserve, equal to 6.3 percent of General Fund operating appropriations. This amount is $28.7 million above the required 6.0 percent reserve. Revenue subject to TABOR fell short of the Referendum C cap by $435.9 million.

*More information about the **General Fund budget overview** begins on page 5 and is summarized in Table 1 on page 6.*

*More information about the state's **TABOR outlook** begins on page 7 and is summarized in Table 6 on page 13.*

*The **General Fund revenue** forecast begins on page 15 and is summarized in Table 8 on page 19.*

The FY 2016-17 year-end reserve is $165.3 million higher than expected in June, when a $136.6 million shortfall relative to the required reserve was predicted. Although actual General Fund revenue collections were $41.1 million (0.4 percent) lower than expected in June, large accounting adjustments brought the fund balance into positive territory.

***FY 2017-18.*** The General Fund is expected to end the year with a 6.3 percent reserve, $16.6 million short of the 6.5 percent statutory reserve. While expectations for General Fund revenue in FY 2017-18 fell by $18.1 million relative to June, the budget situation improved because of the improved FY 2016-17 year-end fund balance. Revenue subject to TABOR is expected to fall short of the Referendum C cap by $511.6 million.

***FY 2018-19 — unbudgeted.*** The General Assembly will have $666.5 million, or 6.0 percent, more to spend or save in the General Fund than what is budgeted to be spent this year. This assumes current law, including a 6.5 percent required reserve. Any supplemental appropriations or other changes to revenue or expenditures in FY 2017-18 will change this amount. State revenue subject to TABOR is expected to increase at a rate slightly slower than inflation and population growth. Revenue will fall short of the Referendum C cap by $549.1 million.

## Cash Fund Revenue

Cash fund revenue subject to TABOR totaled $2.78 billion in FY 2016-17, and is expected to fall 17.6 percent to $2.29 billion in FY 2017-18. The drop in revenue from the elimination of the Hospital Provider Fee and the 2.9 percent sales tax on retail marijuana in Senate Bill 17-267 more than offsets expected increases in transportation-related and severance tax revenue. Total cash fund revenue subject to TABOR will rebound from this lower level by 4.0 percent to $2.38 billion in FY 2018-19, and 4.4 percent to $2.48 billion in FY 2019-20, as most revenue sources are projected to continue to rise.

*The **cash fund revenue forecasts** begin on page 21. Forecasts for state revenue subject to TABOR are summarized in Table 9 on page 22.*

## Economic Outlook

The ongoing expansion in the U.S. and Colorado economies is expected to continue on a moderate and steady course through 2019. Thus far in 2017, the national economy has shown strength in the areas of business performance, employment, and consumer spending, and has benefited from recovering energy markets and an improved international economy. Colorado ranks among the nation's strongest economies, boasting low unemployment and better growth in personal income than elsewhere. However, the ongoing expansion has disappointed by historical standards. Growth is constrained by declining labor force participation, demographic change, and slow gains in productivity. The economy is projected to continue to grow as incomes rise and markets tighten, but these structural factors place an upper bound on the pace of expansion.

*More information about the* ***state and national economic outlook*** *begins on page 29.*

*Summaries of economic conditions in nine* ***regions*** *around the state begin on page 61.*

Risks to the economic forecast are skewed to the downside. The economy is at or near capacity in most markets, limiting room for growth and raising the possibility of overheating. The Federal Reserve has indicated that it will act to tighten monetary policy at a time when inflation is already low, a course of action that may potentially suppress spending and investment. Uncertainty in national and global politics could also produce a downside shock. At this point in the business cycle, the expansion is fragile enough that these or other threats could trigger a recession during the forecast period.

## General Fund Budget Overview

Table 1 on page 6 presents the General Fund overview based on current law. Tables 4 and 5 provide estimates for General Fund rebates and expenditures (line 7 of Table 1) and detail for cash fund transfers to and from the General Fund (lines 3 and 8 of Table 1). This section also presents expectations for revenue to the State Education Fund; presents the state's TABOR outlook; lists statutory transfers to transportation and capital construction funds; and presents expectations for the availability of tax policies contingent on the collection of sufficient General Fund revenue.

***FY 2016-17.*** Preliminary data indicate that the General Fund ended FY 2016-17 with a $613.0 million reserve, equal to 6.3 percent of General Fund operating appropriations. This amount is $28.7 million above the required 6.0 percent reserve. These figures incorporate the impact of a $53.8 million diversion of income taxes from the General Fund to cover the costs of severance tax refunds pursuant to Senate Bill 16-218.

The year-end reserve is $165.3 million higher than expected in June, when a $136.6 million shortfall relative to the required reserve was predicted. Although actual General Fund revenue collections were $41.1 million (0.4 percent) lower than expected in June, large accounting adjustments brought the fund balance into positive territory. These accounting adjustments included $115.7 million in reversions from General Fund appropriations.

***FY 2017-18.*** The General Fund is expected to end the year with a 6.3 percent reserve, $16.6 million short of the 6.5 percent statutory reserve. Relative to the June forecast, expectations for General Fund revenue fell by $18.1 million for FY 2017-18, and by a cumulative total of $59.2 million for both FY 2016-17 and FY 2017-18. However, the budget situation improved relative to June expectations because of the improved FY 2016-17 year-end fund balance.

***FY 2018-19 — unbudgeted.*** Table 1 shows new revenue in FY 2018-19 relative to anticipated changes in statutory and constitutional obligations between FY 2017-18 and FY 2018-19. Because a budget has not yet been enacted for FY 2018-19, lines 20 and 21 show the amount of revenue available in FY 2018-19 relative to the amount budgeted to be spent or saved in FY 2017-18.

The General Assembly will have $666.5 million, or 6.0 percent, more to spend or save in the General Fund than what is budgeted to be spent this year. This assumes current law, including a 6.5 percent required reserve. Any supplemental appropriations or other changes to revenue or expenditures in FY 2017-18 will change this amount.

**Table 1**
**General Fund Overview**
*Dollars in Millions*

| | | FY 2016-17 Preliminary | FY 2017-18 Estimate | FY 2018-19 Estimate | FY 2019-20 Estimate |
|---|---|---|---|---|---|
| **Funds Available** | | | | | |
| 1 | Beginning Reserve | $512.7 | $613.0 | $658.7 | * |
| 2 | General Fund Revenue | $10,275.5 | $11,069.4 | $11,634.2 | $12,227.8 |
| 3 | Transfers from Other Funds *(Table 5)* | 44.8 | 89.1 | 18.1 | 19.0 |
| **4** | **Total Funds Available** | **$10,833.0** | **$11,771.5** | **$12,311.0** | ***** |
| 5 | Percent Change | 1.4% | 8.7% | 4.6% | * |
| **Expenditures** | | Budgeted | Budgeted | Estimate | Estimate |
| 6 | General Fund Appropriations Subject to Limit | $9,784.5 | $10,438.1 | * | * |
| 7 | Rebates and Expenditures *(Table 4)* | 284.8 | 286.2 | 298.2 | 311.6 |
| 8 | Transfers to Other Funds *(Table 5)*[1] | 171.8 | 174.9 | 148.5 | 157.7 |
| 9 | Transfers to the State Education Fund Pursuant to SB 13-234 | 25.3 | 25.3 | 25.0 | NA |
| 10 | Transfers to Highway Users Tax Fund | 79.0 | 79.0 | 0.0 | 0.0 |
| 11 | Transfers to the Capital Construction Fund | 84.5 | 109.2 | 60.0 | 60.0 |
| **12** | **Total Expenditures** | **$10,429.8** | **$11,112.7** | * | * |
| 13 | Percent Change | 1.9% | 6.5% | * | * |
| 14 | Accounting Adjustments | 209.8 | * | * | * |
| **Reserve** | | Budgeted | Budgeted | Estimate | Estimate |
| 15 | Year-End General Fund Reserve | $613.0 | $658.7 | * | * |
| 16 | Year-End Reserve as a Percent of Appropriations | 6.3% | 6.3% | * | * |
| 17 | Statutorily Required Reserve[2] | 584.3 | 675.4 | * | * |
| **18** | **Amount in Excess or (Deficit) of Statutory Reserve** | **$28.7** | **($16.6)** | * | * |
| 19 | Excess Reserve as a Percent of Expenditures | 0.3% | -0.1% | * | * |
| **Perspective on FY 2018-19 (Unbudgeted Year)** | | | | Estimate | Estimate |
| Amount Available in FY 2018-19 Relative to FY 2017-18 Expenditures[3] | | | | | |
| 20 | Amount in Excess of (Deficit) of 6.5% Statutory Reserve | | | 666.5 | * |
| 21 | As a Percent of Prior-Year Expenditures | | | 6.0% | * |
| **Addendum** | | Preliminary | Estimate | Estimate | Estimate |
| 22 | Percent Change in General Fund Appropriations | 4.8% | 6.7% | * | * |
| 23 | 5% of Colorado Personal Income Appropriations Limit | $13,326.7 | $13,886.6 | $14,395.0 | $15,158.0 |
| 24 | Transfers to State Education Fund Per Amendment 23 | $540.0 | $575.7 | $604.4 | $626.6 |

*Totals may not sum due to rounding. *Not estimated. NA=Not applicable.*

*[1]Includes diversions from the General Fund to cover severance tax refunds pursuant to Senate Bill 16-218, which totaled $56.8 million in FY 2015-16 and $53.8 million for FY 2016-17.*

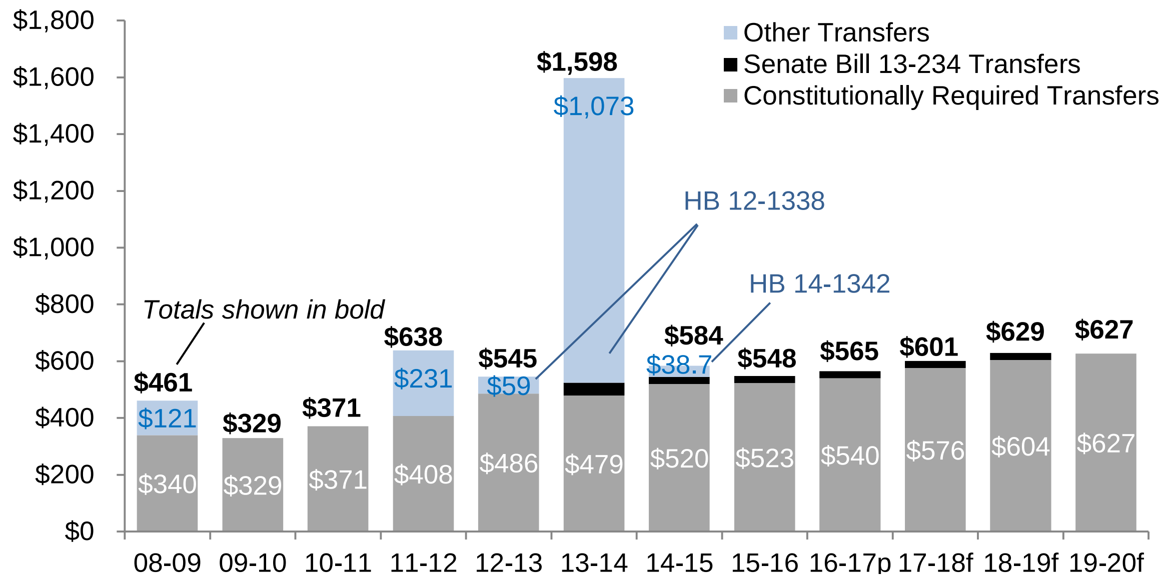
*[2]The required reserve is calculated as a percent of operating appropriations, and is required to equal to 6.0 percent in FY 2016-17 and 6.5 percent each year thereafter. Appropriations to fulfill the state's obligations of certain certificates of participation are excluded for puposes of calculating the statutory reserve requirement.*

*[3]This holds appropriations in FY 2018-19 equal to appropriations in FY 2017-18 (line 6) to determine the total amount of money available relative to FY 2017-18 expenditures, net of the obligations in lines 7 through 13.*

## State Education Fund

The Colorado Constitution requires the State Education Fund to receive one-third of one percent of taxable income (see Table 1, line 24). In addition, the General Assembly has at different times authorized the transfer of additional moneys from the General Fund to the State Education Fund. Money in the State Education Fund is required to be used to fund kindergarten through twelfth grade public education. However, additional revenue in the State Education Fund does not affect the overall flexibility of the General Fund budget. Figure 1 shows a history and forecast for revenue sources to the State Education Fund through the end of the forecast period.

**Figure 1**
**Revenue to the State Education Fund**
*Dollars in Millions*




*Source: Colorado State Controller's Office through FY 2016-17 and Legislative Council Staff from FY 2017-18 through FY 2019-20. "p" indicates preliminary. "f" indicates forecast.*

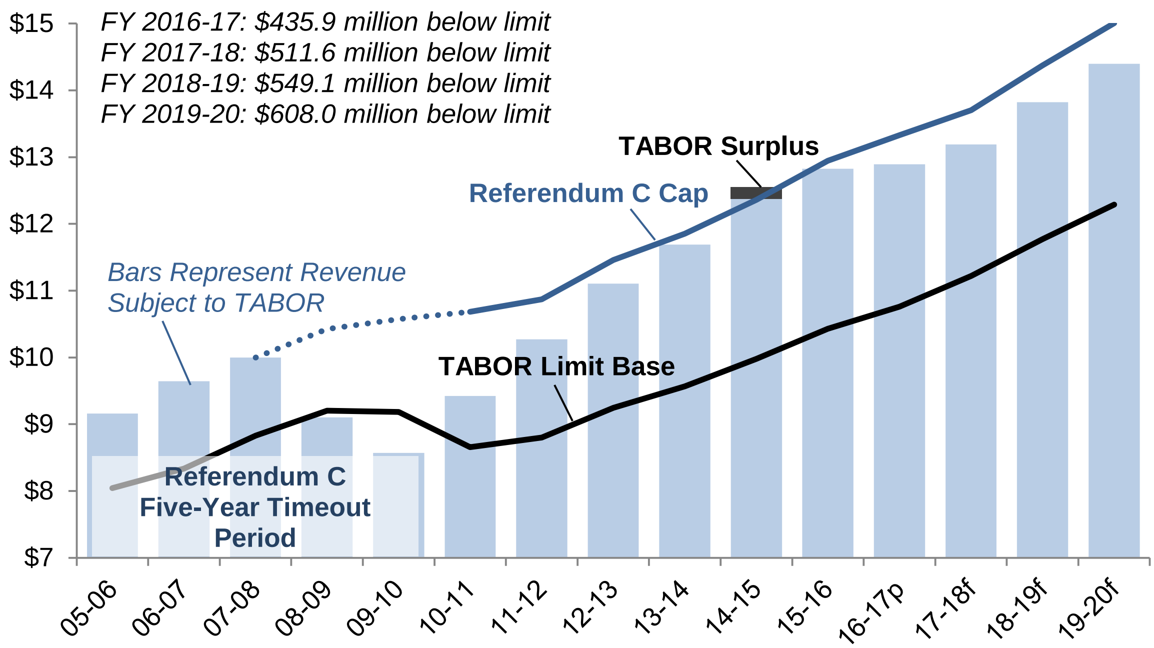
## TABOR Outlook

The state's TABOR outlook for this year through FY 2019-20 is presented in Table 6 on page 13 and summarized in Figure 2, which also provides a ten-year history of the TABOR limit base and the Referendum C cap.

Article X, Section 20 of the Colorado Constitution (TABOR) limits *state fiscal year spending*, which is the amount of revenue the state may retain and either spend or save each year. The limit is equal to the previous year's limit or revenue, whichever is lower, adjusted for inflation, population growth, and any revenue changes approved by voters. Referendum C, approved by voters in 2005, is a permanent voter-approved revenue change that raises the amount of revenue the state may spend or save. When revenue exceeds the cap, TABOR requires the surplus to be refunded during the following fiscal year. The state most recently incurred a TABOR refund obligation in FY 2014-15. A TABOR refund obligation is not expected in the current year through at least FY 2019-20, the end of the forecast period.

Preliminary data indicate that revenue fell short of the Referendum C cap by $435.9 million in FY 2016-17. Revenue subject to TABOR came in $113.4 million (or 0.9 percent) lower in FY 2016-17 than expected in June. State revenue is expected to continue to fall below the Referendum C cap each year through the forecast period. These expectations incorporate the impact of Senate Bill 17-267, which reduces the Referendum C cap by $200 million in FY 2017-18, repeals the state's existing hospital provider fee at the end of FY 2016-17, and creates a similar fee in a TABOR-exempt enterprise beginning in FY 2017-18.

**Figure 2**
**TABOR Revenue, TABOR Limit Base, and the Referendum C Cap**
*Dollars in Billions*




*Source: Office of the State Controller and Legislative Council Staff.*
*"p" indicates preliminary. "f" indicates forecast.*

## General Fund Transfers to Transportation and Capital Construction

Table 2 shows statutory transfers from the General Fund to the Highway Users Tax Fund and capital construction funds. Senate Bill 17-267, which authorized up to $1.88 billion in certificates of participation for transportation projects, repealed transfers from the General Fund to the Highway Users Tax Fund in FY 2018-19 and FY 2019-20 previously specified by Senate Bill 17-262. Transfers in Table 2 are also shown in lines 10 and 11 of Table 1.

**Table 2**
**Transfers from the General Fund for Infrastructure**

| Fiscal Year | Highway Users Tax Fund | | Capital Construction Fund | |
|---|---|---|---|---|
| FY 2015-16 | HB 16-1416 | $199.2 million | HB 16-1416 | $49.8 million |
| | | | SB 15-250 | $221.3 million |
| | | | *Total* | *$271.1 million* |
| FY 2016-17 | SB 17-262 | $79.0 million | HB 16-1416 | $52.7 million |
| | | | HB 16-1417 | $31.8 million |
| | | | *Total* | *$84.5 million* |
| FY 2017-18 | SB 17-262 | $79.0 million | SB 17-263 | $109.2 million[1] |
| FY 2018-19 | | | SB 17-262 | $60.0 million |
| FY 2019-20 | | | SB 17-262 | $60.0 million |

*[1] Of this amount, $20.0 million will be transferred to the Controlled Maintenance Trust Fund.*

### Tax Policies Dependent on Sufficient General Fund Revenue

Table 3 lists and describes the availability of tax policies dependent on the amount of money in the General Fund during the forecast period. These tax expenditures are only available when the Legislative Council Staff forecast indicates that General Fund revenue will be sufficient to allow General Fund appropriations to increase by at least six percent.

Revenue did not meet this requirement in FY 2015-16 and FY 2016-17 and is not expected to meet it during FY 2018-19 and FY 2019-20. Therefore, the historic property preservation tax credit will not be available in tax years 2016 and 2017 and is not expected to be available in tax year 2019. The sales tax refund for cleanrooms was not available from July 2016 through June 2017 and was repealed effective July 1, 2017.

In FY 2017-18, General Fund revenue is expected to be $54.2 million (or 0.5 percent) higher than the amount required to allow General Fund appropriations to increase by six percent, indicating that the Historic Property Preservation Tax Credit is expected to be available in tax year 2018. Pursuant to state law, the actual availability of the credit for tax year 2018 will be determined by the December 2017 forecast.

**Table 3**
**Tax Policies Dependent on Sufficient General Fund Revenue to Allow General Fund Appropriations to Increase by at Least 6 Percent**

| Tax Policy | Forecast that Determines Availability | Tax Policy Availability |
|---|---|---|
| Historic Property Preservation Income Tax Credit<br>(Section 39-22-514, C.R.S.)<br>*Revenue reduction less than $1.0 million per year* | December forecast immediately before the tax year when the credit becomes available. | Available in tax years 2013 through 2015. Not available in tax years 2016 and 2017. Expected to be available in tax year 2018, but not in tax year 2019. Repealed tax year 2020. |
| Cleanroom Machinery Sales and Use Tax Exemption<br>(Section 39-26-722, C.R.S.)<br>*Revenue reduction of $1.1 million per year.* | If the June forecast indicates sufficient revenue for the fiscal year that is about to begin, the exemption will become available in July. | Not available through June 2017 and repealed thereafter. |

***The child care expenses tax credit will not be available for tax year 2017.*** The child care expenses income tax credit was extended for three years by House Bill 17-1002. The bill requires the three-year period during which the tax credit is extended to shift forward in time from tax years 2017 through 2019 to tax years 2018 through 2020 if the June 2017 forecast predicts that the General Fund will have less than $2.9 million available in the General Fund in excess of the required 6.0 percent reserve at the end of FY 2016-17. Because the June 2017 forecast did not expect sufficient revenue to meet this threshold, the credit will be available for tax years 2018 through 2020.

**Table 4**
**General Fund Rebates and Expenditures**
*Dollars in Millions*

| Category | Preliminary FY 2016-17 | Estimate FY 2017-18 | Estimate FY 2018-19 | Estimate FY 2019-20 |
|---|---|---|---|---|
| Senior and Veterans Property Tax Exemptions | $136.1 | $146.8 | $159.3 | $172.9 |
| Percent Change | 7.1 | 7.8 | 8.5 | 8.5 |
| Cigarette Rebate | 10.3 | 10.7 | 10.6 | 10.4 |
| Percent Change | -2.2 | 3.6 | -1.1 | -1.0 |
| Old-Age Pension Fund | 96.5 | 86.8 | 84.5 | 82.9 |
| Percent Change | -10.9 | -10.0 | -2.7 | -1.8 |
| Aged Property Tax and Heating Credit | 8.7 | 5.4 | 5.1 | 5.0 |
| Percent Change | -7.3 | -38.0 | -4.3 | -2.9 |
| Older Coloradans Fund | 10.0 | 10.0 | 10.0 | 10.0 |
| Percent Change | 0.0 | -39.0 | 0.0 | 0.0 |
| Interest Payments for School Loans | 3.4 | 5.6 | 5.6 | 5.6 |
| Percent Change | 171.6 | 65.6 | 0.0 | 0.0 |
| Fire and Police Pensions | 4.2 | 4.2 | 4.3 | 4.3 |
| Percent Change | 14.3 | 0.3 | 1.0 | 1.0 |
| Amendment 35 Distributions | 0.9 | 0.9 | 0.9 | 0.9 |
| Percent Change | -1.0 | 0.5 | -0.2 | -0.1 |
| Marijuana Sales Tax to Local Governments | 14.8 | 15.9 | 18.1 | 19.6 |
| Percent Change | 46.1 | 7.9 | 13.7 | 8.2 |
| **TOTAL REBATES & EXPENDITURES** | **284.8** | **286.2** | **298.2** | **311.6** |

*Totals may not sum due to rounding.*

## Table 5
## Cash Fund Transfers
*Dollars in Millions*

| Transfers to the General Fund | | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
|---|---|---|---|---|---|
| HB 05-1262 | Amendment 35 Tobacco Tax | 0.9 | 0.9 | 0.9 | 0.9 |
| HB 10-1325 | Natural Resource Damage Recovery Fund | 0.1 | | | |
| SB 13-133 | Limited Gaming Fund | 15.2 | 16.2 | 17.2 | 18.1 |
| SB 15-168, SB 16-196, & HB 16-1398 | Intellectual and Developmental Disability Fund | 1.2 | | | |
| SB 15-249 & HB 16-1418 | Marijuana Tax Cash Fund | 26.3 | | | |
| HB 16-1413 | Water Quality Improvement Fund | 1.2 | | | |
| SB 17-260 | Severance Tax Funds | | 45.7 | | |
| SB 17-265 | State Employee Reserve Fund | | 26.3 | | |
| **Total Transfers to the General Fund** | | **$44.8** | **$89.1** | **$18.1** | **$19.0** |
| **Transfers from the General Fund** | | **2016-17** | **2017-18** | **2018-19** | **2019-20** |
| SB 11-047 | Bioscience Income Tax Transfer to OEDIT | 7.54 | 8.10 | 8.50 | 8.85 |
| HB 12-1315 | Clean Renewable Energy Fund | 1.6 | | | |
| HB 13-1193 | Advanced Industries Export Acceleration Fund | 0.3 | 0.3 | | |
| SB 14-215 | Marijuana Tax Cash Fund | 83.6 | 102.9 | 117.0 | 126.5 |
| HB 14-1016[1] | Procurement Technical Assistance Cash Fund | 0.2 | 0.2 | 0.2 | 0.2 |
| HB 15-1178 | CWCB Emergency Dewatering Grant Account | 0.3 | | | |
| SB 15-112 | Building Regulation Fund | 0.2 | | | |
| SB 15-244 & SB 17-267 | State Public School Fund | 7.8 | 37.8 | 20.5 | 22.2 |
| SB 15-245 | Natural Hazard Mapping Fund | 2.4 | 0.7 | | |
| HB 16-1161[2] | Veterans Grant Program Fund *(conditional)* | | | | |
| HB 16-1288 | Industry Infrastructure Fund | 0.3 | 0.3 | 0.3 | |
| HB 16-1453 | Cybersecurity Cash Fund | 7.9 | | | |
| SB 16-003 | Wildfire Risk Reduction Fund | 1.0 | | | |
| SB 16-218 | State Severance Tax Refunds | 53.8 | | | |
| HB 17-1282 | Veterinary Loan Education Repayment Fund | | 0.14 | | |
| SB 17-021 | Housing Assitance Persons Transitioning from Incarveration Fund | 4.8 | | | |
| SB 17-255 | Technology Advanced and Emergency Fund | | 2.0 | 2.0 | |
| SB 17-259 | Severance Tax Tier-2 Natural Resource Funds | | 10.0 | | |
| SB 17-261 | 2013 Flood Recovery Account | | 12.5 | | |
| **Total Transfers from the General Fund** | | **$171.8** | **$174.9** | **$148.5** | **$157.7** |
| **Net General Fund Impact** | | **($126.9)** | **($85.8)** | **($130.4)** | **($138.8)** |

[1]*This transfer is dependent on the receipt of at least $200,000 in gifts, grants, and donations by the relevant contractor.*

[2]*This transfer is conditional and dependent on budgeted expenditures for the senior and disabled veterans property tax exemption exceeding actual expenditures. This bill transfers 5 percent of the difference to the Veterans Grant Program Fund.*

## Table 6
## TABOR Limit and Retained Revenue
*Dollars in Millions*

| | | Preliminary FY 2016-17 | Estimate FY 2017-18 | Estimate FY 2018-19 | Estimate FY 2019-20 |
|---|---|---|---|---|---|
| | TABOR Revenue | | | | |
| 1 | General Fund[1] | $10,156.1 | $10,901.6 | $11,444.6 | $11,913.8 |
| 2 | Cash Funds[1] | $2,735.8 | $2,289.1 | $2,380.0 | $2,484.3 |
| 3 | **Total TABOR Revenue** | **$12,891.9** | **$13,190.7** | **$13,824.6** | **$14,398.1** |
| | **Revenue Limit** | | | | |
| 4 | Allowable TABOR Growth Rate | 3.1% | 4.5% | 4.9% | 4.4% |
| 5 | Inflation (*from Prior Calendar Year*) | 1.2% | 2.8% | 3.2% | 2.8% |
| 6 | Population Growth (*from Prior Calendar Year*) | 1.9% | 1.7% | 1.7% | 1.6% |
| 7 | TABOR Limit Base | $10,761.7 | $11,220.7 | $11,770.5 | $12,288.4 |
| 8 | Voter Approved Revenue Change (Referendum C) | $2,130.3 | $1,970.0 | $2,054.1 | $2,109.7 |
| 9 | Total TABOR Limit / Referendum C Cap | $13,327.81 | $13,702.3 | $14,373.7 | $15,006.1 |
| 10 | **TABOR Revenue Above (Below) Referendum C Cap** | **($435.9)** | **($511.6)** | **($549.1)** | **($608.0)** |
| | **Retained/Refunded Revenue** | $2,130.3 | $1,970.0 | $2,054.1 | $2,109.7 |
| 11 | Revenue Retained under Referendum C[2] | $12,891.9 | $13,190.7 | $13,824.6 | $14,398.1 |
| 12 | Fiscal Year Spending *(revenue available to be spent or saved)* | **$0.0** | **$0.0** | **$0.0** | **$0.0** |
| 13 | **Revenue Refunded to Taxpayers**[3] | $2,130.3 | $1,970.0 | $2,054.1 | $2,109.7 |
| 14 | TABOR Reserve Requirement | $386.8 | $395.7 | $414.7 | $431.9 |

*Totals may not sum due to rounding.*

*[1]These figures may differ from the revenues reported in General Fund and cash fund revenue summary tables because of accounting adjustments across TABOR boundaries.*

*[2]Revenue retained under Referendum C is referred to as "General Fund Exempt" in the budget.*

*[3]Pursuant to Section 24-75-201 (2), C.R.S., revenue above the Referendum C cap is required to be set aside during the year it is collected to be refunded in the following fiscal year. For example, excess revenue collected in FY 2014-15 was set aside in the budget for FY 2014-15 and refunded in FY 2015-16 on income tax returns for tax year 2015.*

## GENERAL FUND REVENUE

This section presents the Legislative Council Staff outlook for General Fund revenue, which provides the state's main source of revenue for operating appropriations. Table 8 on page 19 summarizes preliminary General Fund revenue collections for FY 2016-17 and projections for FY 2017-18 through FY 2019-20.

Preliminary data suggest that General Fund revenue grew 3.0 percent in FY 2016-17 over the prior fiscal year's collections — a rate slower than 2016 inflation plus population growth, which rose a combined rate of 4.5 percent. General Fund collections are expected to accelerate in FY 2017-18 on rising wage pressures and further improvements in consumer spending and business activity, as well as a boost from the marijuana special tax revenue increases under Senate Bill 17-267. Growth in General Fund revenue is expected to outpace statewide inflation and population growth in FY 2017-18 and FY 2018-19, though uncertainty over federal tax policy poses a risk to the forecast. Additionally, the late stage of the economic expansion poses significant risks to the revenue outlook; growing scarcity of and rising wage pressure for high-skilled labor may mute business growth.

Based on preliminary estimates, FY 2016-17 General Fund collections came in $41.1 million (0.4 percent) lower than projected in June. The outlook for General Fund revenue through the remainder of the forecast period was reduced slightly relative to the June forecast on lower expectations for individual and corporate income taxes. Relative to June, General Fund revenue is now expected to come in $18.1 million lower in FY 2017-18 and $25.3 million lower in FY 2018-19. Additional information regarding the main sources of revenue to the General Fund is provided below.

***Legislative impacts.*** Table 7 summarizes the estimated General Fund impacts of legislation passed in 2017. This legislation is expected to increase revenue slightly in FY 2017-18 and reduce revenue by a negligible amount in FY 2018-19. Senate Bill 17-267 will increase revenue from the marijuana special sales tax to the General Fund, but will transfer most of the additional revenue to the State Public School Fund, the Marijuana Tax Cash Fund, and local governments. Effective in 2019, the bill also expands the state income tax credit for business personal property tax paid to local governments. The net impact of these changes is a General Fund revenue increase of $10.2 million in FY 2017-18 and $15.4 million in FY 2018-19, as shown in Table 7.

As of the June 2017 forecast, Legislative Council Staff revenue forecasts assume that expiring tax credits (tax credits with an upcoming repeal date) will continue. This change in practice is consistent with budgeting assumptions used for programs with a repeal (or "sunset") date and will allow greater consistency in the revenue and expenditure impacts reported in fiscal notes. In the future, fiscal notes for bills extending expiring tax credits will report a "continuing" revenue impact and these bills will not require budget balancing. In addition, actual adjustments to the revenue forecast may not match estimates reported in Table 7.

***Triggered tax expenditure impacts.*** Table 7 also summarizes triggered tax expenditure impacts. The Historic Preservation Income Tax Credit is expected to be triggered on for tax year 2018 as forecast revenue is expected to be sufficient enough to allow 6 percent growth in General Fund appropriations in FY 2017-18. Partial refundability of the Gross Conservation Easement Tax Credit, however, is expected to remain triggered off as the state is not expected to experience a TABOR surplus through at least FY 2019-20 due in part to SB 17-267.

