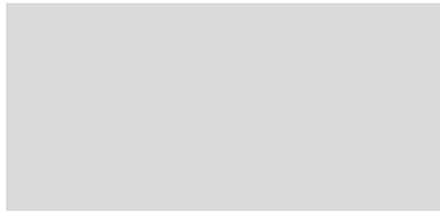




Colorado Legislative Council Staff
June 2018 | Economic & Revenue Forecast



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Contributors

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

Special thanks to Jerry Schierkolk, David Williams, and Suzanne Keim. Cover photos of the Colorado State Capitol, courtesy of Suzanne Keim.

Executive Summary

This report presents the budget outlook based on current law and the June 2018 General Fund revenue, cash fund revenue, and TABOR forecasts. It also includes summaries of expectations for the U.S. and Colorado economies and summaries of current economic conditions in nine regions of the state.

General Fund Budget Outlook

FY 2017-18	The General Fund is projected to end FY 2017-18 with a \$1.2 billion reserve, equal to 11.7 percent of General Fund operating appropriations. This amount is \$544.4 million above the required 6.5 percent reserve. Revenue subject to TABOR fell short of the Referendum C cap by \$93.0 million. The year-end General Fund reserve is \$372.6 million higher than expected in March 2018, reflecting higher expectations for revenue and lower budgeted expenditures.
FY 2018-19	In FY 2018-19, The General Fund is expected to end the year with an 8.1 percent reserve, \$92.6 million above the 7.25 percent statutory reserve. Revenue subject to TABOR is expected to exceed the Referendum C cap by \$126.2 million resulting in a TABOR refund in tax year 2019 projected to total \$147.5 million. This amount includes \$21.3 million carried over from the FY 2014-15 refund obligation. Pursuant to Senate Bill 17-267, the TABOR refund obligation will be refunded in FY 2019-20 via local government reimbursements for the senior homestead and disabled veteran property tax exemptions.
FY 2019-20 Unbudgeted	The General Assembly is projected to have \$1.01 billion, or 8.1 percent, more to spend or save in the General Fund than what is budgeted to be spent and saved in FY 2018-19. Any changes to revenue or expenditures in FY 2018-19 will change this amount. Revenue is expected to exceed the Referendum C cap by \$104.1 million, resulting in a FY 2020-21 TABOR refund of the same amount.

Higher than usual forecast uncertainty. Forecast estimates are subjected to a higher margin of error than usual due to recent changes in federal tax law. Unusual shifts in income taxpayer behavior occurred as a result of the passage of the federal Tax Cuts and Jobs Act (TCJA), boosting collections in FY 2017-18 as taxpayers rushed to claim deductions set to expire. State income tax revenue is expected to be higher as a result of the TCJA. However, risks to the upside and downside exist for revenue estimates.

Cash Fund Revenue

In FY 2017-18, cash fund revenue subject to TABOR is expected to fall 18.1 percent to \$2.27 billion. The drop in revenue is attributable to the elimination of the Hospital Provider Fee and the 2.9 percent sales tax on retail marijuana pursuant to Senate Bill 17-267. These reductions more than offset expected increases in transportation-related and severance tax revenue. Cash fund revenue subject to TABOR will rebound from this lower level by 6.1 percent to \$2.46 billion in FY 2018-19. Cash fund collections will increase 1.2 percent to \$2.49 billion in FY 2019-20 as most revenue sources are projected to rise.

Economic Outlook

The U.S. and Colorado economies are firing on all cylinders and appear positioned to flourish in the near term, with strong labor markets, improving housing markets, and robust consumer activity. A portion of current economic strength is attributable to the Tax Cuts and Jobs Act, which is accelerating short-term growth but may be borrowing against future investment. The economic expansion is expected to weaken late in the current forecast period as the business cycle comes to a close. As interest rates rise, households are expected to reprioritize savings at the expense of some spending, which will reduce growth capacity. Employers are already constrained by labor shortages, which will be exacerbated as veteran workers age out of the labor force.

This forecast anticipates strong growth in the near term that is expected to taper off through 2020. Discussion of the economic outlook begins on page 31, and summaries of expectations for the U.S. and Colorado economies are respectively presented in Tables 17 and 18 on pages 64 and 65.

General Fund Budget Overview

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

- revenue to the State Education Fund (Figure 1);
- statutory transfers to transportation and capital construction funds (Table 3);
- the availability of tax policies dependent on revenue collections (Table 4);
- General Fund rebates and expenditures (Table 5); and
- cash fund transfers to and from the General Fund (Table 6).

FY 2017-18

The General Fund is expected to end the year with an 11.7 percent reserve, \$544.4 million above the required 6.5 percent statutory reserve, as shown in Table 1 (line 20). Relative to the March forecast, expectations for General Fund revenue were increased \$245.2 million on stronger than expected collections to date for corporate income taxes and a one-time \$110.7 million Tobacco Master Settlement Agreement payment. Budgeted expenditures were reduced by \$105.6 million, which further improved the budget situation. Revenue subject to TABOR is expected to fall short of the Referendum C cap by \$93.0 million.

FY 2018-19

The General Fund is expected to end the year with an 8.1 percent reserve, \$92.6 million higher than the budgeted 7.25 percent reserve. The entirety of this amount is the result of the FY 2017-18 surplus, which increases the beginning reserve for FY 2018-19.

Revenue is expected to exceed the Referendum C cap by \$126.2 million, resulting in a TABOR refund for tax year 2019. The projected amount refunded will total \$147.5 million, and includes \$21.3 million carried over from the FY 2014-15 refund obligation for which money is already set aside in the General Fund. Pursuant to Senate Bill 17-267, the TABOR refund obligation will be refunded via local government reimbursements for the senior homestead and disabled veteran property tax exemptions in FY 2019-20. Any remaining refunds will be distributed through the six-tier sales tax refund mechanism.

Changes in the budget situation relative to the March 2018 forecast. Table 2 summarizes changes in the FY 2017-18 and FY 2018-19 General Fund budget situation relative to the March forecast. This summary incorporates changes resulting from 2018 legislation and changes in forecast expectations.

FY 2019-20 (Unbudgeted)

Because a budget has not yet been enacted for FY 2019-20, Table 1 (lines 22 and 23) shows the amount of revenue available in FY 2019-20 relative to the amount budgeted to be spent or saved in FY 2018-19. Based on this forecast, the General Assembly will have \$1.01 billion, or 8.1 percent, more to spend or save in the General Fund than what is budgeted for FY 2018-19. This amount assumes current law, and is largely attributable to the FY 2018-19 excess reserve, projected revenue increases, and smaller transfers from the General Fund than those budgeted for FY 2018-19. This amount will change if the General Assembly enacts changes that impact revenue or expenditures in FY 2018-19 or with changes in revenue expectations for any budget year between FY 2017-18 and FY 2019-20.

Table 1
General Fund Overview
Dollars in Millions

Funds Available		FY 2016-17 Actual	FY 2017-18 Estimate	FY 2018-19 Estimate	FY 2019-20 Estimate
1	Beginning Reserve	\$512.7	\$614.6	\$1,219.3	\$905.9
2	General Fund Revenue	\$10,275.8	\$11,593.1	\$12,192.5	\$12,789.4
3	Transfers from Other Funds (Table 6)	\$44.8	\$107.7	\$41.9	\$18.4
4	Total Funds Available	\$10,833.3	\$12,315.4	\$13,453.7	\$13,713.7
5	Percent Change	1.4%	13.7%	9.2%	1.9%
Expenditures		Actual	Budgeted	Budgeted	Estimate
6	General Fund Appropriations Subject to Limit ¹	\$9,786.0	\$10,430.9	\$11,217.7	*
7	Adjustments to Appropriations ²	\$1.5	*	*	*
8	TABOR Refund Obligation Under Art. X, §20, (7)(d) ³	\$0.0	\$0.0	\$147.5	\$104.1
9	Rebates and Expenditures (Table 5)	\$285.1	\$275.5	\$274.4	\$131.3
10	Transfers to Other Funds (Table 6) ⁴	\$164.8	\$173.3	\$230.4	\$174.7
11	Transfers to the State Education Fund Pursuant to SB 13-234	\$25.3	\$25.3	\$25.0	NA
12	Transfers to Transportation Fund (Table 3)	\$79.0	\$79.0	\$495.0	\$200.0
13	Transfers to Capital Construction Funds (Table 3)	\$84.5	\$112.1	\$179.2	\$60.0
14	Total Expenditures	\$10,426.2	\$11,096.1	\$12,569.2	*
15	Percent Change	2.3%	6.4%	*	*
16	Accounting Adjustments ⁵	\$207.4	*	\$21.3	*
Reserve		Actual	Budgeted	Budgeted	Estimate
17	Year-End General Fund Reserve	\$614.6	\$1,219.3	\$905.9	*
18	Year-End Reserve as a Percent of Appropriations	6.3%	11.7%	8.1%	*
19	Statutorily Required Reserve ⁶	\$584.4	\$674.9	\$813.3	*
20	Amount in Excess or (Deficit) of Statutory Reserve	\$30.2	\$544.4	\$92.6	*
21	Excess Reserve as a Percent of Expenditures	0.3%	4.9%	0.7%	*
Perspective on FY 2019-20 (Unbudgeted Year)					Estimate
Amount Available in FY 2019-20 Relative to FY 2018-19 Expenditures ⁷					
22	Amount in Excess of (Deficit) of 7.25% Statutory Reserve				1,012.6
23	As a Percent of Prior-Year Expenditures				8.1%
Addendum		Actual	Estimate	Estimate	Estimate
24	Percent Change in General Fund Appropriations	4.8%	6.6%	7.5%	*
25	5% of Colorado Personal Income Appropriations Limit	\$13,361.3	\$14,133.3	\$14,405.2	\$15,000
26	Transfers to State Education Fund Per Amendment 23	\$540.0	\$617.0	\$655.3	\$686.3

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

¹Includes the FY 2017-18 supplemental budget package and FY 2018-19 budget package adopted during the 2018 legislative session. FY 2018-19 includes \$215 million in PERA disbursements pursuant to SB 18-200.

²Includes \$1.5 million in over-expenditures pursuant to HB 18-1161 and HB 18-1162 for FY 2016-17.

³Pursuant to Section 24-75-201(2), C.R.S., the TABOR refund obligation is required to be set aside during the year it is collected to be refunded in the following fiscal year.

⁴Includes diversions from the General Fund to cover severance tax refunds pursuant to SB 16-218, which totaled \$56.8 million in FY 2015-16 and \$53.8 million for FY 2016-17.

⁵The \$21.3 million adjustment in FY 2018-19 represents the FY 2018-19 TABOR refund obligation that is carried forward from the FY 2014-15 refund obligation; this amount is already restricted in the fund balance.

⁶The required reserve is calculated as a percent of operating appropriations, and is required to equal to 6.0 percent in FY 2016-17, 6.5 percent in FY 2017-18, and 7.25 percent in FY 2018-19 and each year thereafter. Pursuant to SB 18-276, certificates of participation are included in the statutory reserve requirement calculation beginning in FY 2018-19.

⁷This scenario holds appropriations in FY 2019-20 equal to appropriations in FY 2018-19 (line 6) to determine the total amount of money available relative to FY 2018-19 expenditures, net of the obligations in lines 8 through 13.

Revenue is expected to exceed the Referendum C cap by \$104.1 million, resulting in a TABOR refund obligation for tax year 2020 of an equal amount. The TABOR surplus will be refunded in FY 2020-21 via local government reimbursements for the senior homestead and disabled veteran property tax exemptions.

Table 2
Changes in the General Fund Budget Situation Relative to the March Forecast

Components of Change		2017-18	2018-19	Description of Changes
1	Funds Available	+\$262.9	+\$418.6	
2	Beginning Reserve	+\$0.1	+\$365.7	Carries the FY 2017-18 surplus into FY 2018-19.
3	General Fund Revenue	+\$245.2	+\$29.2	Stronger revenue in FY 2017-18 primarily reflects increased expectations for corporate income tax revenue and the \$110.7 million in revenue from the Tobacco Master Settlement Agreement. FY 2018-19 expectations are largely unchanged.
4	Transfers from Other Funds	+\$17.6	+\$23.7	See Table 6.
5	Expenditures	-109.7	+\$1,617.2	
6	Operating Appropriations	-\$105.6	+\$681.2	Reflects supplementals adopted for FY 2017-18. The FY 2018-19 amount reflects the difference between FY 2017-18 and FY 2018-19 appropriations.
7	TABOR Refund Set Aside	\$0	+\$117.3	Reflects stronger cash fund and General Fund revenue expectations (see page 13).
8	Rebates and Expenditures	-\$0.7	-\$12.8	Primarily reflects reduced expectations for the senior homestead exemption.
9	Transportation Transfers	\$0	+\$495.0	SB 18-001 transfers to the State Highway Fund.
10	Capital Construction Transfers	\$0	+\$119.2	HB 18-1340 capital construction transfers.
11	Other Cash Funds Transfers	+\$2.1	+\$85.0	See Table 6.
12	Required Reserve	-\$6.9	+\$132.3	SB 18-276 increases the required reserve from 6.5 percent to 7.25 percent of General Fund appropriations beginning in FY 2018-19.
Surplus Relative to the Required Reserve				The FY 2017-18 increase reflects higher revenue expectations and lower budgeted expenditures.
13	Increase in Surplus	+\$372.6	*	*FY 2018-19 cannot be estimated because a budget had not yet been set when the March forecast was released.

Higher than Usual Forecast Uncertainty

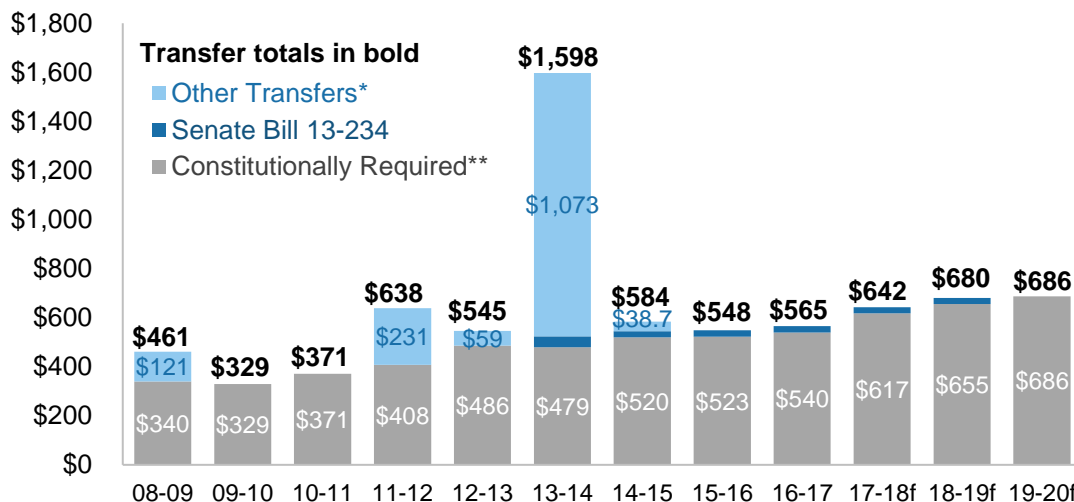
Significant shifts in taxpayer behavior occurred in anticipation of and following the passage of the Tax Cuts and Jobs Act, resulting in unusual income tax collection patterns at the end of calendar year 2017 and start of 2018 that cannot easily be isolated from underlying economic conditions. Revenue impact estimates of the federal tax bill published in December 2017 remain preliminary and subject to change. The federal tax bill enacts changes that affect the 2018 tax year, data for which will not be available until at least a year from now. Even with collections data, the revenue impact of the federal tax changes cannot be isolated from economic processes or underlying taxpayer behavior. Considering these factors, revenue estimates in this forecast are subject to a higher than usual margin of error.

State Education Fund

The Colorado Constitution requires the State Education Fund to receive one-third of one percent of taxable income (see Table 1, line 26). 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.

Figure 1 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. In FY 2018-19, the State Education Fund is expected to receive \$680.3 million, with higher amounts in the following year resulting from growth in taxable income among Colorado taxpayers.

Figure 1
Revenue to the State Education Fund
Dollars in Millions



Source: Colorado State Controller's Office and Legislative Council Staff forecast (f).

* Includes transfers under SB 09-260 for FY 2008-09, SB 11-183 and SB 11-156 for FY 2011-12, HB 12-1338 for FY 2012-13 and FY 2013-14, and HB 14-1342 for FY 2014-15.

**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.

General Fund Transfers to Transportation and Capital Construction

Table 3 shows statutory transfers from the General Fund to transportation and capital construction funds. Transfers in Table 3 are also shown in lines 12 and 13 of Table 1. Other non-infrastructure-related transfers to and from the General Fund are summarized in Table 6.

Transportation transfers. 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 and requires General Fund appropriations for certificate of participation-related lease payments beginning in FY 2018-19. Under current law, these General Fund appropriations are expected to total \$100 million annually by FY 2021-22.

Senate Bill 18-001 created one-time General Fund transfers for transportation of \$495 million in FY 2018-19 and \$150 million in FY 2019-20. These amounts are apportioned to the State Highway Fund, a new Multimodal Transportation Options Fund, and county and municipal governments. Beginning in FY 2018-19, Senate Bill 18-001 authorizes 20 years of additional transfers to the State Highway Fund. Unless voters approve one or more transportation funding ballot measures, the amount of the transfers is set at \$50 million per year. Table 3 assumes a transportation transfer amount of \$200 million for FY 2019-20, including the \$150 million one-time transfer and a \$50 million ongoing annual transfer. Depending on ballot outcomes, the amounts annually transferred under SB 18-001 could be \$122.6 million or fall to \$0. In these scenarios, the last three years of lease-purchase agreements under SB 17-267 would also be repealed and the state would instead issue transportation revenue bonds.

Table 3
Infrastructure Transfers from the General Fund
Dollars in Millions

Capital Construction Funds	2016-17	2017-18	2018-19	2019-20
HB 16-1416	\$52.7			
HB 16-1417	\$31.8			
SB 17-263		\$109.2		
SB 17-262			\$60.0	\$60.0
HB 18-1173		\$2.9		
HB 18-1340			\$119.2	
Total	\$84.5	\$112.1	\$179.2	\$60.0
Transportation Funds	2016-17	2017-18	2018-19	2019-20
SB 17-262	\$79.0	\$79.0		
SB 18-001*			\$495.0	\$200.0
Total	\$79.0	\$79.0	\$495.0	\$200.0

**Pursuant to SB 18-001, transfers for FY 2019-20 and subsequent years depend on ballot measure outcomes during the 2018 and/or 2019 elections. The amounts shown assume current law and exclude provisions under the adoption of ballot measures.*

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 low-income child care expenses tax credit, and partial refundability of the conservation easement income tax credit. Table 4 summarizes the availability of these tax policies, each of which is described in greater detail below.

- **Historic preservation income tax credit available in tax year 2018.** The historic preservation income tax credit will be triggered on for tax year 2018 based on the December 2017 forecast, which expected sufficient revenue to grow appropriations by more than 6.0 percent in FY 2017-18. Based on the June 2018 forecast, the credit is also expected to be available in tax year 2019.
- **Low-income child care expenses tax credit unavailable in tax year 2017.** The low-income child care expenses income tax credit was extended for three years under House Bill 17-1002. Based on

the June 2017 forecast, this credit was unavailable in 2017 and will be available for tax years 2018 through 2020.

- ***Partial refundability of the conservation easement tax credit expected to be available in tax years 2019 and 2020.*** 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. This forecast expects a TABOR surplus in FY 2018-19 and FY 2019-20. If a surplus occurs in these fiscal years, partial refundability of the credit will be available in tax years 2019 and 2020.

Table 4
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. Available in tax year 2018 and expected to be available in tax year 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, 2017, and 2018. Expected to be available in tax years 2019 and 2020.

**Estimates may differ in future analyses.*

Table 5
General Fund Rebates and Expenditures
Dollars in Millions

Category	Actual FY 2016-17	Percent Change	Estimate FY 2017-18	Percent Change	Estimate FY 2018-19	Percent Change	Estimate FY 2019-20	Percent Change
Senior and Veterans Property Tax Exemptions	\$136.4	7.3	\$132.3	-3.0	\$139.5	5.5	\$147.0	5.3
TABOR Refund Mechanism ¹			NA		NA		-\$147.0	
Cigarette Rebate	\$10.3	-2.2	\$10.2	-1.0	\$10.0	-1.7	\$9.8	-1.9
Old-Age Pension Fund	\$96.5	-10.9	\$85.5	-11.4	\$80.3	-6.1	\$75.0	-6.6
Aged Property Tax and Heating Credit	\$8.7	-7.3	\$4.9	-43.7	\$5.6	13.9	\$5.4	-2.0
Older Coloradans Fund ²	\$10.0	0.0	\$16.5	64.9	\$10.0	-39.4	\$10.0	0.0
Interest Payments for School Loans	\$3.4	171.6	\$5.0	47.7	\$5.6	11.9	\$5.9	6.0
Firefighter Pensions	\$4.2	14.3	\$4.4	3.5	\$4.4	0.9	\$4.4	1.1
Amendment 35 Distributions	\$0.9	-1.0	\$0.8	-3.2	\$0.8	-0.6	\$0.8	-0.8
Marijuana Sales Tax Transfer to Local Governments	\$14.7	46.0	\$15.9	7.9	\$18.2	14.3	\$19.8	9.0
Total Rebates and Expenditures	\$285.1	1.4	\$275.5	-3.4	\$274.4	-0.4	\$131.3	-52.2

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

¹Pursuant to SB 17-267, local government reimbursements for these property tax exemptions are the first TABOR refund mechanism used to meet the prior year's refund obligation.

²Pursuant to HB 16-1161, 95 percent of excess General Fund allocations for local government reimbursements for property tax exemptions are transferred to the senior services account in the Older Coloradans Fund.

Table 6
Cash Fund Transfers
Dollars in Millions

Transfers to the General Fund		2016-17	2017-18	2018-19	2019-20
HB 05-1262	Amendment 35 Tobacco Tax	\$0.9	\$0.8	\$0.8	\$0.8
HB 10-1325	Natural Resource Damage Recovery Fund	\$0.1			
SB 13-133	Limited Gaming Fund	\$15.2	\$17.4	\$17.6	\$17.6
SB 15-168, SB 16-196, & HB 16-1398	Intellectual and Developmental Disability Fund	\$1.2			
SB 15-249 & HB 16-1418	Marijuana Tax Cash Fund	\$26.3	\$0.04		
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		
HB 18-1338	Reduced Revenue Severance Tax Transfers		\$17.4	\$23.5	
Total Transfers to the General Fund		\$44.8	\$107.7	\$41.9	\$18.4
Transfers from the General Fund		2016-17	2017-18	2018-19	2019-20
SB 11-047	Bioscience Income Tax Transfer to OEDIT	\$5.3	\$5.9	\$6.3	\$6.7
HB 12-1315	Clean Renewable Energy Fund	\$1.6			
HB 13-1193	Advanced Industries Export Acceleration Fund	\$0.3	\$0.3		
SB 14-215	Marijuana Tax Cash Fund	\$83.6	\$102.9	\$117.6	\$128.1
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	\$22.5
SB 15-245	Natural Hazard Mapping Fund	\$2.4	\$0.7		
HB 16-1161 ²	Veterans Grant Program Fund (<i>conditional</i>)		\$0.3		
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		\$0.1		
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		
HB 18-1171	School Finance Mid-Year Adjustment			\$30.7	
HB 18-1323	Pay For Success Contracts Pilot Program Funding			\$0.4	\$0.5
HB 18-1338	Reduced Revenue Severance Tax Transfers			\$29.5	\$14.2
HB 18-1363	Recommendations Of Child Support Commission			\$0.04	\$0.0
HB 18-1357	Behavioral Health Care Ombudsperson Parity Reports			\$0.01	
HB 18-1423	Rural Fire Protection District Equipment Grants			\$0.3	
SB 18-016	Transitioning from Criminal & Juvenile Justice System			\$2.0	\$2.0
SB 18-132	1332 State Waiver Catastrophic Health Plans			\$0.01	
SB 18-191	Local Government Limited Gaming Impact Fund		\$0.2	\$0.4	\$0.4
SB 18-280	Tobacco Litigation Settlement Cash Fund			\$20.0	
Total Transfers from the General Fund		\$164.8	\$173.3	\$230.4	\$174.7
Net General Fund Impact		(\$120.0)	(\$65.6)	(\$188.4)	(\$156.2)

¹The transfer is contingent upon the receipt of at least \$200,000 in gifts, grants, and donations by the relevant contractor.

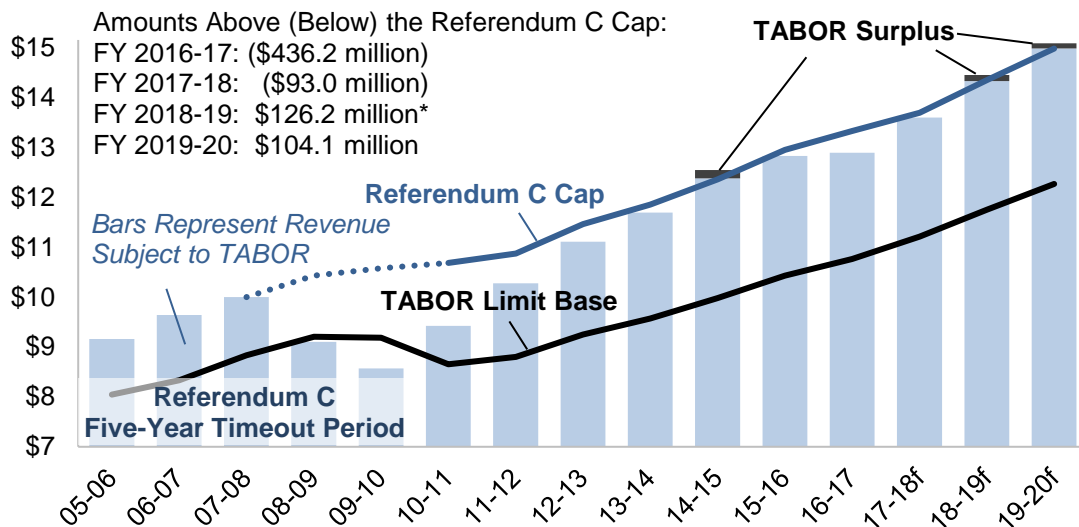
²HB 16-1161 requires transfers to the Veterans Grant Program Fund equal to 5 percent of any excess General Fund moneys set aside for reimbursements to local governments for the Senior Homestead and Disabled Veteran property tax exemptions.

TABOR Outlook

This section presents the outlook for the state's TABOR situation through FY 2019-20. Forecasts for TABOR revenue are summarized in Table 8 on page 16 and illustrated in Figure 2, which also provides a 12-year history of the TABOR limit base and the Referendum C cap.

State revenue fell short of the Referendum C cap by \$436.2 million in FY 2016-17, and is expected to fall short of the Referendum C cap by \$93.0 million in FY 2017-18. State revenue is projected to **exceed the Referendum C cap** by \$126.2 million in FY 2018-19 and by \$104.1 million in FY 2019-20. Based on these projections, the state will issue **TABOR refunds in FY 2019-20 and FY 2020-21**.

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



Source: Office of the State Controller and Legislative Council Staff.

*The refund amount for FY 2018-19 differs from the surplus amount because it includes underrefunds and other adjustments to previous TABOR surpluses.

When revenue exceeds the cap, TABOR requires the surplus to be refunded during the following fiscal year. The state TABOR refund requirement is estimated at \$147.5 million in FY 2019-20 and \$104.1 million in FY 2020-21. The refund requirement for FY 2019-20 includes the \$126.2 million TABOR surplus expected for FY 2018-19 and a \$21.3 million obligation for underrefunds of prior year TABOR surpluses. The refund requirement for FY 2020-21 includes only the TABOR surplus expected for FY 2019-20. For both years, the TABOR refund obligation is expected to be refunded via the property tax exemption reimbursement TABOR refund mechanism. The forecasted FY 2018-19 TABOR refund obligation exceeds the forecasted FY 2019-20 property tax exemption reimbursement by \$0.6 million. If the actual refund obligation exceeds the property tax exemption reimbursement, the amount of the excess will be refunded to taxpayers using the sales tax refund mechanism.

Expectations for the state's TABOR outlook have been changed since the March forecast as a result of increased expectations for most TABOR revenue sources. Changes to the TABOR outlook are presented in Table 7.

Table 7
Change in TABOR Estimates, March 2018 to June 2018
Dollars in Millions

FY 2017-18	June	March	Change
TABOR Revenue	\$13,596.0	\$13,424.8	\$171.2
General Fund ¹	\$11,323.3	\$11,191.0	\$132.3
Cash Funds ¹	\$2,272.6	\$2,233.8	\$38.8
Referendum C Cap	\$13,689.0	\$13,689.0	\$0
Revenue Above (Below) Ref C Cap	(\$93.0)	(\$264.2)	\$171.2
FY 2018-19	June	March	Change
TABOR Revenue	\$14,472.2	\$14,354.5	\$117.8
General Fund ¹	\$12,010.7	\$11,983.8	\$26.9
Cash Funds ¹	\$2,461.6	\$2,370.7	\$90.9
Referendum C Cap	\$14,346.0	\$14,346.0	\$0
Revenue Above (Below) Ref C Cap	\$126.2	\$8.4	\$117.8
FY 2019-20	June	March	Change
TABOR Revenue	\$15,081.4	\$15,119.3	(\$37.9)
General Fund ¹	\$12,591.2	\$12,657.3	(\$66.1)
Cash Funds ¹	\$2,490.2	\$2,462.0	\$28.2
Referendum C Cap	\$14,977.3	\$14,962.9	\$14.4
Revenue Above (Below) Ref C Cap	\$104.1	\$156.4	(\$52.3)

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

TABOR surplus. Article X, Section 20 of the Colorado Constitution (TABOR) limits *state fiscal year spending*, the amount of revenue the state may retain and either spend or save each year. The limit is equal to the previous year's limit or revenue, whichever is lower, adjusted for inflation, population growth, and any revenue changes approved by voters. Referendum C, approved by voters in 2005, is a permanent voter-approved revenue change that raises the amount of revenue the state may spend or save.

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

Fiscal Year Spending

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

State law requires adjustments to the refund amount based on over-refunds or under-refunds of previous TABOR surpluses. Most recently, revenue exceeded the Referendum C cap in FY 2014-15, prompting TABOR refunds on returns for tax year 2015. The amount of the FY 2014-15 refund obligation is now estimated to have been \$159.1 million, adjusting for accounting errors discovered after refunds were issued. To date, the state has refunded \$137.8 million of this obligation. The remaining \$21.3 million is required to be refunded with the next TABOR surplus.

