



FOCUS COLORADO: ECONOMIC AND REVENUE FORECAST

COLORADO LEGISLATIVE COUNCIL STAFF
ECONOMICS SECTION

DECEMBER 20, 2017

TABLE OF CONTENTS	PAGE
Executive Summary	3
General Fund Budget Overview	7
General Fund Revenue	21
Cash Fund Revenue	27
Economic Outlook	35
School Finance Outlook	63
Assessed Value Projections	67
School Enrollment Projections	75
Adult Prison Population and Parole Caseload Projections	83
Youth Corrections Population Projections	95
Colorado Economic Regions	100
Appendix: Historical Data	121

The Legislative Council Staff is the nonpartisan research staff of the Colorado General Assembly.

Kate Watkins, Chief Economist
Marc Carey
Larson Silbaugh
Louis Pino
Greg Sobetski
Meredith Moon
Chris Creighton
Debbie Grunlien

Legislative Council Staff
029 State Capitol Building
Denver, Colorado 80203
(303) 866-3521
www.colorado.gov/lcs
LCS.Economist@state.co.us



Photograph of Elk Mountain Range, courtesy of Ashley Ogden.

HIGHLIGHTS

The **economy** will continue to grow at a moderate pace through 2019. In the maturing economic expansion, job growth will be constrained by an increasingly tighter labor market. Business activity has rebounded from 2015 lulls and consumer activity remains solid, though debt spending is on the rise. Colorado's economy is among the nation's strongest. However, rapid appreciation in housing costs are changing the state's economic landscape.

Assuming no changes to federal or state law, **General Fund revenue** expectations were roughly unchanged relative to September. In **FY 2017-18**, the General Fund is expected to end the year with a 6.5 percent reserve, \$2.1 million above the required 6.5 percent statutory reserve. In **FY 2018-19**, the General Assembly will have \$747.9 million, or 6.7 percent, more to spend or save in the General Fund than what is budgeted for FY 2017-18.

If enacted, changes under the federal **Tax Cuts and Jobs Act** are expected to increase state revenue. Assuming these changes, the General Fund is expected to end FY 2017-18 with a 6.8 percent reserve, 34.7 million above the required reserve. In FY 2018-19, the General Assembly will have \$962.7 million, or 8.7 percent, more to spend or save in the General Fund than what is budgeted for FY 2017-18. Revenue is expected to continue to fall short of the **Referendum C cap** each year throughout the forecast period, with or without federal tax reform.

In FY 2017-18, lower than expected enrollment and increased expectations for local tax revenue collections to the state's public school districts are expected to provide about \$110 million more flexibility in **school finance** funding than previously expected. The **residential assessment rate** is projected to fall from 7.2 percent in 2017 to 6.11 percent in 2019.

The state's **adult prison population** is expected to decrease in 2018, before trending upward in 2019. Declines in **juvenile corrections populations** are expected to moderate.

This page intentionally left blank.

EXECUTIVE SUMMARY

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

As this forecast goes to print, Congress is deliberating on the federal **Tax Cuts and Jobs Act**, which is expected to be signed into law within the near future. Due to the timing and possible enactment of legislation into current law, this forecast includes General Fund estimates with and without the impacts from federal legislation.

General Fund Budget Outlook

FY 2016-17. Preliminary data indicate that the General Fund ended FY 2016-17 with a \$614.4 million reserve, equal to 6.3 percent of General Fund operating appropriations. This amount is \$30.1 million above the required 6.0 percent reserve. Revenue subject to TABOR fell short of the Referendum C cap by \$435.9 million.

The FY 2016-17 year-end reserve is \$1.4 million higher than expected in September, reflecting small accounting adjustments.

FY 2017-18. Assuming no changes to federal tax law, the General Fund is expected to end the year with a 6.52 percent reserve, \$2.1 million above the 6.50 percent statutory reserve. Revenue subject to TABOR is expected to fall short of the Referendum C cap by \$600.5 million.

If the federal Tax Cuts and Jobs Act becomes law, preliminary estimates suggest that General Fund revenue in FY 2017-18 will be \$35.2 million higher. Under this scenario, the General Fund would end the year with a 6.8 percent reserve, \$34.7 million above the 6.50 percent statutory reserve. Revenue subject to TABOR would fall short of the Referendum C cap by \$567.8 million.

FY 2018-19 — unbudgeted. Assuming no changes to federal tax law, the General Assembly will have \$747.9 million, or 6.7 percent, more to spend or save in the General Fund than what is budgeted to be spent or held in reserve this year. Any supplemental appropriations or other changes to revenue or expenditures in FY 2017-18 will change this amount. Revenue will fall short of the Referendum C cap by \$536.9 million. State revenue subject to TABOR is expected to increase at a rate slightly slower than inflation and population growth.

If the Tax Cuts and Jobs Act becomes law, preliminary estimates suggest that General Fund revenue will be \$196.5 million higher in FY 2018-19. Under this scenario, the General Assembly would have \$962.7 million, or 8.7 percent, more to spend or save in the General Fund than what is budgeted to be spent this year, and revenue subject to TABOR would fall short of the Referendum C cap by \$354.5 million.

*More information about the **General Fund budget overview** begins on page 7.*

*More information about **federal tax law changes** begins on page 10.*

*More information about the state's **TABOR outlook** begins on page 11.*

*The **General Fund revenue** forecast begins on page 21 and is summarized in Table 12 on page 26.*

Cash Fund Revenue

In FY 2017-18, cash fund revenue subject to TABOR is expected to fall 20.8 percent to \$2.20 billion. The drop in revenue from the elimination of the Hospital Provider Fee and the 2.9 percent sales tax on retail marijuana in Senate Bill 17-267 more than offsets expected increases in transportation-related and severance tax revenue. In FY 2018-19, total cash fund revenue subject to TABOR will increase from this lower level by 4.2 percent to \$2.29 billion, and 3.3 percent to \$2.36 billion in FY 2019-20, as most revenue sources are projected to continue to rise.

*The **cash fund revenue forecasts** begin on page 27. Forecasts for state revenue subject to TABOR are summarized in Table 13 on page 28.*

Economic Outlook

The U.S. and Colorado economies are poised to continue to expand throughout the forecast period. Moderate consumer spending, strong business optimism, and an expanding global economy will support economic growth in the U.S. and Colorado. As the national and state labor markets tighten further, wage pressures are expected to rise, but will be partially offset by demographics. Consumer activity, similarly, will continue to be subdued by shifting consumption patterns across a growing share of retirees. Additionally, rising interest rates and rising household debt services payments will moderate spending.

*More information about the **state and national economic outlook** begins on page 35.*

*Summaries of economic conditions in nine **regions** around the state begin on page 100.*

Business optimism remains high on stable and rising commodity prices, stronger global economic activity, and the possibility of income tax cuts for businesses, which could boost profits. Should the federal Tax Cuts and Jobs Act become law, economic activity will grow at a slightly faster pace due to stronger business investment and a modest boost to consumer spending.

In Colorado, rapid home price appreciation over the past several years is changing the economic landscape of the state. In-migration has slowed as families have sought residency in more affordable areas of the U.S. With one of the tightest labor markets in the country, wage pressures will rise in Colorado at a pace faster than the nation as a whole, though consumer spending may be more constrained by the high cost of living.

Assessed Valuation and Residential Assessment Rate

Total assessed values will increase by 1.8 percent between 2017 and 2018, as new construction is added to the tax rolls. In 2019, a reassessment year, county assessors will revalue property to reflect market trends, resulting in a projected 17.0 percent increase in residential market values. This increase, and adjustments made for new construction and mineral development, will cause the residential assessment rate to decline from 7.20 percent to 6.11 percent in 2019. This will result in a net 0.7 percent decrease in statewide residential assessed values. Nonresidential assessed values will increase by 7.8 percent in 2019, resulting in an overall increase in statewide total assessed values of 3.8 percent. Growth in assessed values in each region of the state will vary, based on the unique mix of properties and economic forces specific to each region and school district.

*More information about **assessed valuation, K-12 enrollment, and the school finance outlook** begins on page 67.*

Kindergarten through Twelfth Grade Enrollment

Colorado's public school enrollment continued to increase in the current 2017-18 school year, although at a slower rate than in recent years. High housing costs and low birth rates during and following the Great Recession will dampen enrollment throughout the forecast period. The enrollment count totaled 832,278 full time equivalent (FTE) students across Colorado's public schools, up 5,036 FTE students, or 0.6 percent, from last year.

Colorado schools are expected to continue to add students through the forecast period. In the upcoming 2018-19 school year, statewide public schools are expected to add another 5,100 FTE students, a 0.6 percent increase from the current school year. Growth is expected across all regions of the state except for the Pueblo region, which is expected to decline slightly relative to the current school year. In 2019-20, K-12 public school enrollment will grow again by 0.6 percent.

School Finance Outlook

FY 2017-18. Lower enrollment and increased expectations for local tax revenue collections to the state's public kindergarten through twelfth grade school districts are expected to provide \$110 million more flexibility in school finance funding than previously expected.

FY 2018-19. Assuming a \$100 million School Education Fund ending balance, a constant budget stabilization factor, and the \$110 million from the FY 2017-18 appropriation reduction is deposited in the State Education Fund, the available contribution from the fund for FY 2018-19 is projected to increase by \$354 million on a year-over-year basis. Under this scenario, the General Fund requirement for school finance will decrease by \$128 million relative to FY 2017-18. Should the Tax Cuts and Jobs Act become law, the available contribution from the State Education Fund for FY 2018-19 will increase by \$371 million, and the corresponding General Fund requirement will decrease by \$145 million relative to FY 2017-18.

Prison and Parole Populations

The state's **adult prison population** is expected to decrease from 20,101 offenders in June 2017 to 19,962 offenders in June 2018, and is expected to increase to 20,713 offenders in June 2019. The falling population in the current fiscal year is attributable to mandatory reparoles and reclassifications of certain revoked offenders pursuant to House Bill 17-1326; these decreases have already been realized. The offender population is expected to increase over the forecast period as a result of increasing court commitments to the Department of Corrections.

More information about prison and parole populations begins on page 83.

The in-state **adult parole population** is projected to increase from 8,286 offenders in June 2017 to 8,602 offenders in June 2018 before falling to 8,583 offenders in June 2019. The increasing population in the current fiscal year is likewise attributable to reparoles and reclassifications that have already occurred.

Reductions in the **juvenile corrections populations** administered by the Division of Youth Services in the Department of Human Services are expected to continue to decline, though less steeply than in prior years. The juvenile commitment population is expected to average 644 youth in FY 2017-18 and 637 youth in FY 2018-19. The juvenile parole population is expected to average 205 youth in FY 2017-18 and 208 youth in FY 2018-19, increasing slightly as more committed youth are released on parole. The juvenile detention population is expected to average 267 youth in FY 2017-18, an increase attributable to elevated detentions during the summer and fall of 2017, before falling to 256 youth in FY 2018-19.

GENERAL FUND BUDGET OVERVIEW

As this forecast goes to print, Congress is deliberating on the Tax Cuts and Jobs Act, which is expected to be signed into law within the near future. Due to the timing and possible enactment of legislation into current law, this forecast includes General Fund estimates with and without the impacts from federal legislation. Table 1 presents the General Fund overview *without* the impacts of the federal Tax Cuts and Jobs Act, while Table 2 presents the overview *with* preliminary estimates of the federal tax legislation incorporated. This section also presents expectations for the following:

- the state's TABOR outlook (Tables 7 and 8);
- revenue to the State Education Fund (Table 4);
- statutory transfers to transportation and capital construction funds (Table 5);
- the availability of tax policies dependent on revenue collections (Table 6);
- General Fund rebates and expenditures (Tables 9); and
- cash fund transfers to and from the General Fund (Table 10).

FY 2016-17. Preliminary data indicate that the General Fund ended FY 2016-17 with a \$614.4 million reserve, equal to 6.3 percent of General Fund operating appropriations. This amount is \$30.1 million above the required 6.0 percent reserve. These figures incorporate the impact of a \$53.8 million diversion of income taxes from the General Fund to cover the costs of severance tax refunds pursuant to Senate Bill 16-218. The year-end reserve is \$1.4 million higher than expected in September expectations due to small accounting adjustments.

FY 2017-18. Assuming no changes to federal tax law, the General Fund is expected to end the year with a 6.52 percent reserve, \$2.1 million above the 6.50 percent statutory reserve, as shown in Table 1. Relative to the September forecast, expectations for General Fund revenue were largely unchanged. The forecast was increased by \$2.8 million relative to September expectations. However, the budget situation improved largely due to lower than expected General Fund transfers.

As shown in Table 2, if the Tax Cuts and Jobs Act becomes law, the General Fund is expected to end the year with a 6.8 percent reserve, \$34.7 million above the 6.50 percent statutory reserve. These estimates are preliminary and are subject to change as additional information becomes available.

FY 2018-19 — unbudgeted. Assuming no changes to federal tax law, Table 1 shows new revenue in FY 2018-19 relative to anticipated changes in statutory and constitutional obligations between FY 2017-18 and FY 2018-19. Because a budget has not yet been enacted for FY 2018-19, lines 20 and 21 show the amount of revenue available in FY 2018-19 relative to the amount budgeted to be spent or saved in FY 2017-18. Assuming no changes to federal tax law, The General Assembly will have \$747.9 million, or 6.7 percent, more to spend or save in the General Fund than what is budgeted to be spent this year. This assumes current law, including a 6.5 percent required reserve. Any supplemental appropriations or other changes to revenue or expenditures in FY 2017-18 will change this amount.

If the Tax Cuts and Jobs Act becomes law, the General Assembly will have an estimated \$962.7 million, or 8.7 percent, more to spend or save in the General Fund than what is budgeted to be spent this year, as shown in lines 20 and 21 of Table 2.

Table 1
General Fund Overview with No Changes to Federal Tax Law
Dollars in Millions

		FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
		Preliminary	Estimate	Estimate	Estimate
Funds Available					
1	Beginning Reserve	\$512.7	\$614.4	\$677.4	*
2	General Fund Revenue	\$10,275.5	\$11,072.2	\$11,684.0	\$12,329.6
3	Transfers from Other Funds (Table 10)	44.8	90.1	18.6	19.6
4	Total Funds Available	\$10,833.0	\$11,776.7	\$12,380.0	*
5	Percent Change	1.4%	8.7%	5.1%	*
Expenditures		Budgeted	Budgeted	Estimate	Estimate
6	General Fund Appropriations Subject to Limit	\$9,784.5	\$10,438.1	*	*
7	Rebates and Expenditures (Table 9)	285.0	275.4	287.2	296.1
8	Transfers to Other Funds (Table 10) ¹	169.6	172.3	146.5	156.9
9	Transfers to the State Education Fund Pursuant to SB 13-234	25.3	25.3	25.0	NA
10	Transfers to the Highway Users Tax Fund	79.0	79.0	0.0	0.0
11	Transfers to capital construction funds	84.5	109.2	60.0	60.0
12	Total Expenditures	\$10,427.9	\$11,099.3	*	*
13	Percent Change	1.9%	6.4%	*	*
14	Accounting Adjustments	209.3	*	*	*
Reserve		Budgeted	Budgeted	Estimate	Estimate
15	Year-End General Fund Reserve	\$614.4	\$677.4	*	*
16	Year-End Reserve as a Percent of Appropriations	6.3%	6.5%	*	*
17	Statutorily Required Reserve ²	584.3	675.4	*	*
18	Amount in Excess or (Deficit) of Statutory Reserve	\$30.1	\$2.1	*	*
19	Excess Reserve as a Percent of Expenditures	0.3%	0.0%	*	*
Perspective on FY 2018-19 (Unbudgeted Year)				Estimate	Estimate
Amount Available in FY 2018-19 Relative to FY 2017-18 Expenditures ³					
20	Amount in Excess of (Deficit) of 6.5% Statutory Reserve			747.9	*
21	As a Percent of Prior-Year Expenditures			6.7%	*
Addendum		Preliminary	Estimate	Estimate	Estimate
22	Percent Change in General Fund Appropriations	4.8%	6.7%	*	*
23	5% of Colorado Personal Income Appropriations Limit	\$13,361.3	\$14,133.3	\$14,405.2	\$15,053.4
24	Transfers to State Education Fund Per Amendment 23	\$540.0	\$574.2	\$606.2	\$628.5

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

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

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

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

Table 2
Preliminary General Fund Overview with Impacts from the Tax Cuts and Jobs Act
Dollars in Millions

		FY 2016-17 Preliminary	FY 2017-18 Estimate	FY 2018-19 Estimate	FY 2019-20 Estimate
Funds Available					
1	Beginning Reserve	\$512.7	\$614.4	\$710.1	*
2	General Fund Revenue	\$10,275.5	\$11,104.9	\$11,866.3	\$12,680.0
3	Transfers from Other Funds (Table 10)	44.8	90.1	18.6	19.6
4	Total Funds Available	\$10,833.0	\$11,809.4	\$12,595.0	*
5	Percent Change	1.4%	9.0%	6.7%	*
Expenditures		Budgeted	Budgeted	Estimate	Estimate
6	General Fund Appropriations Subject to Limit	\$9,784.5	\$10,438.1	*	*
7	Rebates and Expenditures (Table 9)	285.0	275.4	287.2	296.1
8	Transfers to Other Funds (Table 10) ¹	169.6	172.3	146.7	157.1
9	Transfers to the State Education Fund Pursuant to SB 13-234	25.3	25.3	25.0	NA
10	Transfers to the Highway Users Tax Fund	79.0	79.0	0.0	0.0
11	Transfers to capital construction funds	84.5	109.2	60.0	60.0
12	Total Expenditures	\$10,427.9	\$11,099.3	*	*
13	Percent Change	1.9%	6.4%	*	*
14	Accounting Adjustments	209.3	*	*	*
Reserve		Budgeted	Budgeted	Estimate	Estimate
15	Year-End General Fund Reserve	\$614.4	\$710.1	*	*
16	Year-End Reserve as a Percent of Appropriations	6.3%	6.8%	*	*
17	Statutorily Required Reserve ²	584.3	675.4	*	*
18	Amount in Excess or (Deficit) of Statutory Reserve	\$30.1	\$34.7	*	*
19	Excess Reserve as a Percent of Expenditures	0.3%	0.3%	*	*
Perspective on FY 2018-19 (Unbudgeted Year)				Estimate	Estimate
Amount Available in FY 2018-19 Relative to FY 2017-18 Expenditures ³					
20	Amount in Excess of (Deficit) of 6.5% Statutory Reserve			962.7	*
21	As a Percent of Prior-Year Expenditures			8.7%	*
Addendum		Preliminary	Estimate	Estimate	Estimate
22	Percent Change in General Fund Appropriations	4.8%	6.7%	*	*
23	5% of Colorado Personal Income Appropriations Limit	\$13,361.3	\$14,133.3	\$14,405.2	\$15,053.4
24	Transfers to State Education Fund Per Amendment 23	\$540.0	\$576.8	\$620.3	\$652.3

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

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

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

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

Preliminary Revenue Impact Estimates from Proposed Federal Tax Policy Changes

The federal Tax Cuts and Jobs Act proposes significant changes to federal tax policy that will have revenue impacts for the state of Colorado. This section provides a summary of anticipated state revenue impacts of the legislation. Preliminary revenue impact estimates are summarized in Table 3. These estimates will be updated as additional information becomes available.

As of the date of this forecast, limited information is available on the impact of proposed tax policy changes. Therefore, **actual impacts may differ widely from those estimated here**. Changes in federal tax policy will cause shifts in taxpayer behavior as individuals and businesses seek to minimize their income tax liabilities. The full extent of these shifts is unknown and poses a significant risk to estimates.

Table 3
Preliminary Estimates of State Revenue Impacts
from the Tax Cuts and Jobs Act
Dollars in Millions

Revenue Stream	FY 2017-18*	FY 2018-19	FY 2019-20
General Fund Revenue	\$35.2	\$196.5	\$329.8
Individual Income Tax	61.9	218.8	312.2
Corporate Income Tax	-26.7	-22.2	17.6
Insurance Premium Tax			<i>Indeterminate</i>
Other Impacts			
Federal Mineral Lease Payments			<i>Possible Reduction</i>

**Partial-year impact.*

The Tax Cuts and Jobs Act effectively broadens the federal income tax base and lowers federal income tax rates for both individual and corporate taxpayers. While these changes will reduce federal income tax revenue, the impacts are expected to **increase state tax revenue**. This is because state taxes are based on federal taxable income, which is broadened by the bill, while, unlike federal tax rates, state tax rates will remain unchanged at 4.63 percent under current law in Colorado. The net impact for Colorado state taxes is a larger tax base with the same tax rate, resulting in an increase in revenue.

Individual income tax. Among other provisions, the Tax Cuts and Jobs Act roughly doubles the standard deduction, eliminates the deduction for personal exemptions, modifies and eliminates several itemized deductions, and creates a 20 percent deduction for income from pass-through entities. Preliminary estimates of the net impact of these changes suggest an increase in individual income tax revenue of \$61.9 million in FY 2017-18, \$218.8 million in FY 2018-19, and \$312.2 million in FY 2019-20, with larger increases in subsequent years. These preliminary estimates are based on estimates of the impact of the proposed legislation published by the Joint Committee on Taxation (JCT) on December 18, 2017.

Corporate income tax. Under current law, corporations depreciate the value of business equipment over a set schedule, which allows them to have smaller deductions over a longer period of time. The most significant change to corporate taxable income under the Tax Cuts and Jobs Act allows businesses to depreciate the full cost of their equipment investments in the first year the equipment is in service. Because businesses will fully depreciate the equipment for tax purposes in the first year, there will be no depreciation deductions in future years.

Accelerating the depreciation schedule effectively reduces taxes in the first year the equipment is put into place, while increasing taxes in future years. On net, this and other corporate income tax provisions of the bill are expected to decrease corporate income tax revenue by \$26.7 million in FY 2017-18 and \$22.2 million in FY 2018-19, before increasing revenue by \$17.6 million in FY 2019-20, with a larger increases in subsequent years.

Insurance premium taxes. Proposed legislation reduces the federal penalty for not having health care insurance to zero. As a result, the number of people with health insurance may decrease, which could reduce revenue collected on insurance premiums taxes. The individuals who continue to purchase health care insurance may have higher health care costs on average, causing health insurance companies to increase insurance premiums. Premium increases would increase insurance premium tax collections and could offset the decline from fewer insured individuals. On net, the impact of these changes on insurance premium taxes is indeterminate.

Other impacts. Under current law, federal government sequestration is triggered if the federal deficit increases because of changes in legislation. Early estimates published by the Congressional Budget Office indicate that the federal tax legislation under consideration will increase the federal deficit. Federal Mineral Lease payments to states are reduced when sequestration is triggered. Colorado receives Federal Mineral Lease payments from the federal government for natural resource production on federal lands in Colorado. A portion of the state's share of Federal Mineral Lease payments are distributed to counties, municipalities and school districts impacted by mineral production.

TABOR Outlook

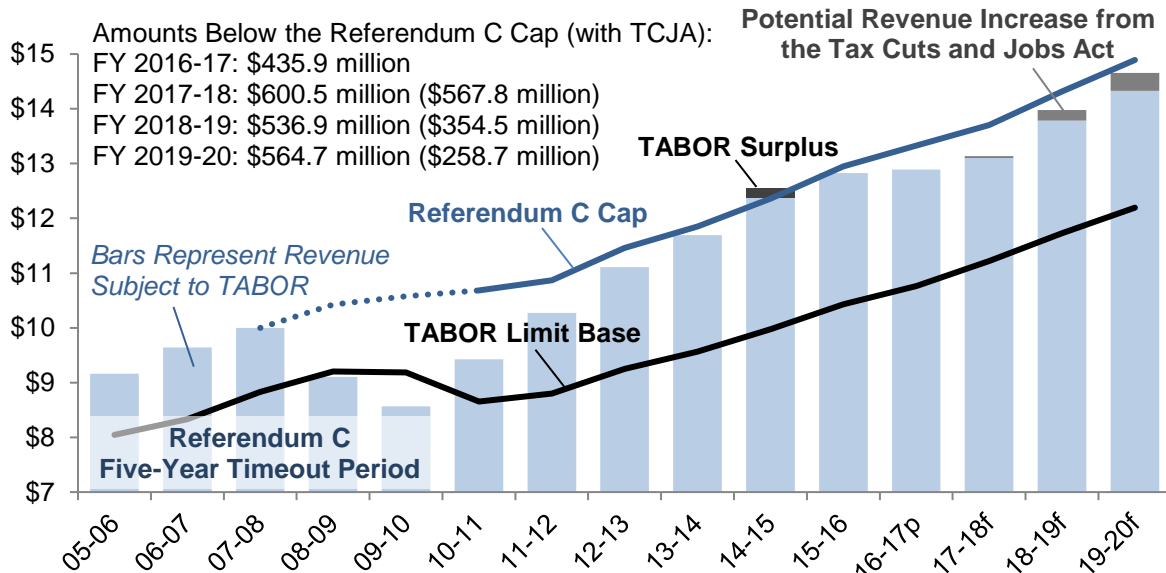
The state's TABOR outlook for this year through FY 2019-20 is presented in Table 7 on page 16 and summarized in Figure 1, which also provides a history of the TABOR limit base and the Referendum C cap back to FY 2005-06.

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

Preliminary data indicate that revenue fell short of the Referendum C cap by \$435.9 million in FY 2016-17. State revenue is expected to continue to fall below the Referendum C cap each year through the forecast period. These expectations incorporate the impact of Senate Bill 17-267, which reduced the Referendum C cap by \$200 million in FY 2017-18, repealed the Hospital Provider Fee at the end of FY 2016-17, and created a similar fee in a TABOR-exempt enterprise beginning in FY 2017-18.

State revenue subject to TABOR is expected to fall further below the Referendum C cap in FY 2017-18 than expected in the September forecast, largely as a result of reduced expectations for cash fund revenue from TABOR sources. This forecast also incorporates reduced expectations for the Referendum C cap in each of FY 2018-19 and FY 2019-20 as a result of downgraded expectations for population growth.

Figure 1
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.

As discussed above, the Tax Cuts and Jobs Act, if enacted, is expected to increase state revenue from individual and corporate income taxes beginning in FY 2017-18. Figure 2 includes black bars in FY 2017-18, FY 2018-19, and FY 2019-20, representing the amount by which state revenue subject to TABOR is projected to increase if the bill is enacted. Based on preliminary estimates, federal legislation is not expected to increase state revenue subject to TABOR by the amount necessary to cause a TABOR refund obligation. Table 8 on page 17 presents an alternative TABOR outlook assuming the adoption of the Tax Cuts and Jobs Act.

State Education Fund

The Colorado Constitution requires the State Education Fund to receive one-third of one percent of taxable income (see Tables 1 and 2, line 24). In addition, the General Assembly has at different times authorized the transfer of additional moneys from the General Fund to the State Education Fund. Money in the State Education Fund is required to be used to fund kindergarten through twelfth grade public education. However, additional revenue in the State Education Fund does not affect the overall flexibility of the General Fund budget.

Table 4 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. Assuming no changes to federal tax law, the State Education Fund will receive \$599.5 million in FY 2017-18, with higher amounts in subsequent years resulting from growth in taxable income among Colorado taxpayers. Preliminary estimates of the impact of the Tax Cuts and Jobs Act suggest a slight increase in constitutionally required State Education Fund transfers beginning in FY 2017-18, as shown in Table 4. For more information on the school finance outlook, see page 63.

Table 4
Revenue to the State Education Fund
Dollars in Millions

Fiscal Year	Constitutionally Required Transfer*		Senate Bill 13-234	Other Transfers	Total Transfers	
	No Federal Law Change	Change under TCJA**			No Federal Law Change	Under TCJA**
2011-12	\$408			\$231.6	\$638.1	\$638.1
2012-13	486			59.0	545.3	545.3
2013-14	479			1,073.5	1,597.6	1,597.6
2014-15	520		45.3	38.7	584.8	584.8
2015-16	523		25.3		547.9	547.9
2016-17p	540		25.3		565.3	565.3
2017-18f	574	2.5	25.3		599.5	602.1
2018-19f	606	14.1	25.3		631.2	645.3
2019-20f	629	23.7	25.0		628.5	652.3

Totals may not sum due to rounding. p = Preliminary. f = Forecast.

Source: Colorado State Controller's Office and Legislative Council Staff.

**One-third of one percent of federal taxable income is required be dedicated to the State Education Fund under Article IX, Section 17 of the Colorado Constitution.*

***Incorporates preliminary estimates of impacts from the Tax Cuts and Jobs Act.*

General Fund Transfers to Transportation and Capital Construction

Table 5 shows statutory transfers from the General Fund to the Highway Users Tax Fund and capital construction funds. Senate Bill 17-267, which authorized up to \$1.88 billion in certificates of participation for transportation projects, repealed transfers from the General Fund to the Highway Users Tax Fund in FY 2018-19 and FY 2019-20 previously specified by Senate Bill 17-262. Transfers in Table 5 are also shown in lines 10 and 11 of Tables 1 and 2.

Table 5
Transfers from the General Fund for Infrastructure
Dollars in Millions

Fiscal Year	Highway Users Tax Fund	Capital Construction Fund
2015-16	\$199.2 HB16-1416	\$49.8 SB15-250
		<u>\$221.3</u> HB16-1416
		\$271.1
2016-17	\$79.0 SB17-262	\$52.7 HB16-1416
		<u>\$31.8</u> HB16-1417
		\$84.5
2017-18	\$79.0 SB17-262	\$109.2¹ SB17-263
2018-19		\$60.0 SB17-262
2019-20		\$60.0 SB17-262

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

Tax Policies Dependent on Revenue Conditions

Several tax expenditures are “triggered” by certain state revenue conditions. These include the historic preservation income tax credit, the child care expenses tax credit, and partial refundability of the conservation easement income tax credit. Table 6 summarizes the availability of these tax policies, each of which is described in greater detail below.

Table 6
Availability of Tax Policies Dependent on Revenue Conditions

Tax Policy	Availability Criteria	Availability
Historic Property Preservation Income Tax Credit (Section 39-22-514, C.R.S.) <i>Revenue reduction of less than \$1.0 million per tax year*</i>	December forecast immediately before the tax year when the credit becomes available. Forecast that projects sufficient General Fund to grow General Fund appropriations by 6 percent.	Available in tax years 2013 through 2015. Not available in tax years 2016 and 2017. Expected to be available in tax years 2018 and 2019. Repealed tax year 2020.
Low-Income Child Care Expenses Tax Credit (Section 39-22-119.5, C.R.S.) <i>Revenue reduction of at least \$6.0 million per tax year</i>	June 2017 forecast. Sufficient General Fund surplus to fund the tax credit.	Available in tax years 2014 through 2016. Not available in tax year 2017. Available in tax years 2018 to 2020. Repealed tax year 2021.
Conservation Easement Tax Credit Partial Refundability (Section 39-22-522 (5)(b)(II), C.R.S.) <i>Revenue reduction of at least \$5.0 million per tax year</i>	TABOR surplus.	Available in tax year 2015 due to the FY 2014-15 TABOR surplus. Unavailable in tax years 2016 or 2017. Not expected to be available through at least tax year 2020.

**Estimates may differ in future analyses.*

The historic preservation income tax credit will be available in tax year 2018. The historic preservation income tax credit will be triggered on for tax year 2018 based on this December 2017 forecast, which expects sufficient revenue to grow appropriations by 6.7 percent in the current fiscal year, \$72.9 million above the required trigger amount.

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

Partial refundability of the conservation easement tax credit will be unavailable for tax year 2017. 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 the state did collect a TABOR surplus in FY 2016-17, the conservation easement credit is nonrefundable for tax year 2017, and excess credit may be carried forward to subsequent tax years. This forecast does not expect that the state will collect a TABOR surplus during the current forecast period, so the credit is not expected to become partially refundable through at least tax year 2020.

Table 7
TABOR Revenue Limit and Retained Revenue
Dollars in Millions

	Preliminary FY 2016-17	Estimate FY 2017-18	Estimate FY 2018-19	Estimate FY 2019-20
TABOR Revenue				
1 General Fund ¹	\$10,156.1	\$10,904.8	\$11,493.7	\$11,962.5
2 Cash Funds ¹	\$2,735.8	\$2,197.0	\$2,288.3	\$2,364.4
3 Total TABOR Revenue	\$12,891.9	\$13,101.8	\$13,782.0	\$14,326.9
Revenue Limit				
4 Allowable TABOR Growth Rate	3.1%	4.5%	4.5%	4.0%
5 Inflation (from Prior Calendar Year)	1.2%	2.8%	3.1%	2.6%
6 Population Growth (from Prior Calendar Year)	1.9%	1.7%	1.4%	1.4%
7 TABOR Limit Base	\$10,761.7	\$11,220.7	\$11,725.6	\$12,194.6
8 Voter Approved Revenue Change (Referendum C)	\$2,130.3	\$1,881.1	\$2,056.4	\$2,132.3
9 Total TABOR Limit / Referendum C Cap	\$13,327.8	\$13,702.3	\$14,318.9	\$14,891.6
10 TABOR Revenue Above (Below) Referendum C Cap	(\$435.9)	(\$600.5)	(\$536.9)	(\$564.7)
Retained/Refunded Revenue				
11 Revenue Retained under Referendum C ²	\$2,130.3	\$1,881.1	\$2,056.4	\$2,132.3
12 Total Available Revenue (revenue available to be spent or saved)	\$12,891.9	\$13,101.8	\$13,782.0	\$14,326.9
13 Revenue to Be Refunded to Taxpayers³	\$0.0	\$0.0	\$0.0	\$0.0
14 TABOR Reserve Requirement	\$386.8	\$393.1	\$413.5	\$429.8

Totals may not sum due to rounding.

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

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

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

Table 8
TABOR Revenue Limit and Retained Revenue with Impacts from Tax Cuts and Jobs Act
Dollars in Millions

	Preliminary FY 2016-17	Estimate FY 2017-18	Estimate FY 2018-19	Estimate FY 2019-20
TABOR Revenue				
1 General Fund ¹	\$10,156.1	\$10,937.5	\$11,676.1	\$12,268.6
2 Cash Funds ¹	\$2,735.8	\$2,197.0	\$2,288.3	\$2,364.4
3 Total TABOR Revenue	\$12,891.9	\$13,134.5	\$13,964.4	\$14,633.0
Revenue Limit				
4 Allowable TABOR Growth Rate	3.1%	4.5%	4.5%	4.0%
5 Inflation (from Prior Calendar Year)	1.2%	2.8%	3.1%	2.6%
6 Population Growth (from Prior Calendar Year)	1.9%	1.7%	1.4%	1.4%
7 TABOR Limit Base	\$10,761.7	\$11,220.7	\$11,725.6	\$12,194.6
8 Voter Approved Revenue Change (Referendum C)	\$2,130.3	\$1,913.8	\$2,238.8	\$2,438.4
9 Total TABOR Limit / Referendum C Cap	\$13,327.8	\$13,702.3	\$14,318.9	\$14,891.6
10 TABOR Revenue Above (Below) Referendum C Cap	(\$435.9)	(\$567.8)	(\$354.5)	(\$258.7)
Retained/Refunded Revenue				
11 Revenue Retained under Referendum C ²	\$2,130.3	\$1,913.8	\$2,238.8	\$2,438.4
12 Total Available Revenue (revenue available to be spent or saved)	\$12,891.9	\$13,134.5	\$13,964.4	\$14,633.0
13 Revenue to Be Refunded to Taxpayers³	\$0.0	\$0.0	\$0.0	\$0.0
14 TABOR Reserve Requirement	\$386.8	\$394.0	\$418.9	\$439.0

Totals may not sum due to rounding.

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

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

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

Table 9
General Fund Rebates and Expenditures
Dollars in Millions

Category	Preliminary FY 2016-17	Estimate FY 2017-18	Estimate FY 2018-19	Estimate FY 2019-20
Senior and Veterans Property Tax Exemptions	\$136.4	\$139.1	\$151.9	\$160.6
Percent Change	7.3	2.0	9.2	5.7
Cigarette Rebate	10.3	10.6	10.5	10.4
Percent Change	-2.2	3.1	-1.1	-1.2
Old-Age Pension Fund	96.5	83.9	81.1	79.9
Percent Change	-10.9	-13.0	-3.4	-1.4
Aged Property Tax and Heating Credit	8.7	5.2	4.9	4.7
Percent Change	-7.3	-39.9	-6.2	-4.2
Older Coloradans Fund	10.0	10.0	10.0	10.0
Percent Change	0.0	0.0	0.0	0.0
Interest Payments for School Loans	3.4	5.6	5.6	5.6
Percent Change	171.6	65.6	0.0	0.0
Fire and Police Pensions	4.2	4.2	4.3	4.3
Percent Change	14.3	0.3	1.0	1.0
Amendment 35 Distributions	0.9	0.9	0.9	0.9
Percent Change	-1.0	0.2	-0.1	-0.3
Marijuana Sales Tax Transfer to Local Governments	14.8	15.9	18.2	19.8
Percent Change	46.1	7.6	14.4	9.0
TOTAL REBATES & EXPENDITURES	\$285.0	\$275.4	\$287.2	\$296.1

Totals may not sum due to rounding.

Table 10
Cash Fund Transfers to and from the General Fund
Dollars in Millions

Transfers to the General Fund		2016-17	2017-18	2018-19	2019-20
HB 05-1262	Amendment 35 Tobacco Tax	0.9	0.9	0.9	0.9
HB 10-1325	Natural Resource Damage Recovery Fund	0.1			
SB 13-133	Limited Gaming Fund	15.2	17.2	17.7	18.7
SB 16-168, SB 16-196, & HB 16-1398	Intellectual and Developmental Disability Fund	1.2			
SB 15-249 & HB 16-1418	Marijuana Tax Cash Fund	26.3			
HB 16-1413	Water Quality Improvement Fund	1.2			
SB 17-260	Severance Tax Funds		45.7		
SB 17-265	State Employee Reserve Fund		26.3		
Total Transfers to the General Fund		\$44.8	\$90.1	\$18.6	\$19.6
Transfers from the General Fund		2016-17	2017-18	2018-19	2019-20
SB 11-047	Bioscience Income Tax Transfer to OEDIT	5.3	5.7	6.0	6.3
HB 12-1315	Clean Renewable Energy Fund	1.6			
HB 13-1193	Advanced Industries Export Acceleration Fund	0.3	0.3		
SB 14-215	Marijuana Tax Cash Fund	83.6	102.6	117.4	128.0
HB 14-1016 ¹	Procurement Technical Assistance Cash Fund	0.2	0.2	0.2	0.2
HB 15-1178	CWCB Emergency Dewatering Grant Account	0.3			
SB 15-112	Building Regulation Fund	0.2			
SB 15-244 & SB 17-267	State Public School Fund	7.8	37.8	20.6	22.4
SB 15-245	Natural Hazard Mapping Fund	2.4	0.7		
HB 16-1161 ²	Veterans Grant Program Fund (<i>conditional</i>)				
HB 16-1288	Industry Infrastructure Fund	0.3	0.3	0.3	
HB 16-1453	Cybersecurity Cash Fund	7.9			
SB 16-003	Wildfire Risk Reduction Fund	1.0			
SB 16-218	State Severance Tax Refunds	53.8			
HB 17-1282	Veterinary Loan Education Repayment Fund		0.14		
SB 17-021	Housing Assistance Persons Transitioning from Incarceration	4.8			
SB 17-255	Technology Advancement and Emergency Fund		2.0	2.0	
SB 17-259	Severance Tax Tier-2 Natural Resource Funds		10.0		
SB 17-261	2013 Flood Recovery Account		12.5		
Total Transfers from the General Fund		\$169.6	\$172.3	\$146.5	\$156.9
Net General Fund Impact		(\$124.7)	(\$82.2)	(\$127.9)	(\$137.3)

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

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

This page intentionally left blank.

GENERAL FUND REVENUE

This section presents the Legislative Council Staff outlook for General Fund revenue, which provides the state's main source of revenue for operating appropriations. Table 12 on page 26 summarizes preliminary General Fund revenue collections for FY 2016-17 and projections for FY 2017-18 through FY 2019-20.

Assuming no changes to federal tax law, gross General Fund revenue is expected to total \$11.1 billion in FY 2017-18, representing strong growth of 7.8 percent over the \$10.3 billion recorded in preliminary reports for FY 2016-17. Robust increases in sales, use, and individual income tax revenue are expected to more than offset slow rates of growth in corporate income tax revenue and other smaller sources of General Fund income. Expectations for FY 2017-18 are essentially unchanged from those published in September, with a net increase in expectations of just \$2.8 million. Modest upward revisions to most components of the forecast more than offset moderate reductions to expectations for corporate income tax revenue.

Gross General Fund revenue is expected to increase an additional 5.5 percent in FY 2018-19 to a total of \$11.7 billion. Revenue expectations are consistent with forecast projections of modest employment growth and moderate increases in income and consumer spending. On net, the General Fund revenue forecast was increased \$49.8 million, or 0.4 percent, from that published in September. This forecast includes modest upward revisions to most large sources of income, including individual income, sales, and use taxes.

General Fund revenue is expected to increase an additional 4.2 percent to total \$12.2 billion in FY 2019-20, an upward revision of \$50.9 million relative to the September forecast.

Preliminary analysis suggests that the federal Tax Cuts and Jobs Act, if adopted, will increase General Fund revenue by \$35.2 million in FY 2017-18, \$196.5 million in FY 2018-19 and \$329.8 million in FY 2019-20. The effects on General Fund revenue and the amount diverted to the State Education Fund are presented as an addendum to Table 12. More information on federal tax law changes can be found in the General Fund Budget Overview on page 10.

Legislative impacts. Table 11 summarizes the estimated General Fund impacts of legislation passed in 2017. This legislation will increase revenue slightly in FY 2017-18 and reduce revenue by a negligible amount in FY 2018-19. Senate Bill 17-267 will increase revenue from the marijuana special sales tax to the General Fund, but will transfer most of the additional revenue to the State Public School Fund, the Marijuana Tax Cash Fund, and local governments. Effective in 2019, the bill also expands the state income tax credit for business personal property tax paid to local governments. The net impact of these changes is a General Fund revenue increase of \$10.2 million in FY 2017-18 and \$15.4 million in FY 2018-19, as shown in Table 11.

As of the June 2017 forecast, Legislative Council Staff revenue forecasts assume that expiring tax credits (tax credits with an upcoming repeal date) will continue. This change in practice is consistent with budgeting assumptions used for programs with a repeal (or “sunset”) date and will allow greater consistency in the revenue and expenditure impacts reported in fiscal notes. In the future, fiscal notes for bills extending expiring tax credits will report a “continuing” revenue impact and these bills will not require budget balancing. In addition, actual adjustments to the revenue forecast may not match estimates reported in Table 11.