**Table 7**
**Legislation Affecting General Fund Revenue**
Dollars in Millions

| Major Legislation Passed in 2017 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|
| **Individual Income Tax** | | | |
| HB17-1090: Advanced Industry Investment Tax Credit Extension | | -$0.3 | -$0.6 |
| HB17-1002: Child Care Expenses Income Tax Credit Extension[1] | | -2.9 | -6.1 |
| Total Individual Income Tax Impact | | -3.2 | -6.7 |
| **Corporate Income Tax** | | | |
| HB17-1356: Treat Economic Development Income Tax Credits Differently | | | -5.6 |
| SB17-299: Apportionment of Income of Enterprise Data Centers | | | -2.4 |
| SB17-267: Increase in Business Personal Property Tax Credit | | | -9.8 |
| Total Corporate Income Tax Impact | | | -17.8 |
| **Sales and Excise Taxes** | | | |
| SB17-267: Increase in Marijuana Special Sales Tax Rate[2] | | 10.2 | 25.2 |
| HB17-1103: Exemption for Historic Aircraft on Loan for Public Display | | *Potential decrease* | |
| Total Impact on Sales and Excise Taxes | | 10.2 | 25.2 |
| **Insurance Premium Tax** | | | |
| SB17-198: Public Participate Review Acquire Control Insurer | | -0.01 | -0.01 |
| Total Insurance Premium Tax Impact | | -0.01 | -0.01 |
| **Other Miscellaneous Revenue** | | | |
| SB17-180: PUC Streamlined Enforcement of Motor Carriers | | -0.25 | -0.25 |
| HB17-1077: Useful Public Service Cash Fund Diversion | | -0.03 | -0.03 |
| HB17-1119: Payment of Workers' Compensation Benefits | | | -0.60 |
| HB17-1092: Retail Establishment & Performing Rights | | 0.01 | 0.01 |
| HB17-1263: Limited Lines Self-storage Insurance License | | | 0.01 |
| HB17-1224: Misbranded Adulterated Counterfeit Drugs Penalty | | 0.01 | 0.01 |
| Other Miscellaneous Revenue Impact | | -0.26 | -0.86 |
| **Revenue Impact of 2017 Legislation** | | **$6.73** | **-$0.17** |

| Triggered Legislation | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|
| **Income Tax** | | | |
| OFF: Gross Conservation Easement Partial Refundability[3] | -2.5* | -4.9* | -5.2* |
| ON/OFF: Historical Preservation Income Tax Credit[4] | | < -1.0 | < -1.0 |
| **Revenue Impact of Triggered Legislation** | **$0** | **$0** | **$0** |

**General Fund impacts if otherwise triggered on.*

*[1]Available tax years 2018, 2019, and 2020. Not available tax year 2017 due to insufficient revenue for FY 2016-17, as indicated by the June 2017 forecast.*

*[2]Amounts reflect the net increase in revenue to the General Fund from the marijuana special sales tax, reflecting General Fund revenue increases of $74.0 million in FY 2017-18 and $84.1 million in FY 2018-19, as well as transfers out of the General Fund.*

*[3]Triggered on by the FY 2014-15 TABOR surplus. Available in tax year 2015, but not in 2016, 2017, or 2018 (Section 39-22-522 (5) (b), C.R.S.).*

*[4]Based on this forecast, expected to be triggered on in tax year 2018 by the December 2017 forecast of sufficient revenue to grow General Fund appropriations by 6 percent in FY 2017-18 (Section 39-22-514, C.R.S.). Expected to be triggered OFF in subsequent years.*

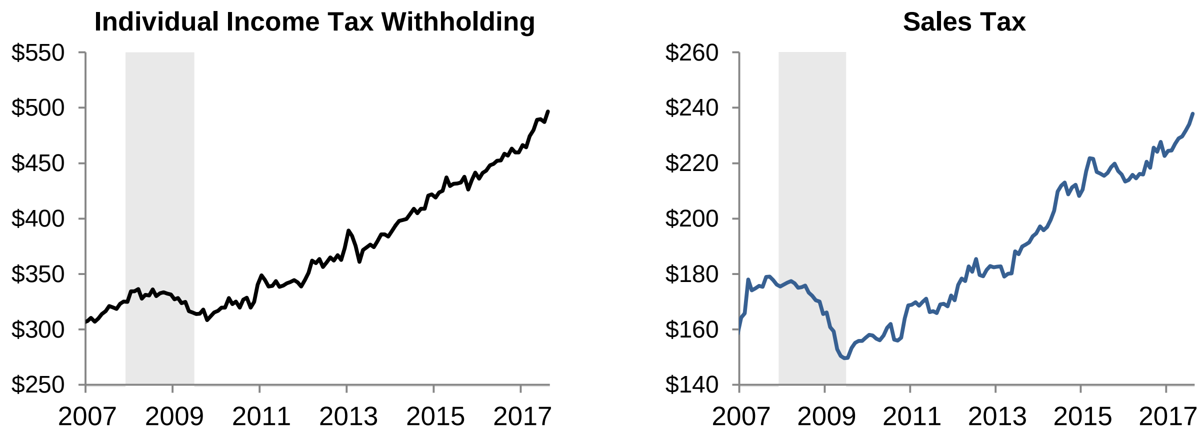
*Note: Because the forecast assumes continuation of expiring tax expenditures, actual adjustments to the revenue forecast may not match the estimates reported here.*

***Individual income taxes.*** Individual income taxes are the state's largest source of tax revenue, representing nearly two-thirds of gross General Fund revenue. Individual income tax collections have four components: (1) wage withholding, which makes up a majority of collections and includes income taxes withheld from employee paychecks; (2) estimated payments, which are quarterly payments made generally by self-owned businesses and taxpayers with large income tax liabilities; (3) cash with returns, which include payments made when taxpayers file income tax returns; and (4) refunds to taxpayers who pay more than they owe in taxes or who are eligible for refundable tax credits.

Wage withholding continues to grow at a rate faster than inflation and population growth (Figure 3, left). This trend is expected to continue throughout the forecast period, driving growth in total individual income tax collections. Uncertainty over federal tax policy changes dampened revenue in FY 2016-17, as some taxpayers delayed the sale or claim of assets on anticipation of federal tax cuts as early as tax year 2017. Similar distortions are expected to continue in FY 2017-18 as tax policy uncertainty continues. These impacts are expected to pose drags on estimated payments and cash with returns, while boosting refunds. Additionally, the slowdown in equity markets is expected to mute growth in estimated payments as taxpayers claim less in capital gains income.

Individual income tax collections are expected to increase 7.4 percent in FY 2017-18, before slowing to 4.9 percent in FY 2018-19 and 4.1 percent in FY 2019-20. Preliminary FY 2016-17 collections came in $49.9 million (0.7 percent) below June forecast expectations due to a larger than expected negative accrual adjustment. Relative to the June forecast, expectations for individual income tax collections were largely unchanged. The forecast for FY 2017-18 was revised downward by $12.3 million in FY 2017-18 and $62.8 million in FY 2018-19.

**Figure 3**
**Selected Sources of General Fund Revenue**
*Millions of Dollars Collected per Month*




*Source: Colorado Department of Revenue. Data seasonally adjusted by Legislative Council Staff using the Census x12 method. Data shown on a cash-accounting basis as three-month moving averages. Data are through August 2017. July and August 2017 data are preliminary.*

***Sales taxes.*** The 2.9 percent state sales tax is assessed on the purchase of goods, except those specifically exempted, and a relatively small collection of services. The amounts presented in Table 8 include revenue from the special sales tax on retail marijuana, which is projected to jump 61.8 percent in FY 2017-18 with the tax rate increase of 5 percentage points. Netting out marijuana taxes credited to the Marijuana Tax Cash Fund, sales tax revenue totaled

$2.7 billion and accounted for 26.5 percent of gross General Fund revenue in FY 2016-17. Tax collections rebounded in the second half of the fiscal year after very weak performance in the prior year, when revenue grew only 0.3 percent. Sales tax revenue was $6.1 million higher than projected in June, beating that forecast by 0.2 percent.

Sales tax receipts have been on a hot streak in recent months (Figure 3, right). Excluding the boost from marijuana taxes, remittances increased 7.7 percent over the six months between March and August relative to the same period in 2016. Growth reflects rising incomes and confident consumers, though the strong year-over-year growth rates echo especially weak sales and low prices last fiscal year. Netting out marijuana taxes, collections are projected to increase 6.3 percent to total $2.9 billion in FY 2017-18. For the remainder of the forecast period, growth rates are expected to slow but still exceed inflation plus population growth, with revenue breaking $3.0 billion for the first time in FY 2018-19.

***Use taxes.*** The 2.9 percent state use tax is due when sales tax is owed but is not collected at the point of sale. Use tax revenue is largely driven by capital investment among manufacturing, energy, and mining firms. Use tax collections dropped considerably during 2015 and 2016, reflecting a contraction in energy industry capital investment that has since reversed. Revenue rebounded in the first half of this year, ending FY 2016-17 up 7.6 percent and setting up another strong year of tax collections. Use tax collections in FY 2016-17 were $3.4 million higher than projected in June, outperforming the forecast by 1.3 percent.

Revenue is expected to increase by 10.5 percent in FY 2017-18 and a further 5.8 percent in FY 2018-19. Optimism is driven in part by recent performance. In July and August, taxes remitted increased by 20.9 percent relative to the same months in 2016, when the energy industry was still emerging from the downturn.

Expectations for FY 2017-18 assume the implementation of House Bill 10-1193, which requires out-of-state (including online) retailers not collecting sales taxes to notify customers and the Department of Revenue of customers' state use tax obligations. Implementation of the bill had been stayed pending resolution of an ongoing legal dispute and will affect sales made by out-of-state retailers for the first time during 2017. This forecast assumes that retailers will choose to comply with the law by notifying consumers of their use tax obligation rather than collecting sales taxes. Notifications are required to be issued by January 31st for purchases made during the prior calendar year, and consumers are required to remit use taxes by April 15th for the prior year's purchases. The fiscal impacts of this policy change are uncertain at this time. This forecast assumes a $6.6 million increase in use tax compliance during FY 2017-18, which will boost the use tax collections base modestly for subsequent fiscal years.

***Corporate income taxes.*** Weak energy sector earnings due to low energy prices caused corporate income tax collections to decline 21.9 percent to $509.3 million in FY 2016-17. A tight labor market and competition for other business inputs will dampen corporate profits throughout the forecast period. Collections are expected to reach $565.9 million in FY 2017-18, an 11.1 percent increase resulting from energy industry stabilization and business growth. Growth will slow to 7.4 percent in FY 2018-19, with a drag from an estimated $17.8 million in corporate tax policy changes passed in 2017 (see Table 7). Preliminary FY 2016-17 corporate tax revenue collections came in $13.4 million below June forecast estimates, which contributed to lower expectations FY 2017-18. For FY 2017-18, the forecast was reduced by $66.9 million relative to June expectations. The forecast was reduced by $18.0 million for FY 2018-19 on expectations that corporate profits will be pinched by the tighter labor market and more competition for other business inputs.

**Table 8**
**General Fund Revenue Estimates**
*Dollars in Millions*

| | Category | Preliminary FY 2016-17 | Percent Change | Estimate FY 2017-18 | Percent Change | Estimate FY 2018-19 | Percent Change | Estimate FY 2019-20 | Percent Change |
|---|---|---|---|---|---|---|---|---|---|
| | **Excise Taxes** | | | | | | | | |
| 1 | Sales | $2,825.7 | 6.5 | $3,059.4 | 8.3 | $3,217.5 | 5.2 | $3,380.7 | 5.1 |
| 2 | Use | 259.5 | 7.6 | 286.7 | 10.5 | 303.2 | 5.8 | 318.6 | 5.1 |
| 3 | Cigarette | 36.6 | -1.7 | 36.5 | -0.3 | 36.1 | -1.1 | 35.7 | -1.0 |
| 4 | Tobacco Products | 21.2 | 0.6 | 22.2 | 4.9 | 23.2 | 4.3 | 24.3 | 4.6 |
| 5 | Liquor | 45.0 | 3.3 | 46.4 | 3.1 | 48.1 | 3.7 | 49.9 | 3.9 |
| 6 | Total Excise | 3,188.0 | 6.4 | 3,451.1 | 8.3 | 3,628.1 | 5.1 | 3,809.3 | 5.0 |
| | **Income Taxes** | | | | | | | | |
| 7 | Net Individual Income | 6,760.9 | 3.6 | 7,263.4 | 7.4 | 7,620.0 | 4.9 | 7,937.0 | 4.2 |
| 8 | Net Corporate Income | 509.3 | -21.9 | 565.9 | 11.1 | 608.0 | 7.4 | 600.0 | -1.3 |
| 9 | Total Income Taxes | 7,270.2 | 1.3 | 7,829.3 | 7.7 | 8,228.0 | 5.1 | 8,536.9 | 3.8 |
| 10 | Less: Portion Diverted to the SEF | -540.0 | 3.3 | -575.7 | 6.6 | -604.4 | 5.0 | -626.6 | 3.7 |
| 11 | Income Taxes to the General Fund | 6,730.2 | 1.1 | 7,253.7 | 7.8 | 7,623.7 | 5.1 | 7,910.4 | 3.8 |
| | **Other Sources** | | | | | | | | |
| 12 | Insurance | 290.5 | 3.6 | 302.1 | 4.0 | 314.1 | 4.0 | 326.4 | 3.9 |
| 13 | Pari-Mutuel | 0.6 | -6.6 | 0.6 | -2.6 | 0.6 | -2.1 | 0.5 | -1.7 |
| 14 | Investment Income | 14.7 | 18.6 | 20.3 | 37.9 | 25.1 | 23.5 | 27.9 | 11.1 |
| 15 | Court Receipts | 4.1 | 17.5 | 4.4 | 8.2 | 4.7 | 6.9 | 5.0 | 5.5 |
| 16 | Other Income | 47.3 | 109.8 | 37.2 | -21.4 | 38.0 | 2.2 | 38.7 | 1.8 |
| 17 | **Total Other** | 357.2 | 11.8 | 364.6 | 2.1 | 382.5 | 4.9 | 398.6 | 4.2 |
| 18 | **Gross General Fund Revenue** | **$10,275.5** | **3.0** | **$11,069.4** | **7.7** | **$11,634.2** | **5.1** | **$12,118.2** | **4.2** |

*Totals may not sum due to rounding. SEF = State Education Fund.*

## CASH FUND REVENUE

Table 9 summarizes the forecast for cash fund revenue subject to TABOR. The largest sources are motor fuel taxes and other transportation-related revenue, the Hospital Provider Fee, gaming taxes, and severance taxes. The end of this section also presents the forecasts for marijuana sales and excise tax, federal mineral lease, and unemployment insurance revenue. These forecasts are presented separately because they are not subject to TABOR limitations.

Cash fund revenue subject to TABOR totaled $2.78 billion in FY 2016-17. This revenue is expected to fall 17.6 percent to $2.29 billion in FY 2017-18. The drop in revenue from the elimination of the Hospital Provider Fee and the 2.9 percent sales tax on retail marijuana in Senate Bill 17-267 more than offsets expected increases in transportation-related and severance tax revenue. Year-over-year changes in other cash fund categories are minimal.

Total cash fund revenue subject to TABOR will rebound from this lower level by 4.0 percent to $2.38 billion in FY 2018-19, and 4.4 percent to $2.48 billion in FY 2019-20, as most revenue sources are projected to continue to rise.

***Transportation-related*** revenue subject to TABOR totaled $1,221.3 million in FY 2016-17. Transportation funding will increase 1.8 percent in FY 2017-18 to $1,241.0 million and grow 2.0 percent per year through the remainder of the forecast period. The forecast for TABOR revenue to transportation-related cash funds is shown in Table 10 on page 24.

The largest source of revenue into the *Highway Users Tax Fund* (HUTF) is motor fuel excise tax (22¢ per gallon of gasoline and 20.5¢ per gallon of diesel fuel). Fuel excise tax increased 2.8 percent in FY 2016-17 to $629.4 million. In FY 2017-18, fuel tax collections are expected to grow 1.5 percent and reach $636.2 million. The HUTF also receives revenue from other sources, including registration fees. In FY 2016-17, total registration fees equaled $369.1 million and they are expected to increase 2.1 percent to $376.8 million in FY 2017-18. Total HUTF revenue is expected to increase 1.7 percent to $1,082.5 million in FY 2017-18 and 1.7 percent to $1,101.1 million in FY 2018-19.

The State Highway Fund (SHF) is the primary fund for the state Department of Transportation to meet state transportation needs. The SHF receives money from HUTF transfers, local government grants, and interest earnings. The HUTF revenue is subject to TABOR when it is originally collected by the state. The two largest sources of TABOR revenue into the fund are local government grants and interest earnings. Local government revenue into the SHF fluctuates based on local budgeting decisions and large annual fluctuations are common. SHF revenue subject to TABOR is expected to increase 7.5 percent to $43.0 million in FY 2017-18 and 7.4 percent to $46.2 million in FY 2018-19.

*Other transportation cash fund revenue subject to TABOR* is expected to be $115.5 million in FY 2017-18, a 0.6 percent increase from the previous year, before growing slowly through the forecast period. Other transportation revenue is from the sale of aviation and jet fuel, certain registration fees, and driving fines.

**Table 9**
**Cash Fund Revenue Subject to TABOR**
*Dollars in Millions*

| | Preliminary FY 2016-17 | Estimate FY 2017-18 | Estimate FY 2018-19 | Estimate FY 2019-20 | CAAGR* |
|---|---|---|---|---|---|
| Transportation-Related | $1,221.3 | $1,241.0 | $1,266.3 | $1,292.1 | |
| Percent Change | 3.1% | 1.6% | 2.0% | 2.0% | 1.9% |
| Hospital Provider Fee[1] | $654.4 | *NA* | *NA* | *NA* | |
| Percent Change | -18.6% | | | | |
| Severance Tax | $19.5 | $156.3 | $171.3 | $197.7 | |
| Percent Change | 3.0% | 702.6% | 9.5% | 15.4% | 116.5% |
| Gaming Revenue[2] | $103.7 | $105.5 | $107.6 | $109.5 | |
| Percent Change | 0.9% | 1.7% | 2.0% | 1.8% | 1.8% |
| Insurance-Related | $10.3 | $15.8 | $14.6 | $14.9 | |
| Percent Change | -9.6% | 53.4% | -7.8% | 2.0% | 13.0% |
| Regulatory Agencies | $75.5 | $77.0 | $78.9 | $80.9 | |
| Percent Change | 9.8% | 2.0% | 2.5% | 2.4% | 2.3% |
| Capital Construction Related – Interest[3] | $4.6 | $5.1 | $4.5 | $3.7 | |
| Percent Change | -12.2% | 11.4% | -12.8% | -17.1% | -7.0% |
| 2.9% Sales Tax on Marijuana[4] | $40.9 | $12.7 | $12.1 | $11.5 | |
| Percent Change | 28.6% | -69.0% | -4.4% | -4.9% | -34.4% |
| Other Cash Funds | $646.5 | $675.6 | $724.7 | $774.0 | |
| Percent Change | -7.6% | 4.5% | 7.3% | 6.8% | 6.2% |
| **Total Cash Fund Revenue** | $2,776.6 | $2,289.1 | $2,380.0 | $2,484.3 | |
| **Subject to the TABOR Limit** | -5.1% | -17.6% | 4.0% | 4.4% | -3.6% |

*Totals may not sum due to rounding. NA = Not applicable.*

** CAAGR: Compound average annual growth rate for FY 2016-17 to FY 2019-20.*

*[1]Pursuant to Senate Bill 17-267, the Hospital Provider Fee subject to TABOR has been repealed.*

*[2]Gaming revenue in this table does not include Amendment 50 revenue because it is not subject to TABOR.*

*[3]Includes interest earnings to the Capital Construction Fund, the Controlled Maintenance Trust Fund, and transfers from certain enterprises into TABOR.*

*[4]Includes revenue from the 2.9 percent sales tax collected from the sale of medical and retail marijuana. This revenue is subject to TABOR.*

Revenue to the *Statewide Bridge Enterprise* is not subject to TABOR and is shown as an addendum to Table 10. Revenue to this enterprise is expected to grow 2.0 percent to $112.4 million in FY 2017-18 and 2.0 percent to $114.6 million in FY 2018-19. The bridge safety surcharge fee typically grows at the same rate as vehicle registrations.

After accounting for $654.4 million in fee collections and associated interest earnings subject to TABOR in FY 2016-17, the ***Hospital Provider Fee*** was repealed on July 1, 2017. Under Senate Bill 17-267, hospitals now remit a Healthcare Affordability and Sustainability Fee to a TABOR-exempt enterprise. Enterprise fee and interest earnings are expected to total $868.5 million in FY 2017-18 and $913.6 million in FY 2018-19; however, these amounts are omitted from Table 9 because they are enterprise funds exempt from TABOR. Beginning in FY 2017-18, the “other cash funds” line item in Table 9 includes $15.7 million in fee revenue that is expected to be spent for nonexempt programs and is thus counted as TABOR revenue.

**Severance tax** revenue, including interest earnings, totaled $19.5 million in FY 2016-17. Severance tax revenue was reduced because of amended returns filed by oil and gas producers following the a Colorado Supreme Court decision that allows energy companies to deduct additional costs from revenue when calculating their severance tax liability. Once producers have had the opportunity to claim refunds for previous filing periods, severance tax revenue is expected to increase to $156.3 million in FY 2017-18 and $171.3 million in FY 2018-19.

In FY 2016-17, oil and gas severance tax collections totaled $4.0 million. This amount is net of $53.8 million in severance tax refunds paid out of the General Fund pursuant to Senate Bill 16-218 and a negative $37.0 million accrual. Reduced oil and gas severance tax collections reflect filing activity in FY 2015-16 and FY 2016-17 rather than representing the actual value of oil and gas production that occurred during that period. Oil and gas severance taxes are expected to rebound to $143.8 million in FY 2017-18 and $159.2 million in FY 2018-19. Table 11 on page 25 presents the forecast for severance tax revenue by mineral source.

Oil prices have fluctuated between $40 to $45 a barrel through the first half of 2017. Prices are expected to increase slowly throughout the forecast period to $49 per barrel in 2019. Oil production in Colorado declined 8.2 percent in 2016 and is expected to fall 2.3 percent in 2017 in response to lower oil prices. Increasing oil prices will help to boost oil production starting in 2018.

Demand for natural gas was hurt by mild winter weather, which kept prices below $3.00 per Mcf since February. Natural gas producers are able to quickly place natural gas on the market due to new technologies and existing infrastructure, which will keep natural gas prices below $4.00 throughout the forecast period. Prices are expected to average $3.03 per Mcf in 2017 and rise to $3.66 per Mcf by the end of 2019.

**Table 10**
**Transportation Revenue by Source**
*Dollars in Millions*

| | Preliminary FY 2016-17 | Estimate FY 2017-18 | Estimate FY 2018-19 | Estimate FY 2019-20 | CAAGR* |
|---|---|---|---|---|---|
| **Highway Users Tax Fund (HUTF)** | | | | | |
| Motor and Special Fuel Taxes | $629.4 | $636.2 | $645.4 | $654.4 | 1.4% |
| Percent Change | 2.8% | 1.5% | 1.4% | 1.4% | |
| Total Registrations | $369.1 | $376.8 | $384.6 | $392.5 | 2.1% |
| Percent Change | 3.7% | 2.1% | 2.1% | 2.0% | |
| *Registrations* | *$218.4* | *$222.8* | *$227.2* | *$231.6* | |
| *Road Safety Surcharge* | *$131.5* | *$134.1* | *$136.8* | *$139.4* | |
| *Late Registration Fees* | *$19.2* | *$19.9* | *$20.7* | *$21.5* | |
| Other HUTF Receipts[1] | $67.9 | $69.4 | $71.1 | $72.9 | 2.4% |
| Percent Change | 5.3% | 2.2% | 2.4% | 2.5% | |
| **Total HUTF** | $1,066.4 | $1,082.5 | $1,101.1 | $1,119.7 | 1.7% |
| Percent Change | 3.3% | 1.7% | 1.7% | 1.7% | |
| State Highway Fund (SHF)[2] | $40.0 | $43.0 | $46.2 | $49.6 | 7.4% |
| Percent Change | -23.4% | 7.5% | 7.4% | 7.3% | |
| Other Transportation Funds | $114.9 | $115.5 | $119.0 | $122.7 | 2.2% |
| Percent Change | 12.3% | 0.6% | 3.0% | 3.2% | |
| *Aviation Fund[3]* | *$23.1* | *$23.7* | *$24.9* | *$26.3* | |
| *Law-Enforcement-Related[4]* | *$8.8* | *$8.5* | *$8.6* | *$8.5* | |
| *Registration-Related[5]* | *$83.0* | *$83.4* | *$85.5* | *$88.0* | |
| **Total Transportation Funds** | **$1,221.3** | **$1,241.0** | **$1,266.3** | **$1,292.1** | 2.0% |
| Percent Change | 2.9% | 1.8% | 2.0% | 2.0% | |

*Totals may not sum due to rounding.*
**CAAGR: Compound average annual growth rate for FY 2016-17 to FY 2019-20.*

*[1]Includes daily rental fee, oversized overweight vehicle surcharge, interest receipts, judicial receipts, drivers' license fees, and other miscellaneous receipts in the HUTF.*

*[2]Includes only SHF revenue subject to Article X, Section 20, of the Colorado Constitution (TABOR).*

*[3]Includes revenue from aviation fuel excise taxes and the 2.9 percent sales tax on the retail cost of jet fuel.*

*[4]Includes revenue from driving under the influence (DUI) and driving while ability impaired (DWAI) fines.*

*[5]Includes revenue from Emergency Medical Services registration fees, emissions registration and inspection fees, motorcycle and motor vehicle license fees, and P.O.S.T. Board registration fees.*

**Addendum: TABOR-Exempt FASTER Revenue**

| | Preliminary FY 2016-17 | Estimate FY 2017-18 | Estimate FY 2018-19 | Estimate FY 2019-20 | CAAGR* |
|---|---|---|---|---|---|
| Bridge Safety Surcharge | $110.2 | $112.4 | $114.6 | $116.8 | **2.4%** |
| Percent Change | 3.3% | 2.0% | 2.0% | 1.9% | |

*Note: Revenue to the Statewide Bridge Enterprise from the bridge safety surcharge is TABOR-exempt and therefore not included in the table above. It is included as an addendum for informational purposes.*

**Table 11**
**Severance Tax Revenue Forecast by Source**
*Dollars in Millions*

| | Preliminary FY 2016-17 | Estimate FY 2017-18 | Estimate FY 2018-19 | Estimate FY 2019-20 | CAAGR* |
|---|---|---|---|---|---|
| Oil and Gas | $4.0 | $143.8 | $159.2 | $185.9 | 127.8% |
| Percent Change | -22.8% | 3471.9% | 10.7% | 16.8% | |
| Coal | $4.2 | $3.7 | $3.2 | $2.9 | -12.3% |
| Percent Change | 15.9% | -11.7% | -12.0% | -11.0% | |
| Molybdenum and Metallics | $2.9 | $2.9 | $3.0 | $3.0 | 0.3% |
| Percent Change | 100.2% | 0.3% | 0.3% | 0.3% | |
| Total Severance Tax Revenue | $11.1 | $150.4 | $165.4 | $191.8 | 94.9% |
| Percent Change | 8.2% | 1252.7% | 9.9% | 16.0% | |
| Interest Earnings | $8.4 | $5.9 | $5.9 | $5.9 | -11.4% |
| Percent Change | -3.3% | -29.1% | -0.3% | 0.6% | |
| Total Severance Tax Fund Revenue | $19.5 | $156.3 | $171.3 | $197.7 | 77.2% |
| Percent Change | 3.0% | 702.6% | 9.5% | 15.4% | |

** CAAGR: Compound average annual growth rate for FY 2016-17 to FY 2019-20.*

**Table 12**
**Tax Revenue from the Marijuana Industry**
*Dollars in Millions*

| | Preliminary FY 2016-17 | Forecast FY 2017-18 | Forecast FY 2018-19 | Forecast FY 2019-20 | CAAGR* |
|---|---|---|---|---|---|
| **Proposition AA Taxes** | | | | | |
| Special Sales Tax | $98.3 | $159.1 | $180.9 | $195.6 | 22.9% |
| State Share of Sales Tax | 83.6 | 143.2 | 162.8 | 176.1 | |
| Local Share of Sales Tax | 14.8 | 15.9 | 18.1 | 19.6 | |
| 15% Excise Tax | 71.9 | 81.4 | 92.5 | 100.1 | 11.0% |
| **Total Proposition AA Taxes** | **170.3** | **240.5** | **273.4** | **295.7** | **18.4%** |
| **2.9% Sales Tax (Subject to TABOR)** | | | | | |
| 2.9% Sales Tax on Medical Marijuana | 12.4 | 11.8 | 11.1 | 10.5 | -5.7% |
| 2.9% Sales Tax on Retail Marijuana | 28.1 | 0.8 | 0.9 | 0.9 | |
| TABOR Interest | 0.3 | 0.1 | 0.1 | 0.1 | |
| **Total 2.9% Sales Tax** | **40.9** | **12.7** | **12.1** | **11.5** | -42.2% |
| **Total Taxes on Marijuana** | **$211.1** | **$253.2** | **$285.5** | **$307.2** | **12.5%** |

**CAAGR: Compound average annual growth rate for FY 2016-17 to FY 2019-20.*

Coal, which has historically been the second largest mineral source of severance taxes in Colorado after oil and natural gas, generated $4.2 million in severance taxes in FY 2016-17. Despite increased production in the first quarter of 2017, coal severance taxes are expected to decrease 11.7 percent to $3.7 million in FY 2017-18, reflecting long run trends in the coal industry. Demand for coal has declined as electric utilities have been shifting to natural gas as a fuel for electricity generation. For the first time ever, the U.S. Energy Information Administration expects the amount of electricity from natural gas-fired power plants to exceed the amount of electricity generated from coal-fired power plants in the summer of 2017. The most recent sign of this realignment locally is the announcement by Xcel Energy that the company will close two coal-fired power plants in the Comanche Generating Station in Pueblo by the end of 2025.

Finally, interest earnings are expected be $5.9 million in FY 2017-18 and $5.9 million in FY 2018-19.

***Limited gaming revenue*** includes taxes, fees, and interest earnings collected in the Limited Gaming Fund and the State Historical Fund. Most of this revenue is subject to TABOR. Revenue attributable to Amendment 50, which expanded gaming beginning in FY 2009-10, is TABOR-exempt. The state limited gaming tax is a graduated tax assessed on casino *adjusted gross proceeds*, the amount of wagers collected less the amount paid to players in winnings, in the three state-sanctioned gaming municipalities: Black Hawk, Central City, and Cripple Creek. Casinos on tribal lands in southwestern Colorado are not subject to the state tax.

Limited gaming revenue subject to TABOR totaled $103.7 million in FY 2016-17, about $1.0 million higher than expected in the June forecast. Total gaming revenue increased just 0.9 percent over the year prior. Slow revenue growth was attributable to stagnant slot wagers, up just 0.4 percent year-over-year, but was boosted by higher “hold” percentages, the percentages of wagers retained by casinos and not paid to players in winnings. Gaming revenue is expected to rebound this year and next, increasing 1.7 percent to $105.5 million in FY 2017-18 and 2.0 percent to $107.6 million in FY 2018-19.

Growth in gaming tax revenue subject to TABOR is statutorily capped at 3.0 percent. Because gaming revenue is not expected to exceed this threshold during the forecast period, TABOR-exempt Amendment 50 revenue is expected to grow in line with broader gaming tax revenue. This revenue primarily supports the state community college system.