Amount encumbered for FY 2014-15 refunds. The General Assembly set aside (or “encumbered”) \$169.7 million in the General Fund for payment of the refund obligation generated by the FY 2014-15 surplus. This amount is reflected in the Comprehensive Annual Financial Report for FY 2015-16. State fiscal year spending for FY 2014-15 exceeded the Referendum C cap by \$159.1 million, less than the amount originally projected. An estimated \$10.6 million difference represents an over-encumbrance of revenue.

TABOR refund mechanisms. This forecast anticipates that state TABOR refunds in FY 2019-20 and FY 2020-21 will both be administered via the property tax exemption reimbursement TABOR refund mechanism. Pursuant to Senate Bill 17-267, state law requires that any TABOR surplus first be refunded via this mechanism. The exemption disburses state funds to counties, school districts, and special districts to offset these governments’ property tax loss associated with the senior homestead and disabled veteran property tax exemptions. Amounts required to be refunded are encumbered in the General Fund in the year in which a surplus is collected and paid to local governments in the following fiscal year.

As shown in Table 1 (line 8), the TABOR refund obligation expected for FY 2018-19 requires a set-aside of \$147.5 million from the General Fund; however, because \$21.3 million of this amount was set aside in previous years and remains restricted in the fund balance, Table 1 (line 16) includes a positive accounting adjustment for this amount. Table 5 on page 11 shows the portion of the expenditure for property tax exemption reimbursements for FY 2019-20 that is administered as a TABOR refund mechanism in FY 2018-19.

Other TABOR refund mechanisms, including the six-tier sales tax refund mechanism and temporary income tax rate reduction, are triggered if and only if the amount of the TABOR refund obligation exceeds the amount of the property tax exemption reimbursement.

TABOR forecast uncertainty. The state TABOR surplus represents the amount of state revenue subject to TABOR collected in excess of the Referendum C cap. Relatively small fluctuations in the amount of state revenue can have disproportionately large effects on the amount of the TABOR surplus and refund obligation. For all three years of the current forecast period, the possibilities that revenue could fall short of or exceed the Referendum C cap exist within the normal degree of forecast error. Similarly, the amount of the TABOR surplus may trigger refund mechanisms beyond the property tax exemption reimbursement mechanism within this same degree of forecast error.

Table 8
TABOR Limit and Retained Revenue
Dollars in Millions

		Actual FY 2016-17	Estimate FY 2017-18	Estimate FY 2018-19	Estimate FY 2019-20
TABOR Revenue					
1	General Fund ¹	\$10,156.1	\$11,323.3	\$12,010.7	\$12,591.2
2	Cash Funds ¹	\$2,735.6	\$2,272.6	\$2,461.6	\$2,490.2
3	Total TABOR Revenue	\$12,891.7	\$13,596.0	\$14,472.2	\$15,081.4
Revenue Limit					
4	Allowable TABOR Growth Rate	3.1%	4.4%	4.8%	4.4%
5	Inflation (<i>from Prior Calendar Year</i>)	1.2%	2.8%	3.4%	3.1%
6	Population Growth (<i>from Prior Calendar Year</i>)	1.9%	1.6%	1.4%	1.3%
7	TABOR Limit Base	\$10,761.7	\$11,209.9	\$11,748.0	\$12,264.9
8	Voter Approved Revenue Change (Referendum C)	\$2,130.0	\$2,386.0	\$2,598.0	\$2,712.4
9	Total TABOR Limit / Referendum C Cap	\$13,327.8	\$13,689.0	\$14,346.0	\$14,977.3
10	TABOR Revenue Above (Below) Referendum C Cap	(\$436.2)	(\$93.0)	\$126.2	\$104.1
Retained/Refunded Revenue					
11	Revenue Retained under Referendum C ²	\$2,130.0	\$2,386.0	\$2,598.0	\$2,712.4
12	Fiscal Year Spending (<i>revenue available to be spent or saved</i>)	\$12,891.7	\$13,596.0	\$14,346.0	\$14,977.3
13	Outstanding Underrefund Amount ³			\$21.3	
14	Revenue Refunded to Taxpayers⁴	\$0.0	\$0.0	\$147.5	\$104.1
15	TABOR Reserve Requirement	\$386.7	\$407.9	\$430.4	\$449.3

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.

³This amount is restricted in the General Fund as part of the TABOR refund obligation for FY 2014-15. It will be refunded when the state next refunds a TABOR surplus. Under this forecast, the next surplus will be collected in FY 2018-19, and the next refund will be paid in FY 2019-20.

⁴Pursuant to Section 24-75-201 (2), C.R.S., revenue above the Referendum C cap is required to be set aside during the year it is collected to be refunded in the following fiscal year. For example, excess revenue collected in FY 2014-15 was set aside in the budget for FY 2014-15 and refunded in FY 2015-16 on income tax returns for tax year 2015.

General Fund Revenue

This section presents the Legislative Council Staff outlook for General Fund revenue, the state's main source of funding for operating appropriations. Table 10 on page 22 summarizes General Fund revenue collections for FY 2016-17 and projections for FY 2017-18 through FY 2019-20.

Net of the diversion to the State Education Fund under Amendment 23, General Fund revenue is expected to total \$11.6 billion in the current FY 2017-18, representing strong growth of 12.8 percent over the \$10.3 billion collected in FY 2016-17. Robust revenue increases are attributable primarily to underlying economic growth, with additional early contributions resulting from the federal Tax Cuts and Jobs Act (TCJA). Every major source of General Fund revenue is expected to make strong contributions to overall revenue gains. Expectations for individual and corporate income tax, sales tax, and use tax were all revised upward from the March forecast. In total, current year General Fund expectations were increased \$245.2 million, or 2.2 percent, from March. The revision incorporates \$110.7 million from a one-time payment received in April under the Tobacco Master Settlement Agreement, which is discussed below.

Gross General Fund revenue is expected to increase an additional 5.2 percent in FY 2018-19 to total \$12.2 billion. Revenue expectations are consistent with an economic forecast of continued employment growth and moderate to strong increases in income and consumer spending. The General Fund revenue forecast for FY 2018-19 was increased \$29.2 million, or 0.2 percent, from March, with upward revisions to the corporate income tax revenue outlook more than offsetting reduced expectations for individual income tax.

General Fund revenue is expected to increase an additional 4.9 percent to total \$12.8 billion in FY 2019-20, a downward revision of \$64.1 million, or 0.5 percent, relative to the March forecast.

This forecast contains both upside and downside risk due to the late stage of the economic expansion and uncertainty surrounding the impacts of the TCJA. Significant shifts in taxpayer behavior occurred in anticipation of and following the passage of the TCJA, resulting in unusual income tax collection patterns at the end of calendar year 2017 and start of 2018 that cannot easily be isolated from underlying economic conditions. Considering these factors, revenue estimates in this forecast carry a higher than usual margin of error.

Legislative impacts. Table 9 presents the General Fund revenue impacts of laws enacted during the 2018 legislative session. Legislation expected to change General Fund revenue by less than \$5,000 is omitted.

Triggered tax expenditure impacts. The Historic Preservation Income Tax Credit is triggered on for tax year 2018 because the December revenue forecast projected sufficient revenue to allow 6 percent growth in General Fund appropriations in FY 2017-18. The Gross Conservation Easement Tax Credit is expected to become partially refundable in tax year 2019 and tax year 2020 because the state is expected to collect a TABOR surplus in each of FY 2018-19 and FY 2019-20.

Table 9
2018 Legislation Affecting General Fund Revenue
Dollars in Millions

Major Legislation Passed in 2018	2017-18	2018-19	2019-20
Income Tax			
HB 18-1004: Continue Child Care Contribution Tax Credit			-\$16.2
HB 18-1060: Income Tax Deduction For Military Retirement Benefits		-\$1.1	-\$2.9
HB 18-1185: Market Sourcing For Bus Inc. Tax Apportionment	-\$2.9 to \$8.6	-\$6.1 to \$18.3	
HB 18-1190: Modify Job Creation Main Street Revitalization Act	<i>Impacts begin in FY 2020-21</i>		
HB 18-1202: Income Tax Credit Leave Of Absence Organ Donation			-\$0.06
HB 18-1208: Expand Child Care Expenses Income Tax Credit		-\$1.9	-\$3.7
HB 18-1217: Income Tax Credit For Employer 529 Contributions		-\$0.03	-\$0.05
HB 18-1267: Income Tax Credit For Retrofitting Home For Health		-\$0.1	-\$0.3
SB 18-007: Affordable Housing Tax Credit	<i>Impacts begin in FY 2020-21</i>		
SB 18-200: Modifications to PERA to Eliminate Unfunded Liability	-\$2.1	-\$4.3	-\$3.2
Total Income Tax Impact	-\$2.1	-\$10.3	-\$32.5
Sales and Use Tax			
HB 18-1218: Definition Of Veterans' Orgs For Sales & Use Tax		-\$0.06	-\$0.06
HB 18-1315: Manufactured Home Sales Tax Exemption			-\$0.81
HB 18-1350: Machine Tool Sales Tax Exemption For Scrap Metal		-\$0.04	-\$0.08
Total Sales and Use Tax Impact	\$0.0	-\$0.10	-\$0.95
Other Miscellaneous Revenue			
SB 18-056: Civil Jurisdiction Of County Courts And Filing Fees		\$0.01	\$0.03
SB 18-234: Human Remains Disposition Sale Businesses		<\$0.05	<\$0.05
HB 18-1154: Protect Consumer Solicit Public Record Copy For Fee		<\$0.02	<\$0.02
Other Miscellaneous Revenue Impact	\$0.0	<\$0.08	<\$0.10
Revenue Impact of 2018 Legislation	-\$2.1	-\$10.3	-\$33.4

Note: Bills with minimal impacts (less than \$5,000) are excluded.

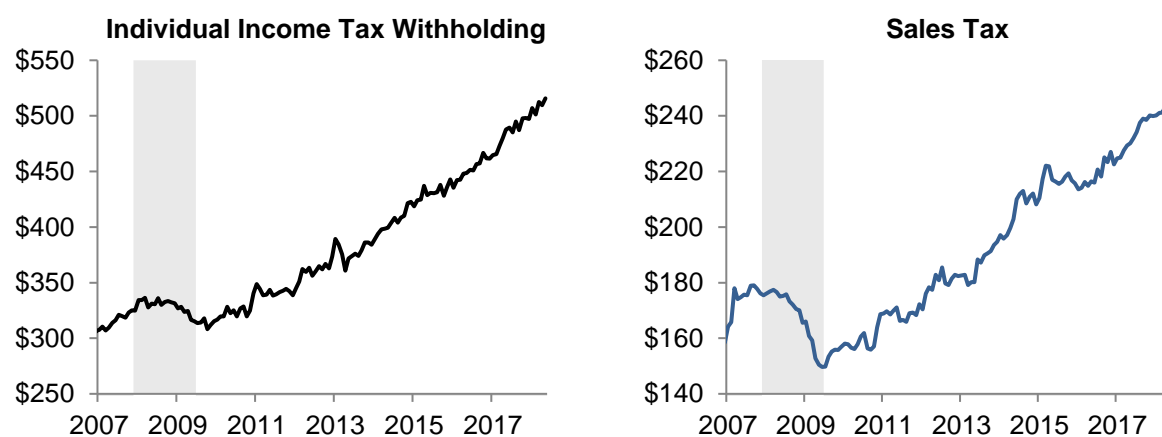
Expiring tax expenditures. This forecast estimates state revenue under current state and federal law. Under current state law, certain tax expenditures available now are scheduled to expire in future years. The forecast includes upward adjustments to revenue projections to account for the expiration of these tax expenditures.

Individual income tax. Payers of the state's individual income tax are the most significant contributors to the General Fund. For the current FY 2017-18, the tax is anticipated to account for roughly 60 percent of General Fund revenue, net of the diversion to the State Education Fund. The tax is assessed at a rate of 4.63 percent and applied to Colorado taxable income earned by households, non-corporate businesses, estates, and trusts.

Individual income tax revenue surged in FY 2017-18, increasing 10.8 percent in the first eleven months of the fiscal year relative to the same period last year. At the close of the current fiscal year, individual income tax revenue is expected to top \$7.5 billion on an accrual accounting basis, representing an increase of 11.3 percent from last year.

Most of the increase for the current year is attributable to a strengthening Colorado economy. Tax withheld from wage and salary income (Figure 3, left) represents the largest component of the individual income tax. Wage withholding is poised to increase 7.4 percent on a cash accounting basis, with strength throughout the fiscal year. Employers withhold more tax when they employ more workers or increase employee pay. With Colorado's labor market tightening, employers are increasingly motivated to increase compensation in order to compete for skilled employees in scarce supply.

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



Source: Colorado Department of Revenue. Data seasonally adjusted by Legislative Council Staff using the Census x12 method. Data shown on a cash-accounting basis as three-month moving averages. Data are through May 2018. May 2018 data are preliminary.

The 2018 tax season provided a boost to state revenue. During the current fiscal year, projected 15.5 percent growth in cash payments made with tax returns will more than offset a 2.3 percent climb in tax refunds. The spike in cash payments suggests that taxpayers earned more money in 2017 than

was anticipated in their withholding forms (in the case of employees) or their quarterly estimated tax remittances (in the case of business owners and investors).

Individual income tax revenue will increase 6.0 percent to nearly \$8.0 billion in FY 2018-19 and 5.8 percent to over \$8.4 billion in FY 2019-20. Much of this growth is attributable to changes to federal law enacted in the 2017 Tax Cuts and Jobs Act. The federal policy generally lowered federal tax rates while expanding the amount of income to which they apply, reducing most taxpayers' federal tax liability on net. However, since Colorado taxable income derives from federal taxable income, the Tax Cuts and Jobs Act is expected to increase Colorado income tax revenue on net.

Impacts of federal tax reform have already been felt in estimated income tax payments, which surged at the end of 2017 as taxpayers pushed to take advantage of expiring income tax deductions. In FY 2018-19, they are expected to contribute to higher spring tax bills, when taxpayers will be required to remit tax above the amounts withheld for tax year 2018. Beginning in 2019 and continuing through FY 2019-20, tax policy changes will contribute to higher monthly withholding figures. The forecast assumes that the state Department of Revenue will publish withholding tables requiring that more state tax be withheld beginning in 2019.

Short-term risks to the forecast are skewed to the upside as the economy continues to excel and tax reform impacts continue to manifest. The forecast carries more downside risk toward the end of the forecast period as the economic outlook grows less certain.

Sales taxes. The 2.9 percent state sales tax is assessed on the purchase of goods, except those specifically exempted, and a relatively small collection of services. Sales tax receipts are expected to increase 7.3 percent to total \$2.9 billion during the current FY 2017-18, and will grow at the more modest rates of 5.4 percent in FY 2018-19 and 4.7 percent in FY 2019-20, as shown in Table 10. Beginning with the March 2018 forecast, Table 10 distinguishes between revenue attributable to the 2.9 percent state sales tax and the special state sales tax on retail marijuana; these amounts were combined in previous versions of this table.

Sales tax collections increased 6.9 percent over the first eleven months of the current fiscal year (Figure 3, right), reflecting higher household incomes and improved consumer confidence. The TCJA is expected to provide a small boost to consumption in FY 2017-18 and FY 2018-19. Strong employment growth and moderate wage growth both have contributed to increased sales tax receipts this year as well. Growth in sales tax collections is expected to moderate slightly but continue to outpace changes in prices and population.

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 the current fiscal year, rising 18.7 percent over the first eleven months of the year. Elevated collections are due in significant part to strong performance in the energy industry. Revenue is expected to continue to grow at robust rates through the forecast period, increasing 19.5 percent in the current FY 2017-18 before adding 9.1 percent in FY 2018-19 and 6.2 percent in FY 2019-20. The forecast represents upward revisions to March expectations primarily as a result of current year performance. Expected collections were revised upward by \$8.7 million in FY 2017-18 and \$11.0 million in FY 2018-19.

Projections for FY 2018-19 incorporate an additional use tax revenue increase attributable to House Bill 10-1193, which took effect earlier this year. Under the bill, online retailers who do not collect sales tax on purchases made by Colorado residents are required to notify purchasers and the Department of Revenue of the resulting use tax obligation. A boost to tax revenue is expected to materialize as businesses become familiar with the law and improve compliance.

Corporate income taxes. Corporate income tax collections are forecast to increase 40.4 percent in FY 2017-18 to \$715.0 million. Corporate income tax collections in the first eleven months of the fiscal year have increased significantly on a strong economy and high corporate profits. Corporate income tax revenue will continue to increase in FY 2018-19 to total \$778.8 million. As the stimulus from the federal tax law recedes, corporate income tax revenue will decline 4.3 percent in FY 2019-20 to \$745.0 million. The three years of the current forecast period are expected to represent the three highest annual corporate income tax collections in the state's history.

Compared with the March forecast, the estimated FY 2017-18 corporate income tax revenue was increased by \$100.1 million due to higher than estimated collections in the first eleven months of the fiscal year. Revenue was extremely strong in March and April when many corporations pay their quarterly and annual taxes. Forecasted corporate income tax revenue was increased relative to March by \$120.0 million in FY 2018-19 and \$43.5 million in FY 2019-20 assuming underlying strength in the economy will continue through the forecast period.

Tobacco Master Settlement Agreement. For the current FY 2017-18 only, Table 10 includes \$110.7 million in General Fund revenue attributable to the Tobacco Master Settlement Agreement (Tobacco MSA). Colorado receives annual TABOR-exempt Tobacco MSA payments that are generally credited to the Tobacco Litigation Settlement Cash Fund. This spring after publication of the March forecast, the Attorney General signed a supplementary agreement under the Tobacco MSA to resolve a backlog of disputes between tobacco manufacturers and the state. The supplementary agreement resulted in a one-time release of previously disputed payments from a privately managed escrow account. Under a preexisting state law, the released payments were credited to the General Fund and not to the Tobacco Litigation Settlement Cash Fund. They are exempt from TABOR as a damage award.

No such payments are anticipated to contribute to General Fund revenue in the future.

Table 10
General Fund Revenue Estimates
Dollars in Millions

Category		Actual 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	\$2,727.7	5.5	\$2,927.1	7.3	\$3,084.7	5.4	\$3,229.5	4.7
2	Use	\$259.5	7.6	\$310.2	19.5	\$338.5	9.1	\$359.5	6.2
3	Retail Marijuana Sales	\$98.3	46.0	\$159.1	61.9	\$181.8	14.3	\$198.1	9.0
4	Cigarette	\$36.6	-1.7	\$34.9	-4.7	\$34.3	-1.7	\$33.6	-1.9
5	Tobacco Products	\$21.2	0.6	\$21.8	2.8	\$23.1	6.2	\$24.1	4.1
6	Liquor	\$45.0	3.3	\$46.3	2.9	\$47.4	2.5	\$49.1	3.5
7	Total Excise	\$3,188.3	6.4	\$3,499.4	9.8	\$3,709.9	6.0	\$3,893.9	5.0
Income Taxes									
8	Net Individual Income	\$6,760.9	3.6	\$7,524.2	11.3	\$7,978.4	6.0	\$8,437.3	5.8
9	Net Corporate Income	\$509.3	-21.9	\$715.0	40.4	\$778.8	8.9	\$745.0	-4.3
10	Total Income Taxes	\$7,270.2	1.3	\$8,239.1	13.3	\$8,757.2	6.3	\$9,182.3	4.9
11	Less: Portion Diverted to the SEF	-\$540.0	3.3	-\$617.0	14.3	-\$655.3	6.2	-\$686.3	4.7
12	Income Taxes to the General Fund	\$6,730.2	1.1	\$7,622.1	13.3	\$8,101.9	6.3	\$8,496.0	4.9
Other Sources									
13	Estate	\$0.0	NA	\$0.0	NA	\$0.0	NA	\$0.0	NA
14	Insurance	\$290.5	3.6	\$310.3	6.8	\$322.4	3.9	\$334.0	3.6
15	Pari-Mutuel	\$0.6	-6.6	\$0.5	-9.9	\$0.5	-7.9	\$0.4	-6.4
16	Investment Income	\$14.7	18.6	\$11.2	-24.1	\$17.6	56.9	\$23.3	32.7
17	Court Receipts	\$4.1	17.4	\$4.2	2.6	\$4.4	4.4	\$4.5	3.5
18	Tobacco Master Settlement Agreement ¹	NA		\$110.7		NA		NA	
19	Other Income	\$47.3	109.8	\$34.7	-26.7	\$35.9	3.5	\$37.1	3.4
20	Total Other	\$357.2	11.8	\$471.6	32.0	\$380.8	-19.3	\$399.5	4.9
21	Gross General Fund Revenue	\$10,275.8	3.1	\$11,593.1	12.8	\$12,192.5	5.2	\$12,789.4	4.9

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

¹The state received \$110.7 million in April 2018 as part of a supplementary legal agreement signed within the framework of the Tobacco Master Settlement Agreement. This amount represents a release of previously disputed payments and, per statute, is credited to the General Fund. No such revenue is expected in the future. This money is exempt from TABOR as a damage award.

Cash Fund Revenue

Table 11 summarizes the forecast for cash fund revenue subject to TABOR. The largest revenue sources are motor fuel taxes and other transportation-related revenue, gaming taxes, and severance taxes. The end of this section also presents the forecasts for marijuana sales and excise tax, Federal Mineral Lease, and unemployment insurance revenue. These forecasts are presented separately because they are not subject to TABOR limitations.

Cash fund revenue subject to TABOR totaled \$2.78 billion in FY 2016-17. This revenue is expected to fall 18.1 percent to \$2.27 billion in FY 2017-18. The drop in revenue is attributable to the elimination of the Hospital Provider Fee and the 2.9 percent sales tax on retail marijuana in Senate Bill 17-267. These reductions more than offset 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 8.3 percent to \$2.46 billion in FY 2018-19, and will increase 1.2 percent to \$2.49 billion in FY 2019-20, as most revenue sources are projected to rise.

Transportation-related revenue subject to TABOR totaled \$1,220.3 million in FY 2016-17. Transportation funding will increase 3.3 percent in FY 2017-18 to \$1,260.7 million and grow 2.1 percent in FY 2018-19. The forecast for TABOR revenue to transportation-related cash funds is shown in Table 12 on page 25.

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 collections increased 3.2 percent in FY 2016-17 to \$629.4 million. In FY 2017-18, fuel tax collections are expected to grow 1.6 percent and reach \$639.3 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 3.8 percent to \$383.0 million in FY 2017-18. Total HUTF revenue is expected to increase 2.5 percent to \$1,092.6 million in FY 2017-18 and 1.7 percent to \$1,111.2 million in FY 2018-19.

The **State Highway Fund (SHF)** is the primary fund for the state Department of Transportation to meet state transportation needs. The SHF receives money from HUTF transfers, local government grants, and interest earnings. The HUTF revenue is subject to TABOR when it is originally collected by the state 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 into the SHF fluctuates based on local budgeting decisions and large annual fluctuations are common. SHF revenue subject to TABOR is expected to increase 11.7 percent to \$44.7 million in FY 2017-18 and increase 5.4 percent to \$47.1 million in FY 2018-19.

Revenue to the **Statewide Bridge Enterprise** is not subject to TABOR and is shown as an addendum to Table 12. Revenue to this enterprise is expected to grow 3.9 percent to \$110.8 million in FY 2017-18 and 2.0 percent to \$113.0 million in FY 2018-19. The bridge safety surcharge fee collections typically grow at the same rate as vehicle registrations.

Table 11
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%	\$1,260.7 3.3%	\$1,287.0 2.1%	\$1,307.1 1.6%	2.3%
Hospital Provider Fee ¹ Percent Change	\$654.4 -18.6%	NA	NA	NA	
Severance Tax Percent Change	\$19.5 3.0%	\$108.2 455.2%	\$215.2 99.0%	\$172.7 -19.8%	107.0%
Gaming Revenue ² Percent Change	\$103.7 0.9%	\$106.7 2.9%	\$108.3 1.5%	\$108.7 0.4%	1.6%
Insurance-Related Percent Change	\$10.3 -9.6%	\$16.2 57.2%	\$19.5 19.9%	\$19.6 0.7%	23.8%
Regulatory Agencies Percent Change	\$75.5 9.8%	\$79.4 5.1%	\$82.0 3.2%	\$83.9 2.4%	3.6%
Capital Construction Related – Interest ³ Percent Change	\$4.6 -12.2%	\$5.4 17.3%	\$7.1 30.8%	\$6.5 -7.6%	12.3%
2.9% Sales Tax on Marijuana ⁴ Percent Change	\$40.9 28.6%	\$18.5 -54.6%	\$14.3 -22.8%	\$14.5 1.3%	-29.2%
Other Cash Funds Percent Change	\$646.5 -7.6%	\$677.5 4.8%	\$728.3 7.5%	\$777.2 6.7%	6.3%
Total Cash Fund Revenue Subject to the TABOR Limit	\$2,775.6 -5.2%	\$2,272.6 -18.1%	\$2,461.6 8.3%	\$2,490.2 1.2%	-3.6%

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

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

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

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

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

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

Table 12
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	\$639.3	\$649.2	\$658.2	1.5%
Percent Change	3.2%	1.6%	1.6%	1.4%	
Total Registrations	\$369.0	\$383.0	\$390.8	\$397.9	2.5%
Percent Change	3.6%	3.8%	2.0%	1.8%	
<i>Registrations</i>	\$218.4	\$226.8	\$231.3	\$235.4	
<i>Road Safety Surcharge</i>	\$130.6	\$135.6	\$138.3	\$140.8	
<i>Late Registration Fees</i>	\$20.1	\$20.6	\$21.2	\$21.8	
Other HUTF Receipts ¹	\$67.0	\$70.3	\$71.2	\$71.9	2.4%
Percent Change	3.9%	4.8%	1.3%	0.9%	
Total HUTF	\$1,065.4	\$1,092.6	\$1,111.2	\$1,128.0	1.9%
Percent Change	3.4%	2.5%	1.7%	1.5%	
State Highway Fund (SHF) ²	\$40.0	\$44.7	\$47.1	\$49.6	7.4%
Percent Change	-23.4%	11.7%	5.4%	5.3%	
Other Transportation Funds	\$114.9	\$123.4	\$128.7	\$129.5	4.1%
Percent Change	12.3%	7.5%	4.2%	0.6%	
<i>Aviation Fund</i> ³	\$23.1	\$27.8	\$31.1	\$30.5	
<i>Law-Enforcement-Related</i> ⁴	\$8.8	\$8.9	\$9.2	\$9.3	
<i>Registration-Related</i> ⁵	\$83.0	\$86.7	\$88.5	\$89.7	
Total Transportation Funds	\$1,220.3	\$1,260.7	\$1,287.0	\$1,307.1	2.2%
Percent Change	3.0%	3.3%	2.1%	1.6%	

Totals may not sum due to rounding.

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

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

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

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

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

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

Addendum: TABOR-Exempt FASTER Revenue

	Preliminary FY 2016-17	Estimate FY 2017-18	Estimate FY 2018-19	Estimate FY 2019-20	CAAGR*
Bridge Safety Surcharge	\$106.7	\$110.8	\$113.0	\$115.0	2.0%
Percent Change	-0.6%	3.9%	2.0%	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 TABOR enterprise. Beginning in the current FY 2017-18, fee and interest earnings are omitted from Table 8 and Table 11 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 11 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 is expected to total \$108.2 million in FY 2017-18 and \$215.2 million in FY 2018-19, as shown in Table 13. Relative to other revenue sources, severance tax revenue is extremely volatile because the value of natural resources severed from the earth fluctuates considerably with changes in commodity prices. In addition, production is extremely responsive to natural resource prices where, small changes in expected prices drive investment decisions. The forecast for severance tax revenue is \$31.4 million higher in FY 2017-18 and \$79.3 million higher in FY 2018-19 than forecast in March, reflecting year-to-date collections for the current budget year and continued economic growth through the forecast period. Table 13 summarizes the forecast for severance tax revenue.

Table 13
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	\$95.2	\$203.1	\$160.6	241.7%
Percent Change	-22.8%	2265.0%	113.3%	-20.9%	
Coal	\$4.2	\$3.8	\$3.6	\$3.4	-6.3%
Percent Change	15.9%	-7.9%	-5.2%	-5.8%	
Molybdenum and Metallics	\$2.9	\$2.4	\$2.4	\$2.4	-6.3%
Percent Change	100.2%	-18.4%	0.4%	0.4%	
Total Severance Tax Revenue	\$11.1	\$101.4	\$209.1	\$166.4	146.4%
Percent Change	8.2%	812.2%	106.2%	-20.4%	
Interest Earnings	\$8.4	\$6.7	\$6.1	\$6.3	-9.0%
Percent Change	-3.3%	-19.6%	-9.5%	3.4%	
Total Revenue to the Severance Tax Fund	\$19.5	\$108.2	\$215.2	\$172.7	107.0%
Percent Change	3.0%	455.2%	99.0%	-19.8%	

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

Severance taxes from **oil and natural gas** are forecast to total \$95.2 million in FY 2017-18 and \$203.1 million in FY 2018-19. Oil and gas severance tax collections have been strong since the March forecast, including \$40.5 million in collections in April. Given the year-to-date oil and gas severance taxes, on-going oil and gas development and consistent price levels are expected to result in a 113.3 percent increase in oil and gas severance taxes between FY 2017-18 and FY 2018-19. The value of oil and gas production in 2018 will be recorded for property tax purposes in 2019 and will increase the ad valorem credit in FY 2019-20, contributing to a 20.9 percent decrease in oil and gas severance taxes.

Oil prices in Colorado averaged \$64.12 per barrel in May 2018, which is expected to be the peak oil price in the forecast period. The price of oil rose in the spring of 2018 as the global economy improved

reducing the level of global oil stocks. In addition, geopolitical risks caused the price to increase following President Trump's announcement of re-imposing sanctions on Iran. OPEC is scheduled to meet on June 22, 2018 and it is expected that they will announce increased production targets, aimed in part at keeping the price of oil from increasing and discouraging oil and gas development in the United States. Given these expectations, the price of oil received by Colorado producers is projected to average \$59.55 per barrel in 2018, \$56.93 per barrel in 2019, and \$54.68 per barrel in 2020.

Natural gas prices have been much more stable than oil prices. Producers in Colorado have received an average price of \$2.47 per Mcf in May 2018 and are expected to average \$2.86 per Mcf in 2018. Natural gas producers are able to quickly place natural gas on the market due to new technologies and existing infrastructure, which will keep natural gas prices below \$3.50 throughout the forecast period. Prices are expected to average \$3.23 per Mcf in 2019 and rise to \$3.39 per Mcf in 2020.

Coal has historically been the second largest mineral source of severance taxes in Colorado after oil and natural gas. Coal severance tax revenue is expected to decrease 7.9 percent over year-ago revenue and generate \$3.8 million in severance taxes in FY 2017-18. Coal severance taxes are expected to decline an additional 5.2 percent in FY 2018-19 to \$3.6 million and 5.8 percent to \$3.4 million in FY 2019-20 as the demand for coal as a fuel for electricity production declines. Utility companies are realigning their electricity production away from coal toward natural gas and renewable sources.