Table 11
Legislation Affecting General Fund Revenue
Dollars in Millions

Major Legislation Passed in 2017	2017-18	2018-19
Individual Income Tax		
HB17-1090: Advanced Industry Investment Tax Credit Extension	-\$0.3	-\$0.6
HB17-1002: Child Care Expenses Income Tax Credit Extension ¹	-2.9	-6.1
Total Individual Income Tax Impact	-3.2	-6.7
Corporate Income Tax		
HB17-1356: Treat Economic Development Income Tax Credits Differently		-5.6
SB17-299: Apportionment of Income of Enterprise Data Centers		-2.4
SB17-267: Increase in Business Personal Property Tax Credit		-9.8
Total Corporate Income Tax Impact		-17.8
Sales and Excise Taxes		
SB17-267: Increase in Marijuana Special Sales Tax Rate ²	10.2	25.4
HB17-1103: Exemption for Historic Aircraft on Loan for Public Display	<i>potential decrease</i>	
Total Impact on Sales and Excise Taxes	10.2	25.4
Insurance Premium Tax		
SB17-198: Public Participate Review Acquire Control Insurer	-0.01	-0.01
Total Insurance Premium Tax Impact	-0.01	-0.01
Other Miscellaneous Revenue		
SB17-180: PUC Streamlined Enforcement of Motor Carriers	-0.25	-0.25
HB17-1077: Useful Public Service Cash Fund Diversion	-0.03	-0.03
HB17-1119: Payment of Workers' Compensation Benefits		-0.60
HB17-1092: Retail Establishment & Performing Rights	0.01	0.01
HB17-1263: Limited Lines Self-storage Insurance License		0.01
HB17-1224: Misbranded Adulterated Counterfeit Drugs Penalty	0.01	0.01
Other Miscellaneous Revenue Impact	-0.26	-0.86
Revenue Impact of 2017 Legislation	\$6.73	-\$0.02

Triggered Legislation	2017-18	2018-19
Income Tax		
Gross Conservation Easement Partial Refundability ³	OFF	OFF
Historical Preservation Income Tax Credit ⁴	-0.5	-1.0
Revenue Impact of Triggered Legislation	-\$0.5	-\$1.0

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

²Amounts reflect the net increase in revenue to the General Fund from the marijuana special sales tax, reflecting General Fund revenue increases of \$74.0 million in FY 2017-18 and \$84.7 million in FY 2018-19, as well as transfers out of the General Fund.

³Triggered on by collection of a TABOR surplus during the preceding fiscal year (Section 39-22-522 (5) (b), C.R.S.). Not available in 2016, 2017, or 2018. Estimated to reduce General Fund revenue by \$4.9 million annually when triggered on.

⁴Based on this forecast, triggered on in tax year 2018 because revenue is expected to be sufficient to grow General Fund appropriations by 6 percent in FY 2017-18 (Section 39-22-514, C.R.S.). Expected to be triggered on in tax year 2019 and off in tax year 2020.

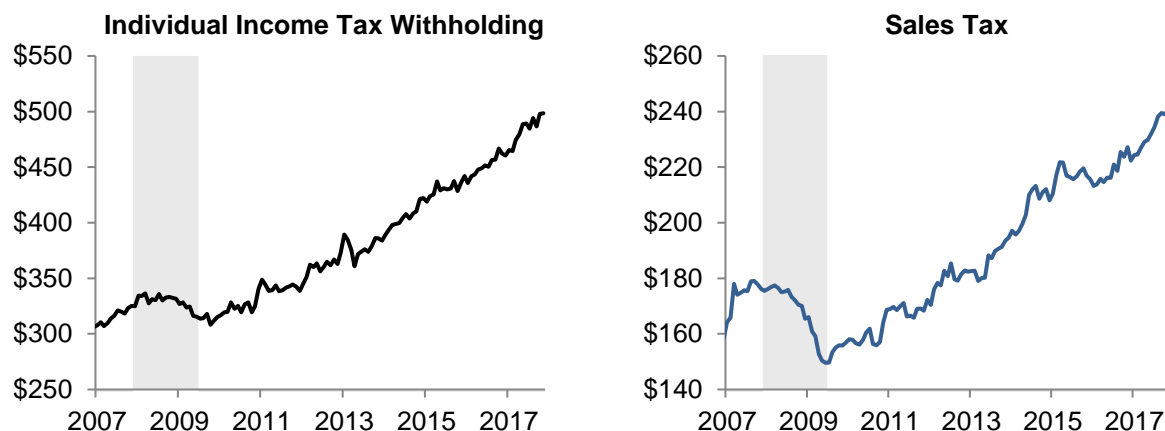
Note: Because the forecast assumes continuation of expiring tax expenditures, actual adjustments to the revenue forecast may not match the estimates reported here.

Triggered tax expenditure impacts. Table 6 also summarizes impacts for tax expenditures that may or may not be available depending on the General Fund budget outlook. The Historic Preservation Income Tax Credit is triggered on for tax year 2018 as this revenue forecast expects sufficient revenue to allow 6 percent growth in General Fund appropriations in FY 2017-18. Partial refundability of the Gross Conservation Easement Tax Credit, however, is expected to remain triggered off as the state is not expected to collect a TABOR surplus through at least FY 2019-20.

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

Wage withholding continues to grow at a rate faster than inflation and population growth (Figure 2, left). This trend is expected to continue throughout the forecast period as the tight labor market forces wages higher, driving growth in total individual income tax collections. Anticipated federal tax policy changes continue to dampen cash with returns and boost taxpayer refunds in FY 2017-18, as some taxpayers delay the sale or claim of assets on anticipation of federal tax cuts expected to take effect in tax year 2018. A slowdown in equity markets is expected to soften growth in estimated payments in FY 2018-19 and FY 2019-20 as taxpayers claim less in capital gains income.

Figure 2
Selected Sources of General Fund Revenue
Millions of Dollars Collected per Month



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

Assuming no changes to federal tax law, individual income tax collections are expected to increase 7.6 percent in FY 2017-18, before slowing to 5.1 percent in FY 2018-19 and 4.1 percent in FY 2019-20. Relative to the September forecast, expectations for individual income tax collections were largely unchanged. The forecast includes upward revisions of \$13.7 million in FY 2017-18 and \$31.4 million in FY 2018-19.

The Tax Cuts and Jobs Act currently before Congress proposes significant changes to federal taxable income, the amount from which Colorado taxable income is computed. The most significant changes include repealing the tax exemption for personal expenses, increasing the standard deduction, eliminating or modifying the size of several exclusions and itemized deductions, and establishing a 20 percent deduction for income from pass-through entities. If enacted, these provisions, on net, are expected to increase individual income tax revenue by \$61.9 million in FY 2017-18, \$218.8 million in FY 2018-19, and \$312.2 million in FY 2019-20, based on preliminary estimates.

Sales taxes. The 2.9 percent state sales tax is assessed on the purchase of goods, except those specifically exempted, and a relatively small collection of services. The amounts presented in Table 12 include revenue from the special sales tax on retail marijuana, which is projected to jump 61.3 percent in FY 2017-18 with a tax rate increase of 5 percentage points. Netting out marijuana taxes, sales tax receipts are expected to increase 6.5 percent to total \$2.9 billion during the current FY 2017-18 before slowing to 5.0 percent in FY 2018-19 and 4.9 percent in FY 2019-20. This forecast modestly increases expectations for sales tax relative to those published in September, with upward adjustments of \$4.6 million in FY 2017-18 and \$14.7 million in FY 2018-19.

Sales tax collections have grown quickly thus far in 2017 (Figure 2, right), reflecting higher household incomes and improved consumer confidence. Preliminary reports for the 2017 holiday season indicate strong performance alongside additional migration from brick-and-mortar retailers to online sellers, who may or may not collect Colorado sales tax depending on whether they occupy physical space in the state. Growth in sales collections is expected to moderate slightly but continue to outpace changes in prices and population, in part because prices for retail goods will inflate less quickly than those for other consumer goods and services.

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 2017, rising 13.9 percent over the January to November period in 2016 on the strength of a recovering energy industry. Revenue is expected to continue to grow at robust rates through the forecast period, increasing 15.3 percent in the current FY 2017-18 before adding 6.1 percent in each of the next two fiscal years. The forecast represents significant upward revisions to September expectations primarily owing to current year performance. Expected collections were revised upward by \$12.4 million in FY 2017-18 and \$14.2 million in FY 2018-19.

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

Corporate income taxes. A tight labor market and competition for other business inputs will dampen corporate profits throughout the forecast period. Collections are expected to reach \$532.3 million in FY 2017-18, a 4.5 percent increase attributable to business growth and energy industry stabilization. Growth will accelerate to 13.2 percent in FY 2018-19 with anticipated strengthening in corporate performance in the energy industry among others, but is expected to be moderated by policy changes (Table 12) taking effect in 2018 and beyond. This forecast includes a \$33.6 million reduction in expected corporate income tax revenue in FY 2017-18 and a \$5.7 million reduction in FY 2018-19.

The Tax Cuts and Jobs Act increases the federal corporate income tax base, the amount from which Colorado taxable income is computed. The most significant change to corporate taxable income allows businesses to depreciate the full cost of their equipment investments in the first year the equipment is in service. Because businesses will fully depreciate the equipment for tax purposes in the first year, there will be no depreciation deductions in future years. By comparison, under current law, corporations depreciate the value of business equipment over a set schedule, which allows them to have smaller deductions over a longer period of time. Accelerating the depreciation schedule effectively reduces taxes in the first year the equipment is put in place and increases taxes in future years. If enacted, the provisions of the bill impacting corporate taxable income, on net, are expected to decrease corporate income tax revenue by \$26.7 million in FY 2017-18 and \$22.2 million in FY 2018-19 largely as a result of the accelerated depreciation schedule, before increasing corporate income tax revenue by \$17.6 million in FY 2019-20.

Table 12
General Fund Revenue Estimates
Dollars in Millions

Category	Preliminary FY 2016-17	Percent Change	Estimate FY 2017-18	Percent Change	Estimate FY 2018-19	Percent Change	Estimate FY 2019-20	Percent Change
Excise Taxes								
1 Sales	\$2,825.7	6.5	\$3,063.9	8.4	\$3,232.2	5.5	\$3,399.1	5.2
2 Use	259.5	7.6	299.1	15.3	317.4	6.1	336.8	6.1
3 Cigarette	36.6	-1.7	36.3	-0.7	36.0	-1.1	35.5	-1.2
4 Tobacco Products	21.2	0.6	22.3	5.2	23.3	4.2	24.3	4.6
5 Liquor	45.0	3.3	46.4	3.1	48.0	3.4	49.8	3.9
6 Total Excise	3,188.0	6.4	3,468.1	8.8	3,656.7	5.4	3,845.6	5.2
Income Taxes								
7 Net Individual Income	6,760.9	3.6	7,277.0	7.6	7,651.4	5.1	7,965.9	4.1
8 Net Corporate Income	509.3	-21.9	532.3	4.5	602.4	13.2	598.3	-0.7
9 Total Income Taxes	7,270.2	1.3	7,809.4	7.4	8,253.7	5.7	8,564.2	3.8
10 Less: Portion Diverted to the SEF	-540.0	3.3	-574.2	6.3	-606.2	5.6	-628.5	3.7
11 Income Taxes to the General Fund	6,730.2	1.1	7,235.1	7.5	7,647.5	5.7	7,935.6	3.8
Other Sources								
12 Insurance	290.5	3.6	310.5	6.9	315.9	1.8	320.8	1.5
13 Pari-Mutuel	0.6	-6.6	0.6	-3.8	0.5	-3.0	0.5	-2.4
14 Investment Income	14.7	18.6	18.2	23.5	22.5	23.3	24.9	11.0
15 Court Receipts	4.1	17.5	4.4	8.3	4.7	7.0	5.0	5.6
16 Other Income	47.3	109.8	35.3	-25.4	36.1	2.1	36.7	1.7
17 Total Other	357.2	11.8	369.0	3.3	379.7	2.9	387.9	2.2
18 Gross General Fund Revenue	\$10,275.5	3.0	\$11,072.2	7.8	\$11,684.0	5.5	\$12,169.1	4.2

Addendum: Preliminary Impact Estimates of the Federal Tax Cuts and Jobs Act

19 Change in Revenue ¹			\$35.2		\$196.5		329.8	
20 Less: Portion Diverted to the SEF			-2.5		-14.1		-23.7	
21 Gross GF Revenue with TCJA	\$10,275.5	3.0	\$11,104.9	8.1	\$11,866.4	6.9	\$12,475.2	5.1

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

¹Changes resulting from the Federal Tax Cuts and Jobs Act. Amounts indicate preliminary estimates of net impacts on individual and corporate income tax revenue.

CASH FUND REVENUE

Table 13 summarizes the forecast for cash fund revenue subject to TABOR. The largest sources are motor fuel taxes and other transportation-related revenue, the Hospital Provider Fee, gaming taxes, and severance taxes. The end of this section also presents the forecasts for marijuana sales and excise tax, Federal Mineral Lease, and unemployment insurance revenue. These forecasts are presented separately because they are not subject to TABOR limitations.

Cash fund revenue subject to TABOR totaled \$2.78 billion in FY 2016-17. This revenue is expected to fall 20.8 percent to \$2.20 billion in FY 2017-18. The drop in revenue from the elimination of the Hospital Provider Fee and the 2.9 percent sales tax on retail marijuana in Senate Bill 17-267 more than offsets expected increases in transportation-related and severance tax revenue. Year-over-year changes in other cash fund categories are minimal.

Total cash fund revenue subject to TABOR will rebound from this lower level by 4.2 percent to \$2.29 billion in FY 2018-19, and 3.3 percent to \$2.36 billion in FY 2019-20, as most revenue sources are projected to continue to rise.

Transportation-related revenue subject to TABOR totaled \$1,220.3 million in FY 2016-17. Transportation funding will increase 1.8 percent in FY 2017-18 to \$1,242.8 million and grow 1.8 percent in FY 2018-19. The forecast for TABOR revenue to transportation-related cash funds is shown in Table 14 on page 29.

The largest source of revenue into the Highway Users Tax Fund (HUTF) is motor fuel excise tax (22¢ per gallon of gasoline and 20.5¢ per gallon of diesel fuel). Fuel excise tax increased 3.2 percent in FY 2016-17 to \$629.4 million. In FY 2017-18, fuel tax collections are expected to grow 1.8 percent and reach \$640.9 million. The HUTF also receives revenue from other sources, including registration fees. In FY 2016-17 total registration fees equaled \$369.0 million and they are expected to increase 1.7 percent to \$375.4 million in FY 2017-18. Expectations for registration fee revenue were reduced slightly on lower expectations for state population growth. Total HUTF revenue is expected to increase 1.9 percent to \$1,082.7 million in FY 2017-18 and 1.6 percent to \$1,099.7 million in FY 2018-19.

The State Highway Fund (SHF) is the primary fund for the state Department of Transportation to meet state transportation needs. The SHF receives money from HUTF transfers, local government grants, and interest earnings. HUTF revenue is subject to TABOR when it is originally collected by the state but the transfers are not. The two largest sources of TABOR revenue into the fund are local government grants and interest earnings. Local government revenue fluctuates based on local budgeting decisions and large annual fluctuations are common. SHF revenue subject to TABOR is expected to increase 15.1 percent to \$46.0 million in FY 2017-18 and increase 6.3 percent to \$48.9 million in FY 2018-19. Other transportation cash fund revenue subject to TABOR is expected to be \$114.0 million in FY 2017-18, a 0.7 percent decrease from the previous year, and grow slowly through the forecast period. 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 14. Revenue to this enterprise is expected to grow 1.7 percent to \$108.4 million in FY 2017-18 and 1.7 percent to \$110.2 million in FY 2018-19. The bridge safety surcharge fee collections typically grow at the same rate as vehicle registrations.

Table 13
Cash Fund Revenue Subject to TABOR
Dollars in Millions

	Preliminary FY 2016-17	Estimate FY 2017-18	Estimate FY 2018-19	Estimate FY 2019-20	CAAGR*
Transportation-Related Percent Change	\$1,220.3 3.0%	\$1,242.8 1.8%	\$1,265.5 1.8%	\$1,286.8 1.7%	1.8%
Hospital Provider Fee ¹ Percent Change	\$654.4 -18.6%	NA	NA	NA	
Severance Tax Percent Change	\$19.5 3.0%	\$61.3 214.7%	\$76.2 24.3%	\$80.6 5.8%	60.6%
Gaming Revenue ² Percent Change	\$103.7 0.9%	\$106.9 3.2%	\$108.7 1.7%	\$110.8 1.9%	2.3%
Insurance-Related Percent Change	\$10.3 -9.6%	\$16.0 54.6%	\$19.5 21.8%	\$19.6 0.7%	23.8%
Regulatory Agencies Percent Change	\$75.5 9.8%	\$78.0 3.3%	\$80.0 2.5%	\$81.9 2.4%	2.7%
Capital Construction Related – Interest ³ Percent Change	\$4.6 -12.2%	\$5.1 9.8%	\$4.6 -9.8%	\$3.8 -16.8%	-6.3%
2.9% Sales Tax on Marijuana ⁴ Percent Change	\$40.9 28.6%	\$13.3 -67.6%	\$13.3 0.5%	\$13.3 0.2%	-31.1%
Other Cash Funds Percent Change	\$646.5 -7.6%	\$673.7 4.2%	\$720.6 7.0%	\$767.5 6.5%	5.9%
Total Cash Fund Revenue Subject to the TABOR Limit	\$2,775.6 -5.2%	\$2,197.0 -20.8%	\$2,288.3 4.2%	\$2,364.4 3.3%	-5.2%

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

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

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

²Gaming revenue in this table does not include revenue from Amendment 50, because it is not subject to TABOR.

³Includes interest earnings to the Capital Construction Fund, the Controlled Maintenance Trust Fund, and transfers from certain enterprises.

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

Table 14
Transportation Revenue by Source
Dollars in Millions

	Preliminary FY 2016-17	Estimate FY 2017-18	Estimate FY 2018-19	Estimate FY 2019-20	CAAGR*
Highway Users Tax Fund (HUTF)					
Motor and Special Fuel Taxes	\$629.4	\$640.9	\$651.6	\$660.9	1.6%
Percent Change	3.2%	1.8%	1.7%	1.4%	
Total Registrations	\$369.0	\$375.4	\$381.9	\$388.8	1.8%
Percent Change	3.6%	1.7%	1.7%	1.8%	
<i>Registrations</i>	\$218.4	\$222.0	\$225.7	\$229.7	
<i>Road Safety Surcharge</i>	\$130.6	\$132.8	\$135.0	\$137.3	
<i>Late Registration Fees</i>	\$20.1	\$20.6	\$21.2	\$21.8	
Other HUTF Receipts ¹	\$67.0	\$66.4	\$66.2	\$66.0	-0.5%
Percent Change	3.9%	-0.9%	-0.3%	-0.3%	
Total HUTF	\$1,065.4	\$1,082.7	\$1,099.7	\$1,115.7	1.5%
Percent Change	3.4%	1.6%	1.6%	1.5%	
State Highway Fund (SHF) ²	\$40.0	\$46.0	\$48.9	\$52.0	9.1%
Percent Change	-23.4%	15.1%	6.3%	6.3%	
Other Transportation Funds	\$114.9	\$114.0	\$116.9	\$119.1	1.2%
Percent Change	12.3%	-0.7%	2.5%	1.9%	
<i>Aviation Fund</i> ³	\$23.1	\$20.9	\$21.9	\$22.4	
<i>Law Enforcement-Related</i> ⁴	\$8.8	\$8.7	\$8.9	\$8.9	
<i>Registration-Related</i> ⁵	\$83.0	\$84.4	\$86.1	\$87.8	
Total Transportation Funds	\$1,220.3	\$1,242.8	\$1,265.5	\$1,286.8	1.8%
Percent Change	3.0%	1.8%	1.8%	1.7%	

Totals may not sum due to rounding.

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

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

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

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

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

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

Addendum: TABOR-Exempt FASTER Revenue

	Preliminary FY 2016-17	Estimate FY 2017-18	Estimate FY 2018-19	Estimate FY 2019-20	CAAGR*
Bridge Safety Surcharge	\$106.7	\$108.4	\$110.2	\$112.2	1.1%
Percent Change	-0.6%	1.7%	1.7%	1.8%	

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.

After accounting for \$654.4 million in fee collections and associated interest earnings subject to TABOR in FY 2016-17, the **Hospital Provider Fee** was repealed on July 1, 2017. Under Senate Bill 17-267, hospitals now remit a Healthcare Affordability and Sustainability Fee to a new enterprise. Beginning in the current FY 2017-18, fee and interest earnings are omitted from Table 13 because they are enterprise funds exempt from TABOR. For all three years of the current forecast period, the “other cash funds” line item in Table 13 includes \$15.7 million in fee revenue that is authorized to be spent for nonexempt programs and thus subject to TABOR.

Severance tax revenue, including interest earnings, was \$19.5 million in FY 2016-17. Starting in FY 2015-16, oil and gas producers began to deduct additional costs from revenue when calculating their severance tax liability due to a Colorado Supreme Court ruling. The magnitude of these deductions is not clear. However, monthly severance tax collections have slowed since this ruling. This forecast assumes that oil and gas producers will continue to remit lower severance tax payments through the end of the forecast period, FY 2019-20. Total severance tax collections will equal \$61.3 million in FY 2017-18 and \$76.2 million in FY 2018-19.

In FY 2016-17, oil and gas severance tax collections totaled \$4.0 million, which includes severance tax refunds paid out of the General Fund pursuant to Senate Bill 16-218 and a negative \$37.0 million accrual. Oil and gas severance taxes are expected to increase to \$48.3 million in FY 2017-18 and \$64.1 million in FY 2018-19. This is lower than estimated in September, and less revenue than would have been collected prior to 2016 given the expectations for oil and gas production and prices in the forecast period. Net oil and gas severance taxes have been low compared with historical collections since August 2016, when the Colorado Department of Revenue began to process amended returns filed following the court case. Overall, monthly net collections have remained low for a variety of reasons, including elevated ad valorem credits, lower oil and gas prices nationally, less oil and gas production, and the effects of the supreme court case. Many of these factors have improved. However, through the first five months of FY 2017-18, oil and gas severance taxes have not recovered. The forecast assumes that oil and gas severance taxes will not recover despite more production and higher prices due to changes in taxpayer behavior following the Colorado Supreme ruling. Table 15 on page 31 presents the forecast for severance tax revenue by mineral source.

Oil prices have maintained a range of \$45 to \$55 a barrel in 2017. Prices are expected to increase slowly throughout the forecast period to \$51 per barrel in 2019. Oil production in Colorado declined 8.2 percent in 2016 and is expected to decline 0.4 percent in 2017. Recent drilling activity in Northern Colorado will contribute to a 5.4 percent increase in oil production in 2018 and modest oil production increases through 2020.

Natural gas producers in Colorado have received an average price of \$2.93 per Mcf through the first eleven months of 2017. Natural gas producers are able to quickly place natural gas on the market due to new technologies and existing infrastructure, which will keep prices below \$4.00 throughout the forecast period. Prices are expected to average \$3.06 per Mcf in 2018 and rise to \$3.51 per Mcf by the end of 2020.

Coal, which has historically been the second largest mineral source of severance taxes in Colorado after oil and natural gas, generated \$4.2 million in severance taxes in FY 2016-17. Coal severance taxes are expected to decrease 11.3 percent to \$3.7 million in 2017-18, reflecting long-run trends in the coal industry. Coal production has declined as electric utilities have been shifting production to natural gas. For the first time ever, the U.S. Energy Information Administration expects electricity from natural gas fired power plants to exceed electricity from coal fired power plants in the summer of 2017. The latest sign of the realignment in the energy sector is the announcement by Xcel Energy that the company will close two coal fired power plants in the Comanche Generating Station in Pueblo.

Table 15
Legislative Council Staff
Severance Tax Revenue Forecast by Source
Dollars in Millions

	Preliminary FY 2016-17	Estimate FY 2017-18	Estimate FY 2018-19	Estimate FY 2019-20	CAAGR*
Oil and Gas	\$4.0	\$48.3	\$64.1	\$69.0	157.8%
Percent Change	-22.8%	1098.9%	32.8%	7.6%	
Coal	\$4.2	\$3.7	\$3.3	\$2.9	-11.8%
Percent Change	15.9%	-11.3%	-11.7%	-10.3%	
Molybdenum and Metallica	\$2.9	\$2.9	\$3.0	\$3.0	0.4%
Percent Change	100.2%	0.4%	0.4%	0.4%	
Total Severance Tax Revenue	\$11.1	\$54.9	\$70.3	\$74.9	88.8%
Percent Change	8.2%	393.7%	28.1%	6.5%	
Interest Earnings	\$8.4	\$6.4	\$5.9	\$5.8	-11.7%
Percent Change	-3.3%	-23.5%	-8.2%	-2.0%	
Total Severance Tax Fund Revenue	\$19.5	\$61.3	\$76.2	\$80.6	60.6%
Percent Change	3.0%	214.7%	24.3%	5.8%	

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

Table 16
Tax Revenue from the Marijuana Industry
Dollars in Millions

	Preliminary FY 2016-17	Forecast FY 2017-18	Forecast FY 2018-19	Forecast FY 2019-20	CAAGR*
Proposition AA Taxes					
Special Sales Tax	\$98.3	\$158.7	\$181.6	\$197.9	26.2%
State Share of Sales Tax	83.6	142.8	163.4	178.1	
Local Share of Sales Tax	14.8	15.9	18.2	19.8	
15% Excise Tax	71.9	81.6	88.2	92.7	8.8%
Total Proposition AA Taxes	170.3	240.2	269.7	290.6	26.2%
2.9 Sales Tax (Subject to TABOR)					
2.9% Sales Tax on Medical Marijuana	12.4	12.4	12.3	12.3	-0.3%
2.9% Sales Tax on Retail Marijuana	28.1	0.8	0.9	0.9	
Subject to TABOR Interest	0.3	0.1	0.1	0.1	
Total 2.9% Sales Tax	40.9	13.3	13.3	13.3	-31.1%
Total Taxes on Marijuana	\$211.1	\$253.5	\$283.1	\$303.9	12.9%

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

Metal and molybdenum mines paid \$2.9 million in severance taxes on the value of minerals produced in FY 2016-17. International demand for steel has increased mining activity at the two molybdenum mines in Colorado: the Climax Mine, outside Leadville, and the Henderson Mine, outside Empire. Based on continued demand, metal and molybdenum severance taxes are expected to be \$2.9 million in FY 2017-18 and \$3.0 million in FY 2018-19.

Finally, interest earnings are expected to be \$6.4 million in FY 2017-18 and \$5.9 million in FY 2018-19.

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

Limited gaming revenue subject to TABOR totaled \$103.7 million in FY 2016-17 and is expected to grow 3.2 percent to \$106.9 million in FY 2017-18. Through October, tax revenue alone grew 6.3 percent from the July to October period in 2016 on the strength of additional wagers and higher “hold” percentages, the percentages of wagers retained by casinos and not paid to players in winnings. 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. Gaming revenue is expected to grow at slower rates through the remainder of the forecast period, including by 1.7 percent during FY 2018-19.

Under state law, 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 3.0 percent therefore result in disproportionately higher distributions of Amendment 50 revenue. This revenue primarily supports the state community college system. In the current FY 2017-18, fast growth in gaming tax revenue is expected to increase community college distributions to \$11.4 million, representing growth of 9.2 percent.

The marijuana market is beginning to mature, resulting in increasing tax collections but moderating annual growth rates. Total **marijuana tax** revenue is expected to reach \$253.5 million in FY 2017-18 and \$283.1 million in FY 2018-19 (Table 16).

Special sales tax revenue on retail marijuana is expected to reach \$158.7 million in FY 2017-18 and \$181.6 million in FY 2018-19. Senate Bill 17-267 increased the special sales tax rate on retail marijuana from 10 percent in FY 2016-17 to 15 percent in FY 2017-18, which is the largest factor in the \$60.4 million increase between the two years.

Excise tax revenue is forecast to reach \$81.6 million in FY 2017-18 and \$88.2 million in FY 2018-19. The average market rate for marijuana products has been declining as the marijuana market matures. The Department of Revenue calculates an average market rate for marijuana products, which is then paid for each unit of marijuana when it is transferred from the grow facility to a retail store or marijuana processor. Because the average market rate is forecast to fall through the forecast period, marijuana excise tax collections are not expected to grow as quickly as special sales tax revenue. The first \$40 million in excise tax revenue is deposited in the BEST fund for school capital construction projects. This threshold was first met in FY 2015-16 and growth in the industry will cause excise tax revenue to easily exceed this threshold throughout the forecast period.

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 decline through the forecast period, generating about \$12.3 million each fiscal year. Sales taxes on marijuana accessories and other non-marijuana products sold in a retail marijuana store are expected to generate about \$800,000 in FY 2017-18 and \$900,000 in FY 2018-19. Revenue from the 2.9 percent sales tax is deposited in the Marijuana Tax Cash Fund and is subject to TABOR.

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

For FY 2016-17, FML revenue fell 2.1 percent from the previous year to \$91.0 million as the coal industry continues to adjust to electricity generation shifting from coal to other energy sources, including natural gas, wind, and solar power. FML revenue is expected to increase 1.6 percent in FY 2017-18 because the owners of the two largest coal mines in the state recently exited bankruptcy and coal production is expected to increase. FML payments will increase 10.0 percent in FY 2018-19 to \$101.6 million as the state fulfills its obligations for previous payments associated with canceled leases on the Roan Plateau.

The FML forecast does not include any impact from the pending federal tax legislation. According to the Congressional Budget Office, "The Tax Cuts and Jobs Act" will increase the deficit by \$1.5 trillion over the next ten years. The increase in the deficit will trigger pay-as-you-go procedures automatically reducing some federal expenditures including FML distributions to the states.

Forecasts for **Unemployment Insurance (UI) Trust Fund** revenue, benefit payments, and year-end balance are shown in Table 17. Revenue to the UI Trust Fund has not been subject to TABOR since FY 2009-10 and is therefore excluded from Table 13 on page 28. Revenue to the Employment Support Fund, which receives a portion of the UI premium surcharge, is still subject to TABOR and is included in the revenue estimates for other cash funds in Table 13.

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

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

Table 17
Unemployment Insurance Trust Fund
Revenues, Benefits Paid, and Fund Balance
Dollars in Millions

	Preliminary FY 2016-17	Estimate FY 2017-18	Estimate FY 2018-19	Estimate FY 2019-20	CAAGR*
Beginning Balance	\$679.8	\$739.4	\$910.1	\$1,054.9	
Plus Income Received					
UI Premium	\$633.0	\$583.9	\$538.7	\$594.7	-2.06%
Interest	\$15.7	\$15.9	\$16.0	\$16.5	
Total Revenues	\$648.7	\$599.8	\$554.7	\$611.2	-1.97%
Percent Change	1.7%	-7.6%	-7.5%	10.2%	
Less Benefits Paid	\$466.0	\$429.0	\$409.9	\$397.6	-5.15%
Percent Change	-9.7%	-7.9%	-4.4%	-3.0%	
UI Bonds Principal Repayment	(\$125.0)	\$0.0	\$0.0	\$0.0	
Accounting Adjustment	\$1.8	\$0.0	\$0.0	\$0.0	
Ending Balance	\$739.4	\$910.1	\$1,054.9	\$1,268.5	19.71%
Solvency Ratio					
Fund Balance as a Percent of Total Annual Private Wages	0.66%	0.78%	0.85%	0.96%	

Totals may not sum due to rounding.

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

ECONOMIC OUTLOOK

The U.S. and Colorado economies will grow at a moderate pace through 2019. The national expansion continues to approach the longest on record, supported by moderate growth in consumer activity, improved business investment, and increasing global economic activity. In 2017, business activity has been bolstered by improvements in the global economy, rising commodity prices, and optimism for future profitability across most industries. These trends will continue into 2018. Consumer activity will continue to drive economic growth in spite of demographic headwinds, which are contributing to low wage growth. Should the federal Tax Cuts and Jobs Act become law, economic activity will grow at a slightly faster pace due to stronger business investment and a modest boost to consumer spending.

The economic expansion in Colorado will remain among the strongest in the country. However, rapid appreciation in Colorado housing costs continues to shape the economic landscape of the state. Housing affordability has already slowed net migration, which will further limit the already tight supply of labor in Colorado. Unless wages rise, high housing costs will dampen household spending as Colorado residents pay an increasing share of their income on the cost of living. Areas of the state that are more reliant on energy, steel refining, and agriculture will continue to expand at weaker rates than the mountain and northern Front Range regions. However, areas where growth is slower remain more affordable. Diversification or improved industry activity will spur strong growth in these areas.

Risks to the forecast remain skewed to the downside as the economy loses steam in the mature stages of expansion. Additionally, geopolitical risk remains elevated, posing possible unexpected shocks to the economy. Upside risks include stronger than expected wage gains, which could produce stronger consumer activity. Additionally, business investment could be stronger than expected if optimism materializes into action beyond the risk tolerance assumed in this forecast.

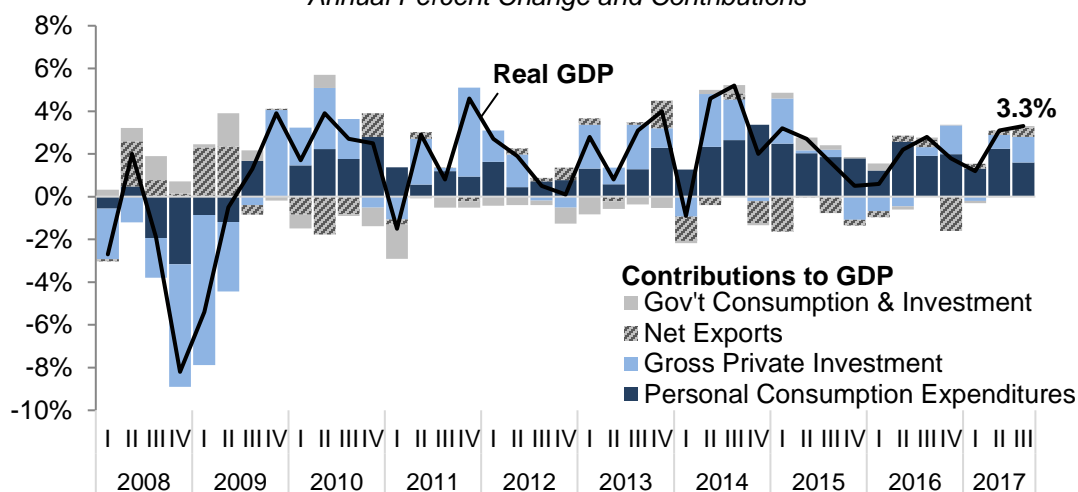
Tables 18 and 19 on pages 60 and 61 present histories and expectations for economic indicators for the U.S. and Colorado, respectively.

Gross Domestic Product

The U.S. economy continues to expand into the late stages of the business cycle, with business activity and consumer spending driving growth. Real gross domestic product (GDP), the broadest measure of economic activity, increased at an annualized rate of 3.3 percent on an inflation-adjusted basis in the third quarter of 2017, the strongest rate since mid-2014. The nation's economy has grown at an annualized rate of 2.2 percent in the first three quarters of the year relative to the same period last year. Figure 3 presents the annualized change in real U.S. GDP and contributions from its four major components since 2008.

Growth is expected to slow some in the fourth quarter of the year but sustain the expansion to 103 consecutive months (nearly nine years) of growth, the third longest expansion in the nation's recorded history. Only the recovery and expansions following the 1960-61 and 1990-91 recessions were longer in duration, lasting 106 months and 120 months, respectively. Relative to prior business cycles, the strength of growth in the current expansion continues to underwhelm, even with the recent acceleration in GDP growth to above 3 percent (Figure 4).

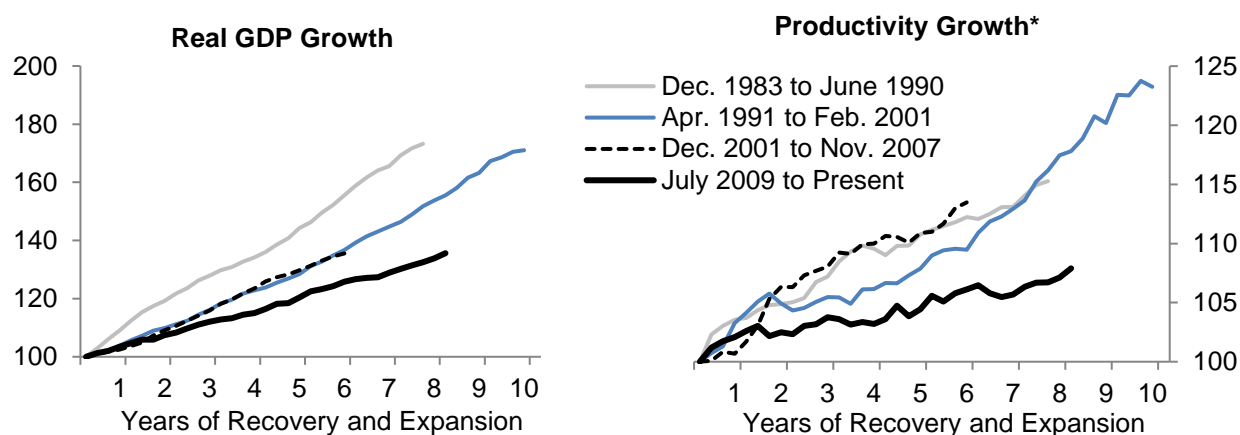
Figure 3
Contributions to Real U.S. Gross Domestic Product
Annual Percent Change and Contributions



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

Many factors have contributed to slower growth, including demographic change, which has slowed population growth and consumer activity as a higher share of the population moves into retirement and spending patterns shift. Additionally, structural changes in the economy, including technological change and shifts toward automation, have slowed growth in labor productivity and wage growth, which too have slowed consumption and shifted business spending increasingly toward cost-saving, capital-intensive investments.

Figure 4
U.S. Economic Growth in Recovery and Expansion
Index of Quarterly Growth since the Start of the Past Four Recoveries



Source: U.S. Bureau of Economic Analysis.

*Productivity growth is calculated as real GDP divided by the number of labor hours worked by all U.S. workers.

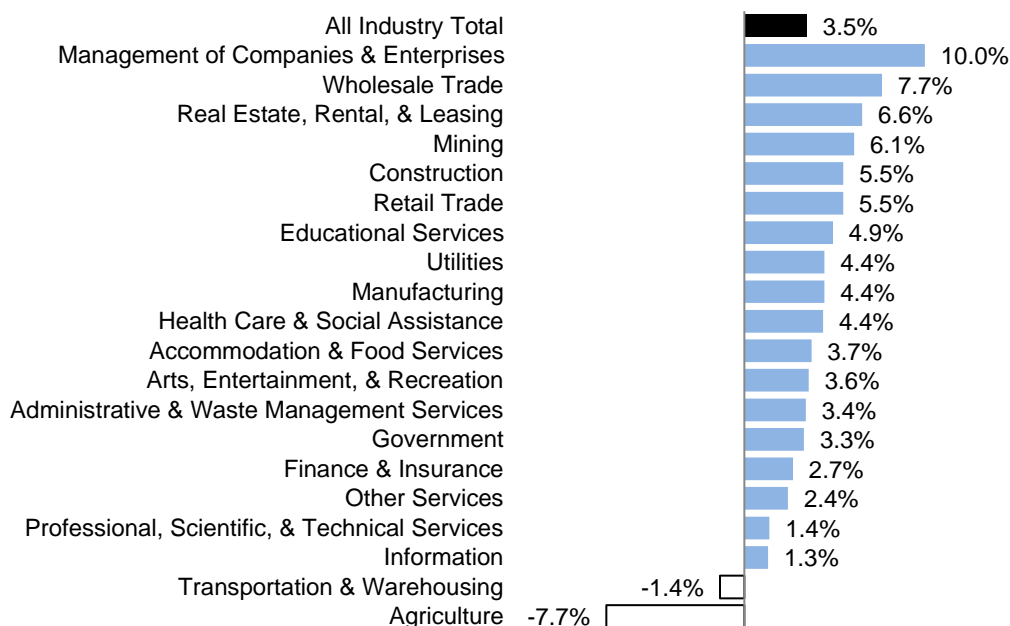
While subdued by these factors, consumer spending continues to drive economic growth. Spending on both goods and services continued at a healthy pace through the third quarter of the year. Business spending and investment, as measured by gross private investment, also bolstered growth, particularly in the third quarter of the year, as businesses invested more in equipment and intellectual property products. Investment in nonresidential structures (construction) waned in the third quarter, partially offsetting gains in the other components. Residential investment (home improvements) has also weakened over the past two quarters.

Net exports contributed to growth in the second and third quarter with modest positive contributions from both imports and exports. Coupled with stronger global economic activity, the recent decline in the U.S. dollar relative to foreign currencies has boosted U.S. exports. Government spending and investment also added modestly to economic growth, as growth in federal defense spending more than offset slight declines in non-defense and state and local government spending.

Hurricanes Harvey and Irma weakened national consumer and business activity in the third quarter. However, these impacts were largely temporary, and future quarters will see stronger growth as businesses resume operations and communities rebuild. The impacts of federal tax policy changes may spur additional business activity, modestly contributing to economic activity. Similarly, consumer spending may increase modestly to the extent that households receiving federal tax savings spend more.

Outpacing national economic activity, Colorado's real GDP grew by 3.5 percent in the first two quarters of 2017 (Figure 5). Economic growth for the state has been broad-based across industries, with 18 of 20 sectors registering growth. While other industries showed faster growth, real estate and retail sectors contributed most to economic activity. Agriculture and transportation and warehousing both posed a modest drag.

Figure 5
Colorado Real Gross Domestic Product in the First Half of 2017
Percent Change, Year-over-Year



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

- Real U.S. GDP is expected to increase 2.2 percent in 2017 and 2.4 percent in 2018. Consumer spending will remain the most significant driver of growth, followed by business investment.

