*Colorado Legislative Council Staff*

# September 2019 | Economic & Revenue Forecast

September 20, 2019

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## Executive Summary

This report presents the budget outlook based on current law and the September 2019 General Fund revenue, cash fund revenue, and TABOR forecasts. This document also includes an updated school finance outlook, summaries of expectations for the U.S. and Colorado economies, and an overview of current economic conditions in nine regions of the state.

### General Fund Budget Outlook

**FY 2018-19**

Preliminary, unaudited figures from the Office of the State Controller indicate that the General Fund ended FY 2018-19 with an estimated 10.2 percent reserve, $331.8 million above the 7.25 percent statutory reserve. Revenue subject to TABOR is expected to exceed the Referendum C cap by $428.3 million, resulting in a TABOR refund in FY 2019-20. The TABOR refund obligation is expected to trigger a temporary income tax rate reduction for tax year 2019 in addition to fully funding local government reimbursements for property tax exemptions, with remaining refunds returned to taxpayers via the sales tax refund mechanism.

**FY 2019-20**

In FY 2019-20, the General Fund is expected to end the year with an 8.3 percent reserve, $121.6 million above the 7.25 percent statutory reserve. Revenue subject to TABOR is expected to exceed the Referendum C cap by $264.3 million, resulting in a TABOR refund in FY 2020-21. The TABOR refund obligation is expected to fully fund reimbursements to local governments for property tax exemptions with remaining refunds returned to taxpayers via the sales tax refund mechanism.

**FY 2020-21 Unbudgeted**

The General Assembly is projected to have $833.4 million, or 6.3 percent, more to spend or save in the General Fund than what is budgeted to be spent and saved in FY 2019-20. If appropriations are grown by inflation and population growth, this amount is reduced to $421.0 million. Alternatively, if appropriations grow by historical rates during an economic expansion, the amount is reduced to a $56.6 million surplus above the required 7.25 percent reserve. Any changes to revenue or expenditures in FY 2019-20 will change these amounts. Revenue is expected to come in $142.9 million above the Referendum C cap in FY 2020-21, resulting in a FY 2021-22 TABOR refund obligation.

**Risks to the forecast.** Several leading business and financial indicators suggest an elevated risk of recession during the forecast period. Additionally, taxpayers continue to adjust to the changes under the federal Tax Cuts and Jobs Act (TCJA), recent court decisions on corporate income tax payments, and ongoing sales tax reform for remote (including online) transactions. These changes pose both upside and downside risks to the revenue forecast.

### School Finance Outlook

This September forecast includes a brief update on school finance funding for FY 2020-21, based on updated expectations for inflation, General Fund diversions required to the State Education Fund, and Federal Mineral Lease payments. Relative to the prior-year requirement, the overall FY 2020-21 total program requirement is expected to increase by $153 million due to inflation and enrollment growth. Supporting this increase, the state aid requirement is expected to increase by $76 million, while the local share is also projected to increase by $77 million based on higher property values. The amount available from the State Education Fund for school finance in FY 2020-21 is expected to increase $110 million relative to prior-year levels. This amount assumes a constant budget stabilization factor and State Education Fund ending balance of $100 million in FY 2020-21.

## Cash Fund Revenue

Preliminary, unaudited figures indicate that cash fund revenue subject to TABOR totaled $2.44 billion in FY 2018-19, an increase of $136.3 million, or 5.9 percent, from the prior fiscal year. A rebound in severance tax collections on higher oil and gas production activity explains a majority of the increase. Total cash fund revenue subject to TABOR is projected to hold steady in FY 2019-20 as declines in severance tax revenue offset increases in other revenues streams. In FY 2020-21, cash fund revenue is expected to increase 1.9 percent to total $2.49 billion as most sources of revenue grow.

## Economic Outlook

Despite stronger headwinds, the outlook for economic growth in 2019 remains positive. Low unemployment, rising wages, and moderate consumer spending are sustaining the economic expansion. Weaker demand for U.S. exports of manufactured and agricultural goods has led to a contraction in manufacturing output and decreased exports in 2019. Business confidence has also waned in recent months with a tight labor market, rising tariffs, and continued global economic uncertainty hindering business investment and profits. Lower interest rates and higher wages are helping to maintain demand for housing along the Front Range, but a lack of construction workers, a shortage of affordable housing, and increased input costs pose challenges to the state's construction and real estate industries.

Economic growth in the U.S. and Colorado is expected to slow further in 2020 and 2021 on increasing headwinds from a tighter labor market. Risks to the outlook remain skewed to the downside, with several leading business and financial indicators signaling an elevated risk of recession during the forecast period. Geopolitical risk and trade policy uncertainty continue to pose downside risks to economic growth. Though resolution to these ongoing threats poses an upside risk.

Discussion of the economic outlook begins on page 37, and summaries of expectations for the U.S. and Colorado economies are respectively presented in Tables 16 and 17 on pages 64 and 65.

## General Fund Budget Overview

This section presents the General Fund overview based on current law. A summary of the General Fund overview is shown in Table 1. This section also presents expectations for the following:

- statutory transfers to transportation and capital construction funds (Table 2);
- the availability of tax policies dependent on revenue collections (Table 3);
- General Fund rebates and expenditures (Table 4); and
- cash fund transfers to and from the General Fund (Table 5).

### FY 2018-19

Based on preliminary, unaudited figures from the Office of the State Controller, the General Fund ended FY 2018-19 with a 10.2 percent reserve, $331.8 million higher than the statutorily required 7.25 percent reserve. Revenue exceeded the Referendum C cap by $428.3 million, resulting in a TABOR refund in FY 2019-20. The TABOR refund obligation is expected to trigger a temporary income tax rate reduction for tax year 2019 only, in addition to fully funding the senior homestead and disabled veteran property tax exemptions, with remaining refunds returned to taxpayers via the sales tax refund mechanism.

The General Fund excess reserve (Table 1, line 19) is expected to be $28.5 million higher than projected in June, reflecting slight adjustments for expenditures and legislative changes enacted in 2019. Relative to the June 2019 forecast, General Fund collections were reduced $76.1 million on lower than expected income and sales tax collections. Preliminary data suggest that cash fund revenue subject to TABOR came in $10.4 million below June expectations. Lower than expected collections reduced the projected TABOR refund obligation to be paid out to taxpayers in FY 2019-20.

### FY 2019-20

The General Fund is expected to end the year with an 8.3 percent reserve, $121.6 million higher than the budgeted 7.25 percent reserve. Revenue is expected to exceed the Referendum C cap by $264.3 million, resulting in a TABOR refund in FY 2020-21. The TABOR refund obligation will fully fund FY 2020-21 local government reimbursements for the senior homestead and disabled veteran property tax exemptions, with the remaining obligation refunded via the sales tax refund mechanism.

Relative to the June forecast, the FY 2019-20 year-end balance is projected to be $24.1 million higher than expected in June, accounting for adjustments for expenditures and legislative changes enacted in 2019. Gross General Fund revenue expectations were revised down $76.3 million on slight reductions across most revenue streams based on collections to date. Total cash fund revenue expectations remained consistent with the June forecast, as lower transportation-related revenue collections offset an increase in expectations for severance tax revenue.

### FY 2020-21 (Unbudgeted)

Because a budget has not yet been enacted for FY 2020-21, Table 1 (line 21) shows the amount of additional revenue available to be spent or saved in FY 2020-21 relative to the amount budgeted to be spent or saved in FY 2019-20, assuming operating appropriations are held constant.

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

| | Funds Available | FY 2018-19 Preliminary | FY 2019-20 Estimate | FY 2020-21 Estimate | FY 2021-22 Estimate |
|---|---|---|---|---|---|
| 1 | Beginning Reserve | $1,366.0 | $1,146.1 | $992.7 | * |
| 2 | General Fund Revenue | $12,570.3 | $12,953.5 | $13,309.0 | $13,724.6 |
| 3 | Transfers from Other Funds *(Table 5)* | $38.0 | $71.0 | $19.2 | $20.2 |
| **4** | **Total Funds Available** | **$13,974.3** | **$14,170.6** | **$14,320.9** | ***** |
| 5 | Percent Change | 12.4% | 1.4% | 1.1% | * |
| | **Expenditures** | **Preliminary** | **Budgeted** | **Estimate** | **Estimate** |
| 6 | General Fund Appropriations Subject to Limit[1] | $11,230.5 | $12,015.3 | * | * |
| 7 | TABOR Refund Obligation Under Art. X, §20, (7)(d)[2] | $428.5 | $264.3 | $142.9 | $134.5 |
| 8 | Rebates and Expenditures *(Table 4)* | $249.8 | $141.5 | $141.5 | $169.1 |
| 9 | Transfers to Other Funds *(Table 5)* | $219.0 | $190.7 | $246.7 | $258.7 |
| 10 | Transfers to the State Education Fund (SB 13-234 & SB 19-246) | $25.0 | $40.3 | $0.0 | $0.0 |
| 11 | Transfers to Transportation Fund *(Table 2)* | $495.0 | $300.0 | $50.0 | $50.0 |
| 12 | Transfers to Capital Construction Funds *(Table 2)* | $180.5 | $225.7 | $20.0 | $20.0 |
| **13** | **Total Expenditures** | **$12,828.4** | **$13,177.8** | * | * |
| 14 | Percent Change | 14.4% | 2.7% | * | * |
| 15 | Accounting Adjustments[3] | $0.1 | * | * | * |
| | **Reserve** | **Preliminary** | **Budgeted** | **Estimate** | **Estimate** |
| 16 | Year-End General Fund Reserve | $1,146.1 | $992.7 | * | * |
| 17 | Year-End Reserve as a Percent of Appropriations | 10.2% | 8.3% | * | * |
| 18 | Statutorily Required Reserve[4] | $814.2 | $871.1 | * | * |
| **19** | **Amount in Excess or (Deficit) of Statutory Reserve** | **$331.8** | **$121.6** | * | * |
| 20 | Excess Reserve as a Percent of Expenditures | 2.6% | 0.9% | * | * |
| | **Perspectives on FY 2020-21(Unbudgeted)** | | | **Estimate** | **Estimate** |
| | **Scenario A: Hold FY 2019-20 Appropriations Constant[5]** | | | | |
| 21 | Amount in Excess or (Deficit) of 7.25% Statutory Reserve | | | $833.4 | * |
| 22 | As a Percent of Prior-Year Expenditures | | | 6.3% | * |
| | **Scenario B: Increase FY 2019-20 Appropriations by Inflation and Population Growth (3.2%)[6]** | | | | |
| 23 | Amount in Excess or (Deficit) of 7.25% Statutory Reserve | | | $421.0 | * |
| 24 | As a Percent of Prior-Year Expenditures | | | 3.2% | * |
| | **Scenario C: Increase FY 2019-20 Appropriations by Historical Growth During Expansions (6.0%)[7]** | | | | |
| 25 | Amount in Excess or (Deficit) of 7.25% Statutory Reserve | | | $56.6 | * |
| 26 | As a Percent of Prior-Year Expenditures | | | 0.4% | * |
| | **Addendum** | **Preliminary** | **Estimate** | **Estimate** | **Estimate** |
| 27 | Percent Change in General Fund Appropriations | 7.4% | 7.0% | * | * |
| 28 | 5% of Colorado Personal Income Appropriations Limit | $14,481.0 | $15,320.6 | $16,186.4 | $17,092.9 |
| 29 | Transfers to State Education Fund Per Amendment 23 | $692.8 | $707.8 | $721.7 | $740.5 |

*Totals may not sum due to rounding. *Not estimated.*

*[1]Includes the FY 2018-19 supplemental package and FY 2019-20 budget package adopted during the 2019 legislative session.*

*[2]Pursuant to Section 24-75-20 (2), C.R.S., the TABOR refund obligation is required to be set aside during the year it is collected to be refunded in the following fiscal year.*

*[3]For FY 2018-19, reflects the amount by which the FY 2014-15 TABOR surplus was underrefunded; this amount is restricted in the General Fund from FY 2014-15 revenue and required to be refunded with the FY 2018-19 TABOR surplus.*

*[4]The required reserve is calculated as a percent of operating appropriations, and is required to equal 7.25 percent in FY 2018-19 and each year thereafter. Pursuant to SB 18-276, certificates of participation are included in the statutory reserve requirement calculation beginning in FY 2018-19.*

*[5]This scenario holds appropriations in FY 2020-21 equal to appropriations in FY 2019-20 (line 6) to determine the total amount of money available relative to FY 2019-20 expenditures, net of the obligations in lines 7 through 13.*

*[6]This scenario increases FY 2019-20 appropriations by projected 2020 inflation plus population growth to determine the total amount of money available relative to FY 2019-20 expenditures, net of the obligations in lines 7 through 13.*

*[7]This scenario increases FY 2019-20 appropriations by average annual growth over the past two expansions to determine the total amount of money available relative to FY 2019-20 expenditures, net of the obligations in lines 7 through 13.*

Based on this forecast, the General Assembly will have $833.4 million, or 6.3 percent, more to spend or save in the General Fund than what is budgeted for FY 2019-20. This amount assumes FY 2020-21 transfers, rebates and expenditures, and TABOR refund obligations under current law. The $833.4 million amount is attributable to the FY 2019-20 reserve carrying into the FY 2020-21 beginning balance, year-over-year growth in General Fund revenue, and smaller transfers from the General Fund in FY 2020-21 (lines 9 through 12). Table 1 provides two additional scenarios (lines 23 and 25), the former assuming appropriations growth equal to 2020 inflation plus population growth (3.2 percent), and the latter applying 6.0 percent appropriations growth—the average annual rate of growth during the last two economic expansions. Under these scenarios, the state would have an excess reserve of $421.0 million or $56.6 million, respectively. Any changes made to the FY 2019-20 budget will result in changes in these amounts.

Relative to the June forecast, General Fund revenue expectations were reduced by $120.9 million on slight reductions in most revenue streams. Expectations for cash fund revenue subject to TABOR were reduced by $38.6 million on lower expectations for transportation-related revenue. Revenue subject to TABOR is now expected to exceed the Referendum C cap by $142.9 million in FY 2020-21.

## Risks to the Forecast

**Recession risk.** Several leading business and financial indicators suggest an elevated risk of recession during the forecast period, which pose a significant downside risk to the forecast General Fund budget situation. A discussion of recession risk is included in the Economic Outlook section of this forecast on page 37.

**Federal tax law changes.** Significant shifts in taxpayer behavior occurred in anticipation of and following the passage of the federal Tax Cuts and Jobs Act, resulting in unusual individual and corporate income tax collection patterns that cannot easily be isolated from underlying economic conditions. The federal tax bill enacted changes starting in the 2018 tax year. Complete collections data for the 2018 tax year will not be available until November 2019, after extension filers submit their returns in October. Even with more complete collections data, the revenue impact of the federal tax changes cannot be isolated from the underlying economic situation. As taxpayers adapt to the federal tax changes, additional shifts in behavior are expected. Considering these factors, revenue estimates in this forecast are subject to a higher than usual margin of error.

**Sales tax collections for out-of-state retailers.** The 2018 U.S. Supreme Court ruling in *South Dakota* v. *Wayfair, Inc.*, subsequent administrative rule changes, and the passage of House Bill 19-1240 pose an upside risk to the sales tax revenue forecast. These changes require out-of-state (including online) retailers to collect and remit state sales taxes and are expected to increase state collections by up to $72 million annually.

## General Fund Transfers to Transportation and Capital Construction

Statutory transfers from the General Fund to transportation and capital construction funds are shown in Table 2. In the General Fund overview shown in Table 1, these transfers are reflected on lines 11 and 12. Other noninfrastructure-related transfers to and from the General Fund are summarized in Table 5, and shown on lines 3 and 9 of Table 1.

**Table 2**
**Infrastructure Transfers from the General Fund**
*Dollars in Millions*

| Transportation Funds | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
|---|---|---|---|---|
| SB 18-001 | $495.0 | $200.0 | $50.0 | $50.0 |
| SB 19-262 | | $100.0 | | |
| **Total** | **$495.0** | **$300.0** | **$50.0** | **$50.0** |

| Capital Construction Funds | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
|---|---|---|---|---|
| HB 15-1344* | | $20.0 | $20.0 | $20.0 |
| SB 17-262 | $60.0 | $60.0 | | |
| HB 18-1006 | $0.7 | | | |
| HB 18-1340 | $119.8 | | | |
| HB 19-1250 | | $0.2 | | |
| SB 19-214 | | $145.5 | | |
| **Total** | **$180.5** | **$225.7** | **$20.0** | **$20.0** |

**Transfers are contingent upon requests made by the Capital Development Committee.*

**General Fund contributions to transportation.** Senate Bill 17-267, which authorized $1.88 billion in certificates of participation (COPs) for transportation projects, requires General Fund appropriations for COP-related lease payments beginning in FY 2018-19. Under current law, these General Fund appropriations are expected to total $100 million annually by FY 2021-22. These appropriations are included in line 6 of Table 1, and not included in Table 2.

Senate Bill 18-001 created one-time General Fund transfers for transportation of $495 million in FY 2018-19 and $150 million in FY 2019-20. These amounts are apportioned to the State Highway Fund, a new Multimodal Transportation Options Fund, and county and municipal governments. Beginning in FY 2019-20, Senate Bill 18-001 authorizes 20 years of additional transfers to the State Highway Fund set at $50 million per year. Additionally, Senate Bill 19-262 authorized a $100 million transfer to the State Highway Fund in FY 2019-20 only.

### Fiscal Policies Dependent on Revenue Conditions

**Contingent tax expenditures.** Two state tax expenditures are "triggered" by certain state revenue conditions. Table 3 summarizes the availability of these tax policies, each of which is described in greater detail below.

- **The historic preservation income tax credit is available in tax years 2018 and 2019.** The historic preservation income tax credit will be triggered in tax years 2018 and 2019 based on the December 2017 and December 2018 forecasts, respectively. These forecasts expected sufficient revenue to grow appropriations by more than 6.0 percent in FY 2017-18 and FY 2018-19.

- **Partial refundability of the conservation easement tax credit is available in tax year 2018 and is expected to be available in tax years 2019, 2020, and 2021.** The conservation easement income tax credit is available as a nonrefundable credit in most years. In tax years when the state refunds a TABOR surplus, taxpayers may claim an amount up to $50,000, less their income tax liability, as a refundable credit. Because a TABOR surplus was collected in FY 2017-18, and FY 2018-19 the credit is partially refundable for tax years 2018 and 2019. This forecast expects a TABOR surplus in each of FY 2019-20, FY 2020-21, and FY 2021-22. If one or more of these surpluses occur, partial refundability of the credit will be available in tax years 2020, 2021, and/or 2022.

**Table 3**
**Availability of Tax Policies Dependent on Revenue Conditions**

| Fiscal Policy | Availability Criteria | Availability |
|---|---|---|
| Historic Property Preservation Income Tax Credit<br>(Section 39-22-514, C.R.S.)<br>*Revenue reduction of less than $1.0 million per tax year** | December forecast immediately before the tax year when the credit becomes available that predicts sufficient General Fund to grow General Fund appropriations by 6 percent. | Available in tax years 2018 and 2019. Repealed in tax year 2020. |
| Conservation Easement Tax Credit Partial Refundability<br>(Section 39-22-522 (5)(b)(II), C.R.S.)<br>*Revenue reduction of about $5.0 million per tax year** | TABOR surplus. | Available in tax years 2018 and 2019. Expected to be available in tax years 2020, 2021, and 2022. |

**Estimates may differ in future analyses.*

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

| Category | Preliminary FY 2018-19 | Percent Change | Estimate FY 2019-20 | Percent Change | Estimate FY 2020-21 | Percent Change | Estimate FY 2021-22 | Percent Change |
|---|---|---|---|---|---|---|---|---|
| Senior and Veterans Property Tax Exemptions | $145.9 | 10.3% | $153.2 | 5.0% | $161.9 | 5.7% | $170.9 | 5.6% |
| TABOR Refund Mechanism* | -$39.5 | | -$153.2 | | -$161.9 | | $142.9 | |
| Cigarette Rebate | $9.4 | -3.8% | $9.4 | 0.9% | $9.2 | -3.1% | $8.9 | -3.1% |
| Old Age Pension Fund | $86.8 | -4.9% | $82.1 | -5.4% | $79.9 | -2.7% | $78.4 | -1.8% |
| Aged Property Tax and Heating Credit | $5.5 | 13.0% | $6.2 | 12.1% | $7.0 | 11.9% | $6.8 | -2.2% |
| Older Coloradans Fund | $10.0 | -60.0% | $10.0 | 0.0% | $10.0 | 0.0% | $10.0 | 0.0% |
| Interest Payments for School Loans | $7.4 | 48.3% | $7.4 | 0.2% | $7.4 | 0.0% | $7.4 | 0.0% |
| Firefighter Pensions | $4.2 | -3.4% | $4.4 | 4.1% | $4.6 | 4.1% | $4.7 | 4.1% |
| Amendment 35 Distributions | $0.8 | -2.7% | $0.8 | -1.6% | $0.8 | -1.7% | $0.8 | -1.7% |
| Marijuana Sales Tax Transfer to Local Governments | $19.3 | 11.5% | $21.1 | 9.7% | $22.7 | 7.5% | $24.1 | 6.2% |
| **Total Rebates and Expenditures** | **$249.8** | **-14.1%** | **$141.5** | **-43.4%** | **$141.5** | **0.0%** | **$169.1** | **19.5%** |

*Totals may not sum due to rounding.*

**Pursuant to SB 17-267, local government reimbursements for these property tax exemptions are the first TABOR refund mechanism used to meet the prior year's refund obligation.*

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

| **Transfers to the General Fund** | | **2018-19** | **2019-20** | **2020-21** | **2021-22** |
|---|---|---|---|---|---|
| HB 05-1262 | Amendment 35 Tobacco Tax | $0.8 | $0.8 | $0.8 | $0.8 |
| SB 13-133 & SB 18-191 | Limited Gaming Fund | $16.4 | $17.2 | $18.4 | $19.5 |
| SB 17-265 & SB 19-208 | State Employee Reserve Fund | | $23.0 | | |
| HB 18-1338 | Reduced Revenue Severance Tax Transfers | $20.8 | | | |
| SB 19-158 | Pet Animal Care and Facility Fund | | $0.01 | $0.01 | $0.01 |
| SB 19-261 | Unclaimed Property Trust Fund | | $30.0 | | |
| **Total Transfers to the General Fund** | | **$38.0** | **$71.0** | **$19.2** | **$20.2** |
| **Transfers from the General Fund** | | **2018-19** | **2019-20** | **2020-21** | **2021-22** |
| SB 11-047 | Bioscience Income Tax Transfer to OEDIT | $4.7 | $4.9 | $5.1 | $5.2 |
| HB 13-1193 | Advanced Industries Export Acceleration Fund | | | | |
| SB 14-215 | Marijuana Tax Cash Fund | $125.0 | $136.7 | $147.0 | $156.0 |
| HB 14-1016[1] | Procurement Technical Assistance Cash Fund | $0.2 | $0.2 | | |
| SB 15-244 & SB 17-267 | State Public School Fund | $21.9 | $24.0 | $25.8 | $27.3 |
| HB 16-1161[2] | Older Coloradans Fund & Veterans Grant Program Fund *(conditional)* | $16.9 | | | |
| HB 16-1288 | Industry Infrastructure Fund | $0.3 | | | |
| SB 17-255 | Technology Advancement and Emergency Fund | $2.0 | | | |
| HB 18-1323 | Pay For Success Contracts Pilot Program Funding | $0.4 | $0.5 | $0.5 | $0.5 |
| HB 18-1338 | Reduced Revenue Severance Tax Transfers | $27.4 | | | |
| HB 18-1363 | Recommendations Of Child Support Commission | $0.04 | $0.04 | $0.04 | $0.04 |
| HB 18-1357 | Behavioral Health Care Ombudsperson Parity Reports | $0.01 | | | |
| HB 18-1423 | Rural Fire Protection District Equipment Grants | $0.3 | | | |
| SB 18-016[3] | Transitioning from Criminal & Juvenile Justice System | $0.0 | $0.0 | $0.0 | $0.0 |
| SB 18-132 | 1332 State Waiver Catastrophic Health Plans | $0.01 | | | |
| SB 18-280 | Tobacco Litigation Settlement Cash Fund | $20.0 | | | |
| HB 19-1026 | Parks and Wildlife Fines | | $0.4 | $0.4 | $0.4 |
| HB 19-1147 | Traumatic Brain Injury Program | | $0.5 | | |
| HB 19-1168 & HB 19-1245 | Reinsurance Cash Fund | | $15.0 | $59.5 | $19.5 |
| HB 19-1174, HB 19-1216, HB 19-1233, HB 19-1269, HB 19-1283 | Division of Insurance Cash Fund for Out-of-Network Health Care Services, Insulin Prices, Investments in Primary Care, Mental Health Parity, and Disclosure of Insurance Liability Coverage | | $0.3 | $0.2 | $0.2 |
| HB 19-1245 | Housing Development Grant Fund | | $7.9 | $8.2 | $49.5 |
| HB 19-1250 & SB 19-172 | State Employee Reserve Fund | | $0.3 | | |
| **Total Transfers from the General Fund** | | **$219.0** | **$190.7** | **$246.7** | **$258.7** |
| **Net General Fund Impact** | | **($181.0)** | **($119.7)** | **($227.5)** | **($238.5)** |

*[1]The transfer is contingent upon the receipt of at least $200,000 in gifts, grants, and donations by the relevant contractor.*
*[2]HB 16-1161 requires transfers to the Older Coloradans Fund (95%) and the Veterans Assistance Grant Program Cash Fund (5%) of any excess General Fund moneys set aside for reimbursements to local governments for the Senior Homestead and Disabled Veteran property tax exemptions.*
*[3]SB 18-016 transfers any unexpended Department of Public Safety appropriation for community corrections to a Department of Local Affairs cash fund for transitional offender housing. There were no unexpended appropriations for FY 2018-19 and no transfer was made. This forecast assumes that all future community corrections appropriations will be expended and that no transfer will be made in future years.*

## School Finance Outlook

This section presents information on the outlook for school finance from a state budgetary perspective for the coming budget year (FY 2020-21) and incorporates new information from the September 2019 forecast for income tax diversions to the State Education Fund, federal mineral lease payments, and changes in inflation expectations. No new information is available for FY 2019-20 school finance funding, which was initially determined through passage of the 2019 Long Bill and the 2019 School Finance Act. Figure 1 illustrates budgeted and expected state aid and local shares for school funding for FY 2019-20 and FY 2020-21.

For FY 2020-21, the **state aid requirement** is expected to increase by $76 million on a year-over-year basis due to the factors described below.

- **Total program requirements** will increase by $153 million. The estimated funded pupil count is expected to increase by about 1,130 pupils on a year-over-year basis. In addition, inflation expectations for 2019 have decreased since the March forecast from 2.3 percent to 1.8 percent.

- Revenue available for the **local share** will increase by $77 million, as assessed values are projected to grow by 2.8 percent in FY 2020-21 on a year-over-year basis.

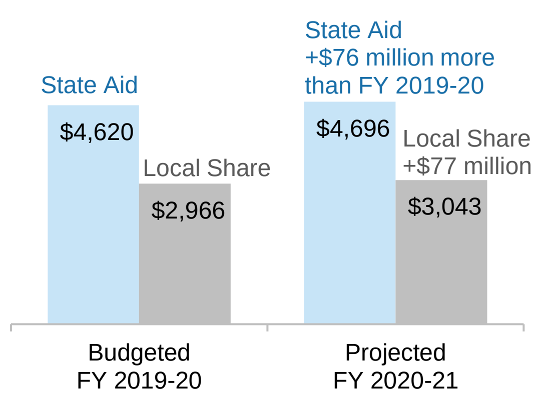
**How Is State Aid Determined?**

Subject to available budgetary resources, the difference between total program funding requirements and the local share is the amount the state must cover through state equalization payments, or state aid.

FY 2020-21 enrollment estimates are based on the December 2018 Legislative Council Staff forecasts for K-12 enrollment which will be updated in December. Assessed value estimates were updated in April with county information provided to the Division of Property Taxation (DPT) and the DPT's final report on the residential assessment rate. Enrollment is a major determinant of required formula funding (total program), since funding is allocated on a per pupil basis. Similarly, assessed values on real property determine a school district's property tax base, which, along with a school district's total program mill levy, is the major determinant of the local share of school district funding.

**State Education Fund.** For FY 2020-21, the available contribution for school finance from the State Education Fund is expected to increase by $110 million. Expenditures from the State Public School Fund will increase by $26 million while the General Fund requirement will decrease by $60 million on a year-over-year basis. These estimates assume a $100 million ending balance for the State Education Fund in FY 2020-21, and the budget stabilization factor is maintained at its current level.

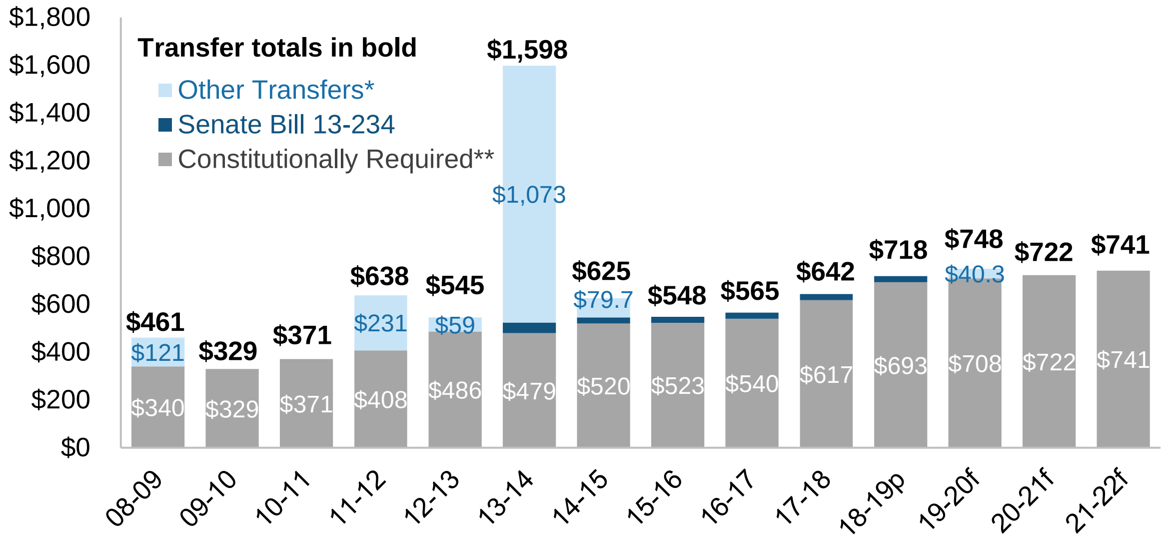
**Figure 1**
**Expectations for School Finance Funding**
*Dollars in Millions*



The Colorado Constitution requires the State Education Fund to receive one-third of 1 percent of taxable income. In FY 2019-20, the State Education Fund is expected to receive $707.8 million as a result of this requirement, with higher amounts in the following year resulting from growth in taxable income among Colorado taxpayers.

In addition, the General Assembly has at different times authorized the transfer of additional moneys from the General Fund to the State Education Fund (see Table 1, line 11). Money in the State Education Fund is required to be used to fund kindergarten through twelfth grade public education. Figure 2 shows a history and forecast for revenue sources to the State Education Fund through the end of the forecast period. General Fund transfers to the State Education Fund pursuant to Senate Bill 13-234, which have occurred annually since FY 2013-14, are scheduled to end after FY 2018-19. The 2019 school finance act, Senate Bill 19-246, includes a one-time $40.3 million General Fund transfer to the State Education Fund in FY 2019-20, after which only constitutionally required transfers are scheduled under current law.

**Figure 2**
**Revenue to the State Education Fund**
*Dollars in Millions*



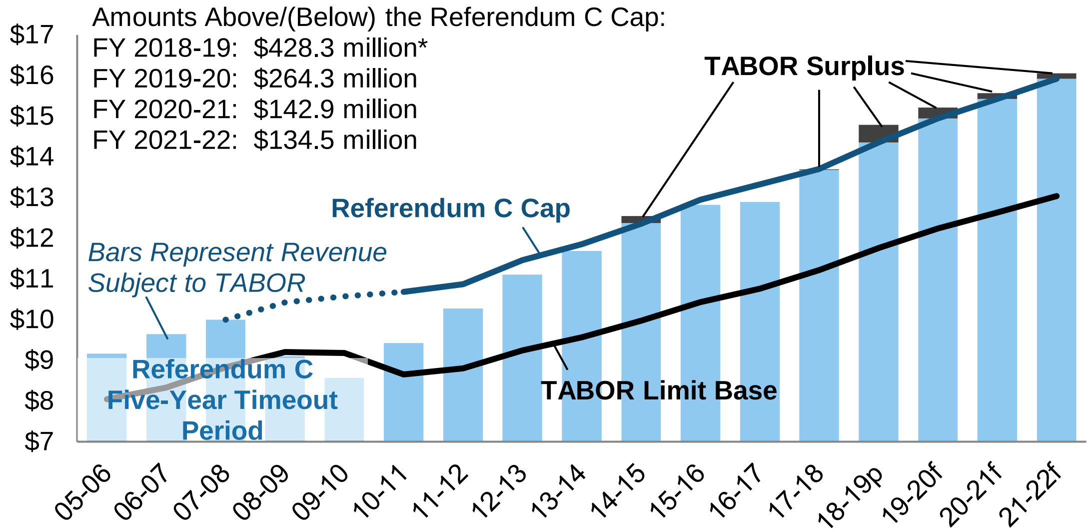

*Source: Colorado State Controller's Office and Legislative Council Staff forecast (f).*
**Includes transfers under SB 09-260 for FY 2008-09, SB 11-183 and SB 11-156 for FY 2011-12, HB 12-1338 for FY 2012-13 and FY 2013-14, and HB 14-1342 for FY 2014-15, and SB 19-246 for FY 2019-20.*
***One-third of 1 percent of federal taxable income is required to be dedicated to the State Education Fund under Article IX, Section 17 of the Colorado Constitution.*

**Appropriations are subject to change.** The final appropriation for state aid in FY 2019-20 will be made through passage of the mid-year supplemental bill for the Colorado Department of Education. The initial appropriation for state aid in FY 2020-21 will be made through passage of the 2020 Long Bill and the 2020 School Finance Act.