Metal and molybdenum mines will pay \$2.4 million in severance taxes on the value of minerals produced in FY 2017-18. 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 constant demand, metal and molybdenum severance taxes are expected to be \$2.4 million in each year of the forecast period.

Finally, interest earnings are expected to be \$6.7 million in FY 2017-18 and \$6.1 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 2.9 percent to \$106.7 million in FY 2017-18. Through April, tax revenue alone grew 6.9 percent from the July-April period in 2017 on the strength of additional wagers and increased adjusted gross proceeds in the highest tax bracket. 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 1.5 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, gaming tax revenue has grown by almost 7 percent, resulting in an approximate \$4 million increase in Amendment 50 revenue.

Table 14
Tax Revenue from the Marijuana Industry
Dollars in Millions

	Preliminary 2016-17	Forecast 2017-18	Forecast 2018-19	Forecast 2019-20	CAAGR*
Proposition AA Taxes					
Special Sales Tax	\$98.3	\$159.1	\$181.8	\$198.1	26.3%
State Share	\$83.6	\$143.2	\$163.6	\$178.3	
Local Share	\$14.8	\$15.9	\$18.2	419.8	
15% Excise Tax	\$71.9	\$76.1	\$75.1	\$74.3	1.1%
Total Proposition AA Taxes	\$170.3	\$235.2	\$256.9	\$272.4	26.2%
2.9 Sales Tax (Subject to TABOR)					
2.9% Sales Tax on Medical Marijuana	\$12.4	\$12.7	\$12.7	\$12.8	1.0%
2.9% Sales Tax on Retail Marijuana	\$28.1	\$5.7	\$1.4	\$1.6	
Subject to TABOR Interest	\$0.3	\$0.1	\$0.1	\$0.1	
Total 2.9% Sales Tax	\$40.9	\$18.5	\$14.3	\$14.5	-29.2%
Total Taxes on Marijuana	\$211.1	\$253.8	\$271.3	\$286.9	10.8%

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

After four and a half years, the marijuana market is maturing leading to moderating growth rates for **marijuana tax revenue**. Total marijuana tax revenue is expected to reach \$253.8 million in FY 2017-18 and \$271.3 million in FY 2018-19. The majority of the revenue from the marijuana industry is voter approved revenue exempt from TABOR, however the 2.9 percent state sales tax is included in the state's revenue limit. Tax revenue from marijuana sales is shown in Table 14.

The largest source of marijuana revenue, the special sales tax is expected to reach \$159.1 million in FY 2017-18 and \$181.8 million in FY 2018-19. Excise tax revenue is forecast to reach \$76.1 million in FY 2017-18 and \$75.1 million in FY 2018-19. The excise tax is based on the wholesale price of marijuana. Initially, the wholesale price was calculated by the Department of Revenue and consistent for each type of marijuana sold. In 2017, state law was amended to allow cultivators to use the contract wholesale price of marijuana if it was an arm's length transaction. Over time, the calculated wholesale rate for marijuana has declined as cultivators become more efficient and more cultivators use the contract price, which is generally lower than the wholesale price. The effect of these two trends is a reduction in the excise taxes paid for the same amount of marijuana, which is expected to continue through 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 remain flat through the forecast period, generating about \$12.7 million in FY 2017-18 and FY 2018-19. Retail marijuana is exempt from the 2.9 percent state sales tax starting July 1, 2017. Retailers have remitted a total of \$4.8 million year-to-date in FY 2017-18, which is higher than tax collections from taxable marijuana accessories. Taxpayers are either continuing to collect the 2.9 percent sales tax on marijuana sales or,

more likely, filing sales tax returns for periods prior to FY 2017-18. It is assumed that the 2.9 percent sales tax remitted from retail marijuana dispensaries will decline in FY 2018-19 and FY 2019-20 as sales tax returns from prior periods when retail marijuana was taxable are processed. 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. FML revenue is expected to increase 1.4 percent from the previous year, to \$92.2 million in FY 2017-18. FML revenue is forecast to increase 13.3 percent in FY 2018-19 to \$104.5 million as the state fulfills its obligations for previous payments associated with canceled leases on the Roan Plateau. FML revenue will increase 3.6 percent in FY 2019-20 to \$108.2 million.

Forecasts for **Unemployment Insurance (UI) Trust Fund** revenue, benefit payments, and year-end balance are shown in Table 15. Revenue to the UI Trust Fund has not been subject to TABOR since FY 2009-10 and is therefore excluded from Table 11. 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 11.

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 throughout the forecast period. A higher employee chargeable wage base will support the fund. The chargeable wage is indexed annually to the average weekly wage growth. The chargeable wage base is \$12,600 for 2018, up \$100 from 2017. The amount of benefits paid from the fund is also expected to continue to fall, further reinforcing the fund.

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

	Actual 2016-17	Estimate 2017-18	Estimate 2018-19	Estimate 2019-20	CAAGR*
Beginning Balance	\$679.8	\$739.4	\$902.0	\$1,082.0	
Plus Income Received					
UI Premium	\$633.0	\$554.1	\$551.8	\$547.6	-4.72%
Interest	\$15.7	\$17.8	\$19.0	\$20.6	
Total Revenues	\$648.7	\$571.8	\$570.8	\$568.1	-4.33%
Percent Change	1.7%	-11.9%	-0.2%	-0.5%	
Less Benefits Paid	\$466.0	\$409.1	\$390.8	\$37.1	-6.65%
Percent Change	-9.7%	-12.2%	-4.5%	-3.0%	
UI Bonds Principal Repayment	(\$125.0)	\$0.0	\$0.0	\$0.0	
Accounting Adjustment	\$1.8	\$0.0	\$0.0	\$0.0	
Ending Balance	\$739.4	\$902.0	\$1,082.0	\$1,271.1	19.80%
Solvency Ratio					
Fund Balance as a Percent of Total Annual Private Wages	0.66%	0.76%	0.85%	0.97%	

Totals may not sum due to rounding.

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

Economic Outlook

The U.S. and Colorado economies are firing on all cylinders and appear positioned to flourish in the near term. Most fundamental indicators suggest that the economy is operating at its peak, with strong labor markets, improving housing markets, and robust consumer activity. The upswing in energy prices is proving a boon to Colorado producers, reigniting the state's high-powered oil and gas industry. Favorable tax treatment under the Tax Cuts and Jobs Act is strengthening business activity beyond what would otherwise be expected at this stage of the business cycle. The policy change is accelerating short-term growth, but may be borrowing against future investment. The expansion is long-lived and remains poised to become the longest on record. However, structural factors—primarily demographics—have conspired to limit the strength of economic growth.

The economic expansion is expected to weaken during the forecast period as the business cycle comes to a close. The Federal Reserve has already begun to apply the brakes this year, raising interest rates to rein in rising inflationary pressures. As interest rates rise, households are expected to reprioritize savings at the expense of some spending, which will reduce growth capacity. Employers are already constrained by labor shortages, which will be exacerbated as veteran workers age out of the labor force. These constraints are cyclical certainties and are expected to emerge over 2019 and 2020 as the expansion wanes.

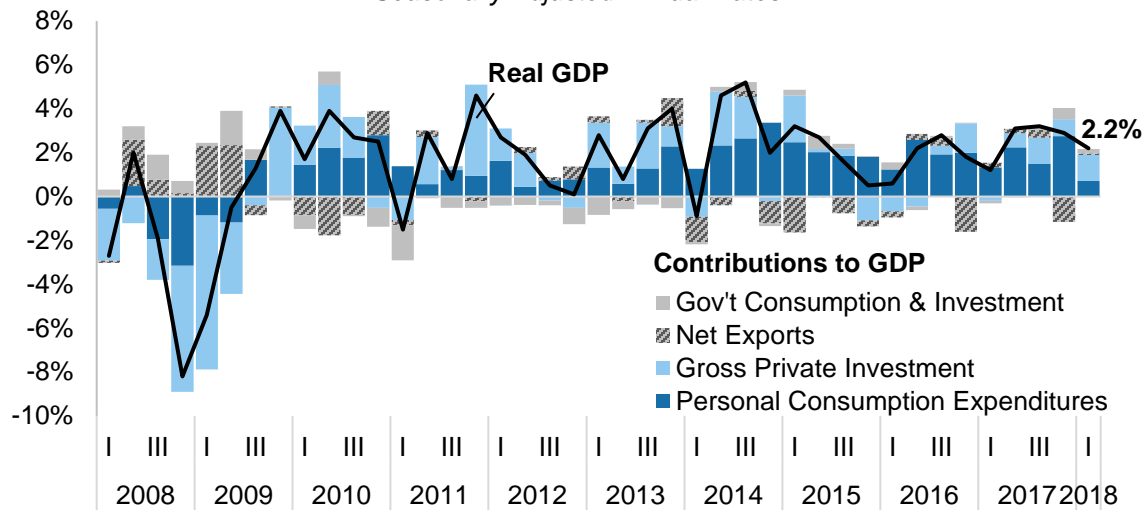
Short-term risk to the economic outlook comes mostly from abroad. The global economy has experienced volatility in the face of rising commodity prices, fluctuations in the U.S. dollar, and uncertainty over trade agreement negotiations. Closer to home, a relatively strong dollar, retaliatory tariffs, and drought conditions threaten the state's agriculture industry, even as crop prices recover. The fiery Colorado housing market also poses challenges. The elevated cost of living is pricing out many buyers, contributing to slower anticipated population growth and crimping consumer expenditures elsewhere in the economy.

This forecast anticipates strong growth in the near-term that is expected to taper off through 2020. Tables 17 and 18 on pages 64 and 65 present histories and expectations for economic indicators for the U.S. and Colorado, respectively.

Gross Domestic Product

The economic expansion is broad-based and long-lived. The U.S. economy is on track to record its longest expansion ever. Real gross domestic product (GDP), an estimate of the inflation-adjusted value of final U.S. goods and services, grew moderately in the first quarter of this year following a strong end to 2017. Solid gains in business investment continue to bolster growth. Colorado's economy continues to outpace the nation—only Washington State grew more quickly during 2017. U.S. and Colorado GDP is expected to continue to grow in 2018 and 2019 with the federal Tax Cuts and Jobs Act providing a near-term boost to consumer spending and business activity. The change in policy, however, poses a risk of pulling future economic activity forward at the expense of longer-term growth.

Figure 4
Contributions to Real U.S. Gross Domestic Product
Seasonally Adjusted Annual Rates



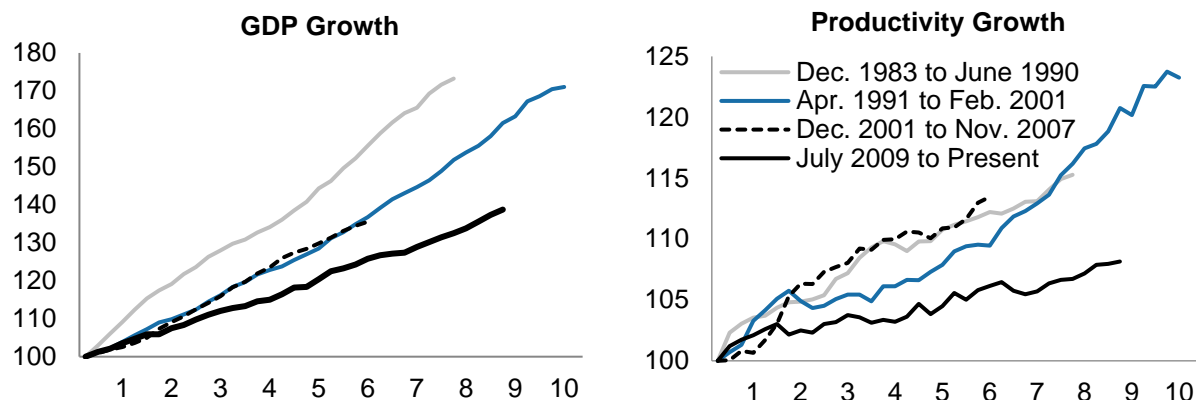
Source: U.S. Bureau of Economic Analysis. Real GDP is inflation-adjusted. Percent change and contributions to percent change in GDP reflect annualized quarter-over-quarter growth.

Real GDP grew at annual rate of 2.2 percent in the first quarter of 2018. Contributions to growth came from all four main components of GDP with solid gains in investment by businesses. Despite a decline in residential investment, total private domestic spending grew 7.2 percent from the previous quarter. Since mid-2017, business investment, specifically nonresidential fixed investment, has steadily picked up pace. Consumer spending, which accounts for more than two-thirds of U.S. economic activity, grew by 1.0 percent, following a healthy gain of 4.0 percent in the fourth quarter. Government spending and investment contributed modestly to economic growth. U.S. exports rose at 4.2 percent, a slower rate than the prior quarter. However, trade on net was nearly inconsequential as strong consumer demand for imports mostly offset economic gains from exports. Figure 4 presents the annualized change in real U.S. GDP and contributions from its four major components.

The current expansion is weaker than prior expansions. The present-day economic expansion surpassed the 1960s expansion to become the second longest on record in U.S. history. Only the 1990s expansion endured longer, lasting 120 months relative to 109 months for the current expansion through the first quarter of this year. However, this expansion remains weaker than the 1990s expansion and other prior episodes of economic growth, as shown in Figure 5.

Many factors have contributed to slower growth. The most significant is demographic change, which has slowed population growth, weakened consumer activity, and modified spending patterns as a higher share of the population enters retirement. Structural changes in the economy, including technological change and shifts toward automation, have slowed growth in labor productivity and wages, causing negative downstream impacts on consumption and shifting business spending toward cost saving, capital intensive investments. Wage growth has sprung to life in recent months, and business investment has accelerated, offering positive signs for business and consumer activity.

Figure 5
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.

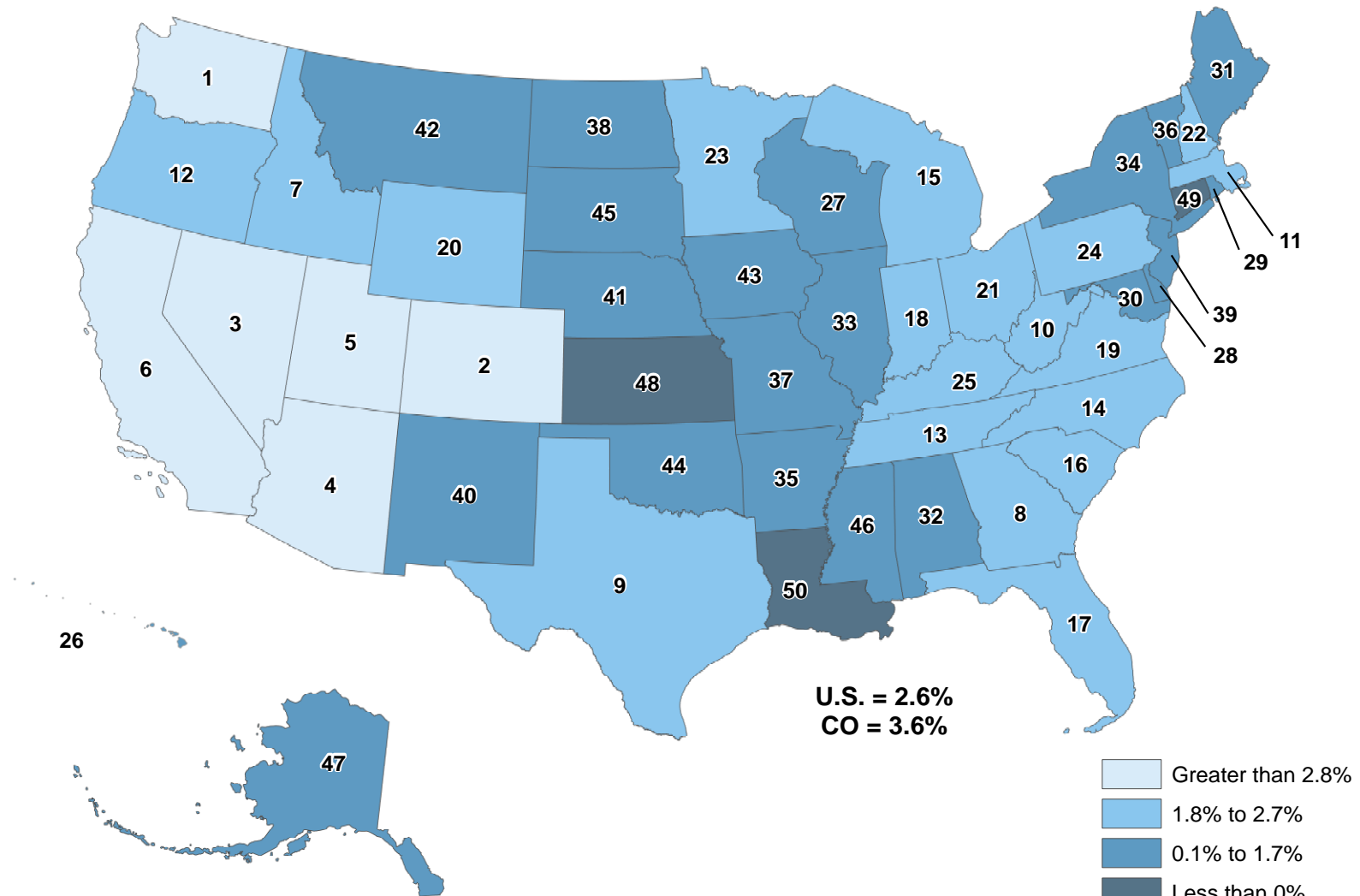
Colorado's economy is among the nation's strongest. After growing 1.6 percent in 2016, Colorado's real GDP increased 3.6 percent in 2017, the second highest annual growth rate in the nation. Only Washington's 4.4 percent increase was faster in 2017. Economic growth continues to be solid and broad-based across most industries, with 19 of 20 sectors registering a positive year-over-year contribution to GDP. The exception was agriculture, where abundant supply and low prices conspired to hurt producers. The mining industry has benefited from higher oil prices and a smaller workforce, while Colorado's strong consumer confidence and buoyant housing market have allowed the state to outperform the national economy. Figure 6 shows the percent change in real GDP by state from 2016 to 2017.

- Real U.S. GDP is expected to increase 2.9 percent in 2018 and 2.3 percent in 2019. Near-term stimulus to business investment and consumer spending from the Tax Cuts and Jobs Act will provide a short-term boost to GDP growth.

Demographics

Population growth has slowed. Data published by the U.S. Census Bureau in December show a slowdown in Colorado population growth attributable primarily to slower net migration. Lower levels of net migration reflect fewer new residents to the state and more residents moving elsewhere. Slower population growth will contribute to a tightening state labor market. Locations outside of Colorado are proving more affordable to many would-be residents of the state as housing costs continue to rise in Colorado. Several other factors are also contributing to slower net migration and population growth. Economic growth has improved in many areas of the U.S., offering encouraging job prospects in less expensive areas. Additionally, consistent with nationwide trends, international migration to Colorado has also slowed due to changes in federal immigration policy and improved economic prospects abroad. Birth rates have fallen, which has also contributed to slower population growth.

Figure 6
Percent Change and Ranking in Real GDP by State, 2016 to 2017
(A ranking of 1 indicates the fastest growth)

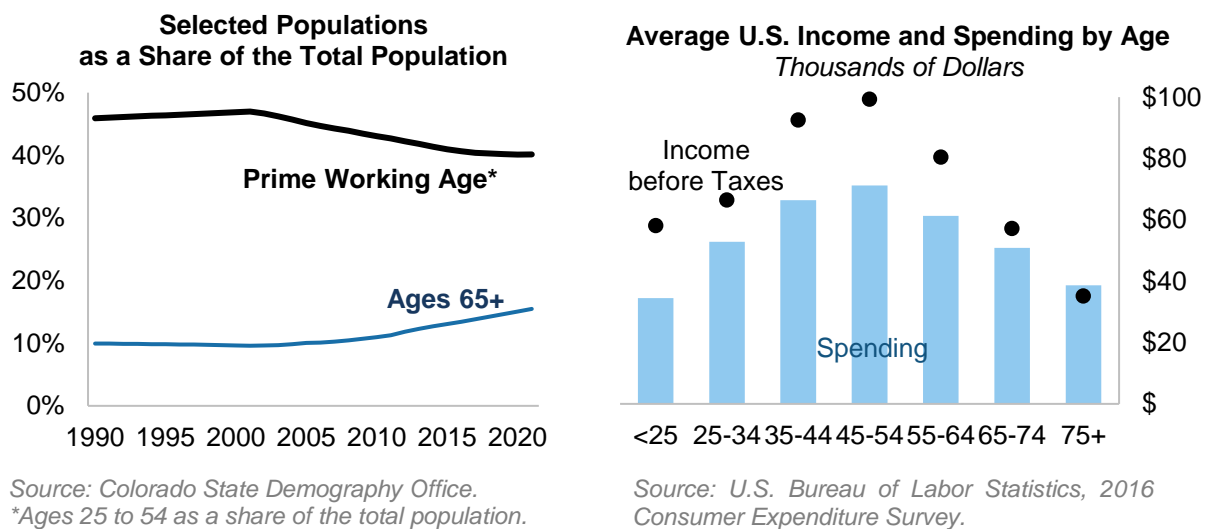


Data source: Bureau of Economic Analysis. Map prepared by Legislative Council Staff.

The aging population is slowing economic activity. Demographic change actively affects economic performance across the U.S. and in Colorado, influencing 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 over the long run. Based on projections 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 percent by 2020 (Figure 7, 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 7, 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 7
Selected Demographic Indicators



The current expansion has been less impressive than in previous business cycles in part because of the demographic drag on the 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 making different decisions than prior generations with respect to housing, which makes up the largest share of household expenses (over 40 percent in the Denver-Boulder-Greeley combined statistical area). National data from the Consumer Expenditure Survey suggest that relative to prior

generations aged 25 to 34, millennials are less likely to own a home, more likely to rent or share housing, 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 grow 1.3 percent in 2018 and 2019.

Business Income and Activity

Business activity and incomes are expected to continue to grow throughout the forecast period. Commodity prices for metals and crops have picked up as a result of stronger global demand, boosting industrial production, manufacturing, and export activity. However, rising wage and inflationary pressures will increase business costs, which may constrain future business opportunities. The federal Tax Cuts and Job Act is expected to increase after-tax profits of corporations and business owners, which may result in additional business investments and boost productivity. The extent and duration of the boost, however, is uncertain. Additionally, business benefits from tax reform may add additional competition to a tight business environment.

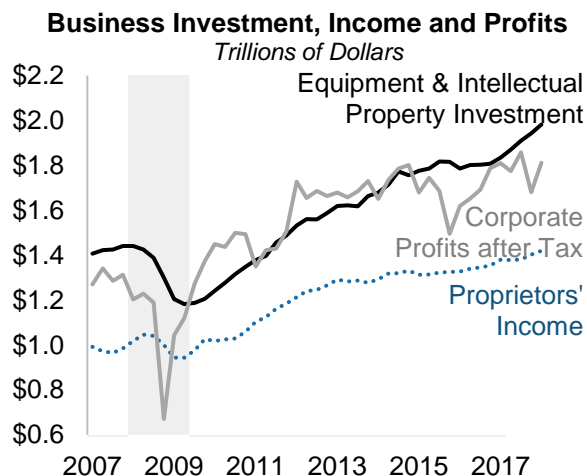
Businesses are propelling future growth. Figure 8 shows selected measures of business activity. Certain business measures, including investment, industrial production, and manufacturers' orders can serve as valuable leading indicators that suggest future economic performance. Business investment and proprietors' income continued to increase through the start of 2018, while corporate profits after tax were more volatile (top left). Investment in equipment and intellectual property continually increased in 2017, resulting in 8.0 percent growth between the first quarter 2017 and the first quarter of 2018. Nonfarm proprietors' income increased 2.9 percent between the first quarter 2018 and the first quarter of 2017. Corporate profits after tax were 0.1 percent higher in the first quarter of 2018 than the first quarter of 2017; however, corporate profits increased 7.8 percent between the fourth quarter of 2017 and the first quarter of 2018.

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 been in expansionary territory (with values above 50) for the past 21 months, reading 58.7 in May (Figure 8, top right). The broader non-manufacturing business activity index read 59.1 in April. The non-manufacturing index has consistently over-performed the manufacturing index since the end of the 2008-09 recession. However, the two indices converged in 2017 when the oil and gas sector rebounded following an industry-specific recession in 2016. The Federal Reserve Bank of Kansas City produces a manufacturing index similar to the ISM index for businesses within its region, which includes Colorado as well as six other states. The Kansas City Fed index strengthened to 79.0 in May as shown in Figure 9, the second consecutive month that the index reported all time highs. Despite extremely robust manufacturing activity now, firms report optimism about future opportunities for expansion.

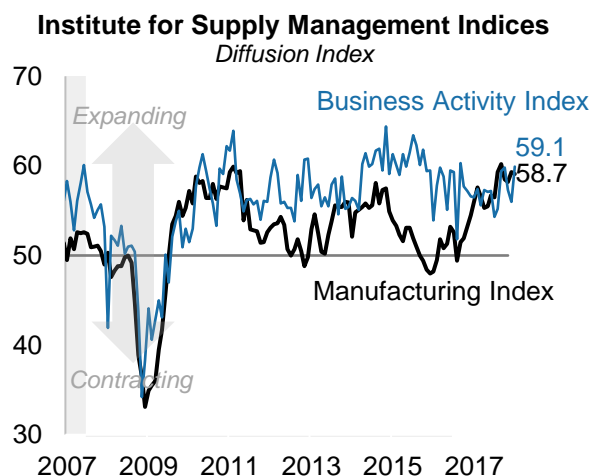
As measured by the Federal Reserve Board of Governors, industrial production (Figure 8, bottom left) increased 3.4 percent in the first five months of 2018 over year-ago levels. Production accelerated at the end of 2017 as the Gulf Coast recovered from the calamitous 2017 Atlantic hurricane season. Following this rebound, growth has moderated year-to-date. New orders (Figure 8, bottom right)

continue to increase as the expansion matures and global markets improve. Total new orders increased 7.8 percent in the first four months of 2018 compared with the same period in 2017, and new orders for durable goods increased 9.0 percent, partially on the strength of increased orders for civilian aircraft.

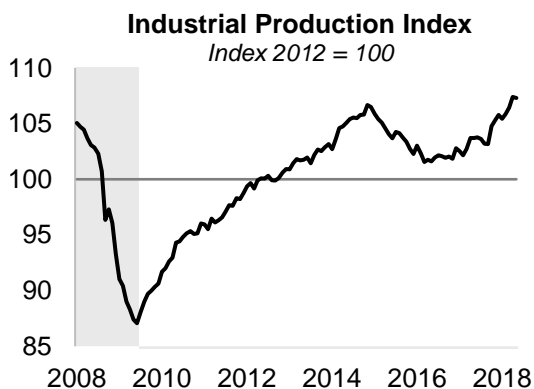
Figure 8
Selected Indicators of U.S. Business Activity



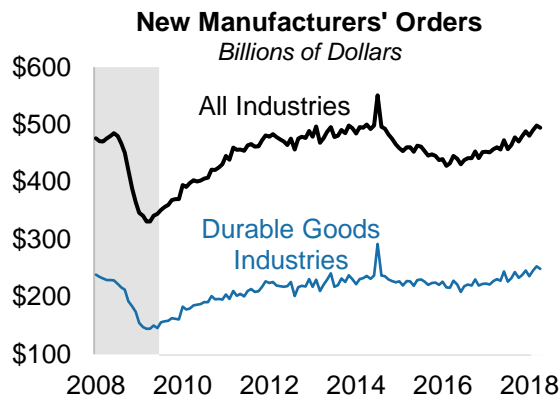
Source: U.S. Bureau of Economic Analysis.
Data are not adjusted for inflation.



Source: Institute for Supply Management.

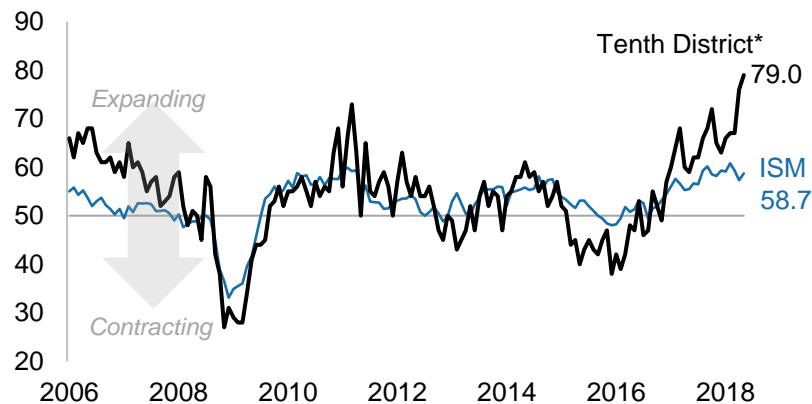


Source: Federal Reserve Board of Governors.



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

Figure 9
Business Activity in Tenth Federal Reserve District

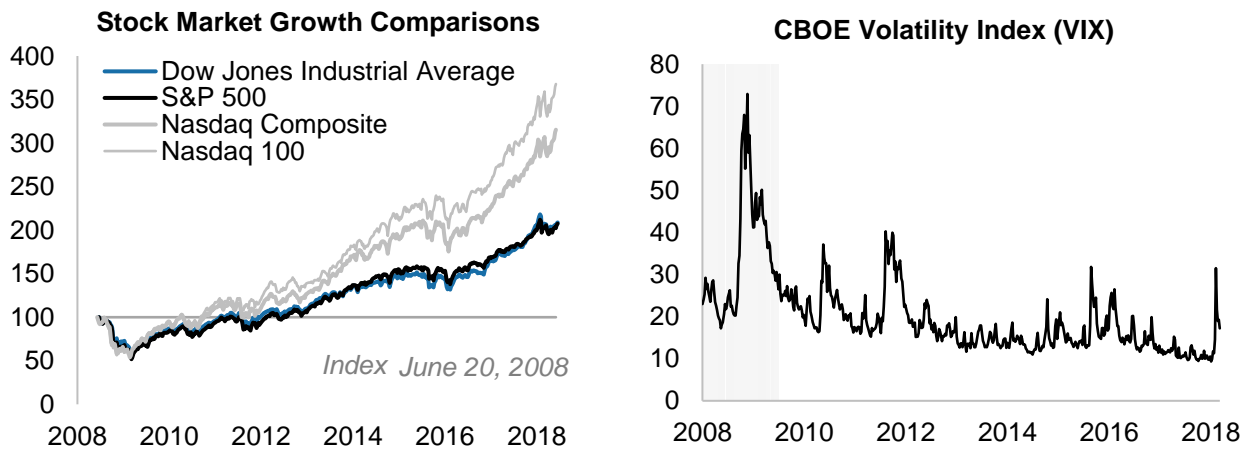


Source: Institute for Supply Management (ISM) and Federal Reserve Bank of Kansas City.