The marijuana market is beginning to mature. As a result, the annual growth in ***marijuana tax*** collections is expected to moderate over the forecast period. Total marijuana tax revenue is expected to reach $253.2 million in FY 2017-18 and $285.5 million in FY 2018-19 (Table 12).

Special sales tax revenue on retail marijuana is expected to reach $159.1 million in FY 2017-18 and $180.9 million in FY 2018-19. As a result of Senate Bill 17-267, the special sales tax rate on retail marijuana was increased from 10 percent in FY 2016-17 to 15 percent in FY 2017-18. The rate increase is the largest factor in the $60.8 million increase between the two years.

Excise tax revenue is forecast to reach $81.4 million in FY 2017-18 and $92.5 million in FY 2018-19. The first $40 million in excise tax revenue is deposited in the Building Excellent Schools Today (BEST) fund for school capital construction projects. This threshold was first met in FY 2015-16; growth in the industry will cause excise tax revenue to easily exceed this threshold throughout the forecast period.

With the passage of Senate Bill 17-267, the 2.9 percent state sales tax rate now applies only to medical marijuana and marijuana accessories purchased at a retail marijuana store. Medical marijuana sales tax revenue is expected to decline through the forecast period, generating about $11 million each fiscal year. Sales taxes on marijuana accessories and other non-marijuana products sold in a retail marijuana store is expected to generate about $800,000 in FY 2017-18 and $900,000 in FY 2018-19. Revenue from the 2.9 percent sales tax is deposited in the Marijuana Tax Cash Fund and is subject to TABOR.

Federal Mineral Lease (FML) revenue is the state's portion of the money the federal government collects from mineral production on federal lands. Collections are mostly determined by the value of mineral production. Since FML revenue is not deposited into the General Fund and is exempt from TABOR, the forecast is presented separately from other sources of state revenue.

In FY 2016-17, FML revenue fell 9.2 percent from the previous year, to $84.3 million. Despite increased production in the first quarter of 2017, coal production and FML payments have declined for three consecutive years.

FML revenue is expected to decline 4.6 percent to $80.4 million in FY 2017-18 and 3.6 percent to $77.5 million in FY 2018-19 as electricity from coal-fired power plants continue to be replaced by electricity generated from natural gas plants and solar and wind facilities.

Forecasts for **Unemployment Insurance (UI) Trust Fund** revenue, benefit payments, and the year-end fund balance are shown in Table 13. Revenue to the UI Trust Fund has not been subject to TABOR since FY 2009-10 and is therefore excluded from Table 6 on page 13. Revenue to the Employment Support Fund, which receives a portion of the UI premium surcharge, is still subject to TABOR and is included in the revenue estimates for other cash funds in Table 9.

The ending balance for the state's UI Trust Fund was $739.4 million in FY 2016-17, up 8.8 percent from the previous fiscal year. The fund has benefited from the state's healthy labor market and historical low unemployment rates. In FY 2016-17, the total amount of benefits paid from the fund dropped to $466.0 million, the lowest amount in almost ten years. Premium contributions ticked up in FY 2016-17 despite employers shifting to a lower premium rate schedule, which reduces the amount of UI contributions they are required to pay for each employee.

The UI Trust Fund is expected to continue to improve through the forecast period. Employer contributions will gradually increase as they add more employees to their payrolls. A higher employee chargeable wage base will also buoy the trust fund. The chargeable wage is indexed annually to the average weekly wage growth. The chargeable wage base is $12,500 for 2017, up $300 from 2016. The amount of benefits paid from the fund is also expected to continue to fall, further reinforcing the fund balance.

**Table 13**
**Unemployment Insurance Trust Fund**
**Revenues, Benefits Paid, and Fund Balance**
*Dollars in Millions*

| | Preliminary FY 2016-17 | Estimate FY 2017-18 | Estimate FY 2018-19 | Estimate FY 2019-20 | CAAGR* |
|---|---|---|---|---|---|
| Beginning Balance | $679.8 | $739.4 | $830.9 | $953.7 | |
| Plus Income Received | | | | | |
| UI Premium | $633.0 | $519.1 | $529.5 | $578.6 | -2.95% |
| Interest | $15.7 | $15.0 | $16.2 | $16.2 | |
| Total Revenues | $648.7 | $534.1 | $545.7 | $594.7 | -286% |
| Percent Change | 1.7% | -17.7% | 2.2% | 9.0% | |
| Less Benefits Paid | $466.0 | $442.6 | $422.9 | $410.2 | -4.16% |
| Percent Change | -9.7% | -5.0% | -4.5% | -3.0% | |
| UI Bonds Principal Repayment | ($125.0) | $0.0 | $0.0 | $0.0 | |
| Accounting Adjustment | $1.8 | $0.0 | $0.0 | $0.0 | |
| Ending Balance | $739.4 | $830.9 | $953.7 | $1,138.3 | 15.47% |
| Solvency Ratio | | | | | |
| Fund Balance as a Percent of Total Annual Private Wages | 0.66% | 0.72% | 0.78% | 0.86% | |

*Totals may not sum due to rounding.*

**CAAGR: Compound average annual growth rate for FY 2016-17 to FY 2019-20.*

# ECONOMIC OUTLOOK

The U.S. and Colorado economies are expected to follow a trajectory of moderate and steady growth through 2019. The national expansion is mature and, thus far in 2017, has exhibited strength in the areas of business performance, employment, and consumer spending. U.S. economic output is finally reaping the benefits of a firming international economy, and housing markets in many regions are strengthening. However, this long-lived expansion is a relatively weak one by the standards of the last thirty years. Productivity growth remains feeble. Wage and salary earnings indicate that the tight labor market is exerting little wage pressure on employers. Inflation lurks below the 2 percent target established by the Federal Reserve.

Should the expansion continue for thirty more months as expected, it will surpass the 1990s expansion and become the nation's longest on record. The amount of time remaining until then is sufficient to accommodate strengthening in areas where the economy is weakest now, so this expansion could yet build momentum beyond what it has achieved to date. However, the national economy has structural dynamics that are now acting as constraints on growth. The most significant of these is the accelerating rate of demographic change. Thus far, retirements by baby boomers have dampened wage growth and suppressed inflation. These effects will become more significant as additional workers leave the labor force. The number of "leavers" is expected to peak in the early 2020s.

The Federal Reserve has signaled its intention to incrementally tighten monetary policy, both with respect to interest rates and its balance sheet, by the end of this year. The Fed likely will act to fulfill these signals, weighing growth against persistently low inflation. The difficulties associated with normalizing monetary policy at this point of the business cycle raise downside risks to the forecast, along with a fragile international economic expansion, uncertain fiscal policy, and broader capacity constraints. These risks suggest that a recession is possible within the current forecast period.

The economic expansion in Colorado will remain one of the strongest in the country. The state's unemployment rate is among the nation's lowest, contributing to high consumer confidence and more wage pressure than elsewhere. Additionally, Colorado's diverse collection of businesses make the state better equipped to weather shocks to individual industries. These protections do not extend to every

**Impact of Hurricanes Harvey and Irma**

In general, natural disasters tend to cause a sharp drop in economic activity during and immediately following the disaster, followed by a rebound to the pre-disaster trend as resources are poured into restoring and rebuilding damaged property and infrastructure.

The hurricanes will redistribute economic activity across geographic regions, between industries, and over time. Consumer spending and business investment forgone due to the storms are expected to manifest at later points on the calendar. Real estate values in flood-affected areas will suffer a significant blow, while construction and retail trade will increase next year as structures are rebuilt. Finally, disruptions to energy and agriculture markets will contribute to rising fuel and food prices and near-term inflation.

As a result, expectations for U.S. gross domestic product and labor market indicators have worsened for the third quarter of this year but improved for the fourth quarter of 2017 through most of 2018. The energy industry is expected to normalize operations within the next few months. The hurricanes' effects on agriculture and food price inflation are expected to last the longest. Colorado's agriculture industry could benefit from widespread damage to Florida's industry and higher prices for agricultural products.

region of the state, however. Regions that have historically relied on coal and gas extraction, steel refining, and agriculture will continue to expand at weaker rates than the mountain and northern Front Range regions.

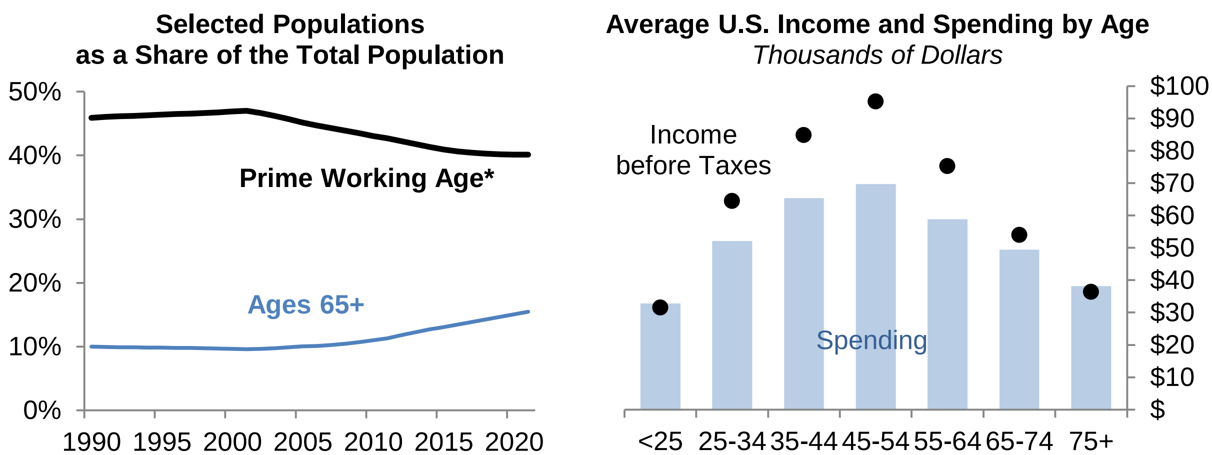
Tables 14 and 15 on pages 58 and 59 present histories and expectations for economic indicators for the U.S. and Colorado, respectively.

## Demographics

Demographic change actively affects economic performance across the U.S. and in Colorado, impacting the supply of labor, income, consumption, and inflation. An increasing share of the baby boomer generation — those born between 1946 and 1964 — is retiring, causing labor force participation to decline and slowing income and consumption growth. Colorado's prime working age population, comprising persons between ages 25 and 54, is projected to fall from a high of 47 percent of the population in 2001 to 40.2 percent by 2020 (Figure 4, left). The share of those aged 65 and older is expected to rise from a historical average of about 10 percent to more than 15 percent by 2020.

Income and consumption rise and fall with age (Figure 4, right). In particular, the average earning and consumption levels of those in the U.S. peak between ages 45 and 54 and decline steadily thereafter. As the baby boomer generation reached their 40s and 50s, the U.S. enjoyed a "demographic dividend", marked by strong economic growth in the 1990s and 2000s. The current expansion has been less impressive than in previous business cycles in part because of a demographic drag that is expected to impact the U.S. and Colorado economies for years to come. The oldest baby boomers reached age 65 in 2010. The youngest will reach retirement age in 2029. The number of baby boomers leaving the labor force is expected to peak in Colorado in the early 2020s.

**Figure 4**
**Selected Demographic Indicators**




*Source: Colorado State Demography Office.*
**Ages 25 to 54 as a share of the total population.*

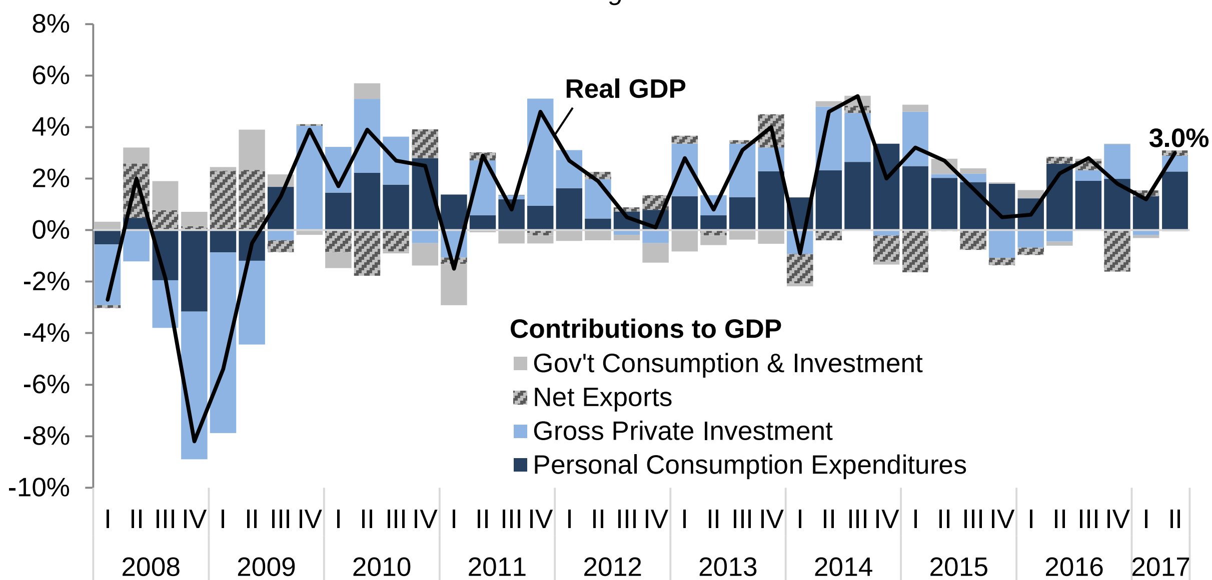
*Source: U.S. Bureau of Labor Statistics, 2015 Consumer Expenditure Survey.*

In addition to the rise and fall of income and spending, consumption patterns tend to evolve over time with changes in technology and economic activity. Anecdotal evidence and economic data suggest that members of the millennial generation — those born between 1980 and 1999 — spend more on 'experiences,' such as travel and dining out, and less on 'things,' such as apparel, books, and food consumed at home, than previous generations did at their age. Millennials are also making different decisions than prior generations with respect to housing, which makes up the largest share of household expenses (over 40 percent in the Denver-Boulder-Greeley combined statistical area). National data from the Consumer Expenditure Survey suggest that relative to prior generations aged 25 to 34, millennials are less likely to own a home, more likely to rent or live with their parents, and less likely to move. These consumption trends have subdued national demand for housing construction and sales.

## Gross Domestic Product

Driven by confident consumers and improvements in global demand, the U.S. economy continues to expand into the late stages of the business cycle. Gross domestic product (GDP), the broadest measure of economic activity, increased at an annualized rate of 3.0 percent in the second quarter of 2017 following gains of 1.2 percent in the first quarter. The nation's economy has grown at an annualized rate of 2.1 percent through the first half of the year, representing a sizeable improvement from 1.4 percent one year prior. Figure 5 presents the annualized change in real U.S. GDP and contributions from its four components.

**Figure 5**
**Contributions to Real U.S. Gross Domestic Product**
*Annual Percent Change and Contributions*




*Source: U.S. Bureau of Economic Analysis. Real GDP is inflation-adjusted. Contributions to percent change and percent change in GDP reflect annualized quarter-over-quarter growth.*

Consumer spending, which accounts for more than two-thirds of U.S. economic activity, rebounded in the second quarter of 2017 after growing at its slowest pace in three years during the first quarter. Personal consumption expenditures rose a robust 3.3 percent from the previous quarter.  Expenditures on durable goods were very strong despite weakness in vehicle sales.  Expenditures on nondurable goods were also strong, in part reflecting a rebound in oil prices.

Business spending continued to pick up pace in the second quarter, offsetting the drag from residential investments.  Nonresidential fixed investment advanced at a rate of 6.9 percent, nearly matching first quarter growth, on strong contributions from investment in equipment and structures.  Residential fixed investment posted a 6.5 percent quarter-over-quarter decline, reversing robust gains made in the first quarter.

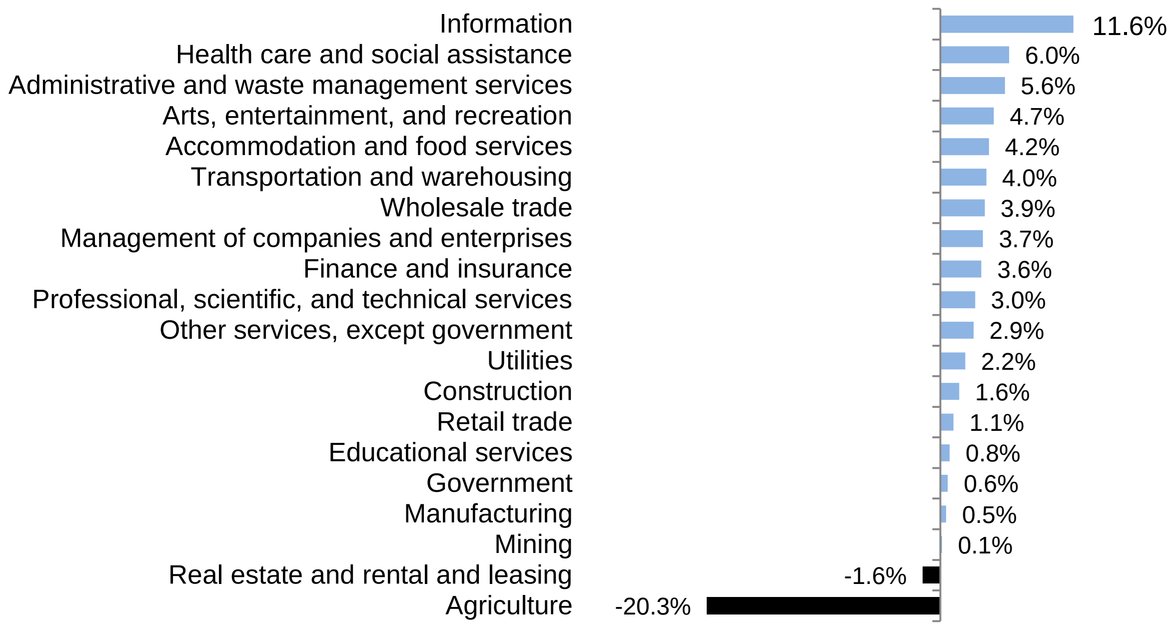
In recent months, the falling U.S. dollar has aided American exporters.  Exports provided a modest lift to economic growth during the second quarter, increasing 3.7 percent from the quarter previous.  Government purchases also added modestly to economic growth.  Federal expenditures increased, more than offsetting a slight decline in state and local government spending.

Though data are not yet available, it is expected that Hurricanes Harvey and Irma contributed to weakness in national consumer and business output during the third quarter of 2017.  Economic activity in densely populated parts of the southeast, including the major metropolitan areas of Houston, Miami, and Tampa, came to a halt as the storms moved through.  Most of the progress lost to the storms is expected to materialize in future months as stores reopen, trade normalizes, and those who lost property begin to rebuild.  Based on these assumptions, the hurricanes are expected to dampen GDP growth in the third quarter of 2017 before contributing modestly the fourth quarter and in 2018.

U.S. GDP will continue to increase to the extent and duration permitted by consumer spending.  With the U.S. labor market at or near full employment, households are expected to reap the benefits of additional wage income and spend the economy to further heights accordingly.  Should household consumption stall, the economy is not equipped to advance on the strength of business investment, international purchases, and government spending alone.

Colorado's real GDP grew by 2.4 percent in the first quarter of 2017 from the same period one year prior, outpacing the national rate of 1.8 percent during the same period.  Economic growth for the state has been broad-based across industries, with 18 of 20 sectors registering growth.  The health care and entertainment industries were among the primary drivers of growth in the first quarter of the year.  Data from the U.S. Bureau of Economic Analysis show that exuberant growth in the information sector is attributable to data processing, internet publishing, and miscellaneous information firms.  Low commodity prices in the agricultural industry continue to be a drag on the state's economic output.  Figure 6 shows growth in real Colorado GDP by industry for the first quarter of the year.

**Figure 6**
**Colorado Real Gross Domestic Product, First Quarter 2017**
*Percent Change, Year-over-Year*




*Source: U.S. Bureau of Economic Analysis. Real GDP is inflation-adjusted.*

- Real U.S. GDP is expected to increase 2.1 percent in 2017 and 2.6 percent in 2018. Consumer spending will be the most significant driver of growth, followed by business investment.

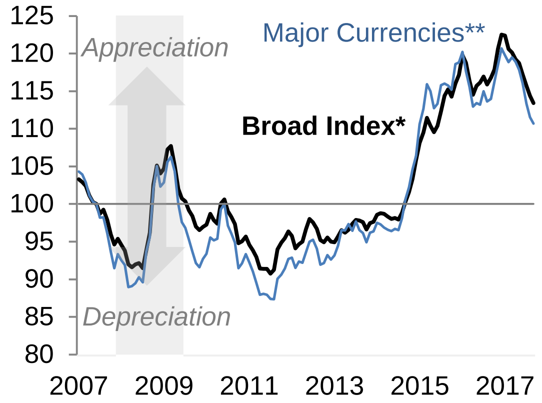
## Global Economy

The global economy has sustained a degree of expansionary momentum for the first time in years. Global economic activity improved further in the first half of 2017, building on progress from the end of last year. Coupled with a cheaper dollar, stronger global activity is boosting demand for U.S. goods and services. While the international economy is expected to continue to strengthen in 2017 and 2018, elevated political risk poses a threat to the global economic outlook.

After peaking last year, the value of the U.S. dollar is trending downward relative to most major foreign trade partners (Figure 7, left). Recent depreciation means that U.S. goods and services are becoming more affordable to foreign buyers, contributing to higher demand for exports and support for domestic manufacturing industries (Figure 7, right). As the global economy improves, the dollar will weaken further, boosting exports but making foreign goods more expensive for American consumers.

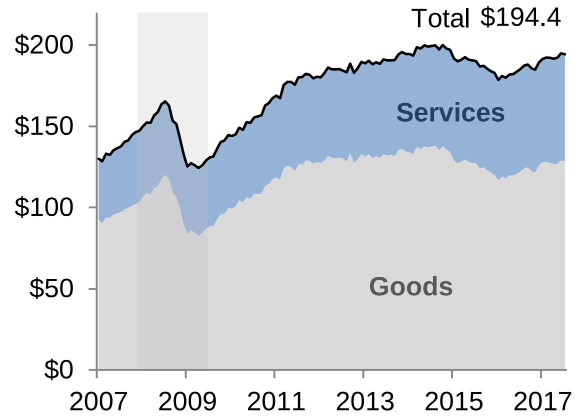
**Figure 7**
**Selected Global Economic Indicators**

**Trade Weighted U.S. Dollar**
*Index 100 = June 2007*




*Source: Federal Reserve Board of Governors.*
**A weighted average of the foreign exchange values of the U.S. dollar against currencies of major U.S. trading partners. **Includes a subset of broad index currencies that circulate widely in global exchanges.*

**Total U.S. Monthly Exports**
*Billions of Dollars*




*Source: U.S. Bureau of Economic Analysis (balance of payments basis). Data are seasonally adjusted but are not adjusted for inflation.*

U.S. exports rose 6.7 percent in the first half of 2017 over the same period last year according to data published by WiserTrade. Improvements were broad-based across trade partners and commodity types. Exports to the largest U.S. trade partners — Canada, Mexico, China (including Hong Kong), and Japan — led gains in the first half of the year. Most gains to date are attributable to growth in the value of exports of mineral fuels and related products, reflecting higher crude oil prices than during the past two years.

Colorado exports rose 7.1 percent in the first half of the year. Exports to Mexico accounted for the vast majority of the increase on strong gains in the value of meat products and glass sold abroad. Exports of other commodity types performed inconsistently and declined across most other trade partners.

The July update of the International Monetary Fund's World Economic Outlook held the forecast for global economic activity steady. World output is expected to grow at a pace of 3.5 percent in 2017 and 3.6 percent in 2018, consistent with the April outlook. Among advanced economies, higher expectations for several countries in the Eurozone and Japan were more than offset by downward revisions for U.S. and U.K. economies. The outlook for Saudi Arabia was downgraded on lower oil price expectations, and Latin America and the Caribbean were also downgraded on continued political risk in Brazil and Argentina. Other emerging and developing economies are expected to see the same or stronger growth relative to April expectations, as output in these countries has thus far surprised on the upside.

Despite the recent uptick, global output remains below pre-financial crisis averages. Aging populations and slower investment and productivity growth continue to pose headwinds that dampen global demand. Risks to the recovery remain skewed toward the downside. Political risk has eased in the Eurozone but remains elevated elsewhere.

Economic activity in **Canada** improved further in the first half of 2017, with progress across most industries. A tightening labor market and rising inflation prompted the Bank of Canada to order a July interest rate hike — the first in seven years. In response to overheating in several urban real estate markets, provincial legislatures have imposed special taxes on foreign buyers. Home prices cooled in Vancouver and dipped in Toronto following the implementation of the taxes. Housing market fluctuations and low oil prices threaten the growth outlook.

Consumer and business confidence in **Mexico** has waned in recent months in spite of continued improvements in labor markets and economic output. Beginning in early 2016, Mexico's central bank aggressively increased interest rates in response to rising inflationary pressures and strong depreciation in the peso. After reaching a historic low of 22 pesos to the dollar, the Mexican currency rebounded to 17 pesos to the dollar in August. The ongoing renegotiation of the North American Free Trade Agreement (NAFTA) poses significant political risks for both the Canadian and Mexican economies, which are highly dependent on trade with the United States.

Economic activity in the **Eurozone** is outpacing expectations. Policy uncertainty has calmed in the region following the outcomes of several key elections early this year. Labor markets are strengthening, inflation remains subdued, and the region exhibits broad-based improvements across industries. Despite gaining some momentum, growth remains dependent on monetary policy stimulus. The European Central Bank has signaled a cautious approach to the adoption of tighter monetary policy, suggesting that tightening too quickly might subvert the recovery.

Inflation continues to weigh on economic growth in the **United Kingdom**. Depreciation of the British pound has slowed consumption, contributing to sluggish GDP growth in the first half of the year. The U.K. continues to move closer to Brexit, which raises uncertainty in trade relationships with European Union member countries. European Union member states remain the U.K.'s largest markets for exports.

China continues to enjoy strong growth, yet systemic financial risk and economic restructuring continue to threaten the country's outlook. The Chinese economy remains dependent on debt spending and public sector investment, which pose financial sector risks and limitations to both medium- and long-term growth. In the near-term, economic growth is expected to cool in the second half of 2017 as strong public sector investment subsides.

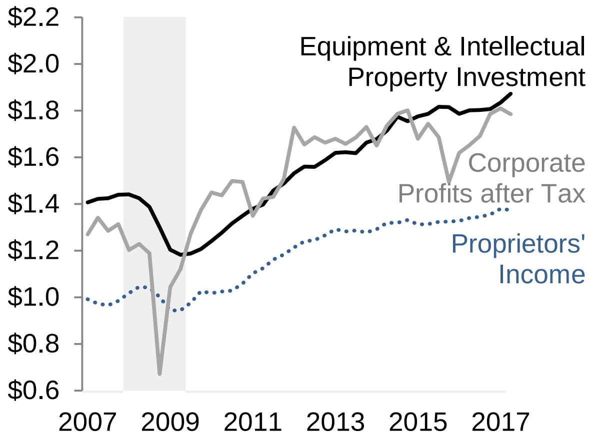
## Business Income and Activity

Indicators for business income and manufacturing activity are consistent with an expanding economy. Low oil prices caused a contraction in the energy sector in 2015 and the first half of 2016, dragging down overall business activity. Data now suggest that the energy sector has stabilized and other business sectors have shown more earnest growth. Progress is expected to continue at a moderate pace through the forecast period as the expansion advances.

Figure 8 shows selected measures of business activity. The rebound in business investment, proprietors' income, and corporate profits after tax (top left) began in 2016 and has continued through the first half of 2017. Investment in equipment and intellectual property increased 0.6 percent in 2016 and added 3.1 percent in the first half of 2017 compared with the same period in 2016. Growth in proprietors' income and corporate profits after tax were more robust, even after accounting for a slight second quarter drop in the latter.

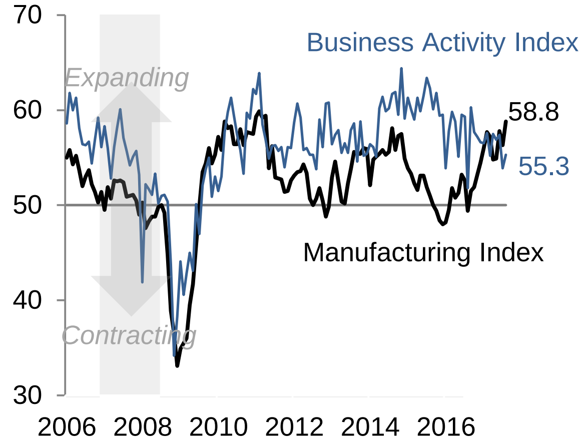
**Figure 8**
**Selected Indicators of U.S. Business Activity**

**Business Investment, Income and Profits**
*Trillions of Dollars*



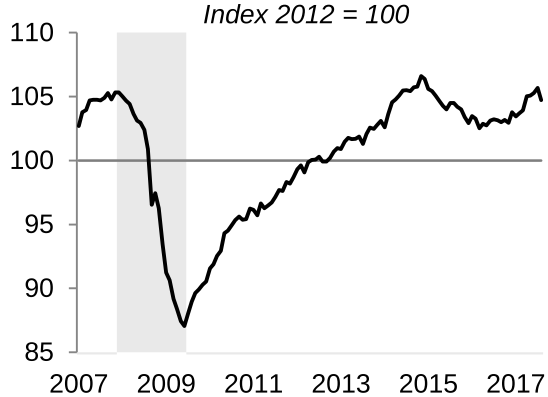

*Source: U.S. Bureau of Economic Analysis. Data are not adjusted for inflation.*

**Institute for Supply Management Indices**
*Diffusion Index*



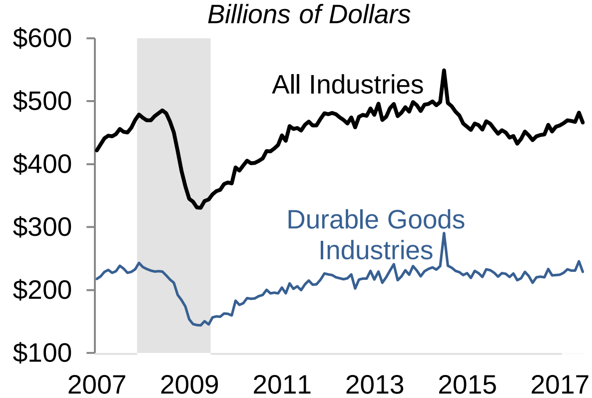

*Source: Institute for Supply Management.*

**Industrial Production Index**
*Index 2012 = 100*




*Source: Federal Reserve Board of Governors.*

**New Manufacturers' Orders**
*Billions of Dollars*




*Source: U.S. Census Bureau. Data are not adjusted for inflation.*

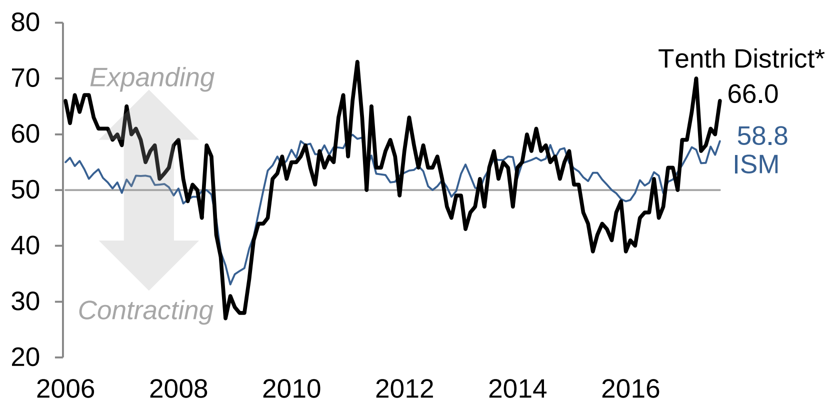
Both the Institute for Supply Management's (ISM) manufacturing index and its non-manufacturing business activity index show expanding business activity. Values above 50 represent expansion. The manufacturing index has shown expanding activity for the past twelve months, and was measured at 58.8 in August. The non-manufacturing index, which had consistently shown stronger activity than the manufacturing index through most of the expansion, slowed to 55.3 in August.