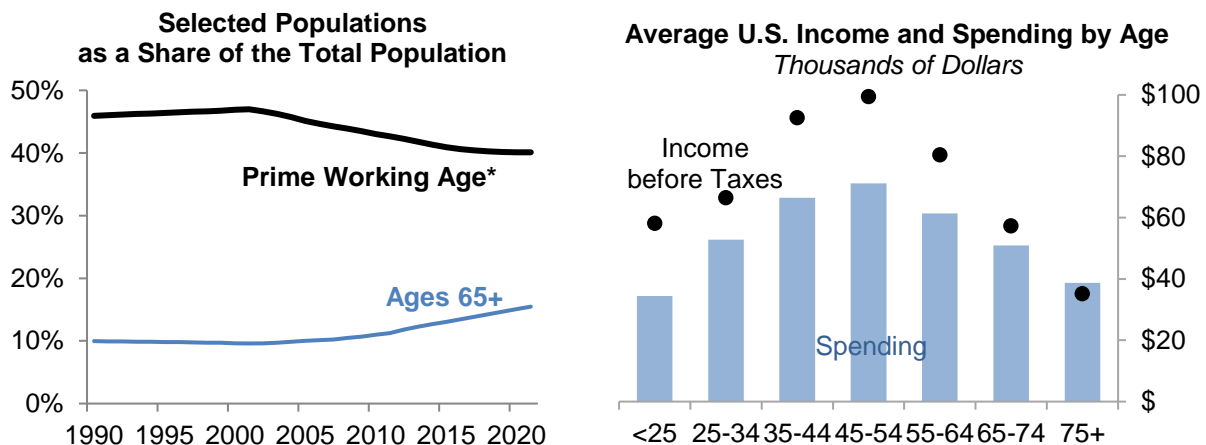
Demographics

Net migration has slowed. Data from the U.S. Census Bureau American Community Survey suggest a slowdown in the number of new residents moving to Colorado and a rising number of those leaving the state. Resulting lower levels of net migration will dampen total population growth and contribute to an even tighter labor market. Housing affordability is a primary driver of the slowdown in net migration as suggested by data and anecdotal information. County population estimates demonstrate that families with school-aged children have migrated from high housing cost areas in the metro Denver region to more affordable areas elsewhere in the state. Consistent with nationwide trends, international migration to Colorado has also slowed due to changes in federal immigration policy and improved economic prospects abroad.

The aging population is slowing economic activity. Demographic change actively affects economic performance across the U.S. and in Colorado, impacting the supply of labor, income, consumption, and inflation. An increasing share of the baby boomer generation — those born between 1946 and 1964 — is retiring, causing labor force participation to decline and slowing income and consumption growth. Based on projections recently released by the State Demography Office, Colorado's prime working age population, comprising persons between ages 25 and 54, is projected to fall from a high of 47 percent of the population in 2001 to 41.1 percent by 2020 (Figure 6, left). The share of those aged 65 and older is expected to rise from a historical average of about 10 percent to nearly 15 percent by 2020.

Income and consumption rise and fall with age (Figure 6, right). In particular, the average earning and consumption levels of those in the U.S. peak between ages 45 and 54 and decline steadily thereafter. As the baby boomer generation reached their 40s and 50s, the U.S. enjoyed a “demographic dividend,” marked by strong economic growth in the 1990s and 2000s.

Figure 6
Selected Demographic Indicators



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

Source: U.S. Bureau of Labor Statistics, 2016 Consumer Expenditure Survey.

The current expansion has been less impressive than in previous business cycles in part because of the demographic drag on U.S. and Colorado economies, which is expected to continue well into the future. The oldest baby boomers reached age 65 in 2010. The youngest will reach retirement age in 2029. The number of baby boomers leaving the labor force is expected to peak in Colorado in the early 2020s.

Evolving consumption patterns. In addition to the rise and fall of income and spending, consumption patterns tend to evolve over time with changes in technology and economic activity. Anecdotal evidence and economic data suggest that members of the Millennial generation — those born between 1980 and 1999 — spend more on ‘experiences,’ such as travel and dining out, and less on ‘things,’ such as apparel, books, and food consumed at home, than previous generations did at their age. Millennials are also exhibiting different patterns than prior generations with respect to housing, which makes up the largest share of household expenses (over 40 percent in the Denver-Boulder-Greeley combined statistical area). National data from the Consumer Expenditure Survey suggest that relative to prior generations aged 25 to 34, millennials are less likely to own a home, more likely to rent or live with their parents, and less likely to move. These consumption trends have subdued national demand for housing construction and sales in recent years. However, these trends are abating as a rising share of Millennials are reaching their 30s.

- With the slowdown in net migration to the state, Colorado population growth is projected to slow from 1.7 percent in 2016 to 1.4 percent in 2017 and 2018.

Business Income and Activity

Rising business income and manufacturing activity evidence the expanding economy. Following sagging performance in the wake of the December 2014 oil price plunge, U.S. businesses now demonstrate renewed vigor that portends sustained growth through the forecast period as stronger global economic activity supports rising commodity prices. A healthy private sector will support improvements in economic output both through direct investment and through spending by wage earners. Rising business income and activity will continue at a moderate pace through the forecast period on further improvements in these trends.

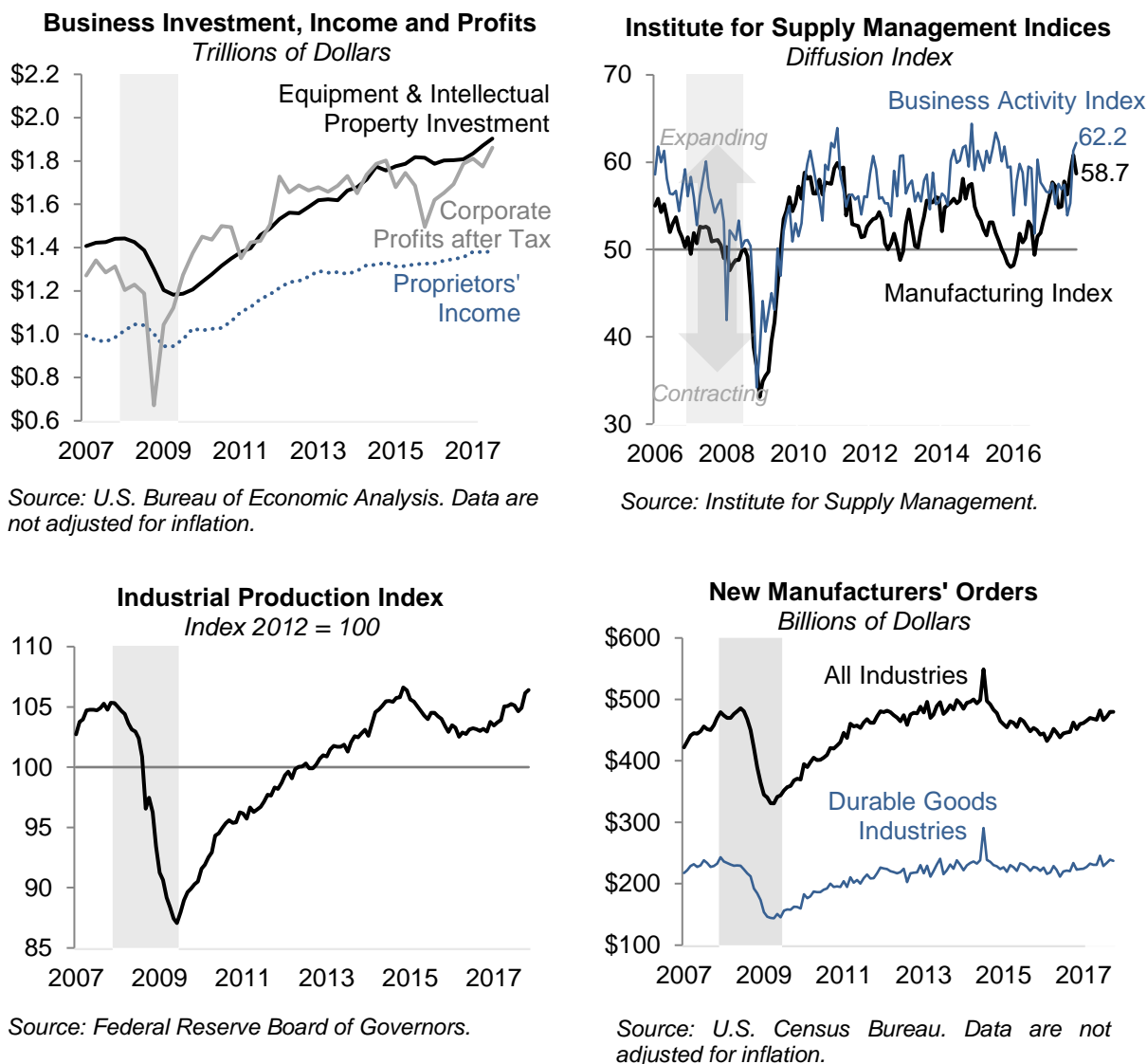
Figure 7 shows selected measures of business activity. The rebound in business investment, proprietors’ income, and corporate profits after tax (top left) began in 2016 and has continued through the fall of 2017. **Investment** in equipment and intellectual property added 4.0 percent the third quarter of 2017 compared with the same period in 2016. **Business income** also showed strength: corporate profits after tax were up 9.7 percent through the third quarter of 2017, while proprietors’ income increased 3.2 percent.

Both the Institute for Supply Management’s (ISM) **manufacturing** index and its non-manufacturing business activity index indicate expanding business activity. The manufacturing index has shown expanding activity (values above 50) for the past twelve months, rising to 58.7 in October. The non-manufacturing index, which had consistently shown stronger activity than the manufacturing index through most of the expansion, slowed to 62.2 in October.

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 Fed index strengthened to 73.0 in October. Regional manufacturers were swamped

with new orders in January and February and have still been working to fill those back orders. Manufacturing output has increased and expectations for future activity remain positive.

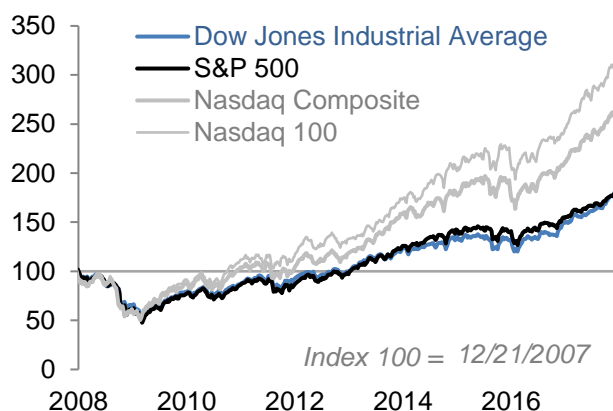
Figure 7
Selected Indicators of U.S. Business Activity



As measured by the Federal Reserve, **industrial production** (Figure 7, bottom left), increased 1.8 percent through the first eleven months of 2017 after declining 1.2 percent in 2016. Industrial production ticked down in August, primarily because of lost oil and gas output in Texas as a result of Hurricane Harvey, but has since recovered. Manufacturing and industrial production orders (Figure 7, bottom right) continue to increase as the expansion matures and global markets improve. Total new manufacturing orders increased 5.8 percent in the first ten months of 2017 compared with the same period in 2016. New orders for durable goods increased 5.1 percent, partially on the strength of increased orders for airplanes.

Gains in the **stock market** remain robust and accelerated in the third and fourth quarters of 2017. Investor confidence has driven increases across all indices since the start of the year. The Dow Jones Industrial Average reached 24,230 points in early December, up 4,390 points (22.1 percent) from the end of 2016, while the broader S&P 500 index is up 17.1 percent over the same period. As shown in Figure 8, stock market performance has grown fastest among tech firms traded on the Nasdaq, particularly those in the tech sector.

Figure 8
Stock Market Growth Comparisons



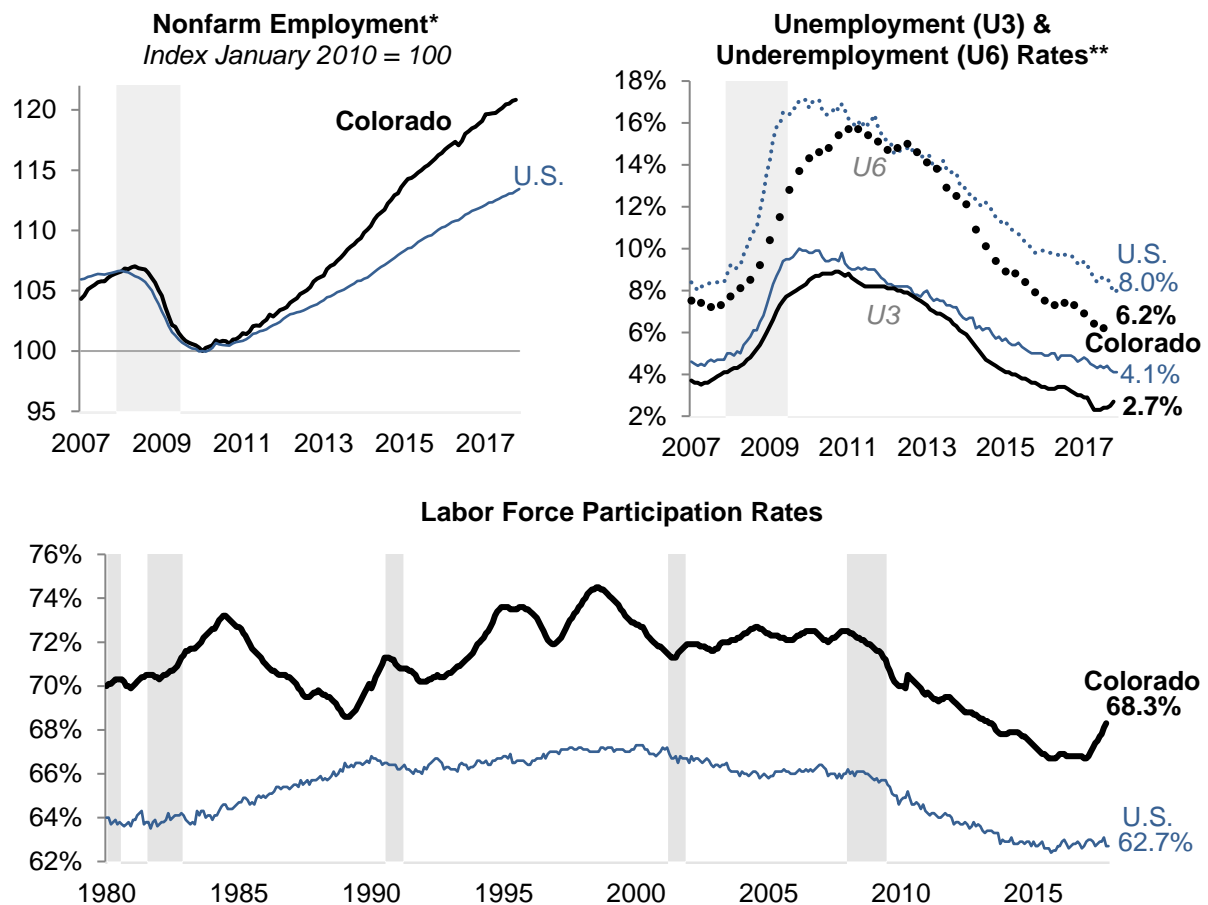
Source: S&P Dow Jones Indices LLC and NASDAQ OMX Group.

Labor Market

U.S. and Colorado labor markets continued to improve into the fourth quarter of 2017. U.S. labor market strength quickly rebounded from weak September numbers attributable to hurricane-related disruptions. Job opportunities continue to rise at a pace faster than growth in the labor force, pushing both **unemployment** and underemployment rates lower across the nation and in Colorado (Figure 9, top right). Colorado's unemployment rate remains among the lowest in the country at 2.7 percent as of October, and the number of people looking for work remains near historical lows. The pace of job gains, however, is slowing as the labor market tightens further and employers struggle to find the talent and skilled labor they need to grow business (Figure 9, top left). Labor market growth is expected to continue to slow throughout the forecast period.

In Colorado, **labor force participation** rates stabilized at the end of 2015 and since the start of 2017 have ticked up, offsetting long-term demographic trends and reflecting the lure of attractive job opportunities in the state. Nationally, the upward trend has been much less pronounced. Data revisions are expected for Colorado, however, which may result in lower participation rates than those currently published. Over the longer term, the aging of the U.S. and Colorado populations are expected to maintain a drag on labor force participation, ultimately resulting in further declines in the participation rate for the nation. On average, Colorado's population remains younger than the nation as a whole, but it is aging faster.

Figure 9
Selected U.S. and Colorado Labor Market Indicators



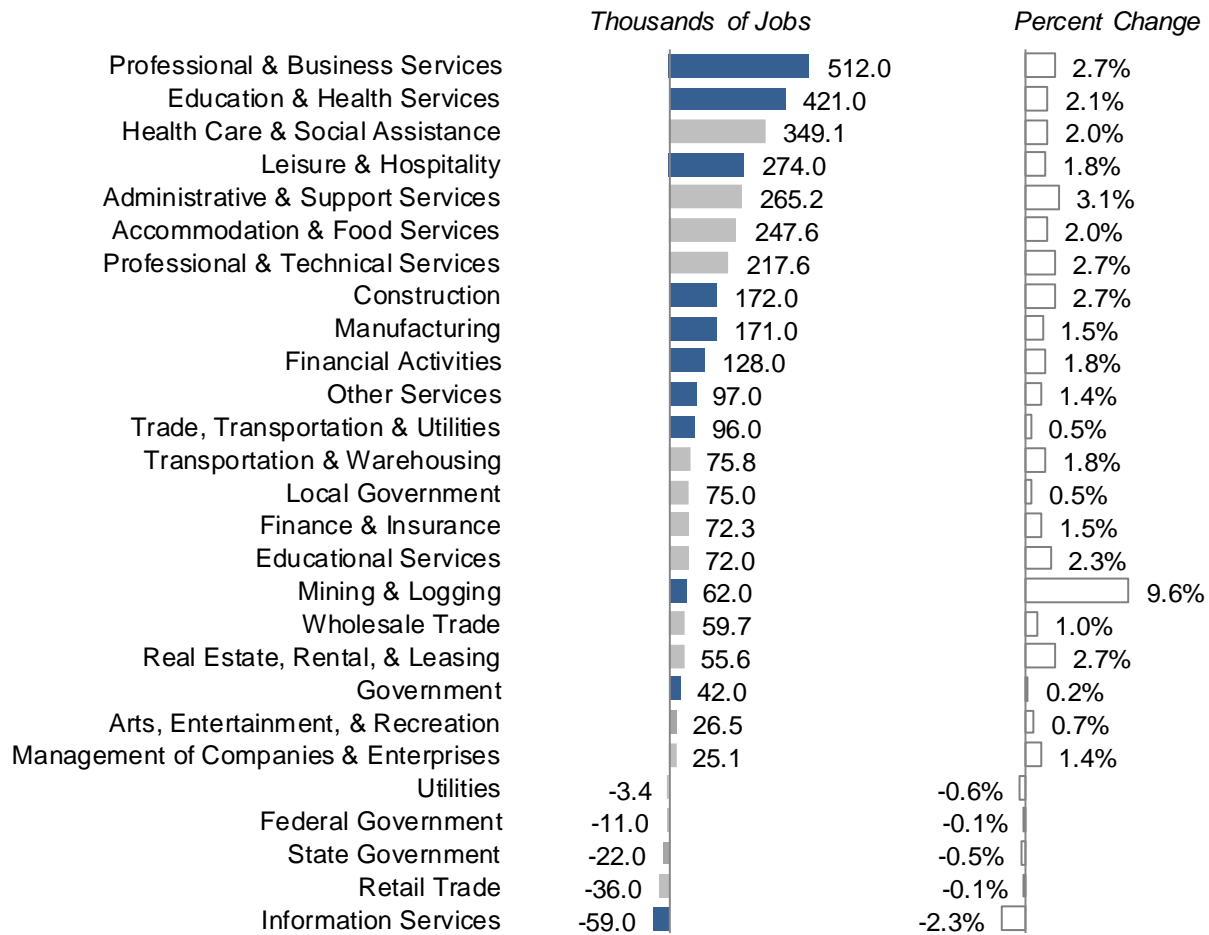
Source: U.S. Bureau of Labor Statistics. Data are seasonally adjusted and are through November for the U.S. and October for Colorado.

*Nonfarm employment estimates include revisions expected by Legislative Council Staff from the Bureau of Labor Statistics' annual re-benchmarking process.

**Underemployment rates for Colorado are shown as four-quarter averages, while data for the U.S. are monthly.

In the current expansion, U.S. **employment growth** peaked in March of 2015 at 2.1 percent. The growth rate has since moderated, reaching 1.4 percent in November 2017. Through November, U.S. employers have added 174,200 new jobs on average per month. The greatest number of job gains have been in the professional and business services supersector, followed by the education and health services supersector (Figure 10). Mining and logging employment has improved considerably in recent months on increased oil production and investment spurred by rising crude oil prices. However, total employment in the sector is still well below its peak employment of almost 900,000 jobs in early 2014. Employment in the retail trade sector continues to decline as large department stores, such as Macy's and JCPenney, close their brick and mortar stores and shed their workforce to adjust to changing consumer buying habits in the industry.

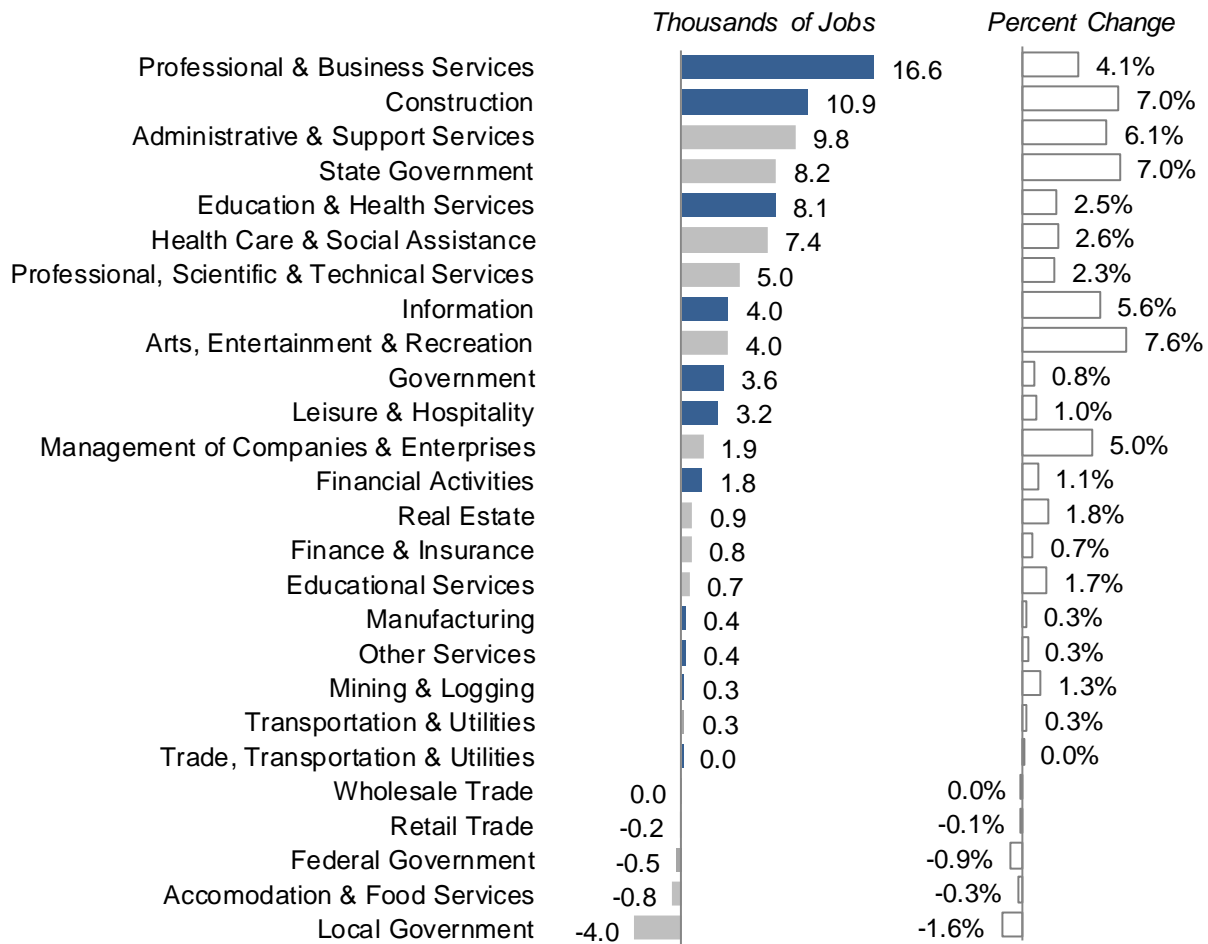
Figure 10
U.S. Job Gains and Losses by Industry
Year-over-Year Change, November 2017 over November 2016



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

Colorado job growth rose an estimated 1.9 percent in October over year-ago levels. While stronger than national estimates, the state's job growth in 2017 represents a significant slowdown relative to peak expansionary growth of 3.8 percent at the start of 2015. Colorado employment estimates shown here include upward revisions expected by Legislative Council Staff from the Bureau of Labor Statistics' annual re-benchmarking process and therefore differ from current estimates published by the Bureau of Labor Statistics. Accounting for these expected revisions, the state averaged 3,900 new jobs per month in the first ten months of 2017. Like the nation as a whole, the professional and business services supersector has contributed most to job gains in the current year (Figure 11). Additionally, strong residential and nonresidential construction activity continues to support growth in construction jobs, though scarce labor has slowed the number of jobs added. Job growth in the energy industry remains subdued in Colorado relative to national trends.

Figure 11
Colorado Job Gains and Losses by Industry
Year-over-Year Change, October 2017 over October 2016



Source: U.S. Bureau of Labor Statistics. Data are seasonally adjusted. Blue shading indicates a supersector, while grey shading indicates a subsector. Nonfarm employment estimates include revisions expected by Legislative Council Staff from the Bureau of Labor Statistics's annual re-benchmarking process.

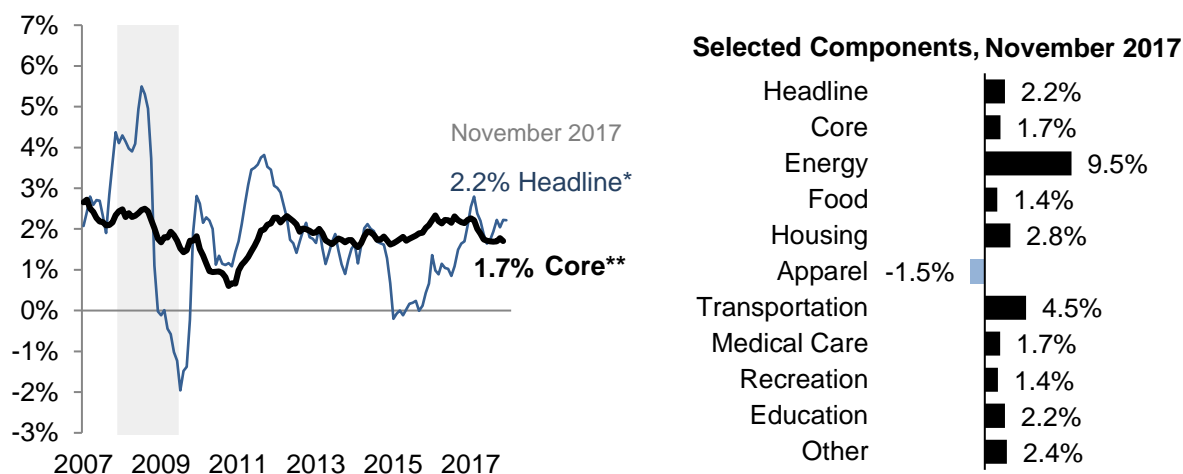
- Colorado will continue to add jobs through the forecast period, although at a slower pace than in recent years as labor market shortages constrain growth. Nonfarm employment in the state will increase 2.2 percent in 2017 and 1.7 percent in 2018. The state's unemployment rate will average 2.7 percent in 2017 and 2.6 percent in 2018.
- As the nation maintains full employment, U.S. nonfarm employment will increase 1.5 percent in 2017 and 1.2 percent in 2018. The national unemployment rate will average 4.4 percent in 2017 and 4.1 percent in 2018.

Monetary Policy and Inflation

At the December Federal Open Market Committee meeting, the Committee voted to raise the target range for the federal funds rate a quarter point to between 1.25 percent and 1.5 percent, continuing the move toward monetary tightening. In addition to raising target rates, the Federal Reserve has begun to slowly and steadily reduce its balance sheet, which is expected to put gradual upward pressure on longer-term interest rates. The normalization of unprecedented monetary policy comes at a time when inflation remains unusually low given the low U.S. unemployment rate.

U.S. consumer prices, as measured by the consumer price index for all urban areas (CPI-U), increased 2.2 percent through November relative to the same month a year prior (Figure 12). Core consumer prices, which exclude the volatile components of food and energy, increased at a more modest rate of 1.7 percent. Energy price inflation is attributable in part to the ongoing recovery of oil prices from their late-2014 plunge and more recently to the effects of Hurricane Harvey, which devastated refining capacity along the Gulf Coast. Aside from apparel, all major price components rose year-over-year in October, with the housing component contributing most to headline inflation.

Figure 12
Consumer Price Index Inflation for All Urban Areas in the U.S.
Percent Change in Prices, Year-over-Year

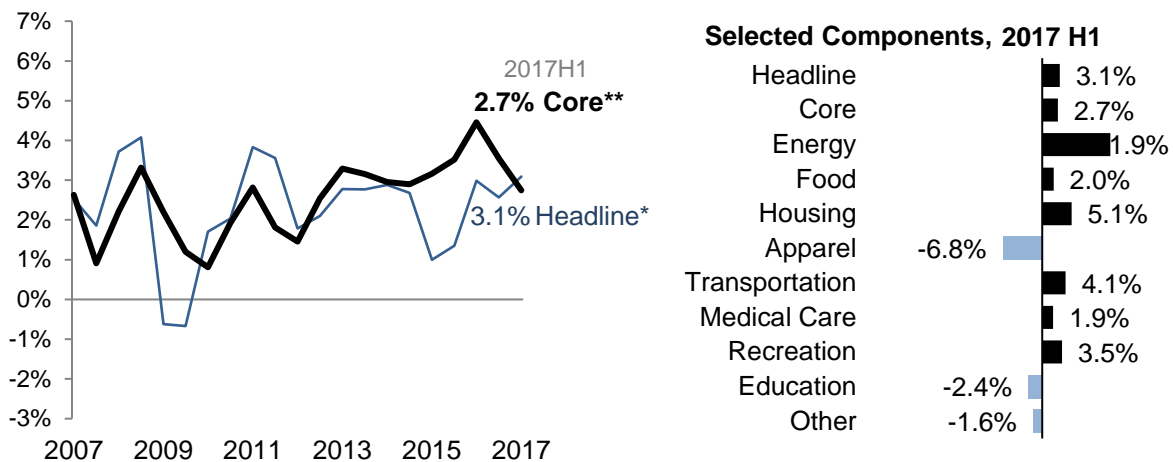


Source: U.S. Bureau of Labor Statistics. Inflation is calculated as the percent change in prices.

*Headline inflation includes all products and services. **Core inflation excludes food and energy prices.

Consumer prices in Colorado will continue to rise at a rate faster than the U.S. as a whole, due in large part to rapid growth in housing costs across most of the state. In the first half of 2017, the headline Denver-Boulder-Greeley consumer price index rose 3.1 percent over year-ago levels, while core prices rose 2.7 percent (Figure 13). Due to methodological changes, beginning in February 2018 a new inflation series will replace the Denver-Boulder-Greeley series. The new series, which will be produced on a bi-monthly basis, includes the Denver-Aurora-Lakewood core-based statistical area, a geographically more concentrated area than the existing index.

Figure 13
Denver-Boulder-Greeley Consumer Price Index (CPI-U) Inflation
Percent Change in Prices, Year-over-Year



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

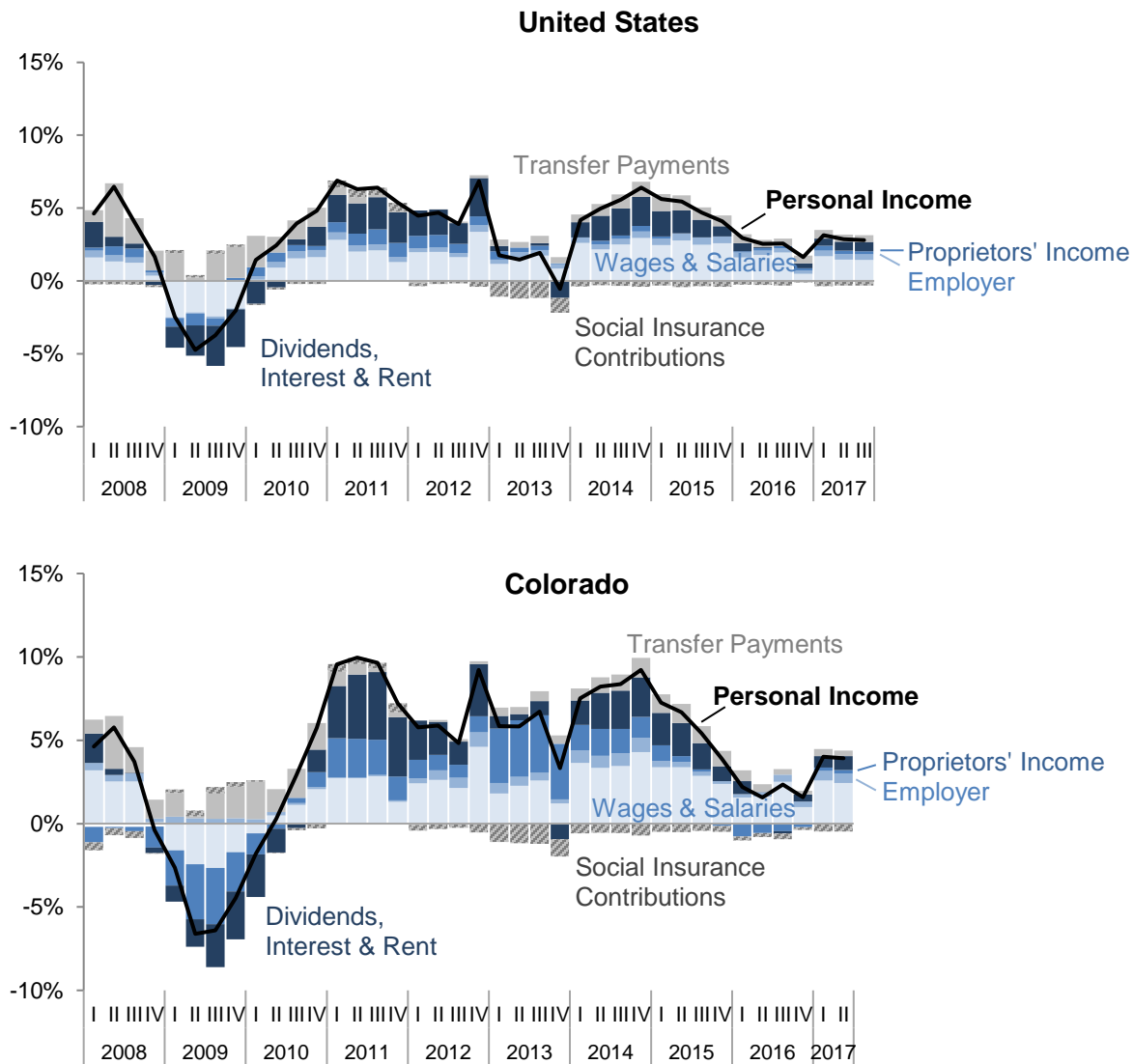
- Consumer prices for the Denver-Boulder-Greeley area are expected to increase 3.1 percent in 2017 and 2.6 percent in 2018. By comparison, the national measure for all urban areas is expected to rise 2.0 percent in 2017 and 2018.

Households and Consumers

Consumer spending continues to be the primary driver of economic activity for the nation. In a low inflation environment, discretionary household incomes can reach further. Yet, wages are rising slowly and disproportionately across regions of the nation and state as well as across skilled and unskilled labor. The personal savings rate continues to fall and households are increasingly turning to debt to support consumption. Consumer spending is expected to continue to bolster economic activity throughout the forecast period. However, the pace of consumer contributions will be constrained by the demographic drag on rising real wage growth and high housing costs.

Personal income. U.S. personal income, an aggregate indicator of income from households and non-corporate businesses, continues to grow at a rate roughly consistent with inflation and population growth. In the third quarter of the year, U.S. personal income rose 2.9 percent over year-ago levels. Colorado data, which are only available through the second quarter of 2017, rose 3.9 percent over the same period last year. This is a rate slightly below projected population plus inflation growth. Colorado has outpaced the nation in personal income growth since 2012, largely due to stronger growth in wages and salaries, which have been bolstered by stronger state population growth than the nation as a whole. The relative contributions of the major components of personal income are shown in Figure 14.

Figure 14
Personal Income and Its Components
Contributions to Percent Change, Year-over-Year

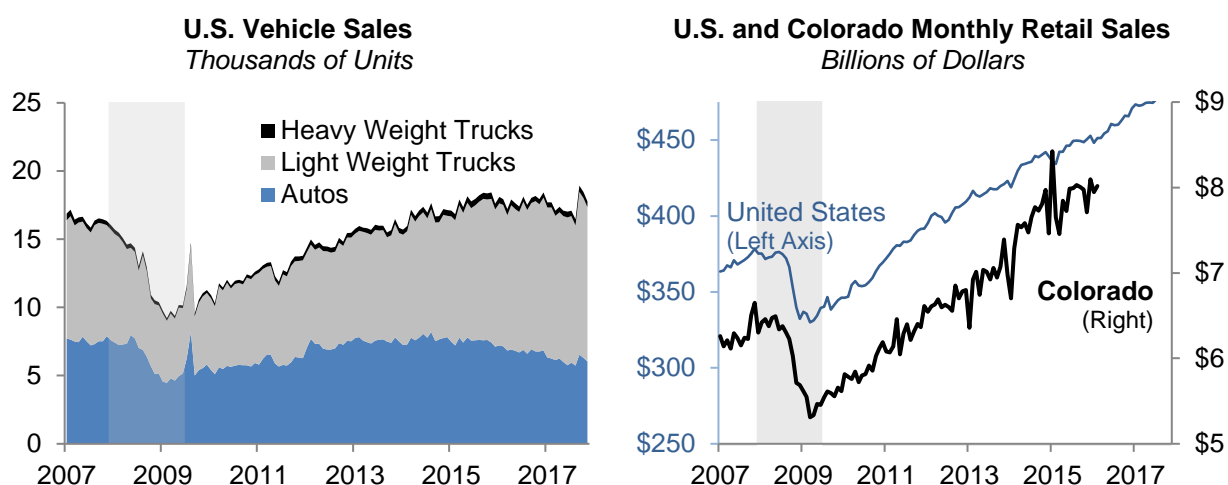


Source: U.S. Bureau of Economic Analysis with Legislative Council Staff calculations. Data are not adjusted for inflation.

Consumer spending. Consumer spending remains the most reliable contributor to growth in the national economy. Inflation-adjusted U.S. personal consumption expenditures increased 2.7 percent in the first three quarters of 2017 relative to the same period in 2016, representing growth at essentially the same rate as that experienced last year. The composition of consumer spending continues to shift over time, with durable goods (goods that may be kept for a longer period of time, such as vehicles and appliances) consumption outpacing that of nondurable goods (such as perishable food items), and consumption of services outpacing that of goods.

Confident consumers continue to make larger investments in durable goods. Personal consumption expenditures in the durable goods category increased 4.1 percent through the third quarter compared with the first three quarters of 2016, representing acceleration from last year's 3.2 percent growth rate. The September forecast expected U.S. consumer spending to be adversely affected by Hurricane Harvey in Texas and Louisiana and Hurricane Irma in Florida during the final four months of 2017. However, initial indicators, particularly for vehicle sales, suggest that consumers responded to the hurricanes more quickly than anticipated, purchasing new items to replace damaged or destroyed ones (Figure 15, left). These distortions may temporarily boost consumption during the final quarter of 2017.

Figure 15
Selected Indicators of Consumer Spending



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

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

U.S. **retail sales** increased 4.5 percent through November, representing acceleration from last year's 3.0 percent growth rate (Figure 15, right). The strongest performance was among nonstore retailers, including online sellers without a physical retail presence, and gasoline stations, which have seen strong gains consistent with a rebound from last year's low fuel prices (Figure 16). Motor vehicle and parts retailers, the largest subsector of retail establishments, reported healthy 4.9 percent growth in sales even as the volume of vehicle purchases slumped to begin the year. Retailers, against whom online sellers are best equipped to compete, continue to report the worst sales performance. These include general merchandisers, clothing stores, electronics, and sporting goods and hobby stores.

Figure 16
Change in U.S. Retail Sales
Year-over-Year Change, January through November 2017

Total U.S. Retail Sales	4.5%	Share of Sales
Nonstore Retailers	10.2%	10.9%
Gasoline Stations	9.5%	8.2%
Building, Garden & Supplies Dealers	8.2%	6.7%
Motor Vehicle & Parts Dealers	4.9%	20.8%
Furniture & Home Furnishings Stores	4.9%	2.0%
Miscellaneous Store Retailers	3.4%	2.2%
Food Services & Drinking Places	3.1%	11.6%
Food & Beverage Stores	2.7%	12.3%
General Merchandise Stores	2.3%	11.8%
Clothing & Clothing Accessory Stores	1.3%	4.5%
Health & Personal Care Stores	0.9%	5.7%
Electronics & Appliance Stores	-0.2%	1.7%
Sporting Goods & Hobby	-3.3%	1.5%

Source: U.S. Census Bureau, Advanced Monthly Retail Trade Report.

Household savings are falling and consumer debt is rising. As wage growth has failed to keep pace with consumer spending, personal savings rates continue to fall on average across U.S. households. As of September 2017, the saving rate reached 3.2 percent, a rate nearing the lows experienced prior to the Great Recession (Figure 17, top). Consumer debt service ratios continue to rise, creeping closer to historical averages, while mortgage debt service ratios have stabilized at historical lows (Figure 17, middle). In the latter case, low interest rates, refinancing, and a constrained number of new homeowners have pushed down the cost of borrowing to purchase a home, despite strong price appreciation in many areas of the country.

While the composition of household debt is driven primarily by mortgages, the fastest growth has been among auto loans and credit cards (Figure 17, bottom). In the first three quarters of the year, auto loan balances rose 7.9 percent over the same period last year, while credit card balances rose 7.7 percent. Student loan balances rose 6.5 percent, compared to total debt, which rose 4.4 percent on slow growth in mortgage loan balances and a decline in home equity loan balances.

