Colorado Legislative Council Staff

March 2020 | Economic & Revenue Forecast

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Executive Summary

This report presents the budget outlook based on current law and the March 2020 General Fund revenue, cash fund revenue, and TABOR forecasts. This document includes summaries of expectations for the U.S. and Colorado economies and an overview of current economic conditions in nine regions of the state.

General Fund Budget Outlook

FY 2018-19

Figures from the Comprehensive Annual Financial Report indicate that the General Fund ended FY 2018-19 with an 11.2 percent reserve, $448.3 million above the 7.25 percent statutory reserve. Revenue subject to TABOR exceeded the Referendum C cap by $428.3 million, resulting in a TABOR refund in FY 2019-20. The TABOR refund obligation will be returned to taxpayers via a temporary income tax rate reduction for tax year 2019 in addition to fully funding local government reimbursements for property tax exemptions.

FY 2019-20

In FY 2019-20, the General Fund is expected to end the year with a 7.29 percent reserve, $4.3 million above the 7.25 percent statutory reserve. These amounts incorporate 2020 legislation that has been signed into law to date, including the supplemental package for FY 2019-20. Revenue subject to TABOR is expected to fall $247.7 million below the Referendum C cap.

FY 2020-21 Unbudgeted

The General Assembly has yet to adopt a budget for FY 2020-21. If appropriations were held constant, the General Assembly is projected to have $27.3 million, or 0.2 percent, more to spend or save in the General Fund than what is budgeted to be spent and saved in FY 2019-20. Revenue subject to TABOR is expected to fall below the Referendum C cap by $629.6 million.

Risks to the forecast. The spread of the novel coronavirus and associated disease, COVID-19, and the efforts to contain the disease pose a significant downside risk to this economic and revenue forecast. This forecast assumes short-term contractions in consumer and business activity over the next several months resulting from efforts to stem the spread of COVID-19. This contraction will reduce state revenue in both the current FY 2019-20 and FY 2020-21. Significant uncertainty remains about the actions of consumers, businesses, and investors, as well as health officials and government agencies in the months ahead. While a near-term contraction is certain, this contraction could lead to a prolonged and severe pullback in economic activity. The risk of recession in calendar year 2020 is elevated and poses significant downside risk to this forecast.

Cash Fund Revenue

Cash fund revenue subject to TABOR totaled $2.44 billion in FY 2018-19, an increase of $133.7 million, or 5.9 percent, from the prior fiscal year. The most significant increase was in severance tax collections, which grew by $112.2 million, or 78.4 percent. The improvement in oil and gas production activity and rising prices boosted taxes levied on natural resources extracted in 2018.

Total cash fund revenue subject to TABOR in the current FY 2019-20 is expected to total $2.34 billion, a decline of 3.9 percent from the previous year. The crude oil market rout and drop in travel activity due to the COVID-19 virus disruption that began to meaningfully affect the state in early March is expected to impact several cash fund sources in the current year and in the following fiscal year. In FY 2020-21, revenue is expected to decline further by $52.9 million, or 2.3 percent, before rebounding to trend levels of economic activity in FY 2021-22.

Economic Outlook

Conditions in the U.S. and Colorado economies are changing by the hour on news of the new coronavirus. The economy entered March with the tailwinds of low unemployment, high consumer confidence, and growing personal income. In 2019 and early 2020, businesses and manufacturing activity were constrained by the tight labor market, global supply chain disruptions, and safety concerns regarding the Boeing 737 MAX airliner. As the severity of the coronavirus and the potential threat to human life became apparent to the public in late February and early March of this year, financial markets reacted and attracted the attention of the world.

The public health response has been proportional to the threat of the virus, which has caused significant economic disruptions in the U.S. and globally. The travel industry experienced plummeting reservations on cancelled conferences, a lack of demand for flights, fewer hotel stays, and cruise cancelations. Colleges and universities have cancelled in-person instruction, major sporting and civic events have been cancelled or delayed, schools have been closed for extended periods, and the public has responded by preparing for periods of self-quarantine. These actions will reduce the number of COVID-19-related deaths if they are successful at limiting the spread of the virus.