As measured by the Federal Reserve, industrial production, shown in the bottom left of Figure 8, increased 1.6 percent through the first seven months of 2017 after declining 1.2 percent in 2016. Industrial production ticked down in August, primarily because of lost oil and gas output in Texas as a result of Hurricane Harvey. Manufacturing and industrial production orders, shown in the bottom right of Figure 8, continue to increase as the expansion matures and global markets improve. Total new manufacturing orders increased 6.0 percent in the first six months of 2017 compared with the same period in 2016. New orders for durable goods increased 5.2 percent, partially on the strength of increased orders for airplanes.

The strong business indicators presented in Figure 8 ease concerns of an imminent recession. Despite sagging performance in the wake of the December 2014 oil price plunge, U.S. businesses now demonstrate renewed vigor that portends sustained growth through the forecast period. A healthy private sector effectuates improvements in economic output both through direct investment and through spending by wage earners. However, poor business indicators in 2016 reveal that conditions can change quickly depending on a great number of unforseen risks.

***Kansas City Fed District.*** The Federal Reserve Bank of Kansas City produces a manufacturing index for businesses within its region, which includes Colorado in addition to six other states, that is similar to the ISM index for the nation. The index for businesses in this region strengthened to 66.0 in August as shown in Figure 9. Regional manufacturers were swamped with new orders in January and February and have been working to fill those back orders. Manufacturing output has increased, and expectations for future activity remain positive.

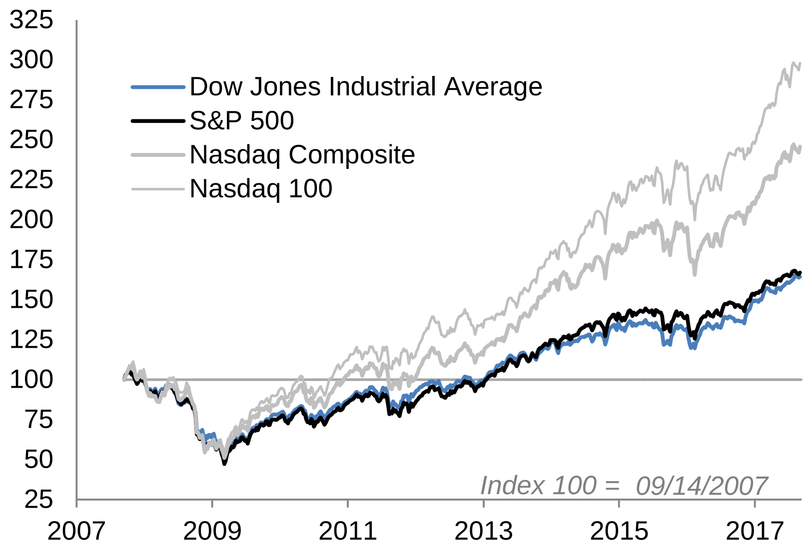
**Figure 9**
**Selected Manufacturing Indices**




*Source: Institute for Supply Management and Federal Reserve Bank of Kansas City.*
**The Tenth District composite index is adjusted to match the ISM scale. The Tenth District includes Colorado, Kansas, Nebraska, Oklahoma, Wyoming, eastern Missouri, and northern New Mexico.*

Gains in the stock market have slowed since the first part of the year but remain robust. Investor confidence has driven increases across all indices since the start of the year. The Dow Jones Industrial Average was at 21,900 points in early September, up 2,060 points (10.4 percent) from the end of 2016, while the broader S&P 500 added 9.2 percent over the same period. As shown in Figure 10, stock market performance has grown fastest among tech firms traded on the Nasdaq.

**Figure 10**
**Stock Market Growth Comparisons**



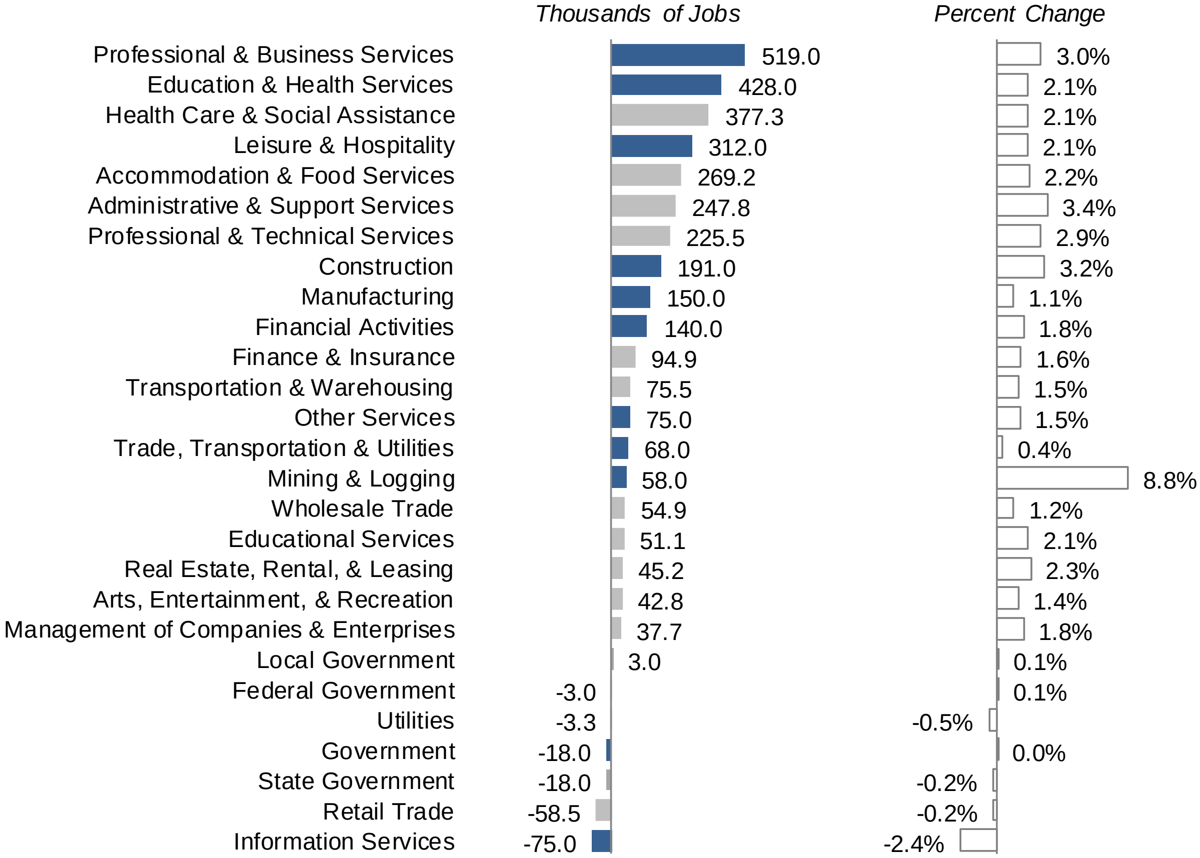

*Source: S&P Dow Jones Indices LLC and NASDAQ OMX Group.*

## Labor Market

U.S. and Colorado labor market indicators suggest an economy at full employment, raising the prospect of rising wages and salaries while also suggesting a lack of remaining slack from which to squeeze economic output. The nation's unemployment rate continues to tick down and has dropped to its lowest level in ten years. Meanwhile, the state's unemployment rate is among the lowest in the country.

U.S. employers continue to add jobs at a healthy pace despite labor markets that, depending on their location, may be near, at, or beyond full employment. Through July, job growth has averaged 175,000 new jobs per month, 1.4 percent higher than the same period one year ago. The most significant job gains have come in the professional and business services supersector, which added 519,000 jobs since last August. Employment growth in the education and health sciences supersector remains solid with an additional 428,000 jobs. Job losses in the oil and gas industry have leveled off and begun to reverse in recent months as oil and gas prices have stabilized, but total employment in the sector is still well below its peak in early 2014. Finally, employment in the retail trade sector is declining as large department stores, including Macy's and JCPenney, close brick and mortar locations to accommodate changing consumer habits in the industry. Figure 11 shows U.S. job gains and losses by industry between August 2016 and August 2017.

**Figure 11**
**U.S. Job Gains and Losses by Industry**
*Year-over-Year Change, August 2017*

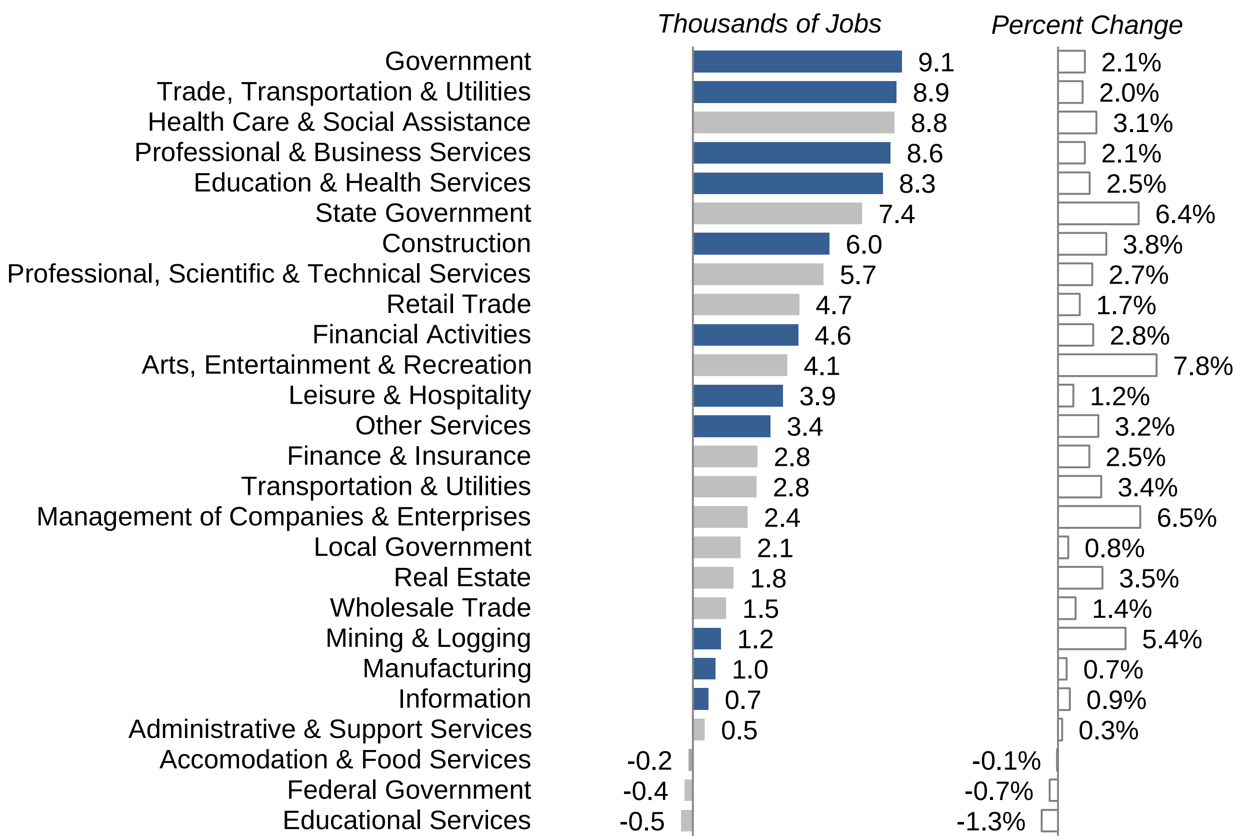



*Source: U.S. Bureau of Labor Statistics. Data are seasonally adjusted. Blue shading indicates a supersector, while grey shading indicates a subsector.*

U.S. weekly unemployment claims have fallen to historical lows, driving the U.S. unemployment rate to its lowest level in nearly a decade. The share of the labor force that is jobless has averaged about 4.5 percent for the year, the lowest rate since 2007.

Colorado employment continues to expand, with modest to moderate job gains across most major sectors. The state added jobs at a rate of 2.1 percent over the twelve-month period ending in August 2017, averaging over 4,600 net new jobs per month. These figures reflect Legislative Council Staff estimates of revisions expected to be made during the U.S. Bureau of Labor Statistics rebenchmarking process. The trade, transportation, and utilities supersector added 8,900 jobs, an increase of 2.0 percent from the same month one year ago. Booming tourism is driving demand for workers in the arts, entertainment, and recreation subsector, which exhibited the fastest year-over-year growth rate. According to the Colorado Tourism Office, 2016 marked the sixth consecutive year of record-breaking visits to the state. Colorado state parks had a record year with nearly 14 million visits, and ski resorts reported the second busiest season ever. Meanwhile, employment in the federal government and educational services subsectors posted year-on-year declines. Figure 12 shows Colorado job gains and losses by industry between August 2016 and August 2017.

**Figure 12**
**Colorado Job Gains and Losses by Industry**
*Year-over-Year Change, August 2017*

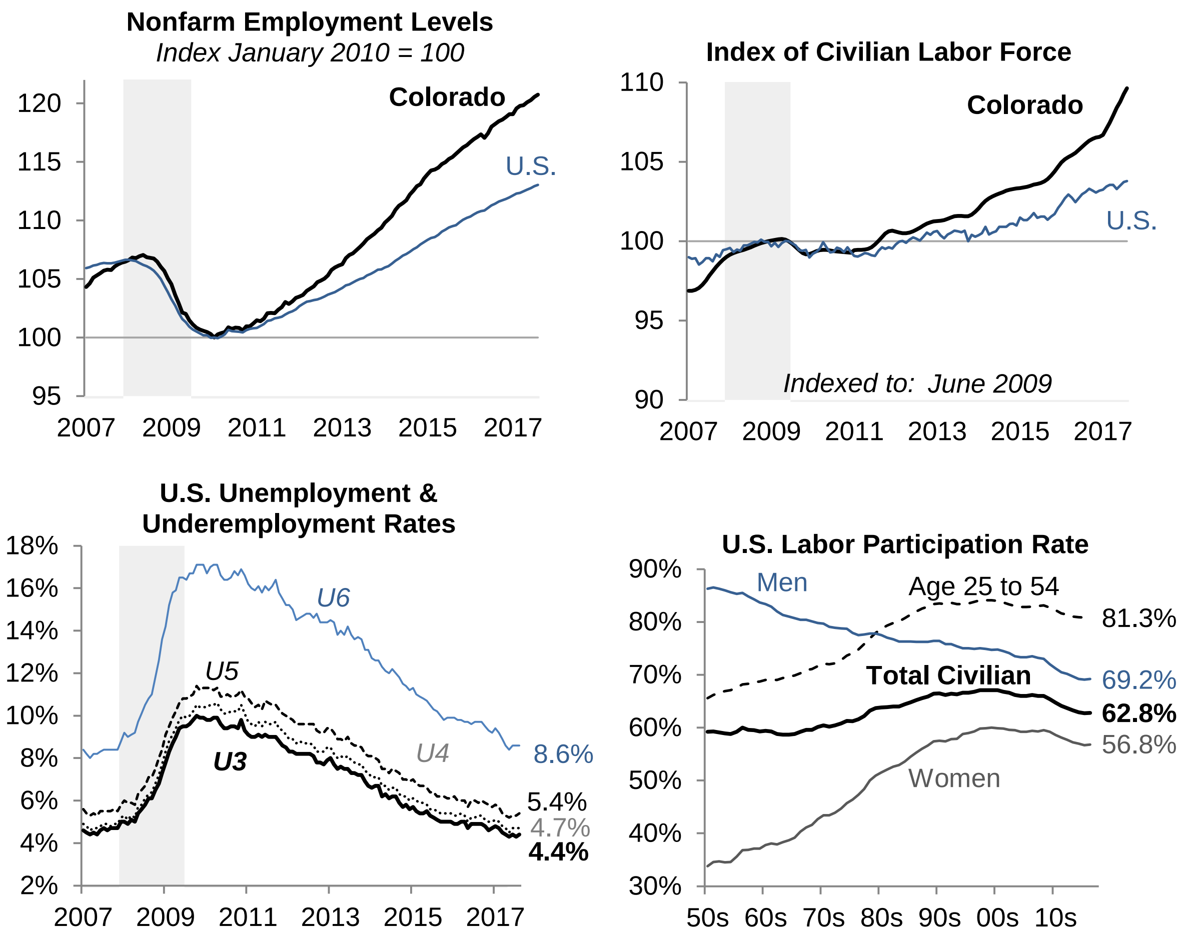



*Source: U.S. Bureau of Labor Statistics with Legislative Council Staff rebenchmark estimates. Data are seasonally adjusted. Blue shading indicates a supersector, while grey shading indicates a subsector.*

Colorado's unemployment rate was 2.4 percent in August, the same rate measured in July. Colorado boasts the nation's second-lowest unemployment rate, having been passed by North Dakota (now 2.3 percent) in the July release from the U.S. Bureau of Labor Statistics. The state's unemployment rate is being pulled downward by job growth while also being pushed up by new entrances to the labor force. The number of unemployed Coloradans actively seeking work fell below 68,000 in April, the lowest recorded rate since 2001, but is estimated to have crept up to 72,600 in August. In order for Colorado businesses to continue filling jobs, the labor force will need to keep growing. This may result from aging workers choosing to stay in the labor force, in-migration, or a higher labor force participation rate. The tight labor market has led to elevated wages for employees, though to a lesser extent than expected relative to previous expansions.

Figure 13 shows several labor market indicators, including nonfarm employment growth (top left) and trends in the labor force (top right). Employment growth has exceeded the number of people entering the labor force, contributing to a tightening labor market and declining unemployment rates (bottom left). The total U.S. labor force participation rate (bottom right) peaked at 67.1 percent in 2000 before gradually declining to 62.8 percent in 2016. The labor force participation rate has continued to fall through the last two business cycles, suggesting that it is tied to structural changes in the population and economy that are unlikely to reverse quickly. The labor market is expected to continue to tighten as long as the economy grows during the forecast period.

**Figure 13**
**Selected U.S. Labor Market Indicators**




*Source: U.S. Bureau of Labor Statistics. Monthly data are seasonally adjusted.*

- Colorado will continue to add jobs through the forecast period, although at a slower pace than in recent years as labor market shortages constrain growth. Nonfarm employment in the state will increase 2.1 percent in 2017 and 1.9 percent in 2018. The state's unemployment rate will average 2.7 percent in 2017 and 2.7 percent in 2018.

- As the nation maintains full employment, U.S. nonfarm employment will increase 1.5 percent in 2017 and 1.2 percent in 2018. The national unemployment rate will average 4.4 percent in 2017 and 4.3 percent in 2018.

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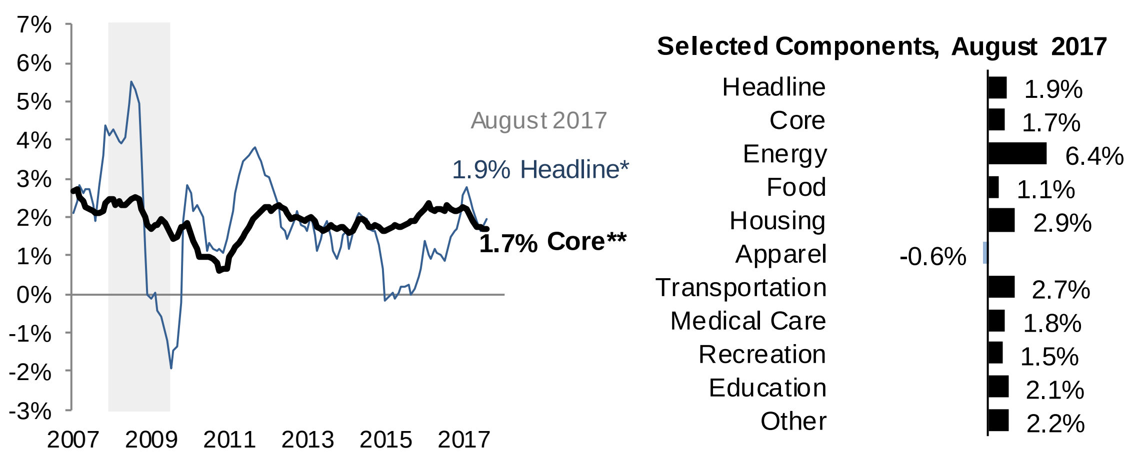
## Monetary Policy and Inflation

Having voted to increase the target federal funds rate in December, March, and June, the Federal Open Market Committee (FOMC) has signaled its intent to tighten monetary policy further as early as this month. During a mature expansion, central banks most often act to rein in economic growth, preventing overheating while staving off inflationary pressure. Inflation, however, remains low. Though this forecast anticipates that the FOMC will move to raise rates and reduce the size of the Fed's balance sheet before the end of the year, lower than expected inflation makes monetary policy more uncertain, elevating risks next year.

Consumer price inflation is tracking below the 2.0 percent target rate set by the FOMC and below most economists' expectations. Headline inflation, which includes all measured consumer prices, was measured at 1.9 percent in August relative to August 2016; core inflation, which excludes volatile food and energy prices, was measured at 1.7 percent. Price pressure is most significant in the energy component, a trend that will become even more pronounced once the gasoline price increases attributable to Hurricane Harvey are measured. Service costs including those for medical care and education are also among the quickest to increase, while goods prices, especially those for apparel and food, operate as a drag on inflation. Pricing power among goods merchants is expected to remain low given intense competition between brick and mortar and online retailers. Indicators for U.S. consumer prices are presented in Figure 14.

**Figure 14**
**U.S. Consumer Price Index (CPI) Inflation**
*Percent Change in Prices, Year-over-Year*



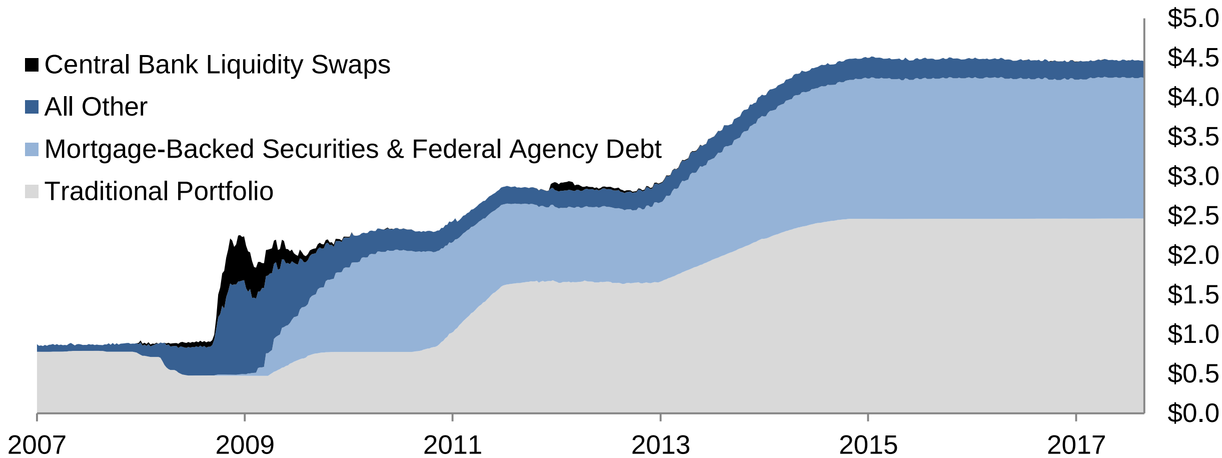

*Source: U.S. Bureau of Labor Statistics.*
*Inflation is calculated as the growth in urban area prices in a given period relative to the same period in the prior year.*
**Headline inflation includes all products and services.*
***Core inflation excludes food and energy prices.*

Low inflation is attributable to a number of factors, including slowing population growth, lower rates of consumption among retirees, a strong dollar, and the effects of the burgeoning online retail sector. Some of these features, particularly those linked to demographics, will persist through the forecast period and beyond. Others, such as currency exchange rates, have already begun to dissipate. Sustained economic growth and the mitigation of some of these factors will provide a moderate lift to inflation during the current forecast period.

Despite below target inflation rates, thirteen of the seventeen governors and bank presidents polled at the Federal Reserve's June meeting anticipated that the target federal funds rate would be hiked at least once more during 2017. Additionally, 12 of 16 members responding to a survey about next year's rates expected that the target federal funds rate would be set no lower than 2.00 percent by the end of 2018, suggesting four more rate hikes over the next six quarterly meetings. Continuing to increase interest rates in a low-inflation environment suggests a monetary policy aimed at avoiding labor market overheating—that is, keeping the unemployment rate above unsustainably low levels as a means of preserving the expansion for as long as possible. The effective federal funds rate, measured at 1.16 percent in August, has never before been pegged below 3.00 percent during a mature expansion in the post-World War II era.

Following quantitative easing measures taken in response to the Great Recession, the Federal Reserve currently holds about $4.5 trillion in assets, principally Treasury debt and mortgage-backed securities. In 2014, the Fed ceased further expansion of its balance sheet and has been purchasing assets in volumes sufficient to replace those that reach maturity. A history of the Federal Reserve balance sheet, including three rounds of quantitative easing, is shown in Figure 15.

**Figure 15**
**Federal Reserve Balance Sheet**
*Trillions of Dollars*

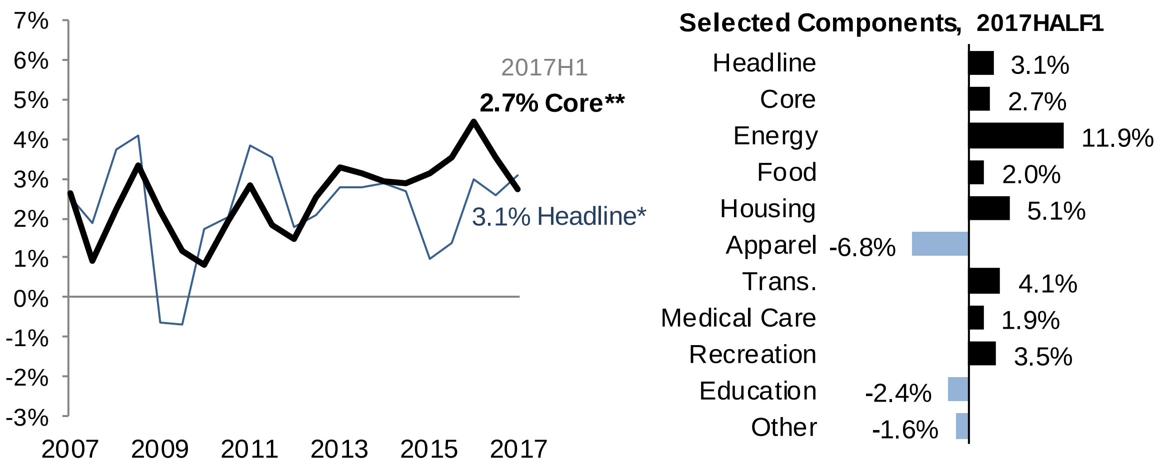



*Source: Federal Reserve Board of Governors. Data through August 30, 2017.*

In June, the Fed signaled intentions to cut its balance sheet by allowing at least some securities to retire upon maturity, thereby reducing the money supply. Asset normalization is expected to occur gradually, with securities worth only about $10 billion allowed to mature without replacement each month at first. This amount is expected to accelerate to $50 billion per month sometime next year.

Colorado consumer prices, as measured by the Denver-Boulder-Greeley consumer price index, are increasing more quickly than those in other parts of the country. In the first half of 2017, the Denver-Boulder-Greeley CPI increased by 3.1 percent relative to the same period in 2016. Headline inflation was boosted by resurgent energy prices following their slump in 2015 and 2016. Core inflation, netting out food and energy prices, was up 2.7 percent, largely a result of significant home price increases. While still high at 5.1 percent, the shelter component has begun to moderate after inflating 5.9 percent in 2016. Denver-Boulder-Greeley inflation indicators are presented in Figure 16.

**Figure 16**
**Denver-Boulder-Greeley Consumer Price Index (CPI-U) Inflation**
*Percent Change in Prices, Year-over-Year*




*Source: U.S. Bureau of Labor Statistics.*
*Inflation is calculated as the growth in urban area prices in a given period relative to the same period in the prior year.*
**Headline inflation includes all products and services.*
***Core inflation excludes food and energy prices.*

- As the expansion continues and interest rates rise, consumer prices in the U.S. are expected to increase 2.1 percent in 2017 and 2.4 percent in 2018.

- Consumer prices for Denver-Boulder-Greeley are expected to increase more quickly than those measured nationwide, rising 3.2 percent in 2017 and 2.8 percent in 2018.

## Households and Consumers

Conditions for consumers are gradually improving in this late cycle economy, and households are expected to continue to reap benefits from rising incomes and low inflation. Consistent with a slower rate of expansion overall, however, the rates of growth in personal income and wages have disappointed relative to previous business cycles. Structural explanations, particularly demographic reasons for the low labor force participation rate, provide some insight. Consumer spending continues to be the engine that drives U.S. economic output, and the expansion will go as far as consumers are able to take it. Recent indicators for consumer spending, retail trade, and credit utilization suggest that household activity will continue to drive GDP at a moderate rate through the current forecast period.