## TABOR Outlook

This section presents the state TABOR refund obligation for FY 2018-19 and the outlook for the state's TABOR situation through FY 2021-22. Forecasts for TABOR revenue are summarized in Table 8 on page 20 and illustrated in Figure 3, which also provides a 14-year history of the TABOR limit base and the Referendum C cap.

**Figure 3**
**TABOR Revenue, TABOR Limit Base, and the Referendum C Cap**
*Dollars in Billions*




*Source: Office of the State Controller and Legislative Council Staff. p = Preliminary. f = Forecast.*
**The refund amount for FY 2018-19 differs from the surplus amount because it includes underrefunds and other adjustments to previous TABOR surpluses.*

**FY 2018-19.** The State Controller's August 30 revenue certification indicates that state revenue subject to TABOR exceeded the Referendum C cap by $428.3 million in FY 2018-19. After accounting for a small outstanding refund obligation attributable to underrefunds of prior TABOR surpluses, the Controller reports that the state is obligated to refund **$428.5 million** in the current FY 2019-20. The TABOR surplus is $146.4 million less than was expected in June, with most of the difference attributable to lower-than-expected General Fund revenue.

As discussed below, the FY 2018-19 refund obligation is expected to be refunded in part via **property tax exemptions** administered at the county level. After subtracting the full property tax exemption amount, the remaining refund obligation is expected to trigger a **temporary income tax rate reduction** on 2019 tax forms filed in 2020. Finally, the remaining $1.7 million refund amount may be administered via a flat **sales tax refund** to all qualifying taxpayers. Since this amount is about 50¢ per taxpayer, the administration of this refund is uncertain.

**FY 2019-20.** State revenue subject to TABOR is expected to exceed the Referendum C cap by **$264.3 million**, triggering an equivalent TABOR refund obligation in FY 2020-21. Expectations for General Fund revenue subject to TABOR have decreased relative to the June forecast. The surplus amount is projected to be smaller than the surplus for FY 2018-19 because state revenue subject to TABOR is expected to grow less quickly than the Referendum C cap. This surplus is expected to be refunded via both property tax exemptions administered at the county level and a six-tier sales tax refund to all full-year resident Colorado taxpayers.

**FY 2020-21.** State revenue subject to TABOR is expected to exceed the Referendum C cap by **$142.9 million** in FY 2020-21, triggering an equivalent TABOR refund in FY 2021-22. Expectations for the FY 2020-21 surplus have been reduced relative to those published in June based on lower expectations for General Fund and cash fund revenue subject to TABOR and higher expectations for the Referendum C cap. Table 6 compares forecast expectations for revenue subject to TABOR between the June 2019 and this September 2019 forecast.

**FY 2021-22.** This forecast includes the first estimate of state revenue subject to TABOR for FY 2021-22. Revenue is expected to exceed the Referendum C cap by **$134.5 million**, triggering an equivalent TABOR refund in FY 2022-23.

**Table 6**
**Change in TABOR Estimates, June 2019 to September 2019**
*Dollars in Millions*

| FY 2018-19 | Preliminary | June | Change |
|---|---|---|---|
| **TABOR Revenue** | **$14,788.4** | **$14,934.8** | **($146.4)** |
| General Fund* | $12,350.4 | $12,483.8 | ($133.4) |
| Cash Funds* | $2,438.0 | $2,451.0 | ($13.0) |
| **Referendum C Cap** | **$14,360.1** | **$14,360.1** | **$0.0** |
| **Revenue Above/(Below) Ref C Cap** | **$428.3** | **$574.7** | **($146.4)** |

| FY 2019-20 | September | June | Change |
|---|---|---|---|
| **TABOR Revenue** | **$15,213.1** | **$15,258.8** | **($45.7)** |
| General Fund* | $12,772.2 | $12,815.6 | ($43.4) |
| Cash Funds* | $2,440.9 | $2,443.2 | ($2.3) |
| **Referendum C Cap** | **$14,948.8** | **$14,948.8** | **$0.0** |
| **Revenue Above/(Below) Ref C Cap** | **$264.3** | **$310.0** | **($45.7)** |

| FY 2020-21 | September | June | Change |
|---|---|---|---|
| **TABOR Revenue** | **$15,570.1** | **$15,724.4** | **($154.3)** |
| General Fund* | $13,081.7 | $13,197.3 | ($115.6) |
| Cash Funds* | $2,488.4 | $2,527.1 | ($38.7) |
| **Referendum C Cap** | **$15,427.2** | **$15,382.4** | **$44.9** |
| **Revenue Above/(Below) Ref C Cap** | **$142.9** | **$342.1** | **($199.2)** |

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

**TABOR surplus.** Article X, Section 20 of the Colorado Constitution (TABOR) limits *state fiscal year spending*, 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 increases the amount of revenue the state may spend or save.

**Fiscal Year Spending**

The legal term used by TABOR to denote the amount of revenue TABOR allows the state to keep and either spend or save.

Referendum C allowed the state to spend all revenue collected above the limit during a five-year timeout period covering FY 2005-06 through FY 2009-10. Beginning in FY 2010-11, Referendum C allows the state to retain revenue collected above the TABOR limit base up to a capped amount. The cap is based on the amount of state revenue collected in FY 2007-08, adjusted annually for inflation and population growth. It is grown from the prior year's cap regardless of the level of revenue collected. Senate Bill 17-267 applied a $200.0 million one-time downward adjustment to the Referendum C cap in FY 2017-18 and requires that the cap for FY 2018-19 and subsequent years be grown from this reduced level.

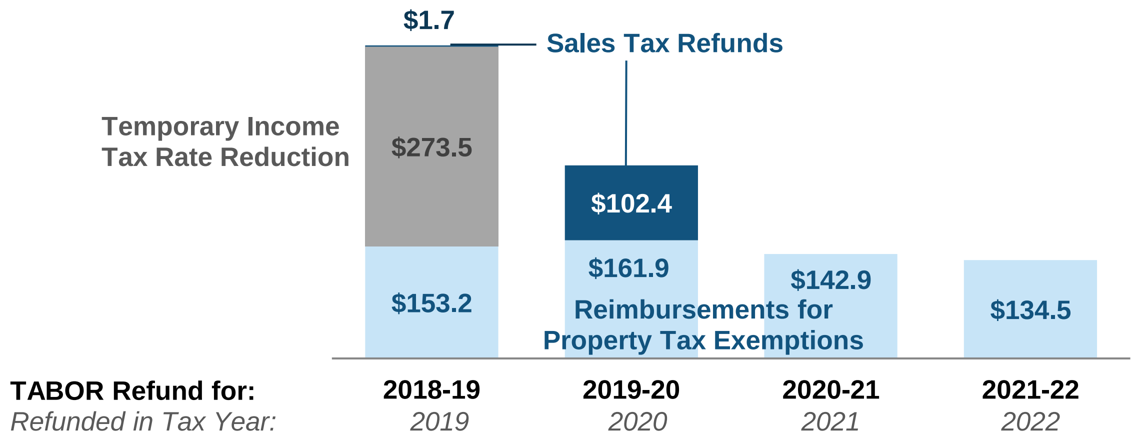
For more information about the TABOR revenue limit, see the Legislative Council Staff memorandum at this link: http://leg.colorado.gov/sites/default/files/the_tabor_revenue_limit.pdf

**TABOR refund mechanisms.** Figure 4 shows the mechanisms that are expected to be used to issue TABOR refunds during the forecast period.

All TABOR refund obligations are first paid via **property tax exemptions** for seniors and disabled veterans that are administered at the county level. When the state incurs a TABOR refund obligation, refund amounts are disbursed to cities, counties, school districts, and special districts to offset these governments' property tax loss associated with the exemptions. Amounts required to be refunded are encumbered in the General Fund in the year in which a surplus is collected and paid to local governments in the following fiscal year. Table 1, line 7, shows the General Fund encumbrance for TABOR refunds in the year when a surplus is collected. Table 4 shows the portion of the property tax exemption reimbursements to be paid from the prior year TABOR surplus as a subtraction from the new General Fund obligation that would otherwise exist for these reimbursements. The reduction in new obligations is also reflected on Table 1, line 8.

For FY 2018-19 and FY 2019-20, the TABOR surplus is projected to exceed the amounts of property tax reimbursements expected to be paid in the following fiscal year. The amount by which any surplus exceeds the following year's expected reimbursement is refunded on income tax forms. The average amounts expected to be refunded to full-year resident Colorado individual income taxpayers are shown in Table 7.

**Figure 4**
**TABOR Refund Mechanisms**
*Dollars in Millions*




The FY 2018-19 TABOR refund obligation is expected to be sufficient to trigger the **temporary income tax rate reduction**. This mechanism temporarily reduces the state income tax rate from 4.63 percent to 4.50 percent for all individual and corporate income taxpayers. The reduction is expected to apply for tax year 2019, and the tax rate will revert to 4.63 percent beginning tax year 2020 unless the state again collects a sufficiently large TABOR surplus to trigger the reduction.

Any TABOR surplus amount that exceeds the amount that can be refunded via the property tax reimbursement mechanism and is not refunded via the temporary income tax rate reduction is refunded to full-year Colorado resident individual income taxpayers via the **sales tax refund mechanism**. The refund obligation for FY 2019-20 is expected to require that a minimal amount, $1.7 million, be refunded via this mechanism. This amount is just less than 50¢ per qualifying taxpayer. Because the state income tax form rounds all figures to the nearest dollar, the 2019 sales tax refund per taxpayer is estimated at $0 in Table 7. The Department of Revenue will determine the actual amount taxpayers can claim as a sales tax refund and submit this amount to the Executive Committee of the Legislative Council in October.

When the amount required to be refunded using the sales tax refund mechanism exceeds $15 per taxpayer, statute requires that refunds be distributed in six tiers according to a taxpayer's adjusted gross income. The projected tiers for tax year 2020 are shown in Table 7.

This forecast expects that TABOR surpluses collected in FY 2020-21 and FY 2021-22 will be refunded via property tax exemptions only in 2021 and 2022, respectively. For this reason, these years are omitted from Table 7.

**Table 7**
**Forecast Average Taxpayer TABOR Refunds**
**Via Sales Tax Refund Mechanism and Temporary Income Tax Rate Reduction**
*Amounts shown reflect refunds for full-year Colorado resident taxpayers only*

**FY 2018-19 Refund Obligation, Tax Year 2019 Forecast**

| Adjusted Gross Income | Sales Tax | Income Tax Rate Cut *(Average)* | Single Filers Total | Sales Tax | Income Tax Rate Cut *(Average)* | Joint Filers Total |
|---|---|---|---|---|---|---|
| up to $40,000 | $0 | $10 | **$10** | $0 | $1 | **$1** |
| $40,000 to $85,000 | - | 58 | **58** | - | 31 | **31** |
| $85,000 to $133,000 | - | 114 | **114** | - | 96 | **96** |
| $133,000 to $180,000 | - | 175 | **175** | - | 162 | **162** |
| $180,000 to $226,000 | - | 227 | **227** | - | 226 | **226** |
| $226,000 and up | - | 629 | **629** | - | 651 | **651** |

**FY 2019-20 Refund Obligation, Tax Year 2020 Forecast**

| Adjusted Gross Income | Six-Tier Sales Tax | Income Tax Rate Cut | Single Filers Total | Six-Tier Sales Tax | Income Tax Rate Cut | Joint Filers Total |
|---|---|---|---|---|---|---|
| up to $41,000 | $20 | $0 | **$20** | $40 | $0 | **$40** |
| $41,000 to $87,000 | 27 | - | **27** | 54 | - | **54** |
| $87,000 to $136,000 | 32 | - | **32** | 64 | - | **64** |
| $136,000 to $184,000 | 36 | - | **36** | 72 | - | **72** |
| $184,000 to $230,000 | 39 | - | **39** | 78 | - | **78** |
| $230,000 and up | 62 | - | **62** | 124 | - | **124** |

**Table 8**
**TABOR Revenue Limit and Retained Revenue**
*Dollars in Millions*

| | | Preliminary FY 2018-19 | Estimate FY 2019-20 | Estimate FY 2020-21 | Estimate FY 2021-22 |
|---|---|---|---|---|---|
| | **TABOR Revenue** | | | | |
| 1 | General Fund[1] | $12,350.4 | $12,772.2 | $13,081.7 | $13,483.3 |
| 2 | Cash Funds[1] | $2,438.0 | $2,440.9 | $2,488.4 | $2,572.1 |
| 3 | **Total TABOR Revenue** | **$14,788.4** | **$15,213.1** | **$15,570.1** | **$16,055.4** |
| | **Revenue Limit** | | | | |
| 4 | Allowable TABOR Growth Rate | 4.8% | 4.1% | 3.2% | 3.2% |
| 5 | Inflation (*from Prior Calendar Year*) | 3.4% | 2.7% | 1.8% | 1.9% |
| 6 | Population Growth (*from Prior Calendar Year*) | 1.4% | 1.4% | 1.4% | 1.3% |
| 7 | TABOR Limit Base | $11,759.3 | $12,241.5 | $12,633.2 | $13,037.5 |
| 8 | Voter Approved Revenue Change (Referendum C) | $2,600.7 | $2,707.4 | $2,794.0 | $2,883.4 |
| 9 | Total TABOR Limit / Referendum C Cap | $14,360.1 | $14,948.8 | $15,427.2 | $15,920.9 |
| 10 | **TABOR Revenue Above (Below) Referendum C Cap** | **$428.3** | **$264.3** | **$142.9** | **$134.5** |
| | **Retained/Refunded Revenue** | | | | |
| 11 | Revenue Retained under Referendum C[2] | $2,600.7 | $2,707.4 | $2,794.0 | $2,883.4 |
| 12 | Fiscal Year Spending *(revenue available to be spent or saved)* | $14,360.1 | $14,948.8 | $15,427.2 | $15,920.9 |
| 13 | Outstanding Underrefund Amount[3] | $0.1 | | | |
| 14 | **Revenue Refunded to Taxpayers[4]** | **$428.5** | **$264.3** | **$142.9** | **$134.5** |
| 15 | TABOR Reserve Requirement | $430.8 | $448.5 | $462.8 | $477.6 |

*Totals may not sum due to rounding.*

*[1]For FY 2018-19, these figures reflect those reported in the State Controller's August 30 revenue certification and differ from the amounts reported in General Fund and cash fund revenue summaries due to the timing of when reports were generated. These amounts will be reconciled when the Comprehensive Annual Financial Report is complete, likely in December. For all years, General Fund revenue differs from the amount in the General Fund revenue summary because of accounting adjustments across TABOR boundaries.*

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

*[3]This amount is restricted in the General Fund as part of the TABOR refund obligation for FY 2014-15.*

*[4]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 2018-19 was set aside in the budget for FY 2018-19 and will be refunded in FY 2019-20 on tax returns for tax year 2019.*

## General Fund Revenue

This section presents the Legislative Council Staff outlook for General Fund revenue, the state's main source of funding for operating appropriations. Table 10 on page 27 summarizes preliminary, unaudited General Fund revenue collections for FY 2018-19 and projections for FY 2019-20 through FY 2021-22.

**FY 2018-19.** Preliminary, unaudited figures from the Office of the State Controller indicate that General Fund revenue totaled $12.6 billion after accounting for the diversion to the State Education Fund under Amendment 23. Revenue increased 7.2 percent, or $0.8 billion, relative to FY 2017-18. While growth was broad-based across General Fund revenue sources, the most significant increase in dollar terms was in individual income tax collections, which grew $0.7 billion or 8.8 percent. Income taxes surged on the combination of a strong economy, rising wage pressure, and increases in Colorado taxable income resulting from the federal Tax Cuts and Jobs Act (TCJA). Revenue fell short of the June 2019 LCS forecast by $76.7 million, or 0.6 percent.

**FY 2019-20**. General Fund revenue collections are expected to increase at a slower rate, 3.0 percent, to total $13.0 billion in the current fiscal year. Upside effects on revenue resulting from the TCJA are expected to moderate in FY 2019-20 as taxpayers adjust further to federal tax policy changes, resulting in a significant slowdown in the pace of growth in income tax revenue. Corporate income taxes are expected to decline following a change in the tax treatment of holding companies pursuant to the Colorado Supreme Court's decisions in *Oracle Corporation and subsidiaries v. Colorado Department of Revenue* ("*Oracle*") and *Agilent Technologies, Inc. v. Colorado Department of Revenue* ("*Agilent*"). Meanwhile, growth in sales tax revenue is expected to receive a modest boost as more out-of-state retailers, including online retailers, remit taxes on their sales.

**FY 2020-21.** Revenue collections are expected to grow at a modest 2.7 percent from FY 2019-20 and total $13.3 billion. The revenue forecast anticipates diminishing individual income tax revenue growth, coupled with corporate income and use tax declines, as the pace of the economic expansion slows further. Risks to the forecast on both the upside and the downside are more significant as the economic and policy outlooks both grow more uncertain.

**FY 2021-22.** This forecast includes the first published estimate for General Fund revenue for FY 2021-22. Consistent with expectations for slower economic growth, revenue is expected to increase 3.1 percent and total $13.7 billion. The forecast anticipates deceleration in the largest sources of General Fund revenue, individual income taxes and sales taxes, through the forecast period.

**Risks to the forecast.** This forecast contains both upside and downside risk due to the late stage of the economic expansion and uncertainty surrounding continued shifts in taxpayer behavior in response to the TCJA, the *Oracle* and *Agilent* decisions, and ongoing reform of the collection of sales and use tax on remote transactions. It is not possible to identify the degree to which revenue strength during the current fiscal year is attributable to changes in tax policy, which will have ongoing effects, or economic strength, which this forecast expects will taper in the coming years.

Risks to the forecast have shifted to the downside relative to the June forecast as the risk of an economic recession during the forecast period increases. For discussion of a potential recession, see the Economic Outlook beginning on page 37.

**2019 legislation.** Legislation enacted during the 2019 legislative session is expected to increase General Fund revenue, on net, by $62.9 million in FY 2019-20 and $99.9 million in FY 2020-21. This forecast reflects these impacts, which are presented in Table 9. The most significant legislative changes to the revenue forecast are attributable to **House Bill 19-1240**, which requires that marketplace facilitators begin collecting and remitting sales tax on behalf of their sellers, and **House Bill 19-1245**, which increases the sales tax vendor allowance ("vendor fee") from 3.33 percent to 4.00 percent but caps the vendor fee at $1,000 per retailer per month.

**Table 9**
**Changes to the General Fund Revenue Forecast Attributable to 2019 Legislation**
*Millions of Dollars*

| | FY 2019-20 | FY 2020-21 |
|---|---|---|
| **Income Tax** | | |
| HB 19-1013 — Child Care Expenses Tax Credit | - | -$1.70 |
| HB 19-1088 — Tax Credit for Health Care Preceptors | -$0.04 | -$0.07 |
| HB 19-1217 — PERA Local Gov't Contribution Rate | $0.23 | $0.48 |
| HB 19-1228 — Tax Credit Allocation Affordable Housing | - | -$0.75 |
| SB 19-233 — Holding Company Income Tax | * | * |
| **Sales and Use Tax** | | |
| HB 19-1162 — Farm Equipment Sales Tax Exemption | -$0.06 | -$0.08 |
| HB 19-1240 — Sales and Use Tax Administration | $40.50 | $54.90 |
| HB 19-1245 — Vendor Fee Changes | $23.10 | $47.90 |
| HB 19-1323 — Sales by Charitable Organizations | -$0.03 | -$0.04 |
| HB 19-1329 — Agricultural Fertilizer Tax Exemption | -$0.79 | -$0.79 |
| **Other General Fund Income** | | |
| HB 19-1174 — Out-of-Network Health Care Services | $0.02 | $0.02 |
| HB 19-1268 — Assisted Living Referral Disclosures | $0.02 | $0.02 |
| SB 19-011 — Fermented Malt Beverage Licensing | -$0.01 | -$0.01 |
| **Total** | **$62.93** | **$99.88** |

**Senate Bill 19-233 changed state law to allow the assessment of corporate income tax on holding companies to continue consistent with administration of the tax prior to the Colorado Supreme Court's decisions in Oracle and Agilent. The bill did not increase revenue expectations relative to the March forecast; however, corporate income tax revenue would have decreased following the Supreme Court decisions had the bill not become law.*

**Expiring tax expenditures.** This forecast estimates state revenue under current state and federal law. Under current state law, certain tax expenditures available now are scheduled to expire within the forecast period. Where applicable, the forecast includes upward adjustments to revenue projections to account for the expiration of these tax expenditures.

**Individual income tax.** The individual income tax is assessed at a rate of 4.63 percent and applies to Colorado taxable income earned by households, non-corporate businesses, estates, trusts, and other fiduciaries. Most revenue from the tax is credited to the General Fund, though an amount of revenue representing one-third of 1 percent of taxable income is diverted to the State Education Fund (SEF) and used for school finance purposes. This portion is exempt from the TABOR limit as a voter-approved revenue change under Amendment 23. Payers of the individual income tax are the most significant contributors to the General Fund. The tax accounted for just over 60 percent of FY 2018-19 General Fund revenue, net of the SEF diversion.

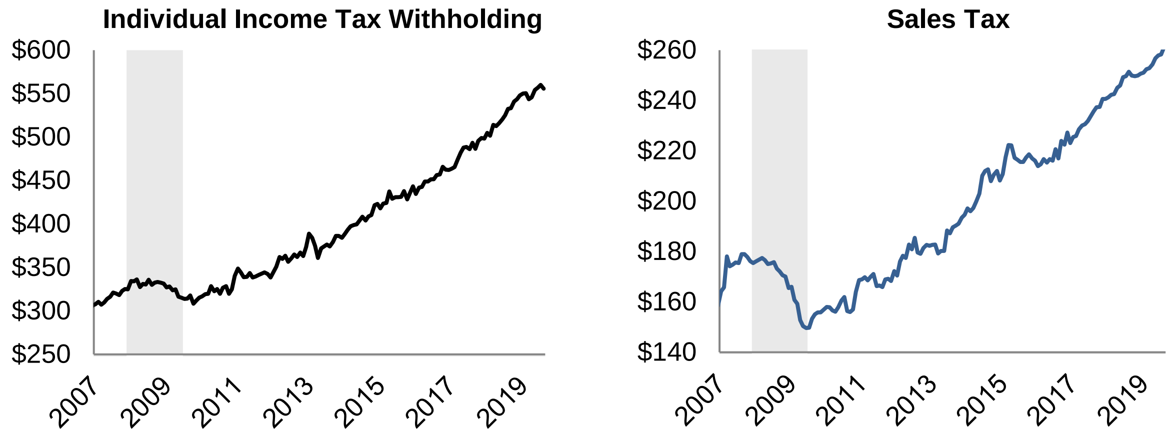
*Current conditions.* Preliminary, unaudited reports indicate that individual income tax revenue increased $669.8 million, or 8.8 percent, to total $8.2 billion during FY 2018-19. Revenue fell short of the June forecast by $24.5 million, or 0.3 percent. The year-on-year increase represents a moderate deceleration from FY 2017-18, when individual income tax collections grew 12.1 percent. In both years, the growth in income tax collections is attributable both to economic strength and tax policy changes included in the TCJA.

Individual income tax revenue increased significantly beginning in early 2018 following the enactment of the TCJA. In broad terms, the TCJA reduced or eliminated many federal income tax deductions and credits and cut federal income tax rates. While the rate cuts reduced most taxpayers' federal income tax liability, many taxpayers saw their federal taxable income increase, thereby increasing their Colorado income tax liability because Colorado taxable income is based on federal taxable income.

Many taxpayers were met with higher-than-expected tax bills this spring. The state was required to refund $761.2 million to taxpayers who overpaid taxes via wage withholding or estimated tax payments during tax year 2018, an increase of just $8.6 million, or 1.1 percent, from the prior tax filing season. By contrast, taxpayers who underpaid during the tax year and were required to remit cash payments paid $703.0 million over the three month filing season, an increase of $157.6 million, or 28.9 percent, from the prior filing season.

Taxpayers may respond to higher-than-expected April tax bills by increasing the amount of taxes withheld from their wages and salaries, making higher quarterly estimated tax payments, or simply staying the course and footing future April bills as they arise. As shown in the left panel of Figure 5, wage withholding increased at a quick pace, 7.4 percent, during the first five months of 2019, but then cooled to 4.5 percent over June, July, and August. Estimated tax payments surged in April but were flat in June relative to payments remitted for the same periods in 2018. Tax preparers report that business owners and taxpayers earning investment income remain uncertain about how to respond to some provisions of the TCJA, which has led to tax payment extension requests in some instances and cautious, preemptive overpayment of quarterly estimated tax payments in others.

**Figure 5**
**Selected Sources of General Fund Revenue**
*Millions of Dollars Collected per Month*




*Source: Office of the State Controller and Department of Revenue. Data are seasonally adjusted by Legislative Council Staff using the Census x12 method. Data are shown on a cash-accounting basis as three-month moving averages. Data are through August 2019. August 2019 data are preliminary.*

*Forecast.* Individual income tax revenue is expected to total $8.6 billion in FY 2019-20, an increase of 4.1 percent from FY 2018-19 on an accrual accounting basis. The pace of growth in individual income tax payments is expected to slow considerably both because the economy is expected to grow more slowly and because the upside effects of the TCJA are expected to moderate as taxpayer adjust further to federal tax policy changes.

Growth in individual income tax revenue is expected to slow further to 2.8 percent in FY 2020-21 and 2.4 percent in FY 2021-22. Wage withholding will drive individual income tax collections through the forecast period at a decelerating pace as employment growth slows. Estimated payments, meanwhile, are expected to pose drags based on a muted outlook for investment earnings. Consistent with changes to the economic forecast, expectations for individual income tax revenue have been revised downward modestly. Relative to the June forecast, estimates were reduced by $29.4 million in FY 2019-20 and $52.7 million in FY 2020-21.

The TABOR Outlook section of this forecast document, which begins on page 15, anticipates that the FY 2018-19 TABOR surplus is sufficient to trigger a temporary income tax rate reduction for the 2019 tax year. This TABOR refund mechanism temporarily reduces the state income tax rate from 4.63 percent to 4.50 percent for one year only, unless the state collects a sufficiently large TABOR surplus to trigger the rate reduction for a second year. If this refund mechanism is triggered, it will refund revenue collected during FY 2018-19 that has been restricted in the General Fund to pay TABOR refunds required in FY 2019-20. Except to the extent that it causes taxpayers to behave differently, the rate reduction will not reduce the amount of income tax revenue accrued to the General Fund for FY 2019-20 and subsequent years, and this forecast does not include any adjustment for this reason.

**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. Sales tax revenue grew 4.4 percent to total $3.1 billion during FY 2018-19 and fell short of the June forecast by $9.2 million, or 0.3 percent. Sales tax receipts are expected to increase 4.9 percent to total $3.2 billion during the current FY 2019-20 before growing by 4.8 percent in FY 2020-21 and 4.0 percent in FY 2021-22. The uptick in growth during FY 2019-20 is largely attributable to legislative changes in House Bill 19-1240, described below, and House Bill 19-1245, rather than stronger consumer spending. Growth in consumer spending has sputtered despite a tight labor market and rising wages, as the stimulative effects of the TCJA have worn off and uncertainty surrounding future economic conditions has rattled consumer confidence for some.

*E-commerce sales tax.* The U.S. Supreme Court's June 2018 ruling in *South Dakota v. Wayfair* changes the legal landscape for taxation of sales by retailers (including online retailers) physically located outside Colorado. This case challenged a 1992 precedent, under which a retailer must have had physical presence in a state in order to be required to collect and remit sales tax in that state. The *Wayfair* court overruled the physical presence requirement, citing features of South Dakota's sales tax system as not overly burdensome to out-of-state retailers with a significant economic nexus in the state.

In September 2018, the Colorado Department of Revenue (DOR) announced that it would start to require out-of-state retailers to collect and remit sales tax on online purchases. New rules went into effect on June 1, 2019; however, some retailers voluntarily complied prior to that deadline. House Bill 19-1240 codified the new rules in statute and required marketplace facilitators, which provide an online platform for smaller retailers to sell their products to larger audiences, to begin collecting and remitting sales tax on behalf of their sellers beginning on October 1, 2019. Based on these statutory and administrative changes, the DOR has collected approximately $18.2 million in sales tax revenue from about 4,850 new out-of-state retailers during FY 2018-19, and is expected to collect between $47 million and $72 million in FY 2019-20 as more retailers comply with the new law and the marketplace facilitator provisions of the law go into effect. Counties, special districts, and statutory cities for which the DOR already administers sales taxes will see increasing revenue as well. Home rule municipalities may choose to opt-in to these state-administered collections. These changes pose both upside and downside risks to the sales tax forecast based on the timing and extent of their implementation.

**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 surged during FY 2018-19, growing 11.5 percent to total $345.5 million on the strength of a recovering energy industry; use tax exceeded the June forecast by $5.3 million or 1.6 percent. Revenue is expected to reverse course and decline during FY 2019-20 and FY 2020-21 by 12.5 percent and 2.8 percent, respectively, before increasing by 1.7 percent in FY 2021-22. Oil industry capital expenditures have slowed as existing capacity for U.S. production remains strong and global demand is soft. Additionally, the rules promulgated by the Department of Revenue to collect out-of-state retail sales tax will gradually convert retail use tax collections, around 7 percent of total use tax collections in 2018, to sales tax collections.

**Corporate income tax collections remain elevated.** Preliminary data indicate that corporate income tax revenue totaled $919.8 million in FY 2018-19, its highest level ever. Collections increased in FY 2018-19 on high corporate profits following changes to federal tax law, and were amplified by an accounting adjustment that resulted from the settlement of tax disputes following the *Oracle* and *Agilent* decisions.

Corporate income taxes fell short of the June forecast for FY 2018-19 revenue, missing expectations by $40.8 million. Expectations for FY 2019-20 and FY 2020-21 have been correspondingly revised downward, by $9.5 million and $10.7 million, respectively.

Despite the downward revision, corporate income tax revenue will remain at historical highs through the forecast period. After setting a record in FY 2018-19, corporate income tax revenue will recede somewhat as firms pay higher wages and supply constraints start to pinch corporate profits late in the business cycle. Corporate income tax revenue will total $847.6 million in FY 2019-20 and $797.0 million in FY 2020-21. These estimates are lower than for FY 2018-19 due to lower corporate profits as firms compete for employees in an increasingly tight labor market, and as exporters struggle with the deleterious effects of a weak global economy and a strong U.S. dollar.

## Table 10
## General Fund Revenue Estimates
*Dollars in Millions*

| | Category | Preliminary FY 2018-19 | Percent Change | Estimate FY 2019-20 | Percent Change | Estimate FY 2020-21 | Percent Change | Estimate FY 2021-22 | Percent Change |
|---|---|---|---|---|---|---|---|---|---|
| | **Excise Taxes** | | | | | | | | |
| 1 | Sales | $3,054.0 | 4.4 | $3,203.2 | 4.9 | $3,355.8 | 4.8 | $3,491.2 | 4.0 |
| 2 | Use | $345.5 | 11.5 | $302.5 | -12.5 | $294.1 | -2.8 | $299.2 | 1.7 |
| 3 | Retail Marijuana Sales | $193.2 | 14.9 | $211.4 | 9.4 | $227.3 | 7.5 | $241.3 | 6.2 |
| 4 | Cigarette | $32.6 | -5.8 | $32.3 | -0.9 | $31.3 | -3.1 | $30.3 | -3.1 |
| 5 | Tobacco Products | $27.7 | 69.1 | $23.9 | -13.7 | $24.8 | 3.6 | $25.8 | 4.0 |
| 6 | Liquor | $48.3 | 3.9 | $49.7 | 3.0 | $51.5 | 3.5 | $53.3 | 3.5 |
| 7 | **Total Excise** | $3,701.4 | 5.7 | $3,823.0 | 3.3 | $3,984.7 | 4.2 | $4,141.1 | 3.9 |
| | **Income Taxes** | | | | | | | | |
| 8 | Net Individual Income | $8,247.0 | 8.8 | $8,587.7 | 4.1 | $8,829.9 | 2.8 | $9,037.4 | 2.4 |
| 9 | Net Corporate Income | $919.8 | 17.6 | $847.6 | -7.9 | $797.0 | -6.0 | $851.4 | 6.8 |
| 10 | Total Income Taxes | $9,166.8 | 9.7 | $9,435.3 | 2.9 | $9,626.9 | 2.0 | $9,888.8 | 2.7 |
| 11 | Less: Portion Diverted to the SEF | -$692.8 | 12.3 | -$707.8 | 2.2 | -$721.7 | 2.0 | -$740.5 | 2.6 |
| 12 | **Income Taxes to the General Fund** | $8,474.0 | 9.5 | $8,727.4 | 3.0 | $8,905.3 | 2.0 | $9,148.3 | 2.7 |
| | **Other Sources** | | | | | | | | |
| 13 | Estate | $0.0 | NA | $0.0 | NA | $0.0 | NA | $0.0 | NA |
| 14 | Insurance | $314.9 | 3.7 | $340.0 | 8.0 | $353.9 | 4.1 | $367.6 | 3.9 |
| 15 | Pari-Mutuel | $0.5 | -1.7 | $0.5 | -1.7 | $0.5 | 2.1 | $0.5 | 0.4 |
| 16 | Investment Income | $26.5 | 35.8 | $21.8 | -17.9 | $23.1 | 6.0 | $24.9 | 8.1 |
| 17 | Court Receipts | $4.2 | -5.3 | $4.3 | 3.5 | $4.0 | -7.0 | $4.1 | 2.5 |
| 18 | Other Income | $48.9 | 25.7 | $36.6 | -25.2 | $37.6 | 2.7 | $38.1 | 1.4 |
| 19 | **Total Other** | $395.0 | -17.8 | $403.1 | 2.1 | $419.0 | 3.9 | $435.2 | 3.9 |
| 20 | **Gross General Fund Revenue** | **$12,570.3** | **7.2** | **$12,953.5** | **3.0** | **$13,309.0** | **2.7** | **$13,724.6** | **3.1** |

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

## Cash Fund Revenue

Table 11 summarizes the forecast for cash fund revenue subject to TABOR. The largest revenue sources are motor fuel taxes and other transportation-related revenue, 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.