An additional concern to the economy is low oil prices. With low global demand for oil, Russia and Saudi Arabia announced production increases the week of March 9, 2020, plummeting the price of West Texas Intermediate Crude to $32.98 per barrel. It is unprofitable to produce oil at this price for many domestic oil and gas producers, including most Colorado producers. The industry is resilient, but if these price levels persist, there will be significant contractions in the oil and gas industry that will add additional stress to the U.S. economy.

This forecast anticipates that current actions to maintain social distancing will continue over the next several months and that they will be successful in slowing the spread of the coronavirus. These actions are expected to provide needed assistance to the health care system and stem the number of lives lost. They will also allow the economy to reboot later this year and recover to trend levels of economic activity in 2021.

Discussion of the economic outlook begins on page 31, and summaries of expectations for the U.S. and Colorado economies are presented, respectively, in Tables 15 and 16 on pages 56 and 57.

General Fund Budget Overview

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

- statutory transfers to transportation and capital construction funds (Table 2);
- General Fund transfers to the State Education Fund (Figure 1);
- the disposition of fiscal policies dependent on revenue collections (Tables 3 and 4);
- General Fund rebates and expenditures (Table 5); and
- cash fund transfers to and from the General Fund (Table 6).

FY 2018-19

Based on the Comprehensive Annual Financial Report released by the Office of the State Controller, the General Fund ended FY 2018-19 with an 11.2 percent reserve, $448.3 million higher than the statutorily required 7.25 percent reserve. Based on the August 30 TABOR certification, revenue exceeded the Referendum C cap by $428.3 million, resulting in a TABOR refund in FY 2019-20. The TABOR refund obligation is being returned to taxpayers via a temporary income tax rate reduction for tax year 2019 only, in addition to fully funding the senior homestead and disabled veteran property tax exemptions.

FY 2019-20

The General Fund is expected to end the year with a 7.29 percent reserve totaling $880.6 million. This amount is $4.3 million higher than the statutorily required 7.25 percent reserve. These amounts incorporate expenditure impacts from 2020 legislation signed into law to date, including supplemental packages (House Bill 20-1242 through House Bill 20-1249), House Bill 20-1019, House Bill 20-1261, and House Bill 20-1246. Any other legislation enacted during the 2020 session that impacts revenue, expenditures, or transfers in the current fiscal year will change these amounts.

Relative to the December forecast, expectations for the FY 2019-20 year-end balance have been reduced by $179.6 million. The difference reflects downward revisions to both General Fund and cash funds revenue to reflect the impact of COVID-19 on economic activity and revenue collections. Gross General Fund revenue expectations were reduced by $396.1 million with reductions across all major revenue streams. Expectations for cash fund revenue subject to TABOR were revised downward by $148.8 million relative to December, on reduced expectations for transportation-related revenue, gaming revenue, and severance tax collections. Revenue subject to TABOR is expected to fall below the Referendum C cap by $247.7 million.

FY 2020-21 (Unbudgeted)

Because a budget has not yet been enacted for FY 2020-21, Table 1 (line 20) shows the amount of revenue available in FY 2020-21 relative to the amount budgeted to be spent or saved in FY 2019-20. Based on this forecast, the General Assembly will have $27.3 million, or 0.2 percent, more to spend or save in the General Fund than what is budgeted for FY 2019-20. This amount assumes FY 2020-21 transfers, rebates and expenditures, and TABOR refund obligations under current law. In particular, it is assumed that the entire reimbursement to local governments for the senior homestead and disabled veteran property tax exemptions will be paid from FY 2020-21 General Fund revenue, as no FY 2019-20 TABOR surplus will be available for this purpose. The $27.3 million amount also assumes that the FY 2019-20 year-end reserve of $880.6 million is carried forward into the beginning reserve for FY 2020-21. Any changes made to the budget for FY 2019-20 will carry forward into FY 2020-21.

Relative to the December forecast, gross General Fund revenue expectations for FY 2020-21 were reduced by $749.9 million on reduced revenue expectations attributable to economic distortions related to the containment of COVID-19. Expectations for cash fund revenue subject to TABOR were reduced by $242.6 million. Revenue subject to TABOR is expected to fall below the Referendum C cap by $629.6 million.