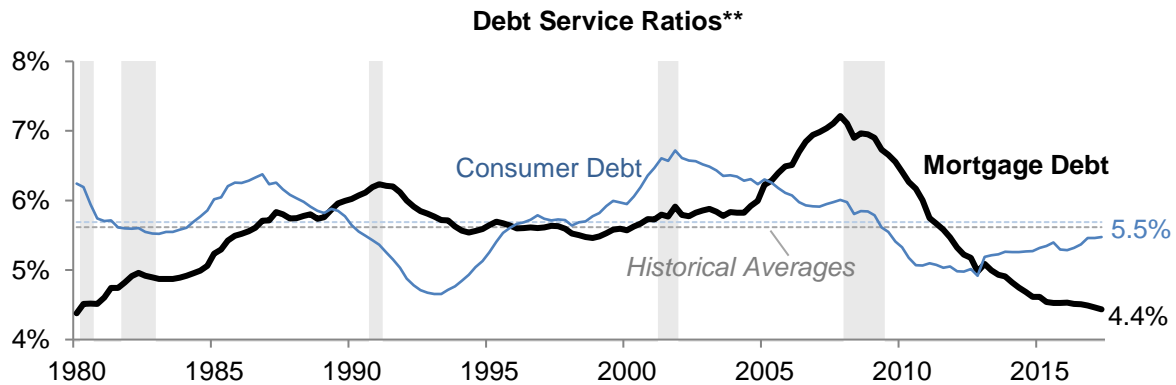
- Consistent with a mature expansion, U.S. personal income will increase 3.2 percent in 2017 and 4.2 percent in 2018. Wages and salaries will increase 3.5 percent and 5.0 percent in the two years, respectively.
- Bolstered by a tight labor market, Colorado personal income will increase 4.5 percent in 2017 and 4.9 percent in 2018. Wage and salary income in particular will increase 5.3 percent in 2017 and 5.7 percent in 2018.
- Improved household incomes and healthy consumer confidence will drive additional increases in Colorado retail trade, which is expected to increase 5.0 percent in 2017 and 4.9 percent in 2018.

Figure 17
Selected Indicators of U.S. Household Savings and Debt



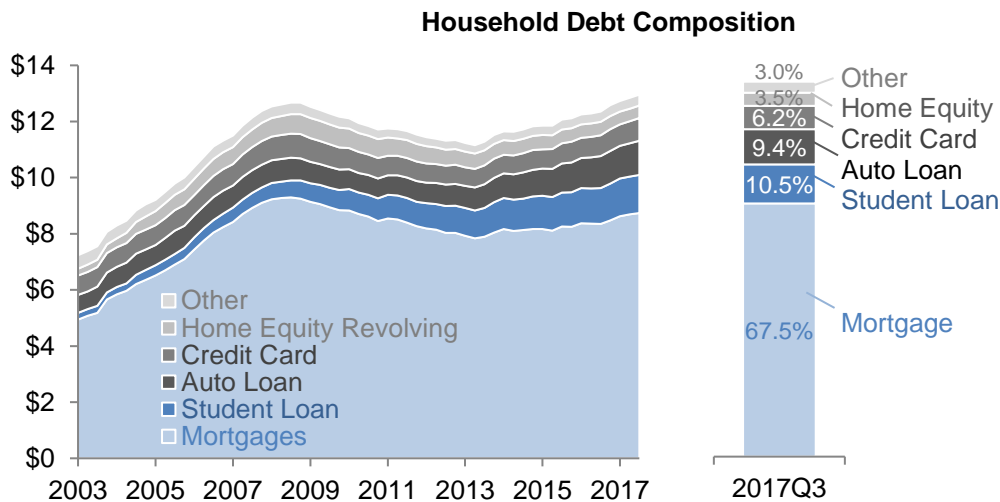
Source: U.S. Bureau of Economic Analysis.

*The personal savings rate is calculated as the ratio of personal saving as a percentage of disposable personal income. Data are shown as seasonally adjusted annual rates.



Source: Federal Reserve Board of Governors.

**Debt service ratios are calculated as the ratio of household mortgage and consumer credit (e.g. credit card) debt payments to disposable household income. Historical averages are calculated from 1980 to the most recent quarter of data (2017Q2). Data are seasonally adjusted.



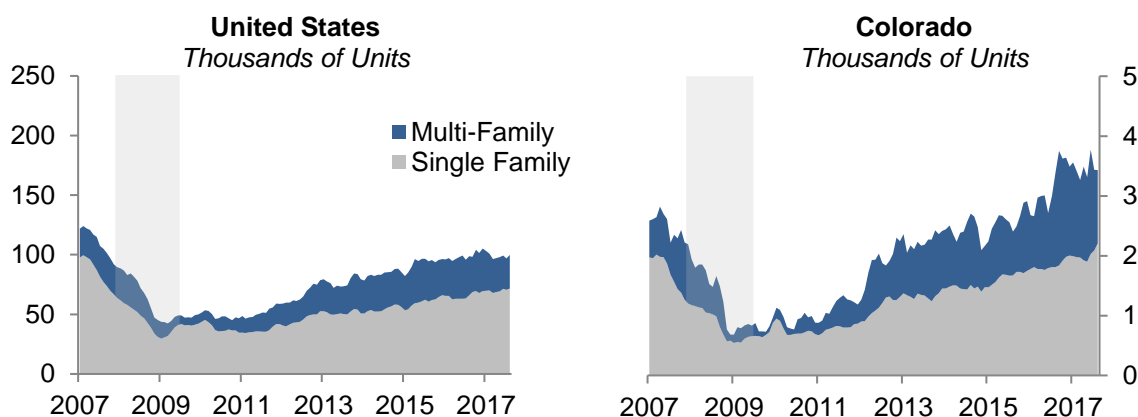
Source: Federal Reserve Bank of New York/Equifax.

Residential Real Estate

U.S. housing market indicators remain solid, with rising prices and new construction boosting construction and real estate industry employment. New multi-family construction activity has slowed and rental vacancy rates have stabilized and begun to trend upward nationally, signaling moderation in demand in some areas of the market. Red-hot demand for the Colorado housing market has cooled, though only slightly and unevenly across the state. Rapid home price appreciation across the metro Denver and northern Front Range regions of the state has proven unsustainable at the double-digit pace experienced over the past three years, pushing many residents to more affordable developments further and further away from central business districts or out of the state altogether.

National housing permits increased 2.4 percent through October compared with the same period last year, representing ongoing deceleration from 6.1 percent growth during 2016. Single family construction continued to rise throughout the year, while multi-family construction has slowed considerably in recent months (Figure 18, left). Homeownership rates continue to rise, supporting demand for new homes. After falling since 2004, the percentage of Americans owning their homes bottomed out at 63.9 percent in early 2016 and has since begun to increase again for the first time in over a decade.

Figure 18
Building Permits Issued for New Residential Construction



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

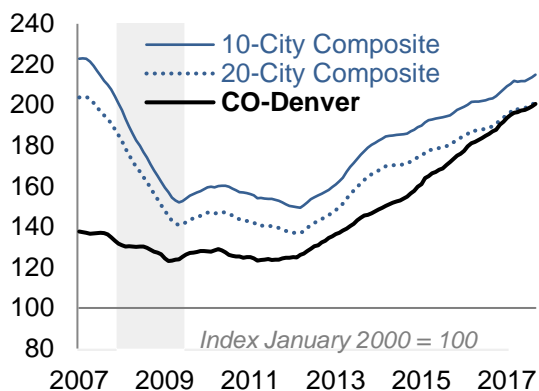
Permitted residential construction in Colorado continues to outpace national housing starts to a significant extent. Total permits grew 15.0 percent through October relative to the same period last year. Single family construction has grown steadily in the state, well outpacing national trends (Figure 18, right). Multi-family construction continues to have a much more significant market presence than during earlier expansions, reflecting development in urban areas (particularly the metro Denver region) of the state with limited developable land.

Rising incomes and consumer confidence, and record low mortgage interest rates have enabled a buyer-friendly market nationally, spurring housing demand and quickening home price appreciation in many of the nation's largest housing markets. The Case-Shiller 20-city composite home price index increased 6.2 percent in September over year-ago levels, representing acceleration from the measured 2016 rate (Figure 19, left). Though home prices in markets like

New York, Los Angeles, and Chicago remain below pre-recession peak levels, a sustained economic expansion is expected to drive continued appreciation even as buyers are faced with rising interest rates.

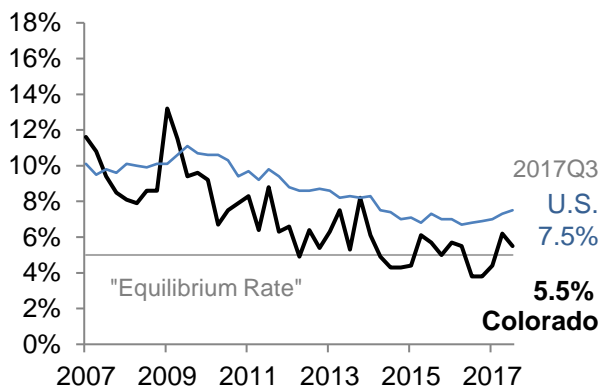
As shown in Figure 20, U.S. rental vacancy rates stabilized near 7 percent in 2016 and since have begun to rise again, consistent with the shift in demand for single family housing and rising homeownership rates.

Figure 19
Case-Shiller Home Price Indices



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

Figure 20
Rental Vacancy Rate



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

In Colorado, increases in Front Range home prices have begun to slow and are expected to moderate further over the forecast period. As measured by the Case-Shiller home price index, Denver home prices were up 7.2 percent in September over year-ago levels, down from average annual growth in of 9.2 percent in 2016 and 10.4 percent in 2015. Home price appreciation is expected to slow further as new supply comes online, interest rates rise, and an increasing number of buyers turn away from neighborhoods they find less affordable than other options within and outside of the state.

- With demand for housing still very high, the number of permitted residential construction projects in Colorado is expected to increase 13.9 percent in 2017 and 3.5 percent in 2018.

Nonresidential Construction

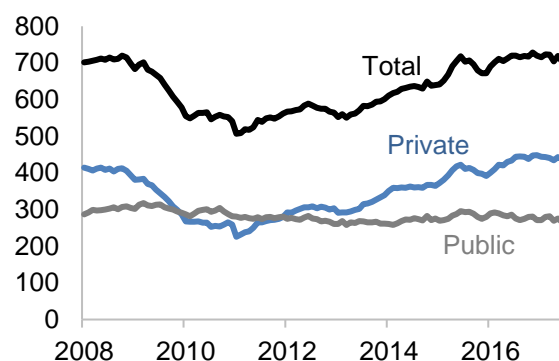
Nationwide, nonresidential construction spending decreased 0.1 percent through October compared with year-ago levels. Spending lost some momentum from a decrease in outlays for public projects (Figure 21). In addition, several national and local nonresidential construction market surveys continue to report that recruiting and retaining qualified staff is a growing issue, perhaps even preventing some developers from beginning projects. These trends are reflected in the slowdown in new private construction activity over the past several months.

The value of permits filed in Colorado for nonresidential construction decreased 0.3 percent year-to-date through September compared with the first three quarters of 2016. Demand for

warehouses and office space continue to drive nonresidential activity across the metro Denver region. In Denver, the office market continues to see strong growth, with several new projects planned outside the central business district. The hotel industry is adding new rooms in central Denver, although at a slower rate than previous years as robust growth over the past few years has contributed to an oversupply of rooms.

- Although the value of permitted Colorado nonresidential construction projects is expected to fall 9.3 percent in 2017 and 0.7 percent in 2018, it will remain at a high level historically.

Figure 21
U.S. Nonresidential Construction Spending
Billions of Dollars



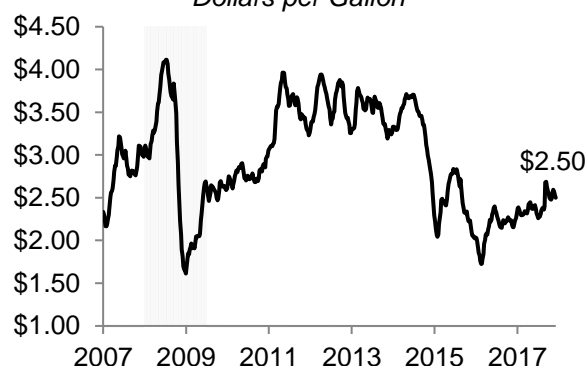
Source: U.S. Census Bureau. Monthly data are seasonally adjusted, annualized, and through October 2017.

Energy Markets

Most of the natural gas and oil infrastructure along the Gulf Coast has recovered from the hurricanes that hit in August. Prices increased following the hurricanes and have remain slightly above where they were this summer. The oil industry began to adjust to the new price level and has increased investment in new oil wells. After increasing in the second half of 2016, coal production fell in the first half of 2017 as the long-run shift in electricity production from coal to natural gas and renewable sources continues.

Hurricane Harvey flooded much of the Texas Gulf Coast, home to about half of the nation's refinery capacity and distribution infrastructure. The storm caused a temporary shutdown of this equipment as working conditions were unsafe until the flood waters receded. The storm caused gas prices to jump from \$2.40 per gallon to \$2.68 after the storm made landfall (Figure 22). Prices averaged \$2.50 in the third week of November, a decline compared with the first week of September but higher than average prices (\$2.35) in 2017 before the hurricanes hit.

Figure 22
U.S. Regular Gasoline Price
Dollars per Gallon

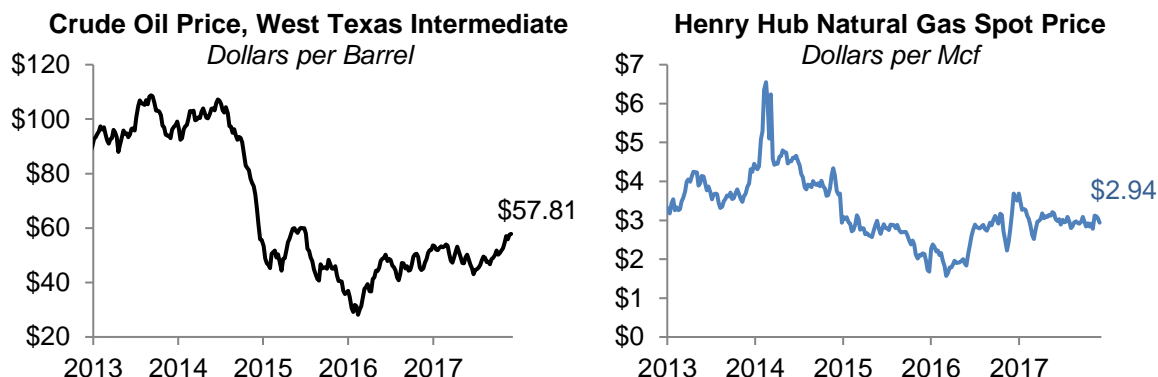


Source: U.S. Energy Information Administration. Weekly average prices. Data are not seasonally adjusted.

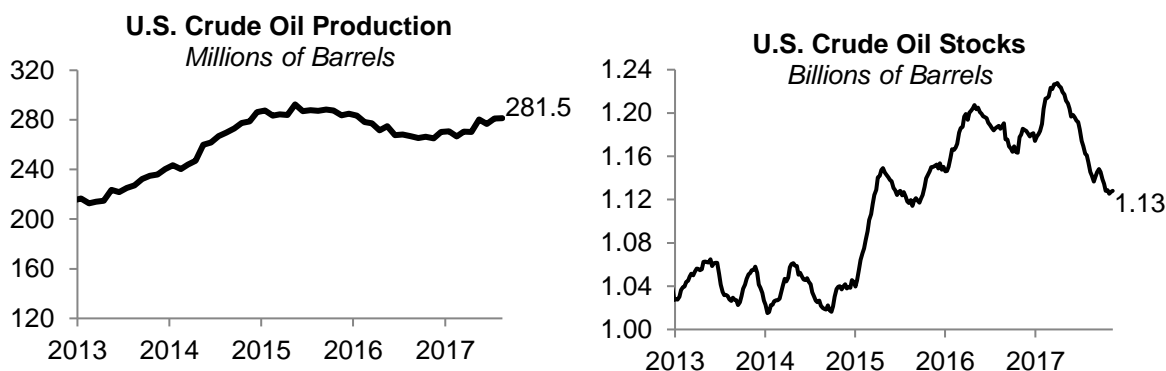
The top two panels of Figure 23 show oil and natural gas prices. After bottoming out at \$29.20 per barrel in January 2016, the price of oil averaged \$49.08 per barrel in the first eleven months of 2017 and was \$57.05 during the third week of November. Oil prices are expected to increase modestly through the forecast period to \$53 per barrel in 2020 as new technologies allow oil producers to quickly increase production in response to price conditions. Natural gas prices are expected to follow a similar pattern. Prices will increase from a low of \$2.54 per thousand cubic feet (Mcf) in 2016 to approximately \$3.51 in 2020. Prices for natural gas averaged \$3.12 per

Mcf during the third week of November 2017, a slight uptick in anticipation of the winter heating season.

Figure 23
Selected Indicators of Oil and Gas Industry Activity



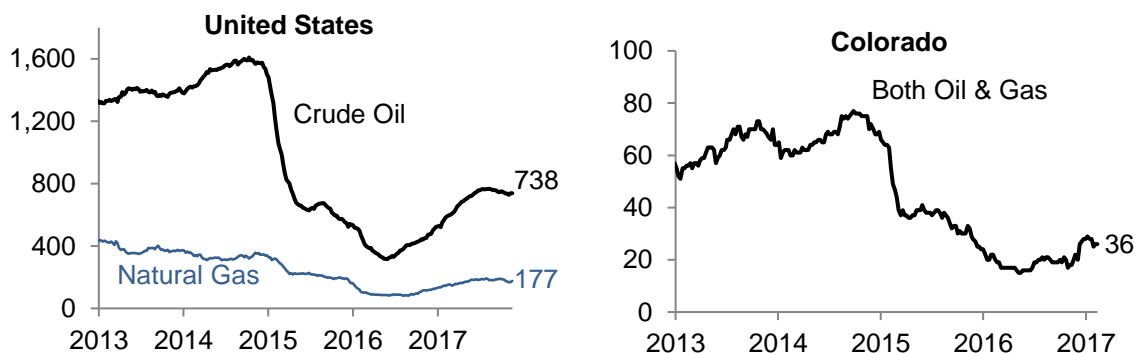
Source: U.S. Energy Information Administration. Weekly average prices. Data are not seasonally adjusted.



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

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

Active Rig Counts



Source: Baker Hughes.

Oil production bottomed out in September 2016 at 265.0 million barrels and has increased slightly year-to-date in 2017 reaching 281.5 million barrels in August 2017 (Figure 23, middle left). Oil and gas producers responded to the stabilization of oil prices by increasing production and developing new oil and gas wells for future exploration. Crude oil stocks began a sharp decline in March, which has continued through the second week of November 2017 (Figure 23, middle right). The decline in crude oil stocks is due to moderating production from oil producers in response to lower crude oil prices.

New drilling activity, as measured by active drilling rigs (Figure 23, left), began to increase in the second half of 2016 and increased through the first eight months of 2017 before plateauing. The average number of active oil rigs in the third week of November was 748, a 56.7 percent increase from the same period last year.

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

According to the Energy Information Administration, coal production averaged 192.0 million short tons per quarter in the first half of this year, a slight decline from the second half of 2016. The decline in coal production is the result of weaker demand for steam coal used in electricity generation. According to the Colorado Department of Natural Resources, coal production in Colorado increased 30.4 percent in the first nine months of 2017 compared with the same period in 2016 due to increases at the two largest coal mines in the state. The Foidel Creek Mine increased production by 51.3 percent in the first nine months of the year, after its owner, Peabody Energy, emerged from bankruptcy in April 2017. The owner of the West Elk Mine, Arch Coal, emerged from bankruptcy in October 2016, and production at the mine increased 48.9 percent in the first nine months of 2017.

Global Economy

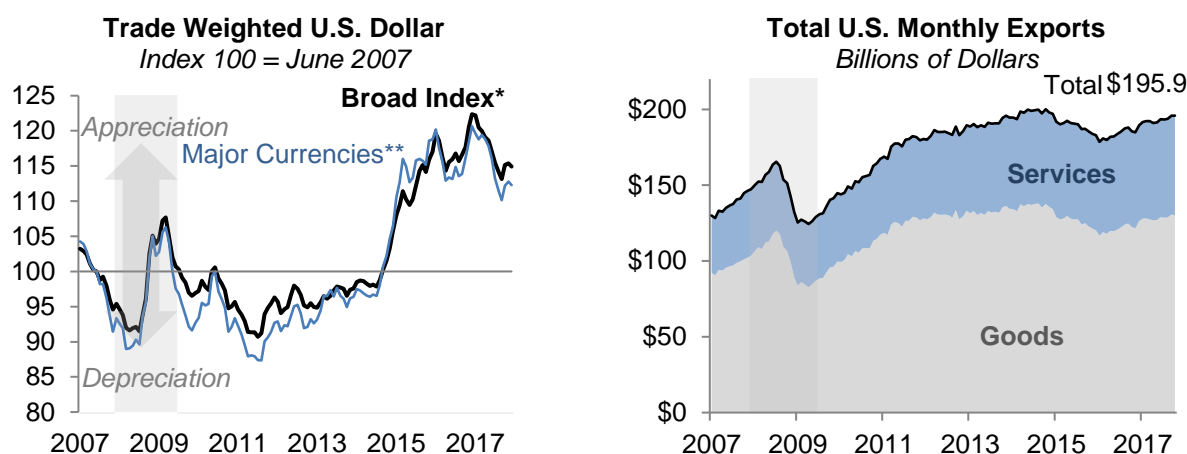
Global economic activity continues to improve from the 2016 slowdown. Rising global demand has put modest upward pressure on commodity prices. Additionally, the cheaper U.S. dollar is boosting demand for both U.S. goods and services. Global economic activity is expected to strengthen further in 2018 and 2019, supporting U.S. economic activity. However, elevated political risk continues to pose a threat to the global economic outlook.

Since December of last year, the value of the U.S. dollar has trended downward relative to the currencies of most major foreign trade partners (Figure 24, left). The slide in the dollar means that U.S. goods and services are becoming more affordable to foreign buyers, contributing to higher demand for exports and support for domestic manufacturing industries.

The value of exports continues to improve on stronger demand with the recovery in global economic activity (Figure 24, right). U.S. exports rose 6.2 percent through September 2017 over the same period last year, according to data published by WiserTrade. Improvements were broad-based across a majority of trade partners and commodity types. Exports to the largest U.S. trade partners — Canada, Mexico, China (including Hong Kong), and South Korea — led gains year-to-date. More than half of the gains to date are attributable to growth in the value of exports of mineral fuel and related products, reflecting higher crude oil prices than the past two years and rising global economic demand.

Colorado exports rose 5.3 through September. Exports to Mexico accounted for a majority of the increase on strong gains in the value of exports of meat and edible meat offal, glass and glassware, and aluminum products. Exports increased across most other commodity types and declined across a majority of other trade partners.

Figure 24
Selected Global Economic Indicators



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 are not adjusted for inflation.

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

While global growth continued to rebound from the 2016 slowdown, output remains below pre-global financial crisis averages. Aging populations and slower investment and productivity growth continue to pose headwinds to advanced economies and dampen global demand. Risks to the recovery remain skewed toward the downside. Geopolitical risk has eased in some areas, namely the Eurozone, but remains elevated in others. Additionally, ongoing trade negotiations could either improve or diminish foreign export activity for the U.S.

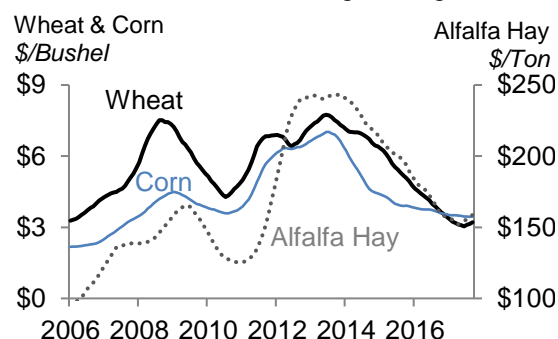
Agriculture

Although U.S. agricultural producers continue to struggle, conditions in the sector have begun to show signs of stabilization. For the last several years elevated U.S. crop yields have flooded the market, pushing down prices (Figure 25). A strong dollar compounded the challenges faced

by U.S. farmers as international consumers turned to cheaper food supplies from other countries. However, a stabilizing global economy has begun to abate the downturn in the agriculture sector. The U.S. Department of Agriculture reports that major field crop prices began to rise for the first time in years during the summer of 2017. Respectively, prices for wheat, corn, and alfalfa hay were 24.8 percent, 1.8 percent, and 13.8 percent higher in September 2017 than a year earlier.

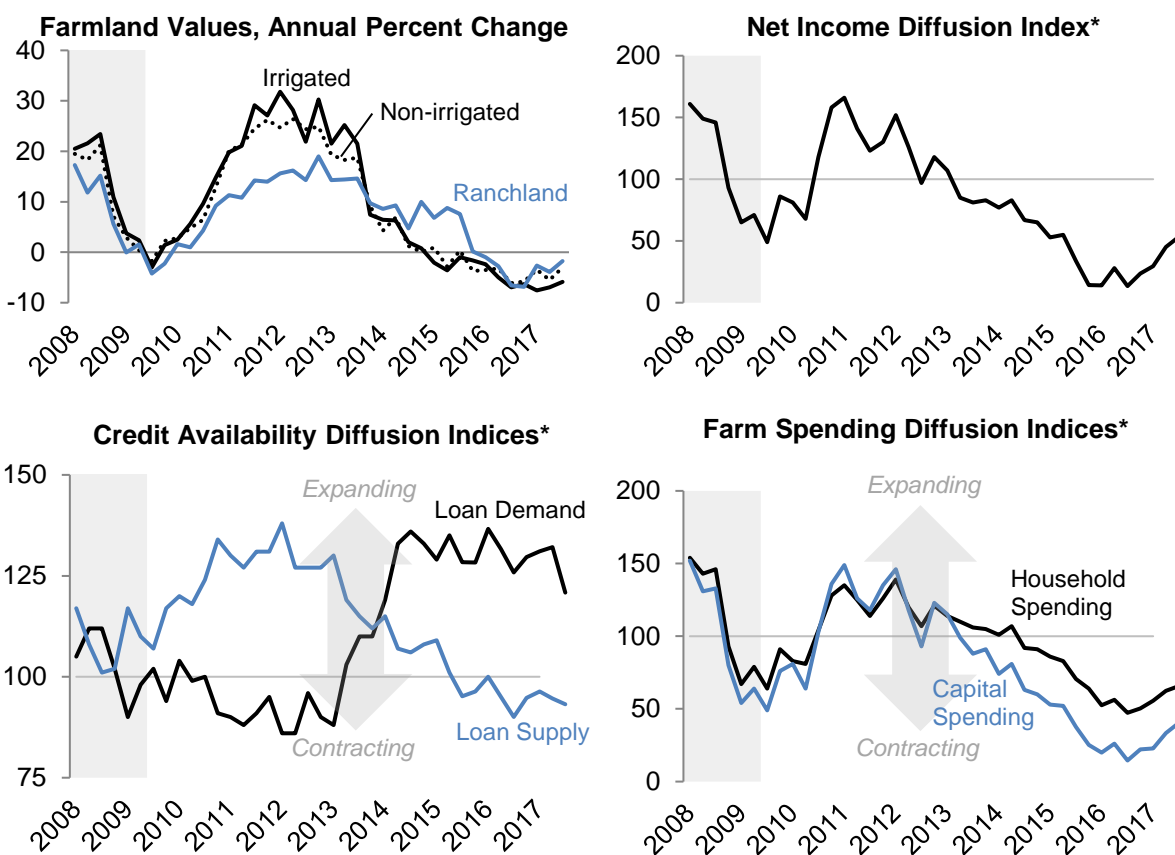
Declining income, low commodity prices, and low profit margins have hurt farm cash flow. As shown in the upper right panel of Figure 26, farm income in the Federal Reserve's Tenth District, which includes Colorado, Kansas, Nebraska, Oklahoma, Wyoming, eastern Missouri and northern New Mexico, continued to fall in 2017 but at a slower rate than in 2015 and 2016.

Figure 25
Prices Received for Colorado Crops
Twelve-Month Moving Average



Source: National Agricultural Statistics Service. Data are through September 2017.

Figure 26
Selected Indicators of Tenth District Agricultural Credit Conditions



Source: Federal Reserve Bank of Kansas City Quarterly Survey of Agricultural Credit Conditions. Data are through the third quarter of 2017.

*Values above 100 indicate expansion; values below 100 indicate contraction.

The Federal Reserve Bank of Kansas City's Quarterly Survey of Agricultural Credit Conditions reported that slightly less than half of Tenth District bankers expected farm incomes to continue to fall in the third and fourth quarters of 2017, down from 57 percent in the second quarter and 70 percent in the first quarter. Low cash flow among farmers has resulted in lower levels of household and capital spending (Figure 26, lower right), which has in turn prompted many farmers to take on short-term loans. Concerns over debt solvency have been rising, and banks have tightened credit to the farming sector.

Summary

The U.S. and Colorado economies are poised to continue to expand throughout the forecast period. Moderate consumer spending, strong business optimism, and an expanding global economy will support economic growth in the U.S. and Colorado. As the national and state labor markets tighten further, wage pressures are expected to rise but will be partially offset by demographics. Consumer activity, similarly, will continue to be subdued by shifting consumption patterns across a growing share of retirees. Additionally, rising interest rates and rising household debt services payments will moderate spending. Business optimism remains high on stable and rising commodity prices, stronger global economic activity, and the possibility of income tax cuts for businesses, which could boost profits.

In Colorado, rapid home price appreciation over the past several years is changing the economic landscape of the state. In-migration has slowed as families have sought residency in more affordable areas of the U.S. With one of the tightest labor markets in the country, wage pressures will rise in Colorado at a pace faster than the nation as a whole, though consumer spending may be more constrained by the high cost of living.

Risks to the Forecast

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

Downside. The economy is at or near capacity in most markets, as labor markets continue to tighten further. Structural changes, including an aging population and automation, make it difficult to discern both where the economy's productive capacity is and how the economy is performing relative to it. If the economy is operating further beyond capacity than assumed in this forecast, a recession is more likely within the forecast period.

The Federal Reserve continued to signal monetary policy tightening and the normalization of unprecedented monetary policy. Tighter monetary policy is generally pursued as a means of controlling inflation, yet inflation is currently measured below the Fed's target rate. Depending on the pace of monetary tightening, spending and investment could be suppressed more than expected.

Finally, global political events could produce downside economic shocks. Tensions between the U.S. and North Korea could upset trade relationships in East Asia, while the renegotiation of NAFTA could destabilize exchange with the country's two largest trading partners, Canada and Mexico. Additionally, significant fiscal policy changes made by Congress could impact the course of government spending.

Upside. This forecast assumes that employment growth and other economic inputs will be constrained with the economy at or near capacity. The economy could perform better than expected if capacity is greater than estimated—for example, if the labor force participation rate were to increase further. Faced with a tight labor market, employers could act to raise wages more than expected, providing a boost to consumer spending. Additionally, the same fiscal policy questions that pose a potential downside risk also pose a potential upside risk. If the proposed tax cuts and Jobs Act is signed into law, business investment and consumer spending could increase more than expected in this forecast.

Table 18
National Economic Indicators

Calendar Years	2012	2013	2014	2015	2016	Legislative Council Staff Forecast		
						2017	2018	2019
Real GDP (<i>Billions</i>) ¹	\$15,355	\$15,612	\$16,013	\$16,472	\$16,716	\$17,084	\$17,494	\$17,861
Percent Change	2.2%	1.7%	2.6%	2.9%	1.5%	2.2%	2.4%	2.1%
Nonfarm Employment (<i>Millions</i>) ²	134.2	136.4	138.9	141.8	144.3	146.5	148.2	149.6
Percent Change	1.7%	1.6%	1.9%	2.1%	1.8%	1.5%	1.2%	0.9%
Unemployment Rate	8.1%	7.4%	6.2%	5.3%	4.9%	4.4%	4.1%	4.3%
Personal Income (<i>Billions</i>) ¹	\$13,915.1	\$14,073.7	\$14,818.2	\$15,553.0	\$15,928.7	\$16,438	\$17,129	\$17,814
Percent Change	5.0%	1.1%	5.3%	5.0%	2.4%	3.2%	4.2%	4.0%
Wage and Salary Income (<i>Billions</i>) ¹	\$6,930.3	\$7,116.7	\$7,476.8	\$7,858.9	\$8,085.2	\$8,368	\$8,787	\$9,164
Percent Change	4.5%	2.7%	5.1%	5.1%	2.9%	3.5%	5.0%	4.3%
Inflation ²	2.1%	1.5%	1.6%	0.1%	1.3%	2.0%	2.0%	2.1%

Sources

¹ U.S. Bureau of Economic Analysis. Real gross domestic product (GDP) is inflation-adjusted. 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 19
Colorado Economic Indicators

Calendar Years	2012	2013	2014	2015	2016	Legislative Council Staff Forecast		
						2017	2018	2019
Population (<i>Thousands, as of July 1</i>) ¹	5,189.9	5,267.6	5,349.6	5,448.8	5,540.5	5,618.1	5,696.8	5,776.5
Percent Change	1.4%	1.5%	1.6%	1.9%	1.7%	1.4%	1.4%	1.4%
Nonfarm Employment (<i>Thousands</i>) ²	2,313.1	2,382.0	2,464.8	2,541.8	2,600.6	2,657.8	2,703.0	2,743.5
Percent Change	2.4%	3.0%	3.5%	3.1%	2.3%	2.2%	1.7%	1.5%
Unemployment Rate ²	7.8	6.7	4.9	3.8	3.3	2.7	2.6	2.7
Personal Income (<i>Millions</i>) ³	\$234,006	\$246,648	\$267,225	\$282,665	\$288,103	\$301,068	\$315,820	\$331,927
Percent Change	6.4%	5.4%	8.3%	5.8%	1.9%	4.5%	4.9%	5.1%
Wage and Salary Income (<i>Millions</i>) ³	\$125,014	\$129,597	\$138,678	\$146,635	\$151,322	\$159,342	\$168,425	\$177,352
Percent Change	5.4%	3.7%	7.0%	5.7%	3.2%	5.3%	5.7%	5.3%
Retail Trade Sales* (<i>Millions</i>) ⁴	\$80,073	\$83,569	\$90,653	\$94,920	\$98,812	\$103,753	\$108,837	\$113,517
Percent Change	6.0%	4.4%	8.5%	4.7%	4.1%	5.0%	4.9%	4.3%
Housing Permits (<i>Thousands</i>) ¹	23.3	27.5	28.7	31.9	39.0	44.4	45.9	47.3
Percent Change	72.6%	18.1%	4.3%	11.1%	22.3%	13.9%	3.5%	2.9%
Nonresidential Building (<i>Millions</i>) ⁵	\$3,695	\$3,624	\$4,351	\$4,972	\$5,900	\$5,351	\$5,314	\$5,478
Percent Change	-5.8%	-1.9%	20.1%	14.3%	18.7%	-9.3%	-0.7%	3.1%
Denver-Boulder-Greeley Inflation ⁶	1.9%	2.8%	2.8%	1.2%	2.8%	3.1%	2.6%	2.5%

Sources

¹U.S. Census Bureau. Residential housing permits are the number of new single and multi-family housing units permitted for building.

²U.S. Bureau of Labor Statistics. Nonfarm employment estimates include revisions to 2016 data expected by Legislative Council Staff from the Bureau of Labor Statistics's annual re-benchmarking process. Inflation shown as the year-over-year change in the consumer price index for Denver-Boulder-Greeley metro areas.

³U.S. Bureau of Economic Analysis. Personal income and wages and salaries not adjusted for inflation.

⁴Colorado Department of Revenue.

⁵F.W. Dodge.

⁶U.S. Bureau of Labor Statistics. Beginning in February, the Denver-Boulder-Greeley consumer price index will be replaced with the Denver-Aurora-Lakewood consumer price index.

This page intentionally left blank.

SCHOOL FINANCE OUTLOOK

This section presents information on the outlook for school finance from a state budgetary perspective, both in the current (FY 2017-18) and subsequent (FY 2018-19) fiscal years. This outlook incorporates information from the K-12 enrollment and assessed value projections, located on page 75 and page 67, respectively, of the forecast document. Enrollment changes are a major determinant of overall 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, determine a school district's available property tax revenue. This revenue, supplemented by specific ownership tax revenue from vehicle registrations, constitutes the local share of school district funding. 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.

Relative to last year's appropriation, the **FY 2017-18** requirement for state aid has decreased by \$110 million. This is because:

- total program requirements have decreased by \$13 million; and
- revenue available for the local share increased by \$97 million.

For **FY 2018-19**, the state aid requirement is expected to increase by \$243 million on a year-over-year basis because:

- total program requirements will increase by \$278 million; and
- revenue available for the local share will increase by \$35 million.

The available contribution for school finance from that fund for FY 2018-19 will increase by \$354 million and the General Fund requirement will fall by \$128 million on a year-over-year basis under the following assumptions:

- a \$100 million ending balance for the State Education Fund in FY 2018-19;
- the budget stabilization factor is maintained at its current level, and
- the \$110 million from the FY 2017-18 state aid reduction is deposited in the State Education Fund.

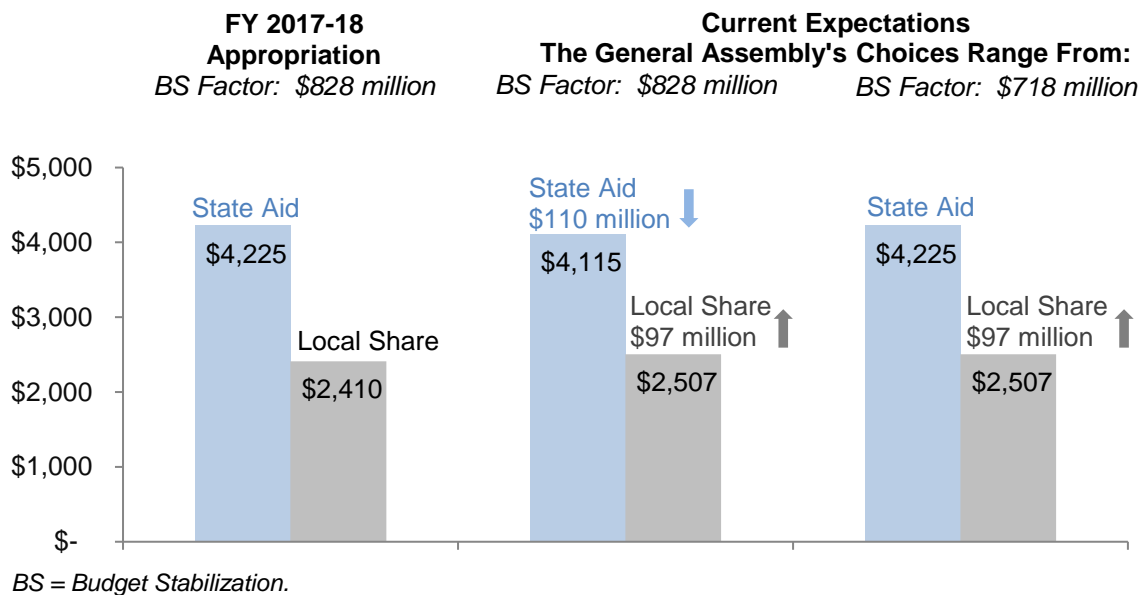
If the federal Tax Cuts and Jobs Act becomes law, and making the same assumptions, money available for school finance from State Education Fund for FY 2018-19 will increase by \$371 million and the General Fund requirement will fall by \$145 million. These numbers are preliminary, and are subject to change as information is updated throughout the budget process.

Funding Status for the Current Fiscal Year (FY 2017-18)

Lower than expected enrollment and increased expectations for property tax revenue collections are expected to provide \$110 million in increased budgetary flexibility for the current fiscal year relative to last year's appropriation. Preliminary funded pupil counts and funded at-risk pupil counts are lower than were expected last year. Specifically, the funded pupil count dropped by nearly 1,000 students, while funded at-risk totals dropped by over 7,000 students. This decreases the overall total program cost by about \$13 million relative to last year's appropriation. At the same time, the preliminary estimate for the local share is \$97 million, or 4.0 percent, higher

than expected during the 2017 legislative session. This includes an increase of just over \$91 million in property taxes and about \$5 million in specific ownership taxes. As shown in Figure 27 below, the combination of these changes means that the state's obligation for school finance is \$110 million lower than the appropriation for state aid made in the 2017 legislative session. The General Assembly could choose to reduce either the General Fund or the State Education Fund appropriation by \$110 million, use the savings to reduce the budget stabilization factor by \$110 million, or anything in between.

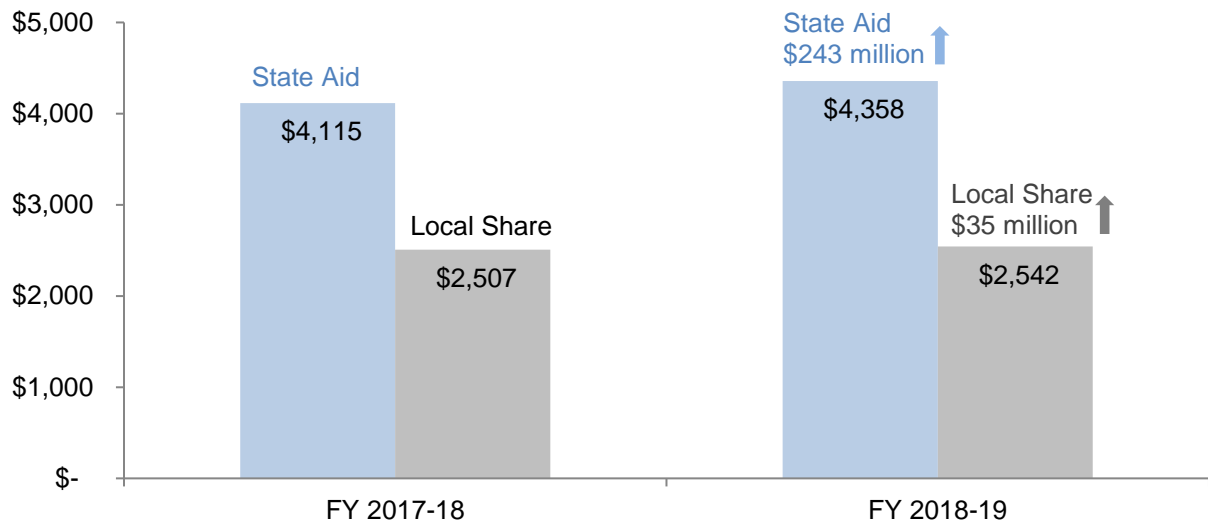
Figure 27
Change in Expectations for School Finance Funding, FY 2017-18
Millions of Dollars



Funding Outlook for Current Budget Year (FY 2018-19)

Total program funding requirements are expected to increase by \$278 million between FY 2017-18 and FY 2018-19. The estimated funded pupil count is expected to increase by about 5,500 pupils on a year-over-year basis. In addition, inflation expectations for 2017 have increased since the September forecast from 2.9 percent to 3.1 percent. As shown in Figure 28, the combination of these two factors increases the overall required cost of total program by about \$278 million on a year-over-year basis. This total includes an increase of \$243 million in required state aid, and an increase of \$35 million in the local share, as assessed values are projected to grow by 1.2 percent in FY 2018-19 on a year-over-year basis.