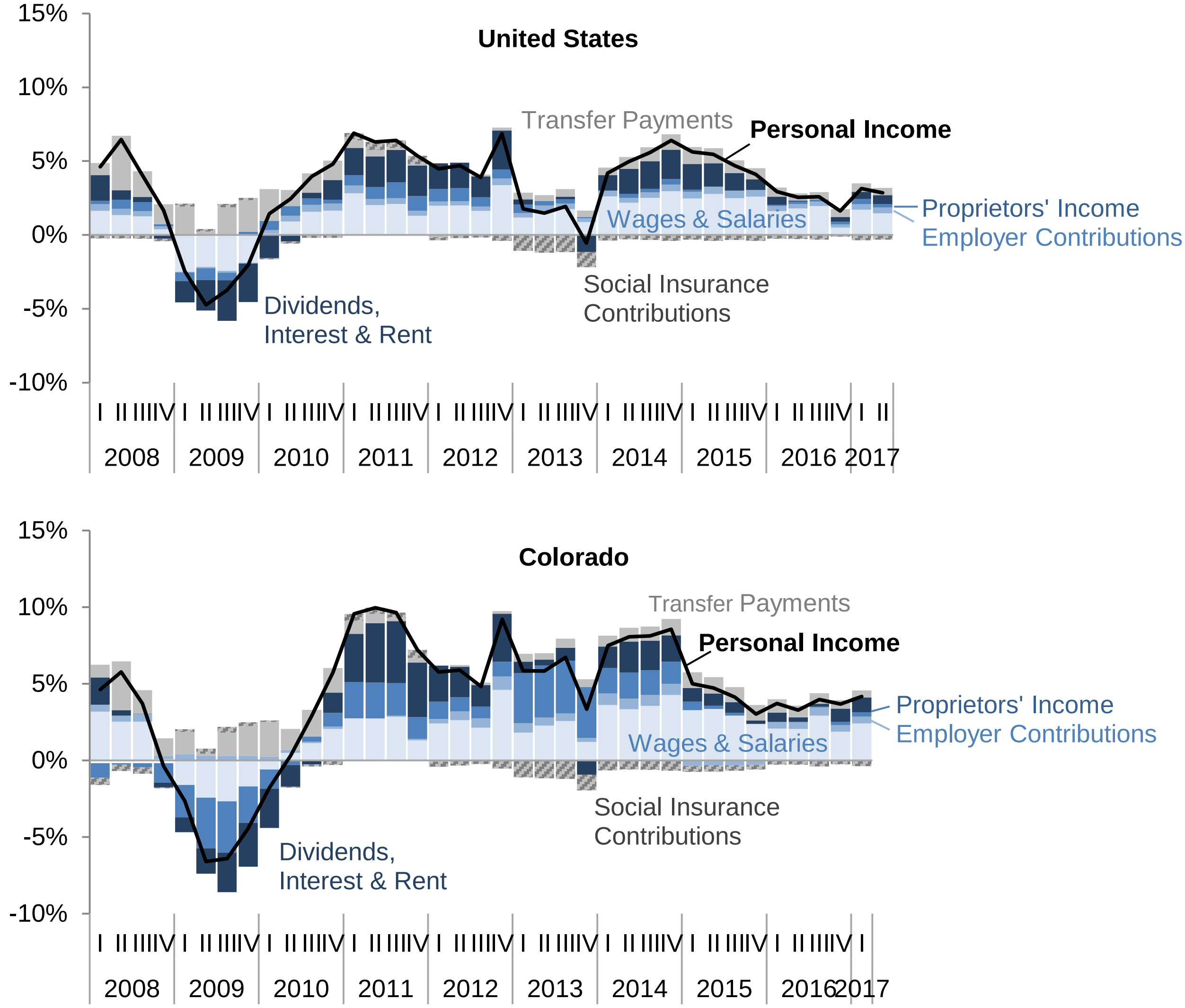
***Personal income.*** At the start of the year, personal income, an aggregate indicator of income from households and non-corporate businesses, grew at a rate roughly consistent with inflation and population growth in both Colorado and the nation. In the second quarter of this year, U.S. personal income rose 2.8 percent over year-ago levels. Colorado data, which are available only through the first quarter of this year, indicate a 4.2 percent rise over the same period last year. Colorado has outpaced the nation in personal income growth since 2012 on the strength of above-average progress in wages and salaries, attributable in large part to stronger state population and employment growth than the nation as a whole. The relative contributions of the major components of personal income are shown in Figure 17.

Despite a labor market at or near full employment in Colorado and many other areas of the country, wage growth during the current expansion has been less robust than in previous business cycles. During 2016, wages and salaries in Colorado and the U.S. grew 4.2 percent and 2.9 percent, respectively. For comparison, U.S. wages and salaries grew 6.4 percent in 2006 and 8.3 percent in 2000, and wage growth had never previously fallen below 5.0 percent during an expansion since data were first recorded in 1960. These statistics suggest that demographic drag, slow productivity gains, and other structural factors pose significant constraints on income growth. Relatedly, economic factors like low inflation also play a role in suppressing nominal wage gains.

In Colorado, first quarter growth in dividends, interest, and rent outpaced national gains, reflecting hotter real estate prices and rising interest rates. Proprietors' income, which reflects non-corporate business income, played a sizeable role in Colorado personal income growth early in the expansion. While Colorado's small business economy expanded at a strong pace between 2011 and 2014, growth in part reflects a recent change in the methodology used by the U.S. Bureau of Economic Analysis for its state-level series. Since 2014, proprietors' income growth has been relatively subdued, consistent with nationwide trends.

***Consumer spending.*** Consumer spending remains the most reliable contributor to growth in the national economy. Inflation-adjusted U.S. personal consumption expenditures increased 2.7 percent in the first half of 2017 relative to the same period in 2016, representing growth at essentially the same rate as that experienced last year. The composition of consumer spending is tracing a long trajectory of change. For 17 quarters, growth in the consumption of services has outpaced total growth in personal consumption, and for 12 of the last 13 quarters, spending on durable goods has grown more quickly than spending on nondurable goods. Weather events in Texas, Florida, and other areas of the southeast are expected to adversely affect consumer performance during the remainder of 2017, though these effects will moderate early next year.

**Figure 17**
**Components of Personal Income**
*Contributions to Percent Change, Year-over-Year*

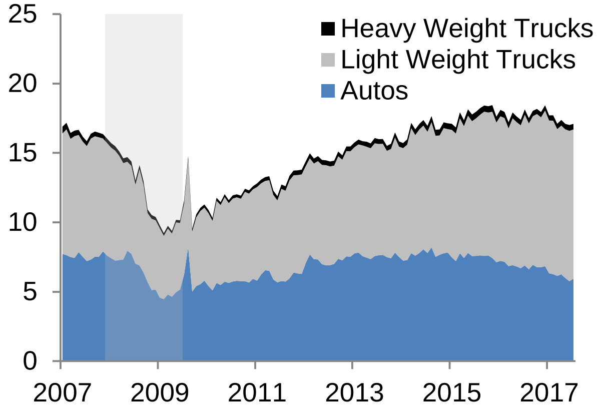



*Source: U.S. Bureau of Economic Analysis with Legislative Council Staff calculations. Data are not adjusted for inflation.*

Confident consumers with rising incomes continue to make larger investments in durable goods, with one notable exception. Light auto sales, including passenger vehicles and light trucks, fell in each of the first seven months of the year compared with the same period last year, suggesting that vehicle purchases peaked during 2016. A history of auto sales by type since 2007 is presented in Figure 18 (left). While both services and durable goods are exhibiting healthy rates of growth, consumption of nondurable goods has been tepid. Pricing power among producers and sellers of nondurable goods has weakened with the rapid expansion of low-cost online retailers.

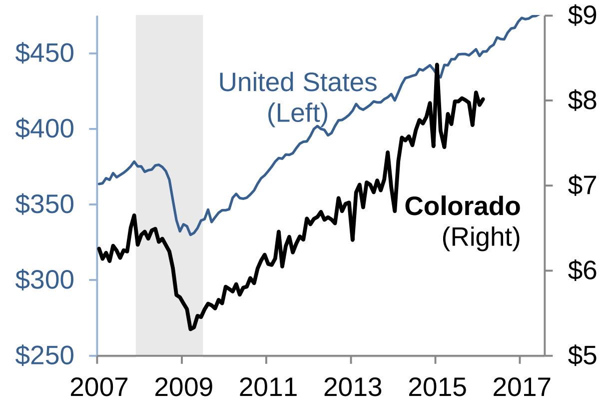
**Figure 18**
**Selected Indicators of Consumer Spending**

**U.S. Vehicle Sales**
*Thousands of Units*




*Source: U.S. Bureau of Economic Analysis, Supplemental Estimates. Data through July 2017 and are shown as seasonally adjusted annual rates.*

**U.S. and Colorado Monthly Retail Sales**
*Billions of Dollars*

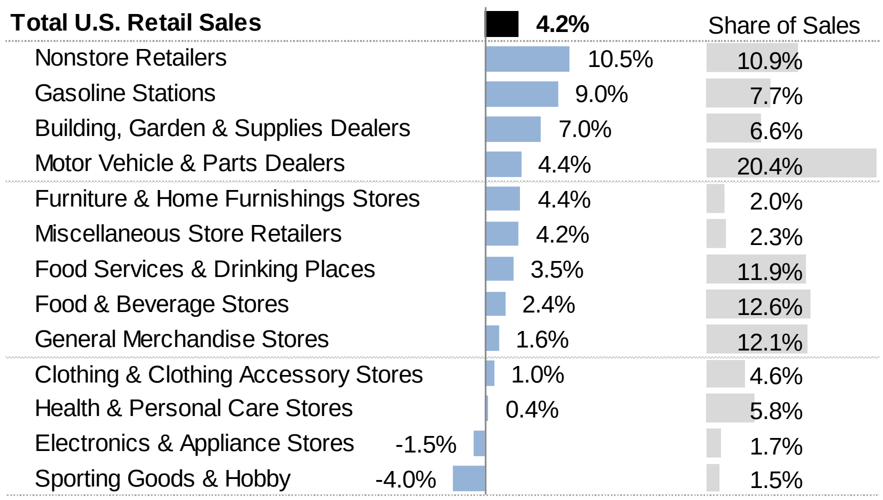



*Source: U.S. Census Bureau and Colorado Department of Revenue. Data are seasonally adjusted. U.S. data through July 2017; Colorado data through February 2016.*

U.S. retail sales increased 4.2 percent through August. The strongest performance was among nonstore retailers (up 10.5 percent), including online sellers without a physical retail presence, and gasoline stations (up 9.0 percent), which continue to rebound from low fuel prices in 2015 and 2016. Despite the slumping number of vehicles sold, motor vehicle and parts retailers reported total revenue growth of 4.4 percent. Retailers against whom online sellers are best equipped to compete continue to report the worst sales performance. Through August, retail sales by general merchandisers had increased just 1.6 percent on the year, lagging the headline consumer price index though perhaps outperforming inflation in their own goods prices. Clothing stores and health and personal care stores posted even weaker gains, while electronics and sporting goods stores reported outright losses. Trends in U.S. and Colorado retail trade sales are presented in Figure 18, and U.S. retail sales by industry are presented in Figure 19.

Weak pricing power across many retail sectors is now a problem for many businesses, as well as for state and local governments that rely on sales tax collections. Competition from low-overhead online retailers has suppressed prices for some goods and depressed prices for others. Thus, poor retail sales growth indicators are more indicative of stagnant prices than weak consumer activity, though the impacts on retailers, and especially brick and mortar stores, are still weighted to the downside.

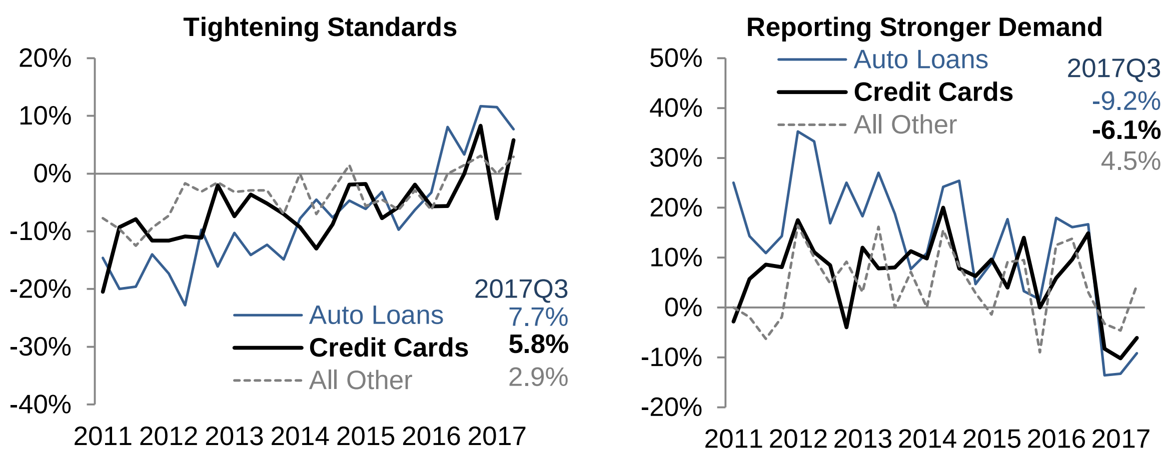
**Figure 19**
**Change in U.S. Retail Sales**
*Year-over-Year Change, January through August 2017*




*Source: U.S. Census Bureau advanced monthly retail trade report.*

***Credit markets.*** Commercial banks have now reported declines in consumer demand for auto loans and credit cards for three consecutive quarters, the first episode of sustained decreases in demand for consumer credit during the current expansion. Other economic indicators provide some explanation, including the aforementioned interest rate hikes and decline in vehicle sales. As delinquencies for subprime auto loans have continued to rise, banks have also begun tightening lending standards. Indicators for consumer credit standards and demand are presented in Figure 20.

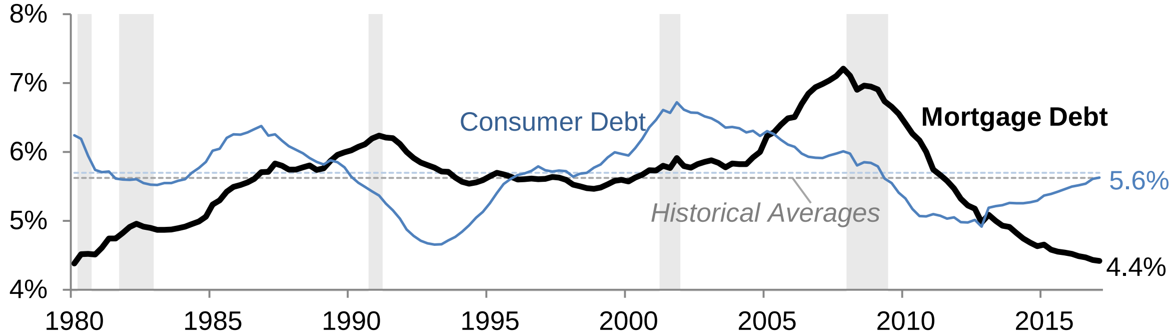
**Figure 20**
**For Consumer Loans, Net Percentage of Domestic Banks**




*Source: Federal Reserve Board of Governors Senior Loan Officer Survey.*

Consumers have ended their pattern of deleveraging, with consumer debt service ratios creeping up to historical averages and mortgage debt service ratios stabilizing above 4.0 percent. In the latter case, the mortgage debt service ratio has fallen to its lowest level since the early 1980s, reflecting sustained low interest rates with a limited number of new homeowners, an elevated share of refinanced mortgages, and regulations imposed in the wake of the 2008 housing crisis. Consumer debt service ratios are tracked in Figure 21.

**Figure 21**
**Historical Debt Service Ratios***




*Source: Federal Reserve Board of Governors.*
**Debt service ratios are calculated as the ratio of household mortgage and consumer credit (e.g. credit card) debt payments to disposable household income. Historical averages are calculated from 1980 to the most recent quarter of data (2017Q1). Data are seasonally adjusted.*

- Consistent with a mature expansion, U.S. personal income will increase 3.0 percent in 2017 and 5.0 percent in 2018. Wages and salaries will increase 3.1 percent and 4.4 percent in the two years, respectively.

- Bolstered by a tight labor market, Colorado personal income will increase 5.3 percent in 2017 and 6.3 percent in 2018. Wage and salary income in particular will increase 5.5 percent in 2017 and 5.2 percent in 2018.

- Improved household incomes and healthy consumer confidence will drive additional increases in Colorado retail trade, which is expected to increase 5.2 percent in 2017 and 4.7 percent in 2018.

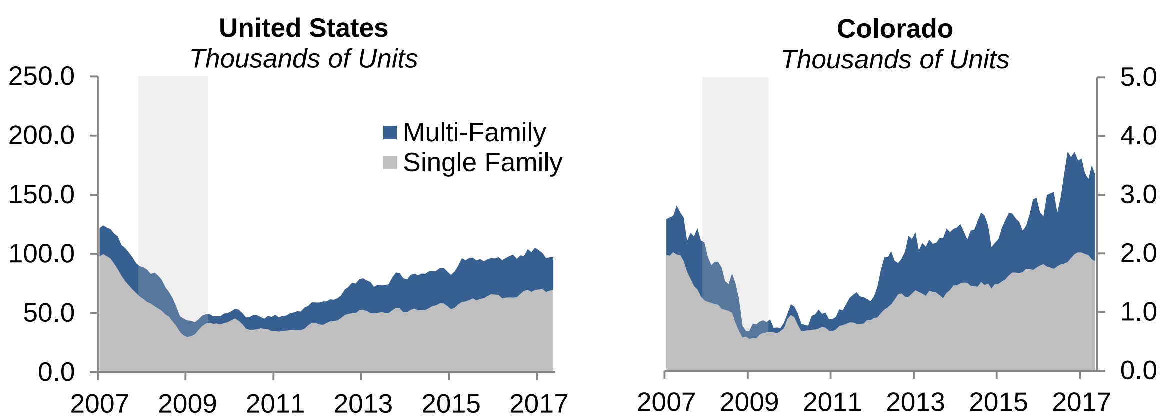
## Residential Real Estate

The national real estate market is awakening, with persistent growth in single family residential construction and accelerating home prices in markets that absorbed hard hits during the Great Recession. Rising incomes and consumer confidence throughout the country are expected to sustain improvements in U.S. real estate even as interest rates become more of a factor in decisions among would-be homebuyers. This is the area where Colorado's economy least resembles the nation at large. The Front Range housing market has operated at a later point in the business cycle than the national market during the entire expansion. Denver and the surrounding areas are now seeing significantly augmented housing supply along with attendant deceleration in price growth and rising rental vacancies, portending moderation for the scorching local market.

National housing permits increased by 3.9 percent in the first half of 2017 compared with the same period last year, representing moderate deceleration from 6.1 percent during 2016. Growth continues to shift toward single family construction. Total single family permit issuances increased 7.7 percent during the first half of the year, versus a 3.8 percent decline in permits for multifamily residential construction. The trend suggests that builders are ready to cash in on household formation and increasing homeownership. After falling since 2004, the percentage of Americans owning their homes bottomed out at 63.9 percent in early 2016 and has since begun to increase again.

Permitted residential construction in Colorado continues to outpace national housing starts to a significant extent. The number of permitted residential units grew 21.7 percent through June relative to the same period last year. Multifamily construction continues to have a much more significant market presence than during earlier expansions: multifamily permits increased 47.5 percent during the first half of this year, versus just 10.1 percent for single family residential permits. Permit data are volatile and may reflect a one-time spike attributable to permits issued for a handful of very large multifamily complexes. However, they indicate that Colorado's housing stock is moving in the opposite direction of the nation's as a whole—i.e., toward greater multifamily housing options. One explanation is household formation among the millennial population along the northern Front Range, who are disproportionately likely to seek relatively low-cost apartments or condominiums. Additionally, a shortage of buildable single family lots in urban and suburban areas has motivated some builders to emphasize construction of high-rise multifamily structures in the urban core. While the number of total housing permits remains well below prerecession peak levels, construction is no longer historically low. Leading indicators of residential construction for the state and nation are tracked in Figure 22.

**Figure 22**
**Building Permits Issued for New Residential Construction**



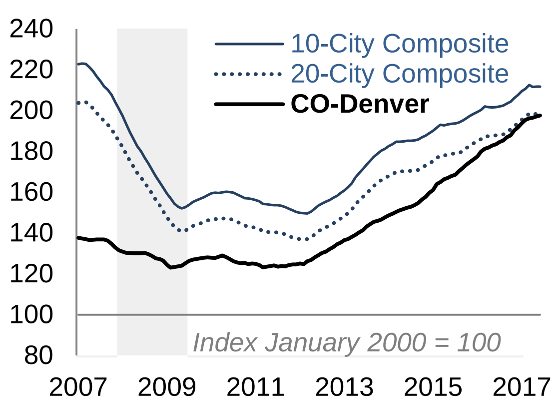

*Source: U.S. Census Bureau. Seasonally adjusted three-month moving averages through July 2017.*

Rising incomes and building consumer confidence, coupled with mortgage rates that remain buyer-friendly, have spurred housing demand and quickened home price appreciation in many of the nation's largest housing markets. The Case-Shiller 20-city composite home price index increased 5.8 percent over the first half of the year, representing acceleration from the measured 2016 rate. Though home prices in markets like New York, Los Angeles, and Chicago remain below pre-recession peak levels, a sustained economic expansion is expected to drive continued appreciation even as buyers are faced with rising interest rates. In the short-to-medium term, however, national home price indicators likely will capture distortions to real estate values in the hurricane-affected areas of Texas and Florida. Home price indices for the U.S. and Colorado are shown in Figure 23.

As shown in Figure 24, U.S. rental vacancy rates stabilized near 7 percent and have begun to rise again, consistent with a migration from tenancy to homeownership in many regions of the country. This also mirrors national homebuilders' reprioritization of single family projects at the expense of new multifamily construction.

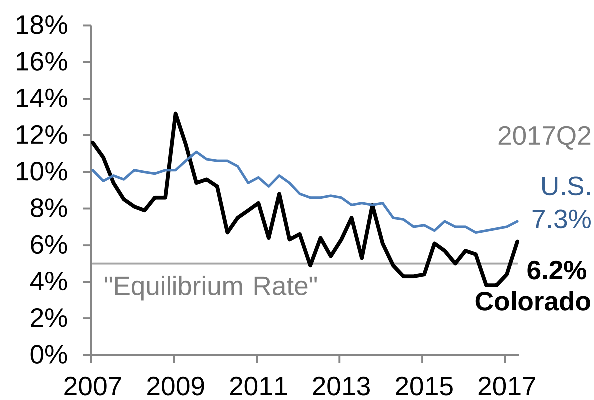
In Colorado, increases in Front Range home prices have begun to slow and are expected to moderate further over the forecast period. Home prices in the Denver market were 8.3 percent higher during the first half of 2017 than year-ago levels, representing slight deceleration from 9.2 percent growth in 2016. However, home price appreciation was concentrated in the latter half of 2016 and has slowed since; prices measured in June were only 3.0 percent higher than those measured in December, representing the slowest growth over a half-year period since 2012. Flattening prices confirm most economists' expectations that the torrid pace of appreciation in the Denver metro area in recent years is unsustainable. Home price appreciation is expected to slow further as new supply comes online and interest rates rise. There is also a risk that real estate is presently overvalued and that prices will fall, a possibility that would sap currently high levels of consumer confidence if borne out. Colorado rental vacancies have also increased sharply after bottoming out late last year.

**Figure 23**
**Case-Shiller Home Price Indices**




*Source: S&P Dow Jones Indices LLC.*
*Seasonally adjusted. Data through June 2017.*

**Figure 24**
**Rental Vacancy Rate**




*Source: U.S. Census Bureau.*
*Data through the second quarter of 2017.*

The U.S. Federal Housing Finance Agency (FHFA) publishes transaction data for seven Colorado housing markets: Denver, Colorado Springs, Pueblo, Fort Collins, Boulder, Greeley, and Grand Junction. In the six markets east of the Continental Divide, home prices have exceeded pre-recession peak levels and continue to appreciate. The pace of appreciation differs across markets, with prices along the northern Front Range continuing to outpace those to the south of Denver. For information about regional economies in less populous areas of the state, see the regional sections of this document beginning on page 61.

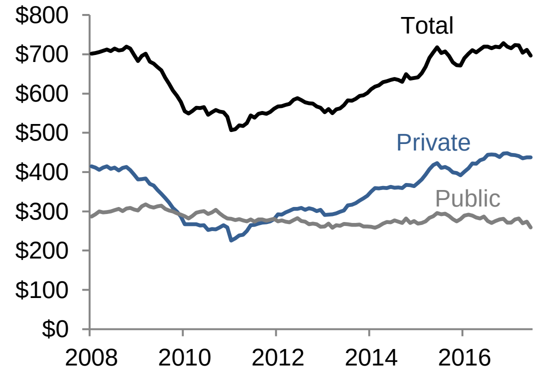
- With demand for housing still very high, the number of permitted residential construction projects in Colorado is expected to increase 13.6 percent in 2017 and 1.8 percent in 2018.

## Nonresidential Construction

Nationwide, nonresidential construction spending increased 5.3 percent in June 2017 compared with year-ago levels, buoyed by strong demand for office and commercial real estate projects. Spending lost some momentum from a decrease in outlays for public projects (Figure 25). In addition, several national and local nonresidential construction market surveys continue to report that recruiting and retaining qualified staff is a growing issue, perhaps even preventing some developers from beginning projects.

Nonresidential construction spending in Colorado is up 6.3 percent year-to-date through July compared with the first seven months of 2016. Demand for warehouses and office space continue to drive nonresidential activity across the Metro Denver region. In Denver, the office market continues to see strong growth, with several new projects planned outside the central business district. The hotel industry is adding new rooms in central Denver, although at a slower rate than previous years as robust growth over the past few years has contributed to an oversupply of rooms.

**Figure 25**
**Nonresidential Construction Spending**
*Billions of Dollars*




*Source: U.S. Census Bureau.*
*Monthly data are seasonally adjusted.*

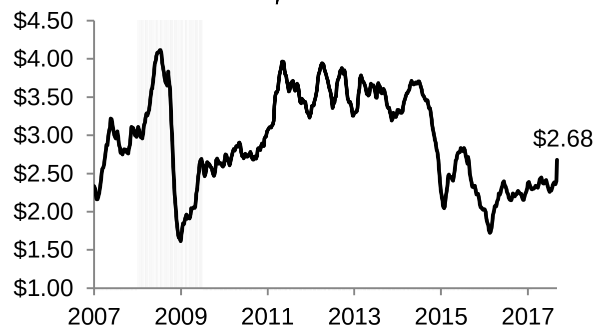
Nonresidential construction spending in 2017 has been especially supported by three large projects that commenced in May. Lockheed Martin Corp. started construction on a new $350 million satellite manufacturing facility at its Waterton Canyon campus in Jefferson County, UC Health broke ground on a $185 million Greeley Campus, and construction began on the nearly $1 billion Rush Creek wind project located in Cheyenne, Elbert, Kit Carson and Lincoln counties.

- The value of permitted Colorado nonresidential construction projects is expected to increase 1.4 percent in 2017 and 2.7 percent in 2018.

## Energy Markets

Hurricane Harvey made landfall on August 25 near Corpus Christi, Texas, and caused flooding at the heart of the Texas energy industry. The disruption in the region's infrastructure affected the supply chain of energy products throughout the United States. Gas prices spiked as a result of the storm (Figure 26), however the disruption is expected to abate once production, refining, and distribution facilities return to normal operations. Prices for crude oil and natural gas had remained fairly constant throughout 2017 and energy firms gradually increased the number of active drilling rigs. Selected data on the oil and gas industry are shown in Figure 27. Coal production increased in the first quarter of 2017, but the long run shift in electricity production from coal to natural gas and renewable sources will continue to sap coal production and employment through the forecast period.

**Figure 26**
**U.S. Regular Gasoline Price**
*Dollars per Gallon*




*Source: U.S. Energy Information Administration. Weekly average prices. Data are not seasonally adjusted.*

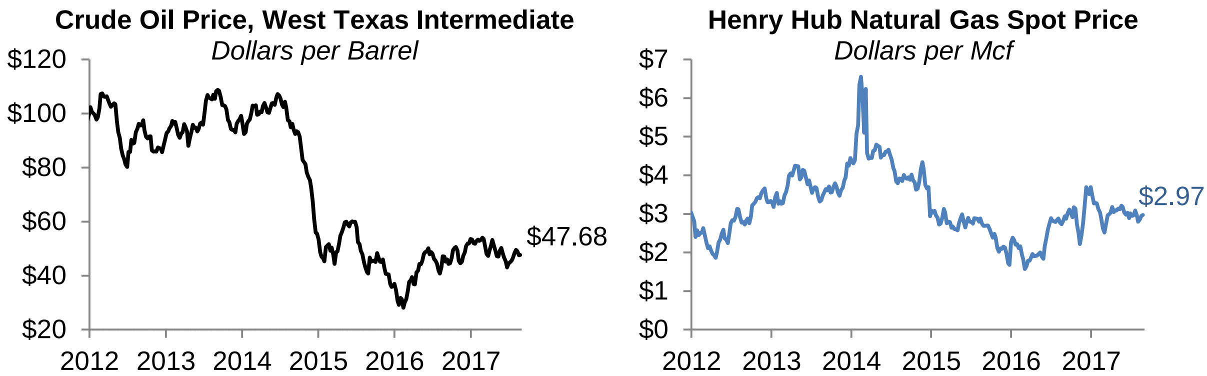
Hurricane Harvey flooded much of the Texas Gulf Coast, home to a high concentration of the nation's oil and gas production and distribution infrastructure. About half of the nation's refinery capacity is along the Gulf Coast, and the Energy Information Administration estimates that Texas accounts for about 31 percent of U.S. oil refining capacity. The storm caused the temporary shutdown of many of these refineries as it produced unsafe working conditions and power outages, impacted the area's workforce, and interrupted the supply of crude oil from pipelines.

In addition to suppressing refinery operations, the storm reduced the distribution of refined oil and gas products to other regions in the country. The Colonial Pipeline connects 29 refineries and 267 distribution terminals and transports gasoline, diesel, and jet fuel from Houston to New York City. A lack of refined oil products caused intermittent operations of the pipeline between August 25 and September 6. The impact on the distribution network decreased the supply of refined oil products across the eastern U.S.

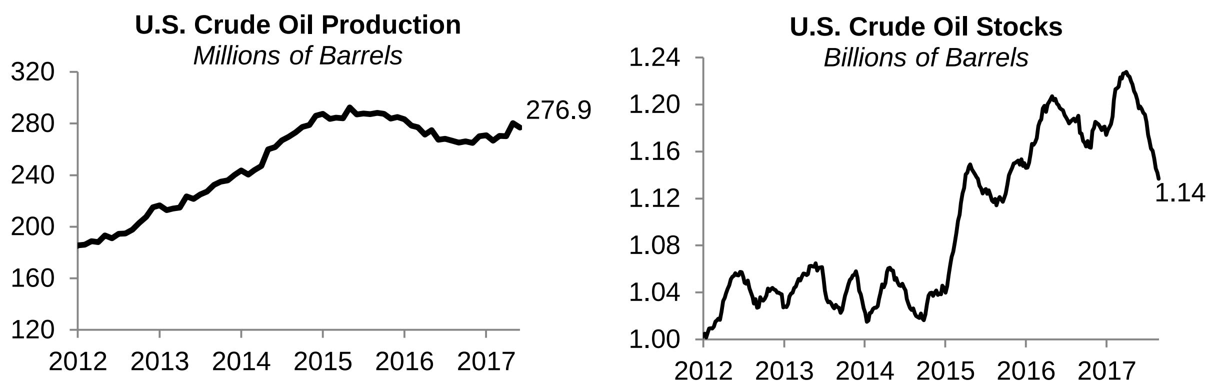
The top two panels of Figure 27 show oil and natural gas prices. After bottoming out at $29.20 per barrel in January 2016, the price of oil averaged $49.33 per barrel in the first eight months of 2017 and was $47.68 during the last week of August. Oil prices are expected to increase modestly through the forecast period to $53 per barrel in 2019 as new technologies allow oil producers to quickly increase production in response to price conditions. Natural gas prices are expected to follow a similar pattern. Prices will increase from a low of $2.54 per thousand cubic feet (Mcf) in 2016 to approximately $3.83 in 2019. Prices for natural gas averaged $2.97 per Mcf during the last week of August 2017 and are expected to increase in anticipation of the winter heating season by the end of the year.

Oil production bottomed out in September 2016 at 265.0 million barrels and has increased slightly in the first six months of 2017, reaching 276.9 million barrels in June (Figure 27, middle left). Oil and gas producers responded to the stabilization of oil prices by increasing production and developing new oil and gas wells for future exploration. The sharp decline in crude oil stocks in August 2017 (Figure 27, middle right) is due in part to the impact of Hurricane Harvey on the nation's oil distribution network.