Preliminary cash fund revenue subject to TABOR totaled $2.44 billion in FY 2018-19, an increase of $136.3 million or 5.9 percent from the prior fiscal year. The most significant increase was in severance tax collections, which grew by $112.2 million, or 78.4 percent. The improvement in oil and gas production activity and in rising prices aided taxes levied on the extraction of natural resources. Transportation-related revenue, the largest source of cash fund revenue subject to TABOR, was flat, adding just over $500,000, as the pace of economic expansion slowed.

Total cash fund revenue subject to TABOR is expected to be relatively flat in the current fiscal year and increase slightly throughout the forecast period. In FY 2018-19, total cash fund revenue is expected to remain flat, adding $300,000 to the FY 2018-19 total. Revenue is expected to modestly pick up pace in FY 2020-21, increasing by 1.9 percent over year-ago levels to total $2.49 billion. In 2021-22, total cash fund revenue is expected to rise an additional 3.4 percent to total $2.57 billion by the end of the forecast period.

Based on preliminary figures, **transportation-related** revenue subject to TABOR totaled $1,275.9 million in FY 2018-19. As the state's population and economy continue to expand, transportation revenue will increase 0.7 percent in FY 2019-20 and grow an additional 0.6 percent in FY 2020-21. The forecast for TABOR revenue to transportation-related cash funds is shown in Table 12.

The largest source of revenue into the **Highway Users Tax Fund** (HUTF) is the motor fuel excise tax (22¢ per gallon of gasoline and 20.5¢ per gallon of diesel fuel). After remaining relatively flat in FY 2018-19, growth in fuel excise tax collections is expected to tick up slightly by 0.4 percent in FY 2019-20 and 0.6 percent in FY 2020-21 on slower economic growth in the state. The HUTF also receives revenue from other sources, including registration fees. In FY 2018-19, total registration fees declined 0.2 percent as the state migrated to a new administration system for registration fees. Registration fees are expected to grow at 1.3 percent in FY 2019-20 and 0.5 percent in FY 2020-21. Total HUTF revenue is expected to increase 0.8 percent to $1,117.4 million in FY 2019-20 and 0.6 percent to $1,123.8 million in FY 2020-21.

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 allocations, local government matching grants, and interest earnings. Revenue allocated from the HUTF is subject to TABOR when it is originally collected in the HUTF, but it is not counted against the TABOR limit a second time when allocated to the SHF. The two largest sources of revenue directly collected into the SHF are local government matching grants and interest earnings. Local government revenue into the SHF fluctuates based on local budgeting decisions and large annual fluctuations are common. Based on collections year-to-date, SHF revenue subject to TABOR is expected to decline 5.3 percent to $37.7 million in FY 2019-20, and remain relatively flat in FY 2020-21.

Other transportation cash fund revenue subject to TABOR is expected to total $129.3 million in FY 2019-20, up 1.5 percent from the previous year, and grow by an additional 1.1 percent the following year before declining slightly in FY 2021-22. Other transportation revenue is from the sale of aviation and jet fuel, certain registration fees, and driving fines.

Revenue to the **Statewide Bridge Enterprise** is not subject to TABOR and is shown as an addendum to Table 12. Revenue to this enterprise is expected to grow 1.3 percent to $114.0 million in FY 2019-20, and 0.5 percent to $114.6 million in FY 2020-21. Revenue from the bridge safety surcharge fee typically grows at the same rate as vehicle registrations.

**Table 11**
**Cash Fund Revenue Subject to TABOR**
*Dollars in Millions*

| | Preliminary FY 2018-19 | Estimate FY 2019-20 | Estimate FY 2020-21 | Estimate FY 2021-22 | CAAGR* |
|---|---|---|---|---|---|
| Transportation-Related | $1,275.9 | $1,284.4 | $1,292.4 | $1,301.9 | |
| Percent Change | 0.0% | 0.7% | 0.6% | 0.7% | 0.7% |
| Severance Tax | $255.2 | $146.7 | $109.8 | $145.0 | |
| Percent Change | 78.4% | -42.5% | -25.1% | 32.1% | -17.2% |
| Gaming Revenue[1] | $107.0 | $108.7 | $111.4 | $114.5 | |
| Percent Change | 0.1% | 1.6% | 2.5% | 2.8% | 2.3% |
| Insurance-Related | $22.6 | $24.5 | $23.7 | $23.7 | |
| Percent Change | 26.7% | 8.5% | -3.3% | 0.0% | 1.6% |
| Regulatory Agencies | $78.5 | $79.9 | $80.7 | $81.4 | |
| Percent Change | -2.4% | 1.7% | 1.1% | 0.8% | 1.2% |
| Capital Construction-Related Interest[2] | $4.7 | $7.7 | $6.1 | $5.6 | |
| Percent Change | 1.6% | 61.3% | -20.4% | -7.7% | 5.8% |
| 2.9% Sales Tax on Marijuana[3] | $10.8 | $11.9 | $12.3 | $12.6 | |
| Percent Change | -33.1% | 10.6% | 3.3% | 2.3% | 5.3% |
| Other Cash Funds | $685.9 | $777.2 | $852.0 | $887.3 | |
| Percent Change | 3.9% | 13.3% | 9.6% | 4.1% | 9.0% |
| **Total Cash Fund Revenue[4]** | **$2,440.6** | **$2,440.9** | **$2,488.4** | **$2,572.1** | |
| **Subject to the TABOR Limit** | 5.9% | 0.0% | 1.9% | 3.4% | 1.8% |

*Totals may not sum due to rounding.*

**CAAGR: Compound average annual growth rate for FY 2018-19 to FY 2020-21.*

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

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

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

*[4]For FY 2018-19, total amounts reflect those shown in the period 14 report of the Office of the State Controller. This amount differs slightly from that shown in Table 8 due to the timing of reports and will be reconciled with the FY 2018-19 Comprehensive Annual Financial Report.*

**Table 12**
**Transportation Revenue by Source**
*Dollars in Millions*

| | Preliminary FY 2018-19 | Estimate FY 2019-20 | Estimate FY 2020-21 | Estimate FY 2021-22 | CAAGR* |
|---|---|---|---|---|---|
| **Highway Users Tax Fund (HUTF)** | | | | | |
| Motor and Special Fuel Taxes | $654.9 | $657.5 | $661.3 | $667.9 | 0.7% |
| Percent Change | -0.1% | 0.4% | 0.6% | 1.0% | |
| Total Registrations | $382.7 | $387.7 | $389.5 | $391.2 | 0.7% |
| Percent Change | -0.2% | 1.3% | 0.5% | 0.4% | |
| *Registrations* | *$229.1* | *$232.8* | *$233.2* | *$233.7* | |
| *Road Safety Surcharge* | *$132.2* | *$133.2* | *$134.1* | *$135.0* | |
| *Late Registration Fees* | *$21.4* | *$21.6* | *$22.2* | *$22.5* | |
| Other HUTF Receipts[1] | $71.1 | $72.2 | $73.0 | $73.7 | 1.2% |
| Percent Change | 1.7% | 1.5% | 1.1% | 1.0% | |
| **Total HUTF** | **$1,108.7** | **$1,117.4** | **$1,123.8** | **$1,132.8** | 0.7% |
| Percent Change | 0.1% | 0.8% | 0.6% | 0.8% | |
| State Highway Fund (SHF)[2] | $39.9 | $37.7 | $37.8 | $39.1 | -0.6% |
| Percent Change | -1.8% | -5.3% | 0.2% | 3.4% | |
| Other Transportation Funds | $127.4 | $129.3 | $130.7 | $129.9 | 0.7% |
| Percent Change | 0.0% | 1.5% | 1.1% | -0.6% | |
| *Aviation Fund[3]* | *$33.7* | *$34.9* | *$35.3* | *$35.8* | |
| *Law Enforcement-Related[4]* | *$8.6* | *$8.6* | *$8.7* | *$8.5* | |
| *Registration-Related[5]* | *$85.1* | *$85.8* | *$86.7* | *$85.6* | |
| **Total Transportation Funds** | **$1,275.9** | **$1,284.4** | **$1,292.4** | **$1,301.9** | 0.7% |
| Percent Change | 0.0% | 0.7% | 0.6% | 0.7% | |

*Totals may not sum due to rounding.*

**CAAGR: Compound average annual growth rate for FY 2018-19 to FY 2021-22.*

*[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 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 POST Board registration fees.*

**Addendum: TABOR-Exempt FASTER Revenue**

| | Preliminary FY 2018-19 | Estimate FY 2019-20 | Estimate FY 2020-21 | Estimate FY 2021-22 | CAAGR* |
|---|---|---|---|---|---|
| Bridge Safety Surcharge | $112.5 | $114.0 | $114.6 | $115.0 | 1.8% |
| Percent Change | 4.1% | 1.3% | 0.5% | 0.4% | |

*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.*

**Severance tax** revenue, including interest earnings, totaled $255.2 million in FY 2018-19 and is expected to decline in the current and next fiscal year to $146.7 million in FY 2019-20 and to $109.8 million in FY 2020-21. Severance tax revenue is more volatile than other revenue sources due to the boom-bust nature of the energy sector and the state tax structure, which allows energy producers to claim a severance tax credit for property taxes paid. The forecast for the major components of severance tax revenue is shown in Table 13.

Severance tax collections from **oil and natural gas** totaled $235.7 million in FY 2018-19 and are forecast to decline 44.1 percent in FY 2019-20 to $131.7 million as taxpayers are able to claim higher tax credits based on property tax payments. Oil and natural gas severance tax revenue will decline by an additional 27.5 percent in FY 2020-21 to $95.4 million based on lower oil prices and even bigger property tax credits.

**Table 13**
**Severance Tax Revenue Forecast by Source**
*Dollars in Millions*

| | Preliminary FY 2018-19 | Estimate FY 2019-20 | Estimate FY 2020-21 | Estimate FY 2021-22 | CAAGR* |
|---|---|---|---|---|---|
| Oil and Gas | $235.7 | $131.7 | $95.4 | $130.4 | -17.9% |
| Percent Change | 86.8% | -44.1% | -27.5% | 36.6% | |
| Coal | $3.6 | $3.3 | $3.1 | $2.9 | -6.6% |
| Percent Change | -4.9% | -6.3% | -6.2% | -7.4% | |
| Molybdenum and Metallics | $2.4 | $2.4 | $2.5 | $2.5 | 0.4% |
| Percent Change | -15.0% | 0.4% | 0.4% | 0.4% | |
| **Total Severance Tax Revenue** | **$241.7** | **$137.5** | **$101.0** | **$135.7** | -17.5% |
| Percent Change | 82.0% | -43.1% | -26.5% | 34.4% | |
| Interest Earnings | $13.5 | $9.2 | $8.8 | $9.3 | -11.6% |
| Percent Change | 32.1% | -31.8% | -4.2% | 5.8% | |
| **Total Severance Tax Fund Revenue** | **$255.2** | **$146.7** | **$109.8** | **$145.0** | -17.2% |
| Percent Change | 78.4% | -42.5% | -25.1% | 32.1% | |

**CAAGR: Compound average annual growth rate for FY 2018-19 to FY 2021-22.*

Oil and natural gas production in Colorado has increased annually since 2016 and is expected to continue to grow throughout the forecast period. Prices also increased in 2017 and 2018, leading to higher values of oil and natural gas production. This pattern is projected to continue, with Colorado oil producers receiving an average of $59.56 per barrel in 2018, $53.77 per barrel in 2019, and $56.40 in 2020. Natural gas producers are expected to receive an average of $2.34 per thousand cubic feet (Mcf) in 2019 and $2.55 per Mcf in 2020.

Oil and gas producers pay gross severance taxes based on the current value of oil and gas production, and are allowed to take a credit for property taxes paid. Property taxes are based on the prior year's production value and are paid in arrears, effectively creating a two-year lag between production and property tax payments. The property tax credit against severance taxes amplifies the volatility of the oil and gas severance tax. The ebb and flow of prices and production led to an estimated 45.6 percent increase in the value of oil and gas produced in 2018. Lower oil prices in the first half of 2019 are expected to decrease the value of oil and natural gas produced in Colorado by 4.6 percent in the current year, before production increases and slightly higher prices will increase the value of production 3.3 percent in 2020.

The forecast for oil and gas severance taxes are consistent with this pattern. Collections in FY 2018-19 were high based on high current production and relatively low property taxes based on 2016 oil prices. Collections in FY 2019-20 will decrease on a slight decline in prices and an increase the value of the property tax credit (based on property taxes calculated on 2017 production). The property tax credit claimed in FY 2020-21 will continue to increase, echoing the increase in 2018 production values, while the current value of oil and gas production increases modestly.

**Coal severance tax** revenue declined 4.9 percent in FY 2018-19 and collections are expected to decline modestly through the forecast period as electricity generation continues to transition away from coal to renewable sources and natural gas. Coal severance tax collections are expected to decline 6.3 percent in FY 2019-20 to $3.3 million and 6.2 percent to $3.1 million in FY 2020-21.

**Metal and molybdenum** mines are expected to pay $2.4 million in severance taxes on the value of minerals produced in FY 2019-20 and $2.5 million in FY 2020-21. Mining activity at the two molybdenum mines in Colorado, the Climax Mine outside Leadville and the Henderson Mine outside Empire, is fairly constant when the mines are in operation.

Finally, interest earnings are expected to total $9.2 million in FY 2019-20 and $8.8 million in FY 2020-21. Interest revenue in FY 2019-20 will be based on a higher average balance in severance tax accounts following the passage of Senate Bill 19-016. SB 19-016 distributes severance tax revenue in the year following the year when revenue is collected; therefore, the principal builds through the fiscal year generating interest revenue.

**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.

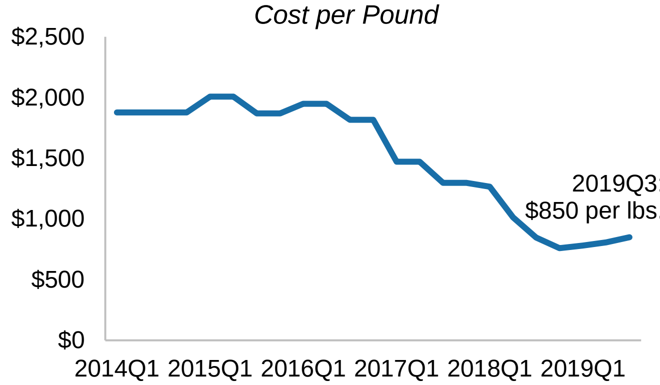
Limited gaming revenue subject to TABOR totaled $107.0 million in FY 2018-19 and is expected to grow by 1.6 percent to $108.7 million in FY 2019-20. Relatively flat tax revenue can be attributed to competition with larger markets like Las Vegas when economic conditions are strong. Compared with FY 2019-20, gaming revenue is expected to grow at a faster rate, 2.5 percent, during FY 2020-21, and 3.0 percent during FY 2021-22. Casino expansions and gaming town infrastructure projects are expected to be completed in both 2019 and 2020.

By statutory formula, gaming tax revenue subject to TABOR cannot grow faster than 3.0 percent annually, but growth in tax revenue is expected to be supplemented by higher fee and interest earnings. Annual growth in gaming tax revenue that exceeds 3.0 percent is attributed to Amendment 50 and exempt from TABOR. Years when total gaming tax revenue grows by more than 2.8 percent therefore result in disproportionately higher distributions of Amendment 50 revenue. This revenue primarily supports the state community college system. In FY 2018-19, gaming tax revenue remained relatively flat, resulting in flat Amendment 50 revenue, which is a significant slowdown from the prior year's growth of over 30 percent.

**Total marijuana tax** revenue equaled $262.9 million in FY 2018-19, a 4.6 percent increase from the prior year and the slowest growth in marijuana tax revenue since legalization. Marijuana tax revenues will continue to grow through the forecast period reaching $285.9 million in FY 2019-20 and $303.7 million in FY 2020-21. Slower growth in marijuana tax revenue is a sign of a maturing market, five years post-legalization. The majority of the revenue from the marijuana industry is voter-approved revenue exempt from TABOR; however, the 2.9 percent state sales tax is included in the state's revenue limit. Tax revenue from marijuana sales is shown in Table 14.

The special sales tax is the largest marijuana revenue source, calculated as 15 percent of the retail price of marijuana, and is expected to reach $211.4 million in FY 2019-20 and $227.3 million in FY 2020-21. The state distributes 10 percent of the special sales tax to local governments and retains the rest to be used in the Marijuana Tax Cash Fund, the General Fund, and the State Public School Fund. The excise tax is the second largest source of marijuana revenue and is dedicated to the BEST Fund for school construction. The excise tax is expected to generate $62.6 million in FY 2019-20 and $64.1 million in FY 2020-21.

**Figure 6**
**Calculated Average Wholesale Rate**
*Cost per Pound*




*Source: Colorado Department of Revenue.*

The excise tax is based on the calculated or actual wholesale price of marijuana when it is transferred from the cultivator to the retailer. The wholesale price bottomed out at $759 per pound of marijuana flower in the fourth quarter of 2018 and has steadily increased since then as shown in Figure 6. In the third quarter of 2019, the average wholesale rate was $850. The excise tax forecast assumes that the slide in wholesale prices has been arrested and wholesale prices will be stable through the forecast period; however, the wholesale price remains as both an upside and downside risk to the forecast.

The 2.9 percent state sales tax rate applies to medical marijuana and marijuana accessories purchased at a retail marijuana store. Medical marijuana sales tax revenue is expected to remain flat through the forecast period, generating $10.4 million in FY 2019-20 and $10.7 million in FY 2020-21. Retail marijuana dispensaries will remit the state sales tax on marijuana accessories totaling $1.2 million in FY 2019-20 and $1.3 million in FY 2020-21. Revenue from the 2.9 percent sales tax is deposited in the Marijuana Tax Cash Fund and is subject to TABOR.

**Table 14**
**Tax Revenue from the Marijuana Industry**
*Dollars in Millions*

| | Preliminary FY 2018-19 | Estimate FY 2019-20 | Estimate FY 2020-21 | Estimate FY 2021-22 | CAAGR* |
|---|---|---|---|---|---|
| **Proposition AA Taxes** | | | | | |
| Special Sales Tax | $193.2 | $211.4 | $227.3 | $241.3 | 7.7% |
| State Share of Sales Tax | $173.9 | $190.2 | $204.6 | $217.2 | |
| Local Share of Sales Tax | $19.3 | $21.1 | $22.7 | $24.1 | |
| 15% Excise Tax | $58.9 | $62.6 | $64.1 | $66.3 | 4.0% |
| **Total Proposition AA Taxes** | **$252.2** | **$274.0** | **$291.4** | **$307.6** | 6.9% |
| **2.9 Sales Tax (Subject to TABOR)** | | | | | |
| 2.9% Sales Tax on Medical Marijuana | $9.4 | $10.4 | $10.7 | $10.9 | 5.0% |
| 2.9% Sales Tax on Retail Marijuana | $1.1 | $1.2 | $1.3 | $1.4 | |
| TABOR Interest | $0.3 | $0.3 | $0.3 | $0.4 | |
| **Total 2.9% Sales Tax** | **$10.8** | **$11.9** | **$12.3** | **$12.6** | 5.3% |
| **Total Taxes on Marijuana** | **$262.9** | **$285.9** | **$303.7** | **$320.2** | 6.8% |

**CAAGR: Compound average annual growth rate for FY 2018-19 to FY 2021-22.*

**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.

FML revenue totaled $116.6 million in FY 2018-19, a 34.7 percent increase as the state fulfills its obligations for previous payments associated with canceled leases on the Roan Plateau. FML revenue is forecast to increase 3.5 percent in FY 2019-20 to $120.6 million and increase 1.9 percent to $122.9 million in FY 2020-21.

Forecasts for **Unemployment Insurance (UI) Trust Fund** revenue, benefit payments, and year-end balance are shown in Table 15. Revenue to the UI Trust Fund has not been subject to TABOR since FY 2009-10 and is therefore excluded from Table 15. Revenue to the Employment Support Fund, which receives a portion of the UI premium surcharge, is subject to TABOR and is included in the revenue estimates for other cash funds in Table 11.

The ending balance for the state's UI Trust Fund was $1.1 billion in FY 2018-19, up 19.7 percent from the previous year. The trust fund ending balance has been steadily increasing since FY 2012-13 as the fund has benefited from the state's healthy labor market and historically low unemployment rates. In FY 2018-19, the total amount of benefits paid from the fund dropped to $365.5 million, a decline of 8.2 percent from the previous fiscal year. Premium contributions continued to tick down slightly in FY 2018-19. Contributions are expected to continue to decline throughout the forecast period. Employers shift to a lower premium rate schedule when the trust fund ending balance reaches certain solvency levels, which reduces the amount of UI contributions they are required to pay for each employee.

**Table 15**
**Unemployment Insurance Trust Fund**
**Revenues, Benefits Paid, and Fund Balance**
*Dollars in Millions*

| | Preliminary FY 2018-19 | Estimate FY 2019-20 | Estimate FY 2020-21 | Estimate FY 2021-22 | CAAGR* |
|---|---|---|---|---|---|
| Beginning Balance | $922.3 | $1,104.1 | $1,244.1 | $1,301.8 | |
| Plus Income Received | | | | | |
| UI Premium | $523.0 | $507.9 | $481.3 | $471.2 | -3.42% |
| Interest | $23.3 | $26.8 | $29.0 | $31.4 | |
| **Total Revenues** | **$546.3** | **$534.8** | **$510.4** | **$502.6** | 2.74% |
| Percent Change | -6.0% | -2.1% | -4.6% | -1.5% | |
| Less Benefits Paid | $365.5 | $394.7 | $452.7 | $466.4 | 8.47% |
| Percent Change | -8.2% | 8.0% | 14.7% | 3.0% | |
| **Ending Balance** | **$1,104.1** | **$1,291.4** | **$1,446.1** | **$1,632.1** | 6.61% |
| Solvency Ratio | | | | | |
| Fund Balance as a Percent of Total Annual Private Wages | 0.87% | 0.91% | 0.89% | 0.87% | |

*Totals may not sum due to rounding.*
**CAAGR: Compound average annual growth rate for FY 2018-19 to FY 2021-22.*

## Economic Outlook

Now in the longest expansion in recorded U.S. history, the U.S. and Colorado economies grew at a more moderate pace through the second quarter this year. Weaker international economic conditions and trade policy uncertainty continue to weigh on investment decisions, supply chains, and demand, dampening the effects of strong economic fundamentals in the U.S. The economy is expected to expand through the end of 2019, albeit at a slower pace as these trends continue. In 2020 and 2021, economic activity is expected to moderate on headwinds from a tight labor market, with an elevated risk of recession clouding the outlook.

Unemployment rates in both the U.S. and Colorado remain at historic lows, as job creation continues. Boosted by wage and salary gains, strong consumer spending has propped up the economy in 2019 by more than offsetting wavering business investment and weaker exports. Business activity remains elevated in most sectors; however, manufacturing activity contracted in August at both the national and regional levels. Higher tariffs on intermediate goods and raw materials have reduced global demand for manufactured goods and put a pause on large capital investments. Weak economic growth in advanced economies has also muted demand for U.S. goods and services.

Inflationary pressures are firming, but remain below the Federal Reserve's 2.0 percent target. Low prices have granted reassurance to consumers and enabled interest rate cuts in the U.S. The move toward easier monetary policy is expected to provide a minor boost to softening housing markets both nationally and in Colorado. Tables 16 and 17 on pages 64 and 65 present histories and expectations for economic indicators for the U.S. and Colorado, respectively.

### Recession Risk

This forecast highlights an elevated risk of recession during the forecast period, which extends through calendar year 2021. Business activity is often a leading indicator of future economic activity, reflecting the actions firms are taking to invest in and plan for the future. While several business indicators weakened in recent months, current and lagging indicators, including employment and consumer activity, continue to suggest an ongoing economic expansion. This forecast assumes continued moderation in economic activity consistent with the late stages of an economic expansion. However, near-term deterioration in economic conditions is possible given weakness in several leading indicators. These indicators include:

- softer business investment, including in nonresidential construction (pages 48 and 56);
- a contraction in manufacturing activity and industrial production (page 49); and
- weaker confidence in future conditions among businesses, as evidenced by surveys of firms.

The following briefly summarizes two sources of weaknesses in these leading indicators: the global economic slowdown and trade policy uncertainty. Should the causes of these weaknesses prove transitory, leading indicators likely only point to a slowdown, similar to that experienced in 2015 and 2016.

**Sources of weakness.** Survey responses from U.S. firms attribute a significant portion of recent weak business performance to the slowdown in global economic activity and ongoing trade tensions. Relative weaknesses in economies abroad have softened global demand and increased the value of the U.S. dollar, increasing the price of U.S. goods and services and dampening U.S. export and manufacturing activity.

**Why Are Recessions Hard to Predict?**

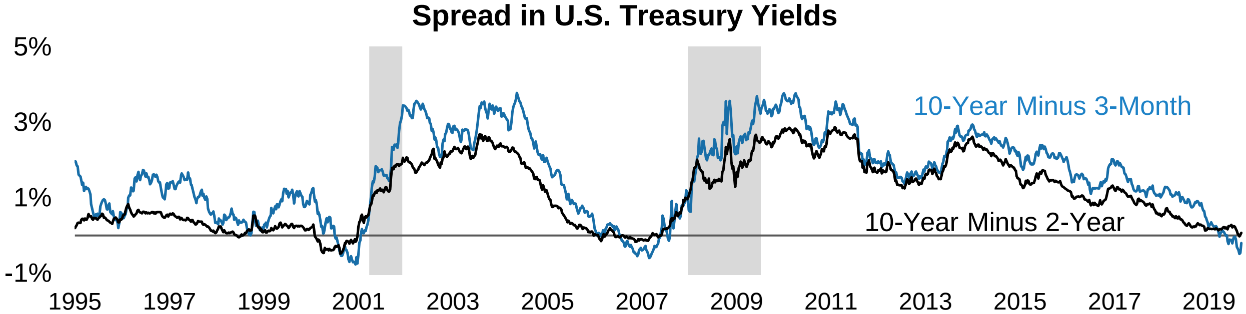
The timing of a recession is difficult to predict as estimates of economic activity are revised to reflect better data over time and because data documenting a contraction in economic activity are often not available until after the economy has been in recession for several months. The severity of a recession depends on a number of factors that dynamically unfold over time. These factors include a vicious cycle of business and consumer decisions, the underlying stability of financial systems, and stimulus from fiscal and monetary policy decisions.

In addition to the global economic slowdown, tariffs on intermediate goods as well as primary goods used in manufacturing have increased production costs and disrupted supply chains. Further, ongoing uncertainty from the fits and starts in trade negotiations have reduced many businesses' appetites for major investments. Resolution of ongoing trade tensions or an uptick in global economic activity may alleviate some of these pressures and incentivize investment, manufacturing, and production activity.

**Slowdowns vs. downturns.** For both Colorado and the nation as a whole, data published to date reflect a clear slowdown, but not a contraction, in economic activity. Many of the same indicators highlighted above weakened significantly following the collapse in commodity prices at the end of 2014. However, these weaknesses remained isolated to the energy, manufacturing, and export industries, and the economy regained momentum in 2016 after a brief drag. This forecast anticipates a similar scenario for the current slowdown, where underlying global economic conditions improve in the near term.

**Inverted yield curves.** In addition to weakening business indicators, financial indicators are also signaling concerns over near-term growth. The "yield curve" has been a consistent predictor of past recessions. In particular, the difference, or "spread", between 10-year and 2-year Treasury notes and 10-year and 3-month Treasury notes have been consistent predictors of an impending economic downturn. The 10-year minus 3-month curve has been inverted since May 2019, while the 10-year minus 2-year inverted in August, as shown in Figure 7.

**Figure 7**
**Spread in U.S. Treasury Yields**




*Source: Federal Reserve Bank of St. Louis. Note: Grey bars indicate a period of recession.*

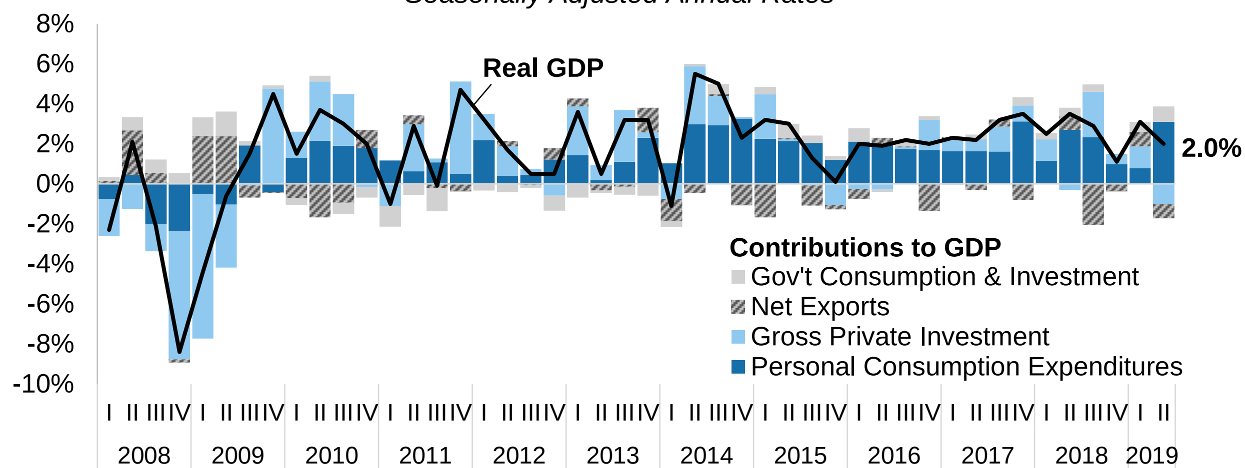
The inverted yield curve reflects greater investor confidence in longer-term economic conditions than those in the near-term. They also reflect near and longer-term expectations for interest rates and inflation. Historically, at least 12 months have passed after the initial inversion before a recession begins. While an inverted yield curve does not guarantee a recession, it demonstrates clear concerns among investors in near-term U.S. economic activity. Taken together with weaknesses in business activity, this forecast highlights that the risk of a recession during the forecast period is elevated.

## Gross Domestic Product

In July, the U.S. economic expansion entered its 11th year, officially marking the longest on record and surpassing the previous record expansion set between March 1991 and March 2000; however, recurrent trade policy uncertainty with China and a slowing global economy have diminished business confidence, slowing growth in the second quarter of the year. Real gross domestic product (GDP), an estimate of the inflation-adjusted value of final U.S. goods and services, grew by an annualized rate of 2.0 percent in the second quarter of 2019 (Figure 8), after growing by a healthy 3.1 percent in the prior quarter. Robust consumer spending more than offset the drop in business investment and net exports in the second quarter of the year. Colorado's economy continues to be one of the strongest in the nation, growing by an impressive 3.5 percent in 2018. However, recent indicators point to slower growth at the start of 2019.

- Growth in the U.S. and Colorado economies will moderate in 2019 and 2020 as the stimulative impacts of the federal tax cuts fade and a tight labor market constrains growth. Real U.S. GDP is expected to grow 2.2 percent in 2019, before slowing to 1.8 percent in 2020.

**Figure 8**
**Contributions to Real U.S. Gross Domestic Product**
*Seasonally Adjusted Annual Rates*




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

**Strong U.S. consumer spending more than offset cutbacks in business investment**. Consumer spending, as measured by personal consumption expenditures and accounting for more than two-thirds of total economic output, grew at a 4.7 percent annual rate in the second quarter of the year, after growing by a feeble 1.1 percent in the previous quarter. Spending was broad-based across both goods and services, but household spending increased most for long-lasting big-ticket items, such as household durable goods and automobiles. Consumption of durable goods rose 13.0 percent in the second quarter, following a 0.3 percent annual growth rate in the first quarter. Rising wages and lower personal saving rates boosted consumer spending. The outlook for consumer spending remains contingent in part on the latest rounds of tariffs on Chinese imports scheduled for October, which are expected to more directly raise prices for consumer goods, such as apparel and electronics.