*The Tenth District composite index is adjusted to the ISM scale. The Tenth District includes Colorado, Nebraska, Oklahoma, Kansas, Wyoming, and portions of New Mexico and Missouri.

Tax reform shook up stock markets. Passage of the federal Tax Cuts and Jobs Act helped to fuel stock markets at the end of 2017. Thus far this year, markets have been volatile in response to trade policy discussions, interest rate speculation, and industry-specific headlines (Figure 10, left). Many companies chose to use their tax windfall to buy back an estimated \$178 billion worth of stock in the first quarter of 2018. Volatility indicators continue to reflect heightened concern about future fluctuations. The Chicago Board Options Exchange (CBOE) Volatility Index is based on S&P 500 option prices. When the index goes up, it indicates near-term expectations for market volatility. As illustrated in Figure 10 (right), the index spiked at the start of February and remains elevated relative to the period of historically low volatility in 2017.

Figure 10
Selected Indicators of Stock Market Activity



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

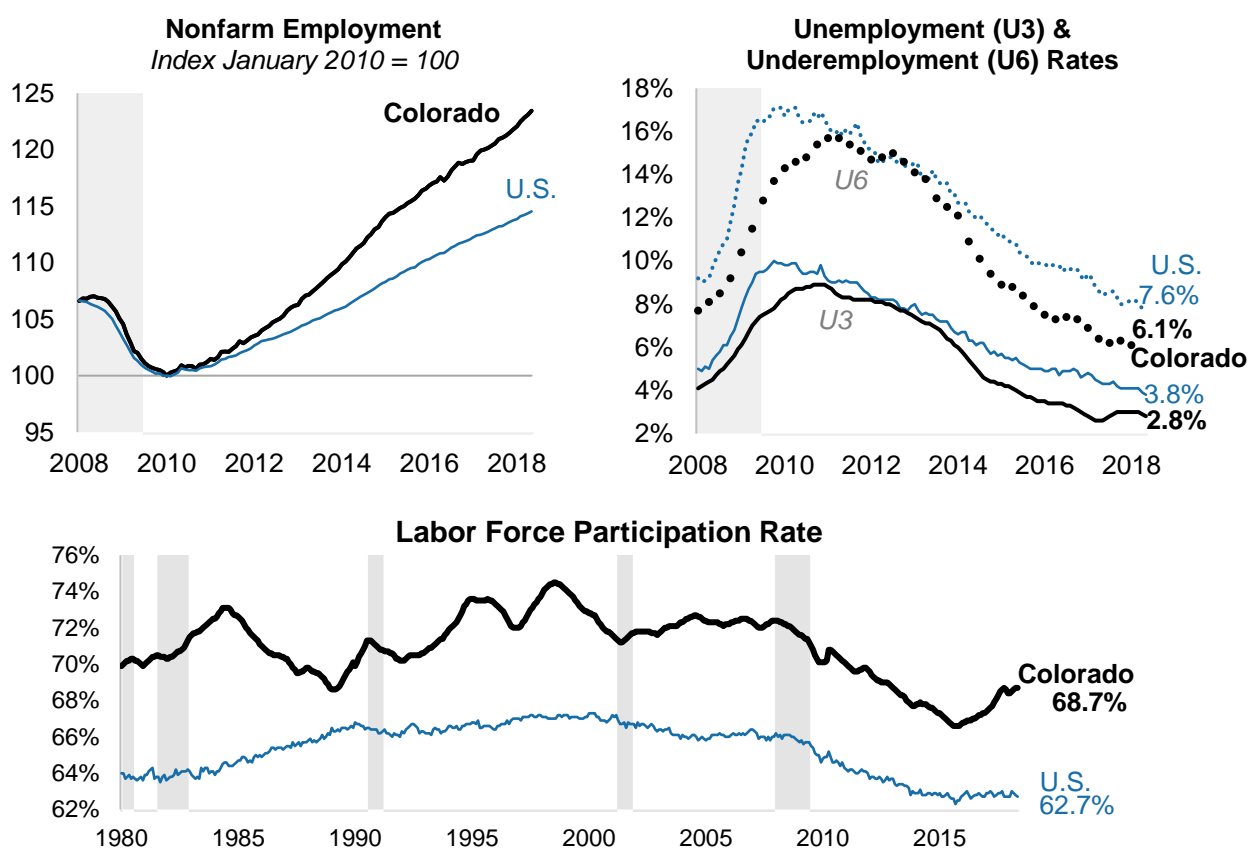
Source: Chicago Board Options Exchange (CBOE).

Labor Markets

U.S. and Colorado labor markets continue to pick up momentum in 2018; however, historically low unemployment rates and signs of growing worker shortages suggest the labor market is at or beyond its optimal capacity. Colorado labor market activity continues to outpace that of the nation as a whole, and the state unemployment rate remains among the lowest in the country. Wage gains in 2018 and 2019 will pull more workers into the labor force, sustaining employment growth, albeit at reduced levels. Figure 11 compares labor market activity for the U.S. and Colorado.

Strong labor markets are counteracting structural shifts. Colorado's labor force participation rate is climbing in spite of an accelerating number of annual retirements. As shown in the bottom panel of Figure 11, labor force participation fell during the first five years of the current expansion, a demographic idiosyncrasy inconsistent with the early years of all other recent expansions. Growing labor force participation since 2015 suggests that the tight labor market is now strong enough to counteract demographic and structural shifts toward automation, which have reduced demand for lower-skilled workers in many industries, including manufacturing and information services sectors. Positive trends in the labor force participation rate will sustain employment growth through the forecast period.

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



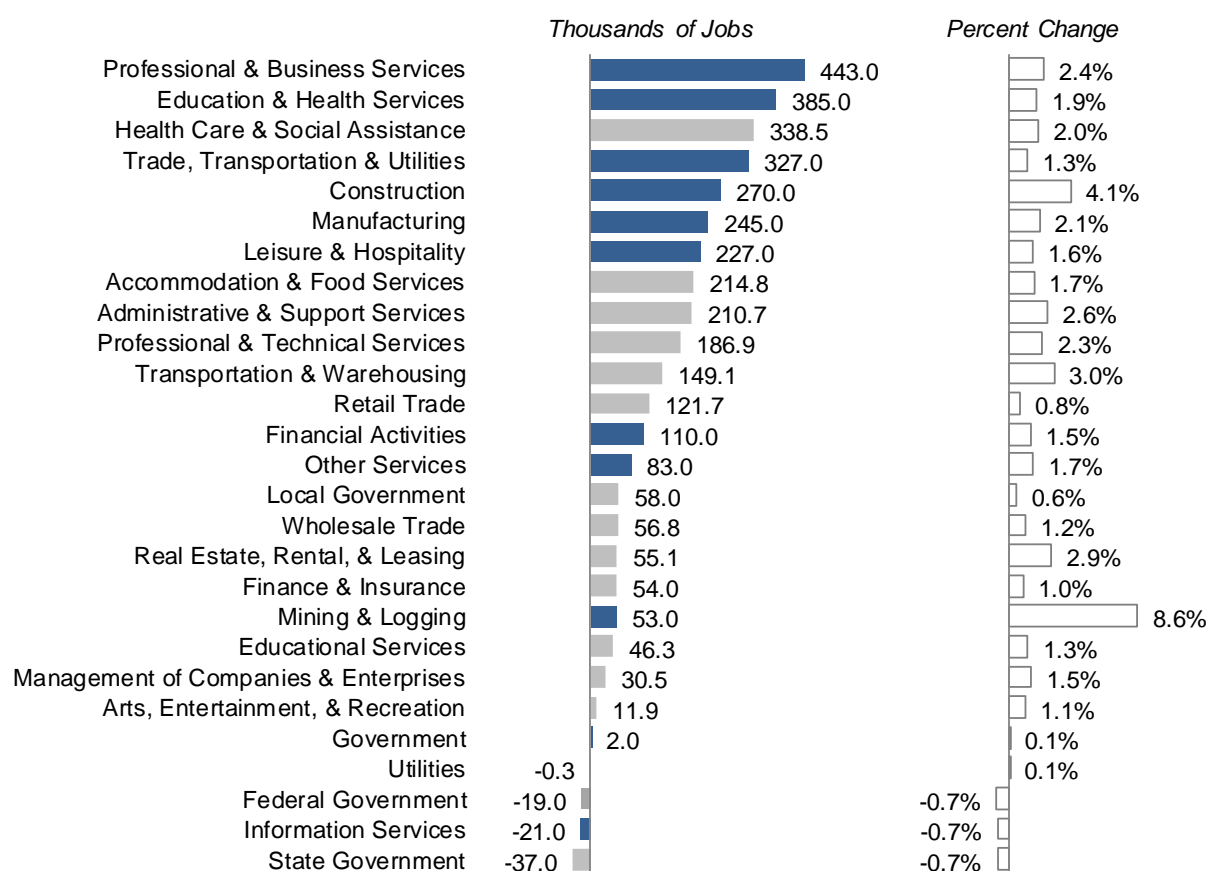
Source: U.S. Bureau of Labor Statistics. Data are seasonally adjusted and are through May 2018.

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

**Labor force participation is calculated as the percent of the civilian population, age 16 and older, who are working or seeking employment.

The job market is still growing. U.S. employers continue to add employees to their payrolls at a healthy pace. On average, employers added 194,000 new jobs each month over the past 12 months. In May 2018, U.S. employment rose 1.6 percent over year-ago levels. Job growth has remained broad-based across supersectors, with professional and business services and education and health services sectors adding the most jobs since May 2017 (Figure 12). Job gains in the construction and manufacturing industries continue to trend upward; these sectors added 270,000 and 245,000 jobs, respectively, since May 2017. Mining and logging employment continues to show considerable improvement in recent months as oil production and investment has surged with rising oil prices. However, mining and logging employment remains well below its peak level of 900,000 jobs in early 2014.

Figure 12
U.S. Job Gains and Losses by Industry
 Year-over-Year Change, May 2018 over May 2017

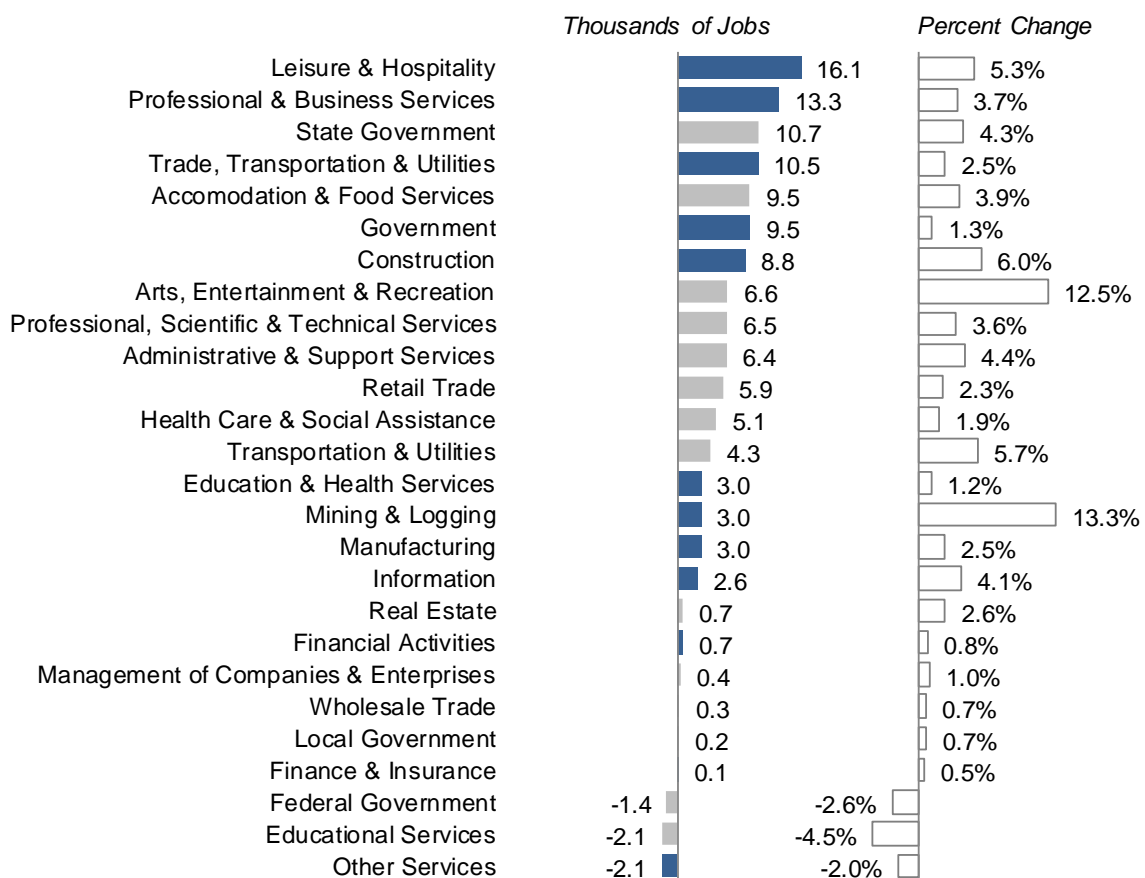


Source: U.S. Bureau of Labor Statistics. Data are seasonally adjusted. Blue (dark) shading indicates a supersector, while grey (light) shading indicates a subsector.

The U.S. unemployment rate fell to an 18-year low of 3.8 percent in May 2018, continuing a yearlong downward trend and suggesting that recent job growth has been sufficient to absorb the workers reentering the labor force. The “underemployment” (U6) rate, a broader measure that captures discouraged workers and those who work part-time but desire full-time work, was 7.6 percent in May 2018, down from 8.4 percent in the same month one year ago (Figure 11, top right).

Colorado's labor market is even tighter. The state labor market remains one of the strongest in the country. Job growth has accelerated slightly thus far this year after slowing in the last half of 2017. However, total job growth has fallen compared to earlier periods in the current economic expansion, suggesting the presence of capacity constraints. Job growth peaked at 3.8 percent in early 2015. Colorado employment rose 2.5 percent through May over year-ago levels, and gains occurred across nearly all sectors (Figure 13). Strong residential and nonresidential construction activity continues to drive demand for construction workers. Relative to a year ago, the industry has added 9,700 jobs to its payrolls, a 6.0 percent increase. The leisure and hospitality supersector, which includes the arts, entertainment, and recreation and accommodation and food services sectors, continues to benefit from Colorado's thriving tourism industry. Finally, employment in the mining and logging supersector continues to trend upward as oil prices improve.

Figure 13
Colorado Job Gains and Losses by Industry
Year-over-Year Change, May 2018 over May 2017



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

Colorado's unemployment rate is still among the lowest in the country and the number of new and continued unemployment claims remains near historical lows. The state unemployment rate dropped to 2.8 percent in May after holding steady at 3.0 percent since September 2017. Many employers are reporting that it is becoming increasingly difficult to find the talent and skilled labor needed to grow their businesses.

- 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 2.0 percent in 2018 and 1.6 percent in 2019. The state's unemployment rate will average 2.9 percent in 2018 and 3.1 percent in 2019.
- As the nation maintains full employment, U.S. nonfarm employment will increase 1.4 percent in 2018 and 1.1 percent in 2019. The national unemployment rate will average 3.9 percent in 2018 and 4.1 percent in 2019.

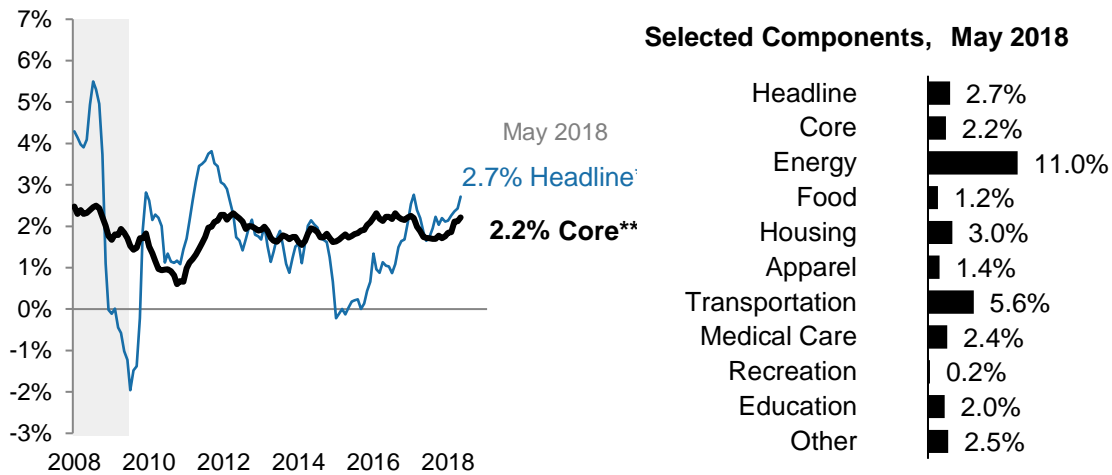
Monetary Policy and Inflation

Interest rates are on the rise. Under the leadership of new Chairman Jerome Powell, the Federal Reserve is expected to pursue an aggressive agenda of ongoing interest rate hikes over 2018 and 2019. In June, the Federal Open Market Committee voted to increase the target range for the federal funds rate to between 1.75 percent and 2.00 percent, continuing a pattern of quarterly increases of 25 basis points each. With the U.S. unemployment rate now firmly below the Fed's target, coupled with rising inflationary pressure, further tightening appears imminent. Twelve of fifteen committee members surveyed at the Fed's March meeting anticipated either two or three additional hikes this year, which would put the target federal funds rate between 2.00 percent and 2.50 percent by year end. While these rates remain modest by historical standards, they represent a sea change after years of dovish Fed decision making. Until the middle of last year, the Fed's target for the federal funds rate was below 1.00 percent.

During the latter years of the current business cycle, tighter monetary policy will act to control inflation and stave off labor market overheating. Rising interest rates will encourage businesses and consumers to migrate a portion of their expenditures toward savings; this forecast anticipates an attendant increase in interest income. In Colorado, higher rates could pose additional challenges in a housing market already unfriendly to buyers.

Inflationary pressure is mounting. U.S. consumer prices, as measured by the consumer price index for all urban areas, increased 2.7 percent in May relative to the same month a year prior (Figure 14). Core inflation, which excludes food and energy increased at a slightly slower 2.2 percent. Inflationary pressure is expected to increase nationally with rising energy prices, which have downstream impacts on prices for most goods and many services. A tight labor market also boosts inflation by increasing labor input costs for producers and because businesses set prices to capture a portion of rising household incomes. As shown in Figure 14, U.S. consumer prices are being driven by energy price increases, attendant transportation prices, and the quickening national housing market.

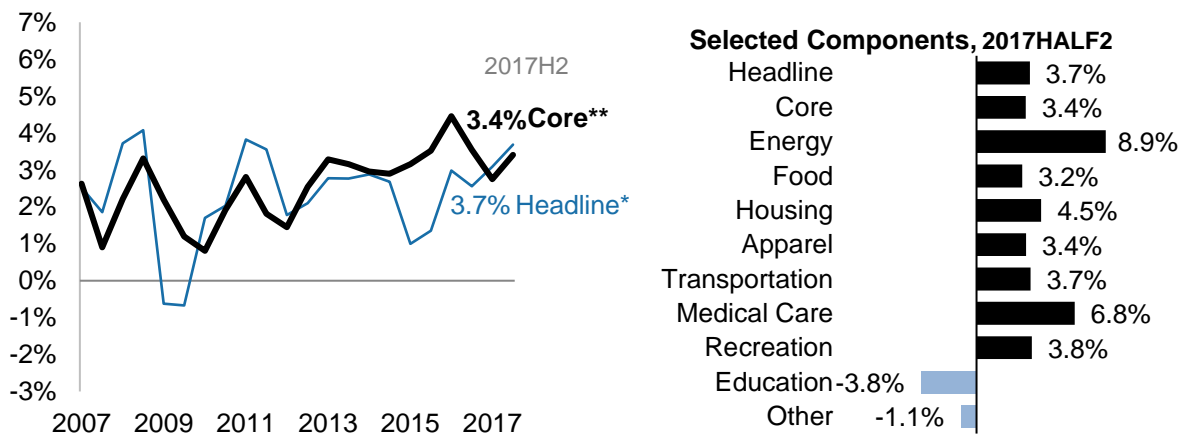
Figure 14
Consumer Price Index Inflation for All Urban Areas in the U.S.
Percent Change in Prices, Year-over-Year



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 faster than national rates due in large part to rapid growth in housing costs across most of the state and spillover effects from the higher cost of living. In the second half of 2017, the headline Denver-Boulder-Greeley consumer price index rose 3.7 percent over year-ago levels, while core prices rose 3.4 percent (Figure 15). As a result of methodological changes, the U.S. Bureau of Labor Statistics now publishes a new Denver-Aurora-Lakewood consumer price index on a bimonthly basis instead of the semi-annual Denver-Boulder-Greeley index. Through March, the new index measured consumer prices at a level 2.2 percent higher than the 2017 average.

Figure 15
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-Aurora-Lakewood area are expected to increase 3.1 percent in 2018 and 2.9 percent in 2019. By comparison, the national measure for all urban areas is expected to rise 2.6 percent in 2018 and 2.3 percent in 2019.

Households and Consumers

Over the next two years, higher wage and investment incomes are expected to bolster household spending even as prices inflate more quickly and demographic change dampens consumption patterns. As savings rates have fallen and household debt continues to grow, rising incomes present an opportunity for household deleveraging in the face of rising interest rates.

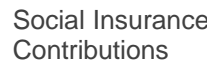
Personal income is accelerating. After two disappointing years, a tight national labor market and the promise of rising interest rates have put U.S. households on track for their best year of income growth since 2015. While personal income growth remains modest to moderate by the standards of past expansions, the improving outlook for both wage earners and investors offers a boost.

As shown in the top half of Figure 16, U.S. personal income grew 3.7 percent in the first quarter of 2018 compared with the same quarter last year. Wage and salary earnings made the largest contribution as usual. Personal income from dividends, interest, and rent has crept up slowly over the last two years but continues to make only a modest contribution, adding 3.3 percent in 2017 and 3.4 percent in the first quarter of 2018 compared with the same period last year. As interest rates increase, income from interest earnings is expected to climb significantly.

Wage and salary contributions are improving despite demographic drag. The mature national labor market is expected to contribute further to wage and salary growth in 2018 and 2019. Wage and salary income comprises just over half of aggregate U.S. personal income, and accelerated to a modest 3.1 percent in 2017. Employee compensation appears stronger after data were released for the first quarter of this year, when workers added 4.6 percent to the income they received in the first quarter of 2017. With nonagricultural payrolls slowing over that period (up 1.6 percent in 2017) and consumer price inflation still low (at 2.1 percent), wages and salaries are once again increasing in real terms after failing to do so over the last two years.

Wage and salary growth is weighed down by demographic factors. On an inflation-adjusted, per-worker basis, wages and salaries fell during both 2016 and 2017. Many economists attribute this phenomenon to the retirement of long-tenured veteran employees, who earned relatively high wages and salaries, and their replacement by younger, less experienced employees who earn less.

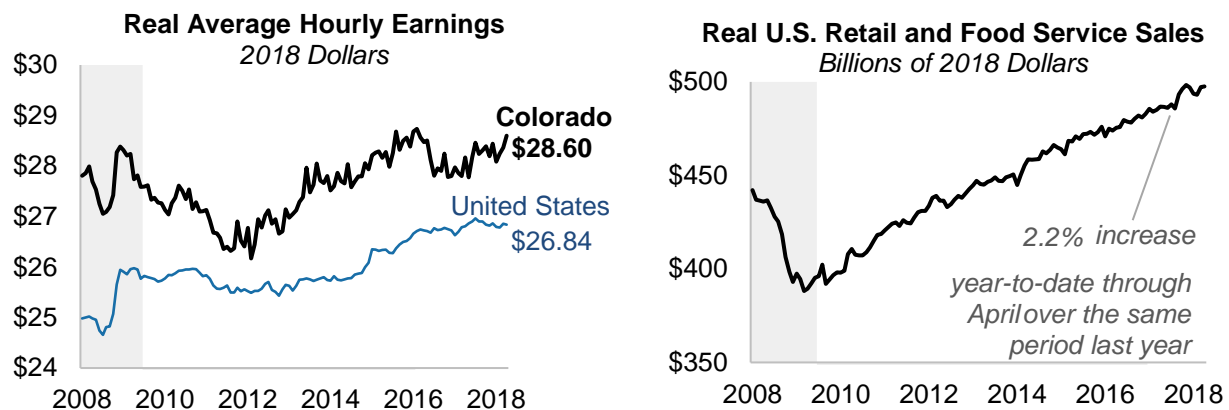
Contributions to Percent Change, Year-over-Year



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Growth in consumer spending is peaking now. Low unemployment, rising wages, and spillovers from the Tax Cuts and Jobs Act present very favorable conditions for near-term consumer spending. Personal consumption expenditures were up about 4.5 percent in the first quarter of the year compared to the same period last year. Colorado's average wage continues to grow and is now nearly 6 percent higher than the average U.S. wage (Figure 17, left); however, rising housing costs currently outpace wage increases, creating cost burdens for households and cutting into disposable incomes. Another downside risk to spending is high gasoline prices, which have risen more than 11 percent in the first quarter year-over-year. Summer travel may be curbed if prices do not moderate.

Figure 17
Wage Growth is Driving Retail Sales



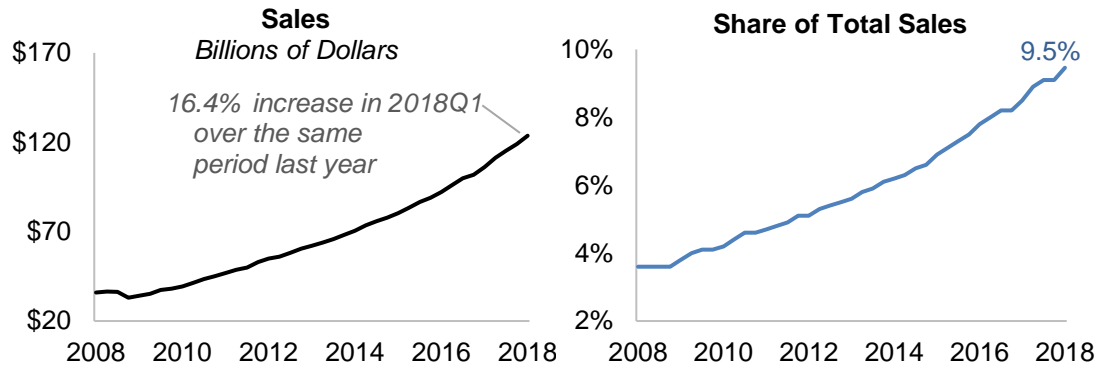
Sources: U.S. Bureau of Labor Statistics (left) and U.S. Census Bureau (right); adjusted for inflation using the consumer price index for all urban areas (CPI-U) to the dollar value of most recent month of data. Data are seasonally adjusted.

The University of Michigan's Index of Consumer Sentiment, a measure of consumers' confidence in the economy, ticked down 0.8 percent in May. The Current Economic Conditions Index also fell between April and May, a 2.7 percent decrease month-over-month. One reason cited for the dampened outlook is smaller anticipated income gains coupled with rising interest rates and inflation.

Retail trade. Inflation-adjusted U.S. retail sales are up 2.2 percent in the first four months of the year compared with the same period last year (Figure 17, right). The increase in sales is largely driven by furniture, gasoline, and e-commerce sales, reflecting housing market improvement and the energy price upswing. Sales of new and used vehicles in the U.S. are up about 0.5 percent year-over-year in April. Driving the growth are foreign light-weight trucks, up more than 18 percent during the same period, while sales of domestic cars are down almost 18 percent. The only industries to experience a decline in sales were sporting goods, hobby, book and music stores; health and personal care stores; and department stores.

The decline in department store sales reflects the ongoing competition between brick-and-mortar stores and online retailers. E-commerce sales were up 16.4 percent in the first quarter of 2018, compared to the same period last year (Figure 18, left). Online sales comprised 9.5 percent of total retail sales in the first quarter, up from 8.5 percent in the first quarter of 2017 (Figure 18, right). There is a big push by big box and department stores to garner more online sales in order to compete with Amazon. Walmart reported a first quarter 33 percent increase in e-commerce sales year-over-year. The company plans to roll out a grocery home-delivery service by the end of this year, a service that Amazon already provides.

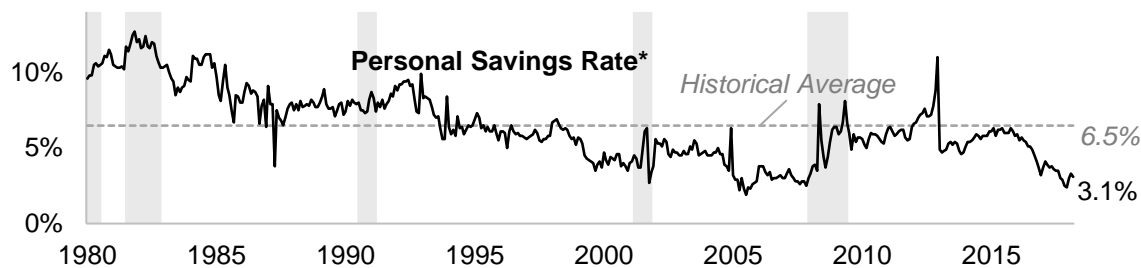
Figure 18
U.S. E-Commerce Sales and Market Share



Source: U.S. Census Bureau. Data are seasonally adjusted.

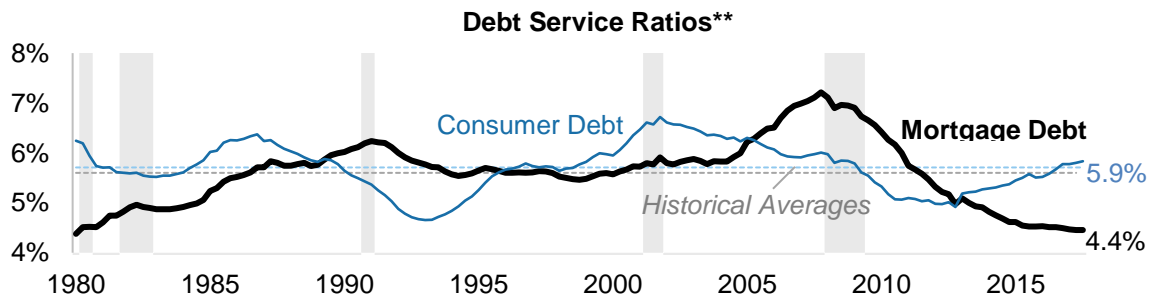
Household saving is down and consumer debt continues to rise. The personal savings rates continue to fall on average across U.S. households, reflecting stronger growth in consumption than in incomes. As of March 2018, the U.S. saving rate reached 3.1 percent, well below the historical average of 6.5 percent (Figure 19, top). The savings rate may rise some in 2018 as the changes under the federal Tax Cuts and Jobs Act boost after-tax incomes for many households. Consumer debt service ratios continue to rise, surpassing historical averages that date back to the 1980s (Figure 19, bottom). Mortgage debt service ratios have stabilized at historical lows on low interest rates and mortgage refinancing, which pulled down the cost of borrowing to purchase a home.