Risks to the Forecast

This forecast is based on actual collections data for the first eight months of the fiscal year (July through February). Collections for these eight months historically have accounted for about 62 percent of total General Fund collections in a fiscal year. The largest share of revenue is collected during the regular income tax filing season, which runs from January through April. This means that over a third of collections in the current FY 2019-20 have yet to come in, all of which are expected to reflect COVID-19-related distortions.

Changes to current law and economic downturns tend to be the largest drivers of forecast error. This forecast is subject to significant uncertainty given the rapidly evolving economic and policy environment surrounding efforts to contain the spread of COVID-19.

COVID-19 uncertainty and recession risk. The spread of the novel coronavirus and associated disease, COVID-19, and the efforts to contain the disease pose a significant downside risk to the economic and related revenue forecasts. This forecast assumes short-term contractions in consumer and business activity over the next several months resulting from efforts to stem the spread of COVID-19. This contraction will reduce state revenue in both the current FY 2019-20 and FY 2020-21. Significant uncertainty remains about the actions of consumers, businesses, and investors, as well as health officials and government agencies in the months ahead. While a near-term contraction is certain, this contraction could lead to a prolonged and severe pullback in economic activity. The risk of recession in calendar year 2020 is elevated and poses significant downside risk to this forecast.

Conversely, COVID-19 may be contained more quickly than expected, resulting in a rapid return to the sustained economic expansion following the current slowdown and market volatility.

Table 1
General Fund Overview
Dollars in Millions

	Funds Available	**FY 2018-19 Actual**	**FY 2019-20 Estimate**	**FY 2020-21 Estimate**	**FY 2021-22 Estimate**
1	Beginning Reserve	$1,366.0	$1,262.6	$880.6	*
2	General Fund Revenue	$12,564.6	$12,546.6	$12,725.1	$13,652.1
3	Transfers from Other Funds *(Table 6)*	$38.0	$65.0	$12.8	$14.6
4	**Total Funds Available**	**$13,968.6**	**$13,874.2**	**$13,618.5**	*****
5	Percent Change	12.3%	-0.7%	-1.8%	*
	Expenditures	**Actual**	**Budgeted**	**Estimate**	**Estimate**
6	General Fund Appropriations Subject to Limit[1]	$11,230.5	$12,086.2	*	*
7	Adjustments to Appropriations [2]	28.2	*	*	*
8	TABOR Refund Obligation Under Art. X, §20, (7)(d)[3]	$428.5	$0.0	$0.0	$0.0
9	Rebates and Expenditures *(Table 5)*	$249.8	$142.7	$305.7	$312.0
10	Transfers to Other Funds *(Table 6)*	$219.8	$198.5	$253.1	$267.1
11	Transfers to the State Education Fund (SB 13-234 & SB 19-246)	$25.0	$40.3	$0.0	$0.0
12	Transfers to Transportation Funds *(Table 2)*	$495.0	$300.0	$50.0	$50.0
13	Transfers to Capital Construction Funds *(Table 2)*	$180.5	$225.8	$20.0	$20.0
14	**Total Expenditures**	**$12,857.3**	**$12,993.6**	*	*
15	Percent Change	14.6%	1.1%	*	*
16	Accounting Adjustments[4]	$151.3	*	*	*
	Reserve	**Actual**	**Budgeted**	**Estimate**	**Estimate**
17	Year-End General Fund Reserve	$1,262.6	$880.6	*	*
18	Year-End Reserve as a Percent of Appropriations	11.2%	7.3%	*	*
19	Statutorily Required Reserve[5]	$814.2	$876.3	*	*
20	**Amount in Excess or (Deficit) of Statutory Reserve**	**$448.3**	**$4.3**	*	*
21	Excess Reserve as a Percent of Expenditures	3.5%	0.0%	*	*
	Perspectives on FY 2020-21 (Unbudgeted)			**Estimate**	**Estimate**
	Scenario: Hold FY 2019-20 Appropriations Constant[6]				
22	Amount in Excess or (Deficit) of 7.25% Statutory Reserve			$27.3	*
23	As a Percent of Prior-Year Expenditures			0.2%	*
	Addendum	**Actual**	**Estimate**	**Estimate**	**Estimate**
24	Percent Change in General Fund Appropriations	7.6%	7.3%	*	*
25	5% of Colorado Personal Income Appropriations Limit	$14,479.0	$15,537.7	$16,647.1	$17,646.0
26	Transfers to State Education Fund per Amendment 23	$692.8	$680.1	$687.8	$734.0