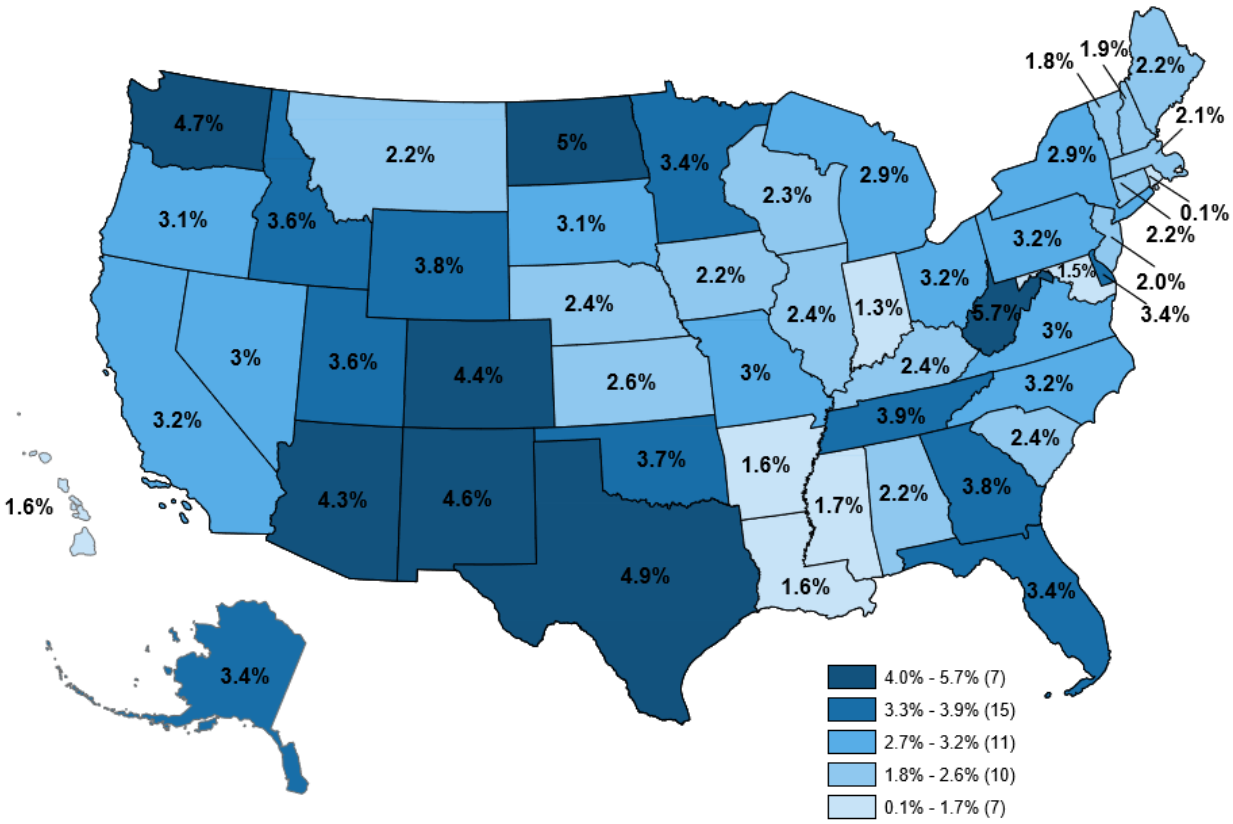
**New business investment hindered by uncertainties**. After three years of solid growth, total business investment dropped by an annual rate of 6.1 percent in the second quarter of the year. A slowing global economy and ongoing trade uncertainty have created challenges for many U.S. businesses, causing them to reevaluate their expectations and capital expenditures. In particular, investment on nonresidential structures suffered, dropping by 9.4 percent in the second quarter after growing by 4.0 percent in the first quarter. Residential investment continued to hinder economic growth in the second quarter of 2019, declining by 2.9 percent from the prior quarter, the sixth consecutive quarterly decline.

**Trade tensions continue to distort international markets.** U.S.-China trade tensions continue to create sizable swings in trade levels, as each country levies new or additional tariffs. Total U.S. exports declined by $37.9 billion, or 5.8 percent in the second quarter, after posting a solid 4.1 gain in the prior quarter. U.S. imports were relatively flat in the second quarter, after dropping by 1.5 percent in the first quarter. The trade situation remains fluid, which disrupts global supply chains and global demand for U.S. goods, and is expected to continue to add uncertainty and complexity for U.S. businesses. Finally, total government expenditures were up 4.5 percent in the second quarter, the largest increase since 2009. An $18 billion, or 16 percent increase, in federal nondefense spending was the major contributor to the increase.

**The Colorado economy continues to be among the top states for economic activity**. After growing by a solid 3.5 percent in 2018, the state's economy continued to pick up pace through the first quarter of 2019, increasing by a robust 4.4 percent over the same quarter last year. The year-over-year improvement tied the state for the fifth fastest growth in the nation. Only the economies of West Virginia, North Dakota, Texas, Washington State, and New Mexico grew at a faster rate in the first quarter of 2019 (Figure 9).

**Improvement persists across most industries.** Contributions to economic growth in the state continue to be broad-based across most industries, with information, mining, retail, and health care and social assistance posting the largest contributions to the increase in Colorado's GDP in the first quarter of 2019. Colorado's information industry and workforce continue to attract new companies and employees to the state, with over 4,100 technology companies located in Colorado. The mining industry, which includes oil and gas extraction, contributed about $3.3 billion to the Colorado economy in the first quarter, up almost 15 percent from the same quarter last year. Despite relatively flat oil and gas prices, the industry continues to contribute significantly to the state's economy through higher oil production.

**Figure 9**
**Percent Change in Real GDP by State, 2019Q1 over 2018Q1**
*Seasonally Adjusted Annual Rates*




*Source: U.S. Bureau of Economic Analysis. Map prepared by Legislative Council Staff.*

### Households and Consumers

The pace of household income growth has stabilized since 2016, when both the national and state levels recorded a marked slowdown. Persistent increases in household income are a necessary attribute for the longevity of the economic expansion, as elevated household income sustains consumer spending, the principal driver of U.S. economic growth.

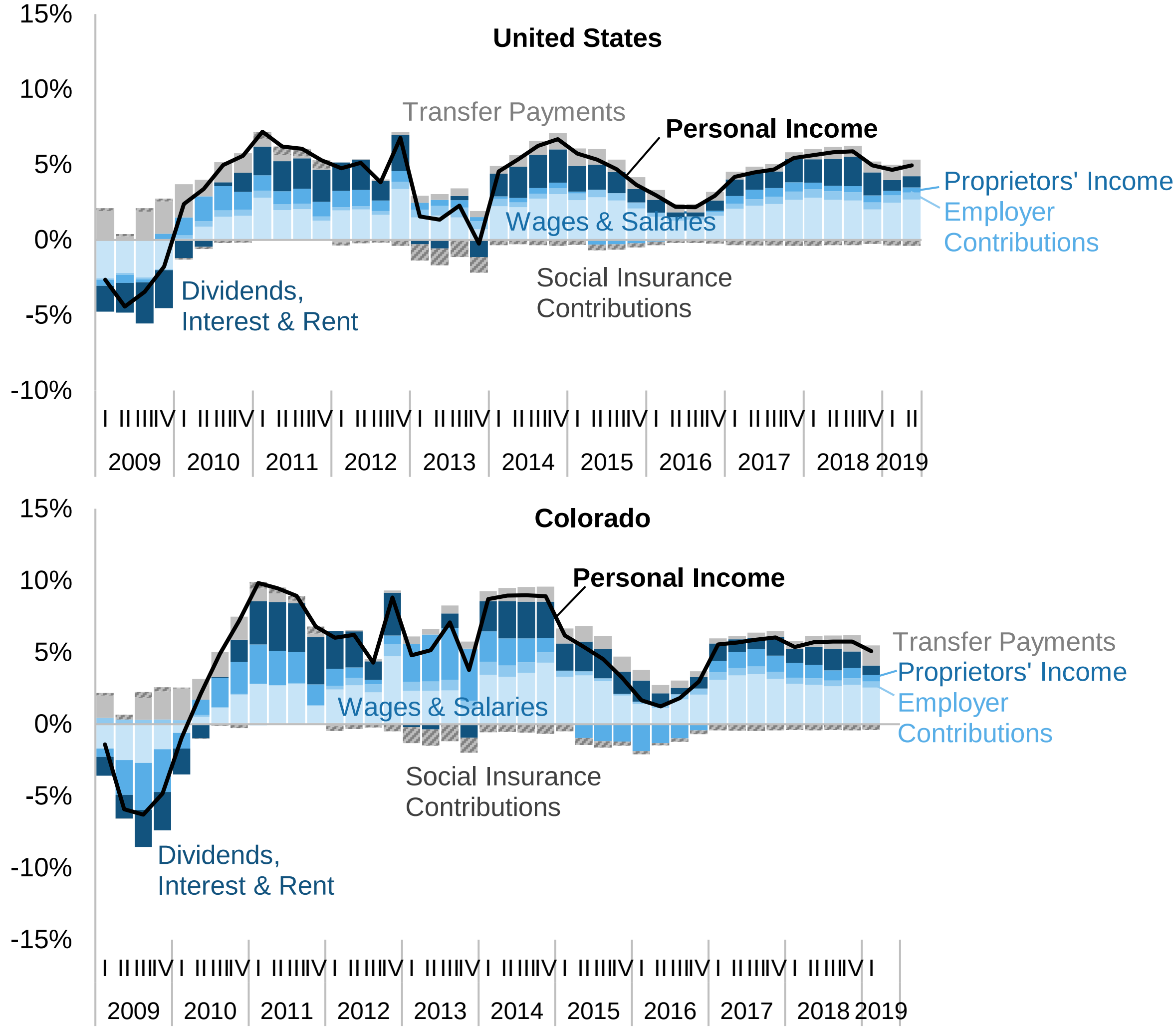
- Growth in U.S. personal income is expected to slow in both 2019 and 2020, to 4.9 percent and 4.6 percent, respectively. Wage growth is expected to peak this year before decelerating in 2020 on reduced job growth, subdued inflation, and lower returns on investment income on interest rate cuts.

- Personal income in Colorado is expected to outpace the nation and grow 5.6 percent in 2019 and 5.2 percent in 2020. A tight labor market through the forecast period will drive wages and salaries higher, while the retirement of experienced workers and automation will dampen some of the growth.

- Consumer activity is expected to slow in 2019 and 2020, with moderation in household income growth.

**Wage contributions are sustaining growth in household income.** Personal income growth has continued apace thus far in 2019. Through the first two quarters of the year, U.S. household income grew by 4.8 percent, representing modest deceleration from the 5.6 percent increase posted during 2018. In Colorado, growth in personal income likewise decelerated from 5.7 percent in 2018 to 5.1 percent in the first quarter of 2019. Quarterly contributions to U.S. and Colorado personal income growth are reflected in Figure 10.

**Figure 10**
**Personal Income and Its Components**
*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.*

**The changing composition of personal income reveals how the economy is evolving as the business cycle ages.** Consistent with an economy in late cycle expansion, U.S. and Colorado households are reaping larger increases in wage and salary earnings as growth in other sources of income begins to taper off. Thus far in 2019, 54 percent of growth in U.S. personal income is attributable to wage and salary increases, up from their 45 percent contribution to last year's growth. This trend is replicated in Colorado, where the wage and salary share of the increase in personal income expanded from 48 percent in 2018 to 50 percent in the first quarter of 2019.

**Contributions to personal income growth from most non-wage components are shrinking**. The combined contribution from dividend, interest, and rental income decreased from 30 percent of U.S. personal income growth during 2018 to 15 percent through two quarters of 2019, and similarly fell from 22 percent to 13 percent in Colorado. Investment income is expected to continue to decelerate as the Federal Reserve lowers interest rates, rental price pressures subside, and stock performance weakens.

Contributions from nonfarm proprietors' income, which encompasses income earned by sole proprietors and members of business partnership groups, have also fallen. In the late periods of previous economic expansions, business proprietors' income has been squeezed as the labor market tightens, and businesses face stiffer competition for a scarcer number of employees.

In contrast, the contribution from transfer payments – principally government support programs – has increased thus far this year. At the national level, transfer payments accounted for 22 percent of the increase in personal income during the first two quarters of 2019 after contributing just 13 percent last year. The uptick in the contribution from transfer payments is expected to continue for demographic reasons as the population eligible for Social Security and Medicare increases. Should the economy enter a recession, positive contributions from transfer payments are likely to increase further.

**Consumer spending in the U.S. rebounded in the second quarter of the year**. Representing about two-thirds of total U.S. economic activity, consumers have buoyed growth in the broader economy, while business spending and exports have slowed this year. U.S. personal consumption expenditures increased 4.1 percent in the second quarter over the same period last year, after more tepid first quarter growth. Real U.S. advance retail sales were up by 1.6 percent year-to-date through July over the same period last year. Durable goods spending, typically an indicator of positive consumer expectations, increased by 4.4 percent year-over-year in the second quarter, with recreational goods and vehicles driving growth.

Consumer confidence remained strong through July, on low unemployment rates and rising wages and salaries. However, the escalation of trade tensions resulted in a fall in the University of Michigan's Index of Consumer Sentiment in August by 6.7 percent year-over-year, driven by a larger decline in future expectations for the economy. Federal fund rate cuts and stock market volatility typically have a negative effect on consumer confidence also, especially for the wealthiest consumers, who have slowed their spending in recent months. The outlook for consumer spending is tenuous, as tariffs on consumer goods from China increase and prices on consumer goods rise.

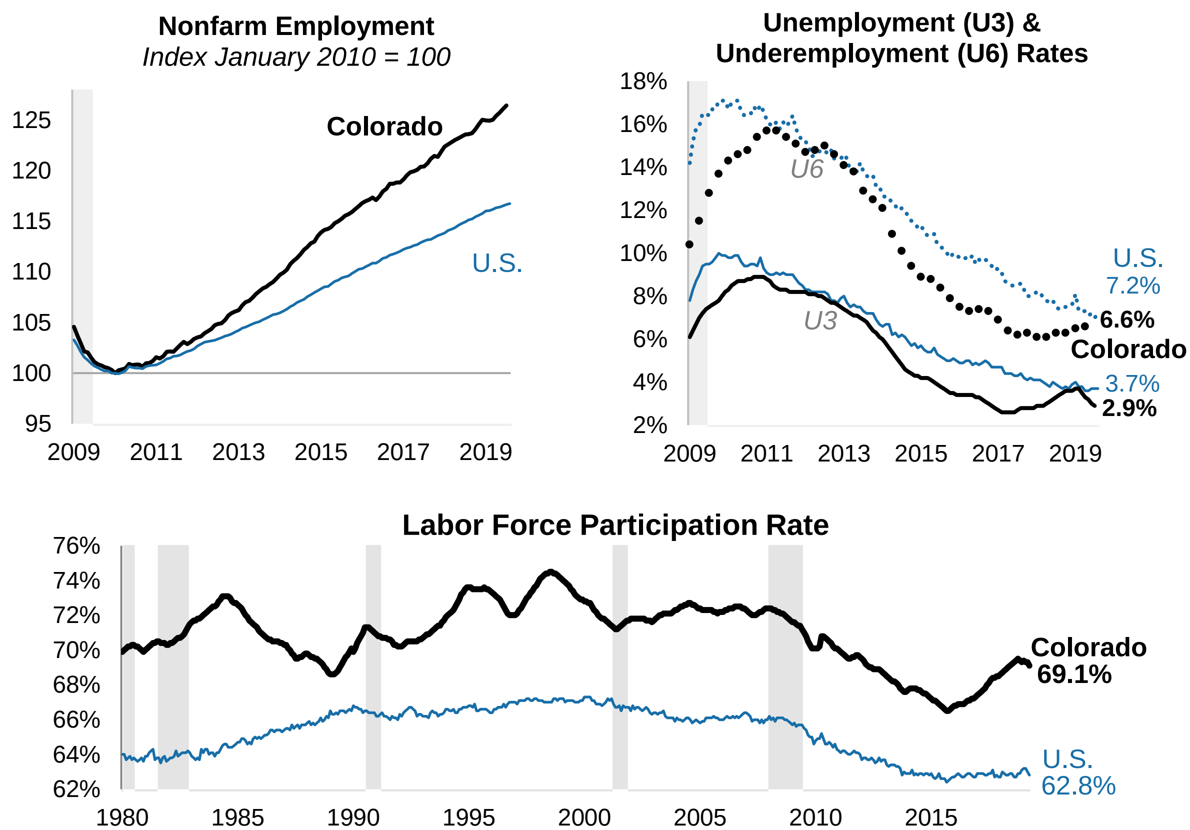
## Labor Markets

Labor market indicators for both the U.S. and Colorado remain strong, despite signs of growing worker shortages. Employers continue to add employees to their payrolls at a healthy pace, keeping the unemployment rate at historic lows. Job growth remains broad-based and labor force participation has increased. However, hiring in 2019 has slowed and is expected to slow further.

- U.S. nonfarm employment is expected to increase at a pace of 1.5 percent in 2019, before moderating to 1.0 percent in 2020 as labor markets grow tighter. The U.S. unemployment rate is expected to average 3.7 percent in 2019 and rise to 4.0 percent in 2020 as an increasing number of workers seek employment.

- In Colorado, nonfarm employment will grow 1.9 percent in 2019 before slowing to grow 1.1 percent in 2020. Rising labor force participation will sustain employment gains at slightly higher rates than the nation as a whole. The Colorado unemployment rate is expected to average 3.3 percent in 2019 and 3.7 percent in 2020.

**Figure 11**
**Selected U.S. and Colorado Labor Market Indicators**




*Source: U.S. Bureau of Labor Statistics. Data are seasonally adjusted and are through August 2019 for the U.S. and April 2019 for Colorado. Colorado nonfarm employment includes data revisions expected by Legislative Council Staff from the Bureau of Labor Statistics' annual rebenchmarking process.*
**Underemployment rates for Colorado are shown as four-quarter averages, while data for the U.S. are monthly.*
***Labor force participation is calculated as the percent of the civilian population, age 16 and older, who are working or seeking employment.*

**Strong labor markets are counteracting structural shifts.** Colorado's labor force participation rate is climbing despite an accelerating number of annual retirements. As shown in Figure 11 (bottom), labor force participation fell during the first five years of the current expansion, a demographic idiosyncrasy that is inconsistent with the early years of all other recent expansions. Growing labor force participation since 2015 suggests that the tight labor market is now strong enough to counteract demographic and structural shifts toward automation, which have reduced demand for lower-skilled workers in many industries, including manufacturing and information services sectors. Positive trends in the labor force participation rate will sustain employment growth in the near term. While labor force participation has increased across most age groups, contributions have been strong for those ages 55 and older, suggesting that these workers are remaining in or reentering the workforce at higher rates than in the past.

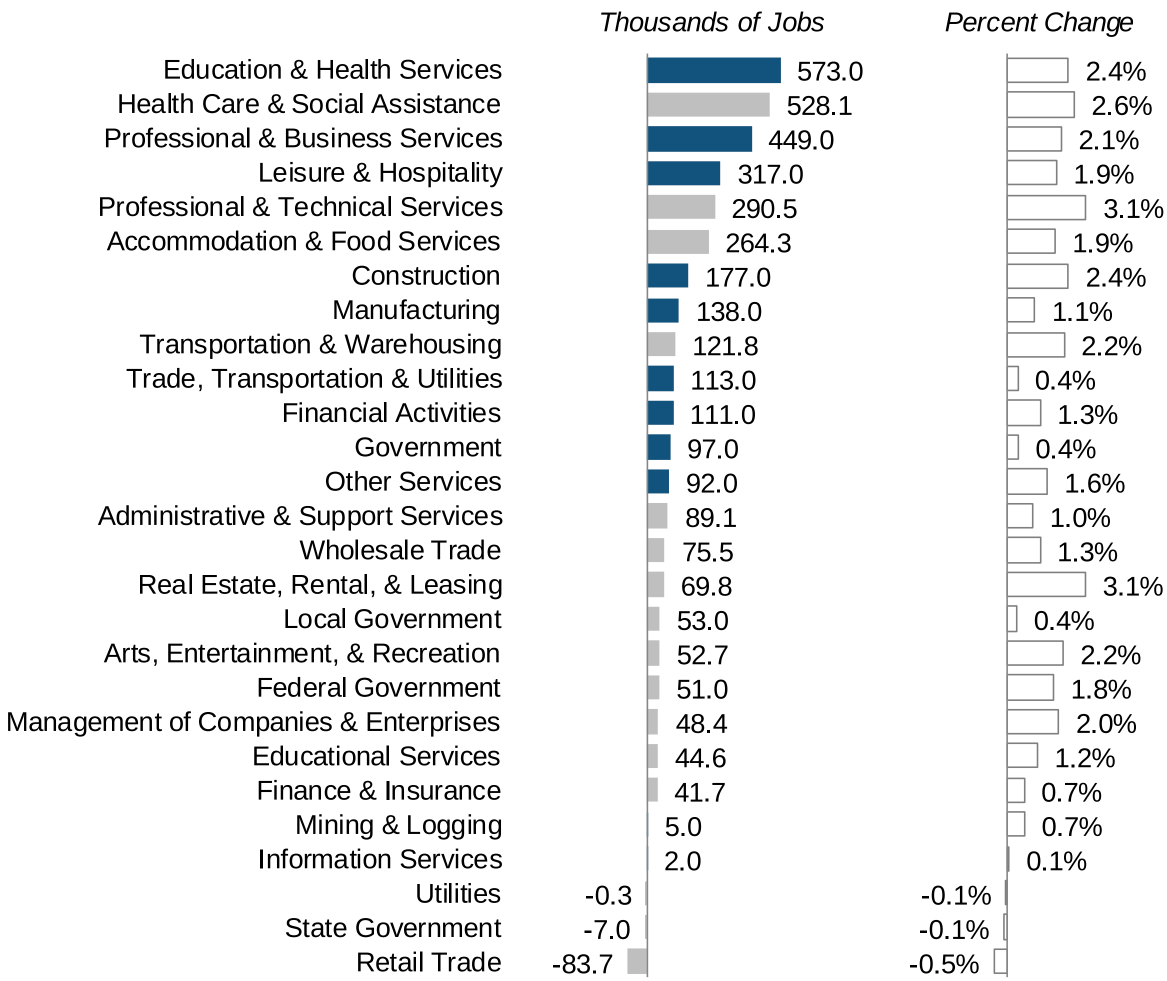
**U.S. labor market indicators remain positive, but job gains have slowed**. U.S. employers continue to add new employees to their payrolls at a decent pace in spite of reports of worker shortages, a gloomy outlook for global growth, and elevated U.S.-China trade tensions. In August 2019, U.S. job gains were 1.4 percent higher than in the same month last year, marking the 107$^{th}$ straight month of positive job growth. Though the U.S. labor market continues to expand, job growth has been losing momentum through the current year. Year-to-date through August, job growth averaged 158,000 each month compared with the 234,000 monthly average over the same period last year.

**Job gains continue to be broad-based.** The U.S. economy has added over 2 million new jobs since August 2018 with the largest sectors, professional and business services and education and health services, continuing to drive overall U.S. job growth (Figure 12). Over the past year, these two supersectors have gained just over one million jobs, accounting for almost half (46.3 percent) of employment gains over the period. Construction and manufacturing industries continue to trend upward, adding 177,000 and 138,000 jobs, respectively, since August 2018, though the pace of growth has slowed. Retail trade employers continue to shed jobs from their payrolls as the sector continues to adopt new strategies in the era of e-commerce.

**Persistently low unemployment rates continues to pull workers back into the labor force.** The U.S. unemployment rate has been gradually falling since 2014 and continues to hover near historic lows. The U.S. unemployment rate has averaged 3.7 percent year-to-date through August 2019. Low unemployment rates have made employers entice workers back into the labor force. The "underemployment" (U6) rate, a broader measure that captures discouraged workers and those who work part-time but desire full-time work, also continues to decline and remains near historic lows. In August 2019, the underemployment rate was 7.2 percent, down from 8.1 percent in January (Figure 11, top right).

**Colorado employers continue to add jobs to their payrolls at a healthy pace**. In July 2019, year-over-year, total nonfarm employment was up 2.3 percent, representing an acceleration from May and June's growth rates of 2.1 percent and 2.2 percent, respectively. Year-to-date total job growth through July 2019 has slowed relative to the same period one year earlier. These estimates include data revisions expected by Legislative Council Staff from the Bureau of Labor Statistics' annual rebenchmarking process. Growth in labor force participation has sustained higher rates of growth (Figure 11, bottom).

**Figure 12**
**U.S. Job Gains and Losses by Industry**
*Year-over-Year Change, August 2019 over August 2018*

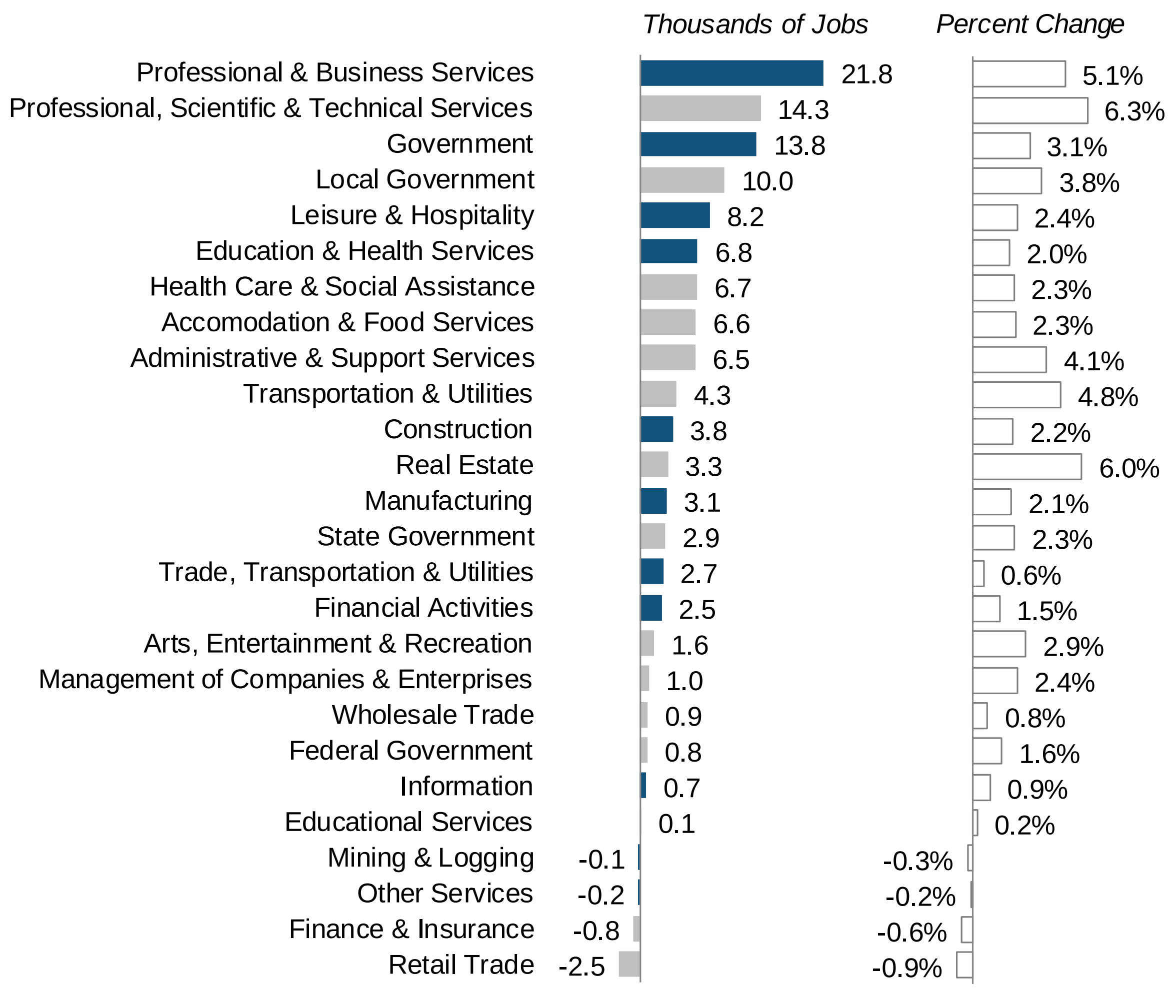



*Source: U.S. Bureau of Labor Statistics. Data are seasonally adjusted. Blue (dark) shading indicates a supersector, while grey (light) shading indicates a subsector.*

**Colorado labor market tightening is constraining business growth.** Colorado's unemployment rate remains near historic lows, posting an impressive 2.9 percent rate in July 2019 (Figure 11, top right). The state unemployment rate has been ticking down slightly since the beginning of the year, falling from 3.7 percent in January. Likewise, Colorado claims for unemployment insurance remain at historic lows. Instead, workers who left the workforce or retired are drawn back in by improving job prospects and wages. Nevertheless, while labor force participation has grown, an increasing number of employers are reporting difficulties finding the skilled labor needed to grow their businesses, especially in the construction industry. According to a recent survey from the Associated General Contractors, nearly nine in ten contractors in Colorado reported having a hard time filling positions for skilled craft workers.

**Despite concerns about a tightening Colorado labor market, job gains occurred across nearly all sectors.** The professional and business services supersector, which includes the professional, scientific and technical sector, continues to be the main employment driver in the state, adding almost 22,000 new jobs in July 2019 compared with the same month last year (Figure 13). The professional and businesses services supersector is the largest of all private sectors, comprising almost 20 percent of statewide employment. The real estate sector also accelerated in July 2019 over the same month last year, increasing by 6.0 percent. Though Colorado's real estate market has slowed, the state continues to attract new residents. Similar to the nation, job growth in the retail sector was down slightly from the same month last year, in part reflecting ongoing automation- and technology-driven consolidation.

**Figure 13**
**Colorado Job Gains and Losses by Industry**
*Year-over-Year Change, July 2019 over July 2018*



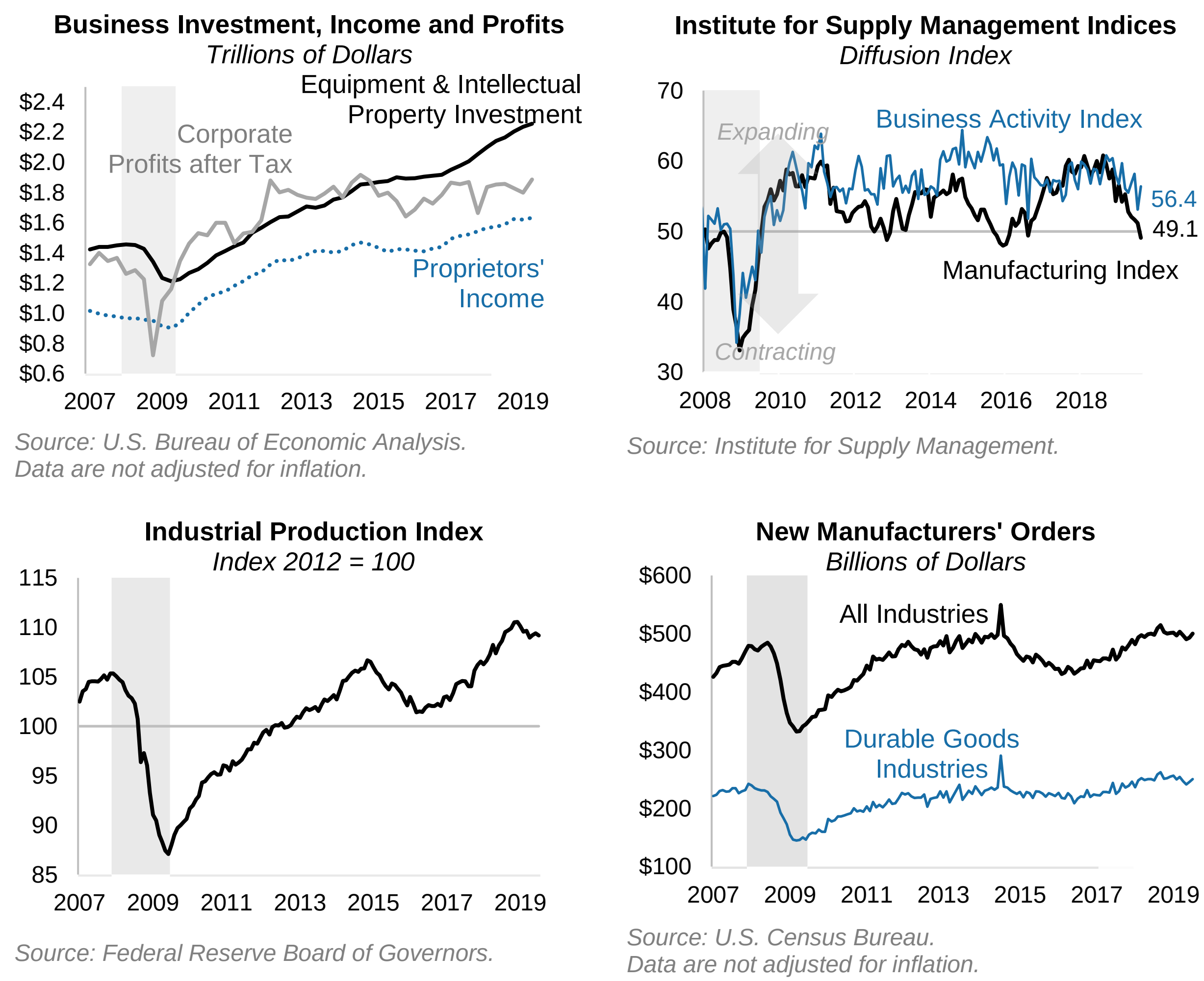

*Source: U.S. Bureau of Labor Statistics. Data are seasonally adjusted. Blue (dark) shading indicates a supersector, while grey (light) shading indicates a subsector. Nonfarm employment estimates include revisions expected by Legislative Council Staff during the Bureau of Labor Statistics' annual rebenchmarking process.*

### Business Income and Activity

The slowing trends in business activity that started to emerge in the first half of 2019 solidified and deepened through the summer. Some measures of business activity, including business income, manufacturing orders, and business investment have plateaued, while others, including industrial production, have declined in 2019. The manufacturing sector also contracted in 2019 on uncertainty around trade policy and the strong value of the U.S. dollar.

**Business investment has slowed with sluggish growth in profits**. Figure 14 shows selected measures of business activity. Business investment in software and equipment slowed in the second quarter of 2019, growing 3.5 percent over the previous quarter, compared with 5.8 percent growth in the first quarter of 2019, and 7.5 percent in the fourth quarter of 2018. In the second quarter of 2019, corporate profits increased 20.5 percent from the previous quarter and reversed two quarters of decline. Even with the gains in the second quarter, corporate profits were just 1.7 percent higher than the same quarter in 2018. In the second quarter of 2019, nonfarm proprietors' income was 3.8 percent higher than the same quarter in 2018.