Figure 19
U.S. Household Savings Rate and Debt Ratios



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.

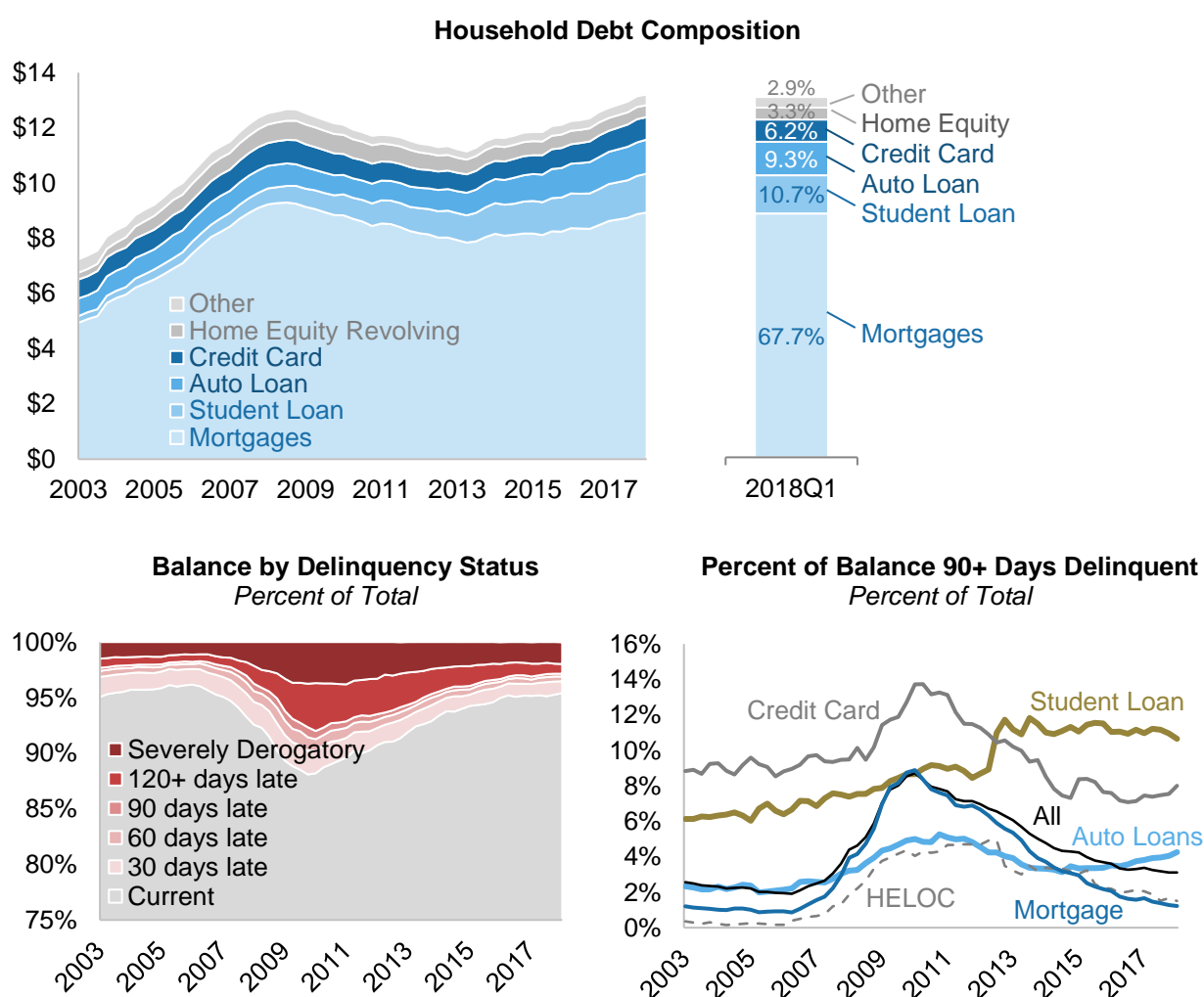


Source: Federal Reserve Board of Governors.

**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 (2017Q4). Data are seasonally adjusted.

Mortgages make up the largest share of household debt, currently accounting for more than two thirds of household debt balances (Figure 20, top). Home price appreciation, rising homeownership rates, and rising interest rates are causing growth in debt balances to accelerate. These trends are expected to continue throughout 2018 as monetary policy tightens and the national housing market strengthens. Credit card and auto loan debt remained the strongest components of growth in household debt in the first quarter of 2018, growing 6.7 percent and 5.3 percent, respectively, over the prior year. By comparison, student loan balances rose 4.7 percent, mortgage debt rose 3.6 percent, and total household debt balances rose 3.8 percent. Rising interest rates will put upward pressure on each of these components.

Figure 20
U.S. Household Debt Composition and Delinquency Rates



Source: Federal Reserve Bank of New York/Equifax.

While household debt continues to rise, the share of debt that is delinquent continues to fall (Figure 20, bottom left). As of the first quarter of the year, 4.6 percent of debt was 30 or more days delinquent, and 3.1 percent was severely delinquent (more than 90 days past due). Delinquency rates for total household debt have been falling since 2010, led primarily by improvements in mortgage

debt payments. By contrast, delinquency rates for auto loans and credit card loans have been rising in recent years, and student loan debt delinquencies remain elevated (Figure 20, bottom right).

Consumer and mortgage debt in Colorado. Average consumer debt for Coloradans held steady in the third quarter of 2017 over the same period a year prior, according to the biannual Consumer Credit Report published by the Federal Reserve Bank of Kansas City. The Kansas City Fed estimate of consumer credit excludes first mortgages and student loans, which typically are not used to fund consumer spending, but includes all other sources of household debt. Colorado consumer credit balances averaged \$19,135 in the third quarter of 2017, relative to \$18,171 nationally.

In the third quarter of 2017, the average mortgage balance of Colorado homeowners rose 4.7 percent to \$238,950, according to Kansas City Fed estimates. Nationally, mortgage balances averaged \$198,024, up 3.1 percent from year-ago levels.

- U.S. personal income is projected to grow 4.8 percent in 2018 and 5.1 percent in 2019. Wage and salary income will continue to dominate personal income, growing 5.3 percent in 2018 and 4.7 percent in 2019.
- Colorado personal income is expected to continue to outpace the nation, growing 5.8 percent in 2018 and 6.3 percent in 2019. Wage and salary income will advance 6.0 percent in 2018 and 6.1 percent in 2019, contributing to broader growth in personal income.
- Supported by rising wages, Colorado retail sales are expected to increase 6.2 percent in 2018 and 5.2 percent in 2019.

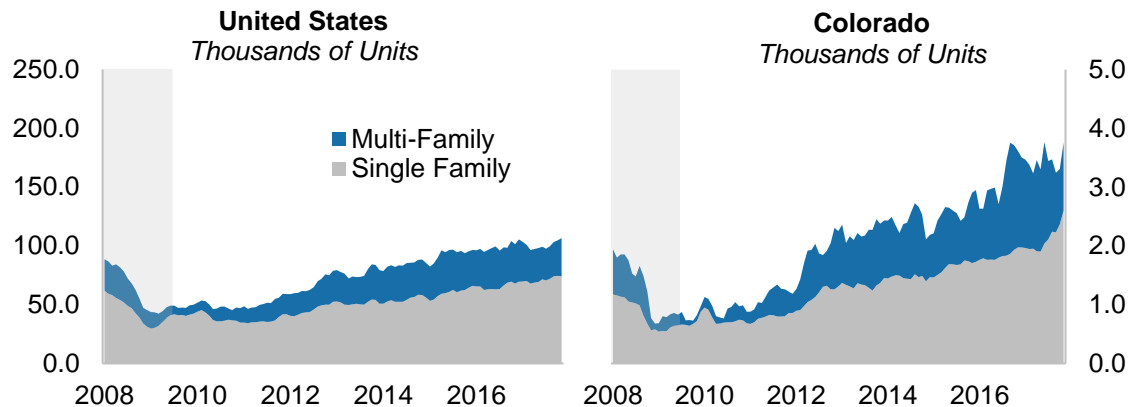
Residential Real Estate

A robust labor market and strong consumer confidence continue to spur housing demand both nationally and in Colorado. However, supply constraints and rising mortgage rates are pushing up prices and sidelining some first-time homebuyers. Colorado's real estate market, particularly along the Front Range, remains one of the hottest in the country.

The national housing market is heating up. Through April 2018, total U.S. building permits pulled by homebuilders increased 8.0 percent compared to the same period one year prior, and construction began on 8 percent more units than year-ago levels (Figure 21, left). The national median home price for homes sold in April 2018 was \$312,400—about \$1,300, or 0.4 percent, higher than in the same month last year. The Case-Shiller 20-city composite home index increased 6.6 percent through March 2018 relative to the same period last year, representing acceleration from the 5.9 percent increase posted in 2017 (Figure 22, left). As shown in Figure 22 (right), rental vacancy rates remain low by historical standards, signaling upward pressure on the cost of home and apartment rents.

A lack of buildable lots, rising construction materials costs, and labor shortages hinder the industry's ability to meet demand in many major metropolitan areas, pushing up home prices and outpricing many first time buyers. In addition, recent mortgage rate increases and expectations for higher rates may slow activity in the near term.

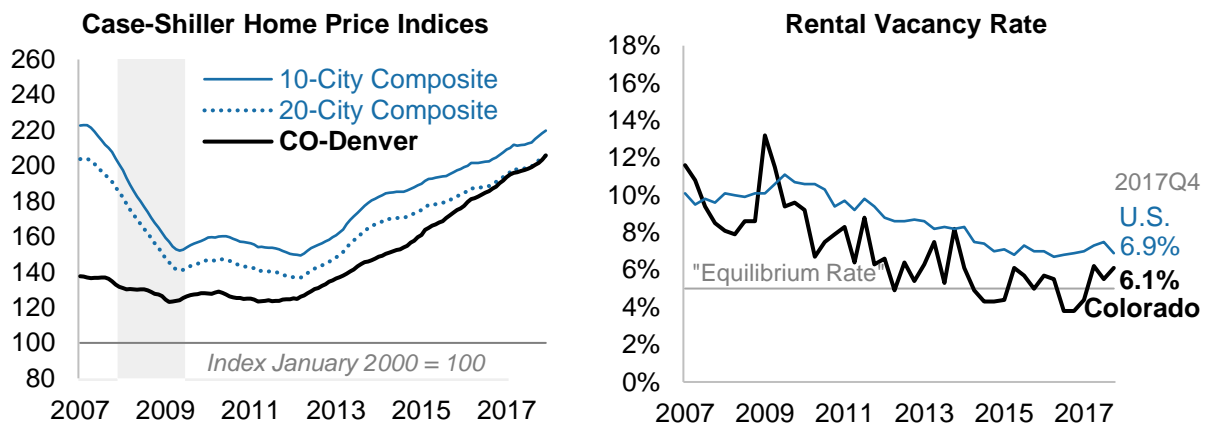
Figure 21
Building Permits Issued for New Residential Construction



Source: U.S. Census Bureau. Seasonally adjusted three-month moving averages through April 2018.

Many Colorado markets are becoming untenable. Colorado's real estate market, particularly for areas along the Front Range, remains one of the hottest in the country; however, record high price gains and historically low inventories are pushing home prices to levels that may disqualify future potential buyers. The number of residential permits issued in Colorado continues to outpace the national market: homebuilders demanded 10.7 percent more housing permits in 2017 than during the previous year, and through April 2018, permits are up 26.2 percent year-to-date over year-ago levels. Single-family construction exhibits consistent growth, well outpacing national trends, and has accelerated over the last eighteen months (Figure 21, right). Multifamily construction remains a much more significant contributor to housing supply than during previous business cycles, particularly in central Denver and a handful of suburban areas where developable land is limited.

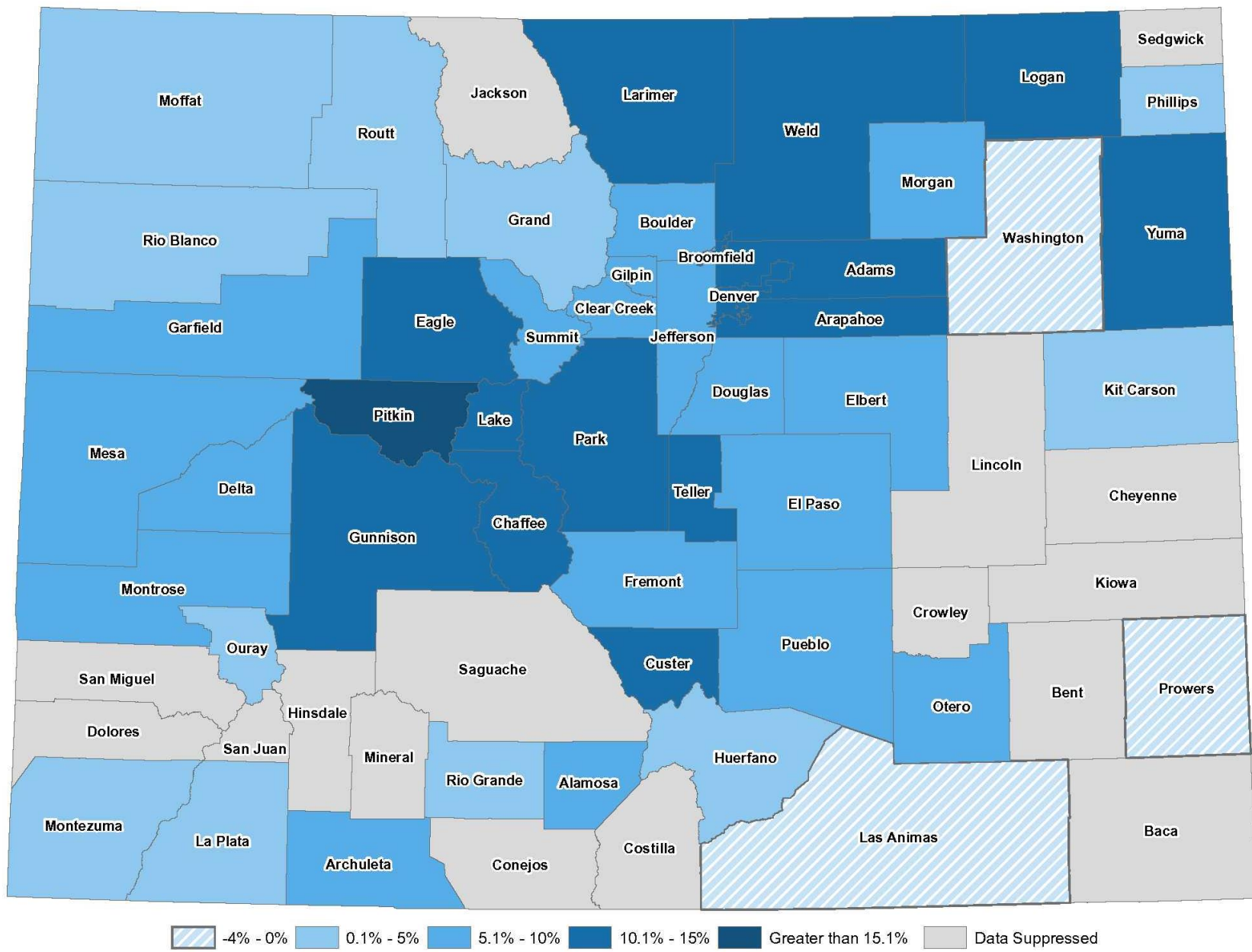
Figure 22
U.S. and Colorado Shelter Price Indicators



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

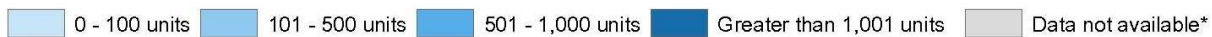
Source: U.S. Census Bureau. Data through the third quarter of 2017

Figure 23
Percentage Change in Home Prices from 2016 to 2017



Data source: Federal Housing Finance Agency (FHFA). Map prepared by Legislative Council Staff.

Figure 24



**Data are unavailable for San Juan and Sedgwick counties and the City and County of Broomfield.
Data source: F.W. Dodge. Map prepared by Legislative Council Staff.*

Colorado has experienced some of the sharpest home price increases in the country. However, home price appreciation and new residential development have been uneven across the state's 64 counties. Figure 23 shows the percentage change in home prices from 2016 to 2017, as reported from the Federal Housing Finance Agency's home price index. Home price appreciation has been the strongest for counties along the Front Range and I-70 mountain corridors. Similarly, the number of new residential units have been concentrated along more populated areas of the Front Range. Figure 24 shows the change in the number of residential units from 2016 to 2017.

- With demand for housing still very high, the number of permitted residential construction projects in Colorado is expected to increase 21.0 percent in 2018 and 4.3 percent in 2019.

Nonresidential Construction

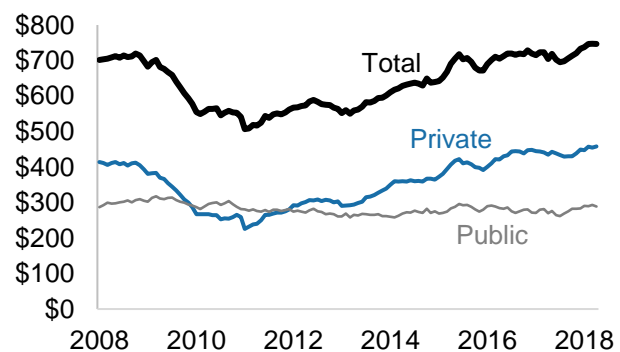
Private and public investment is driving demand for new facilities. Total U.S. nonresidential construction spending picked up momentum through the first four months of 2018, expanding by a seasonally adjusted annual rate of 3.9 percent from the same period one year ago. The largest year-over-year increases occurred in public safety, transportation, health care and educational projects, while spending on manufacturing and power structures registered a decline. Both public and private categories have been contributing to the improvement. Strong demand for oil and gas drilling permits has boosted nonresidential construction spending in Colorado. Figure 25 shows U.S. nonresidential construction spending for public and private projects.

Investment in private nonresidential projects has grown modestly through the first four months of the year compared with same period one year ago, increasing by 3.0 percent. Private spending on power-related and manufacturing building structures continued to fall significantly down from the same period one year ago, but investment in transportation related facilities more than offset those declines. Spending on transportation facilities was up 42.5 percent in April 2018 from the same month last year.

Spending on public nonresidential construction projects continues to be encouraging, increasing 7.3 percent in April 2018 from the same month one year ago. Improvement has been broad-based, posting strong gains across 11 of the 12 public nonresidential construction categories. The largest year-over-year increase was in office projects, up 30.5 percent. Nationally, public agencies have stepped up spending in education and public safety projects.

Major local nonresidential projects are on the way. The value of nonresidential projects that broke ground in Colorado between January and April this year was nearly 40 percent greater than those that started during the same period last year, though weather effects associated with a mild winter may partially account for strong growth. Just over half of this growth is attributed to an increase in manufacturing projects in Weld County. Higher oil prices have prompted energy companies to

Figure 25
U.S. Nonresidential Construction Spending
Billions of Dollars



Source: U.S. Census Bureau. Monthly data are seasonally adjusted, annualized, and through April 2018.

increase activity to bolster their inventory position. Nonresidential construction will continue to expand in 2018. Major projects scheduled to start in 2018 include the Denver International Airport terminal upgrade, Market Street redevelopment, and the \$750 million Redbarre Campus project in Parker. In addition, some of the work from Denver's \$937 million infrastructure bonds, approved in last November's elections, will commence this year. Some of the projects scheduled to start in 2019 include the National Western Center project and three new buildings at Colorado State University.

Price effects suggest downside risk. Players in the nonresidential construction market are monitoring recently imposed tariffs on steel and aluminum that are expected to inflate construction materials prices over the next several months. In addition, rising interest rates and wage pressures are putting upward pressure on the price of new construction projects. If these costs increase too quickly, momentum in the industry may significantly slow.

- Supported by demand for commercial and industrial building and rising construction costs, the value of Colorado nonresidential construction projects is expected to increase 14.2 percent in 2018 and 6.7 percent in 2019.

Energy Markets

Oil prices are providing a significant boost to the energy sector, which has increased activity and production in response. Crude oil prices have increased 45.7 percent since one year ago on strong global demand and geopolitical risk (Figure 26, top left). Natural gas production and prices have held steady year-to-date, and coal production has seen slight increases over 2017 levels.

Future oil price trends are uncertain. A growing global economy and production cuts by OPEC member states and Russia have conspired to cut the global crude inventory glut. Global oil consumption increased by more than 5 percent over the past three years, and global consumption is expected to exceed the unprecedented level of 100 million barrels per day later this year. OPEC nations and Russia have withheld oil from the global markets since the beginning of 2017 in an attempt to stabilize oil prices. This effort has been sustained and has helped to reduce the stock of crude oil to its five-year average (Figure 26, bottom right).

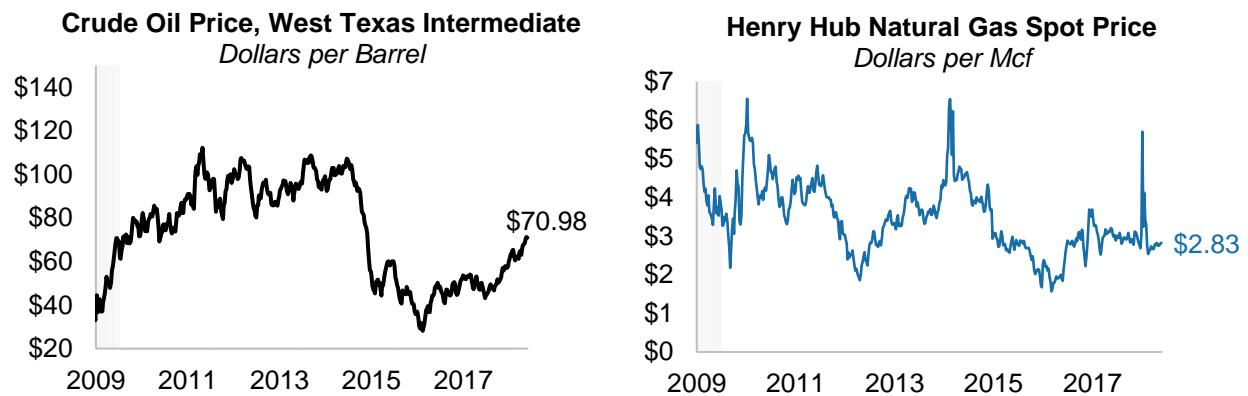
Because of their massive unexploited reserves, OPEC member states and Russia could choose to increase production at their next meeting on June 22. OPEC may announce production increases to lower oil prices in efforts to keep American production subdued. However, Saudi Arabia is preparing to sell shares in the state oil company, Saudi Aramco, and higher oil prices would increase the market capitalization of the firm. There are upside and downside risks surrounding OPEC production levels. Based on futures contracts, commodity traders expect lower oil prices for the remainder of the year.

The reimposition of U.S. sanctions on Iran is likely to have a limited impact on the amount of Iranian oil reaching the global market. While the United States and European allies are expected to refuse to buy oil from Iran, purchases from China, Russia, and African nations are expected to continue. The reinstated sanctions will constrain investment in infrastructure and technology that would make Iran's oil and gas sector more productive in the future, but the short-term impact on global oil supplies will be limited. Elsewhere, Venezuela is going through political and economic crisis, which has caused its oil production to decline by 500,000 barrels per day. Should the country bring more production back online, the additional supply will drive prices down.

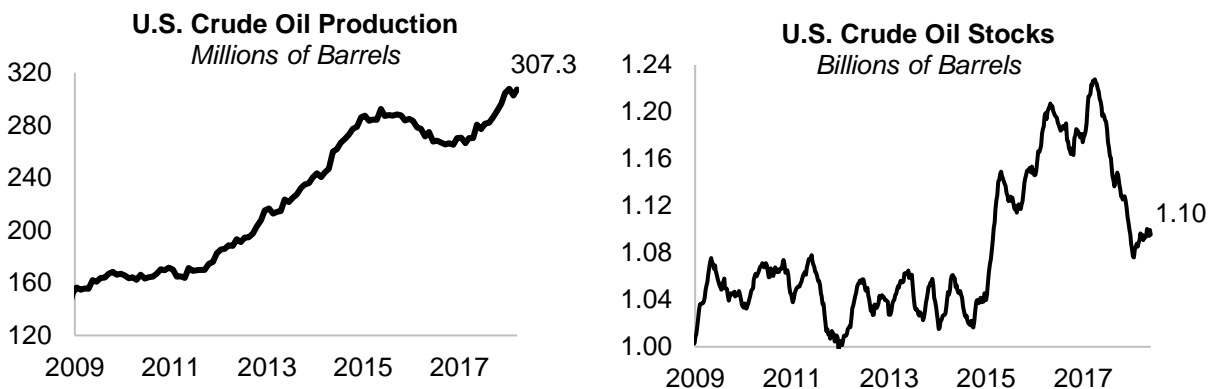
The oil price surge is buttressing U.S. hydrocarbons producers. The United States increased its oil production by 13.7 percent (Figure 26, bottom left) in the first three months of 2018 compared with the same period in the previous year. Increased supply has been absorbed by rising demand.

Natural gas prices averaged \$2.84 per thousand cubic feet (Mcf) in the last week of May, down 11.0 percent from \$3.18 during the same week in 2017 (Figure 26, top right). Prices temporarily spiked to \$4.28 during the first week of January 2018 due to extremely cold weather in much of the nation.

Figure 26
Selected Indicators of Oil and Gas Industry Activity



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

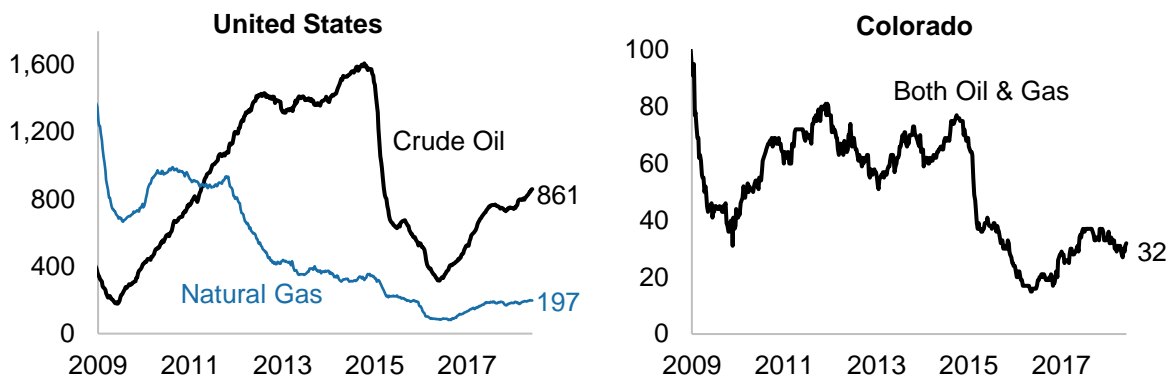


Source: U.S. Energy Information Administration. Data are shown as a three-month moving average and are not seasonally adjusted.

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

Nationally, new drilling activity, as measured by active drilling rigs (Figure 27, left), increased throughout 2017 and into 2018, reaching a total of 861 oil rigs and 197 natural gas wells in the first week of June. Active drilling rig counts were 15.6 percent higher in June 2018 than in June 2017.

Figure 27
Active Rig Counts



Source: Baker Hughes. Data are not seasonally adjusted.

Oil prices are high enough to boost Colorado producers, but natural gas prices are not. Energy industry investment in Colorado has accelerated modestly and is expected to rise further after the recent increase in oil prices. In a survey of oil producers published by the Tenth District of the Federal Reserve, which includes Colorado, producers reported that a price of \$52 per barrel of oil was profitable in the first quarter of 2018. Surveyed firms plan to increase exploration and development and expect higher profits in 2018. A price of \$2.92 per million BTU would be needed to make it profitable to extract natural gas, according to the survey.

Firms in the Tenth District also reported that they anticipate a mild effect from steel and aluminum tariffs on their business. Over half of respondents indicated that wage increases for skilled labor were expected. About forty percent of firms expected that drilling inputs and logistics will also contribute to modest cost pressures in 2018.

Coal production is back from the brink. According to the Colorado Department of Natural Resources, coal production in Colorado increased 18.9 percent in 2017. The two largest coal mines in Colorado increased production significantly in 2017. The West Elk and Foidel Creek mines increased production by 16.9 percent and 48.1 percent, respectively, over year-ago levels. Similar to national trends, production at these two mines were depressed in 2016, while their parent companies, Arch Coal and Peabody Energy, went through bankruptcy.

Global Economy

Global signals are mixed, and downside risks are significant. The global economy continues to grow, albeit at an underwhelming pace. The U.S. is driving growth among advanced economies for now, with pro-cyclical expansionary fiscal policies boosting growth in 2018. Emerging markets are a mixed bag, with increased commodity prices helping some and a stronger U.S. dollar hurting others. Productivity growth remains slow across the board.

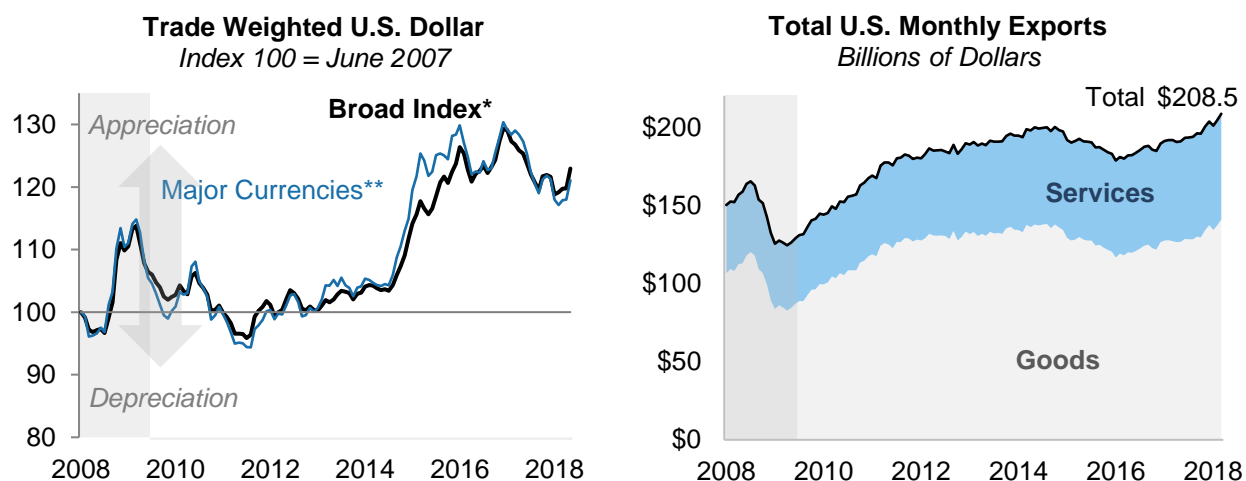
Downside risks to the global economy remain elevated, stemming from economic and geopolitical tensions. Uncertainty surrounding international trade negotiations has upset global markets. Protectionist sentiment is on the rise, threatening global trade with the potential for new tariffs and non-tariff barriers. Tensions with North Korea have eased for now, but the U.S. has reimposed

sanctions on Iran after pulling out of the Iran nuclear deal, which may increase tensions in the Middle East and adversely affect oil supplies. The impending Mexican presidential elections, in which a populist nationalist candidate is firmly in the lead, could raise political tensions in North America amid NAFTA negotiations. Assassinations of political candidates and journalists number in the dozens in the lead up to Mexico's election, proving criminal groups maintain considerable power in the country.