Figure 28
Change in Expectations for School Finance Funding, FY 2017-18 to FY 2018-19
Millions of Dollars



Assuming maintenance of a \$100 million ending balance, the budget stabilization factor is held constant, and the \$110 million from the FY 2017-18 appropriation reduction is deposited in the State Education Fund, the available contribution from that fund for FY 2018-19 is projected to increase by \$354 million on a year-over-year basis. This implies that the corresponding General Fund requirement for school finance will decrease by \$128 million relative to FY 2017-18.

If the Tax Cuts and Jobs Act becomes law, the available contribution from the State Education Fund for FY 2018-19 is projected to increase by about \$371 million, and the corresponding General Fund requirement for school finance will decrease by about \$145 million relative to FY 2017-18.

Summary of Updated Information Incorporated into the School Finance Model

Each fall, school districts collect enrollment information from all 178 school districts and the Charter School Institute (CSI). Districts report preliminary totals to the Colorado Department of Education (CDE), which in turn provides this information to Legislative Council Staff to assist in the development of its K-12 enrollment projections. Preliminary pupil counts are also incorporated into the Legislative Council Staff school finance model. All district-level pupil counts are provided on a full-time equivalent (FTE) basis. Enrollment components include the overall pupil count for grades 1-12 as well as total kindergarten, online, ASCENT, and CSI students. This information is used to determine a school district's funded pupil count. CDE also provides information on the number of funded at-risk students and the K-12 membership, which is used to determine a school district's funding for at-risk pupils, which for many districts can be a significant component of district total program. When preliminary counts are finalized in January, the school finance model will be updated accordingly.

In addition, CDE also obtains district-level information on assessed values and specific ownership tax revenue. This information is combined with certified mill levies for each district, to obtain estimates for the amount of funding school districts will receive from local revenue sources. Updated enrollment and local share estimates thus combine to provide the best estimate for the state's obligation for state equalization payments for both the current and subsequent fiscal years. Final true-up for the FY 2017-18 appropriation for state aid will occur through passage of a mid-year supplemental bill for CDE. The appropriation for state aid in FY 2018-19 will be made through passage of the 2018 Long Bill and the 2018 School Finance Act.

ASSESSED VALUE PROJECTIONS

This section provides projections of assessed values for residential and nonresidential property in Colorado and the residential assessment rate through 2020. Assessed values are an important factor in determining property taxes, which are the largest source of local government tax revenue in Colorado. Counties, cities, and special districts all receive property tax revenue. Local property tax revenue is also the first source of funding for local public school districts. Assessed property values within a school district are thus an important determinant of the amount of state aid provided to each school district. Most districts then receive state equalization payments in an amount equal to the difference between required formula funding and their local share. More information on school finance can be found starting on page 63.

Summary

Statewide assessed (taxable) values increased 9.3 percent between 2016 and 2017. This change reflects new market values assigned by county assessors because 2017 was a reassessment year in addition to new construction that occurred. Every two years, county assessors determine new values for residential, commercial, industrial, and vacant properties, based on the previous 18 months of sales as part of the reassessment process. Statewide assessed values are expected to increase 1.8 percent between 2017 and 2018 due to new construction and an increase in the value of state assessed property. During the next reassessment year, 2019, statewide assessed values are expected to increase 3.8 percent due mainly to increases in nonresidential value. While the actual value of residential property is also expected to increase, a reduction in the residential assessment rate will largely offset the growth in market values. Assessed values in each region of the state are determined by the unique mix of properties and economic forces specific that region.

During the 2017 legislative session, the General Assembly passed House Bill 17-1349, setting the Residential Assessment Rate (RAR) at 7.20 percent for 2017 and 2018. In order to maintain the statutorily required Gallagher Amendment ratio, the RAR is expected to decrease from **7.20 percent to 6.11 percent** for 2019 and 2020.

Residential Assessment Rate

The Gallagher Amendment in the Colorado Constitution requires an adjustment to the RAR in order to maintain a consistent relationship between the statewide share of residential taxable value and the statewide share of nonresidential taxable value. The amendment prevents the share of residential property from increasing relative to the share from other classes of property due to an increase in home values.

Target percentage. The first step in determining the RAR is updating the existing target percentages of residential property and nonresidential property for the prior assessment cycle.

The new target percentage is based on economic activity that occurred between the last reassessment cycle and the current assessment cycle. For the 2017 assessment cycle, the Division of Property Taxation, within the Department of Local Affairs, estimated the target percentage for residential property was 45.76. Based on growth in residential and nonresidential property in this forecast, the target percentage for residential property is expected to decrease from 45.76 percent in 2017 to 45.01 percent in 2019.

Residential assessment rate. Once the target percentage has been determined, the RAR is adjusted so that 2019 residential taxable values meet the target percentage. Based on the projected market values of 2019 residential and nonresidential properties, the RAR for 2019 and 2020 is expected to be 6.11 percent. This rate is based on the Legislative Council Staff forecast for market values. In the spring of 2019, the Division of Property Taxation will estimate the RAR for 2019 and 2020 with data provided by each county assessor.

Statewide Assessed Values

Statewide assessed (taxable) values reached \$110.9 billion in 2017 and are expected to increase 1.8 percent in 2018. In 2019, assessed values are expected to increase 3.8 percent due to new construction and more production from oil and natural gas producers. The projected increase in residential market values will largely be offset by the projected decline in the RAR. Residential and nonresidential assessed values are shown in Table 20 on page 68 and Figure 29 on page 69. Maps with assessed values by region and school districts are shown in Figures 31 and 32 on pages 73 and 74.

Table 20
Residential and Nonresidential Assessed Values
Billions of Dollars

Tax Year	Residential Assessed Value	Percent Change	Nonresidential Assessed Value	Percent Change	Total Assessed Value	Percent Change
2007	\$39,331	14.5%	\$45,816	14.0%	\$85,147	14.2%
2008	\$40,410	2.7%	\$47,140	2.9%	\$87,550	2.8%
2009	\$42,298	4.7%	\$55,487	17.7%	\$97,785	11.7%
2010	\$42,727	1.0%	\$49,917	-10.0%	\$92,644	-5.3%
2011	\$38,908	-8.9%	\$48,986	-1.9%	\$87,894	-5.1%
2012	\$39,198	0.7%	\$50,211	2.5%	\$89,409	1.7%
2013	\$38,495	-1.8%	\$50,153	-0.1%	\$88,648	-0.9%
2014	\$39,003	1.3%	\$52,579	4.8%	\$91,582	3.3%
2015	\$46,378	18.9%	\$58,899	12.0%	\$105,277	15.0%
2016	\$47,261	1.9%	\$54,157	-8.1%	\$101,419	-3.7%
2017	\$52,199	10.4%	\$58,698	8.4%	\$110,897	9.3%
2018*	\$53,126	1.8%	\$59,799	1.9%	\$112,925	1.8%
2019*	\$52,748	-0.7%	\$64,449	7.8%	\$117,197	3.8%
2020*	\$53,662	1.7%	\$65,921	2.3%	\$119,583	2.0%

Source: Colorado Department of Local Affairs, Division of Property Taxation.

*Legislative Council Staff forecast.

Residential assessed values. New construction activity is expected to increase residential assessed values by 1.8 percent in 2018, a non-reassessment year. This level of construction is consistent with new residential construction activity that occurred in 2016, the last non-reassessment year.

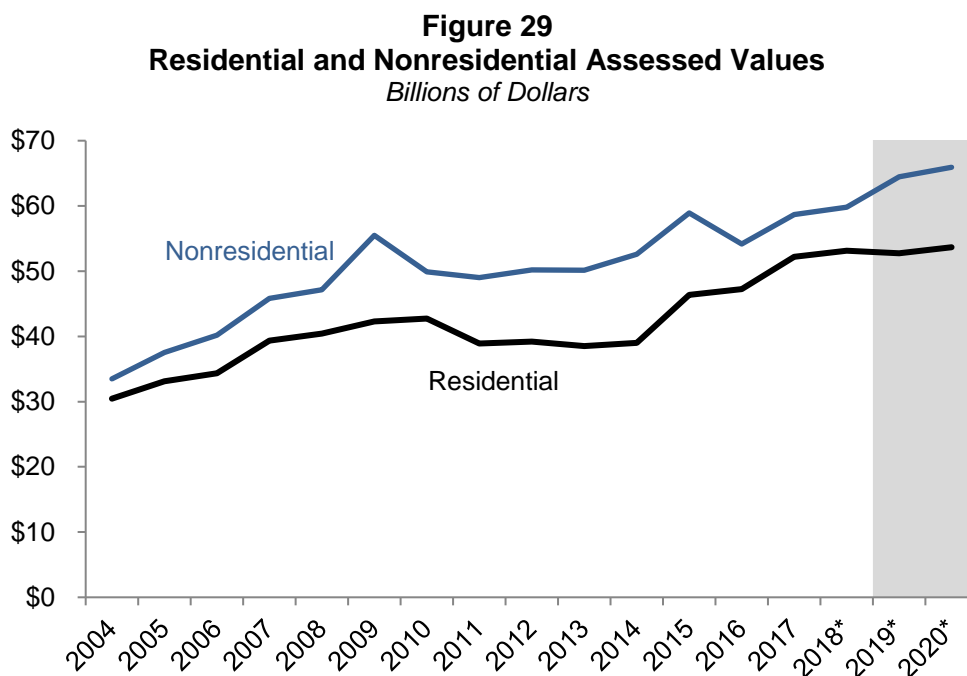
In 2019, statewide residential *market* values are expected to increase 17 percent as county assessors revalue property for the reassessment year. Home sales that occurred in 2017 and the first half of 2018 will determine the 2019 market values. The housing market is expected to

remain strong along the northern Front Range, with double-digit price increases forecast in the Denver metro area, northern Colorado, Colorado Springs, mountain resort areas, and rural areas within commuting range of the Denver metro area. Other rural parts of the state are expected to see slower home price appreciation.

The growth in residential *market* values will be offset by the reduction in the RAR. The reduction in the RAR is required to maintain the shares of residential and nonresidential property between reassessment cycles as required by the state constitution. Assessed values for residential property will decrease by 0.7 percent in 2019 compared with 2018 values after accounting for the drop in the RAR from 7.20 percent to 6.11 percent.

Nonresidential assessed values. In contrast, the assessment rate for nonresidential property is fixed in the constitution and in law, so changes in actual value are reflected in the assessed (taxable) value. Total statewide assessed nonresidential property values are expected to increase 1.9 percent in 2018. New construction of commercial buildings and increased value for state assessed property will be largely responsible for this growth. The value of oil and gas property is expected to essentially remain constant statewide despite regional differences. Production from older fields will yield modest declines in value, while producers have begun adding new oil wells in several areas of the northern region.

Nonresidential assessed values are expected to increase moderately throughout the forecast period as oil and gas prices are expected to increase modestly and a growing economy will continue to increase rents and maintain low vacancy rates for office buildings and retail spaces. Figure 29 depicts residential and nonresidential assessed values from 2004 through the end of the forecast period ending in 2020.



Source: Colorado Department of Local Affairs, Division of Property Taxation.
*Legislative Council Staff forecast.

Regional Impacts

Assessed values in each region of the state are determined by the unique mix of properties and economic forces specific to that region. Table 21 shows the 2017 assessed value by region and the expected change throughout the forecast period.

Table 21
2017 Assessed Value and Forecast Changes
Billions of Dollars

Region	Preliminary 2017*	2018	2019	2020	3-Year Annual Average
Colorado Springs	\$7,449	1.7%	3.1%	1.6%	2.1%
Eastern Plains	\$2,883	2.4%	2.6%	2.5%	2.5%
Metro Denver	\$60,545	2.3%	6.3%	2.3%	3.5%
Mountain	\$12,021	0.8%	-2.0%	0.8%	-0.2%
Northern	\$13,668	3.0%	3.9%	2.8%	3.2%
Pueblo	\$2,745	1.4%	-1.7%	1.4%	0.4%
San Luis Valley	\$661	2.7%	-0.6%	2.8%	1.6%
Southwest Mountain	\$2,849	1.2%	-1.4%	1.6%	0.4%
Western	\$8,075	-1.6%	-1.9%	1.2%	-0.8%
Statewide Total	\$110,897	1.8%	3.8%	2.0%	2.5%

Source: Colorado Department of Local Affairs, Division of Property Taxation.

*Legislative Council Staff forecast.

All regions of the state are expected to increase in total assessed value between 2017 and 2018, with the exception of the western region. The decline in the western region during the non-reassessment year is the result of annually assessed natural resource classes of property. The western region contains aging natural gas wells that are approaching the end of their productive life. New drilling activity has been concentrated on the oil fields of northern Colorado. In addition, several school districts have coal mines which are expected to decrease in value throughout the forecast period.

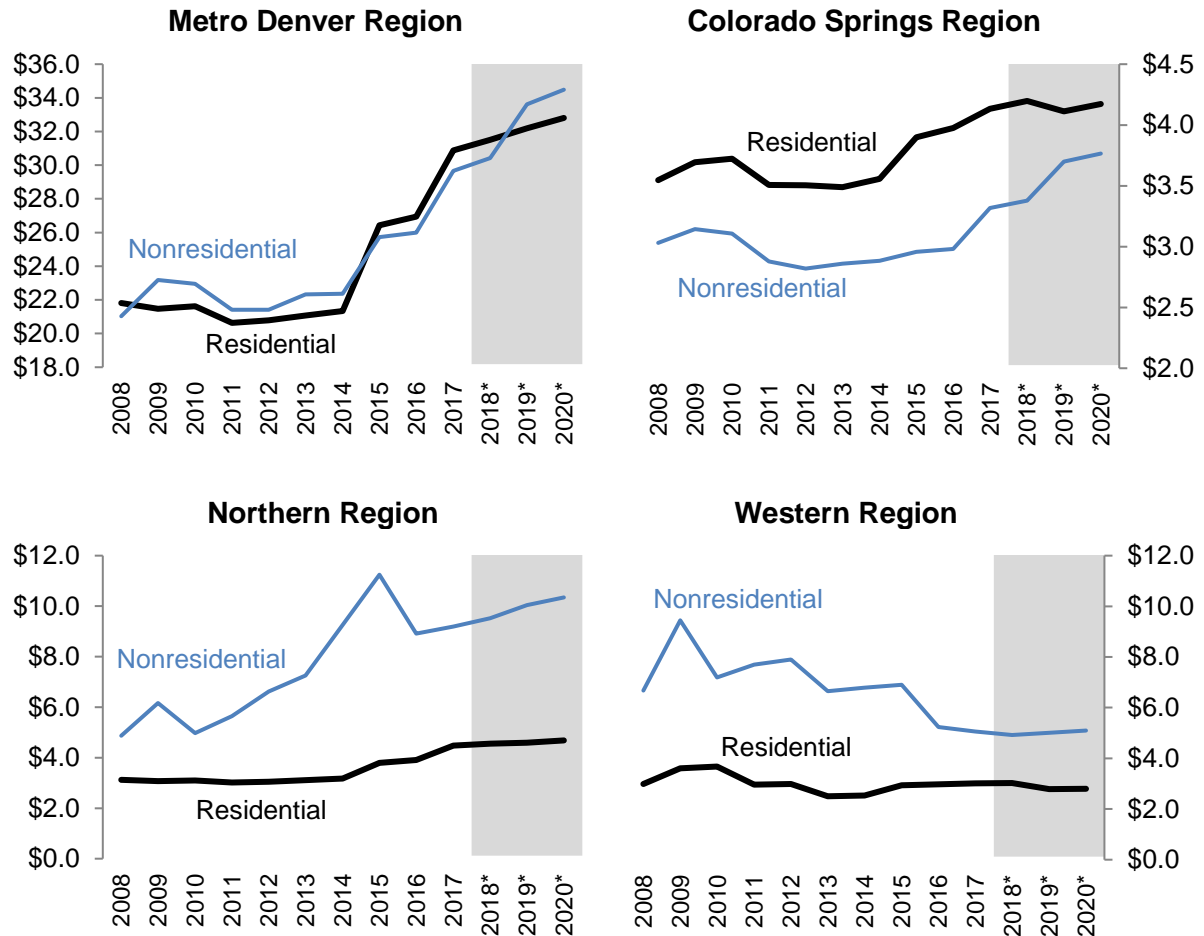
The other regions are expected to experience increases in total assessed values ranging between 0.8 percent and 3.0 percent between 2017 and 2018. Value for state assessed property is forecast to increase each year through the forecast period. Each region of the state will have some new construction and increased values in state assessed property. The northern region will have additional value added from new oil wells developed in 2017.

In the next reassessment year, 2019, values for vacant land, agricultural land, and commercial and industrial property will each increase. These increases in *market* value will translate into a proportional increase in nonresidential *assessed* values. Each region of the state will have increases in residential *market* values. However, the reduction in the RAR will decrease residential *assessed* values in five of the nine regions in the state. The RAR is expected to decrease by 15.1 percent in 2019 based on the statewide growth in the tax base.

Any region with less than a 15.1 percent increase in residential *market* values will experience a reduction in residential *assessed* values.

Regional trends for residential and nonresidential assessed (taxable) values are shown in Figure 30 on pages 71 and 72.

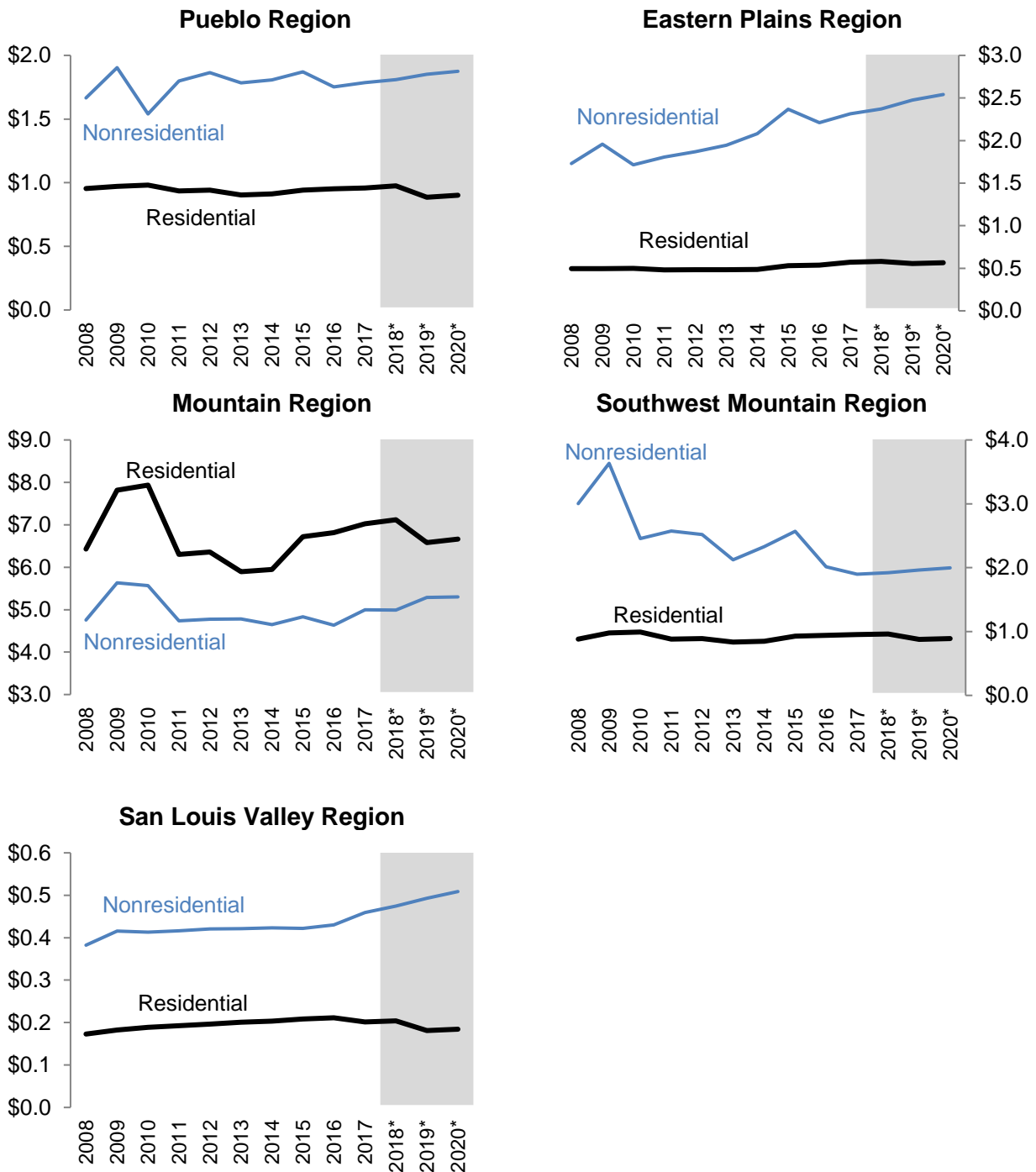
Figure 30
Assessed Values by Region
Billions of Dollars



Source: Department of Local Affairs, Division of Property Taxation.

*Legislative Council Staff forecast.

Figure 30
Assessed Values by Region (Continued)
Billions of Dollars



Source: Department of Local Affairs, Division of Property Taxation.
 *Legislative Council Staff forecast.

Figure 31
Forecast Percent Change in Total Assessed Valuation by Economic Region
2018-19 Assessment Year

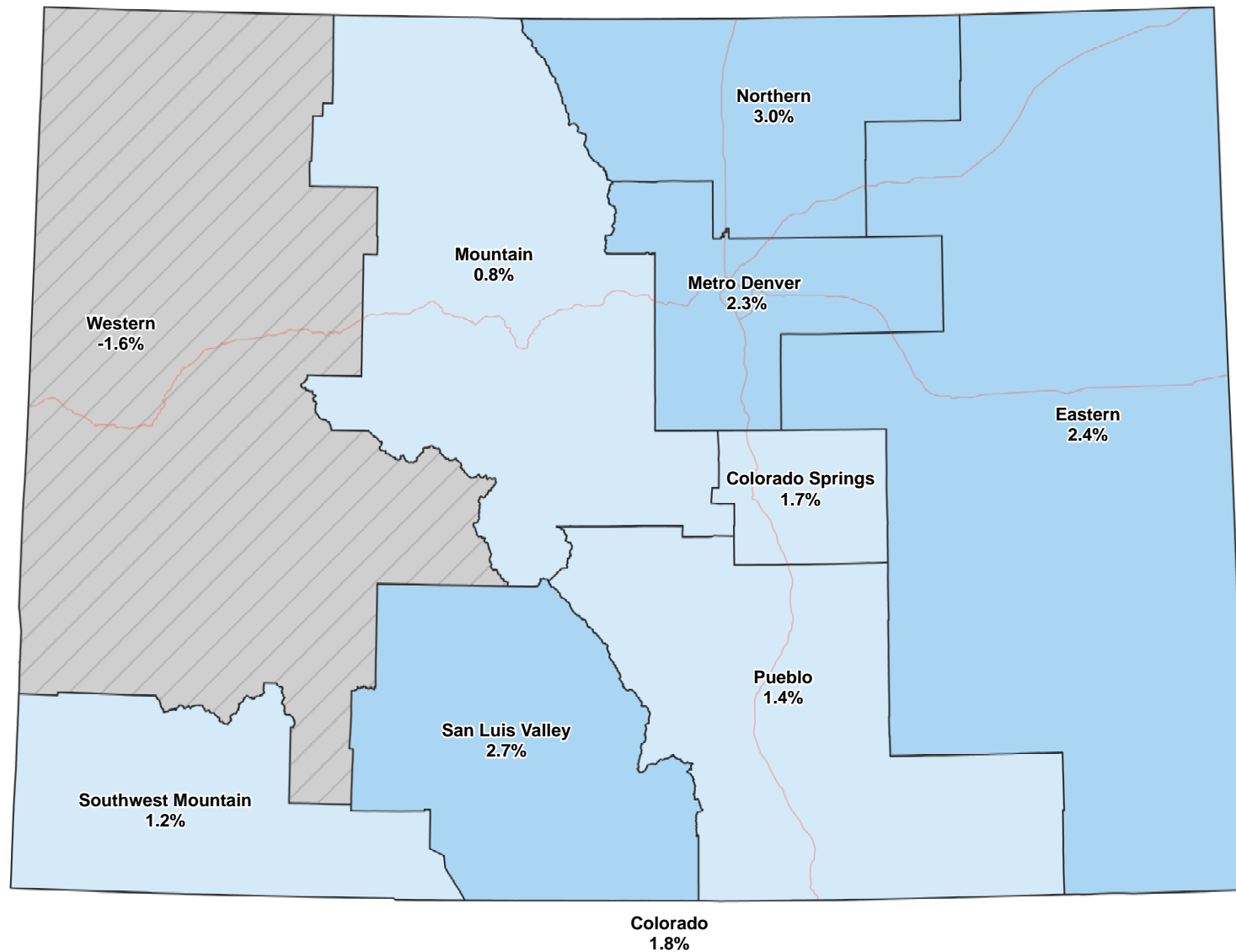
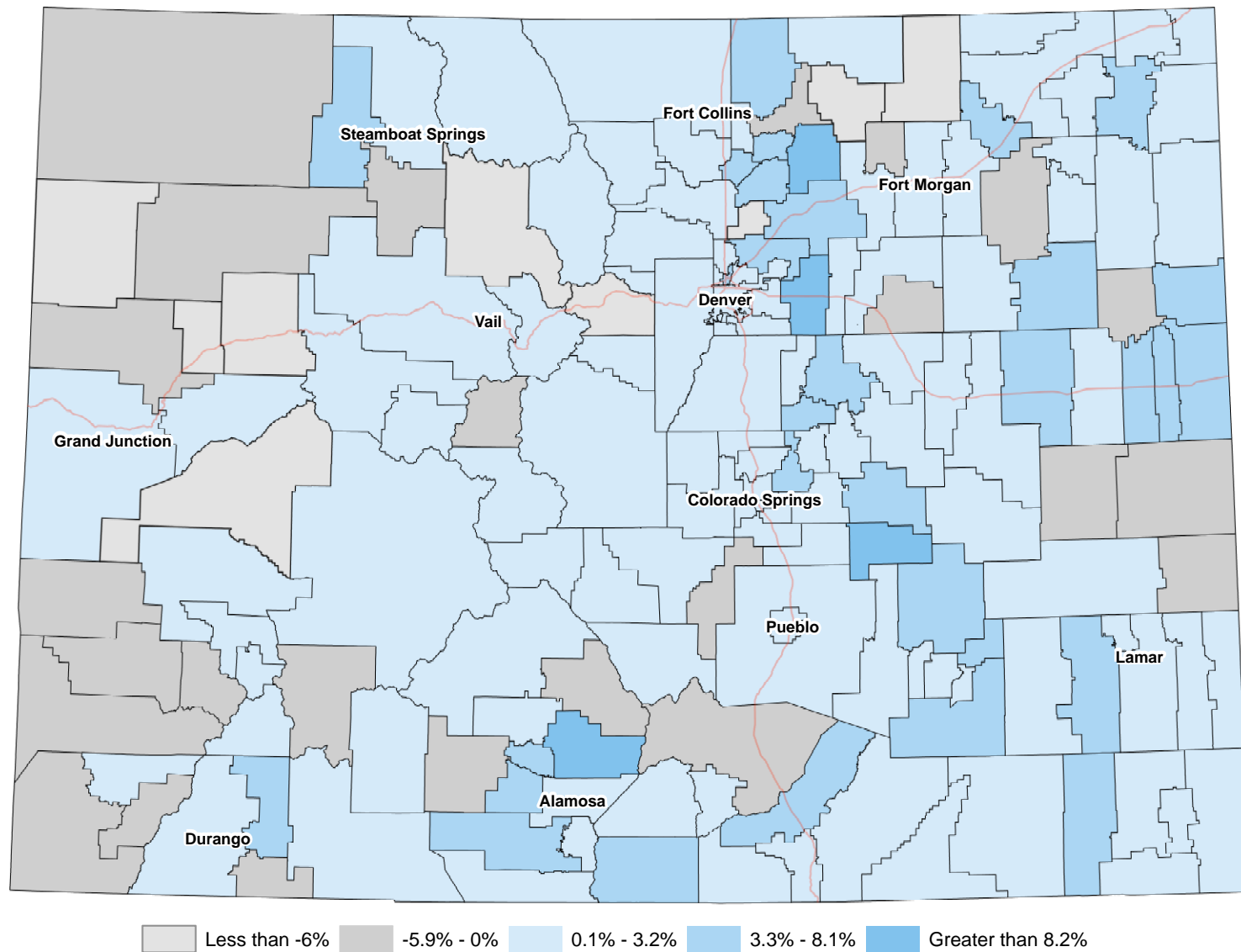


Figure 32
Forecast Percent Change in Total Assessed Valuation by School District
2018-19 Assessment Year



SCHOOL ENROLLMENT PROJECTIONS

This section of the forecast presents projections for kindergarten through twelfth grade (K-12) enrollment in Colorado's public schools. Projections are presented in full-time equivalent (FTE) terms, and are an important factor in determining funding levels for Colorado's 178 school districts. Table 22 summarizes current and projected enrollment for the 2017-18 through 2019-20 school years by forecast region. Figures and on pages and show enrollment growth projections by forecast region and school district, respectively, for the 2018-19 school year.

- The enrollment count for the current (2017-18) school year totaled 838,278 FTE students across Colorado's public schools, up 5,036 FTE students, or 0.6 percent, from the previous school year.
- Statewide K-12 enrollment is projected to increase by 5,100 FTE students, or 0.6 percent, in the 2018-19 school year. Enrollment in the 2019-20 school year is expected to increase another 0.6 percent, or by 4,800 FTE students.
- Eight of the nine forecast regions will experience growth in enrollment over the next two school years. Growth in the number of students will be strongest in the northern Metro Denver and Colorado Springs regions, where strong job growth, and new and relatively more affordable housing options will continue to attract young families.

Table 22
K-12 Public School Enrollment
*Full-Time Equivalent (FTE) Students**

Region	Actual 2017-18	Percent Change	Estimated 2018-19	Percent Change	Estimated 2019-20	Percent Change	Average Growth**
Metro Denver	480,756	0.3%	482,133	0.3%	483,712	0.3%	0.3%
Northern	86,379	1.5%	87,814	1.7%	89,366	1.8%	1.7%
Colorado Springs	117,918	1.1%	119,430	1.3%	120,593	1.0%	1.1%
Pueblo	32,583	-1.2%	32,563	-0.1%	32,302	-0.8%	-0.4%
Eastern Plains	25,033	2.2%	25,371	1.4%	25,661	1.1%	1.2%
San Luis Valley	7,274	-0.6%	7,288	0.2%	7,336	0.7%	0.4%
Mountain	25,046	1.6%	25,066	0.1%	25,141	0.3%	0.2%
Southwest Mountain	12,927	1.9%	13,132	1.6%	13,324	1.5%	1.5%
Western	50,365	0.2%	50,580	0.4%	50,740	0.6%	0.6%
Statewide Total	838,278	0.6%	843,378	0.6%	848,175	0.6%	0.6%

Source: Colorado Department of Education and Legislative Council Staff.

*Kindergarten students are counted as 0.5 FTE.

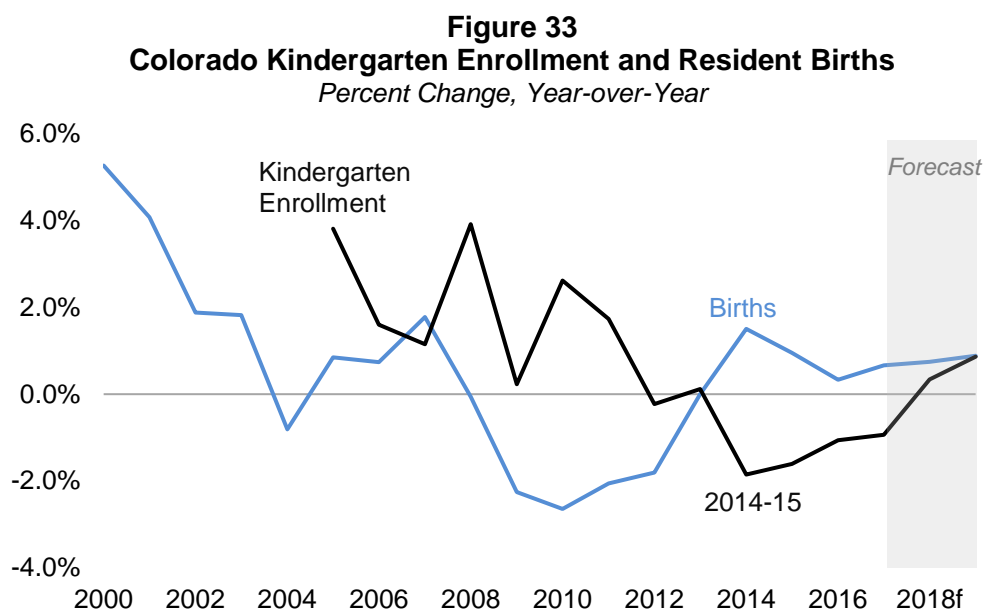
**Compound average annual growth rate between 2017-18 and 2019-20.

Statewide enrollment. Colorado's public school enrollment continued to increase in the current school year (2017-18), although at a slower rate than recent years. School districts added just over 5,000 students in 2017-18, a 0.6 percent increase from the previous school year. Enrollment grew in all but two regions of the state; the Pueblo region declined by 1.2 percent, or 381 FTE, while the San Luis Valley fell by 41 FTE. Relative to the Legislative Council Staff forecast published last December, actual enrollment in the 2017-18 school year was 1,656 FTE,

or 0.2 percent, lower than forecast. Enrollment was lower than expected across all regions of the state except in the eastern region.

Colorado schools are expected to continue to add students through the forecast period. In the upcoming 2018-19 school year, statewide public schools are expected to add another 5,100 FTE students, a 0.6 percent increase from the current school year. Growth is expected across all regions of the state except for the Pueblo region, which is expected to decline slightly relative to the current school year. In 2019-20, K-12 public school enrollment is expected to grow again by 0.6 percent from the previous year.

A decline in the number of births during the Great Recession continues to influence enrollment growth in Colorado. As shown in Figure 33, birth rates in Colorado fell each year between 2008 and 2012 following healthy gains over most of the ten prior years. As a result, smaller student cohorts began entering into the K-12 school system in the 2014-15 school year. Slower birth rates will continue to constrain growth through the forecast period.

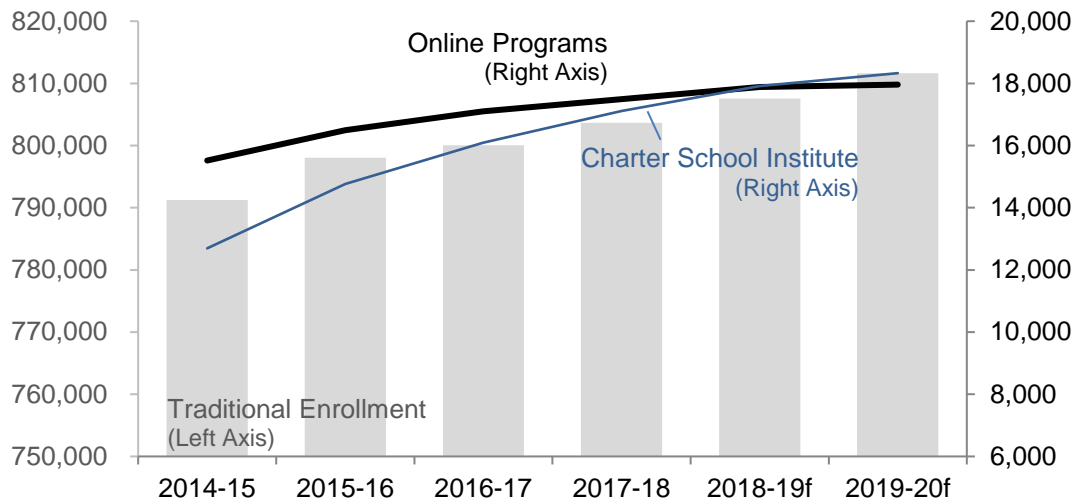


Source: Colorado Department of Local Affairs, State Demography Office, Colorado Department of Education and Legislative Council Staff.

Rising housing costs are influencing the distribution of enrollment across the state. In particular, high housing costs in the metro Denver area are causing families with school age children to relocate to less expensive areas of Colorado or in some cases to leave the state altogether. In some areas, however, including the City and County of Denver, more families are expected to move out than to move into the area. High housing costs, in addition to delayed household formation and smaller family sizes, will constrain enrollment. Conversely, relatively more affordable regions of the state, such as the Colorado Springs and northern regions, will experience stronger enrollment growth.

Enrollment in online programs and Charter School Institute (CSI) schools continued to grow in the 2017-18 school year. These options now represent 2.1 percent and 2.0 percent of total statewide enrollment, respectively (Figure 34). While enrollment in online programs is expected to level off, CSI enrollment is expected to grow modestly with new school openings over the next two years.

Figure 34
Online, CSI, and Traditional Enrollment
*Full-Time Equivalent (FTE) Students**



Source: Colorado Department of Education and Legislative Council Staff.

*Kindergarten students are counted as 0.5 FTE.

Enrollment by Region. The following paragraphs provide brief summaries of enrollment for school districts in the nine forecast regions of the state.

The **metro Denver region**, which includes Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson counties, accounted for 57.4 percent of total Colorado enrollment in the 2017-18 school year, and grew 0.3 percent over the previous school year. Denver Public School District remains the largest school district in the state, with close to 83,000 FTE. In-migration and new residential construction in the metro Denver area remains strong, but has been dominated by young professionals without children. Enrollment in school districts located in the northern area of the region, continues to grow at healthy rates as new and relatively affordable housing attract larger families.

The Brighton school district will continue to experience some of the largest student enrollment growth in the region. In the current 2017-18 school year, Brighton's enrollment grew 3.3 percent. Robust growth in the Brighton school district is expected to continue with strong growth in residential construction and more affordable housing options. In addition, the district is experiencing higher birth rates than the statewide average.

Metro Denver enrollment will continue to grow at a modest pace throughout the forecast period as these trends persist. Regional enrollment is expected to rise 0.3 percent and 0.3 percent again in both the 2018-19 and 2019-20 school years.

Enrollment growth in the **northern region**, including Larimer and Weld counties, remains among the strongest in the state, growing by 1.5 percent in the 2017-18 school year with an additional 1,267 student FTE. Enrollment in the region has outpaced statewide growth since the 2010-11 school year, reflecting stronger job growth and new residential developments. Improving energy prices have increased oil and natural gas drilling rig counts and production, supporting job and enrollment growth in area school districts. Regional enrollment is expected to grow 1.7 percent and 1.8 percent, respectively, in the 2018-19 and 2019-20 school years, respectively.

New residential development, lower housing costs relative to the metro Denver region, and strong employment opportunities are expected to drive growth.

Enrollment in the **Colorado Springs region**, including El Paso County, increased 1.1 percent, or by 1,320 student FTE, in the 2017-18 school year. The improving regional economy and relatively affordable housing are attracting families to the area. Total enrollment growth in the region is expected to accelerate to 1.3 percent in the 2018-19 school year.

Total enrollment in the **Pueblo region**, including Fremont, Custer, Huerfano, Las Animas, and Pueblo counties, declined by 381 FTE, or 1.6 percent, in the 2017-18 school year and is expected to remain relatively flat in the 2018-19 school year. Slow or declining population growth in the region continues to constrain enrollment.

Enrollment in the **eastern plains region** continued to grow at healthy rate in the 2017-18 school year, though a small increase in enrollment can have a large impact in the region. School districts closer to the metro Denver and northern regions, such as Elizabeth and Fort Morgan, are seeing the fastest growth with new residential construction. The region is expected to add about 340 FTE in the 2018-19 school year and another 300 FTE in 2019-20.

The **San Luis Valley region**, consisting of Alamosa, Conejos, Costilla, Mineral, Rio Grande, and Saguache counties, is the smallest in the state in terms of K-12 enrollment. Regional enrollment declined by 0.6 percent, or 41 student FTE in the 2017-18 school year. Regional population growth has been relatively flat since 2010 and the regional economy is highly dependent on agriculture, an industry that has suffered on low commodity prices over the past several years. Enrollment growth rates are expected to grow modestly, at 2.0 percent in the 2018-19 school year, and 0.7 percent in the 2019-20 school year.

Enrollment in the **mountain region**, consisting of Chaffee, Clear Creek, Eagle, Gilpin, Grand, Jackson, Lake, Park, Pitkin, Routt, Summit, and Teller counties, grew 1.6 percent in the 2017-18 school year and is expected to slow to 0.1 percent growth in 2018-19. Enrollment growth is dependent on the ski and gambling industries in mountain resort communities. In addition, affordable housing for workers in this region has a strong influence on the number of students that enroll in schools in the region. Employment trends in the Eagle and Steamboat Springs school districts continue to drive regional enrollment growth.

In spite of energy industry weaknesses, enrollment in the **western region**, including Delta, Garfield, Gunnison, Hinsdale, Mesa, Moffat, Montrose, Ouray, Rio Blanco, and San Miguel counties, rose 0.2 percent in the 2017-18 school year. The amount of growth varied across districts, with the largest declines coming in districts where the economy was most dependent on energy activity. A lower cost of living compared with other regions of the state may lead to additional growth in the future. Regional enrollment is expected to grow 0.4 percent in 2018-19 and 0.3 percent in the 2019-20 school year, as energy prices increase, housing costs remain lower than those along the Front Range, and the economy continues to diversify.

The **southwest mountain region**, including Archuleta, Dolores, La Plata, Montezuma, and San Juan counties, saw enrollment growth of 1.9 percent in the 2017-18 school year. Relatively affordable housing and growing industry opportunities have attracted families to the area in recent years. Enrollment growth rates of 1.6 percent and 1.5 percent are expected for the 2018-19 and 2019-20 school years, respectively.

Risks to the forecast. Job opportunity remains a strong driver of enrollment growth in the state. To the degree that the number of employment opportunities exceeds the current outlook, some regions may experience stronger growth. Conversely, if the state's economy performs more poorly than anticipated relative to other states, some school districts may see enrollment declines that are greater than projected. Stronger than expected in-migration of families or an expansion of affordable housing options could result in higher enrollment forecasts, particularly in the northern, southwest, and western regions. Additionally, energy industry volatility poses a risk to enrollment in many regions of the state. Rising (or falling) oil and gas natural prices could increase (or decrease) enrollment in districts in the western, southwest mountain, and northern regions of the state more than expected.