**Figure 14**
**Selected Indicators of U.S. Business Activity**

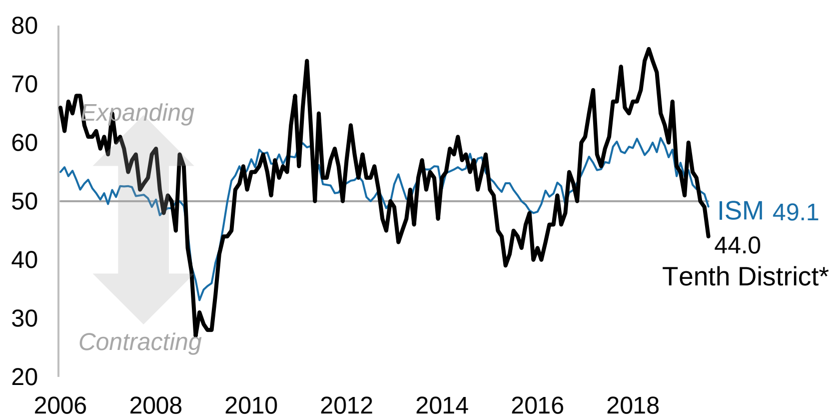


**Manufacturing activity is down under higher tariffs and lower global demand**. While broader measures of business activity show little change over the past year, the manufacturing sector has struggled through the first half 2019. Uncertainty around trade policy has caused manufacturing firms to postpone decisions and rethink supply chains that run through China, Europe, and South America. Increased uncertainty and the relative strength of the U.S. economy has also caused the dollar to appreciate, making domestic products more expensive relative to goods produced in the rest of the world. Additional increases in tariffs and ongoing trade uncertainty may pose a larger drag on global economic growth into 2020.

The Institute for Supply Management (ISM) produces an index of manufacturing and non-manufacturing business activity each month based on a survey of firms. The non-manufacturing business activity index of 56.4 in August indicates expanding activity (with values above 50), while the manufacturing index registered a value of 49.1 (Figure 14, top right). The August 2019 manufacturing index signaled a decline in monthly activity for the first time since August 2016, when the oil and gas industry was struggling with low oil prices.

The Federal Reserve Bank of Kansas City produces a manufacturing index similar to the ISM index for businesses within its region, which includes Colorado in addition to six other states. The Kansas City Federal Reserve's index registered 44.0 in August, indicating declining activity for the second straight month, as shown in Figure 15.

**Figure 15**
**Business Activity in Tenth Federal Reserve District**




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

As measured by the Federal Reserve, industrial production (Figure 14, bottom left), peaked in December 2018 and has gradually decreased in 2019 year-to-date. Manufacturing activity in July 2019 decreased 0.2 percent from June 2019, and was only 0.5 percent higher than in July 2018. Manufacturing and industrial production orders (Figure 14, bottom right) have been stable since last summer. Durable goods orders have increased 0.9 percent between July 2019 and July 2018, while total orders have increased by 0.4 percent.

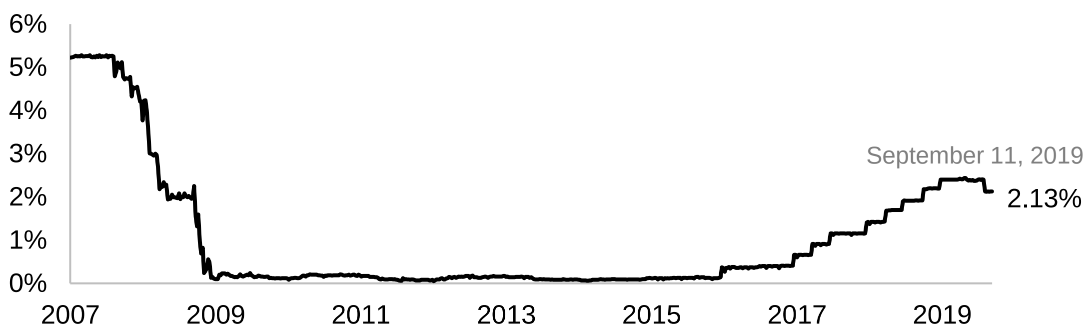
## Monetary Policy and Inflation

In response to persistently low inflation and as insurance against potential economic shocks from trade policy and weakness abroad, the Federal Reserve reversed its trajectory of monetary policy tightening this summer with two interest rate cuts, an end to its balance sheet reduction schedule, and a clear signal of a more dovish approach over the next eighteen months than had previously been expected. Most national consumer price components continue to show only modest inflation, and indicators for Colorado now show weaker price pressures than for the nation as a whole.

- Inflationary pressures are expected to remain subdued on relatively low energy prices and sluggish global demand. Consumer prices for the Denver-Aurora-Lakewood area are expected to increase 1.8 percent in 2019 and 1.9 percent in 2020. By comparison, the national measure for all urban areas is expected to rise 1.9 percent in 2019 and 2.1 percent in 2020.

**The Federal Reserve has reversed course.** After eight interest rate hikes over nine quarters entering 2019, persistently low inflation and softening in some business sectors conspired to create a reversal of course. The Federal Open Market Committee (FOMC) approved a cut of 25 basis points in the target federal funds rate at its July and September meetings, bringing the rate down to 1.75 to 2.00 percent. Expectations for further rate cuts this year are mixed, as the Fed is taking a wait-and-see approach based on the outlook for economic conditions. Figure 16 shows the effective Federal funds rate through September 11, 2019.

**Figure 16**
**Effective Federal Funds Rate**




*Source: Federal Reserve Board of Governors.*

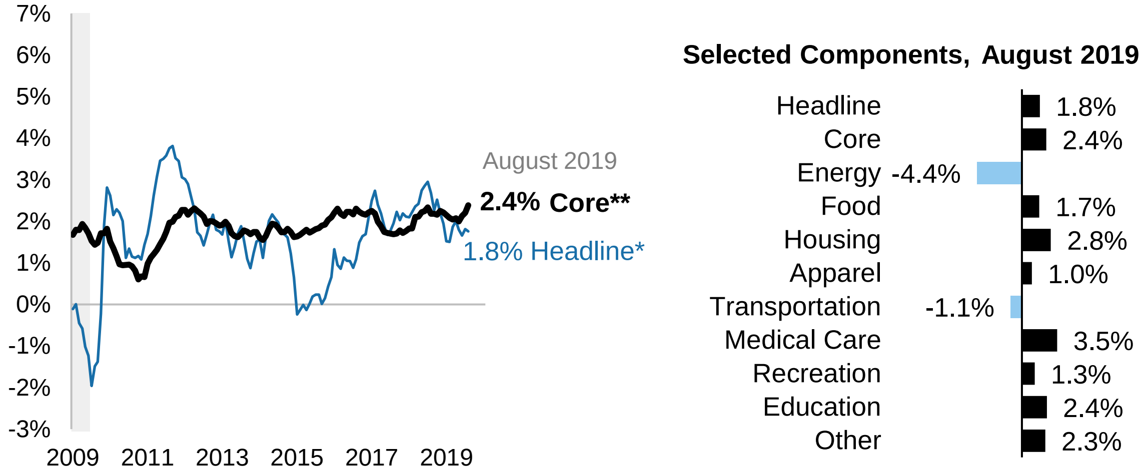
Federal Reserve Chairman Jerome Powell offered two rationales for the rate cut: as insurance against economic shocks that could arise out of global economic weakness and unpredictable trade policy, and as a potential motivator of stalled inflationary pressure. The FOMC simultaneously ended its quantitative tightening program, which had reduced the size of the Fed's balance sheet from $4.5 trillion in early 2018 to $3.8 trillion at the end of July. The two moves together represent a relatively dovish turn for the Fed, and accompanying statements and minutes suggest that it is more likely to act to loosen monetary policy than to tighten it over the next 18 months.

The current target federal funds rate stands between 1.75 percent and 2.00 percent. For comparison, the target federal funds rate stood at about 5.25 percent entering the Great Recession, and at about

6.50 percent entering the 2001 recession. Historically, the Fed has responded to losses of economic momentum with interest rate cuts of several percentage points, prodding economic actors to place more value on spending than saving. If interest rates are not high enough to sustain such large cuts entering the next U.S. recession, the Fed will likely choose from among other policy options, including money supply expansion via a new round of quantitative easing, and/or the use of negative interest rates to stimulate economic activity.

**Subdued inflation continues.** Inflationary pressures remain subdued on drags from energy prices and a slowdown in global demand for goods. Headline consumer prices increased at a rate of 1.8 percent between August 2018 and August 2019, slightly outpacing the 1.6 percent inflation in the Fed's preferred personal consumption expenditure (PCE) inflation measure. Core inflation, excluding volatile food and energy prices, appreciated at a marginally quicker pace, growing 2.4 percent in August over year-ago prices. As shown in the right panel of Figure 17, modest to moderate inflationary pressure was the norm across most components of the consumer price index.

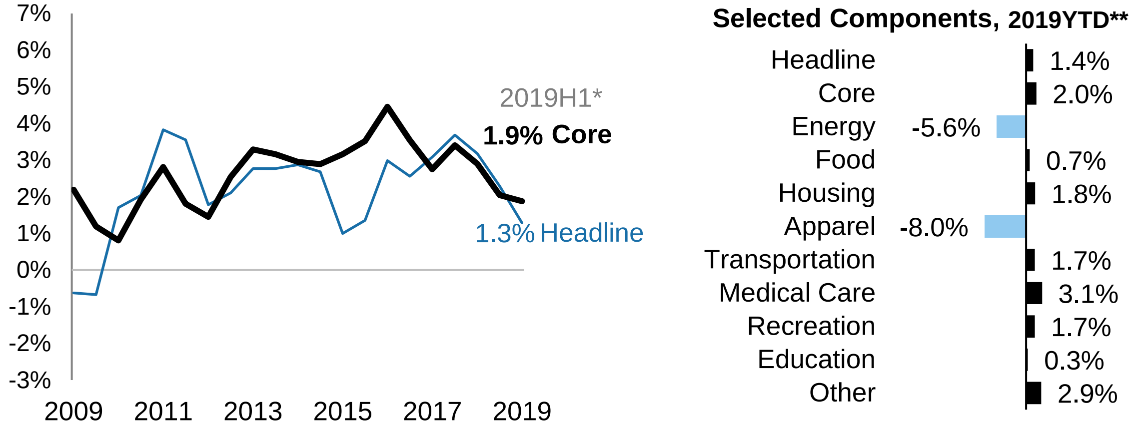
**Figure 17**
**Consumer Price Index Inflation for All Urban Areas in the U.S.**
*Percent Change in Prices, Year-over-Year*




*Source: U.S. Bureau of Labor Statistics. Inflation is calculated as the percent change in prices.*
**Headline inflation includes all products and services. **Core inflation excludes food and energy prices.*

**Colorado consumer prices have slowed with the housing market.** Consumer price inflation data for the Denver-Aurora-Lakewood core based statistical area are presented in Figure 18. In 2018, the U.S. Bureau of Labor Statistics began reporting bi-monthly data in addition to semi-annual reports, allowing for more current analysis of regional inflationary pressures. Data released year-to-date through July suggest easing inflationary pressures in the Denver metro area, with drags from lower energy prices and apparel, as well as moderation in housing costs in recent months. Year-to-date, headline consumer prices for Denver increased 1.4 percent through July over year-ago levels, versus 1.8 percent inflation based on monthly data through July nationwide.

**Figure 18**
**Denver-Aurora-Lakewood 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 percent change in prices.*
** Data for 2019 shown for the first half of the year over the same period last year.*
***Year-to-date inflation averaging prices using bi-monthly data for January, March, May, and July.*

## Energy Markets

The oil and gas industry continues to set new production records, leading to more refining, fewer imports, and higher exports. Improved efficiencies and lower costs allow oil and gas firms to remain profitable even with fluctuations in crude oil prices. Firms have maintained production quantities of crude oil despite depressed oil prices. Nationally, there is an oversupply of natural gas leading to persistently low prices despite increasing demand for natural gas from residential and commercial customers and power plants.

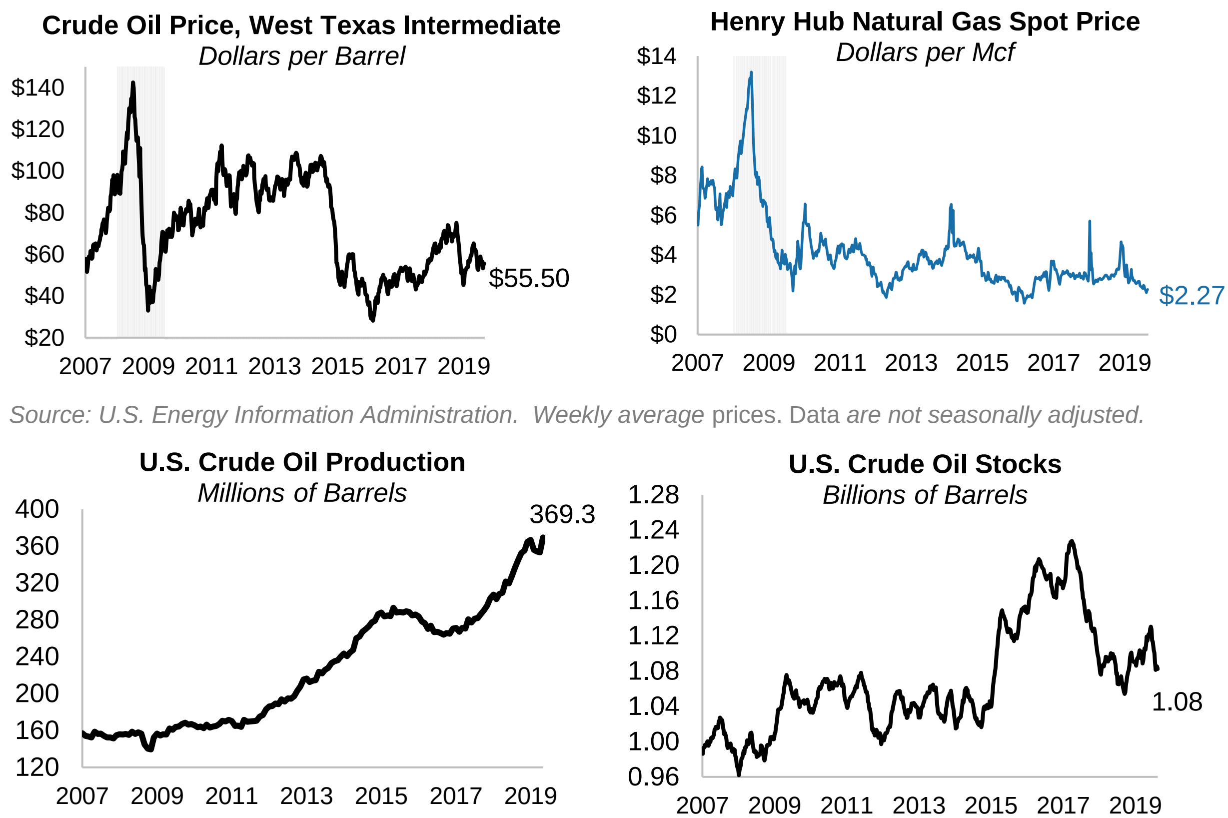
- Production efficiencies and weaker global demand are expected to continue maintaining downward pressure on energy prices during the forecast period, although geopolitical risks pose an upside risk to prices.

**Lower energy prices have not slowed production.** Crude oil prices have remained between $53 and $59 per barrel since June (Figure 19, top left), as weaknesses in the global economy continue to mount. Prices in the last week of August were $55.50 per barrel of West Texas Intermediate Crude, 18.5 percent lower than the same week last year. An attack on Saudi oil production facilities on September 14 posed what is expected to be the largest disruption to oil production in history. The attack caused oil prices to spike in the days following the attack; however, prices are expected to moderate as production facilities come back online. Despite relatively lower oil prices, U.S. oil producers continue to increase oil production. The Energy Information Administration estimates that crude oil production in the U.S. in May 2019 was 14.8 percent higher than crude oil production in May 2018 (Figure 19, bottom left).

The oil industry cut costs and increased efficiency in 2015 and 2016, leading to cheaper costs of production per barrel of oil. New technologies and advances in drilling techniques have resulted in lower costs for producing oil in the geology of the Permian basin in western Texas and eastern New Mexico, which is responsible for most of the new production. The lower costs of production and higher volume have insulated oil producers from fluctuating oil prices and have driven investment in pipeline and refining capacity. Refinery capacity set a record on January 1, 2019, as refineries have retooled their equipment to process domestically produced crude oil.

Natural gas production increased for the 26th consecutive month in June 2019, according to the Energy Information Administration, despite Henry Hub natural gas prices remaining below $2.50 per million BTU (Figure 19, top right). Increased demand from residential, commercial, and electricity generation customers drove production increases. After overtaking coal as the largest source of electricity, the Energy Information Administration estimates that natural gas made up 35 percent of the electricity generated in 2018.

**Figure 19**
**Selected Indicators of Oil and Gas Industry Activity**



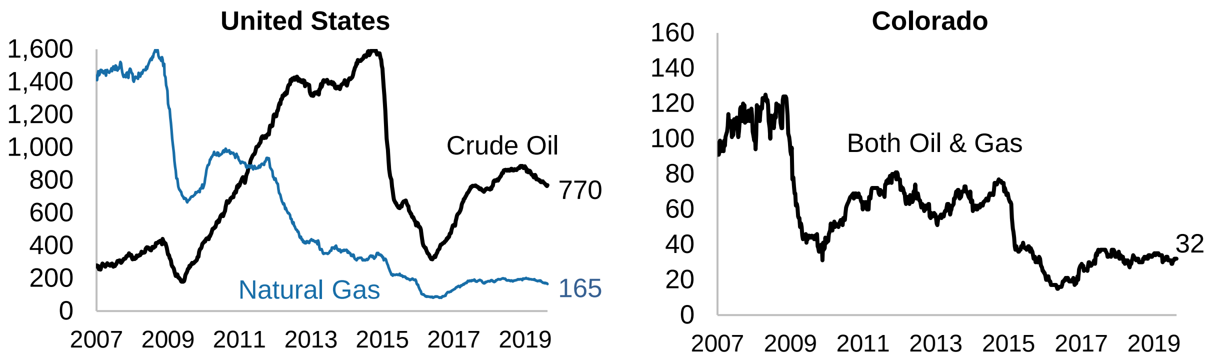

*Source: U.S. Energy Information Administration. Weekly average prices. Data are not seasonally adjusted.*

*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.*

New drilling activity, as measured by active drilling rigs (Figure 20, left), declined 13.0 percent between the end of 2018 and the third week of August 2019, with a total of 770 oil rigs and 165 natural gas wells. While the number of active drilling wells declined, new wells may still be coming online. According to the Energy Information Administration, the number of drilled but uncompleted wells has been rising since 2016. These wells still need casing, cementing, perforating, or hydraulic fracturing performed, but due to a lack of economic incentives, such as a lack of well completion crews in areas of high demand, the inability to transport new production to market, and low oil prices, completion has been postponed.

**Figure 20**
**Active Rig Counts**




*Source: Baker Hughes. Data are not seasonally adjusted.*

**Colorado energy activity**. Drilling activity has been more stable in Colorado than the nation as a whole, as 32 active drilling rigs in the third week of August represent a decline of 2 rigs since the end of 2018. Despite a modest number of drilling rigs, Colorado crude oil production continues to increase. The Energy Information Administration estimates that crude oil production per well in the Niobrara formation, which includes Colorado, increased from fewer than 200 barrels per day in 2010 to nearly 1,200 barrels per day in 2019. New wells are more efficient due to the use of hydraulic fracturing and horizontal drilling.

A survey of oil producers in the Tenth District of the Federal Reserve, which includes Colorado, reported modestly higher expectations for the regional oil sector's business conditions. Firms anticipated more activity in the second quarter over the first quarter of 2019. They also reported lower expectations for firm profits and less hiring activity over the next 12 months as prices seem to have settled into their current range. Firms report an oversupply of natural gas, and the need for new natural gas infrastructure before firms will make significant investments in natural gas development.

## Housing & Residential Construction

The national residential real estate market remains stable, but growing affordability concerns, stemming from rising construction costs, a shortage of skilled labor, and a lack of buildable lots, remain a challenge despite falling prices and lower mortgage rates. Similar to the nation, Colorado's real estate market began to cool in 2018, particularly in the Metro Denver area. However, the market has been steadily picking up momentum through the second quarter of the year, albeit at a slower pace compared with recent years.

- Following high levels of new activity, Colorado housing permits are expected to remain elevated, but fall 12.7 percent in 2019 and decline an additional 3.2 percent in 2020.

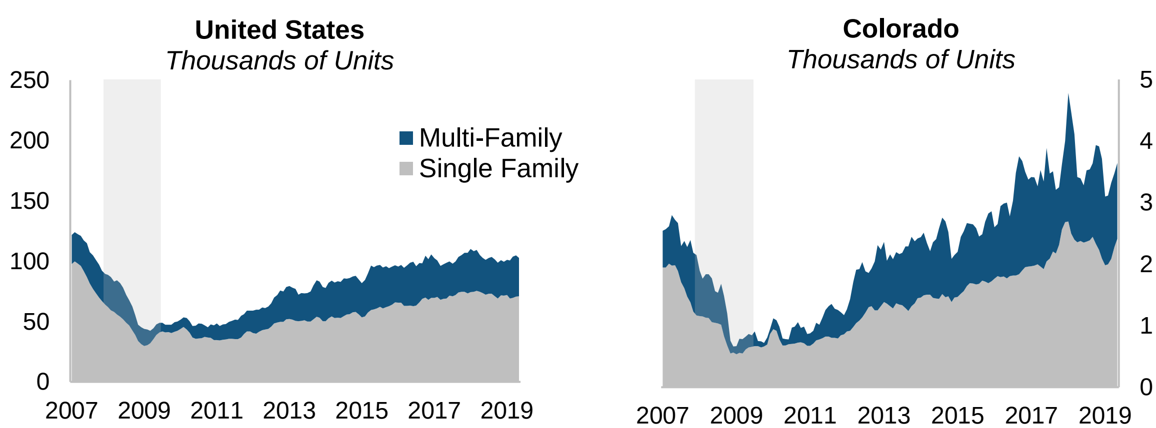
- Home prices in Colorado are expected to stabilize overall, with some softening in the most expensive areas of the state, offsetting home price appreciation in more affordable regions.

**The U.S. housing market remains stable, but a lack of affordable housing continues to hinder growth.** The U.S. housing market weakened at the end in 2018 (Figure 21, left), as rising interest rates added to already growing affordability concerns. With the Federal Reserve's recent policy shift on interest rates, the national residential real estate market has steadied. Homebuilders continue to report strong demand for new housing fueled by a strong labor market and steady income growth, but a lack of entry-level housing inventory continues to hinder the housing market. High construction costs from ongoing labor and lot shortages and rising material costs are making it more difficult to profit on lower-priced homes. As a result, most of the building encompasses the move-up and high-end levels, not the entry-level where demand is strongest.

**Data suggest that the U.S. housing market is going through a transitional period.** Amid a supply-demand imbalance and strengthening demand for more affordable homes, homebuilders have discounted prices and are shifting toward more entry-level construction. The median sales price of houses sold in the country was $312,800 in July 2019, down from $327,500 from the same period one year earlier. Although housing inventory has ticked up slightly this year, the pace has not been fast enough to balance out the supply and demand equation.

**Homebuilder confidence remains high despite falling prices.** In August, the Housing Market Index, a monthly survey designed to take the pulse of residential builder confidence, reported a reading of 66. A reading above 50 indicates a favorable outlook on home sales, while below 50 indicates a negative outlook. The August reading is at its highest level since October 2018. Lower interest rates, a strong labor market, and rising wages have contributed to the improvement in the national residential real estate market.

**Figure 21**
**New Residential Construction Housing Starts**

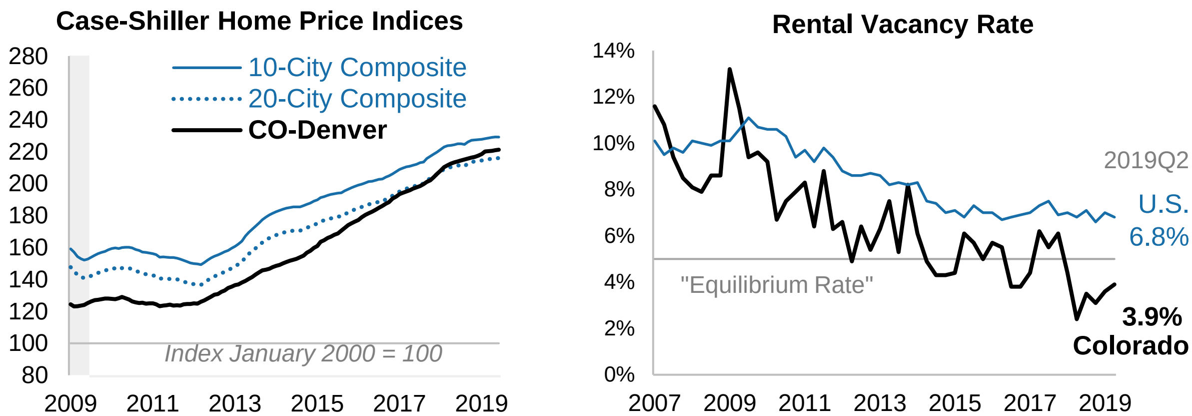



*Source: U.S. Census Bureau. Data shown as three-month moving averages. Data are seasonally adjusted.*

**Colorado's residential real estate market continues to balance out.** Colorado's residential real estate market started to soften in 2018 after several years of robust growth. The Case-Schiller CO-Denver home price index showed a 4.2 percent price increase in March 2019 relative to the same period last year, representing a deceleration from the 8.5 percent increase posted in March 2018 (Figure 22, left). Lower interest rates, historically low rental vacancy rates (Figure 22, right), moderating price increases, and an increase in supply are supporting activity in the Colorado real estate market. In May

2019, the average 30-year fixed mortgage rate dipped below 4 percent, after almost reaching 5 percent earlier this year. In addition, there were 8,789 new listings in May 2019, up 38.1 percent from the previous year, according to the Denver Metro Association of Realtors. The lower borrowing costs and stabilizing price appreciation are making it easier for buyers to purchase a home in most areas of the state. The market is expected to pick up momentum, although activity will be slower than in recent years.

**Figure 22**
**U.S. and Colorado Shelter Price Indicators**




*Source: S&P Dow Jones Indices LLC. Seasonally adjusted. Data through May 2019.*

*Source: U.S. Census Bureau. Data through the second quarter of 2019.*

## Nonresidential Construction

U.S. nonresidential construction activity continued at a healthy pace through July of 2019. While both public and private sector investments contributed to improvements, spending on private sector projects continues to slow. Total U.S. nonresidential construction spending declined 2.7 percent from the same period last year. Colorado's nonresidential construction market is performing at elevated levels, and growth is spreading to most areas of the state. Prior to 2018, growth had been mainly restricted to the metro Denver and northern regions of the state. Several large projects have started in 2019 that will continue to support nonresidential construction activity.

- Coming off several large-scale projects in 2018, nonresidential construction in Colorado is expected to decline 39.6 percent in 2019, before increasing 8.1 percent in 2020. Despite the decline, activity will remain elevated relative to historical levels.

**Public sector construction spending has been particularly strong.** Nationally, public sector investment has been driving growth in the nonresidential construction market. Year-to-date through July, the largest year-over-year increases have been in sewage and waste disposal, public safety, and commercial projects. A strong U.S. economy has given many states a budget surplus for the first time in years, allowing them to invest in more public projects.

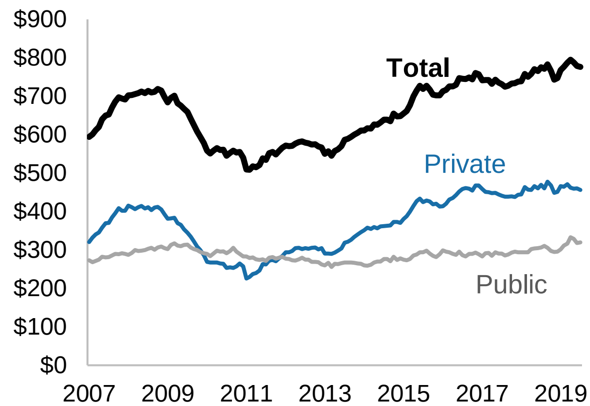
**Private investment remains near historic levels but has been decelerating.** Total U.S. investment in private nonresidential projects remains near historic highs, but is growing at a slower rate relative to prior years. Investment in private projects has been recently constrained as private borrowing costs have increased and concerns are rising that some areas in the country are overbuilt or are approaching overbuilt status.

**Colorado nonresidential construction is expected to continue at elevated levels.** After posting an impressive 23.3 percent year-over-year gain in 2018, total nonresidential construction spending in Colorado is down through July 2019. Much of the growth in 2018 was attributable to a large capital investment project in Weld County. The Mewbourn 3 natural gas processing plant will be the tenth plant in the Denver-Julesberg basin and will connect to the Front Range pipeline. Other notable project starts in 2018 included phase one of the Denver International Airport Great Hall Renovation, redevelopment of the National Western Center, and the I-70 expansion.

Major nonresidential construction projects scheduled to start in 2019 include the Colorado Convention Center expansion and several building projects on the National Western Center campus. In addition, a total of $1.5 billion in school district bonds was approved in November 2018, with about one-third expected to appear in the 2019 nonresidential construction numbers.

**Price effects suggest downside risk.** Players in the nonresidential construction market are monitoring recently imposed tariffs on steel and aluminum that are expected to inflate construction material prices over the next several months. In addition, wage pressures and rising material costs are putting upward pressure on the price of new construction projects.

**Figure 23**
**U.S. Nonresidential Construction Spending**
*Billions of Dollars*




*Source: U.S. Census Bureau. Monthly data are seasonally adjusted, annualized, and through July 2019.*

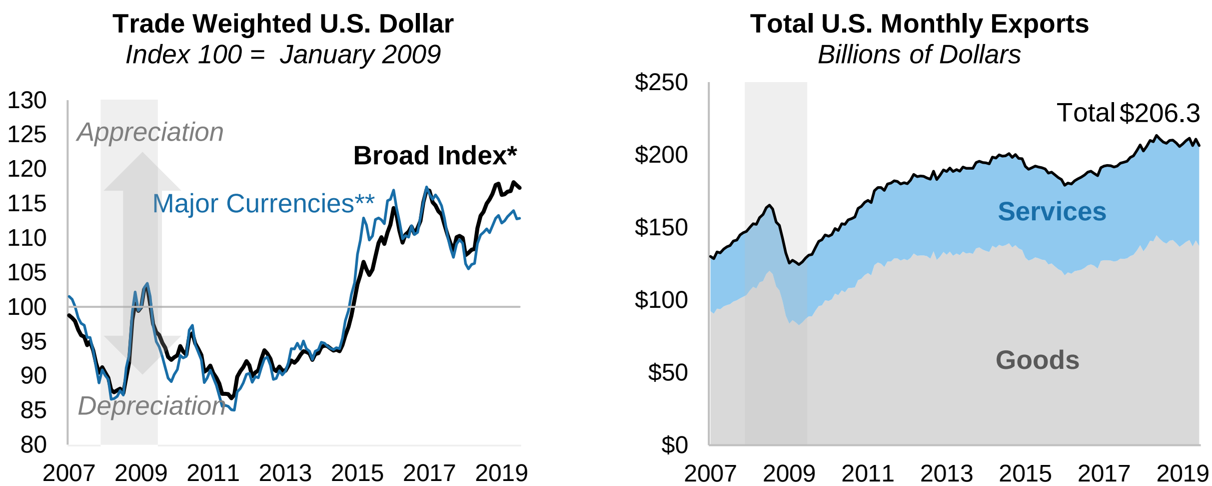
In both the U.S. and Colorado, construction contractors continue to cite labor constraints as a major impediment to growth in the industry. If costs and labor shortages increase too quickly, momentum in the industry may slow significantly. According to a recent survey from the Associated General Contractors of America, the overwhelming majority of construction firms are having a hard time finding qualified workers. Nearly 92 percent of the 88 construction firms surveyed reported that they needed to hire additional skilled craft workers, while 79 percent said they needed additional salaried office personnel over the coming 12 months.

## Global Economy

Economic growth across the world continues to slow. Many advanced economies are suffering from contractions in manufacturing and trade activity, as well as inflation low enough to induce central banks to impose negative interest rates. Trade uncertainty continues to cut into investment and spending decisions at the global level as well, contributing to lower global growth forecasts. Risks to the global economic outlook tend to the downside, with no resolution to the trade tensions in sight.

**U.S. dollar strengthens on weakening global economy**. Growth in other advanced economies is weaker than in the U.S., with several central banks setting negative interest rates and considering quantitative easing strategies. With bond yields higher, investors flock to the dollar and U.S. Treasury bonds, which are considered safe havens in times of economic uncertainty. A strong dollar, especially when paired with other weakening currencies like the Chinese yuan, makes U.S. exports less competitive, further exacerbating international trade woes (Figure 24).

**Figure 24**
**Selected Indicators of U.S. Trade Activity**




*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.*

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

**The IMF lowered its forecast for the fourth consecutive time**. The International Monetary Fund (IMF) decreased its expectations for global growth to 3.2 percent growth in 2019, before picking up to 3.5 percent in 2020. Projected growth for 2019 was reduced by 0.7 percentage points from 3.9 percent in the July 2018 outlook on sluggish growth in advanced economies. Euro area expectations softened to 1.3 percent growth in 2019, due to reduced external demand for German exports and Italian political uncertainty. The bright spot in the global economy is in Southeast Asia, which has largely benefitted from the U.S. – China trade tensions.

**Global manufacturing output suffers under trade tensions**. The manufacturing sectors in Germany, the United Kingdom, Japan, South Korea, and the U.S. have contracted. Contractions have been led by tariffs on intermediate goods and raw materials, as well as broad political uncertainty in Europe. Manufacturing in South Korea and Germany relies on exports, which comprise over 40 percent of total GDP in both countries. South Korea's economy contracted in the first quarter of the year, while Germany's contracted in the second. A dip in manufacturing activity is often a leading indicator of an economic downturn or recession; however, the ongoing trade tensions make it difficult to discern transitory versus structural causes of the slowdown.

**Trade tensions creating growth tradeoffs in Asia**. China's manufacturing output has fallen to its lowest level in almost two decades in July, as it suffers from lower export demand due to trade tensions. U.S. imports from China are down 12.3 percent through July this year over the same period last year, while U.S. imports from Japan, South Korea, Vietnam, and Taiwan are growing faster during the same period than in 2018. In May, China lowered its growth expectation for 2019 to 6.0 to 6.5 percent, and is projected to grow by 6.2 percent by the end of the year. Despite the relatively fast rate of growth, it is down from 6.6 percent in 2018 and is the lowest rate of growth in almost three decades. China's slowdown can also be attributed to structural shifts in the economy, high levels of corporate debt, and lower government infrastructure investments.