The International Monetary Fund's April World Economic Outlook projects global growth to tick up to 3.9 percent this year and remain steady in 2019. The growth projections for both advanced and emerging and developing economies were revised upwards from the October 2017 forecast. On the global level, the second half of 2017 saw an increase in both world trade volume and industrial production. Advanced economies benefitted from higher investment spending, while private consumption in emerging and developing economies helped accelerate growth.

Dollar appreciation and commodity price inflation have downstream effects worldwide. After hitting its lowest point in the last three years during February, the dollar has rebounded and is gaining momentum against other currencies. A strong U.S. economy and slow growth in Europe, Japan, and some key emerging markets, such as Brazil, caused the trade-weighted dollar index to quickly rebound to its highest level in a year (Figure 28, left). Several emerging markets reacted by raising interest rates to put the brakes on their falling currencies, including Turkey, Argentina, and Brazil. Rate hikes are expected to dampen emerging market growth in the near term and create headwinds for the global economy.

Figure 28
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 not adjusted for inflation.

Commodity prices are on the rise. A combination of OPEC tightening supplies, increased demand, and sanctions on oil-producing Iran and Venezuela have curbed oil supply, raising prices to the highest level since the 2014 crash. Crop prices remain volatile surrounding ongoing international trade negotiations, alongside dry conditions in key production areas. Global gold prices remain relatively strong but with a worsening outlook.

Cracks are emerging in the powerhouse Chinese economy. China's economy is slowing, but growth continues to meet benchmarks amid suppressed expectations. The government set a 6.5 percent growth target for 2018, after almost hitting the 7 percent mark last year. Growth exceeded expectations in the first quarter of the year at a 6.8 percent annualized rate. The country's debt-to-GDP ratio is close to 300 percent, so lower growth targets are aimed at mitigating financial risk. Additionally, industrial production is down in the country after more stringent environmental restrictions have taken effect. The implementation of steel and aluminum tariffs and the impending imposition of further tariffs will likely put further downward pressure on the Chinese economy.

Political risk again mars the European outlook. Europe's economy grew 2.8 percent last year, representing acceleration by a full percentage point from the year prior. For the first year since the global financial crisis, all countries in the region posted positive economic growth. The IMF projects deceleration in 2018 and 2019, to 2.6 and 2.2 percent respectively. The European Central Bank continues to pursue a course of expansionary monetary policy and has kept interest rates low. This, combined with a decrease in unemployment, has bolstered domestic demand, although wages remain stagnant.

Political uncertainty in Italy and Spain present downside risks to the region. Italy is undergoing significant political upheaval, having remained without a new government for three months. Some analysts fear an Italian exit from the Eurozone on the basis of new national leaders' antiestablishment rhetoric. Italy has one of the highest debt-to-GDP ratios among developed countries; within the Eurozone, it is second only to Greece. Similar to the Greek debt crisis, a financial crisis in Italy would have consequences that extend throughout the region. The Spanish prime minister was ousted on a vote of no confidence after his party was found guilty of corruption. Despite the political tensions and temporary government that will be put in place, this did not shake markets like the Italian political upheaval has.

International Trade

The uncertainty surrounding trade negotiations has generated significant global downside risk. The U.S. imposed tariffs on steel and aluminum, as well as \$50 billion in tariffs on Chinese exports. China, Canada, and Mexico have all announced retaliatory tariffs on U.S. exports in response, targeting steel, aluminum, and a bevy of agricultural products. Tariffs imposed on NAFTA partners threaten the already contentious trade talks. With Mexican and U.S. elections both quickly approaching, negotiations could drag on into 2019. Alongside these new risks, the U.S. trade deficit decreased to \$49.0 billion in March from \$57.7 billion in February, largely due to a record-setting industrial supplies and materials export numbers—which includes crude oil.

NAFTA negotiations may have significant effects for the U.S. and Colorado. The U.S. has called for a renegotiation of NAFTA, a three-party trade agreement between the U.S., Mexico, and Canada. The U.S. objective is to bolster domestic manufacturing by mandating that more goods traded between the

three countries contain U.S. component parts. Additionally, the Trump Administration is seeking to abolish dispute-resolution mechanisms and establish a sunset clause that would require the three countries to renew the trade deal every five years.

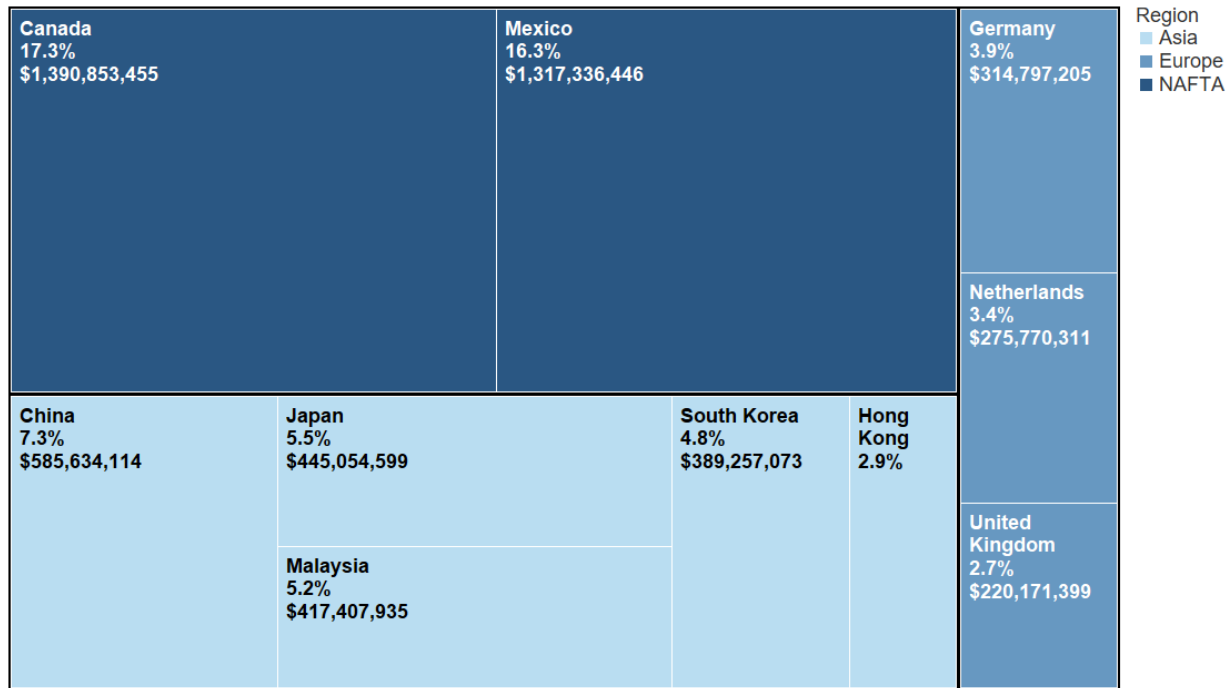
Congress approved a deadline for the approval on a renegotiated deal for May 2018, which since has come and gone. Following the imposition of tariffs on steel and aluminum imports from both Canada and Mexico, both U.S. trade partners retaliated by proposing tariffs on U.S. goods, including steel, aluminum, and agricultural products. Upcoming elections may complicate future negotiations. Mexico's presidential election will be held July 1, and a nationalist candidate who has threatened to be much tougher in talks with the U.S. enjoys a strong lead in the polls.

Tariffs are targeting the trade deficit. President Trump has stated that one of his policy priorities is lowering U.S. trade deficits. The U.S. has imposed tariffs on steel and aluminum imports, at rates of 25 percent and 10 percent respectively, in an effort to boost domestic manufacturing. According to the Department of Commerce, the U.S. is the largest importer of steel in the world, sourcing the product from 85 different countries.

The recently announced tariffs on imports from China target the trade deficit between the two countries. China is among the nation's largest trade partners and accounts for over half of the U.S. trade deficit: the value of U.S. imports from China exceeded the value of exports to China by \$375 billion in 2017. The Asian giant is a target in part because of its violations of intellectual property protections, which are of unique importance to American businesses. The U.S. tariffs target industrial products and technology exported from China, while Chinese tariffs on U.S. goods target agricultural and energy products.

Tariff impacts on Colorado will vary across industries. The threat of tariffs causes prices on affected goods to fluctuate, volatility which will likely persist now that tariffs are implemented. The Colorado steel industry stands to benefit from higher prices and tariffs. However, tariffs will create higher costs for the construction, transportation, and machinery industries. The top five countries from which Colorado imported iron and steel products as of March 2018 include Mexico, Canada, Italy, China, and Germany—all of which are subject to the metals tariff. Aluminum tariffs have already driven up the cost of aluminum cans, a product both manufactured and purchased in the state and an important part of the state's craft beer industry. The 25 percent tariffs on U.S. agricultural products, including soy, wheat, corn, beef, pork, and dairy products, may put downward pressure on prices, further straining an already struggling agriculture industry. Colorado's trade relationships are disproportionately skewed toward North American international trade partners (Figure 29). The tariffs may or may not persist depending on further negotiations; however, if they do persist, any effects to the state's economy will be felt over one or more years as businesses adjust to the higher price environment.

Figure 29
Top Ten Colorado Export Partners in 2017



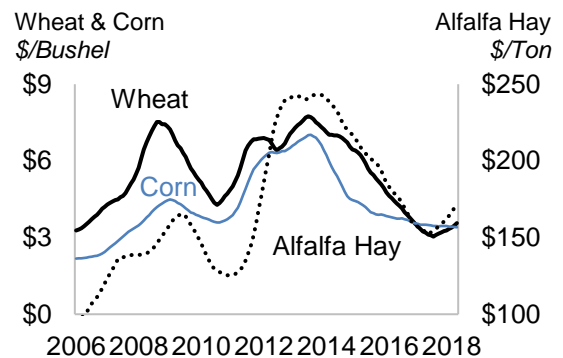
Source: WiserTrade.

Agriculture

Ongoing trade negotiations have upset commodity markets, pushing prices up and generating uncertainty in a highly globalized industry. These pressures, combined with increasingly tighter monetary policies, a rising dollar and oil prices, and drought conditions in much of the state, present downside risks for Colorado agriculture.

Agriculture prices have turned a corner. Commodity prices are mostly up in March in year-over-year comparisons (Figure 30). Winter wheat prices increased by about 34 percent from March 2017 to March 2018. Prices for hay are up 24 percent over the same period, potentially due to drought conditions choking supply. March corn prices are up over February of this year, but down from March 2017. Cattle prices remained stable from February to March this year, as well as year-over-year, at \$125 dollars/cwt in all three reporting periods. Hog prices are down from the beginning of the year, as well as in year-over-year comparisons. This could be a function of the threat of tariffs by China on U.S. pork products and low pork prices in China fueling domestic consumption rather than imports.

Figure 30
Prices Received for Colorado Crops

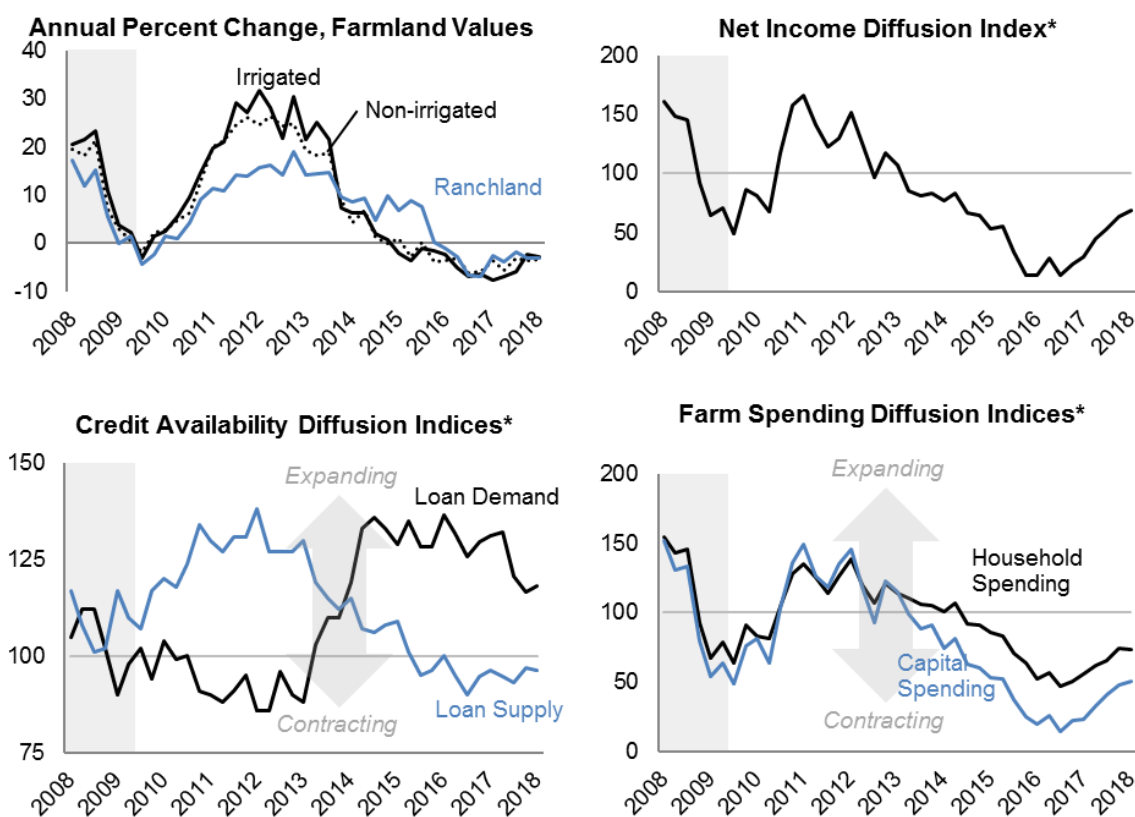


Source: USDA National Agriculture Statistics Service. Data shown as a 12-month moving average through March 2018.

Poor credit conditions remain a significant problem. Cash flow shortages and credit conditions continue to burden producers. With a persistent decline in farm income and increasing operational costs, loan demand is up and credit supply is down. Low levels of liquidity and already unsustainable balance sheets have led some producers to sell off assets, be denied for loans, or declare bankruptcy. The U.S. Department of Agriculture (USDA) forecasts that the ratio for farm debt to income will increase to three this year at commercial banks, the highest it has been since 1983. Family farmer bankruptcy filings were up 63 percent in the first quarter of 2018 compared with the same period last year. On the upside, nonirrigated farmland and ranchland values are up over the previous year in the first quarter, 5 and 7 percent respectively, in the area including Colorado, northern New Mexico, and Wyoming.

Drought risk burdens the agriculture outlook. Drought conditions persist throughout most of the southern region of Colorado, putting crop yields and livestock at risk. As of May 22, about 34 percent of the state is in “extreme” or “exceptional” drought, with almost 79 percent of the state at least “abnormally dry” (see Figure 32). Different water conditions in the northern and southern halves of the state are attributable to snowpack levels: the northern part of the state received between 90 and 109 percent of normal October to May precipitation, while the southern part received less than 50 percent.

Figure 31
Selected Indicators of Agricultural Credit Conditions in the Tenth District



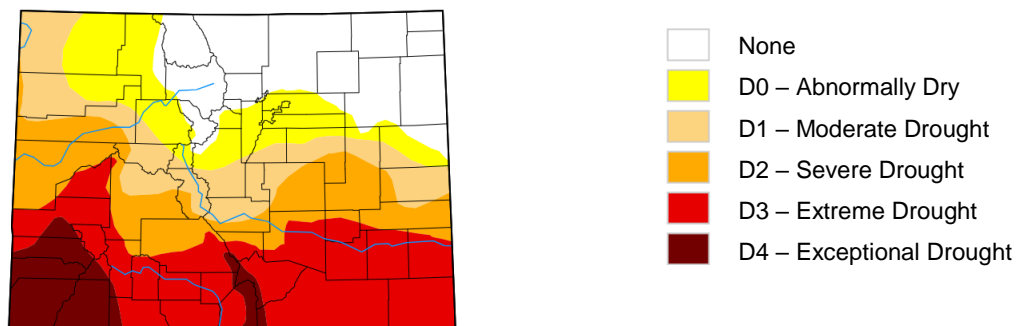
Source: Federal Reserve Bank of Kansas City, Quarterly Survey of Agricultural Credit Conditions. Data are through the first quarter of 2018.

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

Despite a 9 percent increase in acres planted from 2017 to 2018, winter wheat yield in Colorado is forecast by the USDA to decrease by almost 4 percent in 2018. As of late May, 29 percent of pasture and range conditions were listed as poor or very poor. Poor pasture conditions this spring spurred livestock sell-offs and diminished feed stocks, leading to higher prices for hay and corn. The U.S. Seasonal Drought Outlook expects the drought to persist throughout much of Colorado through the end of August.

The last major drought occurred in the 2012-2013 season. During May 2012, the entire state was under drought conditions, leading to almost 100,000 failed and about 125,000 prevented planting acres. The drought persisted in 2013, as evidenced in Figure 31, and resulted in lower cash receipts for crops that year. From 2012 to 2013, total cash receipts for crops dropped by 24 percent, while receipts for wheat and corn dropped by 43.8 and 32.4 percent, respectively. Net income dropped, resulting in increased credit demand. Figure 31 (bottom left) shows the inversion of credit supply and demand in 2014, just one year later. Overall financial conditions were more favorable before the 2013 drop than current conditions; however, drought conditions this year are not as severe and are concentrated in the southern part of the state. Table 16 compares drought indicators in May for 2012, 2013, and 2018.

Figure 32
Colorado Drought Monitor Map



Source: The U.S. Drought Monitor is jointly produced by the national Drought Mitigation Center at the University of Nebraska-Lincoln, the United States Department of Agriculture, and the National Oceanic and Atmospheric Administration. Map courtesy of NDMC-UNL, current as of May 22, 2018.

Table 16
Colorado Drought Indicators

	May 2012	May 2013	May 2018
Drought Levels	100%	100%	80%
Mountain Snowpack*	23% of median	83% of median	46% of median
Pasture Conditions	31% poor to very poor	45% poor to very poor	29% poor to very poor
Top Soil Moisture	39% short to very short	54% short to very short	44% short to very short

Source: USDA's National Agricultural Statistics Service Crop Progress & Condition reports.

*Mountain snowpack reported by USDA's Natural Resources Conservation Service Colorado.

Summary

The near term economic outlook is bright, though risks cloud the longer term outlook. The U.S. and Colorado economies will continue to expand in 2018 and 2019, with growth expected to slow significantly in late 2019 and 2020. National and state economies will wrangle with rising inflationary pressures and tighter labor markets, which will pose challenges to business growth and profits over the longer term. The passage of the federal Tax Cuts and Jobs Act boosted business investment in recent months that will promote future productivity gains. However, this near-term boost may have pulled economic activity forward, at the cost of steadier and more consistent growth over the longer term. Additional interest rate hikes may quell inflationary pressures, yet rate hikes are likely to heighten financial market volatility as investors shift strategies.

Teamed with federal tax cuts, higher wages will sustain consumer activity throughout the forecast period and will partially offset demographic drags on income and consumption. In Colorado, high housing costs will continue to constrain net migration to the state, and will dampen consumer spending unless strong wage gains can offset the rising cost of living.

Risks to the Forecast

Several factors could result in stronger or weaker economic activity than forecast. These risks are balanced over the next year and skewed to the downside in the latter half of the forecast period.

Downside. The economy is at or near capacity in most industries, signaled by the tightening of the labor market and accelerating wage pressures. 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 is expected to tighten monetary policy more quickly than in the past. This course of action has been communicated consistently and is likely priced into most markets. Depending on the pace of tightening, however, consumer spending and business investment could be suppressed more than expected. Additionally, higher interest rates could produce unexpected shifts in investor behavior that could create shocks to U.S. and global financial markets.

Global political events could also produce downside economic shocks. Tensions between the U.S. and China over tariffs could upset the U.S. relationship with its most significant trading partner. Similarly, the renegotiation of NAFTA could destabilize trade with next two most important partners, Canada and Mexico.

Upside. The outlook for business has brightened as an effect of the Tax Cuts and Jobs Act, and market volatility offers near-term upside for savvy investors. The outcomes of trade negotiations could further boost business activity in particular sectors, while increasing energy prices may benefit Colorado disproportionately. 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 increases or if investors do not curtail their economic contributions in response to higher interest rates.

Table 17
National Economic Indicators

Calendar Years	2013	2014	2015	2016	2017	Legislative Council Staff Forecast		
						2018	2019	2020
Real GDP (<i>Billions</i>) ¹	\$15,612	\$16,013	\$16,472	\$16,716	\$17,096	\$17,592	\$17,997	\$18,375
Percent Change	1.7%	2.6%	2.9%	1.5%	2.3%	2.9%	2.3%	2.1%
Nonfarm Employment (<i>Millions</i>) ²	136.4	138.9	141.8	144.3	146.6	148.7	150.3	151.7
Percent Change	1.6%	1.9%	2.1%	1.8%	1.6%	1.4%	1.1%	0.9%
Unemployment Rate	7.4%	6.2%	5.3%	4.9%	4.4%	3.9%	4.1%	4.3%
Personal Income (<i>Billions</i>) ¹	\$14,073.7	\$14,818.3	\$15,553.0	\$15,928.7	\$16,427.3	\$17,216	\$18,094	\$18,926
Percent Change	1.1%	5.3%	5.0%	2.4%	3.1%	4.8%	5.1%	4.6%
Wage and Salary Income (<i>Billions</i>) ¹	\$7,116.7	\$7,476.8	\$7,858.9	\$8,085.3	\$8,351.3	\$8,794	\$9,207	\$9,603
Percent Change	2.7%	5.1%	5.1%	2.9%	3.3%	5.3%	4.7%	4.3%
Inflation ²	1.5%	1.6%	0.1%	1.3%	2.1%	2.6%	2.3%	2.1%

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).

Table 18
Colorado Economic Indicators

Calendar Years	2013	2014	2015	2016	2017	Legislative Council Staff Forecast		
						2018	2019	2020
Population (<i>Thousands, as of July 1</i>) ¹	5,262.6	5,342.3	5,440.4	5,530.1	5,607.2	5,680.0	5,753.9	5,828.7
Percent Change	1.5%	1.5%	1.8%	1.6%	1.4%	1.3%	1.3%	1.3%
Nonfarm Employment (<i>Thousands</i>) ²	2,380.8	2,464.0	2,541.7	2,602.6	2,658.7	2,711.9	2,755.3	2,793.8
Percent Change	3.0%	3.5%	3.2%	2.4%	2.2%	2.0%	1.6%	1.4%
Unemployment Rate ²	6.9%	5.0%	3.9%	3.3%	2.8%	2.9%	3.1%	3.2%
Personal Income (<i>Millions</i>) ³	\$246,648	\$267,225	\$282,665	\$288,103	\$300,006	\$317,406	\$337,403	\$356,635
Percent Change	5.4%	8.3%	5.8%	1.9%	4.1%	5.8%	6.3%	5.7%
Wage and Salary Income (<i>Millions</i>) ³	\$129,597	\$138,678	\$146,635	\$151,322	\$159,120	\$168,667	\$178,956	\$188,083
Percent Change	3.7%	7.0%	5.7%	3.2%	5.2%	6.0%	6.1%	5.1%
Retail Trade Sales (<i>Millions</i>) ⁴	\$83,569	\$90,653	\$94,920	\$98,812	\$102,863	\$109,241	\$114,921	\$120,093
Percent Change	4.4%	8.5%	4.7%	4.1%	4.1%	6.2%	5.2%	4.5%
Housing Permits (<i>Thousands</i>) ¹	27.3	29.3	30.5	37.1	41.1	49.7	51.9	51.6
Percent Change	27.9%	7.3%	4.3%	21.6%	10.7%	21.0%	4.3%	-0.6%
Nonresidential Building (<i>Millions</i>) ⁵	\$3,624	\$4,351	\$4,982	\$5,948	\$5,843	\$6,673	\$7,120	\$7,426
Percent Change	-1.9%	20.1%	14.5%	19.4%	-1.8%	14.2%	6.7%	4.3%
Denver-Boulder-Greeley Inflation ⁶	2.8%	2.8%	1.2%	2.8%	3.4%	3.1%	2.9%	2.7%

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.

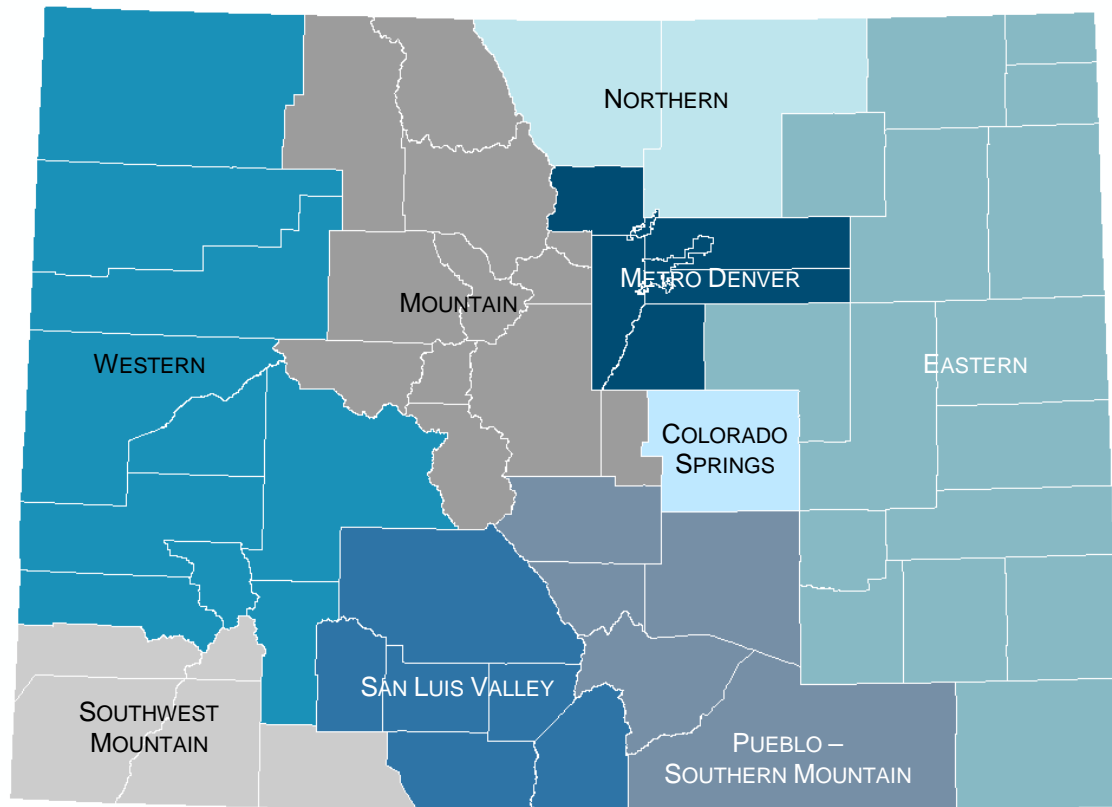
³U.S. Bureau of Economic Analysis. Personal income and wages and salaries not adjusted for inflation. The Legislative Council Staff forecast begins in 2017.

⁴Colorado Department of Revenue. The Legislative Council Staff forecast begins in 2016.

⁵F.W. Dodge.

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

Colorado Economic Regions



A Note on Data Revisions

Economic indicators reported in this forecast document are often revised by the publisher of the data and are therefore subject to change. Employment data are based on survey data from a “sample” of individuals representative of the population as a whole. Monthly employment data are based on the surveys received at the time of data publication and data are revised over time as more surveys are collected to more accurately reflect actual employment conditions. Because of these revisions, the most recent months of employment data may reflect trends that are ultimately revised away. Additionally, employment data undergoes an annual revision, which is published in March of each year. This annual revision may affect one or more years of data values.

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

Metro Denver Region

The first four months of 2018 offered additional growth to the metro Denver region's booming economy. Employment growth across the seven-county region is up year-to-date over 2017 levels, while the unemployment rate is holding steady at historically low rates. Without slack in the labor market, wage pressures continue to rise. The dearth of housing in the area has pushed home prices up even further, and subsequently excluded some people from the housing market and the region. Housing permit growth is up thus far in 2018; however, demand continues to overwhelm supply. As housing costs price many out of the area and the population ages in place, population growth is expected to slow, which may slow economic activity over the longer-term. Economic indicators for the region are summarized in Table 19.



Table 19
Metro Denver Region Economic Indicators
Adams, Arapahoe, Broomfield, Boulder, Denver, Douglas, and Jefferson Counties

	2014	2015	2016	2017	YTD 2018
Employment Growth ¹	3.7%	3.6%	2.6%	1.9%	2.4%
Unemployment Rate ²	4.7%	3.6%	3.0%	2.7%	2.7%
Housing Permit Growth ³					
Denver-Aurora MSA Single-Family	16.3%	17.8%	12.2%	3.8%	23.1%
Boulder MSA Single-Family	17.7%	74.2%	10.2%	-4.3%	4.2%
Nonresidential Construction Growth ⁴					
Value of Projects	10.5%	25.5%	26.9%	-14.6%	-0.4%
Square Footage of Projects	3.9%	43.6%	6.4%	-18.5%	-38.3%
Level (<i>Millions</i>)	14,745	21,170	22,535	18,361	6,653
Number of Projects	25.1%	19.7%	8.4%	250.8%	-16.9%
Level	936	1,120	1,214	870	248
Retail Trade Sales Growth ⁵	8.4%	6.2%	NA	NA	NA

MSA = Metropolitan statistical area. NA = Not available.

¹U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through April 2018.

²U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through April 2018.

³U.S. Census. Growth in the number of residential building permits. Data through April 2018.