Figure 35
Forecast Percent Change in Enrollment by Economic Region
2018-19 School Year

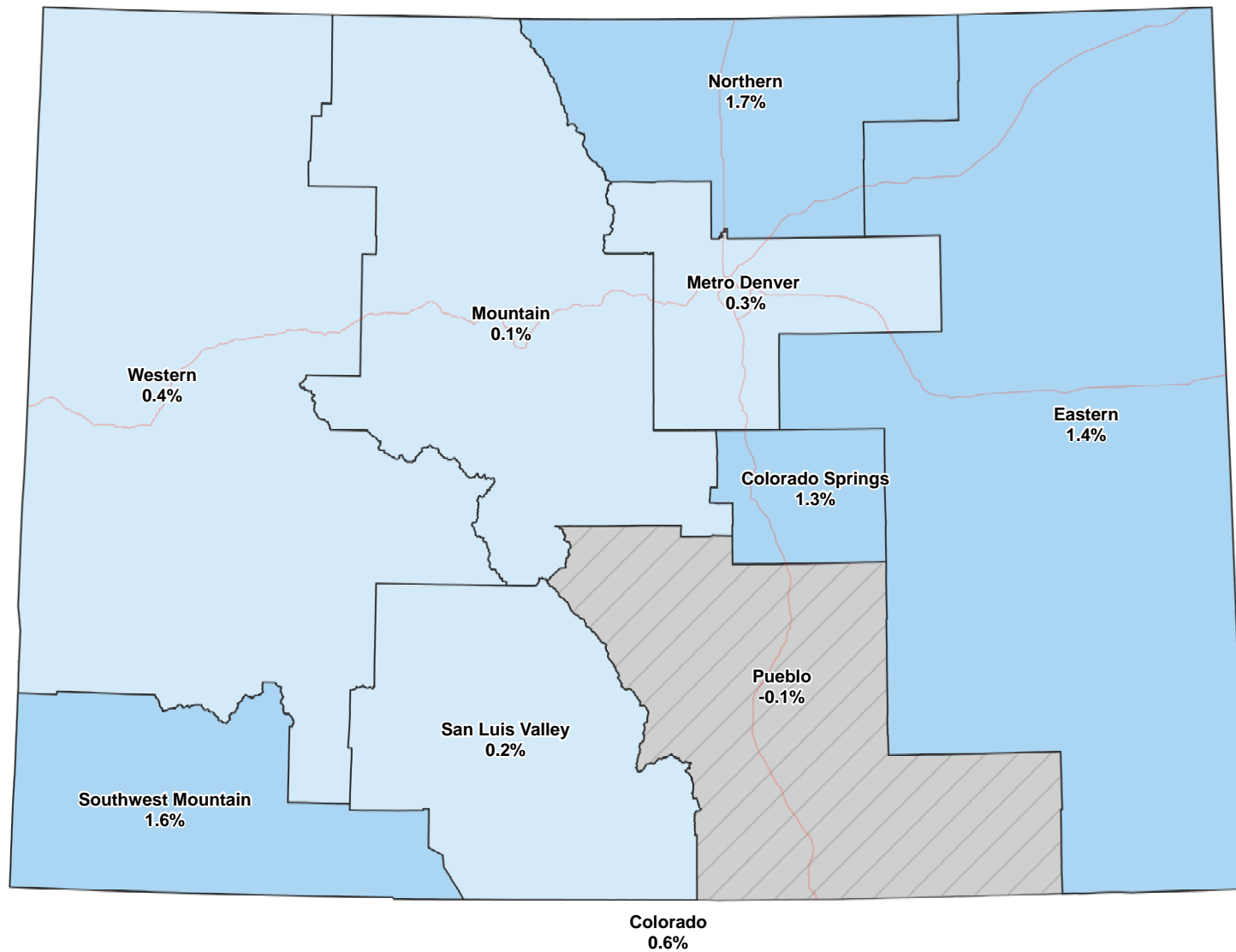
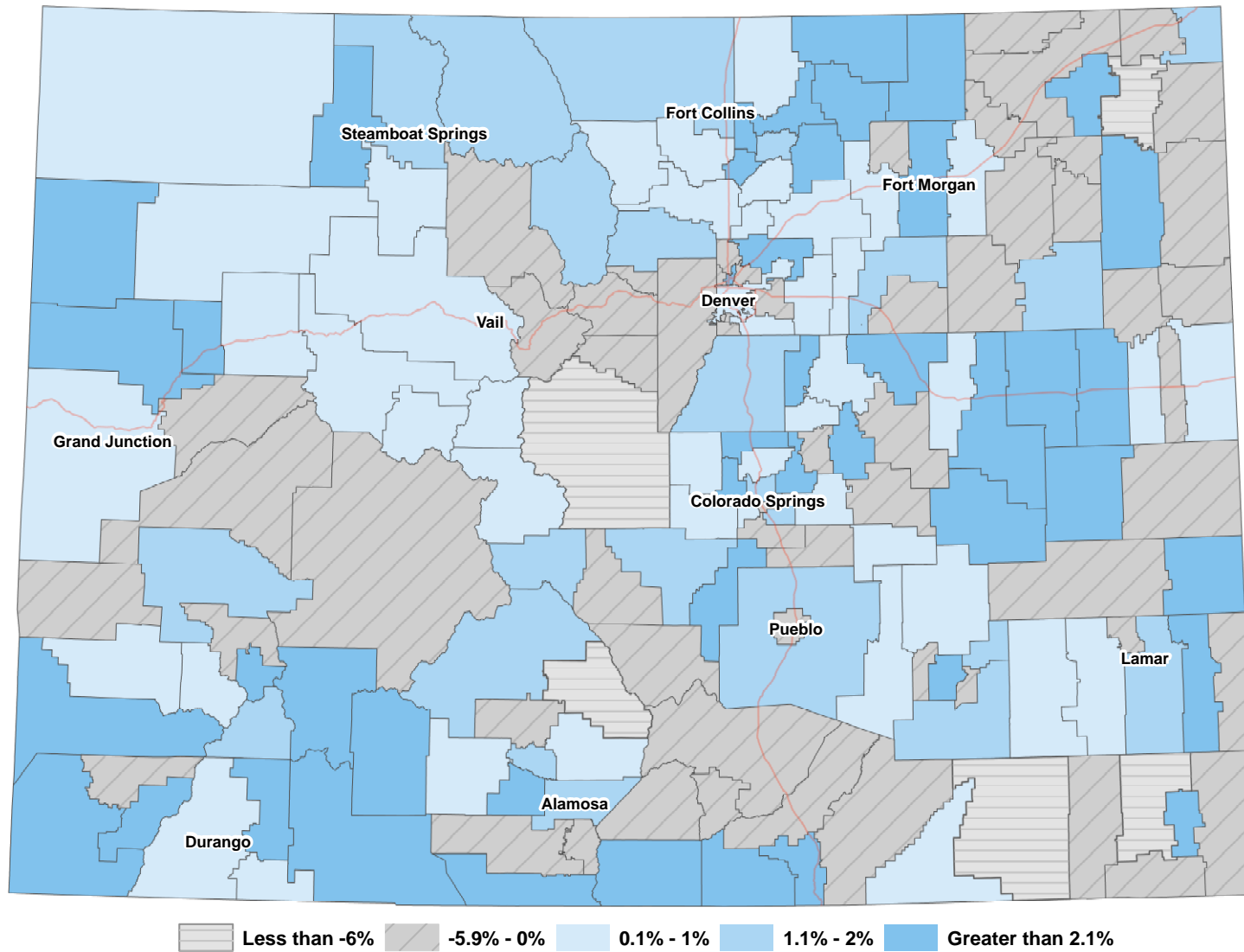


Figure 36
Forecast Percent Change in Enrollment by School District
2018-19 School Year



This page intentionally left blank.

ADULT PRISON POPULATION AND PAROLE CASELOAD PROJECTIONS

This section presents forecasts of the state's adult prison population and parole caseload for FY 2017-18 through FY 2019-20. The section includes a discussion of the historical and current trends affecting these populations, the adjustments made since the December 2016 forecast, and relevant recent legislation. It concludes with an analysis of risks to the forecast.

Key findings. The December 2016 forecast predicted that the state adult inmate population would total 19,847 persons at the end of FY 2016-17, increasing 1.2 percent from the end of the prior year as the number of inmates sentenced to prison increased and releases slowed. The population actually increased more significantly than forecast, growing 2.5 percent to 20,101 inmates. The forecast underestimated the increase in prison admissions attributable to new court commitments. A total of 5,698 offenders were committed to the custody of the Department of Corrections (DOC) upon conviction for new crimes – an increase of 598 offenders, or 11.7 percent, from the previous fiscal year. Consistent with a higher-than-expected prison population, FY 2016-17 ended with a lower parole caseload than forecast. There were 8,286 parolees in Colorado at the end of FY 2016-17, less than the 8,443 parolees forecast last year.

Expectations for the June 2018 prison and parole populations are not significantly different from those published in the December 2016 forecast. Relative to last year's forecast, expectations for the June 2019 prison population have been revised upward substantially, while parole population expectations have been revised downward. Increases in felony criminal case filings at Colorado district courts have not shown signs of abetting, contributing to higher admissions expectations. Additionally, the effects of House Bill 17-1326, a major contributor to the falling prison and increasing parole populations thus far during the current FY 2017-18, are expected to moderate over the first half of 2018.

As summarized in Table 23 on page 87 (prison population) and Table 24 on page 90 (parole caseload), the following outcomes are anticipated over the forecast period:

- **Overall population.** The prison population fell 1.9 percent between June and November this year; however, the decrease is attributable to policy changes that are mostly phased in and are not expected to result in population reductions of this magnitude going forward. Assuming the continuation of current prosecution and sentencing trends, the prison population is expected to continue to increase consistent with rapidly rising felony caseload. The prison population is expected to fall 0.7 percent over the whole of FY 2017-18, representing an increase from its present level, and to grow by an additional 3.8 percent in FY 2018-19 and 2.2 percent in FY 2019-20.

Prison population:

The number of inmates committed to the custody of the Department of Corrections (DOC), including those in state and private prisons.

Parole caseload:

The average daily population of parolees – offenders who have been released from prison but remain under DOC supervision. Depending on context, this term may refer only to parolees located in Colorado.

New court commitment:

Admission to DOC custody of an offender who has been convicted of a felony and sentenced to a period of incarceration.

Release:

Departure of an offender from prison to parole or via discharge from DOC supervision.

Revocation:

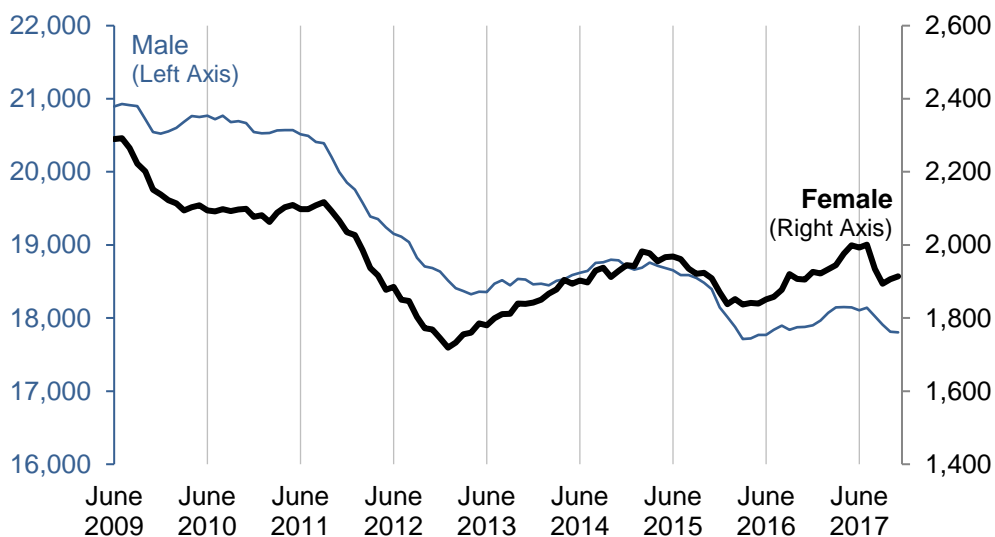
Return to DOC custody of an offender who has violated his or her terms of parole.

- **Male population.** The male population is expected to fall from 18,108 inmates in June 2017 to 17,953 inmates in June 2018, representing a decline of 0.9 percent, before growing 3.7 percent to 18,626 inmates in June 2019. Trends driving growth in the male population are similar to those for the aggregate state inmate population.
- **Female population.** The state's women's prisons account for an increasing share of the state inmate population. This population is expected to increase 0.8 percent to total 2,008 inmates by the end of FY 2017-18, before growing 3.9 percent to 2,087 inmates in June 2019.
- **Parole caseload.** In-state parole caseload is expected to increase from 8,286 offenders in June 2017 to 8,858 offenders at the end of the forecast period. The parole population will be affected by a number of competing factors. In the near term, parole caseload is boosted by recent policy changes expediting parole and reparole releases. In the longer term, the parole population will rise as the number of released offenders outstrips these offenders' falling parole durations.

Population Forecast

Historical and recent trends. The state's prison population rose through the 1990s and 2000s, reaching its peak at 23,220 inmates in July 2009. Since 2009, changes in the population have been less consistent. The inmate population fell significantly between August 2010 and April 2013, dropping 12.1 percent. Then, after roughly two years of growth, the population again began to decline quickly in July 2015 following the adoption of Senate Bill 15-124. During FY 2016-17, the inmate population again began to increase on the strength of new court commitments. A history of the male and female prison populations is shown in Figure 37.

Figure 37
Prison Population by Gender
June 2009 to November 2017



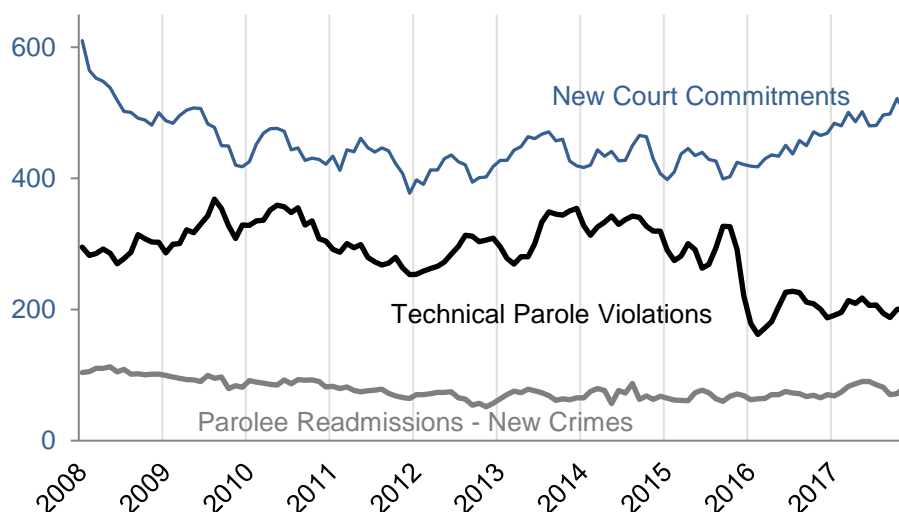
Source: Colorado Department of Corrections.

Admissions. An offender who is admitted to a DOC facility is generally recorded as having been admitted for one of three reasons. Most admissions are attributable to *new court commitments*, i.e., felony criminal cases in which a defendant is convicted and sentenced to a period of incarceration. The two other principal types of admissions are actually readmissions of parolees, either because the parolee *committed a new crime* while on parole or because the parolee incurred a *technical parole violation* – a violation of his or her conditions of parole that did not independently constitute a new crime.

Prison admissions fell 9.7 percent during FY 2015-16 as a result of reduced parolee returns for technical parole violations. **Senate Bill 15-124**, which took effect in the fall of 2015, required DOC's Division of Adult Parole not to recommend that parolees who had incurred violations be revoked unless and until all other intermediate sanctions (non-revocation punishments or interventions) had been exhausted. As shown in Figure 38, this policy change appears to have caused a permanent downward rebasing in the number of admissions attributable to technical parole violations.

Prison admissions grew 3.9 percent during FY 2016-17 and increased an additional 7.5 percent through November 2017 relative to the July-November period in 2016. The majority of the increase is attributable to new court commitments, which increase the prison population for a longer period of time than technical returns. The Judicial Branch reported that 47,998 felony criminal cases were completed during FY 2017-18, breaking the previous record set during FY 2005-06 and representing an increase of 5,268 cases, or 12.3 percent, from the prior fiscal year. Approximately 11.9 percent of terminated cases resulted in a new court commitment to DOC, and an additional 1.9 percent of terminated cases resulted in a parolee's return for a new criminal conviction.

Figure 38
State Prison Admissions by Source*
Three-Month Moving Average



Source: Colorado Department of Corrections.

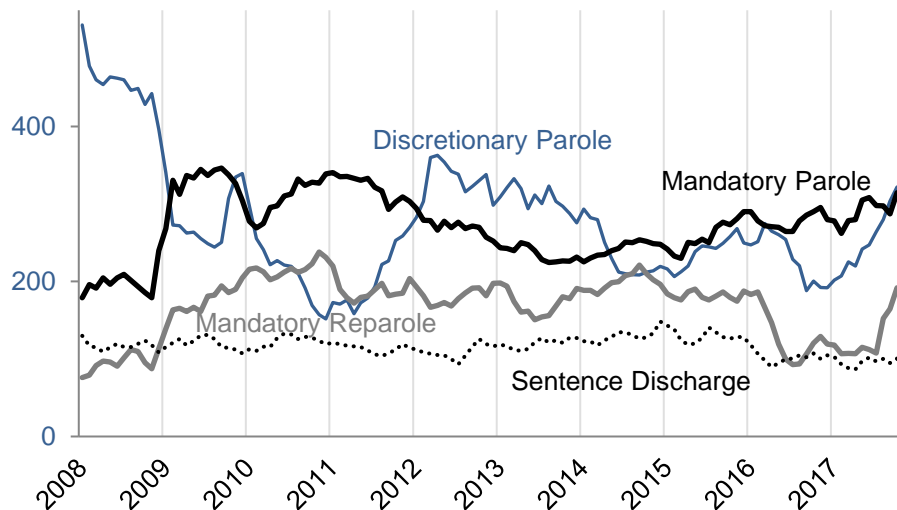
*Omits admissions for returns from prior releases to probation, court order discharge or appeal bond, interstate compact, and youthful offender system terminations. These streams produced a combined average of 10 admissions per month over the sample period.

Releases. Releases from prison are more volatile than admissions. Figure presents state prison releases in each of the four most significant categories. The two largest categories, discretionary parole and mandatory parole, represent the conditions under which an inmate may first be released onto parole. *Discretionary* parole releases indicate that the State Board of Parole chose to release an offender on or after his or her parole eligibility date, while *mandatory* parole releases indicate that the offender was not granted early parole and instead was allowed to leave a DOC facility only after having reached his or her mandatory release date. As shown in Figure 39, discretionary and mandatory parole releases are not strongly correlated and depend upon the population of parole-eligible inmates as well as Parole Board behavior.

The two other major release categories pertain to offenders who previously have been released on parole and who were subsequently revoked to a DOC facility. The Parole Board may require that a revoked offender remain in prison for a determinate period of time, after which period they are granted *mandatory reparole*. Alternatively, the Parole Board may require that a revoked offender be incarcerated for the remainder of his or her sentence, after which point the offender is *discharged* and is not subject to additional parole supervision.

Total prison releases fell 11.8 percent during FY 2016-17. As shown in Figure 39, the largest decreases occurred during the summer of 2016 in the discretionary parole and mandatory reparole categories. Mandatory reparoles fell as an echo of Senate Bill 15-124, which reduced revocations, the base from which mandatory reparoles are made, as described in preceding paragraphs.

Figure 39
State Prison Releases by Source*
Three-Month Moving Average



Source: Colorado Department of Corrections.

*Omits releases to probation, court-ordered discharges, releases on appeal bonds and inmate deaths. These categories averaged a combined 21 offenders per month over the sample period.

Through November of the current FY 2017-18, releases increased 22.1 percent relative to the first five months of FY 2016-17. Growth is attributable to three requirements of **House Bill 17-1326**. First, the Parole Board implemented a file review system, allowing offenders who are eligible for parole and meet certain risk and crime criteria to be ordered released upon a successful file review without undergoing a parole application hearing. The file review system increased the number of discretionary releases authorized by the board. Second, the bill reduced the amount of time for which a revoked parolee is required to remain in prison before being rereleased, reducing the length of stay for revoked parolees and accelerating mandatory reparoles. Third, the bill repealed DOC's authority to operate community return-to-custody facilities. Implementation of this provision required that offenders revoked to community corrections custody be reclassified in August as parolees occupying condition of parole beds, shown as a spike in mandatory reparoles in Figure 39.

Present trends in new court commitments and discretionary parole releases are expected to continue their increasing trajectories through the forecast period. Revocations of parolees for technical parole violations are expected to continue at their current, reduced level. Mandatory reparole releases are expected to return to their early 2017 levels, but reduced length of stay for revoked parolees under House Bill 17-1326 is expected to reduce the prison population. Table 23 shows historical and projected prison populations by gender from FY 2009-10 through FY 2019-20.

Table 23
Adult Prison Population by Gender
As of June 30 each Fiscal Year

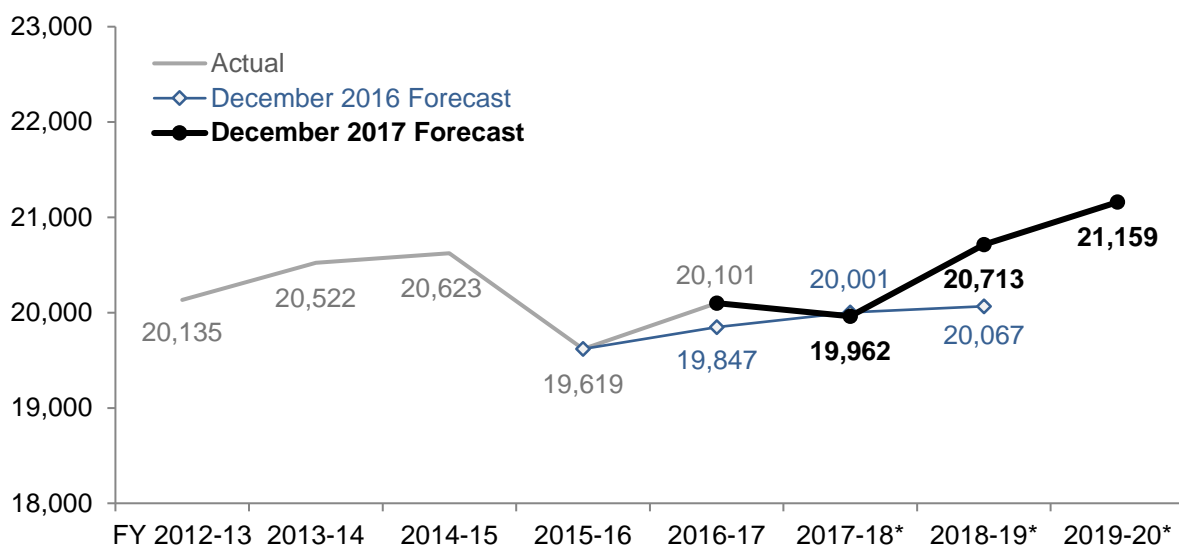
Fiscal Year	Males	Percent Change	Females	Percent Change	Total	Percent Change
FY 2009-10	20,766	-0.6%	2,094	-8.6%	22,860	-1.4%
FY 2010-11	20,512	-1.2%	2,098	0.2%	22,610	-1.1%
FY 2011-12	19,152	-6.6%	1,885	-10.2%	21,037	-7.0%
FY 2012-13	18,355	-4.2%	1,780	-5.6%	20,135	-4.3%
FY 2013-14	18,619	1.4%	1,903	6.9%	20,522	1.9%
FY 2014-15	18,655	0.2%	1,968	3.4%	20,623	0.5%
FY 2015-16	17,768	-4.8%	1,851	-5.9%	19,619	-4.9%
FY 2016-17	18,108	1.9%	1,993	7.7%	20,101	2.5%
FY 2017-18*	17,953	-0.9%	2,008	0.8%	19,962	-0.7%
FY 2018-19*	18,626	3.7%	2,087	3.9%	20,713	3.8%
FY 2019-20*	19,008	2.1%	2,151	3.1%	21,159	2.2%

Source: Colorado Department of Corrections. *Legislative Council Staff projections.

Adjustments to the forecast for total population. Figure 40 illustrates the inmate population forecasts published in December 2016 and December 2017. The 2017 forecast contains a slight downward revision to the prison population anticipated in June 2018 and a significant upward revision to the population expected in June 2019. Revised expectations are attributable to changes in policy implementation and court commitment trends relative to those anticipated in last year's forecast.

The most significant change affecting the prison population since last year's forecast is the ongoing acceleration in new court commitments. FY 2016-17 data from the Judicial Branch show rapid growth in both new felony case filings and in case terminations, and data from the DOC confirm that cases in which a defendant is convicted are driving new court commitments to state prison facilities. This forecast includes an upward revision to the assumed levels of new incarceration. An additional change is attributable to recent Parole Board policy endeavors, principally the file review process (contributing to additional discretionary releases) and the implementation of House Bill 17-1326 (contributing to accelerated mandatory rereleases). These changes were not assumed in last year's forecast.

Figure 40
Adult Inmate Population, Forecast-to-Forecast Comparison
December 2016 to December 2017 Forecast



*Source: Colorado Department of Corrections and Legislative Council Staff. Actual totals shown for FY 2012-13 through FY 2016-17. *Current forecast period.*

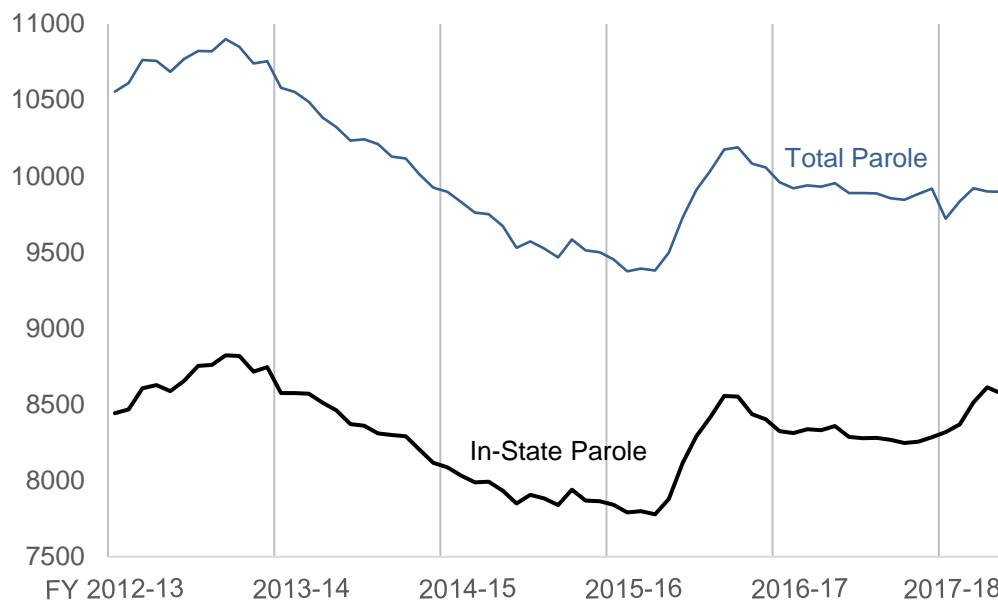
Parole Forecast

Historical and recent trends. Since early 2013, Colorado's adult parole population has shrunk except when pushed upward by policy changes, a result of falling parole durations particularly for offenders serving sentences for drug felony crimes. As shown in Figure 41, the in-state adult parole population decreased smoothly between March 2013 and October 2015, losing 11.8 percent of its peak value during this 31-month span. Beginning in late 2015, the parole population climbed at an unprecedented speed following the implementation of Senate Bill 15-124 as the number of parolees readmitted to prison for technical parole violations plummeted. Between November 2015 and March 2016, the number of parolees located in the state increased by 10.0 percent.

Parole caseload stabilized in the summer of 2016, but two more recent changes are apparent in Figure 41. During the summer of 2017, the DOC agreed to discharge about 500 out-of-state parolees detained in U.S. Immigration and Customs Enforcement facilities who were awaiting deportation. DOC reports that these approvals are complete at this time and that no significant additional decrease in the out-of-state parole population is anticipated.

During the fall of 2017, the DOC began implementation of House Bill 17-1326, restricting the amount of time for which an offender may be revoked for a technical violation. The bill also prevents DOC from assigning a revoked offender to a community corrections facility. In order to comply with the new law, DOC reassigned 68 offenders placed in community return-to-custody facilities from revoked inmate status to condition of parole status, a necessary administrative change that inflates the number of in-state parolees.

Figure 41
Colorado Parole Caseload Populations



Source: Colorado Department of Corrections. Omits absconders.

Parole caseload is projected to increase through the current FY 2017-18 as House Bill 17-1326 requires faster reparole of revoked offenders. In FY 2018-19 and FY 2019-20, the parole population will experience downward pressure from declining lengths of stay, while simultaneously absorbing the current growth in new offenders upon their release from DOC. During FY 2018-19, falling durations of parole are expected to more than offset the increased number of parolees, reducing caseload. During FY 2019-20 and subsequent years, increases attributable to additional releases are expected to offset the shorter parole durations, driving an increase in total caseload.

Table 24 shows historical and projected adult parole projections, by location, from FY 2009-10 through FY 2019-20.

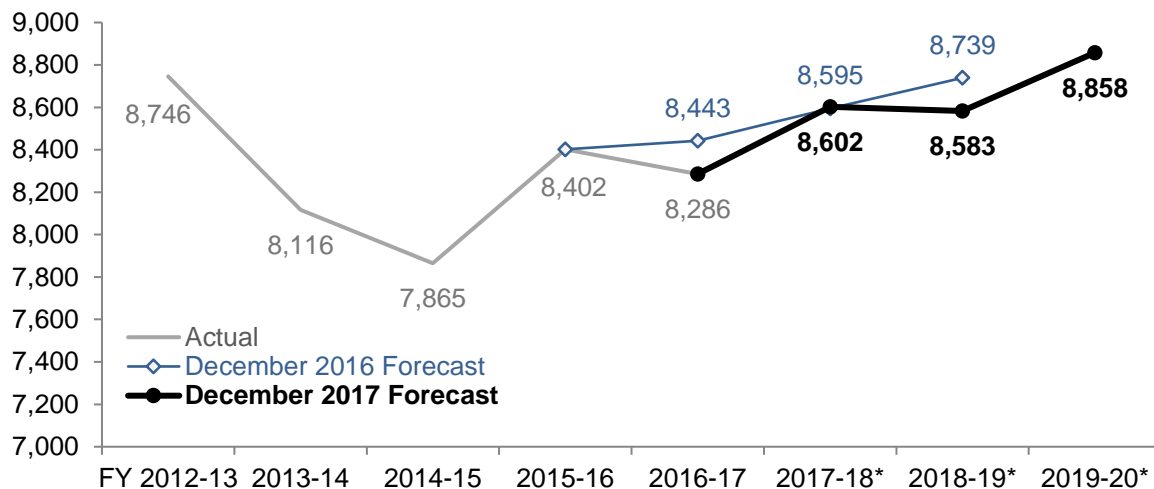
Table 24
Parole Population
As of June 30 each Fiscal Year

Fiscal Year	In-State Parole	Percent Change	Out-of-State Parole	Percent Change	Total	Percent Change
FY 2009-10	8,535	-5.3%	2,100	3.5%	10,635	-3.7%
FY 2010-11	8,181	-4.1%	1,922	-8.5%	10,103	-5.0%
FY 2011-12	8,445	3.2%	2,066	7.5%	10,511	4.0%
FY 2012-13	8,746	3.6%	2,008	-2.8%	10,754	2.3%
FY 2013-14	8,116	-7.2%	1,808	-10.0%	9,924	-7.7%
FY 2014-15	7,865	-3.1%	1,636	-9.5%	9,501	-4.3%
FY 2015-16	8,402	6.8%	1,656	1.2%	10,058	5.9%
FY 2016-17	8,286	-1.4%	1,633	-1.4%	9,919	-1.4%
FY 2017-18*	8,602	3.8%	1,361	-16.7%	9,963	0.4%
FY 2018-19*	8,583	-0.2%	1,349	-0.9%	9,933	-0.3%
FY 2019-20*	8,858	3.2%	1,329	-1.5%	10,187	2.6%

Source: Colorado Department of Corrections. *Legislative Council Staff projections.

Adjustments to the forecast for parole. Figure 42 illustrates the in-state parole caseload forecasts published in December 2016 and December 2017. The 2016 forecast anticipated that June 2017 in-state caseload would be 8,443 parolees. Actual caseload was 8,286, a difference of 157 parolees. The 2016 forecast anticipated that the growing prison population would correspond to increasing parole caseload; this effect did not manifest as expected. For the current FY 2017-18, this forecast includes a slight upward revision to parole expectations reflecting the effects of House Bill 17-1326, which are expected to more than offset lower than anticipated initial parole caseload. For FY 2018-19, the forecast contains a downward revision to parole expectations consistent with revised expectations for parole lengths of stay.

Figure 42
Adult In-State Parole Population, Forecast-to-Forecast Comparison
December 2016 to December 2017 Forecast



Source: Colorado Department of Corrections and Legislative Council Staff. Actual totals shown for FY 2012-13 through FY 2016-17. *Current forecast period.

Factors Affecting the Adult Prison Population and Parole Caseload

It can be difficult to isolate the factors that directly impact the adult prison population and parole caseload. The following paragraphs describe how external factors, including demographic and economic trends, changes within the criminal justice system, new legislation, and internal factors including departmental and Parole Board administration, can influence the growth or decline of the inmate population and parole caseload volume.

- **Population.** All other things being equal, a larger population may result in a greater number of criminal offenses, arrests, criminal felony filings, and prison commitments. Colorado's population is projected to grow about 5.0 percent through the forecast period, which may put mild upward pressure on the inmate population.
- **Economic factors.** Prison admissions exhibited essentially no correlation with economic conditions during the Great Recession and the subsequent recovery. Accordingly, this forecast assumes no correlation between economic growth and prison population.
- **Criminal justice system.** The actions of the state courts affect inmate population growth. In particular, commitment of offenders to prison is a major determinant of the inmate population. The mix of crimes sentenced also affects the prison population because more serious crimes entail longer durations of stay in correctional facilities.
- **Departmental and Parole Board administration.** Statute defers the authority to grant discretionary inmate releases to the appointed members of the State Board of Parole. Subject to statutory requirements, the Board is autonomous, and any change in its pattern of releases would have a significant effect on the state prison population and parole caseload. For example, House Bill 17-1326 limits the amount of time for which certain revoked offenders may remain in prison, decreasing the prison population while increasing parole caseload.

The DOC's Division of Adult Parole oversees the state's parole officers. Division leaders must decide in which cases to pursue revocation when an offender violates the conditions of his or her parole. Under Senate Bill 15-124, the Division is required to exhaust available intermediate sanctions before filing a complaint for revocation with the Parole Board. Statistics suggest that the Division's implementation of this policy has substantially decreased prison admission from parole revocations since 2015. A change in the implementation of this or another policy could have a significant effect on the state prison population and parole caseload.

- **Legislation.** Legislation enacted by the General Assembly may influence the state prison population and parole caseload. During the 2017 legislative session, the General Assembly enacted eight bills that may impact the state prison population in the future. These are described below.

House Bill 17-1040 allows a court to order the interception of communications when there is probable cause that evidence of human trafficking crimes will be obtained. The bill may increase criminal case filings; to the extent that these result in additional convictions, the inmate population will increase.

House Bill 17-1072 broadens the definition of human trafficking of a minor for sexual servitude to include the advertising or sale of services that facilitate this crime. The bill may increase criminal case filings; to the extent that these result in additional convictions, the inmate population will increase.

House Bill 17-1172 requires that any person convicted of human trafficking of a minor for sexual servitude be sentenced to a period of incarceration of at least eight years. To the extent that the bill results in longer sentences, the inmate population will increase for the period after which an offender otherwise would have been released.

House Bill 17-1308 removes the mandatory imposition of certain parole conditions, including the manner and time of restitution, regular urinalysis or other drug testing, and solicitation of a parole officer's permission to change residences or contact another person with a prior criminal history. To the extent that the bill results in fewer revocations for technical parole violations, it will increase parole caseload and reduce the inmate population.

House Bill 17-1326, mentioned previously, changes the period of time for which an offender who commits a technical parole violation may be revoked to DOC custody. Persons on parole for a level 2 drug felony or a class 3 nonviolent felony may be revoked for up to 90 days, instead of 180 days, and persons on parole for a level 3 or level 4 drug felony or a class 4, 5, or 6 nonviolent felony may be revoked for up to 30 days, instead of 180 days. This provision is expected to reduce the length of stay for revoked offenders, reducing the inmate population while increasing parole caseload.

The bill directs the Parole Board to conduct parole release review in lieu of a hearing if the inmate is assessed to be a "low" or "very low" risk and victim notification is not required by law. This provision is expected to expedite discretionary parole releases, reducing the inmate population while increasing parole caseload.

The bill repeals the authority of the DOC to operate community return-to-custody facilities. This provision resulted in the reclassification of 68 offenders housed in community corrections facilities from inmates to parolees occupying condition of parole beds during August 2017.

House Bill 17-1330 clarifies the circumstances under which a conviction for escape or attempted escape may be used to adjudicate an offender as a habitual criminal. The bill is expected to reduce the number of offenders adjudicated as habitual criminals. To the extent that the bill results in offenders being sentenced to probation in lieu of DOC, it will reduce the inmate population.

Senate Bill 17-021 establishes a housing program for persons with mental illness transitioning from incarceration. To the extent that the program results in fewer returns to prison custody for technical parole violations or new criminal convictions, it will increase parole caseload and reduce the inmate population.

Senate Bill 17-048 requires that a peace officer or parole officer immediately act to arrest a parolee participating in an intensive parole supervision program if there is probable cause to believe that the offender has committed an escape by knowingly removing or tampering with an electronic monitoring device. To the extent that the

bill results in parolee returns for new crimes in lieu of returns for technical parole violations, it will increase an offender's length of stay in prison upon return, increasing the inmate population and reducing parole caseload in the future.

Risks to the Forecast

The most significant risk to the forecast is the behavior of the Parole Board. The Board has a tremendous influence on parole caseload and revocations to prison custody, and exclusive authority over discretionary releases to parole. To the extent that the Parole Board behaves differently than in previous years, prison population and parole caseload could be higher or lower than forecast.

The forecast assumes that the number of felony criminal case filings and terminations will continue to increase at its present speed, and that a constant share of case terminations will result in DOC sentences. It is assumed that the impact of House Bill 15-1043, which created a felony penalty for repeat DUI offenders, is one reason for increased commitments. Cases can take significant time to navigate the criminal courts system, so the extent to which the impact of this legislation is still being phased in remains unknown. The bill punishes offenders based on the number of DUI convictions they accumulate within a specific amount of time, which also exacerbates the time needed for effects to fully manifest. This forecast anticipates that convictions under the new statute will continue to increase over the current forecast period. To the extent that new court commitments increase more or less quickly than anticipated here, the prison population could be higher or lower than forecast.

This forecast makes assumptions regarding the long-run effects of legislation that has only been in law for a short time. Last year's forecast identified the risk that the implementation of Senate Bill 15-124 could change over time, potentially leading to large increases in the prison population if a higher number of technical parole violators were subject to revocation. With another year of consistent implementation, a change to the effect of Senate Bill 15-124 appears unlikely. However, a new risk is posed by House Bill 17-1326, which has been implemented to reallocate community corrections offenders from prison to parole and has accelerated the process of mandatory reparoles of revoked offenders. To the extent that the rate of reparoles accelerates beyond what has already been observed, the prison population forecast carries new downside risk and the parole caseload forecast carries new upside risk.

Finally, the DOC is implementing changes to its time computation system in response to the Colorado Supreme Court's June 2017 decision in *Executive Director of the Colorado Department of Corrections v. Fetzer*. The Supreme Court ruled that the DOC's then-current methodology for determining parole eligibility dates for inmates with multiple consecutive and concurrent sentences was incorrect. Implementation of a new time computation methodology may result in earlier parole eligibility dates for up to 216 offenders. This forecast does not assume a change to the prison population resulting from *Fetzer* because the decision does not require these offenders' release, and because the change to each offender's specific parole eligibility date depends on the intricacies of his or her sentences and earned time. To the extent that offenders are released earlier than they would be otherwise, the prison population will be lower than forecast and the parole population will be higher than forecast.

This page intentionally left blank.

YOUTH CORRECTIONS POPULATION PROJECTIONS

This section presents the forecast for the population of juvenile offenders administered by the Division of Youth Services (DYS) in the Department of Human Services. The three major populations administered by the DHS are juveniles committed to custody, juveniles sentenced to a detention facility, and juveniles sentenced to community parole.

- The DHS **commitment population** will decrease from an average daily population of 651 youths in FY 2016-17 to 631 youths in FY 2019-20.
- The average daily **parole population** will correspondingly fall from 220 youths in FY 2016-17 to 210 youths in FY 2019-20.
- The DHS **detention population** will decrease from an average daily population of 257 youths in FY 2016-17 to 249 youths in FY 2019-20.

Juvenile Offender Sentencing Options

Juvenile offenders not prosecuted as adults are managed through the juvenile courts. If a court determines that a juvenile committed a crime, he or she is adjudicated as a delinquent. Upon determination of guilt, the court may sentence a juvenile to any one or a combination of the following:

Commitment. Depending on age and offense history, a juvenile may be committed to the custody of the DHS for a determinate period of between one and seven years for committing an offense that would be a felony or misdemeanor if committed by an adult.

Detention. The court may sentence a juvenile to a detention facility if he or she is found guilty of an offense that would constitute a class 3, 4, 5, or 6 felony or a misdemeanor if committed by an adult. Detention sentences may not exceed 45 days and are managed by the DHS.

County jail or community corrections. Juveniles between 18 and 21 who are adjudicated as delinquent prior to turning 18 may be sentenced to county jail for up to six months or to a community correctional facility or program for up to one year.

Probation or alternative legal custody. The court may order that a juvenile be placed under judicial district supervision and report to a probation officer. Conditions of probation may include participation in public service, behavior programs, restorative justice, or restitution. The court may also place the juvenile in the custody of a county department of social services, a foster care home, a hospital, or a child care center.

Influences on the Juvenile Offender Population

Court sentencing practices. Total juvenile delinquency filings increased consistently during the 1990s, peaking in 1998. Since then, filings have fallen, though the rate of decrease has recently flattened. Between FY 2013-14 and FY 2016-17, the number of juvenile case filings declined at an average annual rate of 1.7 percent, versus an average 6.4 percent drop in each of the three years prior. The decline in filings is expected to continue and will put

downward pressure on admissions to DYS commitment and detention facilities, and the rate of decrease is expected to slow correspondingly. During FY 2016-17, 1.7 percent of terminated juvenile cases resulted in commitment of a youth to a DYS facility.