**Political uncertainties downsizing growth prospects**. Across the globe, political uncertainties weigh heavily on economic growth. Brexit still looms large over the UK, Europe, and its trading partners. Italy has undergone several changes in leadership in the last year, threatening the stability of a country with flat growth expected in 2019 and with one of the highest debt to GDP ratios in the world, at 134 percent. A primary election and upcoming presidential election in Argentina may trigger yet another default on the country's external debt, which includes the 2018 IMF bailout of $57 billion – the largest ever awarded. In the second quarter, the UK contracted by 0.2 percent, Italy's growth was flat, and Argentina contracted by about 1.2 percent. A misstep, default, or recession in any of these countries could have spillover effects regionally or globally.

## International Trade

Trade between the U.S. and its largest trading partners remains on rocky ground. Tensions between the U.S. and China rose over the last several months, with the trade war between the world's two largest economies having no foreseeable end. The revised agreement between the three North American counties has still not been ratified by the U.S. Congress; however, a new bilateral trade deal was negotiated with Japan, staving off any possible auto tariffs on Japanese imports if signed.

**U.S. and China are doubling down on negotiation tactics, elevating tensions**. The U.S. and China ratcheted up tariffs in September, both in breadth and in depth. The U.S. placed tariffs on an expanded list of Chinese imports valued at about $122 billion on September 1, and have scheduled another round of tariffs on $160 billion in imports from China come December 15. These two rounds of tariffs cover consumer goods, like clothing, shoes, and toys, and result in almost 97 percent of all Chinese imports being tariffed. Additionally, the tariff rate for these two rounds was increased from 10 percent to 15 percent, while the rate for the $250 billion in already tariffed imports from China increased from 25 percent to 30 percent. China retaliated with a 5 percent tariff on U.S. oil exports, increased tariffs on soybeans, beef, and pork, and will reinstate the 25 percent tariff on auto imports. The average tariff on Chinese goods imported into the U.S. now sits at 21.2 percent, up from an average of 3.1 percent in 2017.

**Trade deals take center stage across the globe**. The U.S.-Mexico-Canada (USMCA) trade agreement, the potential replacement for the North American Free Trade Agreement, will likely be referred to Congress for a vote this fall. Mexico ratified the agreement in June, and it is still pending ratification in Canada. Myriad analyses of the economic impact of the USMCA are indeterminate and vary among negative, neutral, and positive; however, it will help to normalize trade relations between the three North American economies.

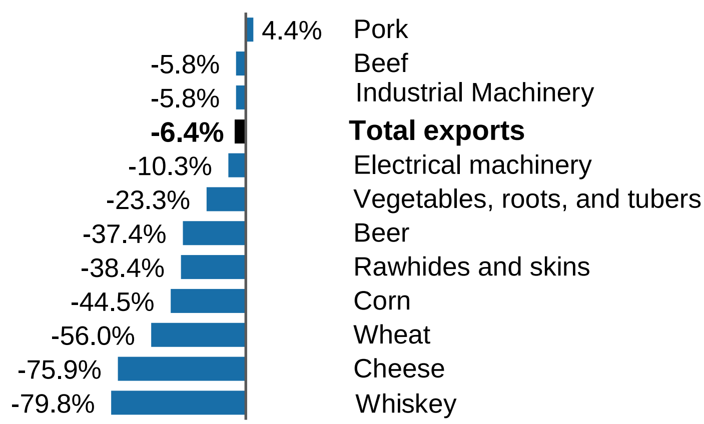
The U.S. and Japan agreed to a bilateral trade deal in August, which has yet to be signed. The agreement would keep U.S. auto tariffs in place, but not increase them, cut some auto parts and industrial tariffs, and Japan would allow U.S. agricultural products greater market access. Broadly, Japan agreed to cut tariffs on U.S. agricultural imports akin to what was outlined in the Trans-Pacific Partnership trade deal, which the U.S. did not sign. Japanese tariffs on U.S. beef will decrease from 38.5 percent to 9 percent, and tariffs on U.S. pork will decrease significantly as well. This will relieve some pressure on the U.S. agricultural industry, which has been targeted by China's retaliatory tariffs.

**Heating trade tensions resulting in a cooling of some economic activity**. The upheaval in international trade has caused trade activity to cool between the U.S. and China, Canada, and Mexico this year. U.S. exports to China are down 18.2 percent through July over the same period last year, after falling 7.4 percent in 2018. Exports to Canada and Mexico declined more modestly during the same period, by 2.9 percent and 1.9 percent, respectively, as some tariffs have been lifted.

The Federal Reserve estimated that the trade conflicts will have shaved almost 1.0 percent off of global GDP growth by the first half of 2020, while the Congressional Budget Office estimates a 0.3 percent drag on U.S. GDP growth by 2020. The new tariffs on consumer goods are expected to have a broader-based negative effect on the U.S. economy, since they will increase prices on consumer goods paid by companies, importers, and consumers alike. The Congressional Budget Office estimates that the cost of the tariffs to an average U.S. household will be about $580 by 2020.

**Colorado's agricultural exports have been hit hardest by trade tensions**. Relative to other states, Colorado's economy is not heavily dependent on the export of goods. That said, the industries targeted by retaliatory tariffs have felt negative impacts. Colorado's total exports are down 6.4 percent through July over year-ago levels, primarily in the manufacturing and agricultural sectors, as shown in Figure 25.

**Figure 25**
**Change in Colorado Exports**
*Year-over-Year Change, January through July 2019*




*Source: WISERtrade.*

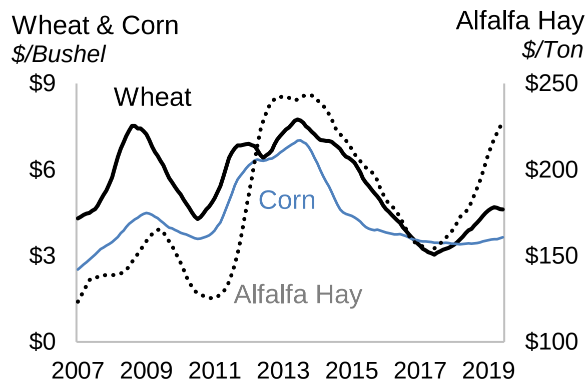
Supply chains have shifted over the last year as firms seek to avoid paying tariffs. U.S. importers have found other suppliers for some Chinese goods, while Chinese importers have sought new suppliers as well. The latter could leave some U.S. or Colorado producers and exporters with fewer market options in the future.

## Agriculture

Despite significant headwinds to the industry, there are a few bright spots on the horizon for Colorado's agricultural industry. Crop prices have made modest gains, and demand for beef and pork remains high. Lower agricultural exports from the state are a result of ongoing trade tensions and retaliatory tariffs, leaving some producers without immediate markets. Historically low prices for crops and higher input costs continue to put downward pressure on farm income.

**Prices are looking up for Colorado's primary crops**. Adverse weather conditions in much of the Corn Belt dampened the outlook for corn output and yields this year, giving a boost to corn prices, up 6.9 percent through June over the same period last year (Figure 26). Colorado corn producers stand to gain, as weather conditions in the state have been moderate this season. Alfalfa hay prices surged 25.7 percent through the first six months of the year compared with the same period in 2018, reaching their highest level in about six years. Domestic and international demand for Colorado beef and prior drought conditions both helped to fuel this rise. Wheat prices are up as well, although the increase is tempered by lower international demand due to tariffs and a strong dollar.

**Figure 26**
**Prices Received for Colorado Crops**



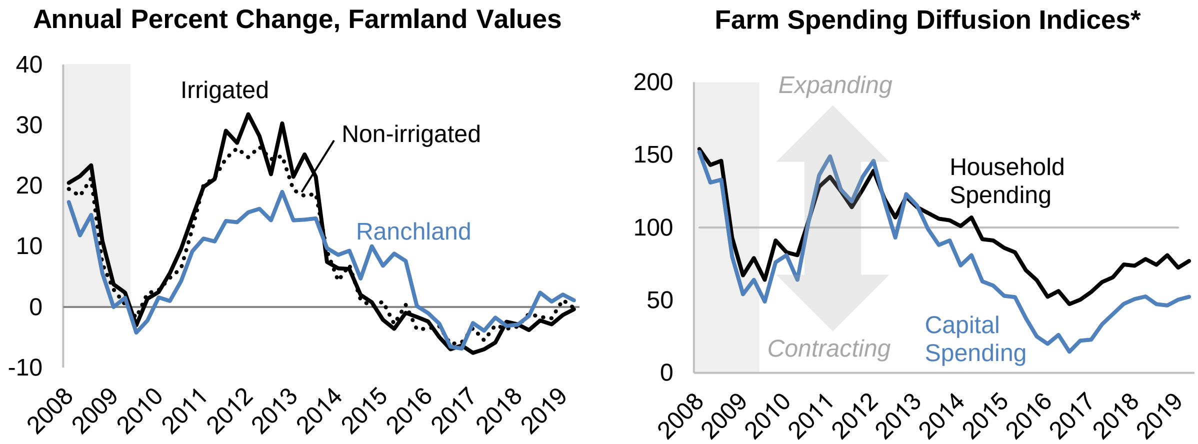

*Source: U.S. Department of Agriculture, National Agriculture Statistics Service. Data shown as a 12-month moving average through June 2019.*

**Livestock are plentiful and producing**. Both cattle marketings and the number of cattle and calves on feed in the state are up 9 percent through August this year over the same period last year. Milk production is up 4.9 percent in the second quarter of the year over 2018 second quarter levels, on a 17.5 percent price increase from July 2019 over July 2018. Total dairy cattle herds have declined in 2019, but production per cow is up, feeding increased domestic demand for milk products. Hog inventory is up 3 percent year-over-year through June; however, the pig crop is up 16 percent for the March-May period over the same period last year. The African swine fever ravaged the Chinese hog population, which is down 15 percent through June compared to last year, so international demand for U.S. pork has risen.

**The "green rush" is fueling hemp acreage**. Hemp production in the state has been growing exponentially, even before the U.S. federal government legalized the production of hemp in the country in the 2018 farm bill. Between 2017 and 2018 alone, registered hemp acres in the state increased by 257 percent, while registered indoor square feet doubled, according to the Colorado Department of Agriculture. As a nascent industry, many regulations and supply chain issues are being worked out while the industry grows, and federal U.S. Department of Agriculture data or widespread quality research are not yet available. Hemp producers in state will only be eligible for crop insurance in 2020, and hemp seeds are costly and vary widely in quality. The largest hemp processing plant in the country was just opened in southern Colorado, meeting the national and state need for additional processing capacity to keep up with the amount of hemp produced.

**Farm income prospects remain in contraction**. After years of consistent negative outlooks for farm income, second quarter prospects did not worsen. Crop prices and decent weather in the state helped improve the outlook this year. Farmland values remained steady across the Federal Reserve's Tenth District, while farm capital and household spending ticked up slightly, although still in contractionary territory (Figure 27). Second quarter bank deposits were up significantly over year-ago levels in the mountain states of the Tenth District, which include Colorado, northern New Mexico, and Wyoming, and far outpaced the district average. Tariffs and trade tensions continue to pressure the industry and farm income, with higher costs for inputs and uncertainty about the viability of certain export markets.

**Figure 27**
**Indicators of Agricultural Credit Conditions in the Federal Reserve's Tenth District**




*Source: Federal Reserve Bank of Kansas City, Quarterly Survey of Agricultural Credit Conditions. Data through the second quarter of 2019.*
**Values above 100 indicate expansion; values below 100 indicate contraction.*

**Lower export levels due to international trade conditions**. The ongoing trade tensions between the U.S. and its largest trading partners continue to squeeze agricultural producers. Exports of several of Colorado's primary agricultural goods are down through July this year over the same period last year, as shown in Figure 23 on page 57. The Market Facilitation Program provides financial assistance to producers affected by the tariffs, although the median Colorado county payment rate is $22 per acre in the possible range of $15 to $150 per acre. The U.S. Department of Agriculture authorized a total of $14.5 billion to be distributed in 2019; however, many producers say the payments do not offset all lost revenue caused by trade tensions.

## Summary

Despite stronger headwinds, the outlook for economic growth in 2019 remains positive. Low unemployment, rising wages, and moderate consumer spending are sustaining the economic expansion. Weaker demand for U.S. exports of manufactured and agricultural goods has led to a contraction in manufacturing output and decreased exports in 2019. Business confidence has also waned in recent months with a tight labor market, rising tariffs, and continued global economic uncertainty hindering business investment and profits. Lower interest rates and higher wages are helping to maintain demand for housing along the Front Range, but a lack of construction workers, a shortage of affordable housing, and increased input costs pose challenges to the state's construction and real estate industries.

Economic growth in the U.S. and Colorado is expected to slow further in 2020 and 2021 on increasing headwinds from a tighter labor market. Several leading business and financial indicators highlight an elevated risk of recession during the forecast period, clouding the outlook.

### Risks to the Forecast

Several factors could result in stronger or weaker economic activity than forecast. These risks are viewed as skewed to the downside, with an elevated risk of recession, for the remainder of the forecast period.

**Downside**. With an increase in media coverage of a possible recession, U.S. businesses and consumers may lose confidence in future economic conditions, contributing to a slowdown or downturn. Broad-based uncertainty regarding international trade policy and geopolitical risks could hamper capital expenditures and business investments more than expected in coming months. Outside of U.S. trade negotiations, political uncertainties surrounding Brexit, and political crises in Italy, Hong Kong, and Iran pose a threat to more expansive global economic growth should uncertainty or political crises result in recessions abroad or should they contaminate global financial markets.

The low-interest-rate environment of the last decade generated significant demand for corporate and government-held debt in many countries. These debts become more onerous to service during economic slowdowns or downturns. Corporate and sovereign debt defaults could result in contagion effects that spread through the global financial system.

**Upside**. Resolution to trade policy uncertainty or an uptick in global economic activity could enable stronger growth than expected during the forecast period. A permanent resolution or cease-fire in the exchange of tariffs with China may boost businesses confidence, spurring investment decisions. Likewise, an agreement between the United Kingdom and European Union regarding Brexit negotiations may calm global economic nerves. In the U.S., additional monetary easing or fiscal policy stimulus could also boost near-term growth above expectations.

**Table 16**
**National Economic Indicators**

| Calendar Years | 2014 | 2015 | 2016 | 2017 | 2018 | Legislative Council Staff Forecast 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|
| Real GDP (*Billions*)[1] | $16,912 | $17,404 | $17,689 | $18,108 | $18,638 | $19,048 | $19,391 | $19,701 |
| Percent Change | 2.5% | 2.9% | 1.6% | 2.4% | 2.9% | 2.2% | 1.8% | 1.6% |
| Nonfarm Employment (*Millions*)[2] | 138.9 | 141.8 | 144.3 | 146.6 | 149.1 | 151.3 | 152.8 | 153.7 |
| Percent Change | 1.9% | 2.1% | 1.8% | 1.6% | 1.7% | 1.5% | 1.0% | 0.6% |
| Unemployment Rate[2] | 6.2% | 5.3% | 4.9% | 4.4% | 3.9% | 3.7% | 4.0% | 4.5% |
| Personal Income (*Billions*)[1] | $14,991.7 | $15,717.8 | $16,121.2 | $16,878.8 | $17,819.2 | $18,692 | $19,552 | $20,315 |
| Percent Change | 5.7% | 4.8% | 2.6% | 4.7% | 5.6% | 4.9% | 4.6% | 3.9% |
| Wage and Salary Income (*Billions*)[1] | $7,475.2 | $7,856.7 | $8,083.5 | $8,462.1 | $8,888.5 | $9,368 | $9,809 | $10,182 |
| Percent Change | 5.1% | 5.1% | 2.9% | 4.7% | 5.0% | 5.4% | 4.7% | 3.8% |
| Inflation[2] | 1.6% | 0.1% | 1.3% | 2.1% | 2.4% | 1.8% | 2.1% | 2.0% |

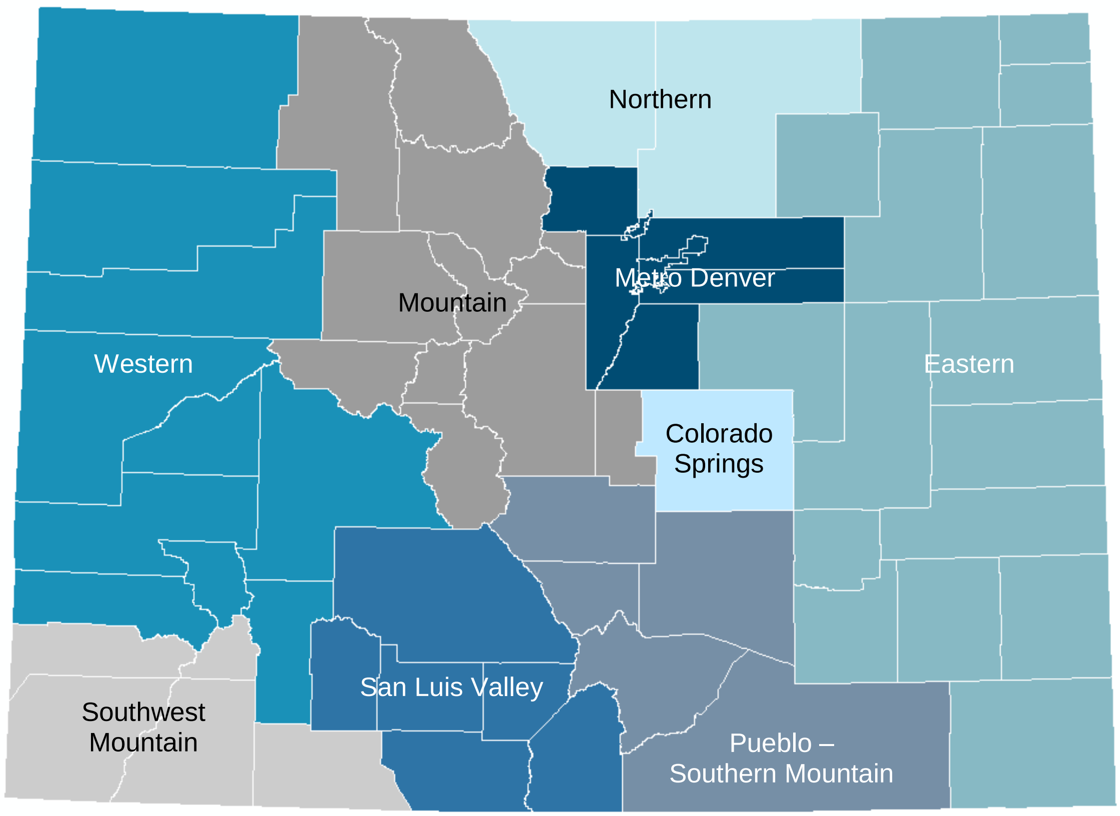
*Sources*
*[1]U.S. Bureau of Economic Analysis. Real gross domestic product (GDP) is adjusted for inflation. Personal income and wages and salaries not adjusted for inflation.*
*[2]U.S. Bureau of Labor Statistics. Inflation shown as the year-over-year change in the consumer price index for all urban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

**Table 17**
**Colorado Economic Indicators**

| Calendar Years | 2014 | 2015 | 2016 | 2017 | 2018 | Legislative Council Staff Forecast 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|
| Population (*Thousands, as of July 1*)[1] | 5,351.2 | 5,452.1 | 5,540.9 | 5,615.9 | 5,695.6 | 5,775.3 | 5,850.4 | 5,926.4 |
| Percent Change | 1.5% | 1.9% | 1.6% | 1.4% | 1.4% | 1.4% | 1.3% | 1.3% |
| Nonfarm Employment (*Thousands*)[2] | 2,463.5 | 2,540.8 | 2,601.5 | 2,660.6 | 2,725.4 | 2,777.2 | 2,807.7 | 2,830.2 |
| Percent Change | 3.5% | 3.1% | 2.4% | 2.3% | 2.4% | 1.9% | 1.1% | 0.8% |
| Unemployment Rate[2] | 5.0% | 3.8% | 3.2% | 2.7% | 3.3% | 3.3% | 3.7% | 4.1% |
| Personal Income (*Millions*)[3] | $271,101 | $284,143 | $289,621 | $306,411 | $323,729 | $341,857 | $359,634 | $376,537 |
| Percent Change | 8.9% | 4.8% | 1.9% | 5.8% | 5.7% | 5.6% | 5.2% | 4.7% |
| Wage and Salary Income (*Millions*)[3] | $138,585 | $146,487 | $150,977 | $160,372 | $168,707 | $178,661 | $188,130 | $196,784 |
| Percent Change | 7.0% | 5.7% | 3.1% | 6.2% | 5.2% | 5.9% | 5.3% | 4.6% |
| Housing Permits (*Thousands*)[1] | 29.3 | 30.4 | 36.9 | 41.0 | 47.0 | 41.0 | 39.3 | 38.5 |
| Percent Change | 7.5% | 4.0% | 21.2% | 11.2% | 14.6% | -12.7% | -4.2% | -2.0% |
| Nonresidential Building (*Millions*)[4] | $4,351 | $4,690 | $5,992 | $6,167 | $7,960 | $4,808 | $5,197 | $5,046 |
| Percent Change | 20.1% | 7.8% | 27.8% | 2.9% | 29.1% | -39.6% | 8.1% | -2.9% |
| Denver-Aurora-Lakewood Inflation[5] | 2.8% | 1.2% | 2.8% | 3.4% | 2.7% | 1.8% | 1.9% | 1.9% |

*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.*
*[3]U.S. Bureau of Economic Analysis. Personal income and wages and salaries not adjusted for inflation.*
*[4]F.W. Dodge.*
*[5]U.S. Bureau of Labor Statistics. Inflation shown as the year-over-year change in the consumer price index.*
*Note: Legislative Council Staff has discontinued the Colorado retail trade forecast due to data limitations.*

## 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.

Like the employment data, residential housing permits and agriculture data are also based on surveys. These data are revised periodically. 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

Colorado's largest regional economy, the seven-county metro Denver region, continues to expand in spite of growing labor shortages and a clear slowdown in construction activity. The region is characterized by a strong, diversified economy, with growing sector concentrations in information technology and finance. Home price appreciation continues to moderate in the area, as supply and demand are coming into balance and potential buyers are seeking more affordable options elsewhere. While the labor market continues to improve, labor shortages in a growing number of sectors threaten the outlook for the region. Economic indicators for the region are summarized in Table 18.

**Table 18**
**Metro Denver Region Economic Indicators**
Adams, Arapahoe, Broomfield, Boulder, Denver, Douglas, and Jefferson Counties

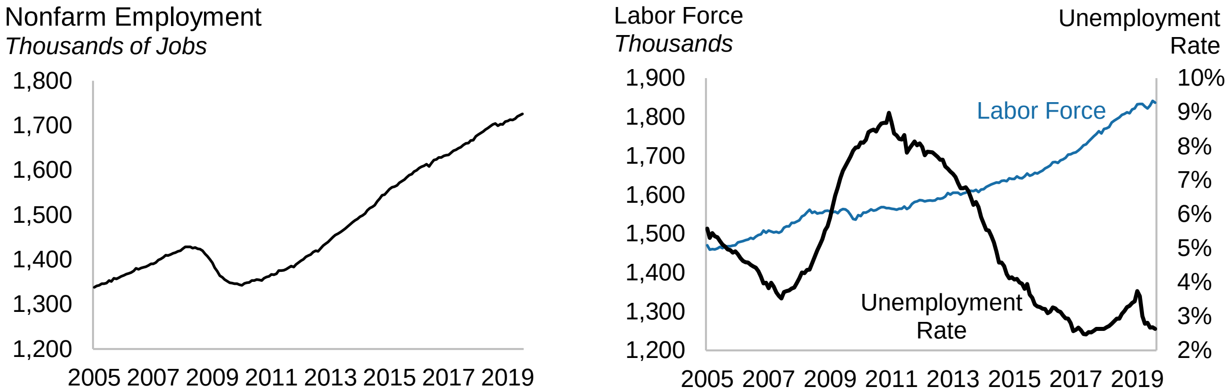
| | 2015 | 2016 | 2017 | 2018 | YTD 2019 |
|---|---|---|---|---|---|
| Employment Growth[1] | 3.1% | 2.3% | 1.9% | 2.4% | 1.8% |
| Unemployment Rate[2] | 3.6% | 3.0% | 2.6% | 3.1% | 2.9% |
| Housing Permit Growth[3] | | | | | |
| Denver-Aurora MSA Single Family | 17.8% | 12.2% | 3.8% | 24.2% | -12.3% |
| Boulder MSA Single Family | 74.2% | 10.2% | -4.3% | 33.5% | -10.6% |
| Nonresidential Construction Growth[4] | | | | | |
| Value of Projects | 25.6% | 27.6% | -10.4% | 41.4% | -37.2% |
| Square Footage of Projects | 43.6% | 6.9% | -13.4% | -18.7% | -22.8% |
| Level (*Millions*) | 21,170 | 22,624 | 19,596 | 15,934 | 6,984 |
| Number of Projects | 20.7% | 9.8% | -23.9% | -20.2% | -30.5% |
| Level | 1,130 | 1,241 | 944 | 753 | 333 |

MSA = Metropolitan statistical area.
[1]U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through July 2019.
[2]U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through June 2019.
[3]U.S. Census. Growth in the number of residential building permits. Data through July 2019.
[4]F.W. Dodge. Data through July 2019.

**Labor market.** Regional employment data are subject to ongoing revisions. Current published data for the metro Denver region suggest that the number of jobs in the area increased 1.8 percent through the first seven months of 2019 compared with the same period last year (Figure 28, left). The metro Denver labor market continues to tighten on slowing net migration and a shortage of skilled labor, slowing employment growth. The area unemployment rate averaged 2.9 percent year-to-date through July (Figure 28, right), reflecting slowing labor force and employment growth consistent with a late stage economic expansion.

**Housing.** Regional residential construction activity has shown clear signs of a slowdown, with both single and multi-family housing construction cooling in 2019 from elevated levels over the past two years (Figure 29, left). The relatively high cost of housing in the metro Denver region has dampened interest among many possible buyers, while labor and land shortages have also constrained activity.

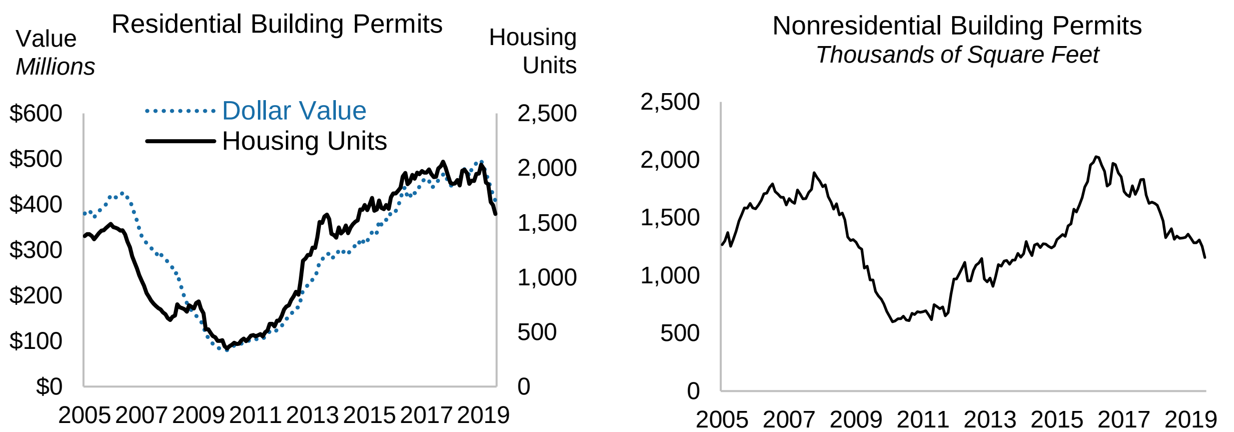
**Figure 28**
**Metro Denver Region Labor Market Activity**




Source: U.S. Bureau of Labor Statistics; CES (left), and LAUS (right). Data are through July 2019 and are seasonally adjusted. Data prior to 2010 adjusted by Legislative Council Staff.

**Nonresidential construction.** After peaking in 2016, metro Denver nonresidential building activity continues to moderate further. The square footage (Figure 29, right) and number of projects have fallen at double-digit rates through July 2019, relative to prior-year levels. The value of construction jumped in 2018 primarily from several large projects that started in the year, such as the Denver International Airport concourse expansion project and the National Western Stock Show redevelopment. The absence of similar projects explains most of the decline in 2019 to date. The value of construction of hospitals and health treatment centers, manufacturing buildings, and hotel and motels led growth in the region, partially offsetting declines elsewhere.

**Figure 29**
**Metro Denver Region Construction Activity**



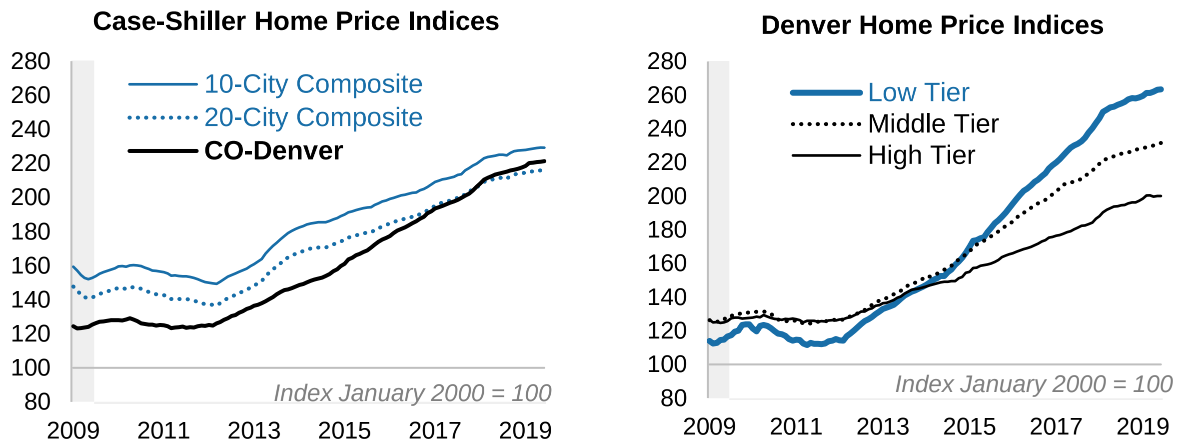

Source: F.W. Dodge. Data shown as twelve-month moving averages. Data are not seasonally adjusted and are through July 2019.

**Regional home prices.** Figure 30 compares growth in home price indices for the U.S., Colorado, and major metropolitan areas of the state. Home price appreciation has moderated in recent months in the metro Denver area on a growing supply of homes and as potential home buyers are establishing price ceilings by walking away from potential purchases, especially for middle- and high-tier homes (Figure 30, right and left). According to regional data published by the Federal Housing Finance Agency, quarter-over-quarter gains have slowed more in the higher cost areas of the state, including

Denver, Boulder, and Fort Collins metro areas, while other less expensive areas of the state, including Colorado Springs and Grand Junction metro areas, continue to rise at a faster pace (Figure 30, bottom).

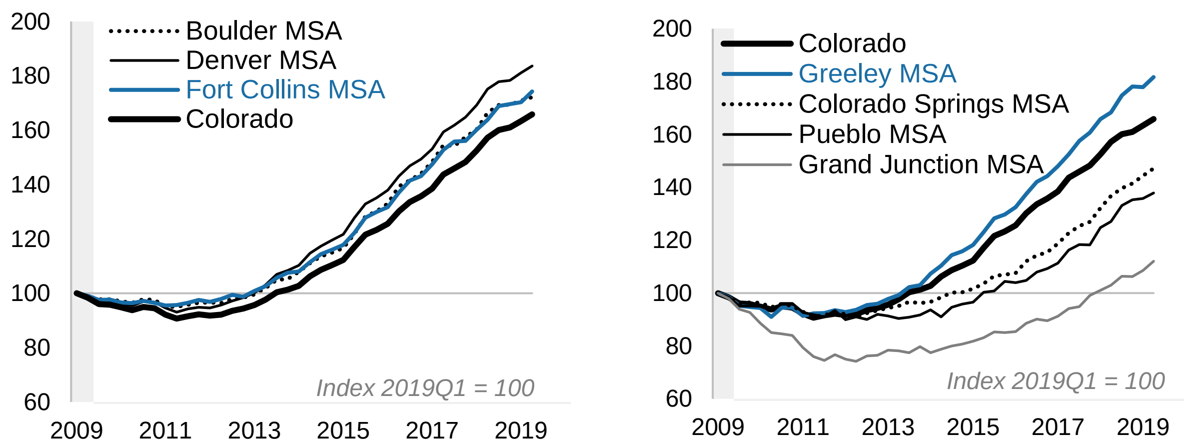
**Figure 30**
**Metro Denver Region Home Price Indices**

**Case-Shiller Home Price Indices**




Source: S&P Dow Jones Indices LLC (Case-Shiller Home Price Index). Data are seasonally adjusted and through June 2019.

**FHFA Home Price Indices: Regional Comparisons**




Source: U.S. Federal Housing Finance Agency (FHFA). Data are through the second quarter of 2019.
MSA = Metropolitan statistical area.

## Northern Region

The Northern region is comprised of Weld and Larimer counties, which experience different economic dynamics. The economic forces of Fort Collins generally drive the Larimer County economy, while Weld County has a major agricultural presence and is the center of Colorado's oil and gas sector. The region's economy continues to experience healthy employment gains, a low unemployment rate, and a rising demand for housing. Table 19 shows economic indicators for the northern region.