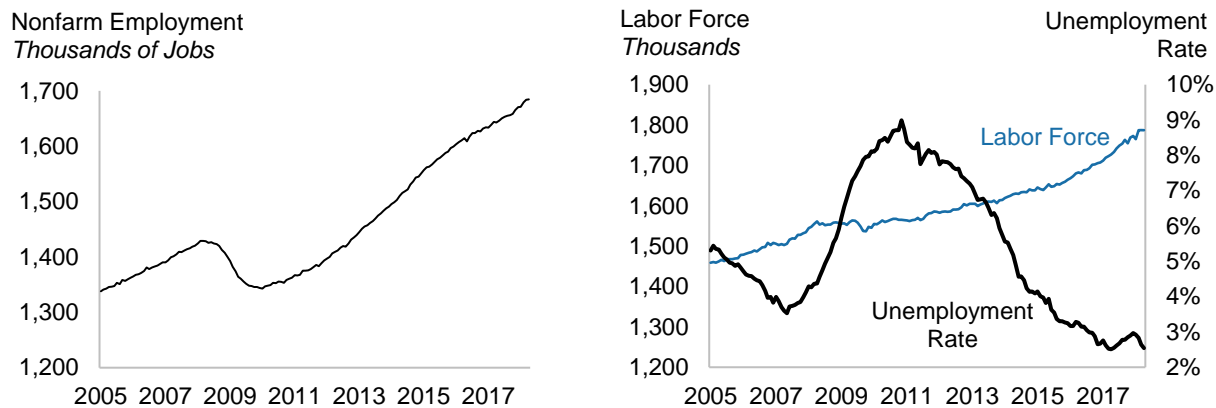
⁴F.W. Dodge. Data through April 2018.

⁵Colorado Department of Revenue. Data through December 2015.

The labor market in the metro Denver region followed the national trend during the first four months of the year, with an increasing number of workers entering the labor market as job opportunities improve. Employment growth was up 2.4 percent year-to-date over the same period last year, while the unemployment rate maintained 2017 levels (Figure 33). Early data suggest that employment growth has accelerated for the first time since 2014, even as population growth in the region has slowed.

The unemployment rate continues to signal that the area economy is at full employment. The extra slack in the labor market and a slight decline in the total labor force led to a stable unemployment rate of 2.7 percent year-to-date, the same level as 2017. The metro Denver region's unemployment rate is lower than the statewide average of 3.0 percent. Approximately 30 percent more companies in Denver report that they are adding jobs as of April, compared to the same month last year, which may help maintain this historically low rate of unemployment.

Figure 33
Metro Denver Region Labor Market Activity

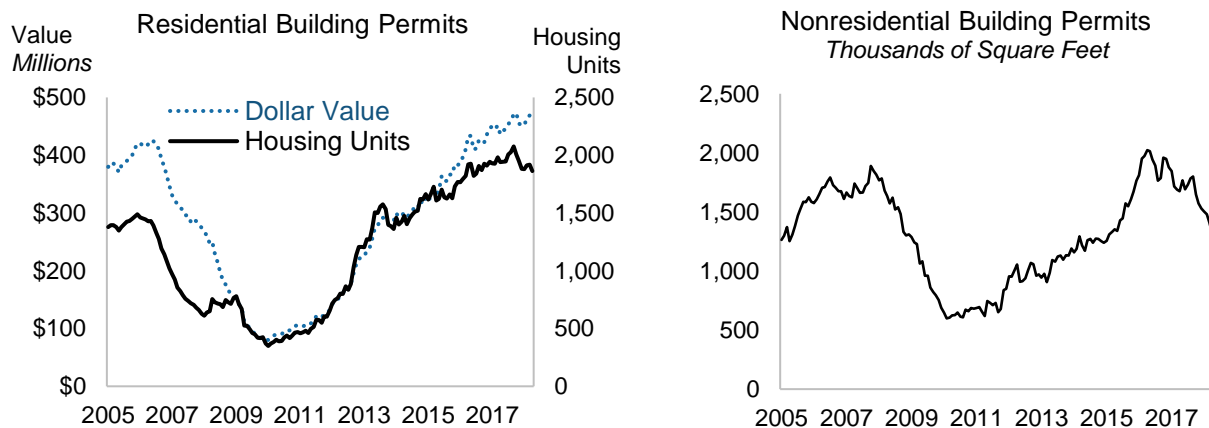


Source: U.S. Bureau of Labor Statistics; CES (left) and LAUS (right). Data are seasonally adjusted and are through April 2018.

Residential construction activity remained elevated at the start of 2018, owing to strong demand and mild winter weather (Figure 34, left). In the first four months of the year, Denver-Aurora area single-family home permits rose 23.1 percent over year-ago levels, while permits in the Boulder metro area increased 4.2 percent. In 2017, the region experienced pallid 3.8 growth in the Denver-Aurora area, and a decline of 4.3 percent in Boulder, as labor and land constraints muted growth. Multi-family construction has remained elevated throughout the metro Denver area as developers make the most of limited land.

Housing inventories are up in May by 9.2 percent from a year prior; however, they remain at historic lows and continue to push home prices up (Figure 35). The median price of a single-family home in metro Denver during May was \$451,000, a slight decrease from April. Housing costs continue to squeeze many residents in the area and have spurred some outmigration to the exurbs and beyond in search of more affordable housing.

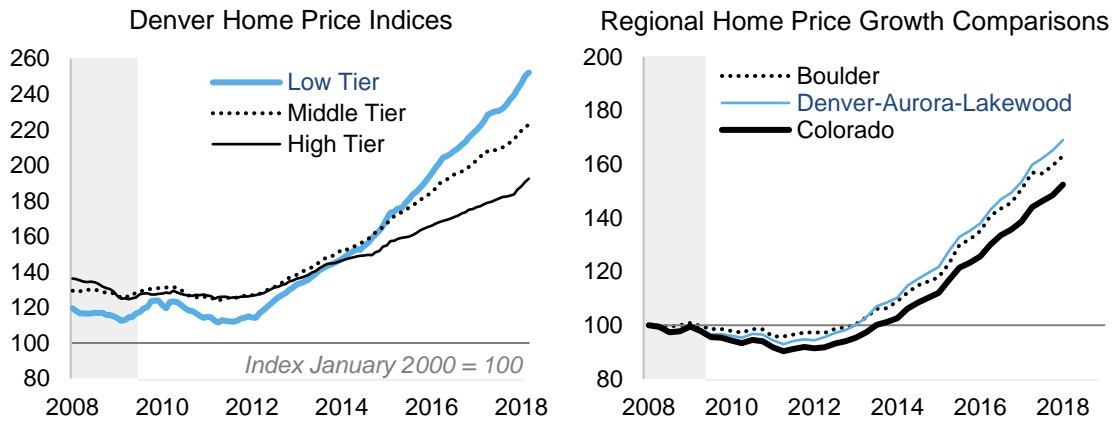
Figure 34
Metro Denver Region Construction Activity



Source: F.W. Dodge. Data shown as twelve-month moving averages. Data are not seasonally adjusted and are through April 2018.

Nonresidential building, a more volatile indicator than residential housing, is down year-to-date both in value and square footage (Figure 34, right). Value is down 0.4 percent, while square footage is down over 38 percent in the first four months of the year over the same period last year. Permits for nonresidential construction are at the lowest point since 2016.

Figure 35
Metro Denver Region Home Price Indices



Source: S&P Dow Jones Indices LLC.
Data are seasonally adjusted.

Source: U.S. Federal Housing Finance Agency.

Northern Region

The northern region continues to be one of the best performing areas in the state. Following a recession in the oil and gas sector in 2016, the region's economy built momentum in 2017, which has continued into 2018. The region added jobs at the fastest pace in the state, and the unemployment rate remains at historic lows. Population growth and a strong labor market continue to boost demand for housing and nonresidential real estate. Economic indicators for the region are summarized in Table 20.



Table 20
Northern Region Economic Indicators
Weld and Larimer Counties

	2014	2015	2016	2017	YTD 2018
Employment Growth ¹					
Fort Collins-Loveland MSA	3.4%	4.0%	3.8%	3.7%	2.9%
Greeley MSA	9.0%	2.4%	-1.3%	3.3%	5.1%
Unemployment Rate ²					
Fort Collins-Loveland MSA	4.2%	3.3%	2.8%	2.4%	2.4%
Greeley MSA	4.4%	3.8%	3.4%	2.7%	2.6%
State Cattle and Calf Inventory Growth ³	-4.2%	-4.4%	1.0%	6.7%	6.3%
Natural Gas Production Growth ⁴	27.0%	44.3%	14.6%	5.6%	NA
Oil Production Growth ⁴	52.4%	39.4%	-7.3%	13.5%	NA
Housing Permit Growth ⁵					
Fort Collins-Loveland MSA Total	8.7%	-8.1%	47.9%	-44.4%	-37.6%
Fort Collins-Loveland MSA Single Family	10.2%	1.3%	-2.9%	78.0%	-17.8%
Greeley MSA Total	41.1%	-3.5%	-7.8%	-11.8%	39.0%
Greeley MSA Single Family	18.5%	3.8%	-9.9%	62.5%	64.5%
Nonresidential Construction Growth ⁶					
Value of Projects	31.1%	32.3%	1.9%	22.7%	468.7%
Square Footage of Projects	45.5%	19.3%	-15.2%	8.6%	-23.4%
Level (Thousands)	3,326	3,969	3,367	3,656	1,135
Number of Projects	66.5%	-4.3%	10.5%	-2.2%	-30.0%
Level	258	247	273	267	110
Retail Trade Sales Growth ⁷					
Larimer County	8.5%	6.7%	NA	NA	NA
Weld County	12.2%	1.0%	NA	NA	NA

MSA = Metropolitan statistical area. NA = Not available.

¹U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through April 2018.

²U.S., Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through April 2018.

³National Agricultural Statistics Service. Cattle and calves on feed through March 2018.

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

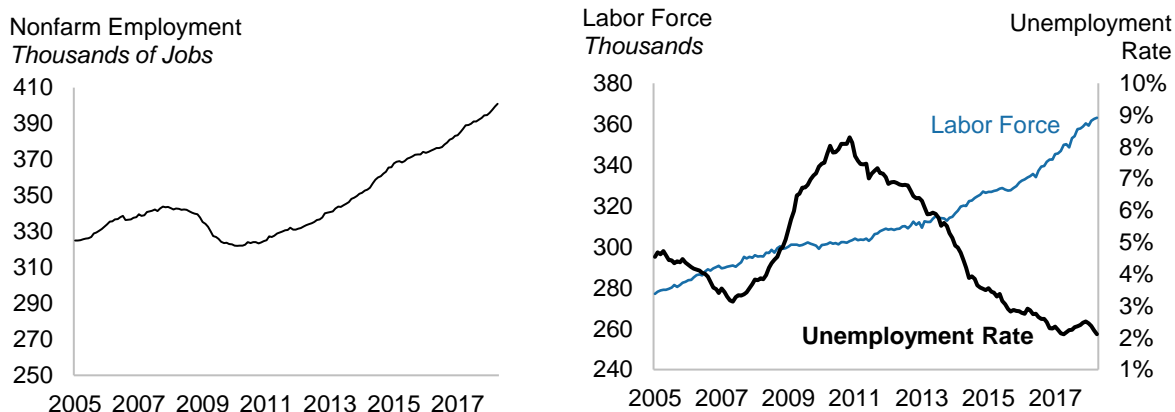
⁵U.S. Census Bureau. Growth in the number of residential building permits. Data through April 2018.

⁶F.W. Dodge. Data through April 2018.

⁷Colorado Department of Revenue. Data through December 2015.

The labor market in the northern region is among the strongest in the state, with robust employment growth and a historically low unemployment rate. The region's two metropolitan statistical areas (MSAs), Fort Collins-Loveland and Greeley, posted strong metro area job growth rates over prior-year levels through the first four months of 2018, increasing 2.9 percent and 5.1, respectively. Employment growth rebounded in the Greeley MSA in 2017 as oil prices stabilized and the energy industry increased oil and gas development in the Denver-Julesburg Basin. Area unemployment continues to fall as employment gains outpace growth in the labor force. The Fort Collins-Loveland unemployment rate was 2.4 percent, while Greeley's was 2.6 percent in April 2018. Figure 36 shows employment trends for the northern region metro areas.

Figure 36
Northern Region Labor Market Activity

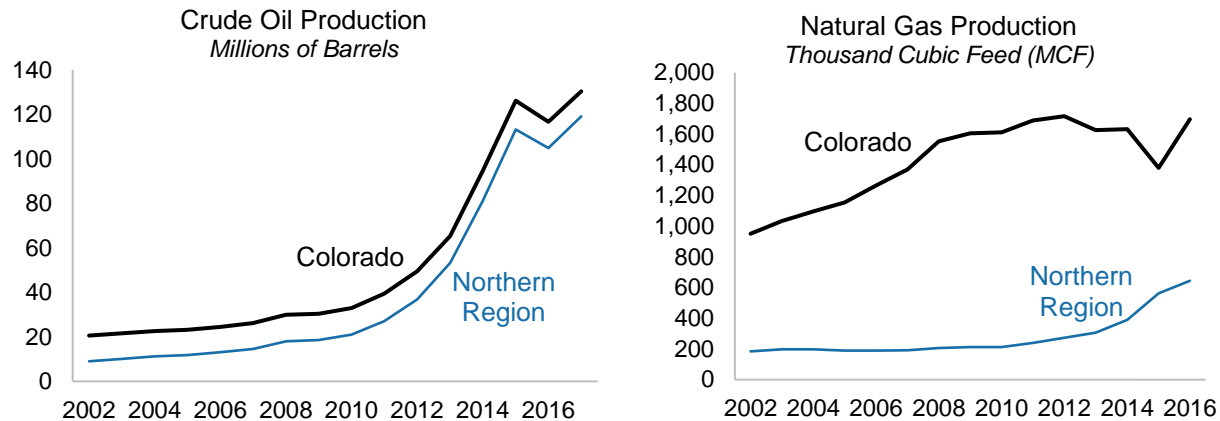


Source: U.S. Bureau of Labor Statistics; CES (left), LAUS (right). Data are seasonally adjusted and are through April 2018.

The northern region produces about a quarter of the value of Colorado's agriculture products due to the livestock industry in Weld County. The industry has struggled over the past few years. An excess of agricultural commodity supplies has kept prices low. However, an improving global economy and slightly weaker U.S. dollar have modestly increased commodity prices, as demand for U.S. agricultural products has improved.

Oil production in the northern region, particularly in Weld County, has dominated statewide production for over a decade (Figure 37). Oil production increased in 2017 after a decline in 2016. Oil and gas production dipped in 2015 and 2016 in response to low oil prices, which have a lagged effect on production. The number of active drilling rigs in the first week of June 2018 was 32, a decline from 35 active drilling rigs a year ago, but double the 16 active drilling rigs in the same week in 2016. Natural gas production in the northern region modestly increased in 2017; growing 5.6 percent. Recent increases in oil and gas prices point to continued growth in oil and gas production, investment, and employment in 2018.

Figure 37
Colorado Energy Production

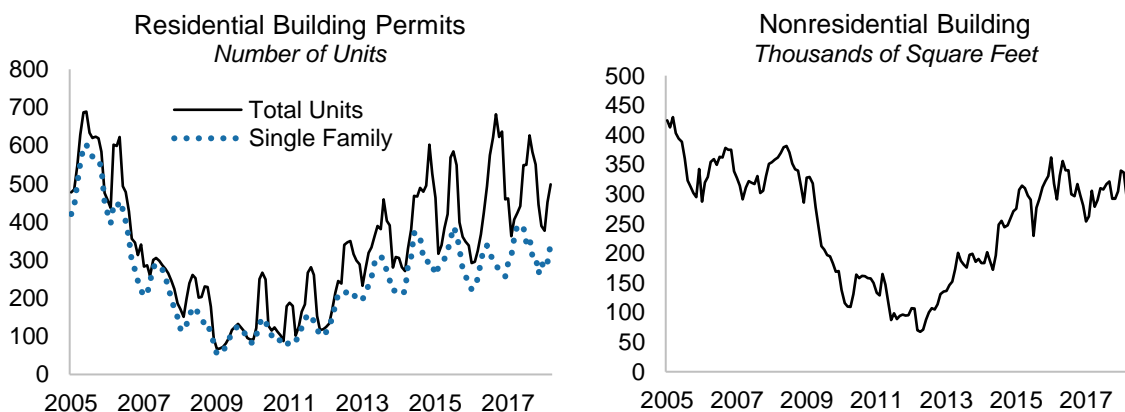


Source: Colorado Oil and Gas Conservation Commission.

The northern region's residential real estate market is mixed. A strong labor market, high net in-migration to the region, and the availability of land for development have supported strong residential construction activity in recent years (Figure 38, left). A spike in multi-family residential construction permits in the Fort Collins-Loveland MSA occurred in 2016, causing total permits to decline 44.4 percent in 2017 and 37.6 percent year-to-date in 2018. Yet, the level remains elevated. In the Fort Collins-Loveland MSA, single family permits increased 78.0 percent in 2017, but eased some in the first four month of 2018, declining 17.8 percent. Residential construction in the Greeley MSA declined 11.8 percent in 2017 with the slowdown in energy activity, but rebounded in the first four months of 2018, growing 39.0 percent from the prior year.

Activity in the nonresidential construction industry also fared well in 2017 and has continued to grow in 2018. In 2017, the region added almost 3.7 million square feet, 8.6 percent more than the prior year's new nonresidential inventory (Figure 38, right). The value of these projects increased 468.7 percent in the first four months of 2018 due to new construction and investment in the oil and gas industry.

Figure 38
Northern Region Construction Activity



Source: U.S. Census Bureau. Data shown as three-month moving averages. Data are not seasonally adjusted and are through April 2018.

Source: F.W. Dodge. Data shown as twelve-month moving averages. Data are not seasonally adjusted and are through April 2018.

Pueblo – Southern Mountains Region

The Pueblo – Southern Mountains region includes five southern Front Range counties surrounding the City of Pueblo. Construction activity accelerated at the start of 2018, as strong demand and mild winter weather allowed for an expansion of the housing and nonresidential inventory. Following improvements in both 2016 and 2017, preliminary data suggest that labor market activity slowed at the start of 2018. However, recent tariffs imposed on steel imports offer the potential for rejuvenation of the Pueblo steel industry, which in turn could spur employment and downstream activity in the region. Indicators for the regional economy are presented in Table 21.



Table 21
Pueblo Region Economic Indicators
 Custer, Fremont, Huerfano, Las Animas, and Pueblo Counties

	2014	2015	2016	2017	YTD 2018
Employment Growth					
Pueblo Region ¹	1.0%	0.9%	2.8%	2.6%	1.6%
Pueblo MSA ²	1.5%	2.0%	1.8%	1.1%	-0.4%
Unemployment Rate ¹	7.4%	5.7%	4.8%	4.3%	4.4%
Housing Permit Growth ³					
Pueblo MSA Total	-0.6%	69.4%	6.0%	9.2%	53.1%
Pueblo MSA Single-Family	-0.6%	29.9%	29.9%	22.3%	41.8%
Nonresidential Construction Growth ⁴					
Value of Projects	197.9%	2.4%	-22.6%	-76.5%	454.5%
Square Footage of Projects	192.7%	14.6%	-3.8%	-62.7%	242.1%
Level (<i>Thousands</i>)	309	355	341	127	102
Number of Projects	96.7%	-20.3%	51.1%	-77.5%	100.0%
Level	59	47	71	16	6
Retail Trade Sales Growth ⁵	4.9%	2.9%	NA	NA	NA

MSA = Metropolitan statistical area. NA = Not available.

¹U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through April 2018.

²U.S. Bureau of Labor Statistics, LAUS (household survey). Data through April 2018.

³U.S. Census. Growth in the number of residential building permits. Data through April 2018.

⁴F.W. Dodge. Data through April 2018.

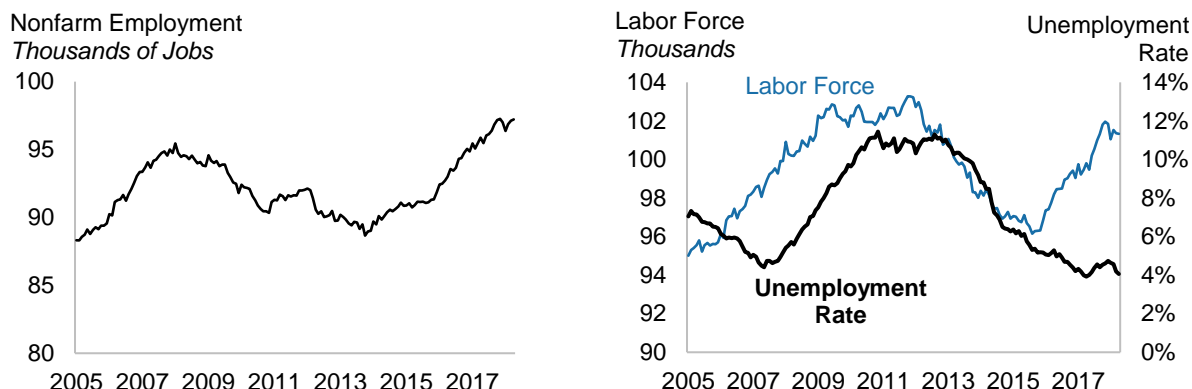
⁵Colorado Department of Revenue. Data through December 2015.

The collapse of the Pueblo steel industry in the 1980s has left a long legacy for the region's economy. In the wake of industry collapse, the regional economy has diversified slowly, but a void remains unfilled. Public sector jobs comprise a significant share of area employment. Additionally, health care providers and institutions of higher education offer work for many area residents. The area economy has experienced steady improvements in labor market activity since 2014 (Figure 39). Yet, the area employment to population ratio remains low and the regional unemployment rate remains elevated relative to the statewide average. Through April, the unemployment rate averaged 4.4 percent, while the statewide rate averaged 3.0 percent over the same period.

Preliminary data suggest that labor market activity softened at the start of 2018, with a slowdown in both employment and labor force growth (Figure 39). However, strong construction activity in the region suggests the possibility for an upward revision to the data. Should the recent 25 percent tariffs

on U.S. imports of steel remain in place, Pueblo may also see a boost from steel industry hiring. Many expect the tariffs to spur domestic production with the tariffs making foreign steel untenable for purchase. At this time, the impact of steel tariffs on the Pueblo region remains speculative. Uncertainty over the longevity of the tariffs, the possibility for exemptions, and business responses to the tariffs remain uncertain.

Figure 39
Pueblo Region Labor Market Activity

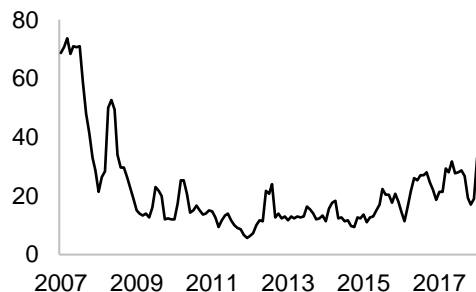


Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through December 2017.

As shown in Figure 40, residential construction activity continues to accelerate, supported by in-migration to the area. Both single and multi-family housing permits rose at a double-digit pace in the first four months of the year relative to the same period last year. Throughout the recovery and expansion from the 2007-09 recession, home price appreciation in the Pueblo metro area lagged other regions of the state. However, home prices have accelerated over the past two years, reflecting firmer demand for housing. According to data published by the Federal Housing Finance Agency, home prices rose 10.6 percent in the first quarter of 2018 compared to the same period a year prior.

Following two years of mixed data in 2016 and 2017, nonresidential construction activity rose considerably at the start of the year. The value, number, and square footage of projects all rose relative to year-ago levels in the first four months of 2018.

Figure 40
Single Family Residential Permits
Number of Housing Units



Source: U.S. Census Bureau. Data shown as three-month moving averages. Data are not seasonally adjusted and are through April 2018.

Colorado Springs Region

The Colorado Springs economy expanded further at the start of 2018, with population growth and tourism boosting employment and residential construction. Offering attractive job opportunities and lower real estate prices than the Denver metro area, the region continues to attract a growing number of young professionals. The regional economy has a large public sector presence, supporting area defense operations, higher education institutions, and health care facilities. Strong, diverse private sector growth also continues to support the area economy. Indicators for the regional economy are presented in Table 22.



Table 22
Colorado Springs Region Economic Indicators
El Paso County

	2014	2015	2016	2017	YTD 2018
Employment Growth ¹					
Colorado Springs MSA	2.2%	3.3%	2.9%	1.8%	2.5%
Unemployment Rate ²	6.0%	4.6%	3.7%	3.3%	3.4%
Housing Permit Growth ³					
Total	3.8%	-0.4%	41.3%	-3.9%	42.9%
Single-Family	-7.7%	13.3%	19.7%	6.7%	19.3%
Nonresidential Construction Growth ⁴					
Value of Projects	-4.2%	-1.0%	48.5%	-25.4%	-0.8%
Square Footage of Projects	-12.0%	-0.2%	25.1%	1.9%	-30.4%
Level (<i>Thousands</i>)	1,870	1,865	2,333	2,378	705
Number of Projects	-5.9%	12.9%	11.9%	28.2%	-8.3%
Level	334	377	422	541	157
Retail Trade Sales Growth ⁵	4.1%	5.8%	NA	NA	NA

MSA = Metropolitan statistical area. NA = Not available.

¹U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through April 2018.

²U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through April 2018.

³U.S. Census. Growth in the number of residential building permits. Data through April 2018.

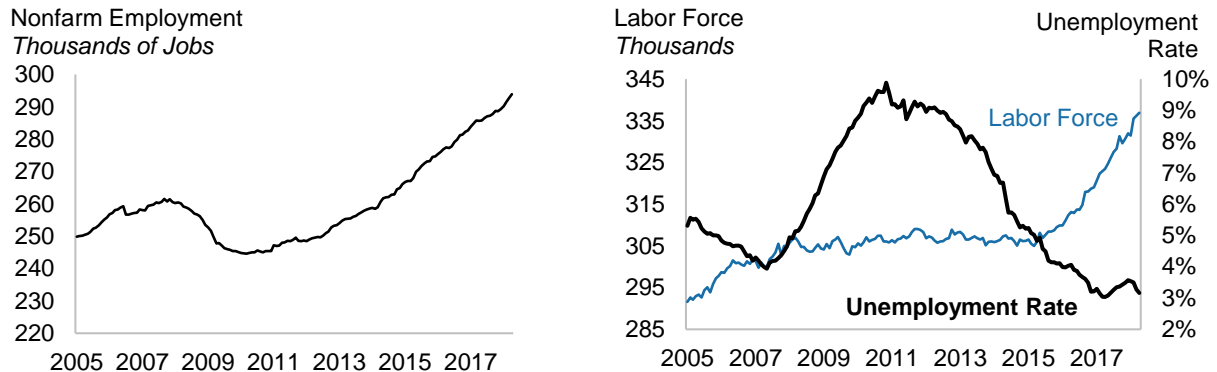
⁴F.W. Dodge. Data through April 2018.

⁵Colorado Department of Revenue. Data through December 2015.

Preliminary data suggest that employment growth in the Colorado Springs metropolitan statistical area (MSA) accelerated at the start of 2018, growing 2.5 percent in the first four months of the year over year-ago levels (Figure 41, left). Job growth has been broad-based across most industries, with population growth supporting demand for construction, retail trade, transportation, and health care sectors. Strong in-migration to the area reflects in the steep increase in the labor force over the past two years (Figure 41, right). The vast majority of these new job seekers have found work, maintaining downward pressure on the unemployment rate. Year-to-date through April, the unemployment rate averaged 3.4 percent.

The strong labor market, population growth, and tourism have supported retail sales in the region. According to reports released by the City of Colorado Springs, revenue from the city's general sales and use tax increased 6.0 percent year-to-date through April relative to the same period last year. Tax statistics point to strong contributions from business, retail, and tourism-related industries. Following double-digit growth in 2017, the city's lodger's tax collections increased 3.4 percent in the first four months of the year. Auto rental tax collections rose 9.3 percent through April.

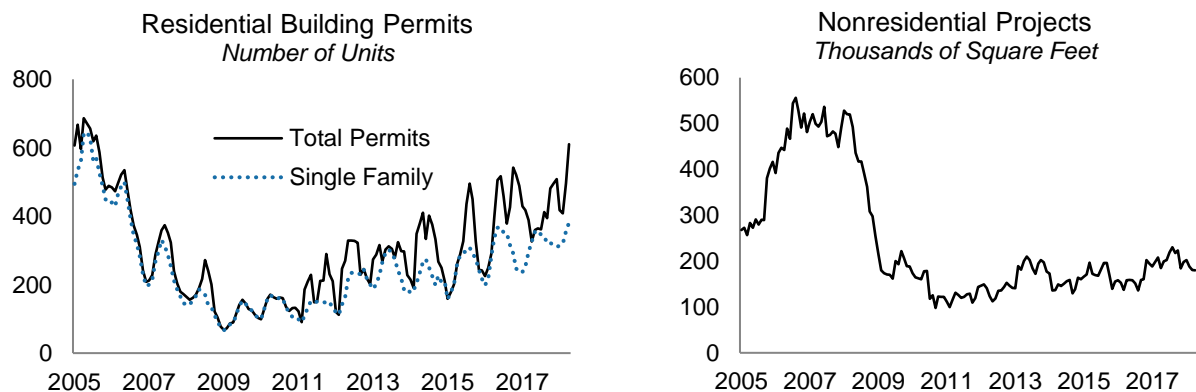
Figure 41
Colorado Springs Labor Market Activity



Source: U.S. Bureau of Labor Statistics; CES (left), LAUS (right). Data are seasonally adjusted and are through April 2018.

The number of permits issued for residential construction rose considerably at the start of the year on strong demand and mild winter weather conditions (Figure 42, left). Year-to-date through April, single family permits increased 19.3 percent over year-ago levels. Multi-family permits more than doubled over the same period, driving a significant share of statewide multi-family permit growth. While more affordable than real estate in the Denver metro area, Colorado Springs home prices continue to rise at a double-digit pace. According to data published by the Federal Housing Finance Agency, home prices rose 11.6 percent in the first quarter of 2018 over the same period a year prior.

Figure 42
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 April 2018.

Source: F.W. Dodge. Data shown as twelve-month moving averages. Data are not seasonally adjusted and are through April 2018.

Nonresidential construction was down slightly at the start of the year. Relative to pre-recessionary levels, demand for new nonresidential construction has remained subdued throughout the recovery and expansion, with a slow general upward trend (Figure 42, right). In-migration to the area and strong business activity, however, are expected to limit office and commercial vacancies, spurring additional development in coming years.

San Luis Valley Region

The San Luis Valley has the state's smallest and oldest population, as well as its lowest household incomes. The economy of its six counties is largely agricultural. Nonfarm employers include regional commercial, health, and government services as well as a small but resilient tourism sector. Economic data for the region are sparse, but those that are available suggest that the regional housing market is growing and the nonfarm job market is improving. Economic indicators for the region are summarized in Table 23.