**Figure 27**
**Selected Indicators of Oil and Gas Industry Activity**



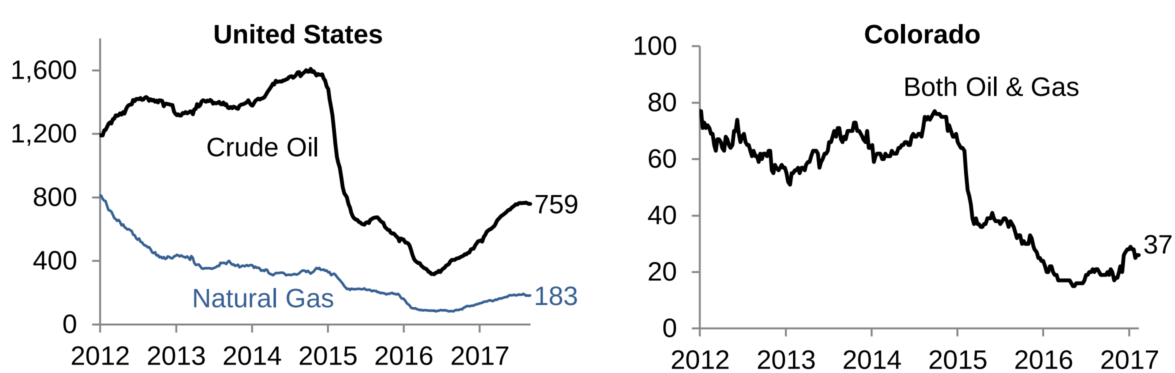

*Source: U.S. Energy Information Administration. Weekly average prices. Data are not seasonally adjusted.*




*Source: U.S. Energy Information Administration. Data are shown as a three-month moving average and are not seasonally adjusted.*

*Source: U.S. Energy Information Administration. Data are not seasonally adjusted.*

**Active Rig Counts**




*Source: Baker Hughes.*

New drilling activity, as measured by active drilling rigs (Figure 27, left), began to increase in the second half of 2016 and continued to increase throughout the first eight months of 2017. The average number of active oil rigs in August reached levels last seen in the spring of 2015 when the oil and gas industry was adjusting to the then-recent fall in oil prices.

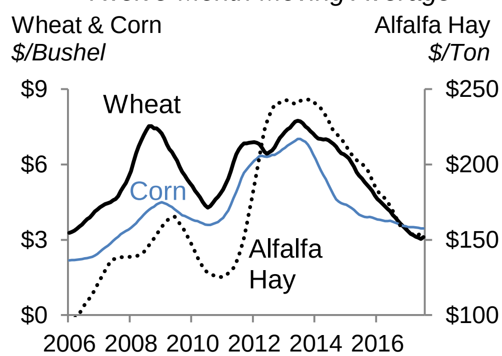
In Colorado, energy industry investment has also picked up modestly and is expected to rise further with the recent increase in oil prices. Colorado oil and gas investment will remain concentrated in the Denver-Julesburg Basin, located primarily in Weld County, due to lower production costs relative to other basins in the region.

According to the Energy Information Administration, coal production totaled 197.0 million short tons in the first quarter of this year. This total represents a 1.3 percent decline from the fourth quarter of 2016 and a 13.9 percent increase from the first quarter last year. Coal production in Colorado exhibited a similar pattern, decreasing 5.7 percent between quarters and increasing 52.4 percent on an annual basis. In August, Xcel Energy announced plans to reduce coal generated electricity production from the Comanche Generating Station in Pueblo and replace that electricity with power sourced from wind, solar, and natural gas. Coal for the plant comes from the Wind River Basin in Wyoming, so the announcement is not expected to have a significant impact on coal production or mining employment in Colorado.

## Agriculture

Although U.S. agricultural producers continue to struggle, conditions in the sector have begun to show signs of stabilization. For the last several years elevated U.S. crop yields have flooded the market, pushing down prices (Figure 28). A strong dollar compounded the challenges faced by U.S. farmers, as international consumers turned to cheaper food supplies from other countries. However, a stabilizing global economy has begun to abate the downturn in the agriculture sector. The U.S. Department of Agriculture reports that major field crop prices began to rise for the first time in years during the summer of 2017. Prices for wheat, corn, and alfalfa hay were 24.8 percent, 2.2 percent, and 13.3 percent higher in July 2017 than a year earlier.

**Figure 28**
**Prices Received for Colorado Crops**
*Twelve-Month Moving Average*

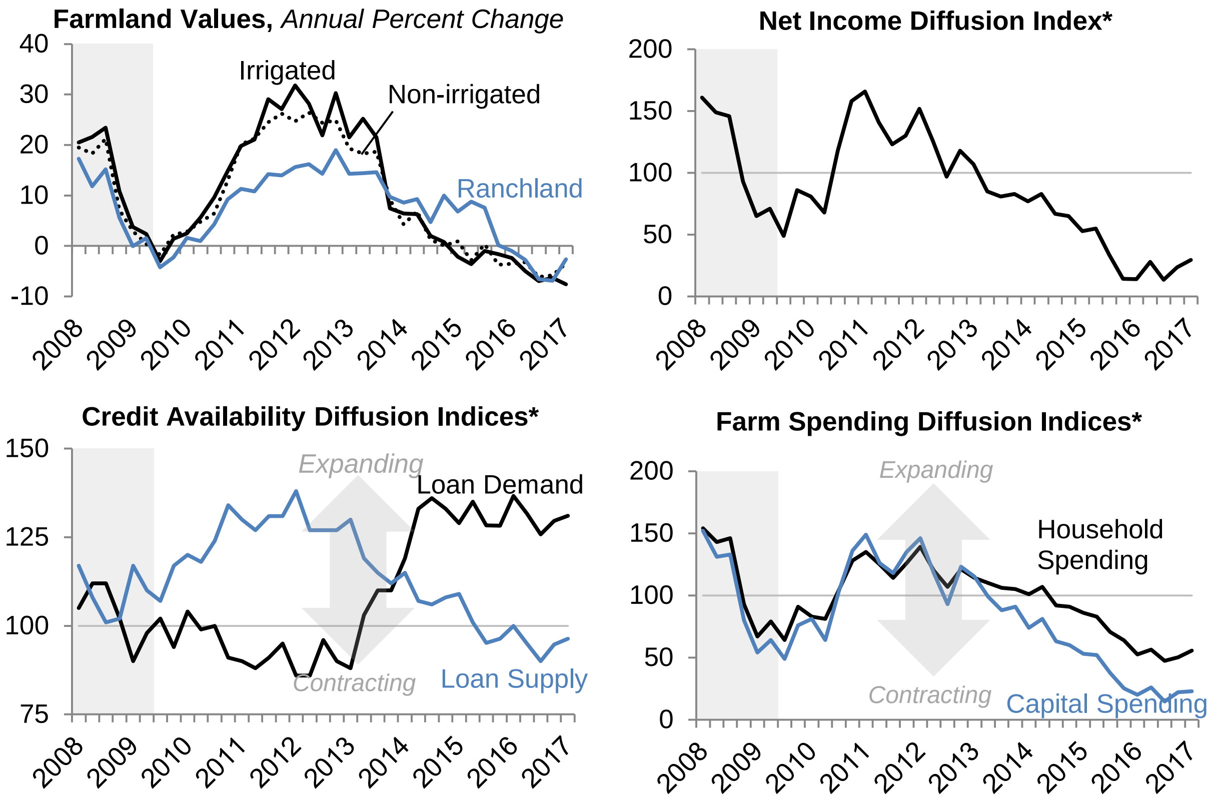



*Source: National Agricultural Statistics Service. Data are through July 2017. Note: because data are shown as twelve month moving averages, increasing prices during the summer of 2017 merely flatten the lines shown here.*

Declining income, low commodity prices, and low profit margins have hurt farm cash flow. As shown in the upper right panel of Figure 29, farm income in the Federal Reserve's Tenth District, which includes Colorado, Kansas, Nebraska, Oklahoma, Wyoming, eastern Missouri and northern New Mexico, continued to fall in 2017 but at a slower rate than in 2015 and 2016. The Federal Reserve Bank of Kansas City's Quarterly Survey of Agricultural Credit Conditions reported that 57 percent of Tenth District bankers expected farm incomes to continue to fall in the second quarter of 2017, down from 70 percent in the first quarter. Less than half reported that they expected farm income to continue to fall in the third quarter.

Low cash flow among farmers has resulted in lower levels of household and capital spending (Figure 29, lower right), which has in turn prompted many farmers to take on short-term loans. Concerns over debt solvency continue. The Kansas City Fed reports that lenders expect the rate at which loans are being repaid to continue to decrease in the third quarter.

**Figure 29**
**Selected Indicator of Tenth District Agricultural Credit Conditions**




*Source: Federal Reserve Bank of Kansas City Quarterly Survey of Agricultural Credit Conditions. The Tenth District is comprised of Wyoming, Oklahoma, Colorado, Kansas, Nebraska, eastern Missouri, and northern New Mexico. Data are through the first quarter of 2017.*
**Values above 100 indicate expansion; values below 100 indicate contraction.*

## Summary

Based on current indicators, the U.S. and Colorado economies are poised to continue their expansions through the current forecast period ending in 2019. At the national level, the economy is sustained by private investment in the American workforce, which has pushed the U.S. labor market to full employment and provided enough growth in household incomes to support consistent gains in consumer spending. Economic distortions attributable to Hurricanes Harvey and Irma are expected to act as a drag on growth in the latter part of 2017 before moderating next year. In Colorado, in-migration and business diversity have allowed for stronger performance than elsewhere, though this also means that the state has limited capacity for further expansion.

Certain new data suggest a better economic outlook than that presented three months ago. The global economy is expected to continue to expand at an increasing rate. Businesses are receiving larger orders and investing with more gusto than at any point since the oil price slump. While inflation remains below target, employment gains have continued even as interest rates have risen. Finally, consumer spending broke out of its first quarter doldrums and resumed its place this spring and summer as the expansion's most important and reliable driver of growth.

This forecast expects the expansion to be constrained by both structural and policy factors. Structurally, the pace and magnitude of the expansion has fallen short of previous business cycles as a result of demographic change, particularly an aging population and unique purchasing patterns among younger consumers. The Federal Reserve has also indicated that it will pursue a course of tighter monetary policy aimed to sustain growth at the price of slowing it. Combined with the inevitable capacity constraints that arise at the end of any long expansion, these factors suggest that growth will slow until it eventually reaches its expiration date.

## Risks to the Forecast

Several factors could alter the trajectory of the state and national economies in a way that improves or worsens the outlook presented here. These risks are skewed to the downside.

***Downside.*** The economy is at or near capacity in most markets and is at risk of overheating. Once the economy begins to operate beyond its productive capacity, the potential that an economic shock will trigger a recession increases. Structural changes, including an aging population, new shadow markets, and automation, make it difficult to discern both where the economy's productive capacity is and how the economy is performing relative to it. If the economy is operating further beyond capacity than assumed in this forecast, a recession is more likely within the forecast period.

The Federal Reserve has indicated that it will act to normalize monetary policy both by increasing interest rates and by reducing the size of its balance sheet. Tighter monetary policy is generally pursued as a means of controlling inflation, yet inflation is currently measured below the Fed's target. This path of normalization could have the consequence of reducing inflation while it is already low, potentially suppressing spending and investment.

Finally, political events could produce a downside economic shock. Growing tensions between the U.S. and North Korea could upset significant trade relationships in East Asia, while the renegotiation of NAFTA could destabilize exchange with the country's two largest trading partners. Additionally, Congress has indicated that significant fiscal policy questions will appear on its docket in the coming months that, depending on how they are resolved, could impact the course of government spending.

***Upside.*** This forecast assumes that employment growth and other economic inputs will be constrained with the economy at or near capacity. The economy could perform better than expected if capacity is greater than estimated—for example, if the labor force participation rate were to increase. Faced with a tight labor market, employers could act to raise wages more quickly than at present, providing a boost to consumer spending. Additionally, the same fiscal policy questions that pose a potential downside risk also pose a potential upside risk, particularly if Congress acts on tax reform or an infrastructure package.

**Table 14**
**National Economic Indicators**

| Calendar Years | 2012 | 2013 | 2014 | 2015 | 2016 | Legislative Council Staff Forecast 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|
| Real GDP (*Billions*)[1] | $15,355 | $15,612 | $16,013 | $16,472 | $16,716 | $17,067 | $17,511 | $17,879 |
| Percent Change | 2.2% | 1.7% | 2.6% | 2.9% | 1.5% | 2.1% | 2.6% | 2.1% |
| Nonfarm Employment (*Millions*)[2] | 134.2 | 136.4 | 138.9 | 141.8 | 144.3 | 146.5 | 148.2 | 149.9 |
| Percent Change | 1.7% | 1.6% | 1.9% | 2.1% | 1.8% | 1.5% | 1.2% | 1.1% |
| Unemployment Rate[2] | 8.1% | 7.4% | 6.2% | 5.3% | 4.9% | 4.4% | 4.3% | 4.5% |
| Personal Income (*Billions*)[1] | $13,915.1 | $14,073.7 | $14,818.2 | $15,553.0 | $15,928.7 | $16,407 | $17,227 | $18,192 |
| Percent Change | 5.0% | 1.1% | 5.3% | 5.0% | 2.4% | 3.0% | 5.0% | 5.6% |
| Wage and Salary Income (*Billions*)[2] | $6,930.3 | $7,116.7 | $7,476.8 | $7,858.9 | $8,085.3 | $8,336 | $8,703 | $9,120 |
| Percent Change | 4.5% | 2.7% | 5.1% | 5.1% | 2.9% | 3.1% | 4.4% | 4.8% |
| Inflation[2] | 2.1% | 1.5% | 1.6% | 0.1% | 1.3% | 2.1% | 2.4% | 2.3% |

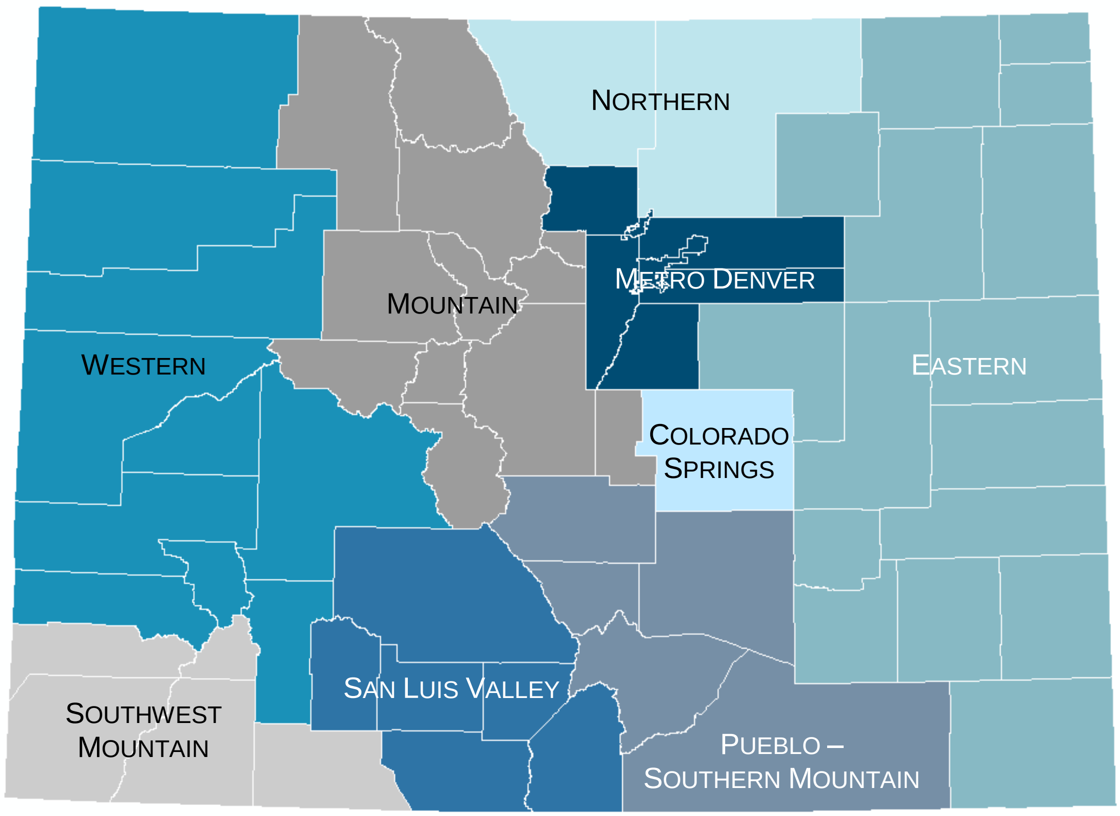
*Sources*
[1]*U.S. Bureau of Economic Analysis. Real gross domestic product (GDP) is adjusted for inflation. Personal income and wages and salaries not adjusted for inflation.*
[2]*U.S. Bureau of Labor Statistics. Inflation shown as the year-over-year change in the consumer price index for all urban areas (CPI-U).*

**Table 15**
**Colorado Economic Indicators**

| Calendar Years | 2012 | 2013 | 2014 | 2015 | 2016 | *Legislative Council Staff Forecast* 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|
| Population (*Thousands, as of July 1*)[1] | 5,189.9 | 5,267.6 | 5,349.6 | 5,448.8 | 5,540.5 | 5,634.7 | 5,724.9 | 5,816.5 |
| Percent Change | 1.4% | 1.5% | 1.6% | 1.9% | 1.7% | 1.7% | 1.6% | 1.6% |
| Nonfarm Employment (*Thousands*)[2] | 2,313.1 | 2,382.0 | 2,464.8 | 2,541.8 | 2,600.6 | 2,655.2 | 2,705.7 | 2,754.4 |
| Percent Change | 2.4% | 3.0% | 3.5% | 3.1% | 2.3% | 2.1% | 1.9% | 1.8% |
| Unemployment Rate[2] | 7.8 | 6.7 | 4.9 | 3.8 | 3.3 | 2.7 | 2.7 | 2.8 |
| Personal Income (*Millions*)[3] | $234,006 | $246,648 | $266,535 | $277,732 | $287,901 | $303,159 | $322,259 | $341,916 |
| Percent Change | 6.4% | 5.4% | 8.1% | 4.2% | 3.7% | 5.3% | 6.3% | 6.1% |
| Wage and Salary Income (*Millions*)[3] | $125,014 | $129,597 | $138,701 | $146,574 | $152,755 | $161,156 | $169,536 | $178,522 |
| Percent Change | 5.4% | 3.7% | 7.0% | 5.7% | 4.2% | 5.5% | 5.2% | 5.3% |
| Retail Trade Sales (*Millions*)[4] | $80,073 | $83,569 | $90,653 | $94,920 | $98,337 | $103,451 | $108,313 | $113,404 |
| Percent Change | 6.0% | 4.4% | 8.5% | 4.7% | 3.6% | 5.2% | 4.7% | 4.7% |
| Housing Permits (*Thousands*)[1] | 23.3 | 27.5 | 28.7 | 31.9 | 39.0 | 44.3 | 45.1 | 48.4 |
| Percent Change | 72.6% | 18.1% | 4.3% | 11.1% | 22.3% | 13.6% | 1.8% | 7.4% |
| Nonresidential Building (*Millions*)[5] | $3,695 | $3,624 | $4,350 | $4,887 | $5,833 | $5,915 | $6,075 | $6,190 |
| Percent Change | -5.8% | -1.9% | 20.0% | 12.4% | 19.4% | 1.4% | 2.7% | 1.9% |
| Denver-Boulder-Greeley Inflation[2] | 1.9% | 2.8% | 2.8% | 1.2% | 2.8% | 3.2% | 2.8% | 2.6% |

*Sources*
*[1]U.S. Census Bureau. Residential housing permits are the number of new single and multi-family housing units permitted for building.*
*[2]U.S. Bureau of Labor Statistics. Nonfarm employment estimates include revisions to 2016 data expected by Legislative Council Staff from the Bureau of Labor Statistic's annual re-benchmarking process. Inflation shown as the year-over-year change in the consumer price index for Denver-Boulder-Greeley metro areas.*
*[3]U.S. Bureau of Economic Analysis. Personal income and wages and salaries not adjusted for inflation.*
*[4]Colorado Department of Revenue.*
*[5]F.W. Dodge.*

## COLORADO ECONOMIC REGIONS




### *A NOTE ON DATA REVISIONS*

Economic indicators reported in this forecast document are often revised by the publisher of the data and are therefore subject to change. Employment data are based on survey data from a "sample" of individuals representative of the population as a whole. Monthly employment data are based on the surveys received at the time of data publication and data are revised over time as more surveys are collected to more accurately reflect actual employment conditions. Because of these revisions, the most recent months of employment data may reflect trends that are ultimately revised away. Additionally, employment data undergoes an annual revision, which is published in March of each year. This annual revision may affect one or more years of data values. **Notably, data reported for Colorado's regions do not yet reflect the March rebenchmark revisions.**

Like the employment data, residential housing permits and agriculture data are also based on surveys. These data are revised periodically. Retail trade sales data typically have few revisions because the data reflects actual sales by Colorado retailers. Nonresidential construction data in the current year reflects reported construction activity. These data are revised the following year to reflect actual construction activity.

## Metro Denver Region

Economic activity slowed in the seven-county metro Denver region through the summer of 2017 consistent with the late stages of an economic expansion. Employment opportunities remain strong, while population in-migration and construction activity have tapered off. Housing and rental prices continue to climb, pricing many workers out of the market, and contributing to labor shortages and rising wage pressures for certain high-skilled positions. Table 16 shows economic indicators for the region.

Overall, the labor market in the metro Denver region remains healthy. The region's unemployment rate has reached historical lows and the regional economy continues to add jobs at a moderate pace (Figure 30). As shown in Figure 30 (right), job gains in the region are slowing. Year-over-year job gains peaked at 62,600 in February 2015 and since have tapered down to 28,100 as of July this year. The slowdown reflects decelerating population in-migration and an increasingly limited labor supply, which is expected to put upward pressure on wages.

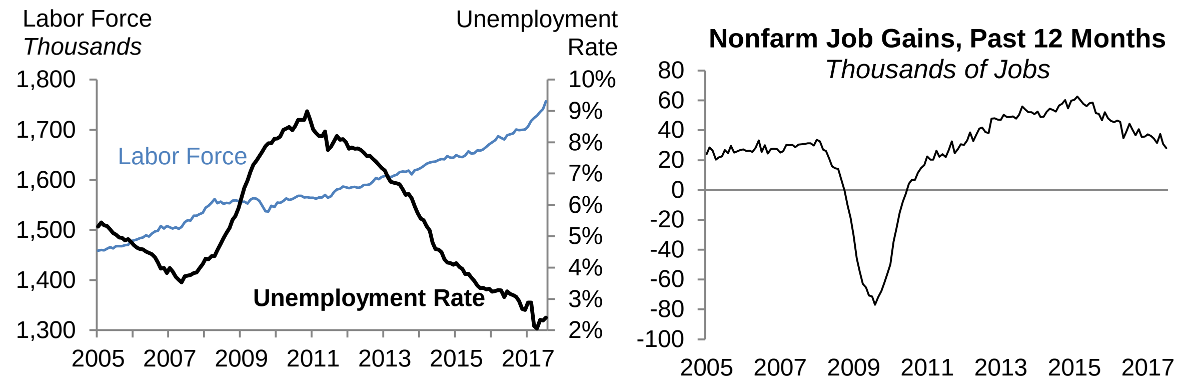
Employment gains continued to be broad-based through the summer. Industries with the fastest job growth in July over year-ago levels included the leisure and hospitality; education and health services; trade, transportation, and utilities; and other services sectors. Employment decreased in July relative to year-ago levels in the mining, information, and manufacturing sectors.

**Table 16**
**Metro Denver Region Economic Indicators**
Adams, Arapahoe, Broomfield, Boulder, Denver, Douglas, and Jefferson Counties

| | 2013 | 2014 | 2015 | 2016 | YTD 2017 |
|---|---|---|---|---|---|
| Employment Growth[1] | 3.6% | 3.7% | 3.5% | 2.9% | 2.1% |
| Unemployment Rate[2] | 6.5% | 4.7% | 3.6% | 3.1% | 2.4% |
| Housing Permit Growth[3] | | | | | |
| Denver-Aurora MSA Single-Family | 18.9% | 16.3% | 17.8% | 12.2% | 3.6% |
| Boulder MSA Single-Family | 22.5% | 17.7% | 74.2% | 10.2% | -7.8% |
| Nonresidential Construction Growth[4] | | | | | |
| Value of Projects | -9.1% | 10.5% | 24.7% | 26.0% | -15.4% |
| Square Footage of Projects | 22.2% | 3.9% | 43.3% | 4.3% | -17.4% |
| Level (*Millions*) | 2,246 | 2,482 | 3,094 | 3,900 | 1,979 |
| Number of Projects | 22.4% | 25.1% | 19.0% | 6.9% | -23.3% |
| Level | 748 | 936 | 1,114 | 1,191 | 448 |
| Retail Trade Sales Growth[5] | 5.1% | 8.4% | 6.2% | NA | NA |

MSA = Metropolitan statistical area. NA = Not available.
[1]Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through July 2017.
[2]Bureau of Labor Statistics, LAUS (household survey). Data prior to 2010 adjusted by Legislative Council Staff. Seasonally adjusted. Data through July 2017.
[3]U.S. Census. Growth in the number of residential building permits. Data through July 2017.
[4]F.W. Dodge. Data through July 2017.
[5]Colorado Department of Revenue. Data through December 2015.

**Figure 30**
**Metro Denver Region Labor Market Activity**

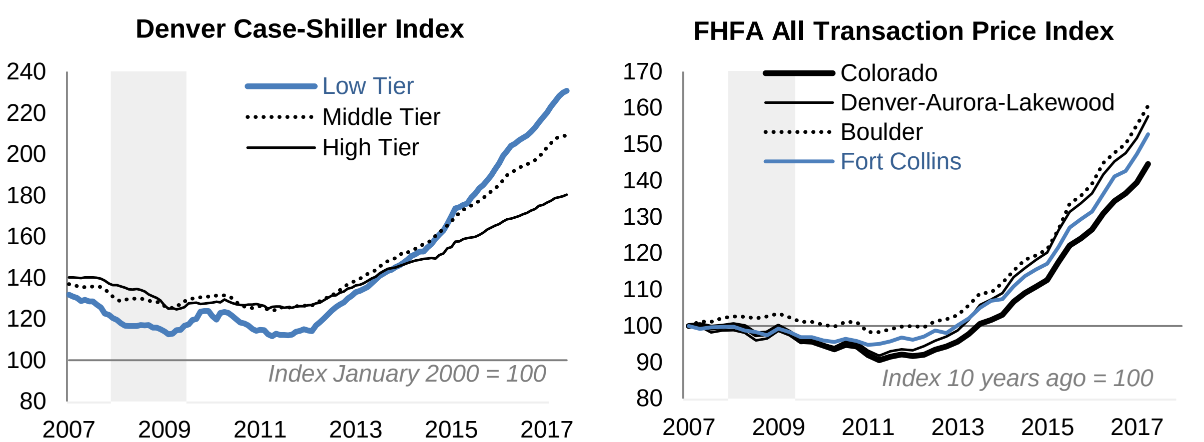



*Source: U.S. Bureau of Labor Statistics; LAUS. Data are seasonally adjusted and are through July 2017.*

*Source: U.S. Bureau of Labor Statistics; CES. Data are seasonally adjusted and are through July 2017.*

Contributing to slower population growth, rapid area home and rental price appreciation over the past five years has priced many workers out of the market and has pushed housing developments and commuters into surrounding areas. Relative to prices a year ago, both the Case-Shiller and Federal Housing Finance Agency home price indices suggest rapid price growth through the first quarter of 2017 as demand continues to outstrip supply (Figure 31).

**Figure 31**
**Denver Home Price Indices**

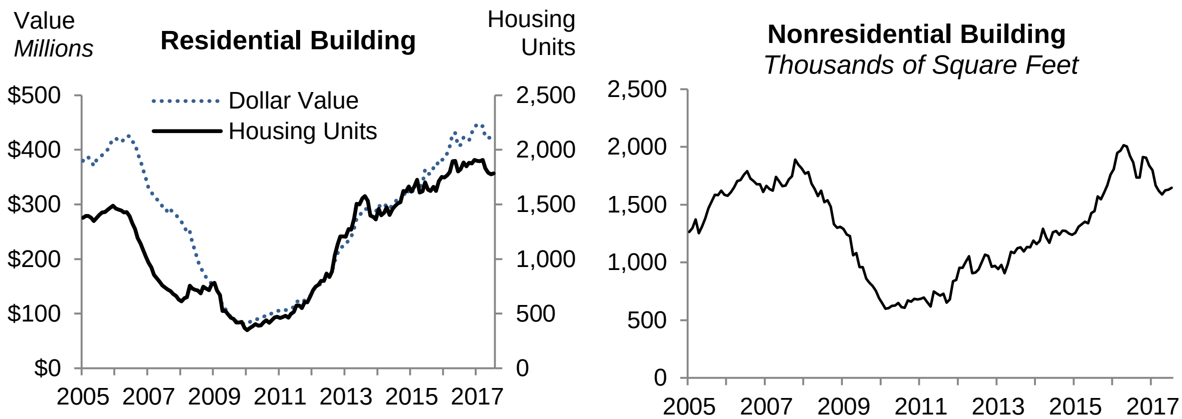



*Source: Source: S&P Dow Jones Indices LLC. Data are seasonally adjusted and are through June 2017.*

*Source: U.S. Federal Housing Finance Agency. Data are through the second quarter of 2017.*

Following six years of strong gains, construction activity has leveled off in the metro Denver region. Residential housing permits have fallen in 2017 but remain at pre-recessionary highs, propped up primarily by strong multi-family building in the City and County of Denver (Figure 32, left). Nonresidential building also peaked in 2016 and since has slowed (Figure 32, right). Year-to-date through July, the number, value, and square footage of nonresidential projects are down relative to the same period a year ago. Labor shortages and a lack of readily buildable lots continue to constrain activity and in-migration, contributing to rising housing costs.

**Figure 32**
**Metro Denver Region Construction Activity**




*Source: F.W. Dodge. Data shown as three-month moving averages. Data are not seasonally adjusted and are through July 2017.*

## Northern Region

The economy in the northern region remains among the strongest in the state. After weathering weakness in the oil and gas sector in 2016, the regional economy is accelerating year-to-date. Table 17 shows economic indicators for the northern region.

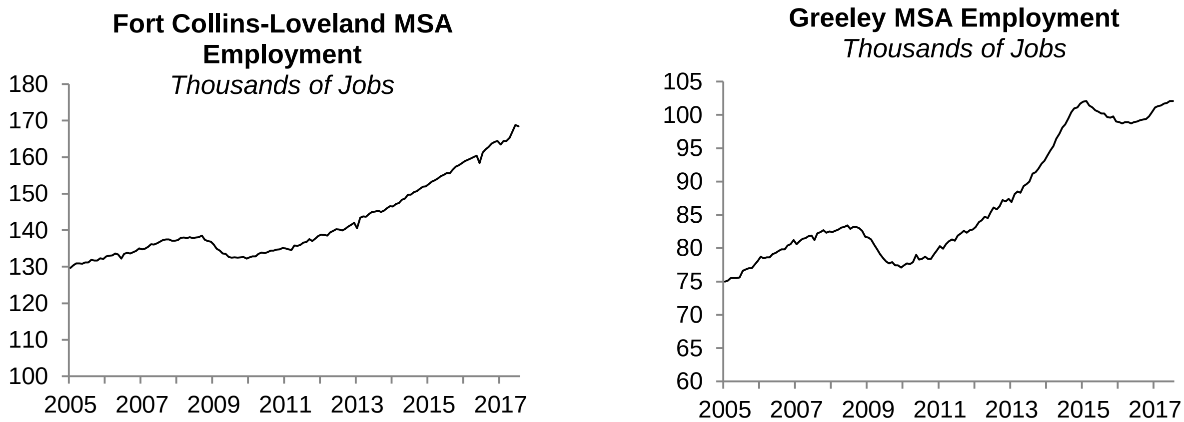
Figure 33 shows employment trends for the northern region metro areas. Job gains in the Fort Collins-Loveland MSA continued to climb steadily through the first seven months of 2017. Employment growth rebounded in the in the Greeley MSA as the energy and sector increased investment in the Denver-Julesburg Basin in response to stabilizing oil prices. Employment activity has accelerated in the northern region through the first seven months of 2017, reflecting broad-based gains, including strong contributions from rising energy and construction activity. Area unemployment continues to fall as employment gains outpace growth in the labor force (Figure 34).