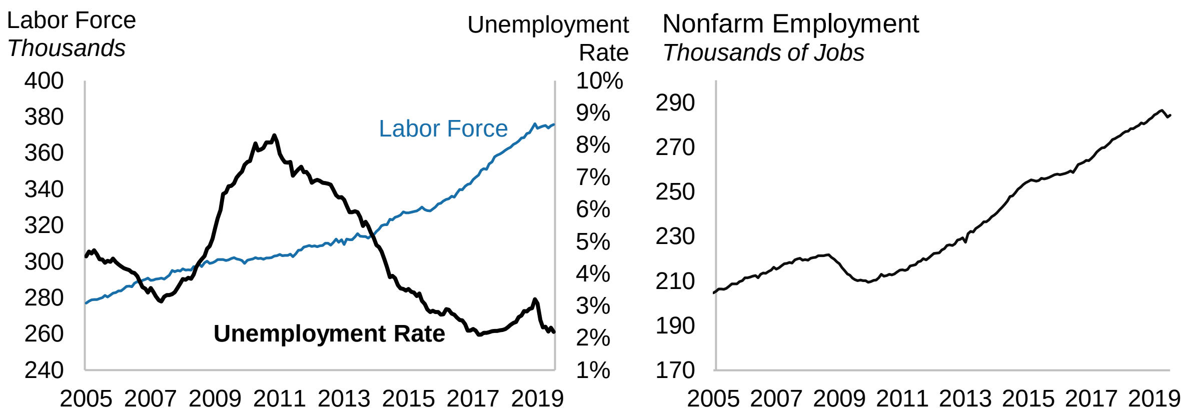
**Table 19**
**Northern Region Economic Indicators**
Weld and Larimer Counties

| | 2015 | 2016 | 2017 | 2018 | YTD 2019 |
|---|---|---|---|---|---|
| Employment Growth[1] | | | | | |
| Fort Collins-Loveland MSA | 4.0% | 3.8% | 3.7% | 2.7% | 2.4% |
| Greeley MSA | -0.2% | -0.3% | -0.4% | 2.4% | 2.7% |
| Unemployment Rate[2] | | | | | |
| Fort Collins-Loveland MSA | 3.3% | 2.8% | 2.3% | 2.8% | 2.6% |
| Greeley MSA | 3.8% | 3.3% | 2.6% | 3.0% | 2.7% |
| State Cattle and Calf Inventory Growth[3] | -4.4% | 1.0% | 6.7% | 2.6% | 7.7% |
| Natural Gas Production Growth[4] | 44.3% | 14.6% | 5.6% | 18.9% | 19.5% |
| Oil Production Growth[4] | 39.4% | -7.3% | 13.5% | 36.0% | 7.6% |
| Housing Permit Growth[5] | | | | | |
| Fort Collins-Loveland MSA Total | -8.1% | 47.9% | -44.4% | -1.5% | 69.2% |
| Fort Collins-Loveland MSA Single Family | 1.3% | -2.9% | 78.0% | 21.3% | 4.2% |
| Greeley MSA Total | -3.5% | -7.8% | -11.8% | 47.0% | -18.8% |
| Greeley MSA Single Family | 3.8% | -9.9% | 62.5% | 38.2% | 47.3% |
| Nonresidential Construction Growth[6] | | | | | |
| Value of Projects | 32.7% | 1.8% | 29.2% | 65.3% | -86.1% |
| Square Footage of Projects | 19.8% | -14.8% | 17.8% | -25.9% | -38.8% |
| Level (*Thousands*) | 3,983 | 3,393 | 3,996 | 2,960 | 998 |
| Number of Projects | -3.9% | 11.7% | 2.5% | 13.0% | -25.0% |
| Level | 248 | 277 | 284 | 321 | 138 |

MSA = Metropolitan statistical area.
[1]U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through July 2019.
[2]U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through July 2019.
[3]National Agricultural Statistics Service. Cattle and calves on feed through June 2019.
[4]Colorado Oil and Gas Conservation Commission. Data through April 2019.
[5]U.S. Census Bureau. Growth in the number of residential building permits. Data through July 2019.
[6]F.W. Dodge. Data through July 2019.

**Labor market.** The region's labor market continues to grow faster than the state as a whole. Employment growth in the Fort Collins-Loveland metropolitan statistical area (MSA) increased 2.4 percent through July 2019 over year-ago levels. Employment growth has slowed for the past five years due to a tight labor market and difficulty finding new employees in an area with a low unemployment rate. Employment growth in the Greeley MSA has accelerated to 2.7 percent through July 2019 due to increased oil prices and the resulting rebound in the energy sector. Area unemployment is stable with the average year-to-date Fort Collins-Loveland MSA unemployment rate at 2.6 percent and the Greeley MSA at 2.7 percent, both below the statewide unemployment rate of 3.6 percent for the same period. Figure 31 shows employment trends for the northern region metro areas.

**Figure 31**
**Northern Region Labor Market Activity**

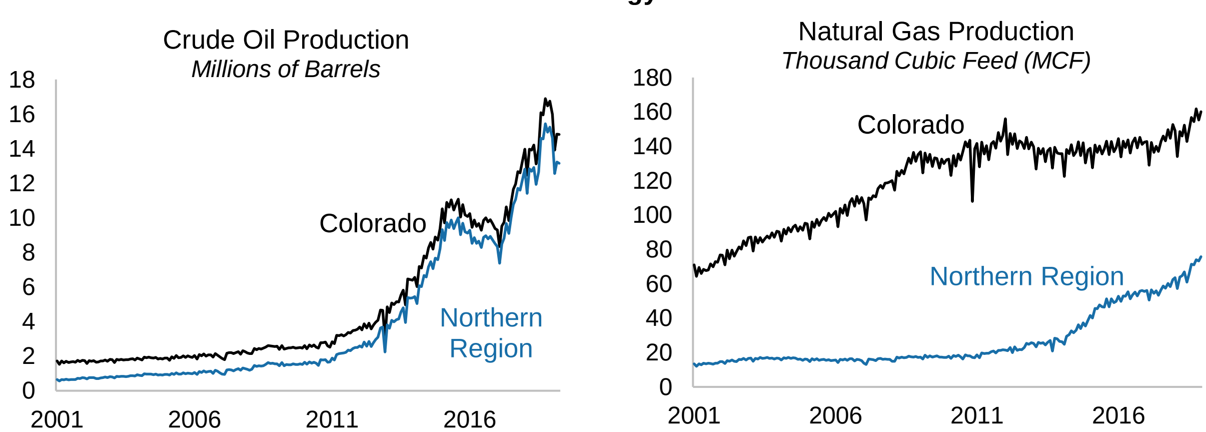



Source: U.S. Bureau of Labor Statistics; CES. Data are seasonally adjusted and are through July 2019.

**Agriculture.** The northern region produces about a quarter of the value of Colorado's agricultural products due in large part to the livestock industry in Weld County. Despite tariffs on agricultural commodities and the reshuffling of global supply chains, the number of cattle and calves on feed increased 7.7 percent year-to-date through June 2019 over year-ago levels. Drought conditions in 2018 reduced forage on grazing land, increasing the demand for hay to feed cattle herds. The price of a ton of alfalfa hay was $240 in June 2019, a $40 increase since June 2018.

**Energy sector.** Oil production in the northern region, particularly in Weld County, has dominated statewide production for over a decade (Figure 32). Oil production continues to climb, increasing 7.6 percent year-to-date through April 2019 after increasing 36.0 percent in 2018. Energy companies are placing increasing amounts of natural gas on the market, putting it to productive uses rather than letting it escape as a by-product of oil production. Natural gas production in northern Colorado increased 18.9 percent in 2018 and 19.5 percent through the first four months of 2019 over the same period last year.

**Figure 32**
**Colorado Energy Production**

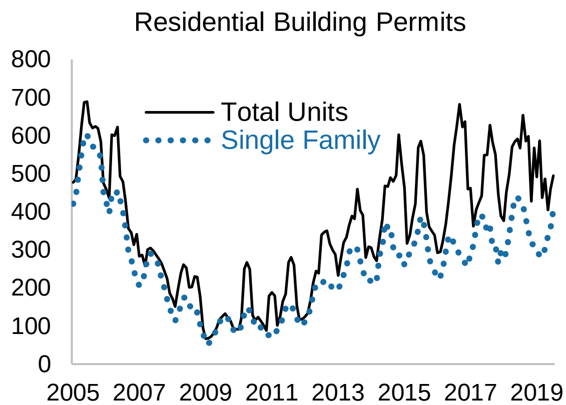



Source: Colorado Oil and Gas Conservation Commission. Monthly data through April 2019.

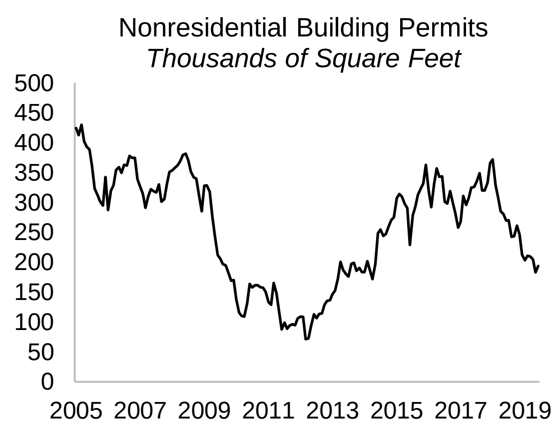
**Housing.** The housing markets in Larimer and Weld counties have distinct patterns driven primarily by the specific economic conditions in the cities of Fort Collins and Greeley. In Larimer County, a number of new multi-family developments broke ground in the first half of 2019, helping to boost the number of total housing units. A limited supply of buildable lots in Fort Collins has shifted single-family residential construction to smaller communities, resulting in a 4.2 percent increase in single-family residential permits issued year-to-date through July 2019 compared with the same period in 2018 (Figure 33, left). Single-family residential construction has been stronger in Weld County, as the recovered oil industry and more available land has resulted in single-family permits increasing 47.3 percent in the first seven months of 2019. Following strong activity in 2018 in Weld County, multi-family permits fell, leading to an 18.8 percent decline in total residential construction permits between January and July of 2019 compared with the same period in 2018.

**Nonresidential construction.** Activity in the nonresidential construction industry is also tied to the oil and gas industry. The value of nonresidential construction projects increased 33.0 percent in 2018 due to the construction of a new oil and gas processing facility. Year-to-date in 2019, the value of nonresidential construction projects declined 86.1 percent from the high base in 2018 (Figure 33, right). Nonresidential construction activity is volatile and will likely receive a boost from several large hotels planned in Fort Collins that are just beginning the permitting process. Construction activity for these hotels will likely be reflected in the nonresidential permit data reported in the second half of 2019.

**Figure 33**
**Northern Region Construction Activity**

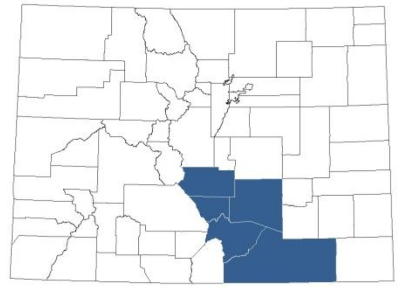



Source: U.S. Census Bureau. Data shown as three-month moving averages. Data are not seasonally adjusted and are through July 2019.




Source: F.W. Dodge. Data shown as twelve-month moving averages. Data are not seasonally adjusted and are through July 2019.

## Pueblo – Southern Mountains Region



The Pueblo – Southern Mountains region includes five southern Front Range counties surrounding the City of Pueblo. After two years of solid growth, the region's labor market activity slowed in 2018, but has picked up pace in 2019 relative to the same period last year. The region's relatively affordable housing continues to attract people to the area, aiding the residential real estate market. The City of Pueblo's convention center expansion is expected to support economic activity in the region this year. In addition, recent successes in attracting new, high tech industries to the region are expected to contribute to economic growth. Indicators for the regional economy are presented in Table 20.

**Table 20**
**Pueblo Region Economic Indicators**
Custer, Fremont, Huerfano, Las Animas, and Pueblo Counties

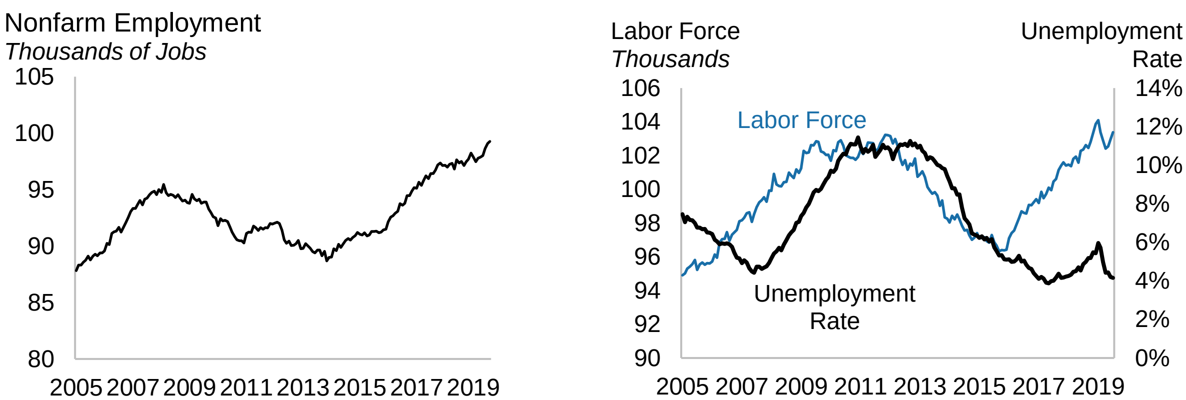
| | 2015 | 2016 | 2017 | 2018 | YTD 2019 |
|---|---|---|---|---|---|
| Employment Growth | | | | | |
| Pueblo Region[1] | 0.9% | 2.8% | 2.8% | 1.0% | 1.1% |
| Pueblo MSA[2] | 2.0% | 1.8% | 1.1% | 0.1% | 0.1% |
| Unemployment Rate[1] | 5.7% | 4.8% | 4.1% | 5.0% | 4.6% |
| Housing Permit Growth[3] | | | | | |
| Pueblo MSA Total | 69.4% | 6.0% | 14.9% | 61.4% | -2.5% |
| Pueblo MSA Single Family | 29.9% | 29.9% | 16.2% | 69.8% | -17.5% |
| Nonresidential Construction Growth[4] | | | | | |
| Value of Projects | 2.6% | -22.6% | -64.5% | 229.2% | 69.2% |
| Square Footage of Projects | 14.6% | -3.8% | -52.6% | 145.1% | -43.0% |
| Level (*Thousands*) | 355 | 341 | 162 | 397 | 201 |
| Number of Projects | -18.6% | 50.0% | -72.2% | 60.0% | -10.5% |
| Level | 48 | 72 | 20 | 32 | 17 |

MSA = Metropolitan statistical area (Pueblo County only).
[1]U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through July 2019.
[2]U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through July 2019.
[3]U.S. Census. Growth in the number of residential building permits. Data through July 2019.
[4]F.W. Dodge. Data through April 2019.

**Labor market.** After strong gains in 2016 and 2017, the region's labor market slowed in 2018. However, job growth has picked up pace, increasing by 1.1 percent, through July relative to the same period last year. In the Pueblo Metropolitan Statistical Area, which only includes Pueblo County, job gains have been relatively flat through July of this year compared to the same period last year. Government, health services, and retail continue to be the top-three sources of jobs in the county. Several planned projects are expected to support labor market activity in the current year. EVRAZ, a producer of engineered steel products, is considering a $500 million expansion and modernization of its Pueblo steel mill, and Xcel Energy has plans to convert its Comanche coal fired power plant to include large solar farms.

The collapse of the Pueblo steel industry in the 1980s has left a long legacy for the region's economy. In the wake of industry collapse, the regional economy has diversified slowly, but a private sector void remains unfilled. Public sector jobs comprise a significant share of area employment. Additionally, health care providers, institutions of higher education, and state correction facilities offer work for many area residents. The area economy has experienced steady improvements in labor market activity since 2014 (Figure 34). Yet, the area employment-to-population ratio remains low and the regional unemployment rate remains elevated relative to the statewide average. Through July 2019, the unemployment rate averaged 4.6 percent, while the statewide rate averaged 2.9 percent over the same period.

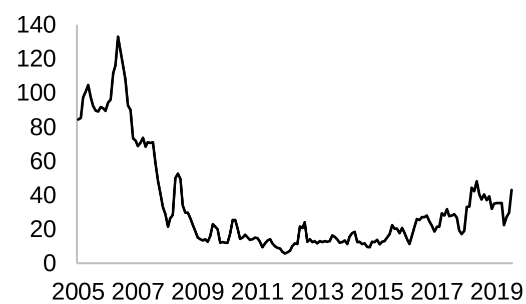
**Figure 34**
**Pueblo Region Labor Market Trends**




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 2019.

**Housing.** The Pueblo County residential real estate market continues to pick up pace in 2019 after posting a banner year in 2018. In 2018, the county issued 523 total residential building permits, a 61.4 percent increase from 2017, and largest year-over-year gain since 2007 for the county. The number of residential permits issued through July 2019 is keeping pace with the same period last year, down by only seven permits, or 2.5 percent (Figure 35). An affordable housing market compared with the northern and metro Denver regions has many residents looking to relocate to the Pueblo region. The April 2019 single family median sales price in Pueblo County was $219,500, compared with $510,000 in the Metro Denver region, according to data from the Colorado Association of Realtors. Falling mortgage interest rates and an improving labor market should continue to boost demand for housing permits in the region.

**Figure 35**
**Single-Family Residential 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 2019.

**Nonresidential construction.** Following two years of mixed data in 2016 and 2017, nonresidential construction activity increased considerably in 2018. Amusement and public improvement-related projects have provided most of the lift for the region. The City of Pueblo has recently opened a convention center expansion along the Historic Arkansas Riverwalk.  Through this project, the city is adding a large exhibit hall and Professional Bull Riders-anchored sports performance center to the Pueblo Convention Center, a three-story parking garage across the street from the convention center, and a Gateway Plaza outdoor space, which is expected to be completed in 2019.  The total cost for the improvements is projected to top $30 million.  The bulk of the project will be paid for by state sales taxes under the state Regional Tourism Act program and state and federal grants.

## Colorado Springs Region

The vibrant Colorado Springs economy continues to benefit from a virtuous cycle of economic activity and job growth. After robust growth in 2018, construction activity has slowed at the start of 2019, but is expected to remain at elevated levels. The attraction of a strong job market, outdoor recreation, and comparatively lower real estate prices than the northern Front Range continue to bring young professionals into the area. The regional economy, which includes all of El Paso County, has a large public sector presence, supporting area defense operations, higher education institutions, and health care facilities. Increasingly diverse private sector growth also continues to support the area economy. Indicators for the regional economy are presented in Table 21.

**Table 21**
**Colorado Springs Region Economic Indicators**
El Paso County

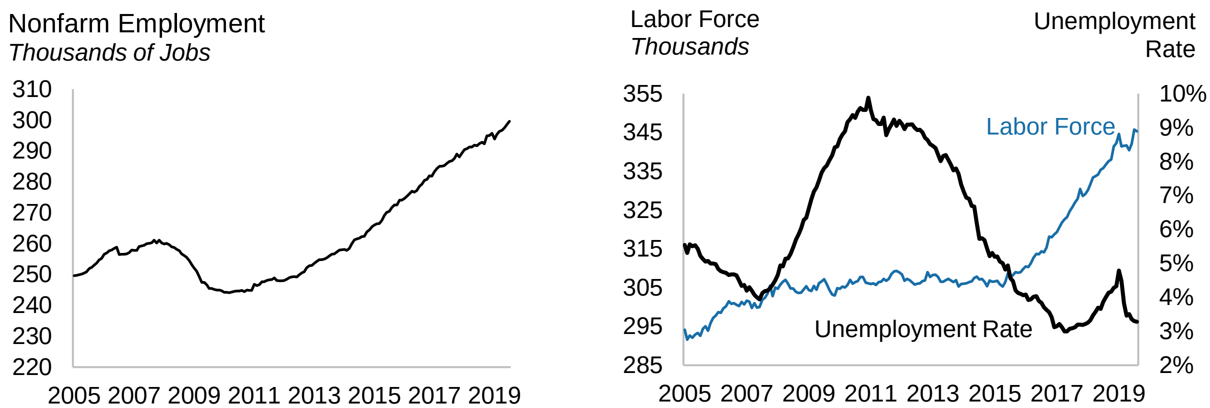
| | 2015 | 2016 | 2017 | 2018 | YTD 2019 |
|---|---|---|---|---|---|
| Employment Growth[1] | | | | | |
| Colorado Springs MSA | 3.3% | 2.9% | 1.8% | 2.2% | 1.9% |
| Unemployment Rate[2] | 4.6% | 3.7% | 3.1% | 3.9% | 3.6% |
| Housing Permit Growth[3] | | | | | |
| Total | -0.4% | 41.3% | -3.9% | 34.2% | -14.4% |
| Single Family | 13.3% | 19.7% | 6.7% | 25.9% | -13.4% |
| Nonresidential Construction Growth[4] | | | | | |
| Value of Projects | -1.0% | 48.9% | -22.6% | 16.8% | -26.4% |
| Square Footage of Projects | -0.2% | 26.1% | 10.5% | 7.4% | 8.3% |
| Level (*Thousands*) | 1,865 | 2,353 | 2,599 | 2,792 | 1,573 |
| Number of Projects | 13.5% | 11.6% | 30.0% | -2.0% | -18.0% |
| Level | 379 | 423 | 550 | 539 | 251 |

MSA = Metropolitan statistical area.
[1]U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through July 2019.
[2]U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through July 2019.
[3]U.S. Census. Growth in the number of residential building permits. Data through July 2019.
[4]F.W. Dodge. Data through July 2019.

**Labor market**. The Colorado Springs labor market continues to add jobs at a healthy pace through July of this year, after posting a solid 2.2 percent increase in 2018 (Figure 36, left). Year-to-date through July, the Colorado Springs Metropolitan Statistical Area added almost 4,000 new jobs, an increase of 1.9 percent from the same period last year. Job growth has been broad-based across industries, with population in-migration supporting demand for new construction, retail trade activity, and jobs in leisure and hospitality. Relatively affordable housing continues to boost in-migration to the region, which has brought new workers into the labor force over the past two years (Figure 36, right). The region's unemployment rate ticked up slightly to 3.9 percent in 2018, as the region's labor force increased. Through July of this year, the region's unemployment rate averaged 3.6 percent.

**Tax collections**. The strong labor market, in-migration, and tourism have supported growth in retail sales in the region. According to reports released by the City of Colorado Springs, revenue from the city's general sales and use tax increased 4.0 percent through July over the same period in the prior year. Tax statistics point to strong contributions from auto sales and tourism-related activity, including hotel, retail, and restaurant sales.

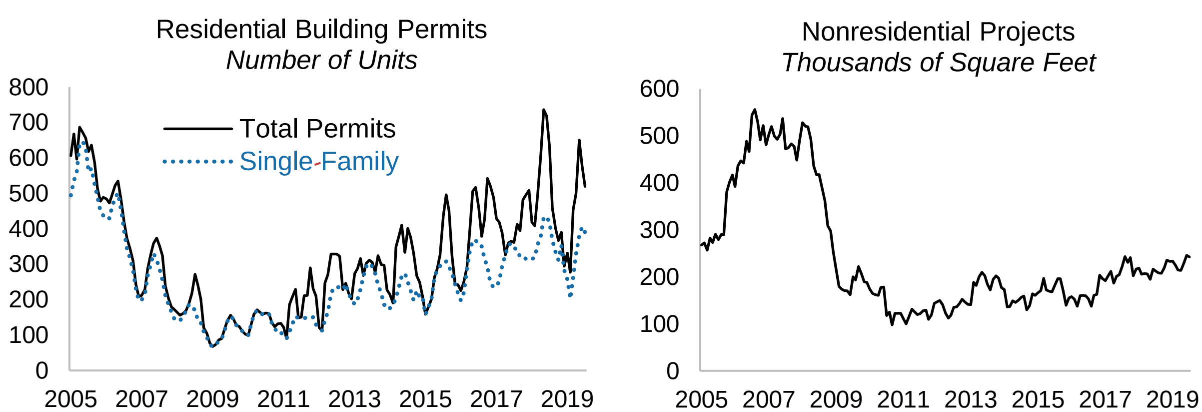
**Figure 36**
**Colorado Springs Labor Market Activity**




Source: U.S. Bureau of Labor Statistics; CES data (left) and LAUS data (right) are through July. Data are seasonally adjusted.

**Housing.** According to U.S. News & World Report, Colorado Springs was ranked as the nation's most desirable place to live in 2018, and the region's residential real estate market conditions remained strong through July. However, the region's healthy economy and several years of robust home price gains have pushed the cost of living higher and affordable housing is becoming a concern. While still more affordable than real estate in the Denver metro region, Colorado Springs home prices continue to rise at solid rates as demand continues to outstrip supply. In August, the median sales price for a single-family home in the region was $329,999, up 5.0 percent from the previous year. The inventory of homes for sale in the region was down 20 percent in April, according to the Colorado Association of Realtors. Year-to-date, the number of residential permits issued in the region was 3,463, down 14.4 percent from the same period last year. However, the region is coming off a banner year in which the total amount of building permits issued increased by a robust 34.2 percent from 2017. Of the 3,463 permits issued, single-family permits made up 68 percent of these construction applications (Figure 37, left).

**Figure 37**
**Colorado Springs Construction Activity**




Source: U.S. Census Bureau. Data are shown as three-month moving averages. Data are not seasonally adjusted and are through July 2019.

Source: F.W. Dodge. Data shown as twelve-month moving averages. Data are not seasonally adjusted and are through July 2019.

**Nonresidential construction.** Relative to pre-recessionary levels, demand for new nonresidential construction has remained subdued throughout the recovery and expansion period, with a slow general upward trend (Figure 37, right). However, investment in nonresidential projects in the region gained moment in 2018 and is expected to maintain this momentum through 2019. The region is preparing to break ground on several projects at the U.S. Olympic Museum, Air Force Academy Visitors Center, Hybl Center for Sports Medicine, and Downtown Sports and Events Center. The new Olympic Museum in downtown Colorado Springs continues to take shape and is expected to open in 2020. Other major projects announced in the region and expected to start construction soon include the Weidner Field at Switchbacks Stadium, Robson Arena at Colorado College, and several new hotels in the downtown area of Colorado Springs.

## San Luis Valley Region

Among the nine economic regions of the state identified in this forecast, the San Luis Valley has the state's smallest and oldest population, as well as its lowest household incomes. The economy of the region's six counties is largely agricultural. Nonfarm employers include commercial, health, and government services, as well as a small but resilient tourism sector. Economic data for the region are sparse, but those available suggest that regional construction activity and employment growth have slowed in 2019. Economic indicators for the region are summarized in Table 22.

**Table 22**
**San Luis Valley Region Economic Indicators**
Alamosa, Conejos, Costilla, Mineral, Rio Grande, and Saguache Counties

| | 2015 | 2016 | 2017 | 2018 | YTD 2019 |
|---|---|---|---|---|---|
| Employment Growth[1] | 4.0% | 6.2% | 4.5% | 3.8% | 1.9% |
| Unemployment Rate[1] | 5.7% | 4.4% | 3.7% | 4.4% | 4.1% |
| San Luis Valley Agriculture District[2] | | | | | |
| Barley | | | | | |
| Acres Harvested | 63,000 | 75,000 | 68,000 | 52,000 | NA |
| Crop Value ($/Acre) | $806 | $685 | $607 | $650 | NA |
| Potatoes | | | | | |
| Acres Harvested | 57,400 | 57,100 | 55,600 | 55,000 | NA |
| Crop Value ($/Acre) | $3,301 | $3,734 | $3,572 | $3,828 | NA |
| Housing Permit Growth[3] | 21.5% | -1.1% | 16.8% | 16.3% | -13.6% |

NA = Not available.
[1]U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through June 2019.
[2]National Agricultural Statistics Service. Data through 2018.
[3]F.W. Dodge. Data through July 2019.

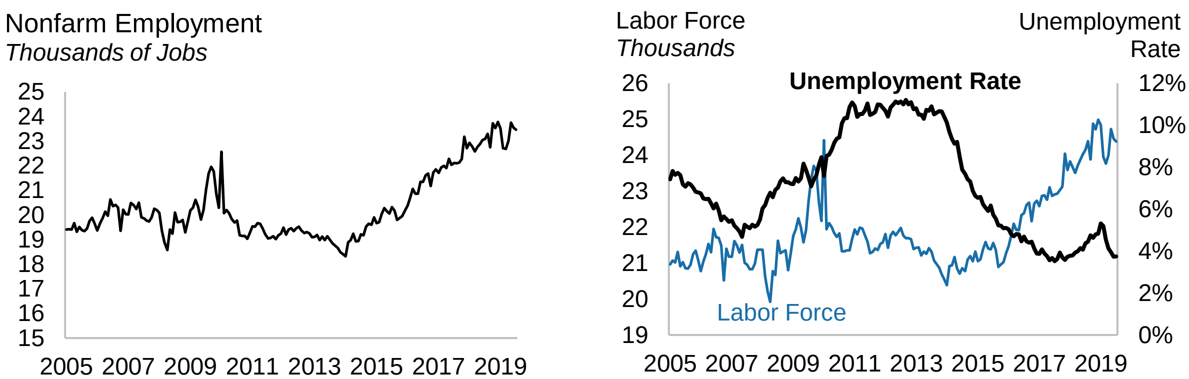
**Agricultural industry.** The San Luis Valley's agricultural sector relies primarily on the production of potatoes, and secondarily on barley, although hemp and quinoa acreages have been on the upswing. Acres of potatoes planted this year is down by 4 percent, in part replaced by hemp acreage. Potato shipments through August are up almost 68 percent over the same period last year, as prices and yield per acre have increased over the last couple years (Figure 38). The total acres of barley planted is up 38 percent over last year; however, expected yield per acre is projected to be down. Lower yields may be partially offset by slightly higher prices, which are up almost 2 percent through June compared with the same period last year.

**Figure 38**
**Prices Received for Colorado Potatoes**
*$/Cwt*


Source: National Agricultural Statistics Service. Data shown as twelve-month moving averages. Data through June 2018.

**Labor market.** In addition to the agricultural industry, tourism, a large retirement community, and government services, including Adams State University, support the San Luis Valley economy. Employment conditions in the region have cooled off from a relatively frenetic pace over the last few years. Following employment growth of 3.8 percent in 2018, job growth through the second quarter of 2019 slowed to 1.9 percent over year-ago levels (Figure 39, left). The unemployment rate has ticked down to 4.1 percent (Figure 39, right). Based on published data, the decrease in the unemployment rate is attributable to a slight decrease in the labor force, as shown in Figure 39 (right). While these figures suggest a slowdown in labor market activity, employment figures are more volatile in smaller regions such as the San Luis Valley and are subject to data revisions.

**Figure 39**
**San Luis Valley Labor Market Activity**

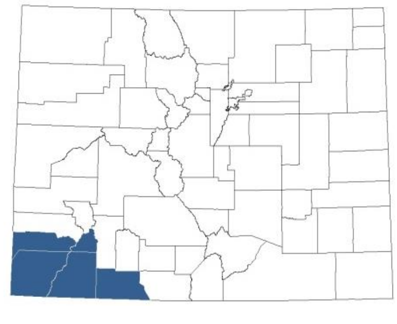



Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through June 2019.

**Housing and population growth.** After two consecutive years of strong growth, housing permits issued in the San Luis Valley declined by 13.6 percent through July this year over the same period last year. Population growth in the region is mixed, with Alamosa, Costilla, Mineral, and Saguache counties projected to experience mostly positive net migration and natural population increases over the next few years, while Conejos and Rio Grande counties are expected to see declines in both migration and population growth, according to the Colorado State Demography Office. Of the six counties in the region, median home prices are only up in Alamosa and Rio Grande counties through July this year. Single family home prices in Alamosa County rose over 8 percent year-over-year through July; however, the housing market in the county has cooled compared to last year. Housing prices remain at about half of the statewide average, according to the Colorado Association of Realtors, making this region a more affordable destination for retirees.

**Tourism.** Visits to the Great Sand Dunes National Park and Preserve have increased every year since 2013. Park visits rose 25.5 percent through July, with the strength of second quarter visitations reversing a year-over-year decline during the first quarter of the year. National forest land, recreation areas, and wetlands surround the national park, making the area close to Alamosa a destination for outdoor enthusiasts. Additionally, the Cumbres and Toltec Scenic Railroad, which leaves from Antonito, a town just south of Alamosa, attracts a large number of tourists during the summer season, bringing in millions of dollars to the remote region.

## Southwest Mountain Region



The southwest mountain region comprises five counties in the southwest corner of the state. This area boasts a diverse economy, with significant contributions from agriculture, tourism, and natural gas extraction as well as typical regional services like health care and education. The region is coming off of three strong years of employment growth and two strong years of homebuilding, and now appears to have entered a period of slower growth consistent with a mature economic expansion. While the tourism industry took a hit with last year's fires and this year's federal government shutdown, this key industry appears to have rebounded during the summer months. Economic indicators for the region are summarized in Table 23.

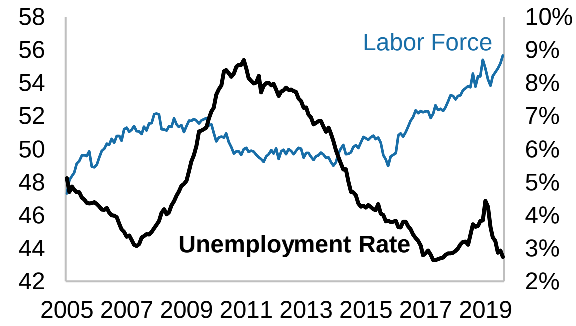
**Table 23**
**Southwest Mountain Region Economic Indicators**
Archuleta, Dolores, La Plata, Montezuma, and San Juan Counties

| | 2015 | 2016 | 2017 | 2018 | YTD 2019 |
|---|---|---|---|---|---|
| Employment Growth[1] | 0.7% | 3.9% | 2.4% | 2.0% | 1.8% |
| Unemployment Rate[1] | 4.0% | 3.4% | 2.8% | 3.5% | 3.3% |
| Housing Permit Growth[2] | 17.9% | -4.6% | 29.8% | 24.1% | -46.8% |
| National Park Recreation Visits[3] | 10.2% | 7.5% | 4.4% | -7.6% | -3.2% |

[1]U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through July 2019.
[2]F.W. Dodge. Data through July 2019.
[3]National Park Service. Data through July 2019. Recreation visits for Mesa Verde National Park and Hovenweep National Monument.