Table 23
San Luis Valley Region Economic Indicators
Alamosa, Conejos, Costilla, Mineral, Rio Grande, and Saguache Counties

	2014	2015	2016	2017	YTD 2018
Employment Growth ¹	2.5%	3.9%	6.2%	5.0%	3.7%
Unemployment Rate ¹	8.0%	5.7%	4.5%	3.9%	3.9%
San Luis Valley Agriculture District ²					
Barley					
Acres Harvested	42,900	52,100	NA	NA	NA
Crop Value (\$/Acre)	\$730	\$879	NA	NA	NA
Potatoes					
Acres Harvested	53,900	51,800	51,500	51,700	NA
Crop Value (\$/Acre)	\$3,218	\$3,234	NA	NA	NA
Housing Permit Growth ³	-25.0%	21.5%	-1.1%	16.8%	12.9%
Retail Trade Sales Growth ⁴	3.7%	11.5%	NA	NA	NA

NA = Not available.

¹U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through April 2018.

²National Agricultural Statistics Service. Potato harvest data through 2017; others through 2015.

³F.W. Dodge. Data through April 2018.

⁴Colorado Department of Revenue. Data through December 2015.

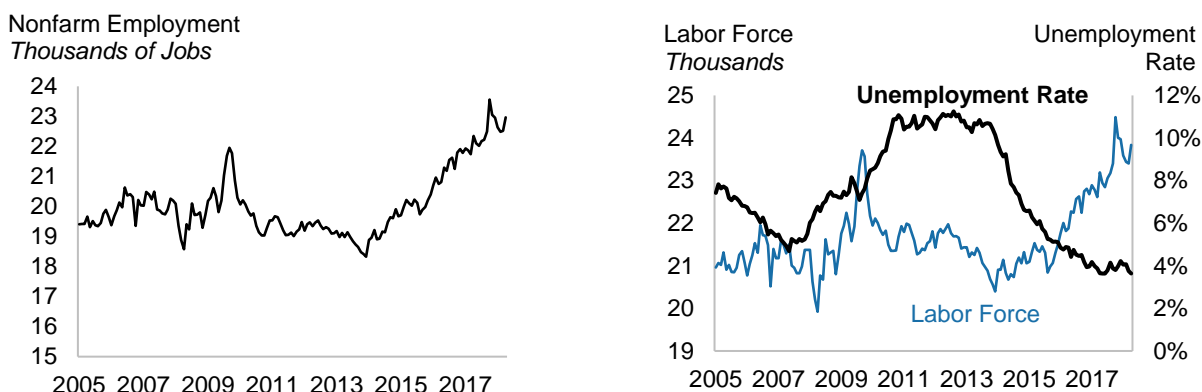
San Luis Valley agricultural producers are faced with different challenges and opportunities than farmers and ranchers in other areas of the state. The valley is fed by the Upper Rio Grande, but producers away from waterways often rely on groundwater instead. Water supply factors, combined with a high, cool, and dry climate, have historically driven valley farmers to focus on potato, barley, and alfalfa production, though other crops and livestock production are attractive to some producers. Figure 44 shows steady, yet modest, increases in Colorado potato prices in 2016 and 2017, a relative boon for producers after years of volatility. However, potato prices have modestly declined through the first quarter of the year and drought conditions threatened the outlook for the region.

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. In 2017, employment growth for the region was 5.0 percent, the state's fastest growth rate among economic regions. Through the first four months of 2018, regional employment has averaged 3.7 percent (Figure 43, left). The region's unemployment rate also continues to improve. The unemployment rate averaged 3.9 percent in 2017, down nearly a

full percentage point from the 2016 rate even in the face of significant labor force population growth. The rate has averaged at the same pace through the first four months of 2017 (Figure 43, right).

San Luis Valley real estate is relatively affordable but caters to a small resident population even when compared to other rural regions. Residential construction in the region has been limited and fairly volatile throughout the recent economic recovery and expansion. The 55 residences permitted through the first four months of the year exceed prior year permitted projects by 13 homes, or 12.9 percent. Demand for regional housing is expected to remain strong.

Figure 43
San Luis Valley Labor Market Activity



Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through April 2018.

Figure 44
Prices Received for Colorado Potatoes
\$/Cwt



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

Southwest Mountain Region

Despite being the smallest based on population, the five-county southwest mountain region has a diverse economy. Its geography and relative isolation from the rest of the state lend to both its traditional and nontraditional sectors, including agriculture, energy, tourism and outdoor recreation, and health care. Outlooks in the agricultural and energy industries improved over last year, with commodity and natural gas prices rising. Recent expansions in the health care sector have helped to alleviate the pressure of the traditionally more cyclical and volatile energy, tourism, and agricultural sectors. Economic indicators for the region are summarized in Table 24.



Table 24
Southwest Mountain Region Economic Indicators
Archuleta, Dolores, La Plata, Montezuma, and San Juan Counties

	2014	2015	2016	2017	YTD 2018
Employment Growth ¹	3.2%	0.7%	3.9%	3.2%	2.5%
Unemployment Rate ¹	4.9%	4.0%	3.4%	2.9%	3.1%
Housing Permit Growth ²	14.2%	17.6%	-4.6%	29.8%	152.1%
Retail Trade Sales Growth ³	3.0%	1.7%	NA	NA	NA
National Park Recreation Visits ⁴	8.9%	10.2%	7.5%	4.4%	15.5%

NA = Not available.

¹U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through April 2018.

²F.W. Dodge. Data through April 2018.

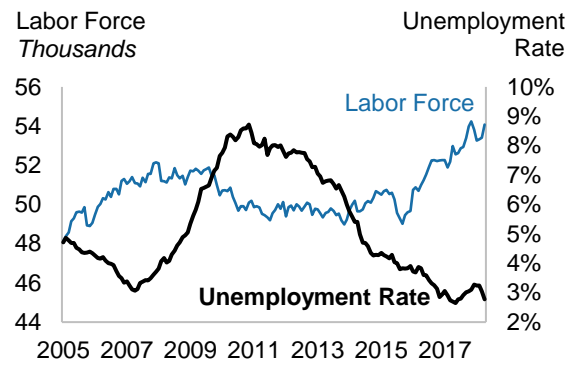
³Colorado Department of Revenue. Data through December 2015.

⁴National Park Service. Data through April 2018. Recreation visits for Mesa Verde National Park and Hovenweep National Monument.

Employment growth in the region increased 3.2 percent in 2017 and has added 2.5 percent more jobs in the first four months of 2018 compared with the same period in 2017. All counties in the region, except Montezuma County, had unemployment rates at or below the statewide average in 2017. The regional unemployment rate averaged 2.9 percent in 2017 and increased slightly to 3.1 percent year-to-date through April on strong growth in the labor force, reflecting in-migration to the area (Figure 45). Service industries employ a significant portion of residents in the region. Strong area tourism has sustained growth in area service sectors. National park visitations increased 4.4 percent in 2017 and have continued to climb in the first four months of 2018, growing 15.5 percent compared with the same period in 2017.

Housing permits increased 29.8 percent in 2017, and had very strong growth in the first four months of 2018, growing 152.1 percent over the same period last year. With the construction industry booming in La Plata County, there are not enough workers to meet demand. Many workers relocate to warmer climates during the typically slow winter months in Colorado, however mild winter weather allowed for stronger activity than usual. The additional residential construction has not brought home prices down, however, as the region is attractive for second-home buyers who continue to prop up prices.

Figure 45
Southwest Mountain Region Labor Market



Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through April 2018.

Western Region

The western region is characterized by a diverse economy. Key industries in the more northern counties of Mesa, Garfield, Moffat, and Rio Blanco include energy and agriculture, while the counties of Delta, Gunnison, Hinsdale, Montrose, Ouray, and San Miguel are more reliant on tourism, mining, and retiree-related spending. The region's economy has lagged behind that of the Front Range over the past few years; however, regional economic activity accelerated in 2017 and growth has continued into 2018. Relatively affordable housing and an improving labor market are attracting people from Denver and other areas of the state and country. Economic indicators for the region are summarized in Table 25.

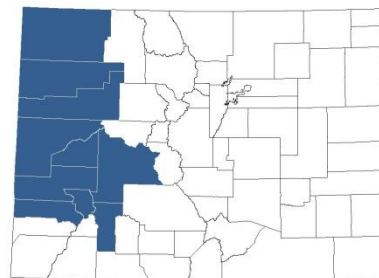


Table 25
Western Region Economic Indicators

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

	2014	2015	2016	2017	YTD 2018
Employment Growth					
Western Region ¹	2.1%	-0.3%	2.1%	4.1%	4.0%
Grand Junction MSA ²	2.5%	-0.2%	-0.3%	-0.4%	2.5%
Unemployment Rate ¹	5.9%	4.9%	4.4%	3.5%	3.4%
Natural Gas Production Growth ³	-5.3%	-12.8%	-6.7%	-2.1%	NA
Housing Permit Growth ⁴	7.9%	24.7%	6.7%	42.8%	43.1%
Nonresidential Construction Growth ⁴					
Value of Projects	221.9%	-37.9%	10.4%	-35.9%	-77.2%
Square Footage of Projects	157.9%	-41.0%	-9.0%	-20.7%	-56.9%
Level (<i>Thousands</i>)	1,021	602	548	435	26
Number of Projects	21.8%	-17.9%	34.5%	-45.9%	14.3%
Level	67	55	74	40	7
Retail Trade Sales Growth ⁵	4.7%	7.4%	NA	NA	NA

MSA = Metropolitan statistical area. NA = Not available.

¹U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through April 2018.

²U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through April 2018.

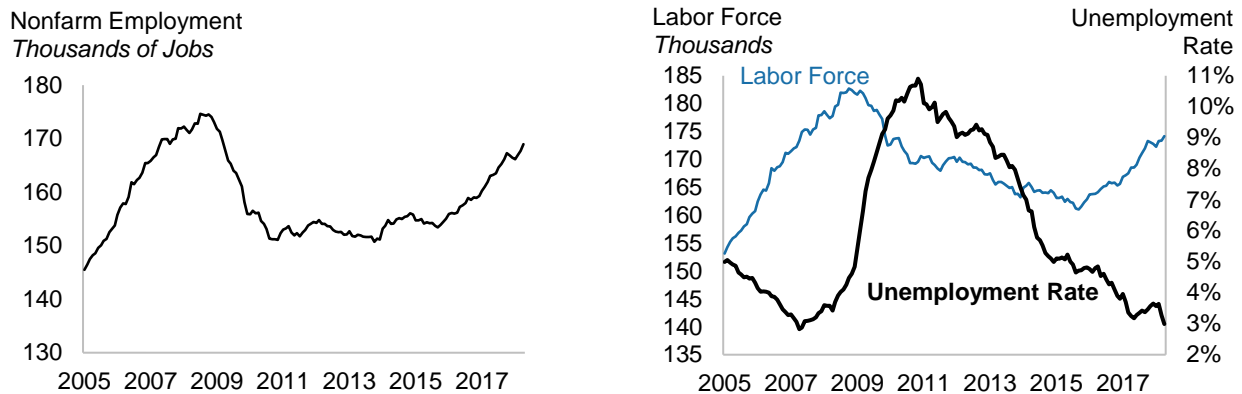
³Colorado Oil and Gas Conservation Commission. Data through December 2017.

⁴F.W. Dodge. Data through April 2018.

⁵Colorado Department of Revenue. Data through December 2015.

The region's labor market improved through 2017 and into 2018 despite slow natural gas production and a struggling coal industry. Employment increased 4.1 percent in 2017, and has increased 4.0 percent through the first four months of 2018 compared with the same period in the prior year. The region's unemployment rate declined for the seventh consecutive year in 2017, and has improved further in 2018 as employment gains outpace growth in the labor force. Government and hospitals are some of the largest employers in the region. However, employment growth in Grand Junction, the region's largest city decelerated modestly over the past three years. Figure 46 shows labor market activity in the western region through April 2018.

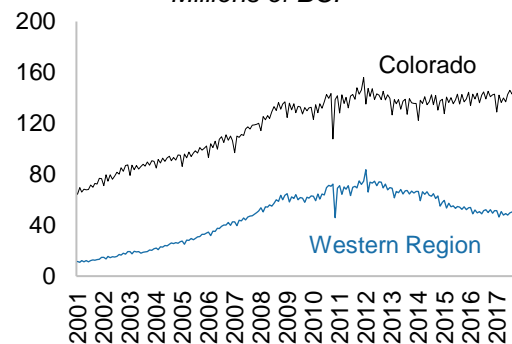
Figure 46
Western Region Labor Market Activity



Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through April 2018.

After years of subpar growth, the region's residential construction market has gained momentum. In 2017, the region's planning departments issued permits that will add almost 1,300 residential units, up 42.8 percent from the prior year. This rapid growth was maintained in the first four months of 2018, with permits growing 43.1 percent compared with the same period in 2017. A limited number of existing homes, lower prices, and more people moving into the region is buoying the housing market. Higher rental prices in the region are also stimulating home purchases. Conversely, activity in the region's nonresidential construction sector was down in 2018 compared to the year prior. The total value of nonresidential construction projects was down 77.2 percent in the first four months of 2018, relative to year-ago levels.

Figure 47
Natural Gas Production
Millions of BCF



Source: Colorado Oil and Gas Conservation Commission. Data through December 2017.
BCF = Billion cubic feet.

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 five 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 47). This trend continued in 2017, with natural gas production declining 2.1 percent over year-ago prices.

The number of people that visited the Black Canyon of the Gunnison National Park increased 12.3 percent in the first four months of 2018 from the prior year. While the Black Canyon of the Gunnison is not far from the struggling coal city of Somerset, most visitors to the park visit the south rim of the canyon and patronize businesses in the gateway communities of Montrose and Gunnison. Tourism has been less strong in other areas of the region. Visitations to the Colorado National Monument near Grand Junction decreased 11.7 percent year-to-date through April.

Mountain Region

Colorado's mountain region continues along a strong growth trajectory. Despite a tepid ski season, the sale of ski passes increased year-over-year, as did employment in the region. Residential housing permit growth is up this year after declining in 2017. A limited supply of homes and rising housing costs are challenging growth and may constrain consumer spending if affordable options remain limited. Table 26 presents the economic indicators for the region.



Table 26
Mountain Region Economic Indicators

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

	2014	2015	2016	2017	YTD 2018
Employment Growth ¹	3.3%	1.5%	3.5%	4.3%	4.6%
Unemployment Rate ¹	4.3%	3.3%	2.7%	2.4%	2.4%
Housing Permit Growth ²	2.2%	-7.6%	29.0%	-11.3%	74.2%
Nonresidential Construction Growth ²					
Value of Projects	84.8%	43.9%	-31.2%	293.3%	-78.6%
Square Footage of Projects	206.5%	-62.0%	18.7%	219.3%	-59.9%
Level (<i>Thousands</i>)	1,352	514	609	1,946	670
Number of Projects	20.0%	-35.0%	56.4%	-3.3%	142.9%
Level	60	39	61	59	7
Retail Trade Sales Growth ³	8.5%	6.7%	NA	NA	NA

NA = Not available.

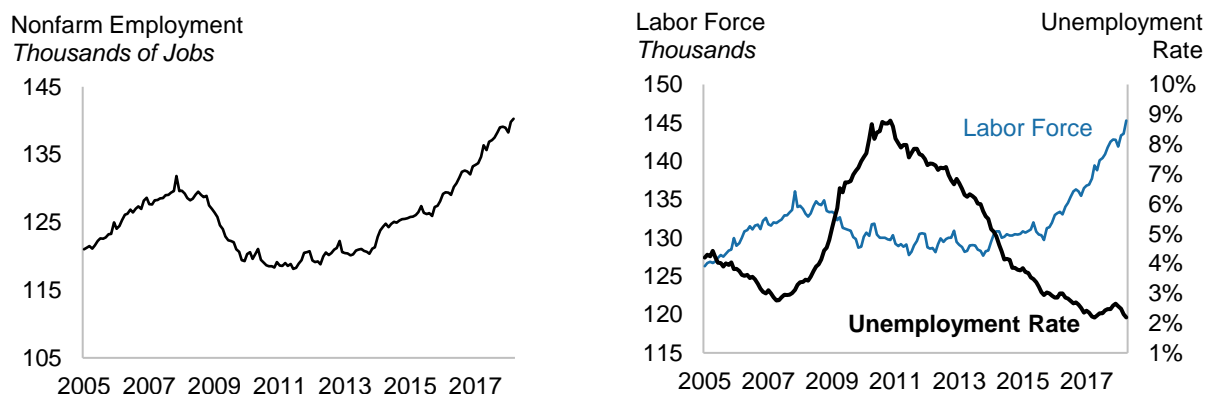
¹U.S. Bureau of Labor Statistics. LAUS (household) survey. Seasonally adjusted. Data through April 2018.

²F.W. Dodge. Data through April 2018.

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

The labor market in the region remains strong (Figure 48). Employment increased 4.3 percent in 2017 over year-ago levels, and rose an additional 4.6 percent in the first four months of 2018 over the same period last year. The unemployment rate averaged 2.4 percent in the first four months of 2018, lower than the state's unemployment rate of 2.9 percent. Tourism remains a strong contributor of growth, supported by the gaming industry concentrated in Gilpin County, and outdoor recreation in each county in the region.

Figure 48
Mountain Region Labor Market Activity



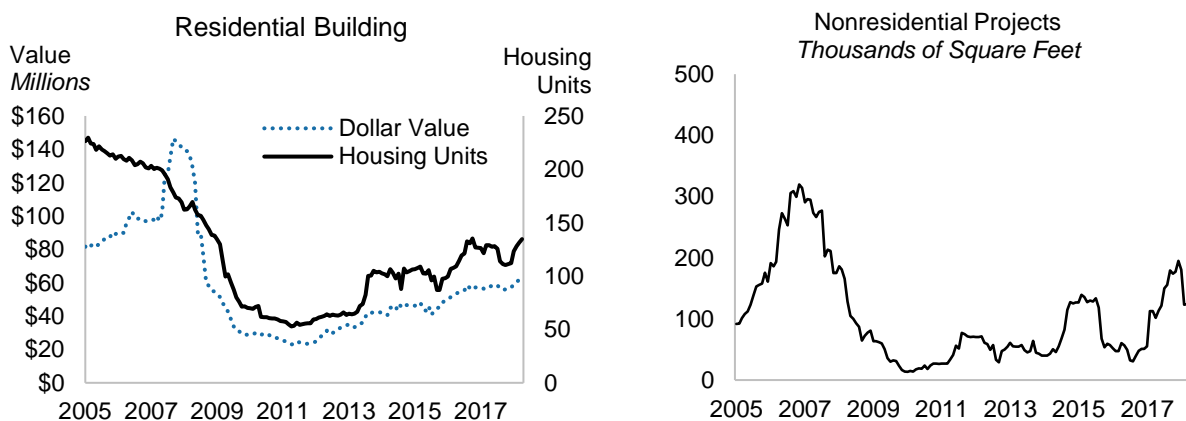
Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through April 2018.

Regional tourism continued to flourish, even in spite of a low snow year. Late-season snowfall gave ski towns a spring boost; however, ski resort visits were down 5 percent in the Rocky Mountains this past season. Vail Resorts reported that lift ticket revenue was up 3.7 percent over last year even with skier visits down by 1.9 percent. The company recently announced its acquisition of Crested Butte Mountain Resort, along with three other resorts outside the state, and will invest \$35 million across the four resorts over the next two years. Severe drought throughout much of the state puts forest areas under threat of wildfires this summer, which could dampen summer tourism. Lower snowpack equates to lower stream flows, which will affect fishing and watersports, including rafting and kayaking.

The regional housing market remains strong, as high demand continues to push up prices and support continued growth in construction activity (Figure 49, left). Many area workers have been priced out of the market, and have opted for lower price housing further from their workplace. Housing permit growth is up 74.2 percent through April this year. However, the relatively mild winter likely explains a large portion of the strength, as workers could continue construction projects instead of waiting for fairer weather.

Nonresidential construction growth has slowed this year, down from its decade-high peak of 293.3 percent growth in project value during 2017 (Figure 49, right). Last year saw the expansion of gaming-town construction projects, which have tapered off this year.

Figure 49
Mountain Region Construction Activity



Source: F.W. Dodge. Data shown as twelve-month moving averages. Data are not seasonally adjusted and are through April 2018.

Eastern Region

The eastern region comprises Colorado's 16 rural plains counties. The region relies on agriculture as its primary industry, with retailers, other locally-focused business, and government operations supporting area farming and ranching communities. While crop prices have gradually increased as of late, most crops remain below their 10-year average. Growth in the regional livestock inventory continues to improve through the first quarter of 2018 after posting their best year in eight years. However, potential trade disputes with some of Colorado's largest trading partners have made many farmers and ranchers reliant on foreign markets nervous. Indicators for the region are presented in Table 27.

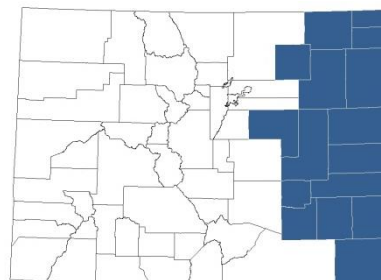


Table 27
Eastern Region Economic Indicators
 Baca, Bent, Logan, Cheyenne, Crowley, Elbert, Kiowa, Kit Carson, Lincoln,
 Morgan, Otero, Phillips, Prowers, Sedgwick, Washington, and Yuma Counties

	2014	2015	2016	2017	YTD 2018
Employment Growth ¹	3.0%	2.1%	4.1%	4.2%	3.6%
Unemployment Rate ¹	4.4%	3.5%	2.9%	2.5%	2.5%
Crop Price Changes ²					
Wheat (\$/Bushel)	-11.5%	-25.6%	-27.9%	-2.9%	29.2%
Corn (\$/Bushel)	-31.0%	-13.1%	-7.7%	-3.4%	-26.1%
Alfalfa Hay (Baled, \$/Ton)	-11.3%	-13.9%	-15.5%	4.8%	21.1%
Livestock ³					
State Cattle and Calf Inventory Growth	-4.2%	-4.4%	1.0%	6.7%	6.3%
Milk Production	7.9%	3.9%	5.2%	6.7%	9.3%
Retail Trade Sales Growth ⁴	9.7%	-5.4%	NA	NA	NA

NA = Not available.

¹U.S. Bureau of Labor Statistics, LAUS (household survey. Data through April 2018.

²National Agricultural Statistics Service. Data through March 2018.

³National Agricultural Statistics Service. Cattle on feed data through March 2018; milk production data through March 2018.

⁴Colorado Department of Revenue. Data through December 2015.

Colorado's top agricultural commodities include beef, corn, wheat, and milk. Figure 50 shows the prices received for Colorado wheat, corn, and alfalfa hay. Commodity prices for these items began a downward trend in 2013 as global supply outstripped demand. Prices have stabilized in recent months and even climbed for some crops. Field crop prices are expected to remain low and grow slowly, maintaining pressure on farm profitability.

Ranchers have fared better compared to farmers, as lower feed prices have enabled cattle feeders to earn a profit. In 2017, Colorado cattle and calf feedlot inventories grew 6.7 percent from the previous year, the strongest gain since 2011. First quarter data suggest improvement will continue through the current year as inventory is up 6.3 percent from the same period last year.

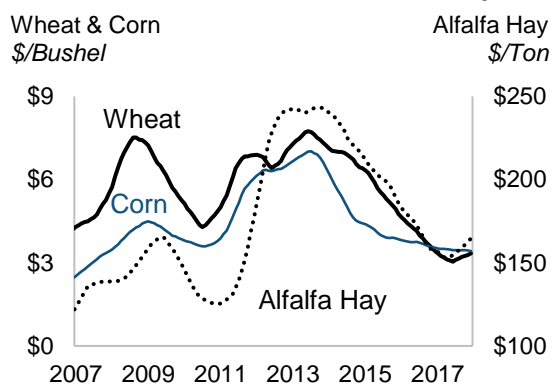
Colorado dairies continues to produce milk at a healthy rate. Milk production in Colorado was up 9.3 percent through the first quarter of the 2018 from the same period one year ago; nationally, U.S production was up 1.5 percent during the same period. In 2017, Colorado dairies produced milk at the fastest rate in the nation. Demand from local cheese and dairy manufactures have buoyed milk production in the Colorado market. In 2016, Leprino Foods, a Denver based company and the world's

largest maker of mozzarella cheese, finished construction on a new factory in Greeley, contributing to employment activity along the eastern plains.

A possible trade war between the U.S. and its major trade partners has made some tied to the agriculture industry uneasy. Many Colorado farmers and ranchers rely on trade in the international market. Such trade barriers may hinder the industry.

The number of nonfarm jobs in the region has finally surpassed its historical peak (Figure 51, left), increasing a healthy 4.2 percent during 2017. Through April 2018, employment growth is up 3.6 percent from the same period last year. The regional unemployment rate averaged 2.5 percent through April 2018, the second lowest in the state (Figure 51, right). Growth has been uneven across counties in the region. Many of the rural counties with small populations have experienced volatile labor markets in recent years as the agricultural economy stumbled. Counties closer to Front Range urban areas, by contrast, have generally experienced stronger, more consistent growth stimulated by new residential development in exurban areas.

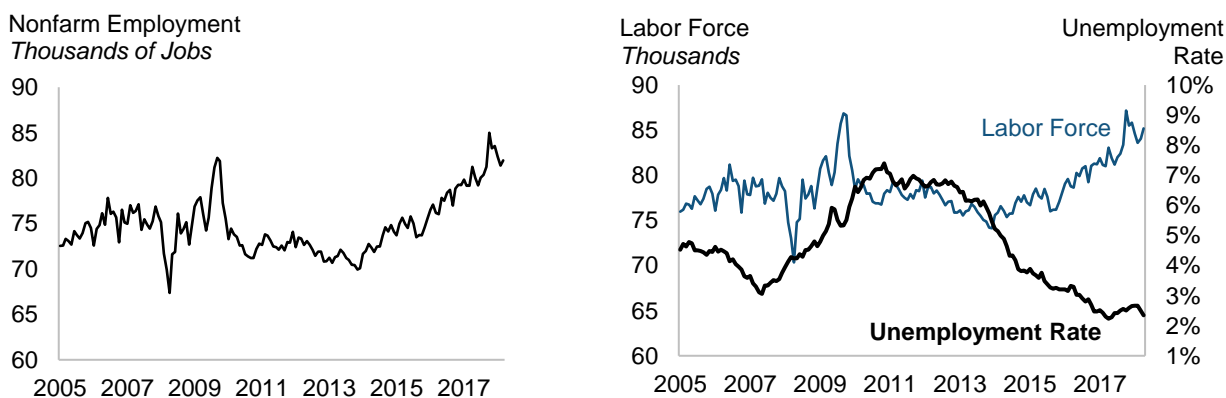
Figure 50
Prices Received for Colorado Crops



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

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 next year as new residential developments continue. The State Demographer projects that Elbert County's population will grow an average of 4.6 percent annually through 2020, the fastest projected county growth rate in the state by more than a full percentage point.

Figure 51
Eastern Region Labor Market Activity



Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through April 2018.

Appendix: Historical Data

National Economic Indicators

Calendar Years	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
GDP (\$ <i>Billions</i>) ¹	\$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	\$19,390.6
Percent Change	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%	4.1%
Real GDP (\$ <i>Billions</i>) ¹	\$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	\$17,096.2
Percent Change	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%	2.3%
Unemployment Rate ²	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%	4.4%
Inflation ²	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%	2.1%
10-Year Treasury Note ³	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%	2.3%
Personal Income (\$ <i>Billions</i>) ¹	\$9,492.0	\$10,053.9	\$10,615.0	\$11,394.8	\$12,001.1	\$12,503.2	\$12,095.6	\$12,477.1	\$13,254.5	\$13,915.1	\$14,073.7	\$14,818.3	\$15,553.0	\$15,928.7	\$16,427.3
Percent Change	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%	3.1%
Wage & Salaries (\$ <i>Billions</i>) ¹	\$5,137.9	\$5,421.9	\$5,692.0	\$6,057.4	\$6,395.2	\$6,531.9	\$6,251.4	\$6,377.5	\$6,633.2	\$6,930.3	\$7,116.7	\$7,476.8	\$7,858.9	\$8,085.3	\$8,351.3
Percent Change	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%	3.3%
Nonfarm Employment (<i>Millions</i>) ²	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	146.6
Percent Change	-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%	1.6%

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	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Nonfarm Employment (<i>Thousands</i>) ¹	2,179.4	2,225.9	2,279.7	2,331.1	2,350.6	2,245.5	2,221.4	2,258.1	2,312.3	2,380.8	2,464.0	2,541.7	2,602.6	2,658.7
Percent Change	1.2%	2.1%	2.4%	2.3%	0.8%	-4.5%	-1.1%	1.7%	2.4%	3.0%	3.5%	3.2%	2.4%	2.2%
Unemployment Rate ¹	5.5	4.9	4.2	3.8	4.9	7.6	8.7	8.4	7.9	6.9%	5.0%	3.9%	3.3%	2.8%
Personal Income (\$ <i>Millions</i>) ²	\$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	\$300,006
Percent Change	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	\$35,947	\$38,025	\$40,143	\$41,996	\$42,663	\$39,838	\$39,926	\$42,955	\$45,089	\$46,869	\$50,021	\$51,956	\$52,097	\$53,504
Percent Change	2.3%	5.8%	5.6%	4.6%	1.6%	-6.6%	0.2%	7.6%	5.0%	3.9%	6.7%	3.9%	0.3%	2.7%
Wage & Salary Income (\$ <i>Millions</i>) ²	\$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	\$159,120
Percent Change	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	\$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	NA
Percent Change	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	44,855	45,422	39,211	30,149	19,507	9,385	11,531	13,386	21,329	27,277	29,266	30,528	37,112	41,101
Percent Change	9.3%	1.3%	-13.7%	-23.1%	-35.3%	-51.9%	22.9%	16.1%	59.3%	27.9%	7.3%	4.3%	21.6%	10.7%
Nonresidential Construction (<i>Millions</i>) ⁵	\$3,245	\$4,275	\$4,641	\$5,259	\$4,114	\$3,354	\$3,147	\$3,923	\$3,695	\$3,624	\$4,351	\$4,982	\$5,948	\$5,843
Percent Change	20.8%	31.7%	8.6%	13.3%	-21.8%	-18.5%	-6.2%	24.7%	-5.8%	-1.9%	20.1%	14.5%	19.4%	-1.8%
Denver-Boulder-Greeley Inflation ¹	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%	3.4%
Population (<i>Thousands, July 1</i>) ⁴	4,575	4,632	4,720	4,804	4,890	4,972	5,048	5,116	5,186	5,263	5,342	5,440	5,530	5,607
Percent Change	1.0%	1.2%	1.9%	1.8%	1.8%	1.7%	1.5%	1.4%	1.4%	1.5%	1.5%	1.8%	1.6%	1.4%

NA = Not available.

¹U.S. Bureau of Labor Statistics. Inflation shown as the year-over-year change in the consumer price index for Denver-Boulder-Greeley metro area.

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.