**Table 17**
**Northern Region Economic Indicators**
Weld and Larimer Counties

| | 2013 | 2014 | 2015 | 2016 | YTD 2017 |
|---|---|---|---|---|---|
| Employment Growth[1] | | | | | |
| Fort Collins-Loveland MSA | 3.2% | 3.4% | 3.9% | 2.8% | 3.9% |
| Greeley MSA | 5.4% | 8.9% | 2.8% | 1.4% | 2.8% |
| Unemployment Rate[2] | | | | | |
| Fort Collins-Loveland MSA | 5.8% | 4.2% | 3.3% | 2.8% | 2.2% |
| Greeley MSA | 6.5% | 4.4% | 3.9% | 3.4% | 2.4% |
| State Cattle and Calf Inventory Growth[3] | -8.7% | -4.2% | -4.4% | 1.0% | 5.7% |
| Natural Gas Production Growth[4] | 12.5% | 27.0% | 44.3% | 14.6% | 2.7% |
| Oil Production Growth[4] | 44.5% | 52.4% | 39.4% | -7.3% | -4.9% |
| Housing Permit Growth[5] | | | | | |
| Fort Collins-Loveland MSA Total | 28.8% | 8.7% | -8.1% | 47.9% | 43.5% |
| Fort Collins-Loveland MSA Single Family | 31.3% | 10.2% | 1.3% | -2.9% | 7.1% |
| Greeley MSA Total | 45.6% | 41.1% | -3.5% | -7.8% | 8.8% |
| Greeley MSA Single Family | 37.7% | 18.5% | 3.8% | -9.9% | 12.8% |
| Nonresidential Construction Growth[6] | | | | | |
| Value of Projects | 55.0% | 31.1% | 32.1% | -0.2% | 38.1% |
| Square Footage of Projects | 40.4% | 45.5% | 19.0% | -17.5% | 14.9% |
| Level (*Thousands*) | 424,437 | 556,538 | 735,432 | 733,608 | 457,249 |
| Number of Projects | -2.5% | 66.5% | -5.0% | 10.2% | 13.1% |
| Level | 155 | 258 | 245 | 270 | 155 |
| Retail Trade Sales Growth[7] | | | | | |
| Larimer County | 6.1% | 8.5% | 6.7% | NA | NA |
| Weld County | 6.6% | 12.2% | 1.0% | NA | NA |

MSA = Metropolitan statistical area. NA = Not available.
[1]Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through July 2017.
[2]Bureau of Labor Statistics, LAUS (household survey). Data prior to 2010 adjusted by Legislative Council Staff. Seasonally adjusted. Data through July 2017.
[3] National Agricultural Statistics Service. Cattle and calves on feed through August 2017.
[4]Colorado Oil and Gas Conservation Commission. Data through May 2017.
[5]U.S. Census Bureau. Growth in the number of residential building permits. Data through July 2017.
[6]F.W. Dodge. Data through July 2017.
[7]Colorado Department of Revenue. Data through December 2015.

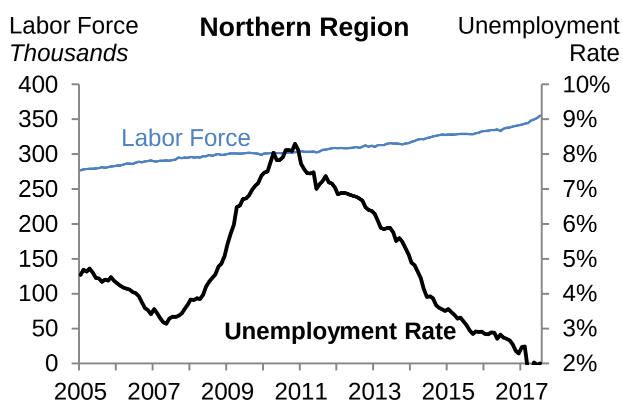
**Figure 33**
**Northern Region Nonfarm Employment**




*Source: U.S. Bureau of Labor Statistics; CES. Data are seasonally adjusted and are through July 2017.*

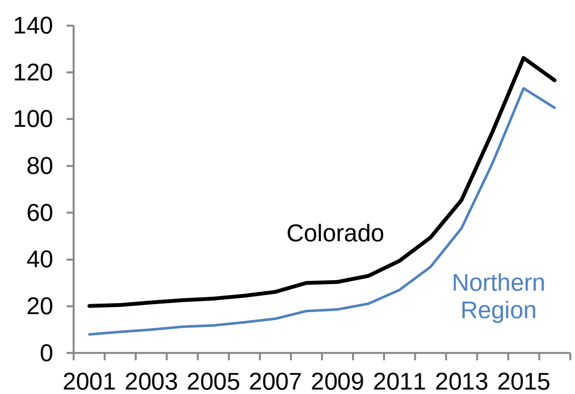
Oil production in the northern region, particularly in Weld County, has dominated statewide production for over a decade (Figure 35). Oil production declined 7.3 percent in 2016 and has declined 4.9 percent in through the first five months of 2017. Energy companies active in the northern region significantly slowed their investments in 2015 and 2016 in response to low oil prices, which has a lagged effect on production. While the number of active drilling rigs is only about half the number that were operating in Colorado before oil prices collapsed, during the first week of September 2017 it was 94.7 percent higher than the same period in 2016. In contrast to crude oil, natural gas production in the northern region has continued to increase through 2017, reflecting the energy industry's effort to capture natural gas from wells that produce oil.

**Figure 34**
**Selected Labor Market Indicators**




*Source: U.S. Bureau of Labor Statistics; LAUS. Data are seasonally adjusted and are through July 2017.*

**Figure 35**
**Crude Oil Production**
*Millions of Barrels*

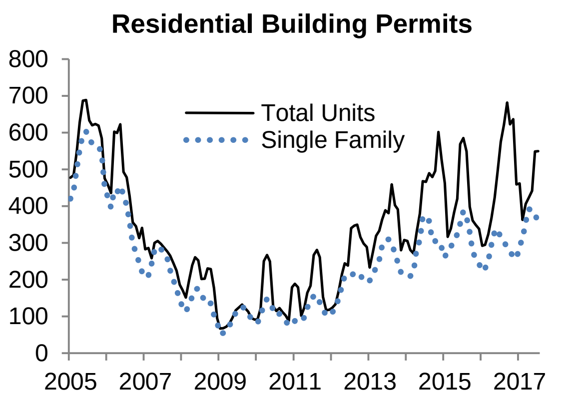



*Source: Colorado Oil and Gas Conservation Commission. Data through May 2017.*

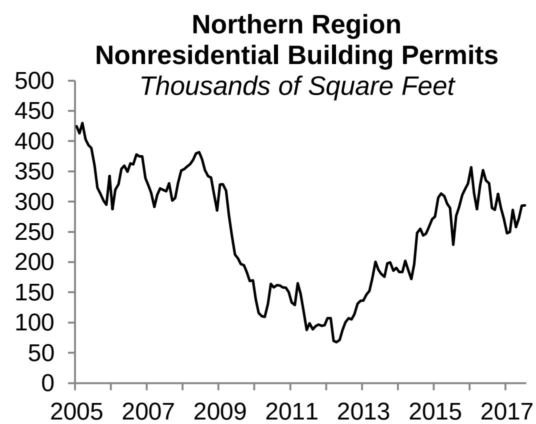
The Fort Collins and Greeley metro areas continued to see double-digit home price appreciation through the first half of the year, according to the Federal Housing Finance Agency All-Transaction Home Price Index. In spite of higher housing costs, the northern region remains more affordable than the metro Denver region, attracting commuters as well as new residents seeking work in the area. Robust economic and population growth and the availability of land for development in the region have supported strong growth in residential construction (Figure 36, left). Residential housing permit data for the first seven months of the year suggest acceleration in residential construction activity in Larimer County, particularly for multi-family housing. Residential construction in Weld County, which declined in 2016 with the slowdown in energy activity, has rebounded in the first seven months of 2017 by growing 8.8 percent year-to-date.

Nonresidential construction activity in the region is growing through the first seven months of 2017, although it has not reached peak levels that occurred during 2015 (Figure 36, right). Several large health care centers and hotels were constructed during 2015 and the first half of 2016, which largely explains lower levels of activity in more recent months.

**Figure 36**
**Northern Region Construction Activity**

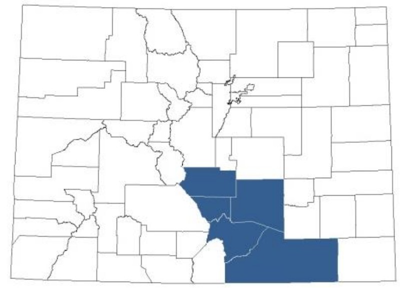



*Source: U.S. Census Bureau. Data shown as three-month moving averages. Data are not seasonally adjusted and are through July 2017.*




*Source: F.W. Dodge. Data shown as twelve-month moving averages. Data are not seasonally adjusted and are through July 2017.*

## Pueblo – Southern Mountains Region



The Pueblo – Southern Mountains region includes five southern Front Range counties surrounding the City of Pueblo. The region lagged most areas of the state in the economic recovery and expansion. Yet, many indicators are pointing toward accelerating growth in 2017. Labor market improvements continued through the first half of the year, supported by stronger business, tourism, and construction activity in the region. These trends have spurred population growth as well as home price appreciation and demand for residential building. As businesses seek to fill open positions, workers are finding the area increasingly attractive and more affordable than other Front Range regions to the north. Indicators for the regional economy are presented in Table 18.

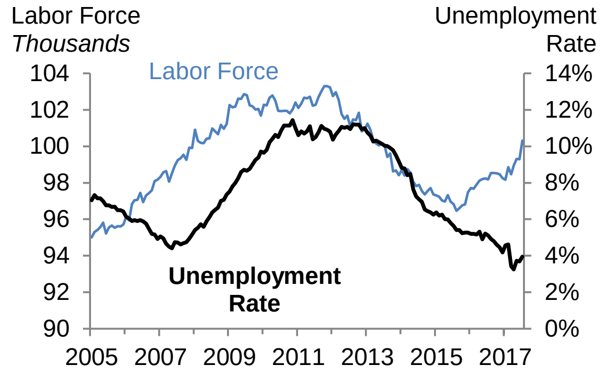
**Table 18**
**Pueblo Region Economic Indicators**
Custer, Fremont, Huerfano, Las Animas, and Pueblo Counties

| | 2013 | 2014 | 2015 | 2016 | YTD 2017 |
|---|---|---|---|---|---|
| Employment Growth | | | | | |
| Pueblo Region[1] | -0.9% | 1.0% | 0.9% | 2.1% | 2.4% |
| Pueblo MSA[2] | 0.8% | 1.5% | 2.2% | 2.1% | 1.5% |
| Unemployment Rate[1] | 10.1% | 7.4% | 5.7% | 4.9% | 3.9% |
| Housing Permit Growth[3] | | | | | |
| Pueblo MSA Total | -40.6% | -0.6% | 69.4% | 6.0% | 26.3% |
| Pueblo MSA Single-Family | -8.1% | -0.6% | 29.9% | 29.9% | 36.5% |
| Nonresidential Construction Growth[4] | | | | | |
| Value of Projects | -72.2% | 197.9% | 2.4% | -24.6% | -23.6% |
| Square Footage of Projects | -75.3% | 192.7% | 14.6% | -5.4% | 46.4% |
| Level (*Thousands*) | 30,389 | 90,527 | 92,715 | 69,880 | 9,800 |
| Number of Projects | 7.1% | 96.7% | -20.3% | 48.9% | -68.8% |
| Level | 30 | 59 | 47 | 70 | 10 |
| Retail Trade Sales Growth[5] | 1.5% | 4.9% | 2.9% | NA | NA |

MSA = Metropolitan statistical area. NA = Not available.
[1]U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through July 2017.
[2]U.S. Bureau of Labor Statistics, LAUS (household survey). Data prior to 2010 adjusted by Legislative Council Staff. Seasonally adjusted. Data through July 2017.
[3]U.S. Census. Growth in the number of residential building permits. Data through July 2017.
[4]F.W. Dodge. Data through July 2017.
[5]Colorado Department of Revenue. Data through December 2015.

Early indicators suggest that employment growth in the region accelerated in 2017. Through July, the number of jobs was up 2.4 percent over the same period last year. The regional unemployment rate was 3.9 percent through July, well below the pre-recessionary rate of 4.4 percent. Employment gains continue to outpace strong growth in the labor force, forcing the unemployment rate to historical lows. Regional labor market trends are shown in Figure 37. Consumer spending in the area also continues to improve, as indicated by City sales tax collections.

**Figure 37**
**Pueblo Region Labor Market Trends**

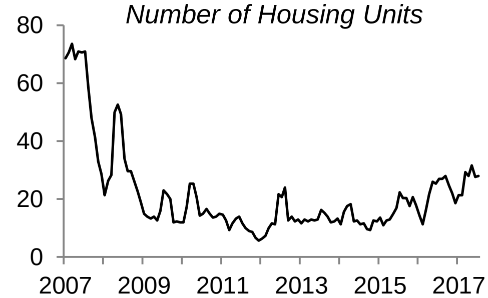




*Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through July 2017.*

Residential construction activity in the region has gained momentum but has been subdued relative to pre-recessionary levels and relative to other areas of the state. Housing permits in the Pueblo metro area are up 26.3 percent over year-ago levels, driven primarily by single family building (Figure 38). The area housing market continues to tighten, putting upward pressure on home prices. Throughout the recovery and expansion, home price appreciation in the Pueblo metro area lagged other regions of the state. Yet, home prices have accelerated in 2017, while other areas of the state are showing signs of slowing. In the second quarter of the year, Pueblo metro area home prices were up 10 percent over the same period last year according to data from the Federal Housing Finance Agency.

Nonresidential construction activity has been mixed so far in 2017, though stronger activity is expected in coming months. The value and number of projects is down in the first seven months of the year relative to year-ago levels, while the square footage of projects is up. That said, data do not yet reflect a 234,000 square-foot cannabis grow facility that officially broke ground in August.

**Figure 38**
**Single Family Building Permits**
*Number of Housing Units*




*Source: U.S. Census Bureau. Data shown as three-month moving averages. Data are not seasonally adjusted and are through July 2017.*

## Colorado Springs Region

The Colorado Springs economy is expanding at a moderate pace, with population growth and tourism boosting employment and construction activity. Although employment in the region is dominated by the public sector, the region's private tourism, advanced technology manufacturing, and information technology industries are vibrant. Major employers include two hospitals, four institutions of higher education, four military installations, and several federally-funded defense contractors specializing in aerospace, information technology, and cybersecurity. Employers in eastern El Paso County also include dairy farmers and ranchers. Indicators for the regional economy are presented in Table 19.

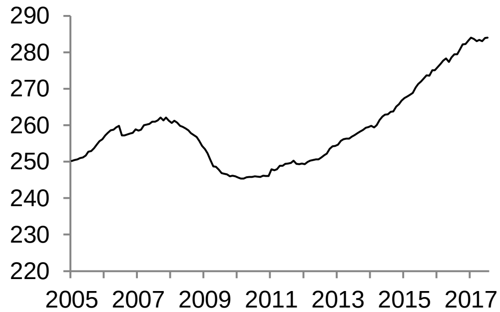
**Table 19**
**Colorado Springs Region Economic Indicators**
El Paso County

| | 2013 | 2014 | 2015 | 2016 | YTD 2017 |
|---|---|---|---|---|---|
| Employment Growth[1] | | | | | |
| Colorado Springs MSA | 2.3% | 2.2% | 3.2% | 2.0% | 2.1% |
| Unemployment Rate[2] | 7.9% | 6.0% | 4.6% | 3.8% | 2.9% |
| Housing Permit Growth[3] | | | | | |
| Total | 17.2% | 3.8% | -0.4% | 41.3% | -7.0% |
| Single-Family | 19.2% | -7.7% | 13.3% | 19.7% | -0.5% |
| Nonresidential Construction Growth[4] | | | | | |
| Value of Projects | 6.5% | -4.2% | -1.0% | 46.4% | 29.9% |
| Square Footage of Projects | 25.2% | -12.0% | -0.2% | 24.9% | 17.2% |
| Level (*Thousands*) | 510,809 | 489,589 | 484,547 | 709,360 | 337,277 |
| Number of Projects | -1.7% | -5.9% | 12.6% | 10.9% | 67.2% |
| Level | 355 | 334 | 376 | 417 | 321 |
| Retail Trade Sales Growth[5] | 4.9% | 4.1% | 5.8% | NA | NA |

MSA = Metropolitan statistical area. NA = Not available.
[1]U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through July 2017.
[2]U.S. Bureau of Labor Statistics, LAUS (household survey). Data prior to 2010 adjusted by Legislative Council Staff. Seasonally adjusted. Data through July 2017.
[3]U.S. Census. Growth in the number of residential building permits. Data through July 2017.
[4]F.W. Dodge. Data through July 2017.
[5]Colorado Department of Revenue. Data through December 2015.

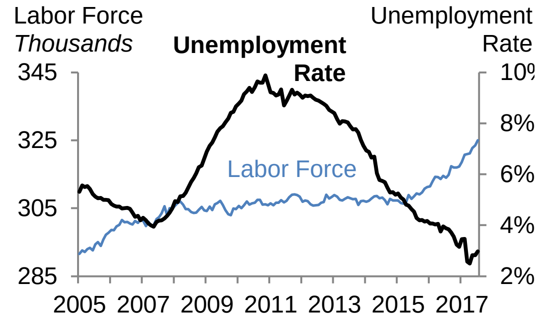
Figure 39 shows employment trends in the region. Employment in the Colorado Springs MSA increased 2.1 percent year-to-date through July compared with year-ago levels after increasing 2.0 percent in 2016. While job growth has been broad-based across most industries, population growth in the region has supported demand for housing, goods, and basic services — boosting employment in the construction, retail trade, transportation, and health care sectors. As shown in Figure 40, the region's unemployment rate continued to fall from an average of 3.8 percent in 2016 to an average of 2.9 percent through the first seven months of 2017.

**Figure 39**
**Colorado Springs Employment**
*Thousands of Jobs*




*Source: U.S. Bureau of Labor Statistics; CES. Data are seasonally adjusted and are through July 2017.*

**Figure 40**
**Colorado Springs Labor Market Trends**



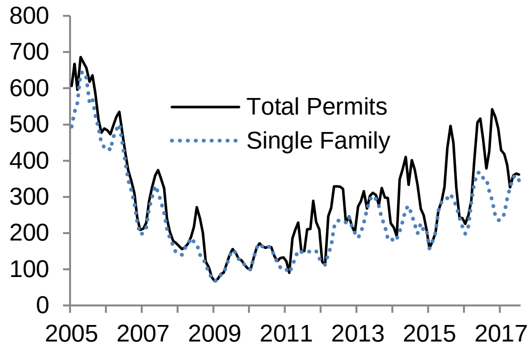

*Source: U.S. Bureau of Labor Statistics; LAUS. Data are seasonally adjusted and are through July 2017.*

The improving labor market, population growth, and strong tourism growth are aiding retail sales in the region. According to the City of Colorado Springs, revenue from the city's general sales and use tax increased 9.6 percent year-to-date through July over year-ago levels after increasing 9.0 percent in 2016. Tax statistics point to healthy construction and tourism industries: the largest sales tax increases occurred in the building materials, hotel, and restaurant industries. Meanwhile, the city's lodger's and auto rental taxes increased 20.1 percent and 8.1 percent year-to-date through July over year-ago levels, respectively.

The number of permits issued for residential construction fell 7.0 percent year-to-date through July after a 41.3 percent increase in 2016. Although year-to-date averages show a decrease in activity, Figure 41 shows that this decrease is likely capturing part of a volatile trend that continues to show upward movement over longer time periods. Much of the volatility is the result of multi-family permits, which are granted in large blocks when a developer plans a large property. Single family permits decreased 0.5 percent during this time period.

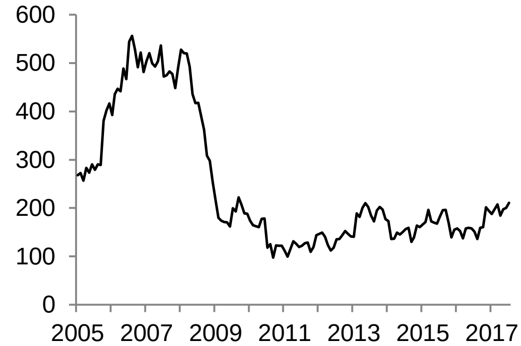
The value of nonresidential permits increased 29.9 percent year-to-date through July after increasing 46.4 percent in 2016. The value continued to grow at rates much faster than the total square footage of permitted projects, indicating that more expensive projects are being built. While growth in the value of permits appears to indicate a boom in nonresidential construction, the level of square footage being built remains subdued relative to pre-recession levels (Figure 42).

**Figure 41**
**Colorado Springs**
**Residential Building Permits**
*Number of Units*



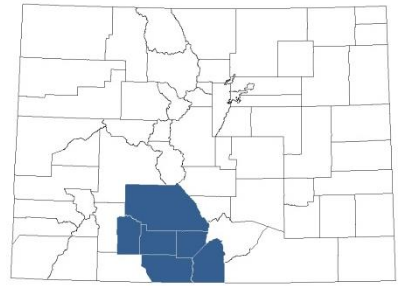

*Source: U.S. Census Bureau. Data are shown as three-month moving averages. Data are not seasonally adjusted and are through July 2017.*

**Figure 42**
**Colorado Springs**
**Nonresidential Projects**
*Thousands of Square Feet*




*Source: F.W. Dodge. Data shown as three-month moving averages. Data are not seasonally adjusted and are through July 2017.*

## San Luis Valley Region



The six counties of the San Luis Valley comprise the smallest economic region in the state in terms of population. The regional economy continues to grow with rising tourism activity and improvements in the area agricultural industry. Additionally, the regional housing market remains more affordable than most other regions of the state, spurring population in-migration and new residential construction activity. Economic indicators for the region are summarized in Table 20.

**Table 20**
**San Luis Valley Region Economic Indicators**
Alamosa, Conejos, Costilla, Mineral, Rio Grande, and Saguache Counties

| | 2013 | 2014 | 2015 | 2016 | YTD 2017 |
|---|---|---|---|---|---|
| Employment Growth[1] | -2.2% | 2.6% | 3.8% | 5.4% | 3.3% |
| Unemployment Rate[1] | 10.5% | 8.0% | 5.7% | 4.6% | 3.6% |
| San Luis Valley Agriculture District[2] | | | | | |
| Barley | | | | | |
| Acres Harvested | 46,600 | 42,900 | 52,100 | NA | NA |
| Crop Value ($/Acre) | $ 824.4 | $ 730.1 | $ 878.5 | NA | NA |
| Potatoes | | | | | |
| Acres Harvested | 49,600 | 53,900 | 51,800 | NA | NA |
| Crop Value ($/Acre) | $ 3,614 | $ 3,218 | $ 3,234 | NA | NA |
| Housing Permit Growth[3] | 15.0% | -25.0% | 21.5% | -1.1% | 15.2% |
| Retail Trade Sales Growth[4] | 0.6% | 3.7% | 11.5% | NA | NA |

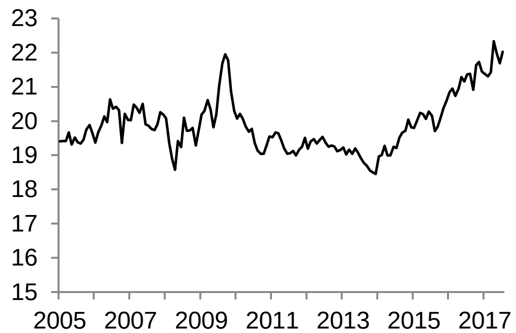
NA = Not available.
[1]U.S. Bureau of Labor Statistics, LAUS (household survey). Data prior to 2010 adjusted by Legislative Council Staff. Seasonally adjusted. Data through July 2017.
[2]National Agricultural Statistics Service. Data through December 2015.
[3]F.W. Dodge. Data through July 2017.
[4]Colorado Department of Revenue. Data through December 2015.

In addition to the agricultural industry, tourism, a large retirement community, and government services, including Adams State University, support the San Luis Valley economy. Labor market conditions continue to improve in the region at rates among the fastest in the state as this small region continues to add jobs at a moderate pace. Regional employment increased 3.3 percent year-to-date through July compared with year-ago levels (Figure 43). The region's unemployment rate also continues to improve, averaging 3.6 percent through July, down from 4.6 percent in 2016 (Figure 44).

The San Luis Valley produces barley, alfalfa hay, vegetables, and quinoa, while also furnishing grazing land to livestock producers. The valley is also the epicenter of the potato industry in Colorado. Figure 45 shows that prices received by potato farmers in Colorado. According to the Colorado Potato Committee, the number of potato shipments originating in the San Luis Valley increased 46.0 percent year-to-date relative to the first nine months of the year in 2016.

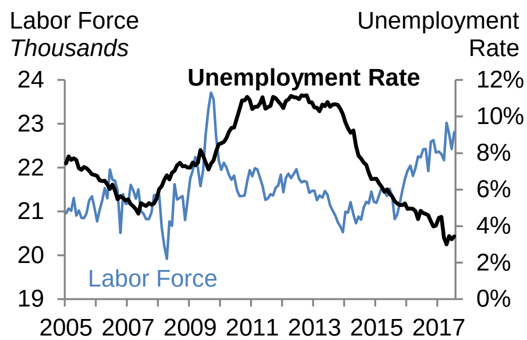
Relative to the Front Range and mountain communities of Colorado, San Luis Valley real estate and rental markets remain less expensive, offering affordable but limited options to Colorado residents. Residential construction in the region has been limited and fairly volatile throughout the recent economic recovery and expansion, but is on the rise in 2017. In the current year, builders pulled permits for 121 housing units, up 15.2 percent from the same period in 2016. The continued economic expansion is expected to bolster demand for area housing.

**Figure 43**
**Nonfarm Employment**
*Thousands of Jobs*



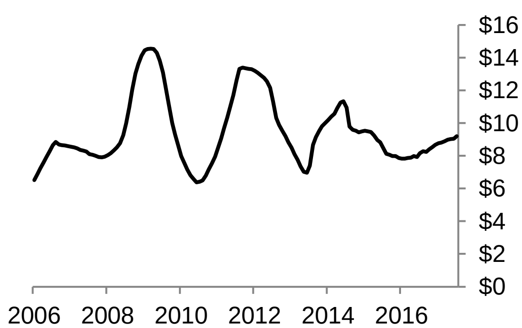

*Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through July 2017.*

**Figure 44**
**Labor Market Trends**



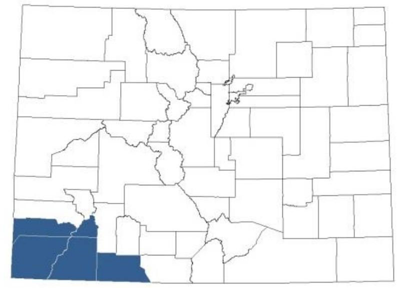

*Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through July 2017.*

**Figure 45**
**Prices Received for Colorado Potatoes**
*$/Cwt*




*Source: National Agricultural Statistics Service. Data shown as twelve-month moving averages. Data through December 2016.*

## Southwest Mountain Region



The five counties of the southwest mountain region are comprised of mountain peaks, fertile valleys, open desert as well as the reservations of the Southern Ute and Ute Mountain Tribes. The region's economy is diverse, with significant contributions from natural resource extraction, agriculture, and tourism. The region is rural with a population just shy of 100,000. A thriving tourist industry and recovering natural gas prices have boosted the regional economy of late. Growth in regional nonfarm employment absorbed slack and dropped the unemployment rate to historical lows in July. Residential construction permits have increased at a robust rate this year and portend some relief for Durango's very tight housing market. Nevertheless, low commodity prices continue to depress the agriculture sector of the region. Economic indicators for the region are summarized in Table 21.

Labor market indicators for the region remain solid thus far this year. After adding roughly 1,300 jobs in 2016, representing a gain of about 2.7 percent, employers in the region continue to hire at a solid pace (Figure 46, left). Employment growth is 3.8 percent through July 2017 compared with the same period last year. The region's unemployment rate continues to tick down, dropping to 2.6 percent year-to-date through July, a new low (Figure 46, right). Jobs are available in an array of fields, including health care, human services, local government, retail, food service, and tourism. Key employers in the region are Crossfire Seeding, Mercy Regional Medical Center, and various government entities.

The region's housing market has picked up pace this year. Through July 2017, housing permit growth is at 45 percent relative to the same period last year and is on pace to exceed the total number of permits approved in 2016. This increase, however, may be insufficient to accommodate high demand in La Plata County, specifically Durango, the region's largest city. The Wells Group, a local real estate broker, reports inventory challenges for homes under $500,000 in the City of Durango. While supply in Durango remains constrained, *The Durango Herald* reports that developers are expected to target the comparatively affordable areas of eastern La Plata County, including Bayfield and the Forest Lakes area.

**Table 21**
**Southwest Mountain Region Economic Indicators**
Archuleta, Dolores, La Plata, Montezuma, and San Juan Counties

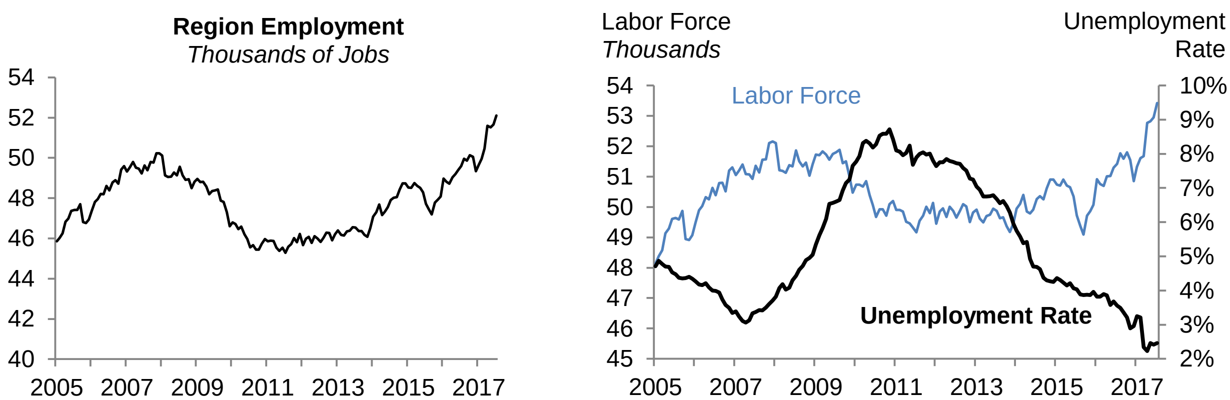
| | 2013 | 2014 | 2015 | 2016 | YTD 2017 |
|---|---|---|---|---|---|
| Employment Growth[1] | 0.7% | 3.2% | 0.6% | 2.7% | 3.8% |
| Unemployment Rat[1] | 6.6% | 4.9% | 4.1% | 3.5% | 2.6% |
| Housing Permit Growth[2] | 44.7% | 14.2% | 17.6% | -4.6% | 45.0% |
| Retail Trade Sales Growth[3] | 5.0% | 3.0% | 1.7% | NA | NA |
| National Park Recreation Visits[4] | -5.9% | 8.9% | 10.2% | 7.5% | 3.8% |

NA = Not available.
[1]U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data prior to 2010 adjusted by Legislative Council Staff. Data through July 2017.
[2]F.W. Dodge. Data through July 2017.
[3]Colorado Department of Revenue. Data through December 2015.
[4]National Park Service. Data through July 2017. Recreation visits for Mesa Verde National Park and Hovenweep National Monument.