**Labor market.** Even after years of expansion, the regional job market is still motivating more workers to enter the labor force. The rate of job gains has kept up with labor force growth, keeping regional unemployment low. Figure 40 shows a noticeable uptick, and then reversal, in the unemployment rate during the past six months. However, inconsistency in this series likely reflects the small survey sample size in this rural area, rather than a jittery job market.

**Figure 40**
**Southwest Mountain Region Labor Market**




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 2019.

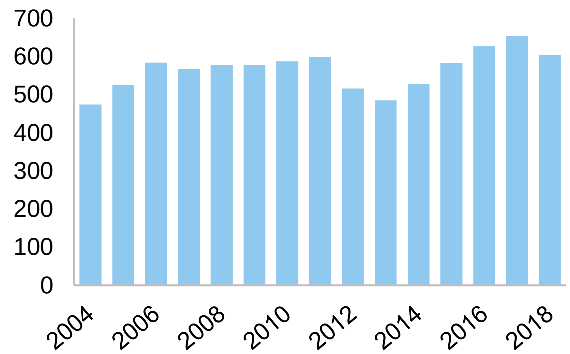
The State Demography Office projects that the regional population will top 100,000 people for the first time ever this year, and that elevated rates of net migration – between 1,500 and 2,000 residents per year – will sustain population growth at rates faster than those for the state. Net migration is expected to provide the greatest boost to La Plata County (roughly 1,000 per year), followed by Montezuma County (450 per year) and Archuleta County (250 per year).

**Housing.** The regional housing market is cooling. Realtors in La Plata County, which includes the City of Durango and is the region's most populous, reported a 4.7 percent decline in home sales in the second quarter of 2019 compared with the same period last year. After years of appreciation, home prices are beginning to flag on depleted demand.

Residential construction activity has fallen off after two years of very strong growth. As shown in Table 23, regional authorities permitted about half as many residential units during the first seven months of 2019 as during the same period in 2018, when homebuilder activity reached its highest level during the current expansion. Builders face constraints from few buildable lots, diminished labor supply, and ebbing demand.

**Tourism.** The regional tourism industry is recovering after a down year in 2018. Last year's tourism performance was marred by a devastating summer fire season and associated closures. Figure 41 shows visitations to Mesa Verde National Park and Hovenweep National Monument, which were depressed last year as a result of closures elsewhere in the region despite not closing themselves. National park visitations struggled again in the early months of this year as a result of closures associated with the federal government shutdown in January. However, visitations rebounded in June and July, when they increased 7.3 percent over last year's count for the same two months.

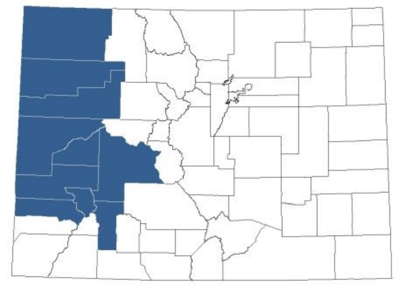
**Figure 41**
**Southwest Mountain National Park Visits**
*Thousands*




Source: National Park Service. Data through December 2018.

A bounty of winter snowfall partially remedied years of severe drought in the region, though low summer precipitation has left some sections of forest dry once more. The Climate Prediction Center (CPC) at the National Oceanic and Atmospheric Administration forecasts a higher than normal probability of elevated temperatures statewide in December, January, and February. The CPC precipitation forecast anticipates equal probabilities of above-normal and below-normal snowfall in the southwest mountains over the same period.

## Western Region



The western region has a diverse economy. Key industries in the northern counties of Mesa, Garfield, Moffat, Rio Blanco, and Routt include energy and agriculture, while the counties of Delta, Gunnison, Hinsdale, Montrose, Ouray, and San Miguel are more reliant on tourism, mining, and retiree-related spending. In 2019, the region's economy continued to build on momentum from 2017 and 2018 as the area offers a more affordable option than the Front Range. Relatively affordable housing, recreation opportunities, and an improving labor market are attracting people from Denver and other areas of the state and country. Economic indicators for the region are summarized in Table 24.

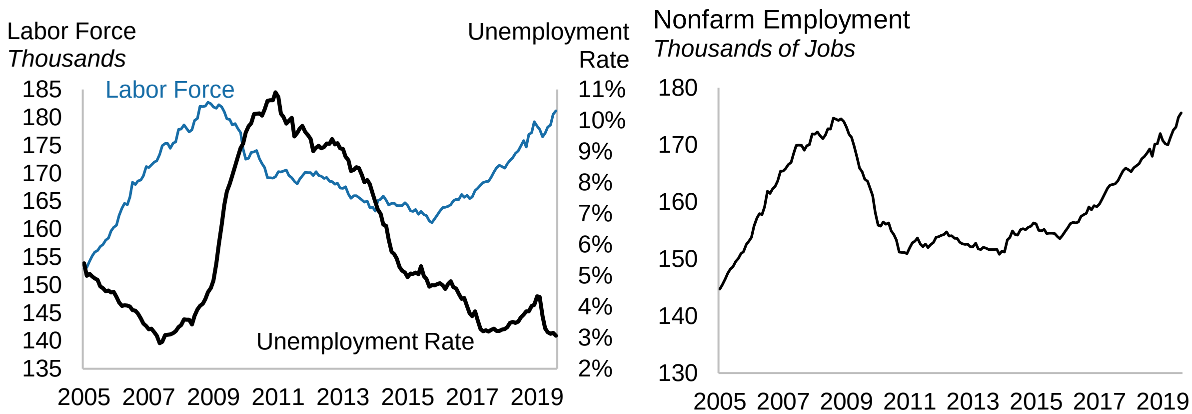
**Table 24**
**Western Region Economic Indicators**
Delta, Garfield, Gunnison, Hinsdale, Mesa, Moffat, Montrose, Ouray, Rio Blanco, and San Miguel Counties

| | 2015 | 2016 | 2017 | 2018 | YTD 2019 |
|---|---|---|---|---|---|
| Employment Growth | | | | | |
| Western Region[1] | -0.2% | 2.1% | 3.7% | 3.0% | 3.0% |
| Grand Junction MSA[2] | -0.2% | -0.3% | -0.4% | 2.4% | 2.7% |
| Unemployment Rate[1] | 4.9% | 4.4% | 3.3% | 3.7% | 3.4% |
| Natural Gas Production Growth[3] | -12.8% | -6.7% | -2.1% | 1.3% | 3.6% |
| Housing Permit Growth[4] | 24.7% | 6.7% | 42.8% | 15.5% | -16.7% |
| Nonresidential Construction Growth[4] | | | | | |
| Value of Projects | -37.8% | 16.4% | -33.4% | -2.2% | 134.5% |
| Square Footage of Projects | -41.0% | -3.9% | -18.2% | 13.7% | 21.9% |
| Level (*Thousands*) | 602 | 579 | 474 | 539 | 442 |
| Number of Projects | -16.4% | 41.1% | -38.0% | 20.4% | -13.2% |
| Level | 56 | 79 | 49 | 59 | 33 |

MSA = Metropolitan statistical area.
[1]U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through July 2019.
[2]U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through July 2019.
[3]Colorado Oil and Gas Conservation Commission. Data through April 2019.
[4]F.W. Dodge. Data through July 2019.

**Labor market.** The region's labor market continued to add jobs through the first seven months of 2019 and the unemployment rate declined. Compared with the same period in the previous year, employment increased 3.0 percent across the region in the first seven months of 2019 and 2.7 percent in the Grand Junction Metropolitan Statistical Area, the largest city in the region. After increasing at the end of 2018, the region's unemployment rate is down to 3.1 percent in July 2019, and averaged 3.4 percent through the first seven months of 2019 (Figure 42, left). An increasing labor force has helped to support employment growth in the region (Figure 42, right). The construction, health care, and retail sectors have had the largest employment gains and wage increases have been broad-based.

**Figure 42**
**Western Region Labor Market Activity**

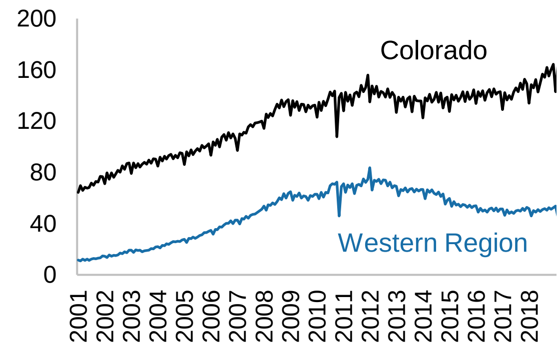



Source: U.S. Bureau of Labor Statistics; Data are seasonally adjusted and are through July 2019.

**Construction.** Residential construction activity declined 16.7 percent in the first seven months of 2019 over year-ago levels, despite rising demand for housing in the region. Housing prices were up in Delta, Montrose, and Mesa counties through the first half of 2019, and housing starts will likely pick up as demand for housing remains strong in Grand Junction and the rest of the western region due to a lower cost of living compared to many other areas of the state. The region's nonresidential construction sector received a boost in March 2019 from two large projects: a new dorm building at Colorado Mesa University and a new nursing home in Rifle. While these large projects are unlikely to be repeated, they helped to boost growth in the value of nonresidential construction projects by 134.5 percent in the western region through the first seven months of 2019.

**Energy sector.** The Piceance Basin is located in the western region of Colorado and is the second largest potentially developable natural gas resource in the country. Natural gas production in the region increased 1.3 percent in 2018 and continued growing 3.6 percent through the first four months of 2019 (Figure 43). The recent uptick in production has gone to power plants as natural gas continues to be an attractive fuel to replace coal for electricity generation. The approval of the Jordan Cove liquefied natural gas export facility in Oregon may provide a long-term market for Piceance Basin natural gas; however, any exports are several years off.

**Figure 43**
**Natural Gas Production**
*Millions of BCF*

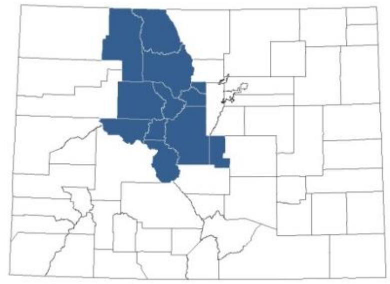



Source: Colorado Oil and Gas Conservation Commission. Data through April 2019. BCF = Billion cubic feet.

**National park visitors.** The number of visitors to the Black Canyon of the Gunnison National Park is on pace to increase for the sixth consecutive year despite the federal government shutdown in January 2019. Visitation increased 48.9 percent through the first seven months of 2019 compared with the same period last year. Meanwhile, the nearby Curecanti National Recreation Area experienced a 24.3 percent decline in visitation for the same period. Rapidly changing water levels in Curecanti led to the temporary closure of some sites during the spring run-off, but higher water levels in the reservoir should help increase the access for boaters in the second half of 2019. Visitations to the

Colorado National Monument near Grand Junction increased 6.8 percent through the first seven months of 2019, helped in part by the completion of the third phase of construction on Rim Rock Drive on June 28, 2018.

## Mountain Region



The mountain region comprises twelve counties stretching from Poncha Pass north to the Wyoming border. The region is dependent on a robust tourism industry, yet smaller economic contributors – including mining and agricultural producers – make important contributions as well. The region boasts one of the state's strongest economies; however, some recent indicators suggest that job growth has slowed, construction activity has decreased, and demand for some regional real estate is sagging. Economic indicators for the mountain region are presented in Table 25.

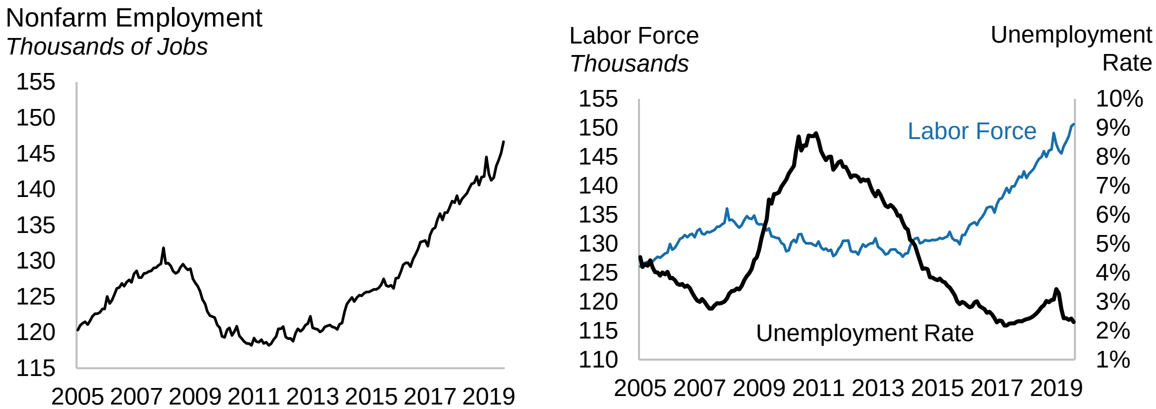
**Table 25**
**Mountain Region Economic Indicators**
Chaffee, Clear Creek, Eagle, Gilpin, Grand, Jackson, Lake, Park, Pitkin, Routt, Summit, and Teller Counties

| | 2015 | 2016 | 2017 | 2018 | YTD 2019 |
|---|---|---|---|---|---|
| Employment Growth[1] | 1.6% | 3.5% | 4.3% | 3.0% | 2.9% |
| Unemployment Rate[1] | 3.3% | 2.7% | 2.3% | 2.8% | 2.6% |
| Housing Permit Growth[2] | -7.8% | 29.0% | -10.7% | 73.9% | -26.8% |
| Nonresidential Construction Growth[2] | | | | | |
| Value of Projects | 44.0% | -31.3% | 312.2% | -78.1% | -19.7% |
| Square Footage of Projects | -62.0% | 18.7% | 232.7% | -65.1% | -39.1% |
| Level (*Thousands*) | 514 | 609 | 2,028 | 708 | 392 |
| Number of Projects | -33.3% | 52.5% | 1.6% | 17.7% | -68.6% |
| Level | 40 | 61 | 62 | 73 | 16 |

[1]U.S. Bureau of Labor Statistics. LAUS (household) survey. Seasonally adjusted. Data through July 2019.
[2]F.W. Dodge. Data through July 2019.

**Labor market.** Surveys of the region's households suggest that growth in regional nonfarm employment has decelerated since peaking in 2017 (Figure 44, left). The mature labor market has absorbed nearly all labor market slack (Figure 44, right), contributing to the region's state-low unemployment rate. Continued deceleration in employment growth is expected to result from labor shortages, contributing to higher wage pressures in the region's highly service-oriented and often costly economy. Some regional business organizations are reporting that difficulty finding employees has resulted in longer lengths of time for which jobs remain unfilled. Business organizations also report that labor supply is constrained by a lack of housing and health insurance options for employees.

**Figure 44**
**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 2019.

**Weather.** While heavy winter snowfall and high spring snowpack was a boon for mountain tourism and a safeguard against summer fires, weather this winter may prove less fortuitous. The Climate Prediction Center (CPC) at the National Oceanic and Atmospheric Administration forecasts a higher than normal probability of elevated temperatures statewide in December, January, and February. The CPC precipitation forecast anticipates equal probabilities of above-normal and below-normal mountain snowfall over the same period.

**Housing.** Regional housing requirements are driven both by demographic trends and demand for vacation properties in resort areas. While migration into the region and its generally strong economy continue to drive the housing market, demand for luxury properties in resort areas has begun to abate.

Residential construction in the mountain region peaked during 2018 but remains strong. In both unit and dollar terms, homebuilding is poised in 2019 to post its second-best year during the ongoing economic expansion (Figure 45, left), bested only by banner construction last year. Housing permit data from rural counties like those in the mountain region are often inconsistent, and another large development could swing the trajectory of the regional housing stock this year.

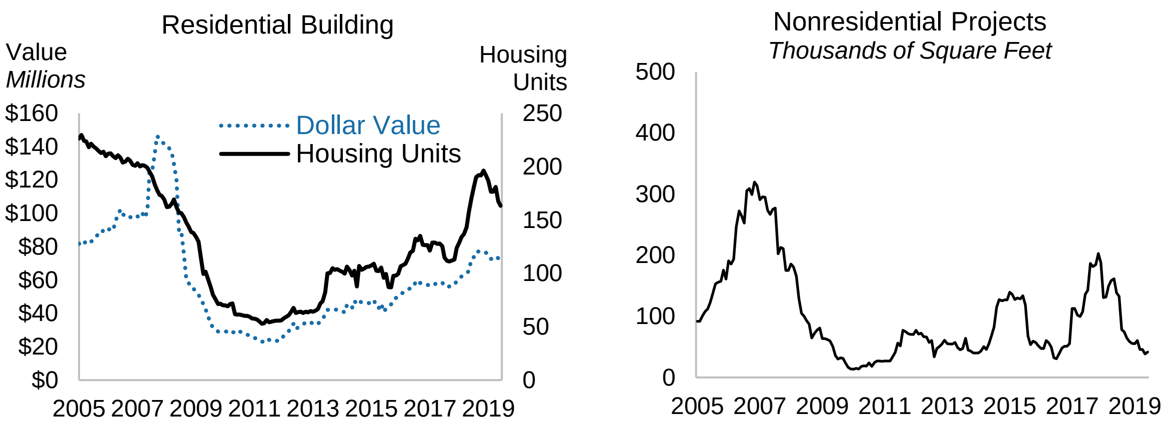
While the region's population is growing at a rate similar to the state's, variance from county to county is significant. Data from the State Demography Office (SDO) indicate that Teller and Chaffee counties – the region's fourth and fifth most populous, respectively – attracted the most new residents on net last year, beating the larger, higher-cost communities in Eagle, Summit, and Routt counties. The SDO also estimates that Pitkin County, the state's most expensive, has posted three years of net out-migration, a trend expected to continue through 2019 and into 2020.

Residential transactions in mountain resort counties have declined decisively, perhaps portending a cooler period in broader spending among wealthy consumers. Land Title Guarantee Company reports that residential transactions in five principal mountain region resort counties – Eagle, Grand, Pitkin, Routt, and Summit – fell 13 percent between the first quarter of 2018 and the first quarter of 2019, with individual declines occurring in each of the five counties. Transactions fell most steeply in Routt, Pitkin, and Eagle counties, traditionally the most expensive of the five. CNBC reported in

August that the number of luxury listings in Aspen reached nearly a three-year supply, and that this is consistent with trends in other American resort markets, such as the Hamptons in New York.

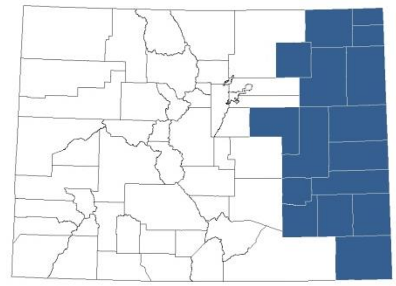
**Nonresidential construction.** The right panel of Figure 45 presents the trajectory of permits issued for nonresidential construction projects, measured by their square footage. Regional commercial construction has sagged since 2017, when permits were issued for the large Monarch Casino Black Hawk expansion project set to be completed later this year. Nonresidential permit issuances have strengthened only slightly after a very sluggish start to the year. With 16 projects permitted between January and July, 2019 is on pace to become the weakest year in regional nonresidential construction activity since 2013. That said, the timing of permit issuances is often inconsistent and a small number of new permits could confirm or contradict the recent, sudden deceleration.

**Figure 45**
**Mountain Region Construction Activity**




Source: F.W. Dodge. Data shown as twelve-month moving averages. Data are not seasonally adjusted and are through July 2019.

## Eastern Region



The eastern region includes Colorado's 16 rural plains counties. Agriculture is the primary industry in the region with retailers, other locally-focused businesses, and government operations supporting area farming and ranching communities. The agricultural industry has suffered from a tight labor market and retaliatory tariffs on many export products. On the upside, crop prices have rebounded slightly due to wet weather conditions through much of the country this season, and demand for beef remains high. Economic indicators for the region are presented in Table 26.

**Table 26**
**Eastern Region Economic Indicators**
Baca, Bent, Logan, Cheyenne, Crowley, Elbert, Kiowa, Kit Carson, Lincoln, Morgan, Otero, Phillips, Prowers, Sedgwick, Washington, and Yuma Counties

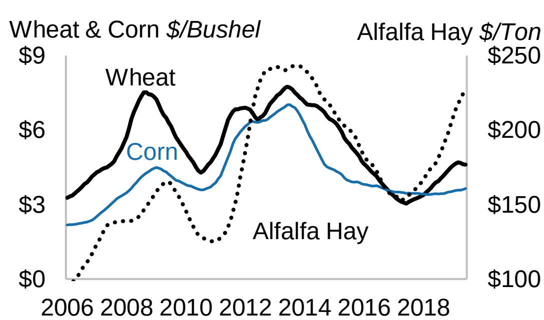
| | 2015 | 2016 | 2017 | 2018 | YTD 2019 |
|---|---|---|---|---|---|
| Employment Growth[1] | 2.2% | 4.1% | 3.4% | 3.6% | 2.0% |
| Unemployment Rate[1] | 3.5% | 2.9% | 2.3% | 3.0% | 2.7% |
| Crop Price Changes[2] | | | | | |
| Wheat ($/Bushel) | -25.6% | -27.9% | -2.9% | 34.6% | 5.6% |
| Corn ($/Bushel) | -13.1% | -7.7% | -3.4% | 2.8% | 6.9% |
| Alfalfa Hay (Baled, $/Ton) | -13.9% | -15.5% | 4.8% | 23.8% | 25.2% |
| Livestock[2] | | | | | |
| State Cattle and Calf Inventory Growth | -4.4% | 1.0% | 6.7% | 2.6% | 7.7% |
| Milk Production | 3.9% | 5.2% | 6.7% | 8.8% | 5.2% |

[1]U.S. Bureau of Labor Statistics, LAUS (household survey). Data through June 2019.
[2]National Agricultural Statistics Service. Data through June 2019.

**Agriculture and livestock.** Economic conditions for agricultural producers improved slightly in the second quarter of the year, on higher crop prices and a continuation of the Market Facilitation Program payments to offset the negative effects of retaliatory tariffs. Strong demand for beef, both domestic and international, has buoyed feed crop prices and increased cattle inventories and marketing this year. Uncertain conditions created by ongoing trade tensions and years of low commodity prices continue to delay investment decisions and have increased farm debt burdens.

Prices received for Colorado crops can be found in Figure 46. Corn prices are up over 11 percent through June compared to last year. Alfalfa hay prices reached their highest since 2013, at $240 per ton from January through June. Wheat prices were sluggish through the first six months of the year; wheat stocks were higher on strong winter wheat yields, while exports were down on weaker global demand. The elevated cattle and calf inventory, up 7.7 percent through the second quarter this year, continues to support higher domestic and foreign demand for beef.

**Figure 46**
**Prices Received for Colorado Crops**

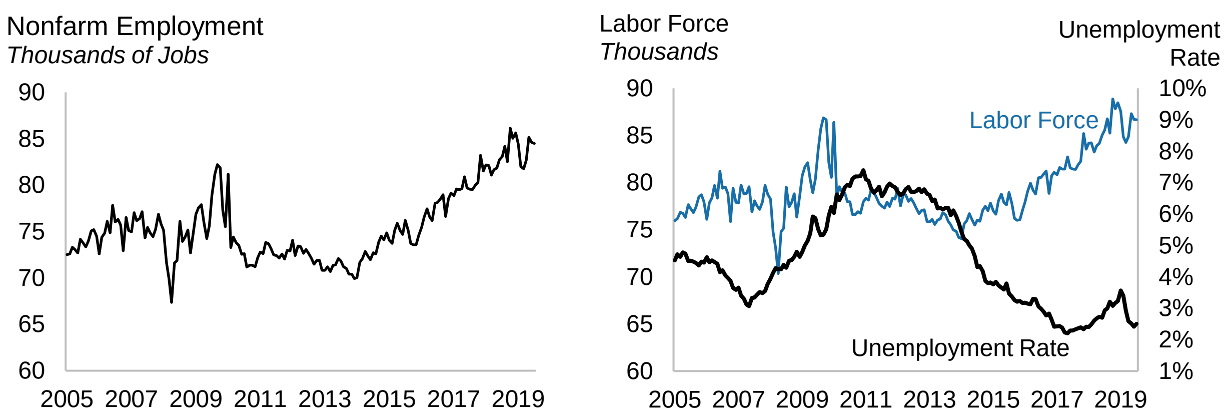



Source: National Agricultural Statistics Service. Data shown as twelve-month moving averages. Data through June 2019.

**Wind farms.** Xcel Energy's wind farm was completed in 2018 and crosses five counties in the region, providing an injection of capital to those landowners that agree to house wind turbines. The company recently announced a new project to be built on 100,000 acres in Cheyenne and Kit Carson counties and completed at the end of 2020. Another large wind farm is slated to begin operations in Lincoln County in 2021.

**Labor market.** Over the last several years, much of the region has suffered from persistent out-migration and natural population decline, as younger families gravitate more towards urban areas, birth rates decline, and the remaining population ages. This has taken a toll on the labor force by squeezing an already tight labor market, putting upward pressure on wages, and leaving some agricultural producers without workers. Employment growth during the second quarter of 2019 shows slower growth at 1.7 percent over year-ago levels, continuing the moderation from the fourth quarter of 2018. The area unemployment rate ticked down slightly to 2.7 percent during the second quarter. Labor market activity for the eastern region can be found in Figure 47.

**Figure 47**
**Eastern 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 June 2019.

**Housing.** Despite the contraction of many rural community populations, counties bordering the northern region and the Front Range are seeing population growth, as former residents of larger, more expensive metro areas leave in search of more affordable housing. The median sales price for a home in Elbert County has risen from about $330,000 in 2014 to almost $500,000 in 2019, according to the Colorado Association of Realtors. Single family home prices in Morgan County began their ascent around mid-2017, rising from about $145,000 in 2014 to almost $250,000 in 2019, still well below the statewide median. The number of new listings are up about 24 percent year-to-date in 2019 compared to the same period last year, while Elbert County's new listings have decreased from last year.

# Appendix: Historical Data

## National Economic Indicators

| Calendar Years | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GDP ($ *Billions*)[1] | $12,213.7 | $13,036.6 | $13,814.6 | $14,451.9 | $14,712.8 | $14,448.9 | $14,992.1 | $15,542.6 | $16,197.0 | $16,784.9 | $17,527.3 | $18,224.8 | $18,715.0 | $19,519.4 | $20,580.2 |
| Percent Change | 6.6% | 6.7% | 6.0% | 4.6% | 1.8% | -1.8% | 3.8% | 3.7% | 4.2% | 3.6% | 4.4% | 4.0% | 2.7% | 4.3% | 5.4% |
| Real GDP ($ *Billions*)[1] | $14,406.4 | $14,912.5 | $15,338.3 | $15,626.0 | $15,604.7 | $15,208.8 | $15,598.8 | $15,840.7 | $16,197.0 | $16,495.4 | $16,912.0 | $17,403.8 | $17,688.9 | $18,108.1 | $18,638.2 |
| Percent Change | 3.8% | 3.5% | 2.9% | 1.9% | -0.1% | -2.5% | 2.6% | 1.6% | 2.2% | 1.8% | 2.5% | 2.9% | 1.6% | 2.4% | 2.9% |
| Unemployment Rate[2] | 5.5% | 5.1% | 4.6% | 4.6% | 5.8% | 9.3% | 9.6% | 8.9% | 8.1% | 7.4% | 6.2% | 5.3% | 4.9% | 4.4% | 3.9% |
| Inflation[2] | 2.7% | 3.4% | 3.2% | 2.9% | 3.8% | -0.3% | 1.6% | 3.1% | 2.1% | 1.5% | 1.6% | 0.1% | 1.3% | 2.1% | 2.4% |
| 10-Year Treasury Note[3] | 4.3% | 4.3% | 4.8% | 4.6% | 3.7% | 3.3% | 3.2% | 2.8% | 1.8% | 2.4% | 2.5% | 2.1% | 1.8% | 2.3% | 2.9% |
| Personal Income ($ *Billions*)[1] | $10,035.1 | $10,598.2 | $11,381.7 | $12,007.8 | $12,442.2 | $12,059.1 | $12,551.6 | $13,326.8 | $14,010.1 | $14,181.1 | $14,991.7 | $15,717.8 | $16,121.2 | $16,878.8 | $17,819.2 |
| Percent Change | 5.8% | 5.6% | 7.4% | 5.5% | 3.6% | -3.1% | 4.1% | 6.2% | 5.1% | 1.2% | 5.7% | 4.8% | 2.6% | 4.7% | 5.6% |
| Wage & Salaries ($ *Billions*)[1] | $5,421.6 | $5,691.9 | $6,057.0 | $6,396.8 | $6,534.3 | $6,248.6 | $6,372.1 | $6,625.9 | $6,927.5 | $7,113.2 | $7,475.2 | $7,856.7 | $8,083.5 | $8,462.1 | $8,888.5 |
| Percent Change | 5.5% | 5.0% | 6.4% | 5.6% | 2.1% | -4.4% | 2.0% | 4.0% | 4.6% | 2.7% | 5.1% | 5.1% | 2.9% | 4.7% | 5.0% |
| Nonfarm Employment (*Millions*)[2] | 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 | 146.6 | 149.1 |
| Percent Change | 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% | 1.6% | 1.7% |

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 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nonfarm Employment (*Thousands*)[1] | 2,225.1 | 2,278.7 | 2,330.3 | 2,349.6 | 2,244.2 | 2,220.9 | 2,257.7 | 2,311.8 | 2,380.3 | 2,463.5 | 2,540.8 | 2,601.5 | 2,660.6 | 2,725.4 |
| Percent Change | 2.1% | 2.4% | 2.3% | 0.8% | -4.5% | -1.0% | 1.7% | 2.4% | 3.0% | 3.5% | 3.1% | 2.4% | 2.3% | 2.4% |
| Unemployment Rate[1] | 5.0% | 4.3% | 3.7% | 4.9% | 7.3% | 8.7% | 8.4% | 7.9% | 6.9% | 5.0% | 3.8% | 3.2% | 2.7% | 3.3% |
| Personal Income ($ *Millions*)[2] | $174,772 | $188,803 | $201,227 | $207,773 | $198,147 | $204,692 | $222,572 | $236,687 | $248,959 | $271,101 | $284,143 | $289,621 | $306,411 | $323,729 |
| Percent Change | 6.9% | 8.0% | 6.6% | 3.3% | -4.6% | 3.3% | 8.7% | 6.3% | 5.2% | 8.9% | 4.8% | 1.9% | 5.8% | 5.7% |
| Per Capita Income ($)[2] | $37,732 | $39,997 | $41,889 | $42,492 | $39,851 | $40,547 | $43,456 | $45,572 | $47,236 | $50,662 | $52,116 | $52,269 | $54,561 | $56,846 |
| Percent Change | 5.6% | 6.0% | 4.7% | 1.4% | -6.2% | 1.7% | 7.2% | 4.9% | 3.7% | 7.3% | 2.9% | 0.3% | 4.4% | 4.2% |
| Wage & Salary Income ($ *Millions*)[2] | $98,774 | $105,649 | $112,526 | $116,710 | $112,228 | $113,670 | $118,414 | $124,947 | $129,521 | $138,585 | $146,487 | $150,977 | $160,372 | $168,707 |
| Percent Change | 5.6% | 7.0% | 6.5% | 3.7% | -3.8% | 1.3% | 4.2% | 5.5% | 3.7% | 7.0% | 5.7% | 3.1% | 6.2% | 5.2% |
| Retail Trade Sales ($ *Millions*)[3] | $65,492 | $70,437 | $75,329 | $74,760 | $66,345 | $70,738 | $75,548 | $80,073 | $83,569 | $90,653 | $94,920 | NA | NA | NA |
| Percent Change | 5.1% | 7.5% | 6.9% | -0.8% | -11.3% | 6.6% | 6.8% | 6.0% | 4.4% | 8.5% | 4.7% | | | |
| Residential Housing Permits[4] | 45,433 | 39,193 | 30,064 | 19,372 | 9,370 | 11,538 | 13,382 | 21,294 | 27,217 | 29,257 | 30,417 | 36,871 | 40,994 | 46,961 |
| Percent Change | 1.3% | -13.7% | -23.3% | -35.6% | -51.6% | 23.1% | 16.0% | 59.1% | 27.8% | 7.5% | 4.0% | 21.2% | 11.2% | 14.6% |
| Nonresidential Construction ($ *Millions*)[5] | $4,275 | $4,641 | $5,259 | $4,114 | $3,354 | $3,147 | $3,923 | $3,695 | $3,624 | $4,351 | $4,690 | $5,992 | $6,167 | $7,960 |
| Percent Change | 31.7% | 8.6% | 13.3% | -21.8% | -18.5% | -6.2% | 24.7% | -5.8% | -1.9% | 20.1% | 7.8% | 27.8% | 2.9% | 29.1% |
| Denver-Aurora-Lakewood Inflation[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% | 3.4% | 2.7% |
| Population (*Thousands, July 1*)[4] | 4,632 | 4,720 | 4,804 | 4,890 | 4,972 | 5,048 | 5,122 | 5,194 | 5,270 | 5,351 | 5,452 | 5,541 | 5,616 | 5,696 |
| Percent Change | 1.2% | 1.9% | 1.8% | 1.8% | 1.7% | 1.5% | 1.5% | 1.4% | 1.5% | 1.5% | 1.9% | 1.6% | 1.4% | 1.4% |

NA = Not available.
[1]U.S. Bureau of Labor Statistics. Inflation shown as the year-over-year change in the consumer price index for Denver-Aurora-Lakewood metro area.
[2]U.S. Bureau of Economic Analysis. Personal income and wages and salaries not adjusted for inflation.
[3]Colorado Department of Revenue. Data are not available after 2015.
[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.