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

[1]Includes bills signed into law to date, including the FY 2019-20 supplemental package, HB 20-1019, HB 20-1261, and HB 20-1246.

[2]FY 2018-19 overexpenditures for the Department of Health Care Policy and Financing pursuant to HB 20-1246.

[3]Pursuant 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.

[4]For FY 2018-19, assumes the 2019 Colorado Basic Financial Statements General Fund budgetary fund balance. Also reflects a $0.1 million underfunded for the FY 2014-15 TABOR surplus; this amount is restricted in the General Fund from FY 2014-15 revenue and required to be refunded with the FY 2018-19 TABOR surplus.

[5]The required reserve is calculated as a percent of operating appropriations, and is required to equal 7.25 percent in FY 2018-19 and each year thereafter.

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

General Fund Transfers to Transportation and Capital Construction

Statutory transfers from the General Fund to transportation and capital construction funds are shown in Table 2. In the General Fund overview shown in Table 1, these transfers are reflected on lines 12 and 13. Other noninfrastructure-related transfers to and from the General Fund are summarized in Table 6, and shown on lines 3 and 10 of Table 1.

Table 2
Infrastructure Transfers from the General Fund
Dollars in Millions

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

Capital Construction Funds	2018-19	2019-20	2020-21	2021-22
HB 15-1344*		$20.0	$20.0	$20.0
SB 17-262	$60.0	$60.0		
HB 18-1006	$0.7			
HB 18-1340	$119.8			
HB 19-1250		$0.2		
SB 19-172		$0.1		
SB 19-214		$145.5		
Total	**$180.5**	**$225.8**	**$20.0**	**$20.0**

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

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

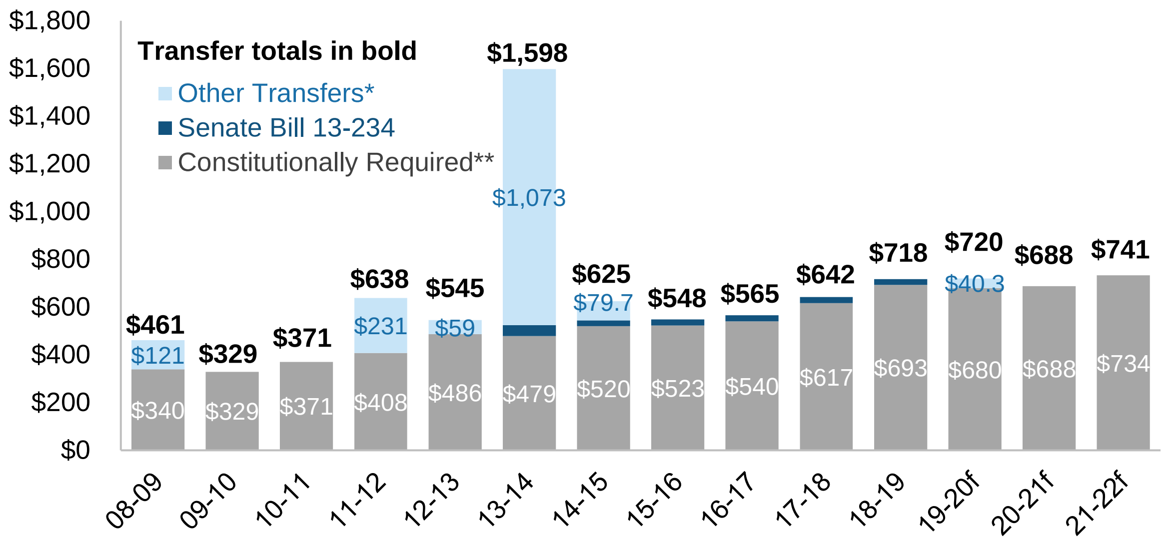
Senate Bill 18-001 created one-time General Fund transfers for transportation of $495 million in FY 2018-19 and $150 million in FY 2019-20. These amounts are apportioned to the State Highway Fund, a new Multimodal Transportation Options Fund, and county and municipal governments. Senate Bill 18-001 authorizes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