Tourism in the area remains strong in the high seasons, which include the winter ski season and summer camping and boating season. Mesa Verde National Park in Montezuma County and Hovenweep National Monument in southeast Utah each reported additional visitors in 2016 relative to 2015 and through July 2017 relative to the same period last year (Figure 47).

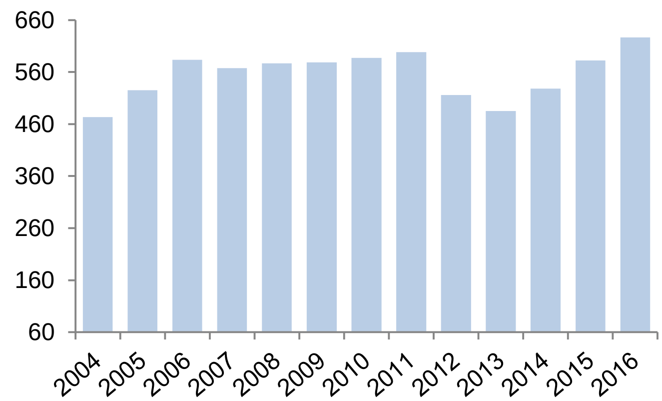
Low crop prices continue to depress agricultural activity in the region. However, corn, wheat, and alfalfa prices have been steadily recovering this year providing hope for higher profits in 2017. Natural gas prices trended upward throughout 2016 from lows at the start of the year. Higher prices offer rising optimism for energy industry employment in the area.

**Figure 46**
**Selected Indicators of Southwest Mountain Region Labor Market Activity**



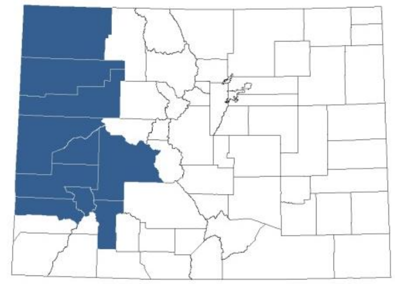

*Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through July 2017.*

**Figure 47**
**Recreation Visits for Mesa Verde National Park and Hovenweep National Monument**




*Source: National Park Service. Data through December 2016.*

## Western Region



The economy in the western region shows modest improvement although it is lagging behind other regions in the state. The region's unemployment rate continued to fall through the first half of 2017, however employment gains lost momentum relative to year-ago levels. Energy, agriculture, and tourism are important to the area's economy. Garfield, Rio Blanco, Delta, and Gunnison counties have been significantly affected by persistently low natural gas prices and a struggling coal industry. Economic indicators for the region are summarized in Table 22.

Figure 48 shows labor market trends in the western region. Employment growth across the region slowed from 1.4 percent in 2016 to 1.3 percent during the first seven months of 2017 over year-ago levels. In Grand Junction, the largest city in the region, employment growth decreased 0.5 percent through July 2017 relative to year-ago levels after increasing only 0.4 percent in 2016. Despite slow employment growth, the unemployment rate continued to fall through the first seven months of 2017. A precipitous decrease in the unemployment rate in March 2017 (see Figure 48) will likely be revised when new information becomes available.

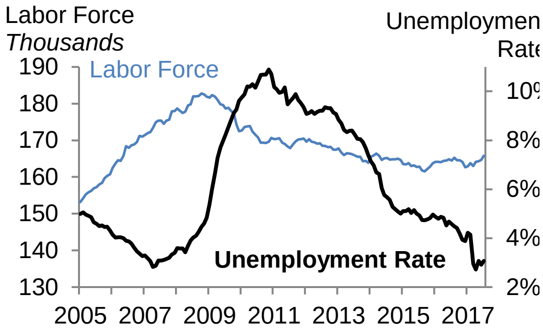
Residential construction activity increased in the first seven months of the year. Housing permits increased 23.7 percent through the first seven months of 2017 compared with the same period in 2016. Construction activity for nonresidential projects was mixed. Through July 2017, the value and size of projects increased compared with the same period in the prior year, however there were fewer projects.

**Table 22**
**Western Region Economic Indicators**
Delta, Garfield, Gunnison, Hinsdale, Mesa, Moffat, Montrose, Ouray, Rio Blanco, and San Miguel Counties

| | 2013 | 2014 | 2015 | 2016 | YTD 2017 |
|---|---|---|---|---|---|
| Employment Growth | | | | | |
| Western Region[1] | -0.7% | 2.1% | -0.4% | 1.4% | 1.3% |
| Grand Junction MSA[2] | 0.6% | 2.5% | 0.0% | 0.4% | -0.5% |
| Unemployment Rate[1] | 8.2% | 5.9% | 5.0% | 4.5% | 3.3% |
| Natural Gas Production Growth[3] | -8.8% | -5.3% | -12.8% | -6.7% | -6.5% |
| Housing Permit Growth [4] | -1.0% | 7.9% | 24.7% | 6.7% | 23.7% |
| Nonresidential Construction Growth [4] | | | | | |
| Value of Projects | -24.7% | 221.9% | -37.9% | 57.8% | 30.0% |
| Square Footage of Projects | -42.0% | 157.9% | -41.0% | -24.3% | 61.3% |
| Level (*Thousands*) | 396 | 1,021 | 602 | 456 | 388 |
| Number of Projects | -28.6% | 21.8% | -17.9% | 27.3% | -44.2% |
| Level | 55 | 67 | 55 | 70 | 24 |
| Retail Trade Sales Growth [5] | 2.4% | 4.7% | 7.4% | NA | NA |

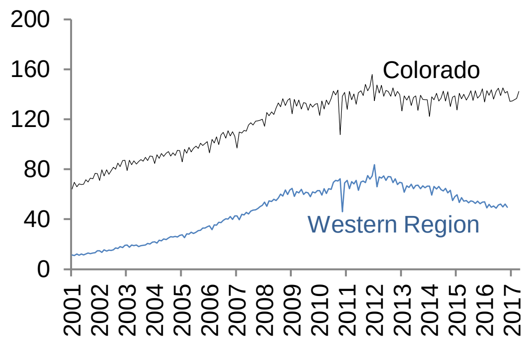
MSA = Metropolitan statistical area. NA = Not available.
[1] U.S. Bureau of Labor Statistics, LAUS (household survey). Data prior to 2010 adjusted by Legislative Council Staff. Seasonally adjusted. Data through July 2017.
[2] U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through July 2017.
[3] Colorado Oil and Gas Conservation Commission. Data through May 2017.
[4] F.W. Dodge. Data through July 2017.
[5] Colorado Department of Revenue. Seasonally adjusted. Data through December 2015.

**Figure 48**
**Western Region Labor Market Trends**




*Source: U.S. Bureau of Labor Statistics; LAUS. Data are seasonally adjusted and are through July 2017.*

**Figure 49**
**Natural Gas Production**
*Millions of BCF*



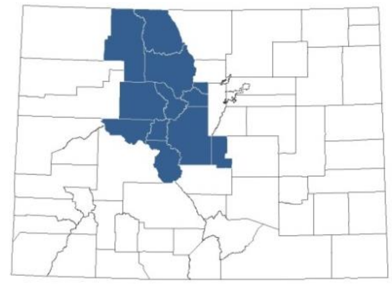

*Source: Colorado Oil and Gas Conservation Commission. Data through May 2017. BCF = billion cubic feet.*

The Piceance Basin is located in the western region of Colorado and is the second largest source of potentially developable gas resources in the country. Natural gas production has declined for four consecutive years due to persistently low natural gas prices and a lack of investment from energy firms in the western region of the state (Figure 49). This trend is continuing, with natural gas production declining 6.5 percent in the first five months of 2017 compared with the same period in 2016.

Colorado's coal industry has shrunk significantly in recent years due to decreasing demand, low prices, and competition from other sources of fuel. Between 2013 and September 2016, four coal mines in the region announced plans to close. The mine closings are a part of a larger industry reorganization, which included companies going bankrupt. Communities in Gunnison and Delta counties have lost storefronts and school enrollment. The landmark coal silo at the Elk Creek Mine near Somerset was demolished in late April after the mine closed in 2016.

The number of visitors to the Black Canyon of the Gunnison National Park increased 13.8 percent to 238,018 visitors in 2016, and has increased 10.7 percent year-to-date through August 2017 compared with the first eight months of 2016, according to the National Park Service. Although the Black Canyon of the Gunnison is not far from the struggling coal city of Somerset, most visitors to the park visit the south rim of the canyon and patronize businesses in the gateway communities of Montrose or Gunnison. Meanwhile, visitors to the Colorado National Monument near Grand Junction decreased 7.1 percent year-to-date through August.

## Mountain Region



The mountain region, comprising the twelve mountain counties north of Poncha Pass, remains among the state's healthiest local economies. Eagle, Summit, Pitkin, and Routt counties account for over two-thirds of the jobs in the region. The region, which is dependent on the tourism, recreational, and gambling industries, have benefited from the fruits of a mature economic expansion. The region added jobs at a healthy rate last year and new job opportunities have remained plentiful through the first seven months of this year. Casino expansions and renovations in Gilpin and Clear Creek counties have significantly boosted activity in the nonresidential construction market this year. Nevertheless, lack of affordable housing continues to affect many Colorado mountain towns, which could slow future economic growth. Economic indicators for the region are presented in Table 23.

Labor market indicators for the mountain region remain solid. The pace of employment growth accelerated in 2016 and has continued to gain momentum through the first half of this year (Figure 50, left). Employment is primarily driven by the entertainment, recreation, and food sectors, which comprise almost half of the jobs in the region. Record-high ski visits and improving gaming revenues have increased demand for these jobs. The region boasts one of the lowest unemployment rates in the state, averaging 2.2 percent through July 2017 (Figure 50, Right). In addition, despite a strong historical seasonal pattern of employment, the region has managed to maintain or add jobs throughout the year. Several local governments, specifically in the ski towns, have focused on additional activities during the "off season." The labor market is expected to continue to improve as new job opportunities in the region remain plentiful.

Record-setting snow in December and January contributed to one of the best ski seasons on record. According to Colorado Ski Country USA, Colorado hosted 7.3 million skier visits in the 2016-17 ski season, the second busiest year ever. In additon, Aspen Snowmass hosted the International Ski Federation World Cups Finals in March. The Winter Park Express, a train that transports skiers and snowboarders from Union Station in Denver to the Winter Park resort, also returned.

**Table 23**
**Mountain Region Economic Indicators**

Chaffee, Clear Creek, Eagle, Gilpin, Grand, Jackson, Lake, Park, Pitkin, Routt, Summit, and Teller Counties

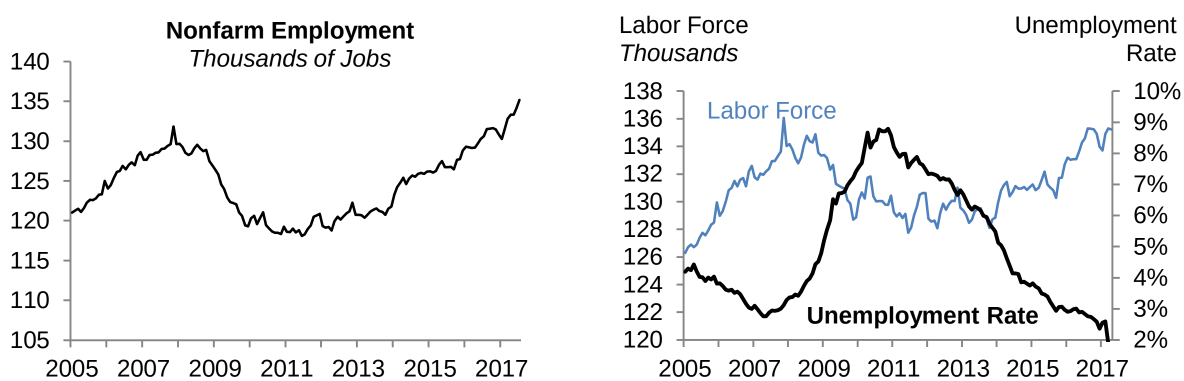
| | 2013 | 2014 | 2015 | 2016 | YTD 2017 |
|---|---|---|---|---|---|
| Employment Growth[1] | 0.7% | 3.4% | 1.4% | 2.7% | 2.5% |
| Unemployment Rate[1] | 6.1% | 4.3% | 3.3% | 2.8% | 2.2% |
| Housing Permit Growth[2] | 63.6% | 2.2% | -7.6% | 29.0% | -0.5% |
| Nonresidential Construction Growth[2] | | | | | |
| Value of Projects | -8.6% | 84.8% | 6.0% | -9.2% | 350.6% |
| Square Footage of Projects | -19.6% | 206.5% | -64.6% | 20.6% | 335.5% |
| Level (*Thousands*) | 441 | 1,352 | 478 | 576 | 1,149 |
| Number of Projects | 2.0% | 20.0% | -38.3% | 62.2% | -18.2 |
| Level | 50 | 60 | 37 | 60 | 27 |
| Retail Trade Sales Growth[3] | 6.1% | 8.5% | 6.7% | NA | NA |

N/A = Not available.
[1]Bureau of Labor Statistics. LAUS (household) survey. Seasonally adjusted. Data prior to 2010 adjusted by Legislative Council Staff. Data through July 2017.
[2]F.W. Dodge. Data through July 2017.
[3]Colorado Department of Revenue. Seasonally adjusted. Data through December 2015.

The 2017 nonresidential construction indicators presented in Table 23 include the Monarch Casino expansion project in Black Hawk. The 23-story casino tower broke ground in February and has an estimated completed value of $256 million, making it the largest commercial construction project in the region's history. When complete, the new Monarch is expected to include a 500-room hotel, a spa, three restaurants, and a casino floor. It is currently scheduled for completion in the second quarter of 2019. Summer construction this year will also include ski and summer sport improvements to the Copper Mountain resort facilities in Summit County.

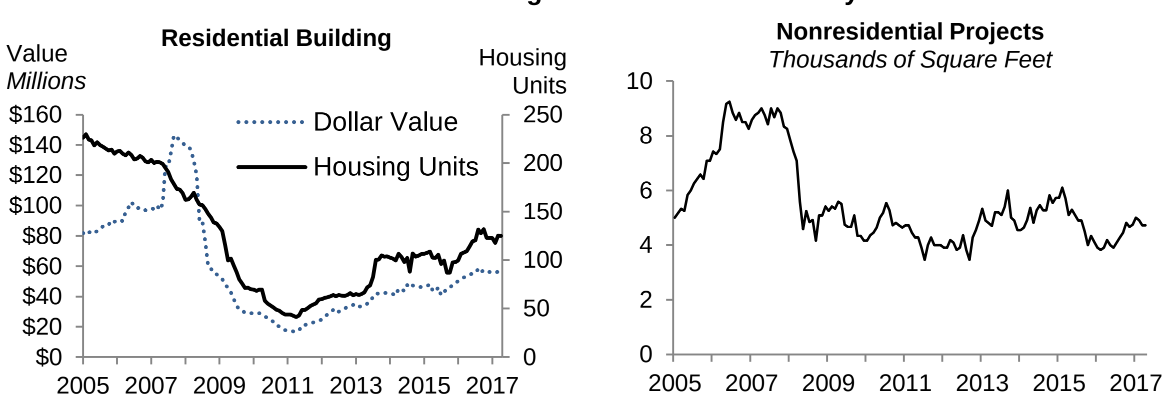
The region continues to add stock to their housing inventory but demand continues to outpace supply, pushing up rents and further reducing the number of affordable housing units. Through July 2017, planning departments in the region have approved just over 800 new residential housing permits, slightly down from the same period last year. Several local governments have passed plans to provide more affordable housing options, which will spur more growth for residential permits. In May after a year of negotiations, the Summit County Board of Commissioners approved the construction of a 196-unit workforce housing complex between Keystone and Dillon that is expected to break ground next summer. High rents have also spurred additional rental-by-owner activity in the mountains. The Vail Town Council recently adopted a master plan whereby they hope to see 1,000 new deed-restricted homes for families to live in the community in the next 10 years.

**Figure 50**
**Mountain Region Labor Market Activity**



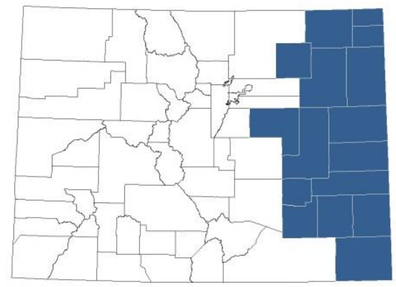

*Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through July 2017.*

**Figure 51**
**Mountain Region Construction Activity**




*Source: F.W. Dodge. Data shown as three-month moving averages. Data are not seasonally adjusted and are through July 2017.*

## Eastern Region



The eastern region comprises the 16 plains counties located to the east of the I-25 corridor. Most of these counties rely on agriculture as the economy's primary industry, with retailers and government operations supporting area farming and ranching communities. High and rising housing costs coupled with a shortage of buildable lots along the Front Range has pushed Denver, Fort Collins-Loveland, and Greeley commuters into some eastern region counties. As a result, the region continues to diversify, though unevenly. Indicators for the region are presented in Table 24.

**Table 24**
**Eastern Region Economic Indicators**
Baca, Bent, Logan, Cheyenne, Crowley, Elbert, Kiowa, Kit Carson, Lincoln, Morgan, Otero, Phillips, Prowers, Sedgwick, Washington, and Yuma Counties

| | 2013 | 2014 | 2015 | 2016 | YTD 2017 |
|---|---|---|---|---|---|
| Employment Growth[1] | -1.4% | 3.0% | 2.4% | 3.5% | 1.8% |
| Unemployment Rate[1] | 6.1% | 4.4% | 3.5% | 3.0% | 2.3% |
| Crop Price Changes[2] | | | | | |
| Wheat ($/Bushel) | 0.8% | -11.5% | -25.6% | -27.9% | -14.6% |
| Corn ($/Bushel) | -2.8% | -31.0% | -13.1% | -7.7% | -4.1% |
| Alfalfa Hay (Baled, $/Ton) | -0.1% | -11.3% | -13.9% | -15.5% | -0.9% |
| Livestock[3] | | | | | |
| State Cattle and Calf Inventory Growth | -8.7% | -4.2% | -4.4% | 1.0% | 5.7% |
| Milk Production | 3.5% | 7.9% | 3.9% | 5.2% | 6.3% |
| Retail Trade Sales Growth[4] | 2.3% | 9.7% | -5.4% | NA | NA |

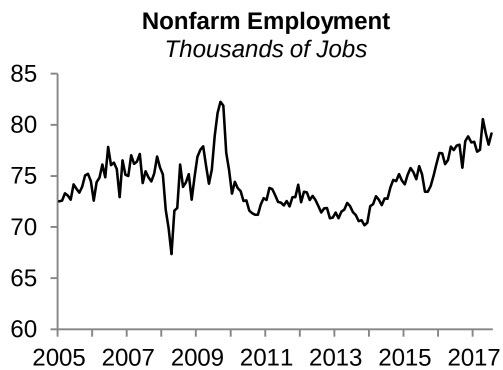
NA = Not available.
[1]U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data prior to 2010 adjusted by Legislative Council Staff. Data through July 2017.
[2]National Agricultural Statistics Service. Price data through July 2017.
[3]National Agricultural Statistics Service. Cattle on feed data through August 2017; milk production data through July 2017.
[4]Colorado Department of Revenue. Data through December 2015.

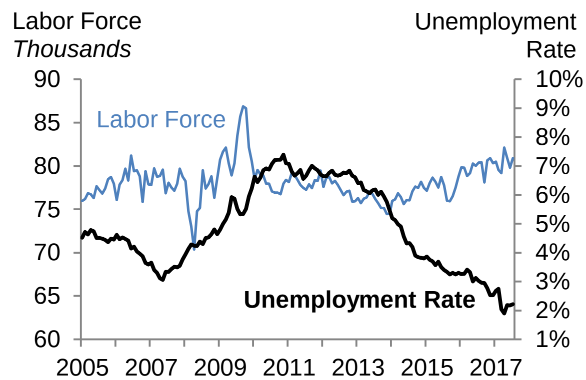
In the first seven months of the year, employment in the region as a whole rose 1.8 percent over year-ago levels. The number of jobs in the area continues to reach toward historical highs (Figure 52, left). Through July, the regional unemployment rate fell to 2.3 percent as the number of employed workers outpaced growth in the labor force (Figure 52, right). Growth has been uneven across counties in the region. Many of the rural counties with small populations have experienced volatile growth in recent years as the agricultural economy has suffered with low commodity prices. Counties closer to Front Range urban areas, by contrast, have generally experienced stronger, more consistent growth stimulated by new residential development in exurban areas.

While data suggest that job growth has slowed relative to the past three years, the regional economy is expected to continue to expand with the influx of a growing population in the counties closest to metropolitan areas. Morgan County, which is characterized by a strong agricultural industry presence, is currently the region's largest in terms of both population and employment. Elbert County, however, is projected to become the most populated county in the region as early as next year as new residential developments continue. The State

Demographer projects that Elbert County's population will grow an average of 5.9 percent annually through 2020, the fastest projected county growth rate in the state.

**Figure 52**
**Eastern Region Labor Market Indicators**



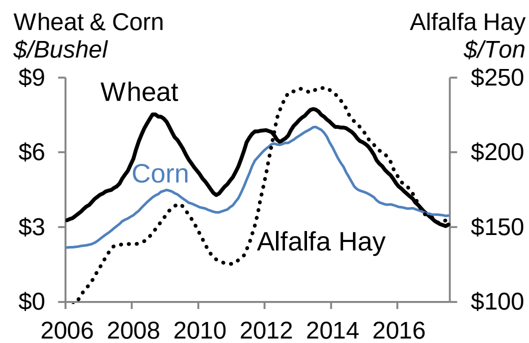

*Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through July 2017.*

Colorado's top agricultural commodities include cattle, corn, wheat, and milk. The eastern region also produces a diverse array of other products, including beets, soybeans, canola, bison, and other products. The state's agricultural economy broadly, and the eastern region in particular, has been struggling with low commodity prices for key crops such as corn and wheat, which have weakened farmer incomes.

Figure 53 shows the prices received for Colorado wheat, corn, and alfalfa hay. Commodity prices for these items began a downward trend in 2013 as global supply outstripped demand. Prices have stabilized in recent months and even climbed for some crops. Though, prices are expected to recover slowly, maintaining pressure on farm profitability.

Fairing slightly better are livestock and dairy industries. Lower corn prices have modestly boosted the cattle inventory as feed costs for livestock operators have declined. Colorado milk producers continue to increase production at a healthy rate. Local milk producers have been faring better than national producers on strong demand from local cheese and dairy producers, including Leprino Foods Company and Aurora Organic Dairy.

**Figure 53**
**Prices Received for Colorado Crops**




*Source: National Agricultural Statistics Service. Data shown as twelve-month moving averages. Data through July 2017.*

## National Economic Indicators

| Calendar Years | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GDP ($ *Billions*)[1] | 10,977.5 | 11,510.7 | 12,274.9 | 13,093.7 | 13,855.9 | 14,477.6 | 14,718.6 | 14,418.7 | 14,964.4 | 15,517.9 | 16,155.3 | 16,691.5 | 17,427.6 | 18,120.7 | 18,624.5 |
| Percent Change | 3.3% | 4.9% | 6.6% | 6.7% | 5.8% | 4.5% | 1.7% | -2.0% | 3.8% | 3.7% | 4.1% | 3.3% | 4.4% | 4.0% | 2.8% |
| Real GDP ($ *Billions*)[1] | 12,908.8 | 13,271.1 | 13,773.5 | 14,234.2 | 14,613.8 | 14,873.7 | 14,830.4 | 14,418.7 | 14,783.8 | 15,020.6 | 15,354.6 | 15,612.2 | 16,013.3 | 16,471.5 | 16,716.2 |
| Percent Change | 1.8% | 2.8% | 3.8% | 3.3% | 2.7% | 1.8% | -0.3% | -2.8% | 2.5% | 1.6% | 2.2% | 1.7% | 2.6% | 2.9% | 1.5% |
| Unemployment Rate[2] | 5.8% | 6.0% | 5.5% | 5.1% | 4.6% | 4.6% | 5.8% | 9.3% | 9.6% | 8.9% | 8.1% | 7.4% | 6.2% | 5.3% | 4.9% |
| Inflation[2] | 1.6% | 2.3% | 2.7% | 3.4% | 3.2% | 2.9% | 3.8% | -0.3% | 1.6% | 3.1% | 2.1% | 1.5% | 1.6% | 0.1% | 1.3% |
| 10-Year Treasury Note[3] | 4.6% | 4.0% | 4.3% | 4.3% | 4.8% | 4.6% | 3.7% | 3.3% | 3.2% | 2.8% | 1.8% | 2.4% | 2.5% | 2.1% | 1.8% |
| Personal Income ($ *Billions*)[1] | 9,153.9 | 9,491.1 | 10,052.9 | 10,614.0 | 11,393.9 | 12,000.2 | 12,502.2 | 12,094.8 | 12,477.1 | 13,254.5 | 13,915.1 | 14,073.7 | 14,818.2 | 15,553.0 | 15,928.7 |
| Percent Change | 1.8% | 3.7% | 5.9% | 5.6% | 7.3% | 5.3% | 4.2% | -3.3% | 3.2% | 6.2% | 5.0% | 1.1% | 5.3% | 5.0% | 2.4% |
| Wage & Salaries ($ *Billions*)[1] | 4,996.4 | 5,137.9 | 5,421.9 | 5,692.0 | 6,057.4 | 6,395.2 | 6,531.9 | 6,251.4 | 6,377.5 | 6,633.2 | 6,930.3 | 7,116.7 | 7,476.8 | 7,858.9 | 8,085.3 |
| Percent Change | 0.8% | 2.8% | 5.5% | 5.0% | 6.4% | 5.6% | 2.1% | -4.3% | 2.0% | 4.0% | 4.5% | 2.7% | 5.1% | 5.1% | 2.9% |
| Nonfarm Employment (*Millions*)[2] | 130.6 | 130.3 | 131.8 | 134.0 | 136.5 | 138.0 | 137.2 | 131.3 | 130.4 | 131.9 | 134.2 | 136.4 | 138.9 | 141.8 | 144.3 |
| Percent Change | -1.1% | -0.2% | 1.1% | 1.7% | 1.8% | 1.1% | -0.5% | -4.3% | -0.7% | 1.2% | 1.7% | 1.6% | 1.9% | 2.1% | 1.8% |

*Sources*
[1]*U.S. Bureau of Economic Analysis. Real gross domestic product (GDP) is adjusted for inflation. Personal income and wages and salaries not adjusted for inflation.*
[2]*U.S. Bureau of Labor Statistics. Inflation shown as the year-over-year change in the consumer price index for all urban areas (CPI-U).*
[3]*Federal Reserve Board of Governors.*

## Colorado Economic Indicators

| Calendar Years | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nonfarm Employment (*Thousands*)[1] | 2,152.6 | 2,179.4 | 2,225.9 | 2,279.7 | 2,331.1 | 2,350.6 | 2,245.5 | 2,222.3 | 2,259.0 | 2,313.1 | 2,382.0 | 2,464.8 | 2,541.8 | 2,600.6 |
| Percent Change | -1.5% | 1.2% | 2.1% | 2.4% | 2.3% | 0.8% | -4.5% | -1.0% | 1.7% | 2.4% | 3.0% | 3.5% | 3.1% | 2.3% |
| Unemployment Rate[1] | 6.0 | 5.5 | 4.9 | 4.2 | 3.8 | 4.9 | 7.6 | 8.8 | 8.3 | 7.8 | 6.7 | 4.9 | 3.8 | 3.3 |
| Personal Income ($ *Millions*)[2] | $159,103 | $164,457 | $176,129 | $189,493 | $201,743 | $208,608 | $198,082 | $201,570 | $219,861 | $234,006 | $246,648 | $266,535 | $277,732 | $287,901 |
| Percent Change | 1.8% | 3.4% | 7.1% | 7.6% | 6.5% | 3.4% | -5.0% | 1.8% | 9.1% | 6.4% | 5.4% | 8.1% | 4.2% | |
| Per Capita Personal Income ($)[2] | $35,132.0 | $35,947.0 | $38,025.0 | $40,143.0 | $41,996.0 | $42,663.0 | $39,838.0 | $39,926.0 | $42,955.0 | $45,089.0 | $46,824.0 | $49,823.0 | $50,971.00 | $52,059.00 |
| Percent Change | 0.9% | 2.3% | 5.8% | 5.6% | 4.6% | 1.6% | -6.6% | 0.2% | 7.6% | 5.0% | 3.8% | 6.4% | 2.3% | |
| Wage & Salary Income ($ *Millions*)[2] | $89,281 | $93,569 | $98,787 | $105,664 | $112,506 | $116,678 | $112,297 | $113,786 | $118,558 | $125,014 | $129,597 | $138,701 | $146,574 | $152,755 |
| Percent Change | 1.4% | 4.8% | 5.6% | 7.0% | 6.5% | 3.7% | -3.8% | 1.3% | 4.2% | 5.4% | 3.7% | 7.0% | 5.7% | |
| Retail Trade Sales ($ *Millions*)[3] | $58,689 | $62,288 | $65,492 | $70,437 | $75,329 | $74,760 | $66,345 | $70,738 | $75,548 | $80,073 | $83,569 | $90,653 | $94,920 | NA |
| Percent Change | -0.3% | 6.1% | 5.1% | 7.5% | 6.9% | -0.8% | -11.3% | 6.6% | 6.8% | 6.0% | 4.4% | 8.5% | 4.7% | |
| Residential Housing Permits[4] | 39,569 | 46,499 | 45,891 | 38,343 | 29,454 | 18,998 | 9,355 | 11,591 | 13,502 | 23,301 | 27,517 | 28,698 | 31,871 | 38,974 |
| Percent Change | -17.3% | 17.5% | -1.3% | -16.4% | -23.2% | -35.5% | -50.8% | 23.9% | 16.5% | 72.6% | 18.1% | 4.3% | 11.1% | 22.3% |
| Nonresidential Construction (*Millions*)[5] | $2,686 | $3,245 | $4,275 | $4,641 | $5,259 | $4,114 | $3,354 | $3,147 | $3,923 | $3,695 | $3,624 | $4,350 | $4,887 | $5,833 |
| Percent Change | -4.2% | 20.8% | 31.7% | 8.6% | 13.3% | -21.8% | -18.5% | -6.2% | 24.7% | -5.8% | -1.9% | 20.0% | 12.4% | 19.4% |
| Denver-Boulder-Greeley Inflation[1] | 1.0% | 0.1% | 2.1% | 3.6% | 2.2% | 3.9% | -0.6% | 1.9% | 3.7% | 1.9% | 2.8% | 2.8% | 1.2% | 2.8% |
| Population (*Thousands, July 1*)[4] | 4,529 | 4,575 | 4,632 | 4,720 | 4,804 | 4,890 | 4,972 | 5,049 | 5,118 | 5,190 | 5,268 | 5,350 | 5,449 | 5,541 |
| Percent Change | 0.9% | 1.0% | 1.2% | 1.9% | 1.8% | 1.8% | 1.7% | 1.5% | 1.4% | 1.4% | 1.5% | 1.6% | 1.9% | 1.7% |

*NA = Not available.*

*[1]U.S. Bureau of Labor Statistics. Nonfarm employment estimates include revisions to 2016 data expected by Legislative Council Staff from the Bureau of Labor Statistic's annual re-benchmarking process. Inflation shown as the year-over-year change in the consumer price index for Denver-Boulder-Greeley metro areas.*

*[2]U.S. Bureau of Economic Analysis. Personal income and wages and salaries not adjusted for inflation.*

*[3]Colorado Department of Revenue.*

*[4]U.S. Census Bureau. Residential housing permits are the number of new single and multi-family housing units permitted for building.*

*[5]F.W. Dodge.*