Legislative action. Policies affecting sentencing alternatives for juveniles affect the size of the detention and commitment populations. These include the creation of diversionary programs as alternatives to incarceration, mandated caps on sentence placements, and changes to parole terms. During the 2017 legislative session, two bills passed that may affect the juvenile detention, commitment, and parole populations through the current forecast period; these are described below.

House Bill 17-1207 prohibits the juvenile courts from ordering youth between the ages of 10 years and 12 years to detention in a DYS facility unless they were arrested for a felony or weapons charge. Beginning in the current FY 2017-18, this change is expected to reduce the average daily detention population by between one and two youths, based on approximately 85 detentions in this age range during prior years and an average length of stay between eight days and nine days. The commitment and parole populations are not affected.

House Bill 17-1329 requires changes to the administration of youth commitment facilities. Changes include the creation of a pilot program to provide therapeutic treatment to committed youth in a home-like, least-restrictive environment; division-wide performance assessment and audits; oversight by new community boards; and new reporting requirements. The bill does not directly affect the commitment or parole populations but may result in indirect changes to sentencing or Juvenile Parole Board decision making. The bill also renamed the division.

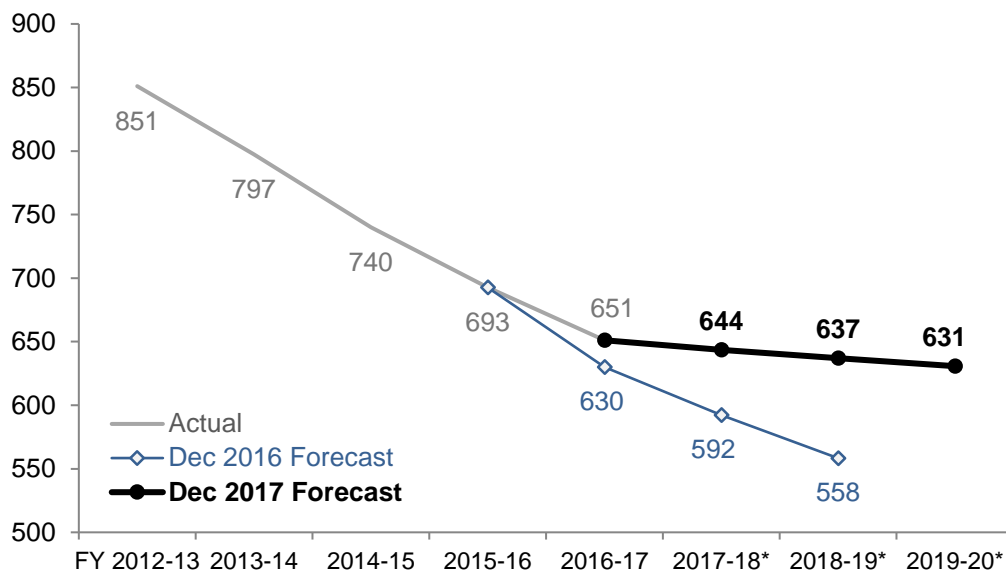
Division of Youth Services Sentencing Placements and Population Forecast

Commitment. The commitment population consists of juveniles adjudicated for a crime and committed to DYS custody. In FY 2016-17, the average daily commitment population was 651 youths, representing a 6.0 percent decrease from the prior year. Between FY 2017-18 and FY 2019-20, the commitment population is expected to drop to 631 youths, representing a total decrease of 3.1 percent.

The FY 2016-17 average daily commitment population exceeded the December 2016 forecast by 21 youths. Expectations for the DYS commitment population have been adjusted upward from 2016 expectations to account for stabilizing juvenile case filings. Additionally, the percentage of juvenile case terminations that result in a DYS commitment has flattened, falling from 2.4 percent in FY 2008-09 to 1.7 percent in FY 2014-15 before stabilizing at that level. These trends both suggest that new commitments to DYS will fall more slowly than in the past. While the population of committed youths fell during FY 2016-17, 365 youths were newly committed to DYS custody, exactly the same number as were committed during the prior year. This forecast assumes that reductions in future commitments will be slight and that the population will decline slowly as releases outpace admissions. Through October, DYS oversaw a total of 646 committed youths on average, just a 0.8 percent decrease from last year's average amount. Figure 43 compares the current average daily commitment population forecast to that published last year.

Parole. Juveniles who have served their commitment sentence and are approved by the Juvenile Parole Board are eligible for release to community parole. All youths serve a parole period of at least six months, though the board may extend the parole period up to 21 months for certain offenders. The DYS continues to be closely involved with parolees, preparing the parole plan for presentation to the board and monitoring each youth's progress while on parole.

Figure 43
Comparison of DYS Average Daily Commitment Population Forecasts,
December 2016 and December 2017



Source: Colorado Department of Human Services Division of Youth Services and Legislative Council Staff.
*Forecast.

The juvenile parole population averaged 220 youths in FY 2016-17, a decrease of 10.6 percent from the prior fiscal year. The majority of the decrease occurred between November 2016 and April 2017, when the parole population fell 18.2 percent due to falling releases and a large number of February discharges before beginning to climb again. The parole population is expected to stabilize just below its present level, 214 parolees, as the number of releases from commitment facilities remains consistent.

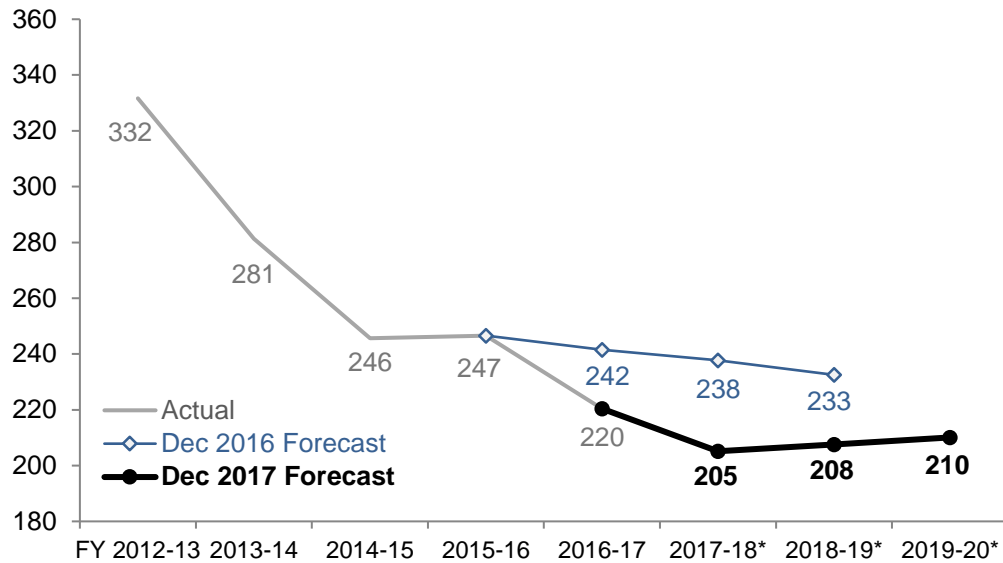
The FY 2016-17 average daily parole population was 22 youths lower than anticipated in the December 2016 forecast, a discrepancy attributable to the sharp decline in parolees around the start of this year. This year's forecast for the average daily parole population is compared to last year's forecast in Figure 44.

Detention. The DYS manages ten secure detention facilities and contracts for additional detention beds. Under Senate Bill 13-177, the detention population is capped at 382 youths.

In FY 2016-17, the detention population averaged 257 youths, representing a 6.5 percent decrease from the prior year. Between FY 2017-18 and FY 2019-20, the detention population is expected to drop to 249 youths, representing a total decrease of 3.1 percent. The relatively slight decrease is attributable in part to an increase in the detention population thus far in FY 2017-18.

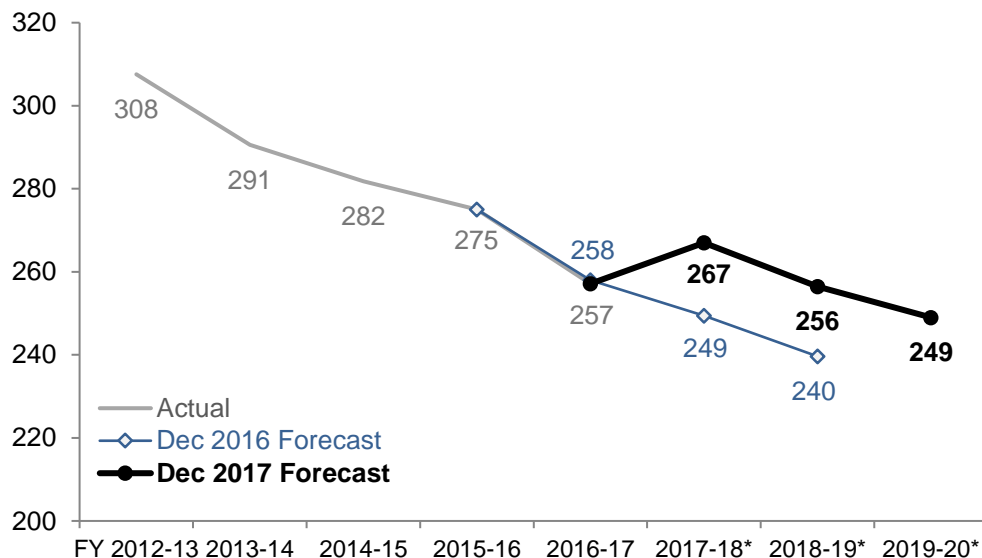
The FY 2016-17 average daily detention population exceeded the December 2016 forecast by one youth. Relative to the commitment population, the detention population has a significantly shorter length of stay and a higher degree of seasonality; it is therefore more volatile. Thus far in FY 2017-18, the population has increased 6.0 percent relative to the same period last year, suggesting that another decrease this year is unlikely. Figure 45 compares the current average daily detention population forecast to that published last year.

Figure 44
Comparison of DYS Average Daily Parole Population Forecasts,
December 2016 and December 2017



Source: Colorado Department of Human Services Division of Youth Services and Legislative Council Staff.
*Forecast

Figure 45
Comparison of DYS Average Daily Detention Population Forecasts,
December 2016 and December 2017



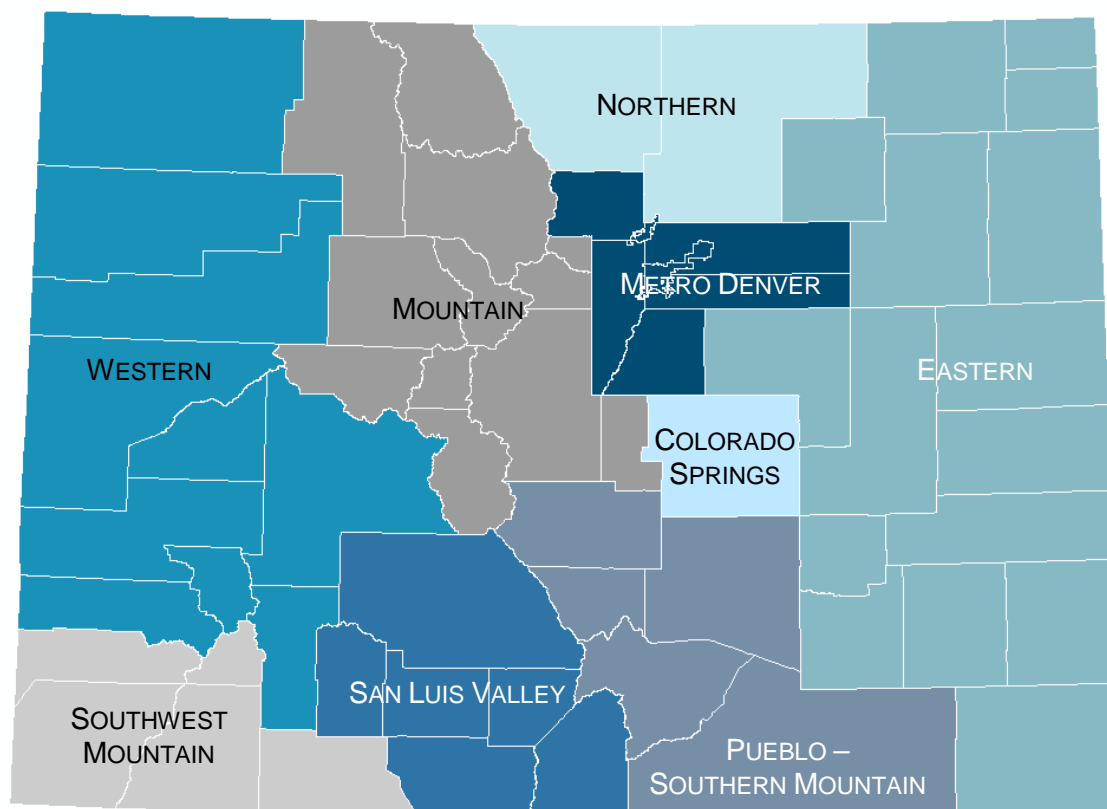
Source: Colorado Department of Human Services Division of Youth Services and Legislative Council Staff.
*Forecast.

Risks to the Forecast

Commitment and detention sentences are at the discretion of the courts. The population forecasts assume that sentencing patterns will remain consistent with current practices, which have resulted in a steady decline in juvenile filings and an increase in alternative sentencing options. To the extent that judges decide to place more offenders under DYS supervision, populations will be greater than forecast.

Additionally, the Juvenile Parole Board has a significant influence upon both the commitment and parole populations. Because the board has the discretion to extend parole beyond the six-month mandatory period in a majority of cases, the parole population could fluctuate depending on the decisions of the board.

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 this 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. This data is revised periodically. Retail trade sales data typically have few revisions because the data reflect actual sales by Colorado retailers. Nonresidential construction data in the current year reflect reported construction activity, which is revised the following year to reflect actual construction activity.

Metro Denver Region

The seven-county Denver metropolitan area is the state's economic powerhouse, comprising 56.3 percent of the state's population in 2016. The regional economy is firing on all cylinders, though the rate of expansion increasingly is limited by capacity constraints. Residents of metro Denver have strong employment prospects but may be unable to find affordable housing. Businesses are expanding but must compete for a small pool of available workers. Homebuilders continue to expand inventory but are still unable to meet demand. Economic indicators for the region are presented in Table 25.



Table 25
Metro Denver Region Economic Indicators
Adams, Arapahoe, Broomfield, Boulder, Denver, Douglas, and Jefferson Counties

	2013	2014	2015	2016	YTD 2017
Employment Growth ¹	3.6%	3.7%	3.5%	2.9%	1.9%
Unemployment Rate ²	6.5%	4.7%	3.6%	3.1%	2.4%
Housing Permit Growth ³					
Denver-Aurora MSA Single-Family	18.9%	16.3%	17.8%	12.2%	3.5%
Boulder MSA Single-Family	22.5%	17.7%	74.2%	10.2%	-7.3%
Nonresidential Construction Growth ⁴					
Value of Projects	-9.1%	10.5%	25.1%	27.0%	-25.3%
Square Footage of Projects	22.2%	3.9%	43.4%	5.4%	-20.9%
Level (<i>Millions</i>)	2,246	2,482	3,106	3,946	2,658
Number of Projects	22.4%	25.1%	19.3%	8.3%	-31.9%
Level	748	936	1,117	1,210	684
Retail Trade Sales Growth ⁵	5.1%	8.4%	6.2%	NA	NA

MSA = Metropolitan statistical area. NA = Not available.

¹U.S. Bureau of Labor Statistics, CES (establishment survey). Data through October 2017.

²U.S. Bureau of Labor Statistics, LAUS (household survey). Data through September 2017.

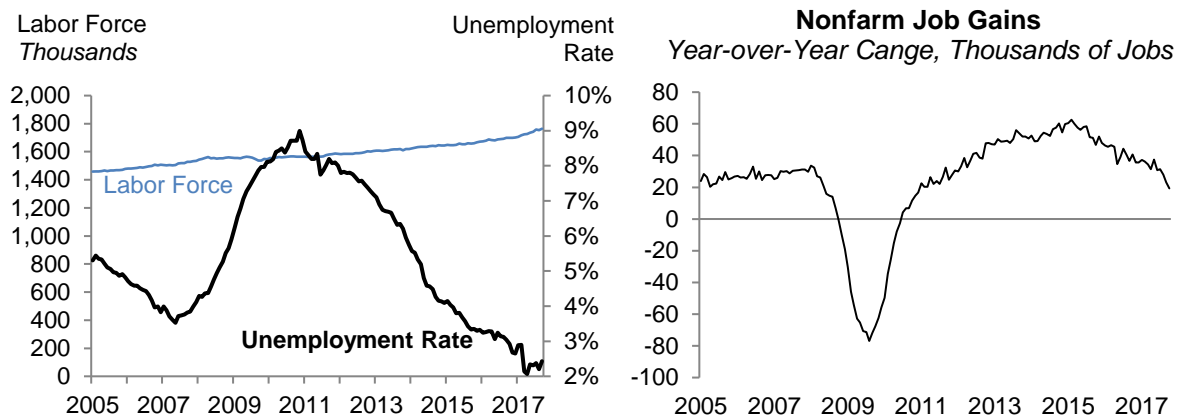
³U.S. Census. Growth in the number of residential building permits. Data through September 2017.

⁴F.W. Dodge. Data through October 2017.

⁵Colorado Department of Revenue. Data through December 2015.

The labor market in metro Denver remains hot. While the rate of job growth has slowed in each of the last three calendar years, the unemployment rate remains at historical lows. Among similarly-sized cities, Denver's 2.4 percent unemployment rate in September was higher than only the 2.3 percent rates posted by Minneapolis and Nashville. Labor market indicators for the region are presented in Figure 46. As shown, despite persistent increases in the size of the labor force and persistent deceleration in the number of new jobs since 2015, employment gains have been sufficient to push down or hold steady the unemployment rate in virtually every month. The number of new jobs is expected to continue to slow through the forecast period. Workers may benefit from higher wages as businesses are forced to compete for a limited labor supply.

Figure 46
Metro Denver Region Labor Market Activity



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

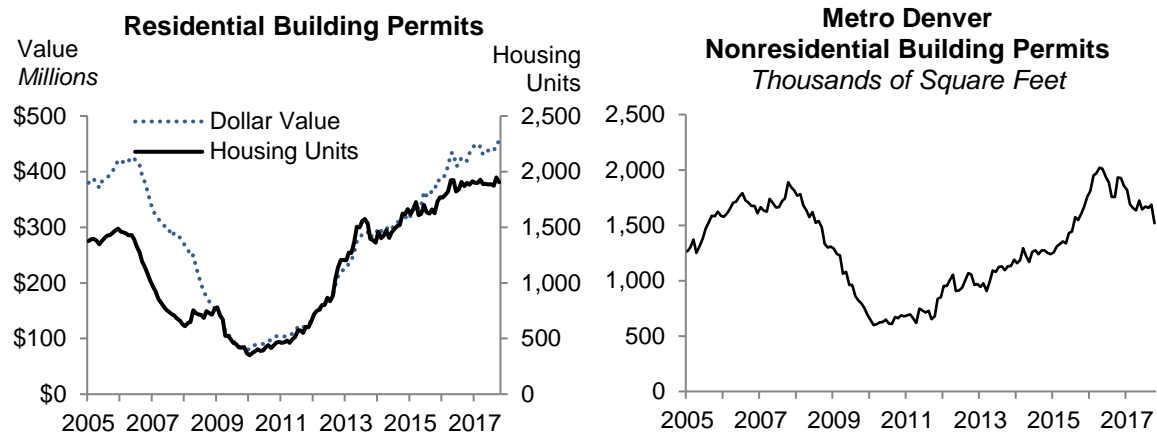
Source: U.S. Bureau of Labor Statistics; CES. Data are seasonally adjusted and are through October 2017.

Construction activity in Denver remains high by historical standards but is no longer growing at the furious rates of the last six years. The number of residential building permits issued in the Denver-Aurora metropolitan statistical area grew 3.5 percent through September relative to the same period in 2016,¹ while residential permits fell 7.3 percent in Boulder County over the same period. Residential permits pulled for the region were higher in October, in terms of both units and value, than at any point since at least 1990. Housing prices, presented in Figure , remain elevated, suggesting that the leveling off in construction is attributable not to homebuilder satiation but rather to the constraints posed by land and labor.

Nonresidential building has fallen by every metric from last year's banner level of activity. Large nonresidential buildings, including many of those permitted last year and earlier, remain under construction. One large example is the 40-story 1144 Fifteenth skyscraper nearing completion in Denver's Central Business District, which broke ground in 2015 and will be completed early next year. The drop off in permitted activity this year may simply reflect the strength of prior year numbers. It may also suggest a construction industry constrained by land and labor. Indicators for Metro Denver region construction activity are presented in Figure 47.

¹The Denver-Aurora MSA includes four counties that are assigned to other regional sections of this document. Clear Creek, Gilpin, and Park Counties are assigned to the Mountain region, and Elbert County is assigned to the Eastern region. The rapid rate of housing growth in Elbert County is contributing to strength in permits for the Denver-Aurora MSA.

Figure 47
Metro Denver Region Construction Activity

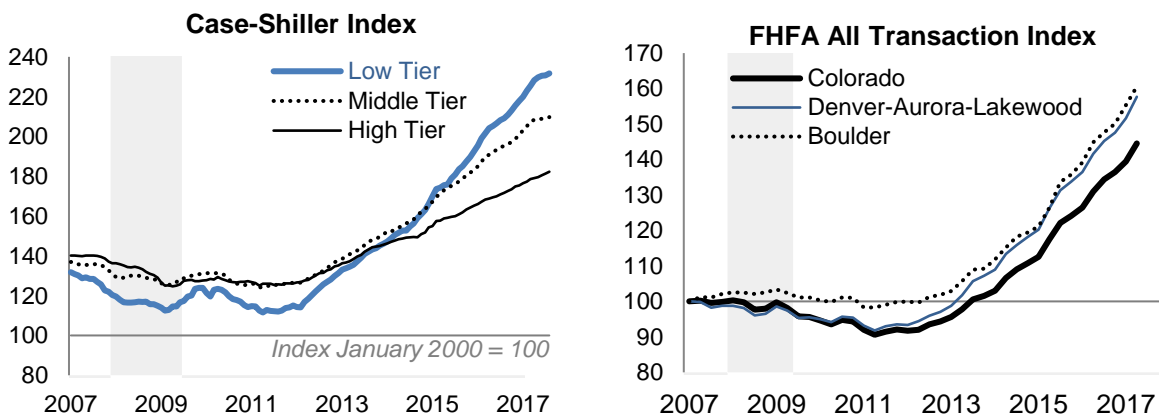


Source: F.W. Dodge. Data shown as twelve-month moving averages. Data are not seasonally adjusted and are through October 2017.

Metro Denver home price appreciation has slowed as shown in Figure 48. For much of the current expansion, rapid population growth and household formation had contributed to a surge in demand for residential units. With supply constrained, strong housing demand contributed to a strong upswing in prices. Home values finally stabilized in 2017, after residential construction fully ramped up and net migration slowed. The U.S. Census Bureau reports that Colorado net in-migration fell to 30,000 persons in 2016, with the number of arrivers stabilizing and the number of leavers growing. People departing Colorado cite unaffordable homes and rents as a major contributing factor. Thus, the Denver housing market is exhibiting some signs of negative feedback, wherein strong population growth spurred high prices, which, in turn, has begun to deter a portion of would-be residents.

Though price growth has slowed, finding affordable housing remains a challenge for many residents. In 2016, the regional residential vacancy rate was 1.7 percent, while the statewide average rate was 7.5 percent. The region, by far the state's most populous, accounted for only 12.4 percent of vacant Colorado housing units.

Figure 48
Denver Home Price Indices



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

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

Northern Region

The economy in the northern region remains among the strongest in the state. After weathering weakness in the oil and gas sector in 2016, the regional economy is accelerating year-to-date. The Fort Collins-Loveland and Greeley areas are experiencing some of the highest employment growth and lowest unemployment rates in the state. Table 26 shows economic indicators for the northern region.



Table 26
Northern Region Economic Indicators
Weld and Larimer Counties

	2013	2014	2015	2016	YTD 2017
Employment Growth ¹					
Fort Collins-Loveland MSA	3.2%	3.4%	3.9%	2.8%	3.9%
Greeley MSA	5.4%	8.9%	2.8%	1.4%	3.1%
Unemployment Rate ²					
Fort Collins-Loveland MSA	5.8%	4.2%	3.3%	2.8%	2.1%
Greeley MSA	6.5%	4.4%	3.9%	3.4%	2.4%
State Cattle and Calf Inventory Growth ³	-8.7%	-4.2%	-4.4%	1.0%	6.5%
Natural Gas Production Growth ⁴	12.5%	27.0%	44.3%	14.6%	3.5%
Oil Production Growth ⁴	44.5%	52.4%	39.4%	-7.3%	0.0%
Housing Permit Growth ⁵					
Fort Collins-Loveland MSA Total	28.8%	8.7%	-8.1%	47.9%	28.7%
Fort Collins-Loveland MSA Single Family	31.3%	10.2%	1.3%	-2.9%	-13.2%
Greeley MSA Total	45.6%	41.1%	-3.5%	-7.8%	12.2%
Greeley MSA Single Family	37.7%	18.5%	3.8%	-9.9%	26.2%
Nonresidential Construction Growth ⁶					
Value of Projects	55.0%	31.1%	32.3%	1.1%	5.4%
Square Footage of Projects	40.4%	45.5%	19.3%	-17.7%	-5.3%
Level (<i>Thousands</i>)	424,437	556,538	736,182	744,508	723,672
Number of Projects	-2.5%	66.5%	-4.3%	9.7%	-15.7%
Level	155	258	247	271	199
Retail Trade Sales Growth ⁷					
Larimer County	6.1%	8.5%	6.7%	NA	NA
Weld County	6.6%	12.2%	1.0%	NA	NA

MSA = Metropolitan statistical area. NA = Not available.

¹U.S. Bureau of Labor Statistics, CES (establishment survey). Data through October 2017.

²U.S. Bureau of Labor Statistics, LAUS (household survey). Data through September 2017.

³National Agricultural Statistics Service. Cattle and calves on feed through November 2017.

⁴Colorado Oil and Gas Conservation Commission. Data through July 2017.

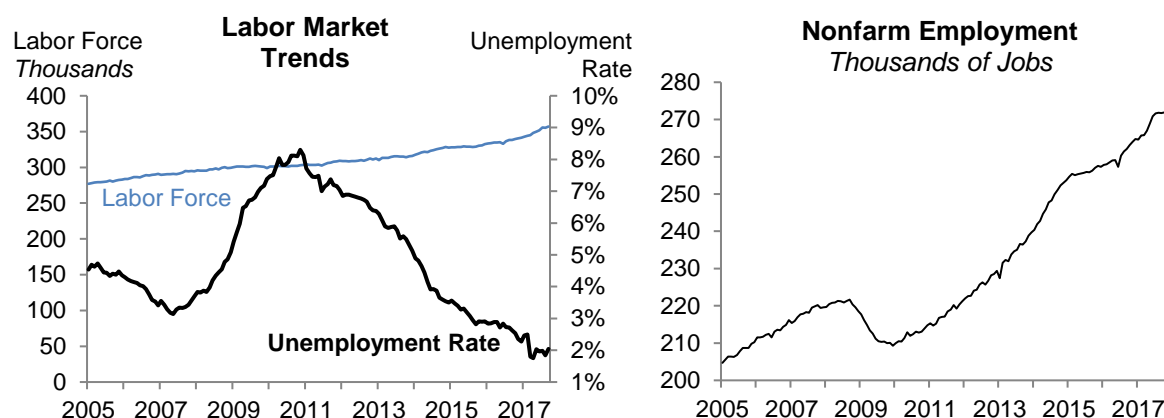
⁵U.S. Census Bureau. Growth in the number of residential building permits. Data through September 2017.

⁶F.W. Dodge. Data through October 2017.

⁷Colorado Department of Revenue. Data through December 2015.

Employment growth and unemployment rates continue to improve over past years' rates year-to-date in 2017. Job gains in the Fort Collins-Loveland MSA outpaced all other metro areas in the state through the first ten months of 2017 with a 3.9 percent year-over-year increase. Employment growth rebounded in the Greeley MSA as energy industries increased investment in the Denver-Julesburg Basin in response to stabilizing oil prices, which puts the area at the second highest metro area employment growth rate, 3.1 percent, after Fort Collins-Loveland. Area unemployment continues to fall as employment gains outpace growth in the labor force. The Fort Collins-Loveland unemployment rate is the lowest among metro areas in the state at 2.1 percent, while Greeley's is not far behind at 2.4 percent. Figure 49 shows employment trends for the northern region metro areas.

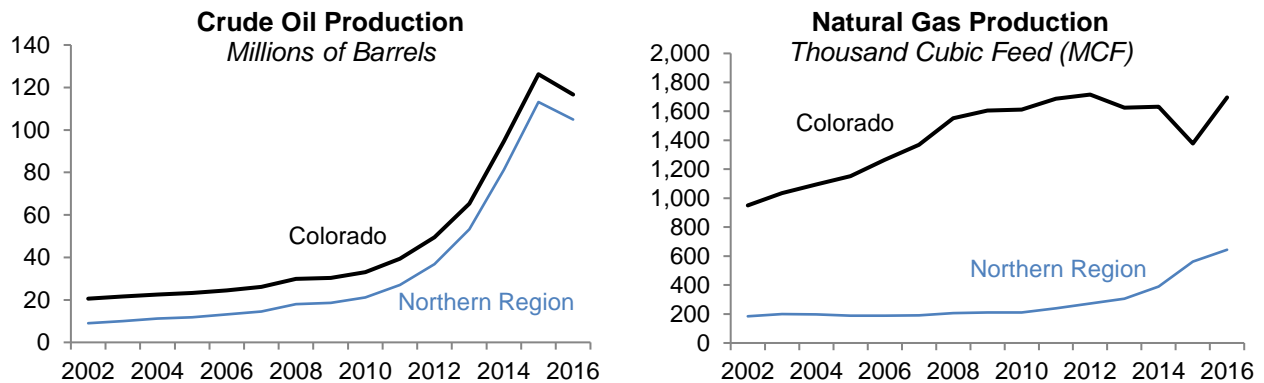
Figure 49
Northern Region Labor Market Activity



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

Oil production in the northern region, particularly in Weld County, has dominated statewide production for over a decade (Figure 50). Year-to-date in 2017, oil production levels have improved, while natural gas production has slowed. Oil production declined 7.3 percent in 2016 and has remained at 2016 levels. Energy companies active in the northern region significantly slowed their investments in 2015 and 2016 in response to low oil prices, which has a lagged effect on production. While the number of active drilling rigs is only about half the number that were operating in Colorado before oil prices collapsed, during the first week of September 2017 it was 94.7 percent higher than year-ago levels. In contrast to crude oil, natural gas production in the northern region has continued to increase through 2017; however, the growth began to slow last year, dropping to 14.6 percent in 2016 from a high of 44.3 percent year-over-year growth in 2015. As of July 2017, natural gas production has grown a paltry 3.5 percent. Oil and gas production may pick up in 2018, as a new oil and gas lease was approved in Loveland and further investment is expected.

Figure 50
Colorado Energy Production

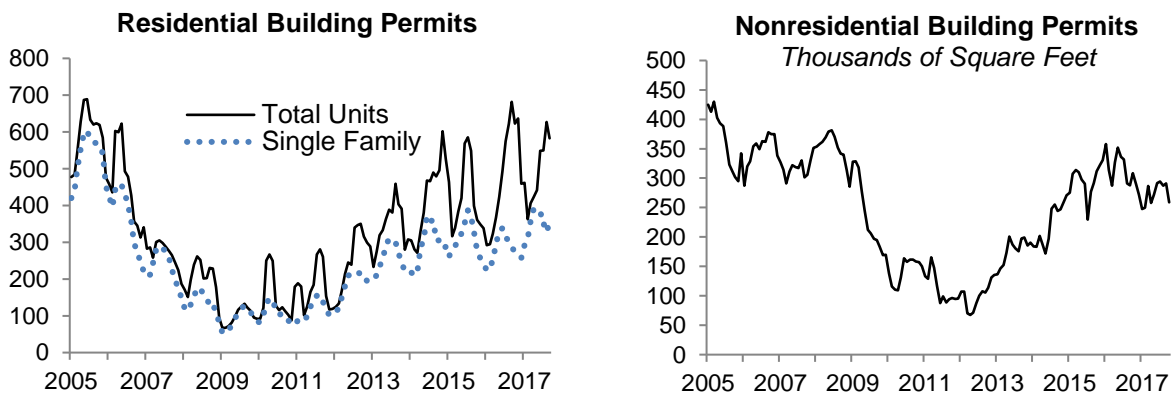


Source: Colorado Oil and Gas Conservation Commission. Data through 2016

The Fort Collins and Greeley metro areas continued to see double-digit home price appreciation through the first half of the year, according to the Federal Housing Finance Agency All-Transaction Home Price Index. In spite of higher housing costs, the northern region remains more affordable than the metro Denver region, attracting commuters as well as new residents seeking work in the area. Robust economic and population growth and the availability of land for development in the region have supported strong growth in residential construction (Figure 51, left). Residential housing permit data for the first nine months of the year suggest acceleration in residential construction activity in Larimer County, particularly for multi-family housing. Residential construction in Weld County, which declined in 2016 with the slowdown in energy activity, has rebounded in the first nine months of 2017, growing 12.2 percent year-to-date over the same period last year.

Nonresidential construction activity in the region grew through the first ten months of 2017, although it has not maintained the recent peak levels that occurred during 2015 (Figure 51, right). Several large health care centers and hotels were constructed during 2015 and the first half of 2016, which largely explains lower levels of activity in more recent months.

Figure 51
Northern Region Construction Activity



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

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

Colorado Springs Region

The Colorado Springs economy is expanding at a moderate pace, with population growth and tourism boosting employment and construction activity. Although employment in the region is dominated by the public sector, the region's private tourism, advanced technology manufacturing, and information technology industries are vibrant. Major employers include two hospitals, four institutions of higher education, four military installations, and several federally funded defense contractors specializing in aerospace, information technology, and cybersecurity. Employers in eastern El Paso County also include dairy farmers and ranchers. Indicators for the regional economy are presented in Table 27.



Table 27
Colorado Springs Region Economic Indicators
El Paso County

	2013	2014	2015	2016	YTD 2017
Employment Growth ¹					
Colorado Springs MSA	2.3%	2.2%	3.2%	2.0%	1.9%
Unemployment Rate ²	7.9%	6.0%	4.6%	3.8%	2.9%
Housing Permit Growth ³					
Total	17.2%	3.8%	-0.4%	41.3%	-7.0%
Single-Family	19.2%	-7.7%	13.3%	19.7%	0.6%
Nonresidential Construction Growth ⁴					
Value of Projects	6.5%	-4.2%	-1.0%	46.5%	-2.2%
Square Footage of Projects	25.2%	-12.0%	-0.2%	24.9%	14.9%
Level (<i>Thousands</i>)	510,809	489,589	484,547	709,660	433,207
Number of Projects	-1.7%	-5.9%	12.6%	11.2%	39.9%
Level	355	334	376	418	445
Retail Trade Sales Growth ⁵	4.9%	4.1%	5.8%	NA	NA

MSA = Metropolitan statistical area. NA = Not available.

¹U.S. Bureau of Labor Statistics, CES (establishment survey). Data through October 2017.

²U.S. Bureau of Labor Statistics, LAUS (household survey). Data through September 2017.

³U.S. Census. Growth in the number of residential building permits. Data through September 2017.

⁴F.W. Dodge. Data through October 2017.

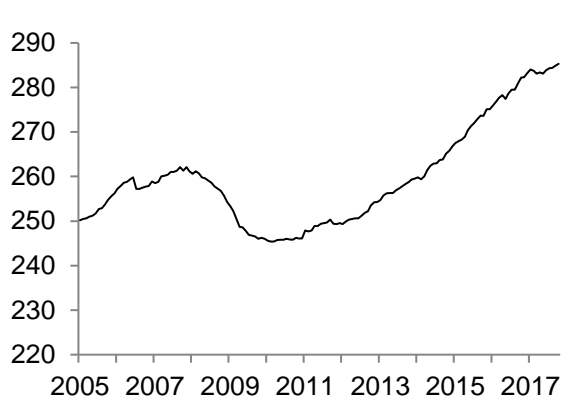
⁵Colorado Department of Revenue. Data through December 2015.

Figure 52, left shows employment trends in the region. Employment in the Colorado Springs MSA increased 1.9 percent year-to-date through September compared with year-ago levels after increasing 2.0 percent in 2016. While job growth has been broad-based across most industries, population growth in the region has supported demand for housing, goods, and basic services — boosting employment in the construction, retail trade, transportation, and health care sectors. As shown in Figure 52, right the region's unemployment rate continued to fall from an average of 3.8 percent in 2016 to an average of 2.9 percent through the first nine months of 2017.

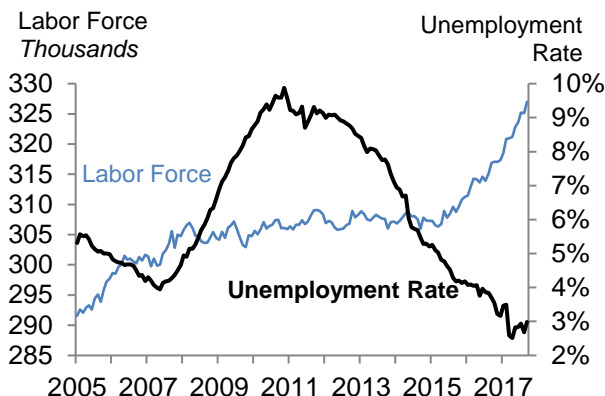
The improving labor market, population growth, and strong tourism growth are aiding retail sales in the region. According to the City of Colorado Springs, revenue from the city's general sales and use tax increased 6.2 percent year-to-date through October over year-ago levels after increasing 9.4 percent in 2016. Tax statistics point to healthy construction and tourism industries:

the largest sales tax increases occurred in the building materials, hotel, and restaurant industries. Meanwhile, the city's lodger's and auto rental taxes increased 14.7 percent and 15.7 percent year-to-date through July over year-ago levels, respectively.

Figure 52
Colorado Springs Employment
Thousands of Jobs



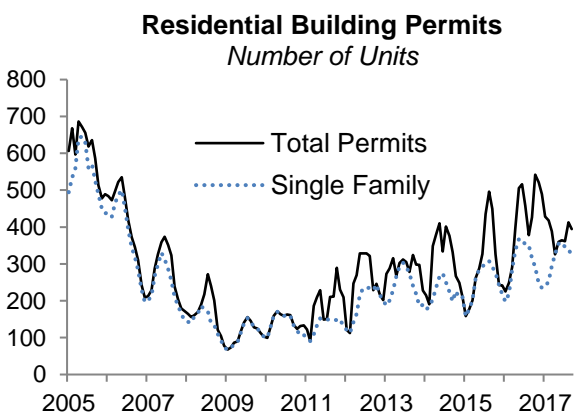
Source: U.S. Bureau of Labor Statistics; CES. Data are seasonally adjusted and are through October 2017.



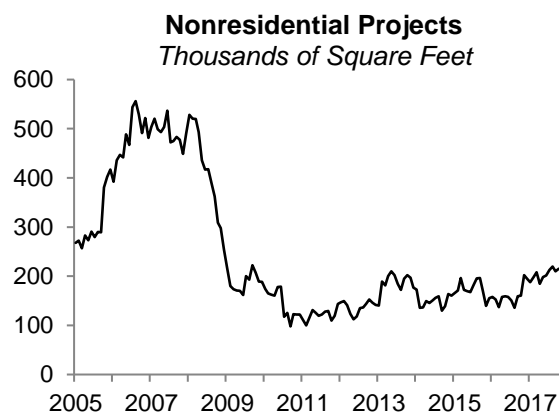
Source: U.S. Bureau of Labor Statistics; LAUS. Data are seasonally adjusted and are through September 2017.

The number of permits issued for residential construction fell 7.0 percent year-to-date through July after a 41.3 percent increase in 2016. Although year-to-date averages show a decrease in activity, Figure 53 shows that this decrease is likely capturing part of a volatile trend that continues to show upward movement over longer time periods. Much of the volatility is the result of multi-family permits, which are granted in large blocks when a developer plans a large property. Single family permits increased 0.6 percent during this time period. The value of nonresidential permits dipped slightly year-to-date through September after increasing 46.4 percent in 2016, while the total square footage of nonresidential projects increased over the same period. Relative to pre-recession levels, however, the level of square footage being built remains subdued.

Figure 53
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 September 2017.



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

Pueblo – Southern Mountains Region

The Pueblo – Southern Mountains region includes five southern Front Range counties surrounding the City of Pueblo. The region lagged most areas of the state in the economic recovery and expansion. Yet, many indicators are pointing toward an improved local economy in 2017. Stronger business and construction activity in the region has boosted the economy. These trends have spurred population growth as well as home price appreciation and demand for residential construction. As businesses seek to fill open positions, workers are finding the area increasingly attractive and more affordable than other Front Range regions to the north. Indicators for the regional economy are presented in Table 28.

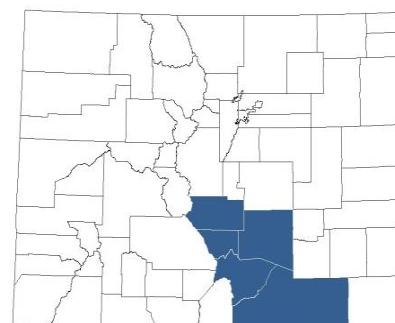


Table 28
Pueblo Region Economic Indicators
Custer, Fremont, Huerfano, Las Animas, and Pueblo Counties

	2013	2014	2015	2016	YTD 2017
Employment Growth					
Pueblo Region ¹	-0.9%	1.0%	0.8%	2.1%	2.5%
Pueblo MSA ²	0.8%	1.5%	2.2%	2.1%	1.2%
Unemployment Rate ¹	10.1%	7.4%	5.7%	4.9%	3.9%
Housing Permit Growth ³					
Pueblo MSA Total	-40.6%	-0.6%	69.4%	6.0%	20.1%
Pueblo MSA Single-Family	-8.1%	-0.6%	29.9%	29.9%	27.8%
Nonresidential Construction Growth ⁴					
Value of Projects	-72.2%	197.9%	2.4%	-22.6%	-82.1%
Square Footage of Projects	-75.3%	192.7%	14.6%	-3.8%	-67.5%
Level (<i>Thousands</i>)	30,389	90,527	92,715	71,745	11,350
Number of Projects	7.1%	96.7%	-20.3%	51.1%	-79.4%
Level	30	59	47	71	14
Retail Trade Sales Growth ⁵	1.5%	4.9%	2.9%	NA	NA

MSA = Metropolitan statistical area. NA = Not available.

¹U.S. Bureau of Labor Statistics, CES (establishment survey). Data through October 2017.

²U.S. Bureau of Labor Statistics, LAUS (household survey). Data through September 2017.

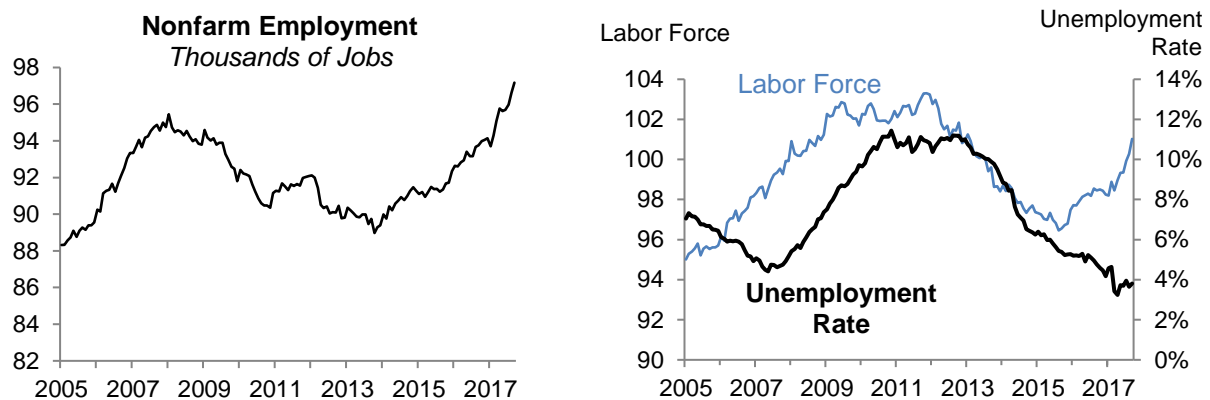
³U.S. Census Bureau. Growth in the number of residential building permits. Data through September 2017.

⁴F.W. Dodge. Data through October 2017.

⁵Colorado Department of Revenue. Data through December 2015.

Labor market indicators continue to show an improving economy. Through September, the number of jobs in the region was up 2.5 percent over the same period last year. The regional unemployment rate was 3.9 percent through September, well below the pre-recessionary rate of 4.4 percent. Employment gains continue to outpace strong growth in the labor force, forcing the unemployment rate to historical lows. Primary employers in the region include the Parkview Medical Center in Pueblo and various government entities across the region counties. Regional labor market trends are shown in Figure 54.

Figure 54
Pueblo Region Labor Market Trends

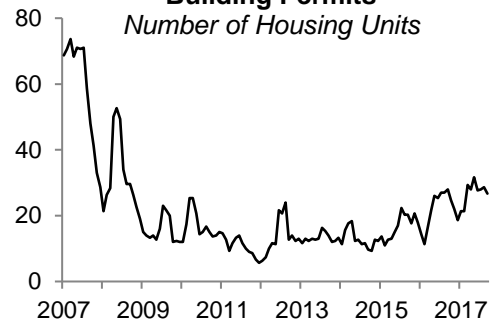


Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through September 2017.

Residential construction activity in the region has gained momentum but has been subdued relative to pre-recessionary levels and relative to other areas of the state. Housing permits in the Pueblo metro area are up 20.1 percent over year-ago levels, driven primarily by single family building (Figure 55). The area housing market continues to tighten, putting upward pressure on home prices. Throughout the recovery and expansion, home price appreciation in the Pueblo metro area lagged other regions of the state. Yet, home prices have accelerated in 2017, while other areas of the state are showing signs of slowing.

Nonresidential construction activity has been mixed so far in 2017. The value and number of projects is down through October relative to year-ago levels, though stronger activity is expected in coming months. Kaiser Permanente recently announced a plan to build a second medical office in Pueblo, and, according to state Economic Development Commission, EVRAZ Pueblo is considering investing \$500 million to expand their steel mill in Pueblo.

Figure 55
Single Family Residential Building Permits
Number of Housing Units



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

San Luis Valley Region

The six counties of the San Luis Valley comprise the smallest economic region in the state in terms of population. Agriculture is the driving force in the region; however, cultural and natural attractions, such as the Great Sand Dunes National Park and Rio Grande Scenic Railroad, also support tourism activity in the area. The regional housing market is comparatively small but more affordable than most other regions of the state, spurring population in-migration and new residential construction activity. Economic indicators for the region are summarized in Table 29.



Table 29
San Luis Valley Region Economic Indicators
Alamosa, Conejos, Costilla, Mineral, Rio Grande, and Saguache Counties

	2013	2014	2015	2016	YTD 2017
Employment Growth ¹	-2.2%	2.6%	3.8%	5.4%	3.1%
Unemployment Rate ¹	10.5%	8.0%	5.7%	4.6%	3.6%
San Luis Valley Agriculture District ²					
Barley					
Acres Harvested	46,600	42,900	52,100	NA	NA
Crop Value (\$/Acre)	824.4	730.1	878.5	NA	NA
Potatoes					
Acres Harvested	49,600	53,900	51,800	NA	NA
Crop Value (\$/Acre)	3,614	3,218	3,234	NA	NA
Housing Permit Growth ³	15.0%	-25.0%	21.5%	-6.3%	2.1%
Retail Trade Sales Growth ⁴	0.6%	3.7%	11.5%	NA	NA

NA = Not available.

¹U.S. Bureau of Labor Statistics, LAUS (household survey). Data through September 2017.

²National Agricultural Statistics Service. Data through December 2015.

³F.W. Dodge. Data through October 2017.

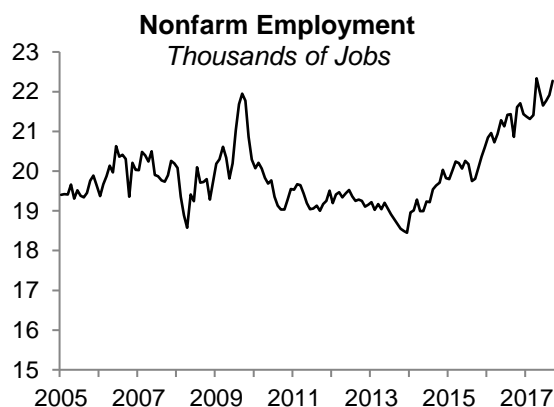
⁴Colorado Department of Revenue. Data through December 2015.

In addition to the agricultural industry, tourism, a large retirement community, and government services, including Adams State University, support the San Luis Valley economy. Labor market conditions continue to improve in the region at rates among the fastest in the state as this small region continues to add jobs at a respectable pace. Regional employment increased 3.1 percent year-to-date through September compared with year-ago levels (Figure 56, left). The region's unemployment rate also continues to improve, averaging 3.6 percent through September, down from 4.6 percent in 2016 (Figure 56, right).

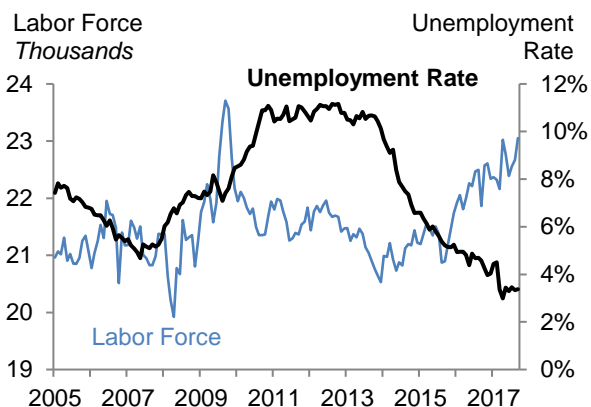
Agricultural prices have stabilized this year inching up from 2016 lows. The region's potato harvest began in September and various reports indicate that a good a crop is expected this season. Figure 57 shows the prices received by potato farmers in Colorado. In addition, the region's top quality alfalfa hay is fetching premium prices from dairies in Texas and New Mexico.

Relative to the Front Range and mountain communities of Colorado, San Luis Valley real estate and rental markets remain less expensive, offering affordable but limited options to Colorado residents. Residential construction in the region has been limited and fairly volatile throughout the recent economic recovery and expansion, but is on the rise in 2017. In the current year, builders pulled permits for 146 housing units, up 2.1 percent from the same period in 2016. The continued economic expansion is expected to bolster demand for area housing.

Figure 56
San Luis Valley Region Labor Market Activity

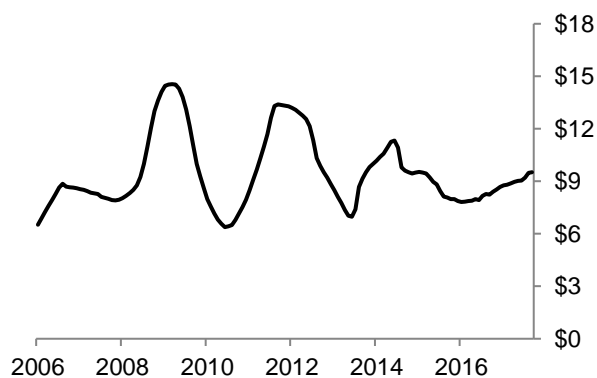


Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through September 2017.



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

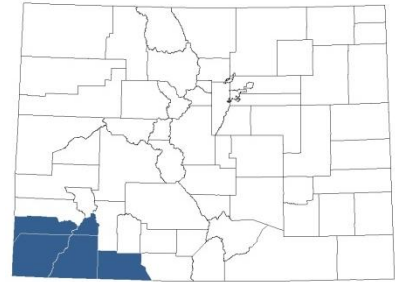
Figure 57
Prices Received for Colorado Potatoes
\$/Cwt



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

Southwest Mountain Region

The five counties of the southwest mountain region comprise mountain peaks, fertile valleys, open desert, and two tribal reservations. The region's diverse economy receives significant contributions from natural resource extraction, agriculture, and tourism. It is among the state's smallest regions, with a population accounting for only 1.8 percent of Colorado residents. A thriving tourist industry and recovering natural gas prices have boosted the regional economy of late. Growth in regional nonfarm employment absorbed slack and dropped the unemployment rate to historical lows. Residential construction permits have increased at an impressive rate. Nevertheless, low commodity prices continue to hurt agricultural producers. Economic indicators for the region are summarized in Table 30.



The region is enjoying one of its best labor market years on record. Regional employers added about 1,650 jobs year-to-date through September, outpacing the 1,300 jobs they added in all twelve months last year. The unemployment rate ticked down to an average of 2.6 percent in the first three quarters of 2017, which will be the region's lowest recorded annual rate if it holds for the entire year. Jobs are available in an array of fields, including health care, human services, local government, retail, food service, and tourism. Nonagricultural employment indicators for the region are presented in Figure 58.

Table 30
Southwest Mountain Region Economic Indicators
Archuleta, Dolores, La Plata, Montezuma, and San Juan Counties

	2013	2014	2015	2016	YTD 2017
Employment Growth ¹	0.7%	3.2%	0.6%	2.7%	3.4%
Unemployment Rate ¹	6.6%	4.9%	4.1%	3.5%	2.6%
Housing Permit Growth ²	44.7%	14.2%	17.6%	-4.6%	27.6%
Retail Trade Sales Growth ³	5.0%	3.0%	1.7%	NA	NA
National Park Recreation Visits ⁴	-5.9%	8.9%	10.2%	7.5%	3.6%

NA = Not available.

¹U.S. Bureau of Labor Statistics, LAUS (household survey). Data through September 2017.

²F.W. Dodge. Data through October 2017.

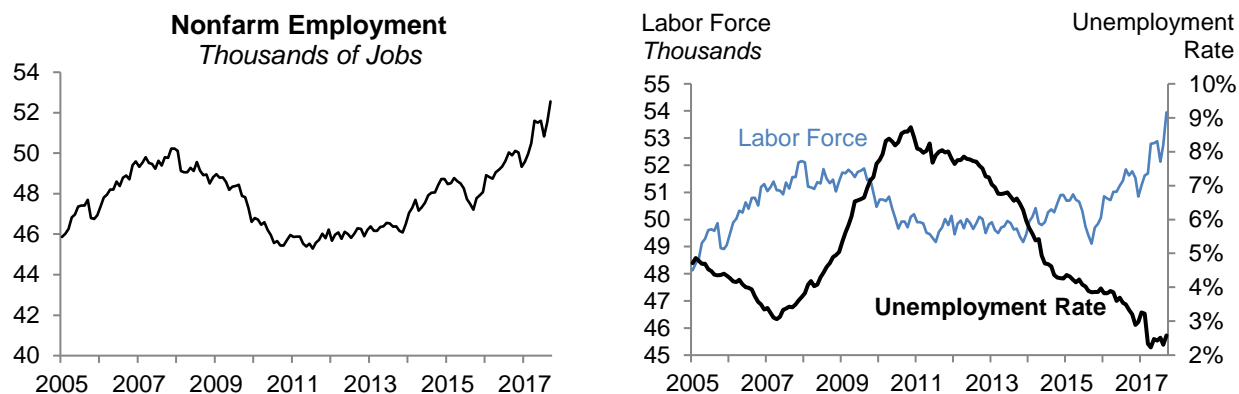
³Colorado Department of Revenue. Data through December 2015.

⁴National Park Service. Data through August 2017. Recreation visits for Mesa Verde National Park and Hovenweep National Monument.

The region's housing market is exhibiting a significant increase in activity. Through October 2017, the number of issued housing permits grew 27.6 percent over the first ten months of last year. The rise in permits may indicate future relief for a tight housing market in La Plata County and specifically Durango, the region's largest city. Supply constraints in the Durango market have spurred would-be homebuyers to look farther afield for housing, including in the Bayfield and Forest Lakes areas of eastern La Plata County.

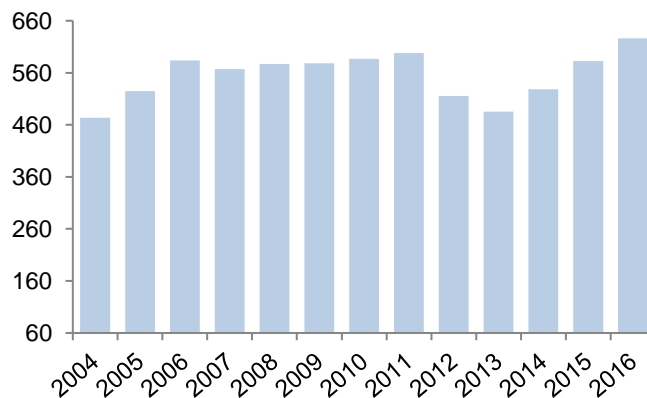
Tourism in the area remains strong in the high seasons, which include the winter ski season and summer camping and boating season. Mesa Verde National Park in Montezuma County and Hovenweep National Monument in southeast Utah each reported additional visitors in 2016 relative to 2015 and through August 2017 relative to the same period last year (Figure 59).

Figure 58
Southwest Mountain Region Labor Market Activity



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

Figure 59
Recreation Visits for Mesa Verde National Park and Hovenweep National Monument



Source: National Park Service. Data through December 2016.

Western Region

The economy in the western region has shown modest improvement, although it is lagging behind other regions in the state. The region's unemployment rate continued to fall in 2017; however, employment gains lost momentum relative to year-ago levels. Energy, agriculture, and tourism are important to the area's economy. Garfield, Rio Blanco, Delta, and Gunnison counties have been significantly affected by persistently low natural gas prices and the long-run decline of the coal industry. Economic indicators for the region are summarized in Table 31.

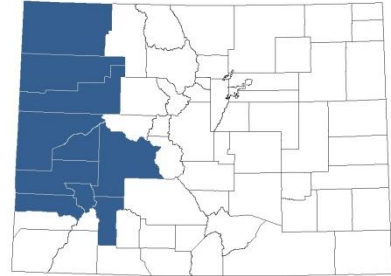


Table 31
Western Region Economic Indicators

Delta, Garfield, Gunnison, Hinsdale, Mesa, Moffat, Montrose, Ouray, Rio Blanco, and San Miguel Counties

	2013	2014	2015	2016	YTD 2017
Employment Growth					
Western Region ¹	-0.7%	2.1%	-0.4%	1.4%	1.9%
Grand Junction MSA ²	0.6%	2.5%	0.0%	0.4%	-0.5%
Unemployment Rate ¹	8.2%	5.9%	5.0%	4.5%	3.2%
Natural Gas Production Growth ³	-8.8%	-5.3%	-12.8%	-6.7%	-3.9%
Housing Permit Growth ⁴	-1.0%	7.9%	21.2%	7.5%	41.6%
Nonresidential Construction Growth ⁴					
Value of Projects	-24.7%	221.9%	-37.9%	63.3%	-34.3%
Square Footage of Projects	-42.0%	157.9%	-41.0%	-22.0%	-13.2%
Level (<i>Thousands</i>)	396	1,021	602	470	398
Number of Projects	-28.6%	21.8%	-17.9%	29.1%	-46.8%
Level	55	67	55	71	33
Retail Trade Sales Growth ⁵	2.4%	4.7%	7.4%	NA	NA

MSA = Metropolitan statistical area. NA = Not available.

¹ U.S. Bureau of Labor Statistics, LAUS (household survey). Data through September 2017.

² U.S. Bureau of Labor Statistics, CES (establishment survey). Data through October 2017.

³ Colorado Oil and Gas Conservation Commission. Data through July 2017.

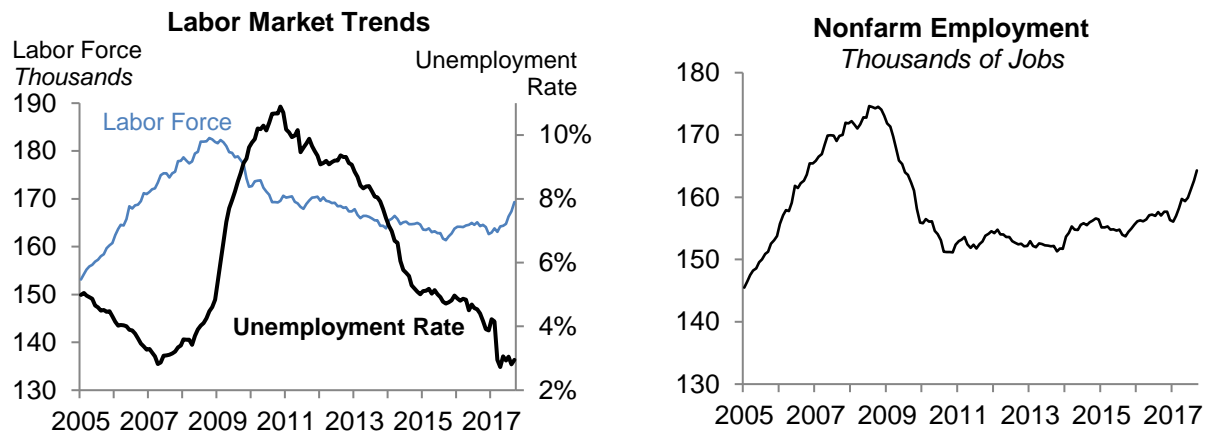
⁴ F.W. Dodge. Data through October 2017.

⁵ Colorado Department of Revenue. Data through December 2015.

Labor market activity in the western region accelerated in the third quarter of 2017. Through September 2017, employment growth in the region is up to 1.9 percent compared to year-ago levels. Employment growth in Grand Junction, the region's largest city, fell from annual growth of 0.4 percent in 2016 to a decline of 0.5 percent year-to-date through September 2017. Compared to 4.5 percent last year, the unemployment rate for the region decreased to 3.2 percent year-to-date through September, still slightly higher than the state's unemployment rate. Figure 60 below shows labor market activity in the western region as of September 2017.

Residential construction improved further in 2017. Housing permits increased 41.6 percent through the first ten months of the year compared with the same period in 2016, up 17.9 percent from July alone. Relative to the same period last year, construction activity for nonresidential projects is down for all indicators through October 2017, including the value, size, and number of projects.

Figure 60
Western Region Labor Market Activity

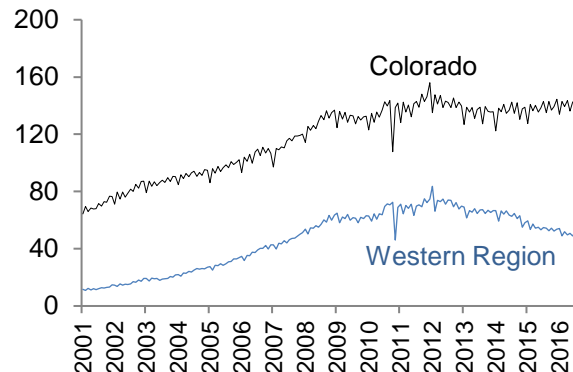


Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through September 2017.

Lackluster energy industry activity continues to dampen regional employment and economic activity. 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 has declined for four consecutive years due to persistently low natural gas prices and a lack of investment from energy firms in the western region of the state (Figure 61). This trend is continuing, with natural gas production declining 3.9 percent in the first seven months of 2017 compared with the same period last year in the region.

Colorado's coal industry has shrunk significantly in recent years due to decreasing demand, low prices, and competition from other sources of fuel. Between 2013 and September 2016, four coal mines in the region announced plans to close. Another closure was announced in June of this year, bringing the total number of coal workers in Colorado to 1,086 – down from over 2,100 in 2003. Coal production in 2016 was hurt by bankruptcy proceedings of the owners of the two largest coal mines in the state, the Foidel Creek Mine and the West Elk Mine. Since October 2016, both companies have emerged from bankruptcy and coal production increased 48.9 percent in the first nine months of 2017 compared with the same period in 2016.

Figure 61
Natural Gas Production
Millions of BCF

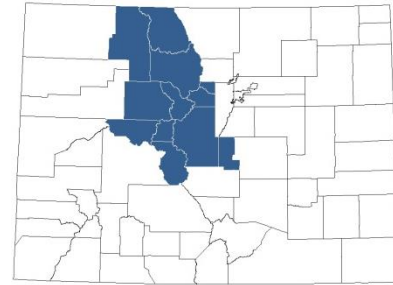


Source: Colorado Oil and Gas Conservation Commission.

The Black Canyon of the Gunnison National Park saw a total of 238,018 visitors in 2016, according to the National Park Service. Through November 2017, a total of 304,101 people have visited the park, up 30.9 percent from the same period last year. Although the Black Canyon of the Gunnison National Park is not far from the struggling coal city of Somerset, most visitors to the park visit the south rim of the canyon and patronize businesses in the gateway communities of Montrose and Gunnison. Tourism has been less strong in other areas of the region. Visitations to the Colorado National Monument near Grand Junction decreased about 2 percent year-to-date through November.

Mountain Region

The mountain region, comprising the twelve mountain counties north of Poncha Pass, remains among the state's healthiest local economies. The region capitalized on another strong year of job growth, with strong tourism driving employment. Construction activity has been solid, particularly in the casino industry, but the lack of affordable housing remains a threat to further regional economic expansion. Economic indicators for the region are presented in Table 32.



Regional labor market indicators remain solid. Year to date through September, nonagricultural employers increased their workforce by 2.7 percent, consistent with last year's growth rate, and the unemployment rate dipped to an average of 2.2 percent, down from last year's 2.8 percent average rate. Indicators for the regional labor market are presented in Figure 62.

Table 32
Mountain Region Economic Indicators

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

	2013	2014	2015	2016	YTD 2017
Employment Growth ¹	0.7%	3.4%	1.4%	2.7%	2.7%
Unemployment Rate ¹	6.1%	4.3%	3.3%	2.8%	2.2%
Housing Permit Growth ²	27.0%	21.8%	-19.3%	25.3%	0.6%
Nonresidential Construction Growth ²					
Value of Projects	-8.6%	84.8%	43.9%	-31.2%	303.2%
Square Footage of Projects	-19.6%	206.5%	-62.0%	18.7%	225.2%
Level (<i>Thousands</i>)	441	1,352	514	609	1,703
Number of Projects	2.0%	20.0%	-35.0%	56.4%	-19.6%
Level	50	60	39	61	45
Retail Trade Sales Growth ³	6.1%	8.5%	6.7%	NA	NA

NA = Not available.

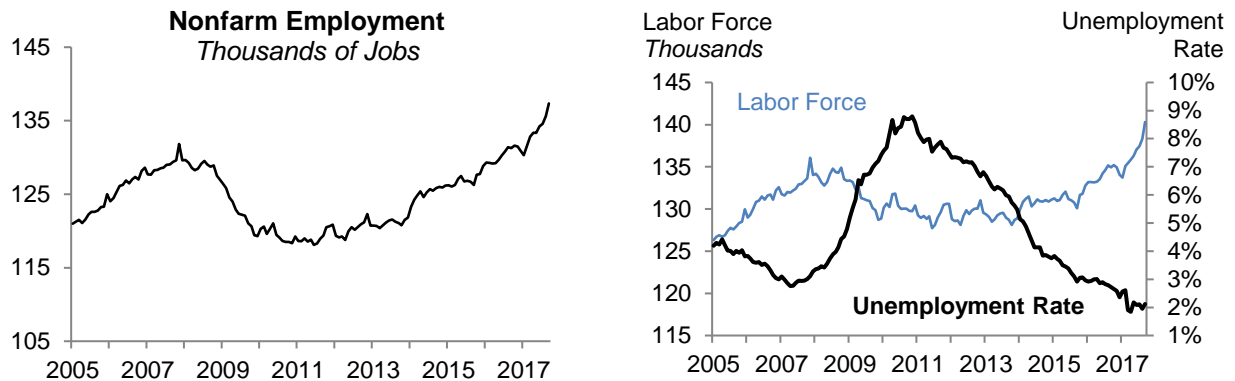
¹U.S. Bureau of Labor Statistics. LAUS (household) survey. Data through September 2017.

²F.W. Dodge. Data through October 2017.

³Colorado Department of Revenue. Seasonally adjusted. Data through December 2015.

The region's labor market health varies across geographies and industries. Eagle, Summit, Pitkin, and Routt counties together account for over two-thirds of regional jobs. These counties include major mountain resort areas – Vail, Breckenridge, Aspen, and Steamboat Springs, respectively – and are benefitting from robust tourist activity commensurate with an improving national and international economy. The casino industry, which dominates in Gilpin and Teller counties, is similarly strong. The region's two mining-dependent counties, Clear Creek and Lake, have fewer reasons for optimism as metals extraction continues its long, slow trajectory of decline. The employment indicators presented in Table and Figure do not include the region's important agricultural industry, which dominates in less-populous areas including Jackson and Park counties. Finally, many parts of the region, including for example Chaffee and Grand counties, have diverse economies especially when compared to other rural regions of the state. These regions may experience strength in some areas concurrent with weakness in others.

Figure 62
Mountain Region Labor Market Activity

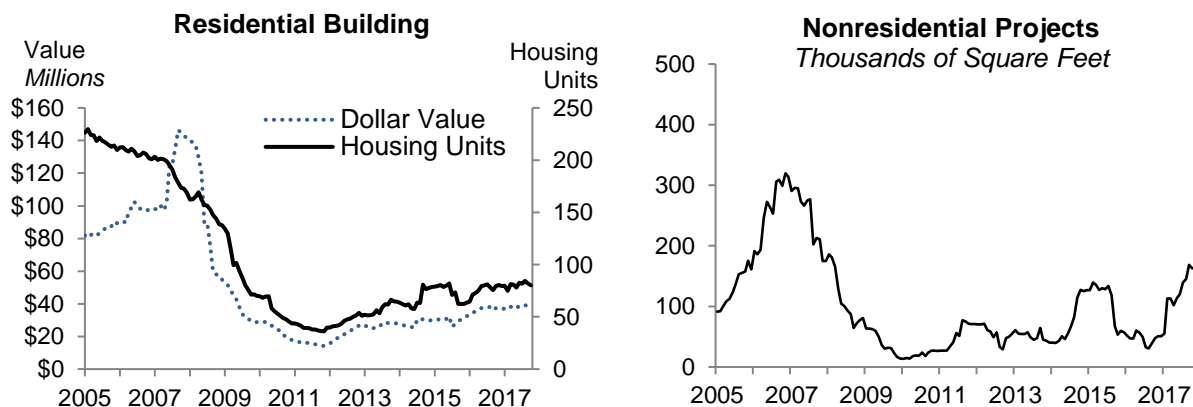


Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through September 2017.

Regional construction indicators are presented in Figure 63. The dramatic increase in the value and square footage of nonresidential projects recorded in Table is largely attributable to permits for the Monarch Casino expansion project in Black Hawk, which is the largest commercial construction project in the region's history. The Monarch Casino project includes a casino, hotel, restaurants, and spa, and is slated for completion in early 2019. Outside of this one project, nonresidential construction figures indicate a moderate year-to-date decline in permitted nonresidential construction.

The region is adding housing inventory but demand continues to outpace supply, pushing up rents and further reducing the number of affordable housing units. Through October 2017, planning departments in the region have approved just over 800 new residential housing permits, slightly down from the same period last year. High rents have spurred additional rental-by-owner activity in the mountains, contributing to the region's high share — 39.1 percent — of the state's vacant residential units last year.

Figure 63
Mountain Region Construction Activity



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

Eastern Region

The eastern region comprises the 16 plains counties located to the east of the I-25 corridor. Most of these counties rely on agriculture as the economy's primary industry, with retailers and government operations supporting area farming and ranching communities. High and rising housing costs, coupled with a shortage of buildable lots along the Front Range, have pushed Denver, Fort Collins-Loveland, and Greeley commuters into some eastern region counties. As a result, the region continues to diversify, though unevenly. Indicators for the region are presented in Table 33.

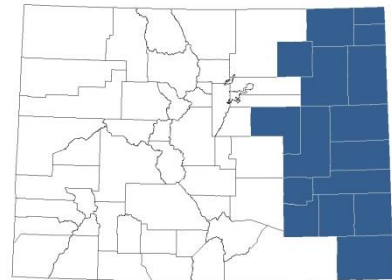


Table 33
Eastern Region Economic Indicators
 Baca, Bent, Logan, Cheyenne, Crowley, Elbert, Kiowa, Kit Carson, Lincoln,
 Morgan, Otero, Phillips, Prowers, Sedgwick, Washington, and Yuma Counties

	2013	2014	2015	2016	YTD 2017
Employment Growth ¹	-1.4%	3.0%	2.0%	3.5%	2.1%
Unemployment Rate ¹	6.1%	4.4%	3.5%	3.0%	2.2%
Crop Price Changes ²					
Wheat (\$/Bushel)	0.8%	-11.5%	-25.6%	-27.9%	-8.3%
Corn (\$/Bushel)	-2.8%	-31.0%	-13.1%	-7.7%	-3.6%
Alfalfa Hay (Baled, \$/Ton)	-0.1%	-11.3%	-13.9%	-15.5%	1.9%
Livestock ³					
State Cattle and Calf Inventory Growth	-8.7%	-4.2%	-4.4%	1.0%	6.5%
Milk Production	3.5%	7.9%	3.9%	5.2%	6.5%
Retail Trade Sales Growth ⁴	2.3%	9.7%	-5.4%	NA	NA

NA = Not available.

¹U.S. Bureau of Labor Statistics, LAUS (household survey). Data through September 2017.

²National Agricultural Statistics Service. Data through September 2017.

³National Agricultural Statistics Service. Cattle on feed data through November 2017; milk production data through October 2017.

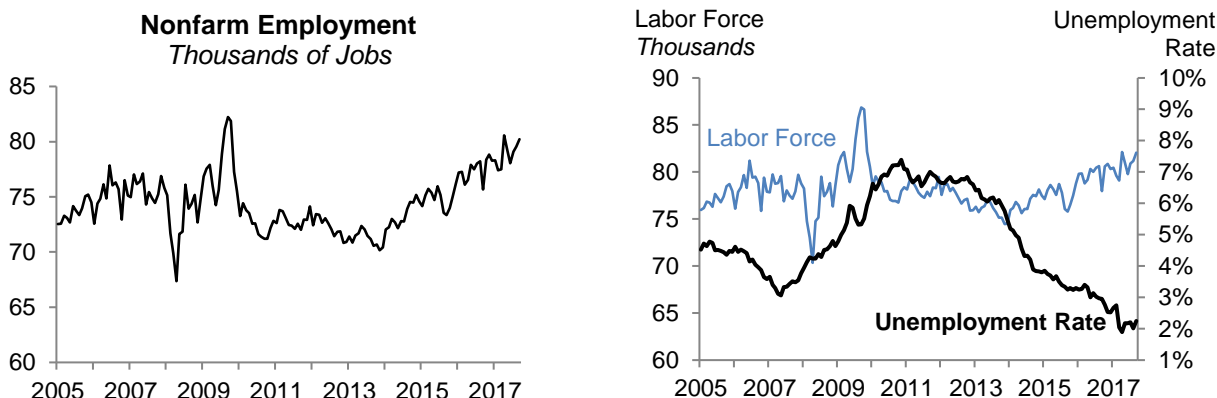
⁴Colorado Department of Revenue. Data through December 2015.

The number of jobs in the region continues to reach toward historical highs (Figure 64, left), rising 2.1 percent over year-ago levels. Through September, the regional unemployment rate fell to 2.2 percent as the number of employed workers outpaced growth in the labor force (Figure 64, right). Growth has been uneven across counties in the region. Many of the rural counties with small populations have experienced volatile growth in recent years as the agricultural economy has suffered with low commodity prices. Counties closer to Front Range urban areas, by contrast, have generally experienced stronger, more consistent growth stimulated by new residential development in exurban areas.

While data suggest that job growth has slowed in 2017, the regional economy is expected to continue to expand due to the growing population in the counties closest to metropolitan areas. Morgan County, which is characterized by a strong agricultural industry presence, is currently the region's largest in terms of both population and employment. Elbert County, however, is projected to become the most populated county in the region as early as next year as new residential developments continue. The State Demographer projects that Elbert County's population will

grow an average of 5.9 percent annually through 2020, the fastest projected county growth rate in the state.

Figure 64
Eastern Region Labor Market Indicators



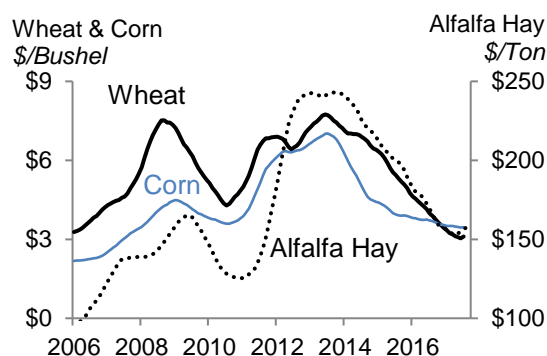
Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through September 2017.

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

Figure 65 shows the prices received for Colorado wheat, corn, and alfalfa hay. Commodity prices for these items began a downward trend in 2013 as global supply outstripped demand. Prices have stabilized in recent months and have climbed for some crops; However, they are expected to continue to recover slowly, maintaining pressure on farm profitability.

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

Figure 65
Prices Received for Colorado Crops



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

Appendix: Historical Data

National Economic Indicators

Calendar Years	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
GDP (\$ Billions) ¹	10,977.5	11,510.7	12,274.9	13,093.7	13,855.9	14,477.6	14,718.6	14,418.7	14,964.4	15,517.9	16,155.3	16,691.5	17,427.6	18,120.7	18,624.5
Percent Change	3.3%	4.9%	6.6%	6.7%	5.8%	4.5%	1.7%	-2.0%	3.8%	3.7%	4.1%	3.3%	4.4%	4.0%	2.8%
Real GDP (\$ Billions) ¹	12,908.8	13,271.1	13,773.5	14,234.2	14,613.8	14,873.7	14,830.4	14,418.7	14,783.8	15,020.6	15,354.6	15,612.2	16,013.3	16,471.5	16,716.2
Percent Change	1.8%	2.8%	3.8%	3.3%	2.7%	1.8%	-0.3%	-2.8%	2.5%	1.6%	2.2%	1.7%	2.6%	2.9%	1.5%
Unemployment Rate ²	5.8%	6.0%	5.5%	5.1%	4.6%	4.6%	5.8%	9.3%	9.6%	8.9%	8.1%	7.4%	6.2%	5.3%	4.9%
Inflation ²	1.6%	2.3%	2.7%	3.4%	3.2%	2.9%	3.8%	-0.3%	1.6%	3.1%	2.1%	1.5%	1.6%	0.1%	1.3%
10-Year Treasury Note ³	4.6%	4.0%	4.3%	4.3%	4.8%	4.6%	3.7%	3.3%	3.2%	2.8%	1.8%	2.4%	2.5%	2.1%	1.8%
Personal Income (\$ Billions) ¹	9,153.9	9,491.1	10,052.9	10,614.0	11,393.9	12,000.2	12,502.2	12,094.8	12,477.1	13,254.5	13,915.1	14,073.7	14,818.2	15,553.0	15,928.7
Percent Change	1.8%	3.7%	5.9%	5.6%	7.3%	5.3%	4.2%	-3.3%	3.2%	6.2%	5.0%	1.1%	5.3%	5.0%	2.4%
Wage & Salaries (\$ Billions) ¹	4,996.4	5,137.8	5,421.9	5,692.0	6,057.4	6,395.2	6,531.9	6,251.4	6,377.5	6,633.2	6,930.3	7,116.7	7,476.8	7,858.9	8,085.2
Percent Change	0.8%	2.8%	5.5%	5.0%	6.4%	5.6%	2.1%	-4.3%	2.0%	4.0%	4.5%	2.7%	5.1%	5.1%	2.9%
Nonfarm Employment (Millions) ²	130.6	130.3	131.8	134.0	136.5	138.0	137.2	131.3	130.4	131.9	134.2	136.4	138.9	141.8	144.3
Percent Change	-1.1%	-0.2%	1.1%	1.7%	1.8%	1.1%	-0.5%	-4.3%	-0.7%	1.2%	1.7%	1.6%	1.9%	2.1%	1.8%

Sources

¹U.S. Bureau of Economic Analysis. Real gross domestic product (GDP) is adjusted for inflation. Personal income and wages and salaries not adjusted for inflation.

²U.S. Bureau of Labor Statistics. Inflation shown as the year-over-year change in the consumer price index for all urban areas (CPI-U).

³Federal Reserve Board of Governors.

Colorado Economic Indicators

Calendar Years	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Nonfarm Employment (<i>Thousands</i>) ¹	2,184.7	2,152.6	2,179.4	2,225.9	2,279.7	2,331.1	2,350.6	2,245.5	2,222.3	2,259.0	2,313.1	2,382.0	2,464.8	2,541.8	2,600.6
Percent Change	-1.9%	-1.5%	1.2%	2.1%	2.4%	2.3%	0.8%	-4.5%	-1.0%	1.7%	2.4%	3.0%	3.5%	3.1%	2.3%
Unemployment Rate ¹	5.6	6.0	5.5	4.9	4.2	3.8	4.9	7.6	8.8	8.3	7.8	6.7	4.9	3.8	3.3
Personal Income (\$ <i>Millions</i>) ²	\$156,288	\$159,103	\$164,457	\$176,129	\$189,493	\$201,743	\$208,608	\$198,082	\$201,570	\$219,861	\$234,006	\$246,648	\$267,225	\$282,665	\$288,103
Percent Change	1.1%	1.8%	3.4%	7.1%	7.6%	6.5%	3.4%	-5.0%	1.8%	9.1%	6.4%	5.4%	8.3%	5.8%	1.9%
Per Capita Personal Income (\$) ²	34,805	35,132	35,947	38,025	40,143	41,996	42,663	39,838	39,926	42,955	45,089	46,824	49,952	51,876	51,999
Percent Change	-0.4%	0.9%	2.3%	5.8%	5.6%	4.6%	1.6%	-6.6%	0.2%	7.6%	5.0%	3.8%	6.7%	3.9%	0.2%
Wage & Salary Income (\$ <i>Millions</i>) ²	\$88,089	\$89,281	\$93,569	\$98,787	\$105,664	\$112,506	\$116,678	\$112,297	\$113,786	\$118,558	\$125,014	\$129,597	\$138,678	\$146,635	\$151,322
Percent Change	-1.2%	1.4%	4.8%	5.6%	7.0%	6.5%	3.7%	-3.8%	1.3%	4.2%	5.4%	3.7%	7.0%	5.7%	3.2%
Retail Trade Sales (\$ <i>Millions</i>) ³	\$58,850	\$58,689	\$62,288	\$65,492	\$70,437	\$75,329	\$74,760	\$66,345	\$70,738	\$75,548	\$80,073	\$83,569	\$90,653	\$94,920	NA
Percent Change	-0.3%	-0.3%	6.1%	5.1%	7.5%	6.9%	-0.8%	-11.3%	6.6%	6.8%	6.0%	4.4%	8.5%	4.7%	
Residential Housing Permits ⁴	47,871	39,569	46,499	45,891	38,343	29,454	18,998	9,355	11,591	13,502	23,301	27,517	28,698	31,871	38,974
Percent Change	-13.0%	-17.3%	17.5%	-1.3%	-16.4%	-23.2%	-35.5%	-50.8%	23.9%	16.5%	72.6%	18.1%	4.3%	11.1%	22.3%
Nonresidential Construction (<i>Millions</i>) ⁵	\$2,805	\$2,686	\$3,245	\$4,275	\$4,641	\$5,259	\$4,114	\$3,354	\$3,147	\$3,923	\$3,695	\$3,624	\$4,351	\$4,972	\$5,900
Percent Change	-19.3%	-4.2%	20.8%	31.7%	8.6%	13.3%	-21.8%	-18.5%	-6.2%	24.7%	-5.8%	-1.9%	20.1%	14.3%	18.7%
Denver-Boulder-Greeley Inflation ¹	2.0%	1.0%	0.1%	2.1%	3.6%	2.2%	3.9%	-0.6%	1.9%	3.7%	1.9%	2.8%	2.8%	1.2%	2.8%
Population (<i>Thousands, July 1</i>) ⁴	4,490	4,529	4,575	4,632	4,720	4,804	4,890	4,972	5,049	5,118	5,190	5,268	5,350	5,449	5,541
Percent Change	1.5%	0.9%	1.0%	1.2%	1.9%	1.8%	1.8%	1.7%	1.5%	1.4%	1.4%	1.5%	1.6%	1.9%	1.7%

NA = Not available.

¹U.S. Bureau of Labor Statistics. Nonfarm employment estimates include revisions to 2015 data expected by Legislative Council Staff from the Bureau of Labor Statistic's annual re-benchmarking process. Inflation shown as the year-over-year change in the consumer price index for Denver-Boulder-Greeley metro areas.

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

³Colorado Department of Revenue.

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

⁵F.W. Dodge.