State Education Fund

The Colorado Constitution requires the State Education Fund (SEF) to receive one-third of 1 percent of taxable income. Money in the SEF is required to be used to fund kindergarten through twelfth grade public education. In FY 2019-20, the State Education Fund is expected to receive $680 million as a result of this requirement. Relative to the December 2019 forecast, this March forecast incorporates reduced expectations for taxable income attributable to COVID-19-related distortions in the economy. As a result, relative to the December 2019 forecast, expectations for this SEF diversion were reduced by $21.3 million in FY 2019-20, and by $43.5 million in FY 2020-21. Expectations for these diversions and other SEF transfers under current law are shown in Figure 1.

In addition to the SEF diversion, the General Assembly has at different times authorized the transfer of additional moneys from the General Fund to the SEF (see Table 1, line 11). General Fund transfers to the SEF pursuant to Senate Bill 13-234, which have occurred annually since FY 2013-14, are scheduled to end after FY 2018-19. The 2019 school finance act, Senate Bill 19-246, includes a one-time $40.3 million General Fund transfer to the State Education Fund in FY 2019-20, after which only constitutionally required diversions are scheduled under current law.

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, and SB 19-246 for FY 2019-20.*
***One-third of 1 percent of federal taxable income is required to be dedicated to the State Education Fund under Article IX, Section 17 of the Colorado Constitution.*

Fiscal Policies Dependent on Revenue Conditions

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

- **The historic preservation income tax credit is available for tax years 2018 and 2019.** The historic preservation income tax credit will be available on for tax years 2018 and 2019 based on the December 2017 and December 2018 forecasts, respectively. These forecasts expected sufficient revenue to grow appropriations by more than 6.0 percent in FY 2017-18 and FY 2018-19. This credit is repealed beginning tax year 2020.

- **Partial refundability of the conservation easement tax credit is available for tax year 2019, but is not expected to be available for tax years 2020, 2021, or 2022.** The conservation easement income tax credit is available as a nonrefundable credit in most years. In tax years when the state refunds a TABOR surplus, taxpayers may claim an amount up to $50,000, less their income tax liability, as a refundable credit. Because a TABOR surplus was collected in FY 2018-19, the credit was partially refundable for tax year 2019. This forecast does not expect a TABOR surplus in each of FY 2019-20, FY 2020-21, and FY 2021-22. Therefore, partial refundablility of the credit is not expected to be available for tax years 2020, 2021, or 2022.

Table 3
Availability of Tax Policies Dependent on Revenue Conditions

Fiscal Policy	Availability Criteria	Availability
Historic Property Preservation Income Tax Credit (Section 39-22-514, C.R.S.) *Revenue reduction of less than $1.0 million per tax year**	December forecast immediately before the tax year when the credit becomes available that predicts sufficient General Fund revenue to grow General Fund appropriations by 6 percent.	Available in tax years 2018 and 2019. Repealed in tax year 2020.
Conservation Easement Tax Credit Partial Refundability (Section 39-22-522 (5)(b)(II), C.R.S.) *Revenue reduction of about $5.0 million per tax year**	TABOR surplus.	Available in tax year 2019 due to the FY 2018-19 TABOR surplus. Not expected to be available in tax years 2020, 2021, or 2022.

**Estimates may differ in future analyses.*

Contingent transfers for affordable housing. House Bill 19-1322 created conditional transfers from the Unclaimed Property Trust Fund (UPTF) to the Housing Development Grant Fund for affordable housing projects. These transfers are continent based on the balance in the UPTF as of June 1 and the Legislative Council Staff June 2021, 2022, and 2023 forecasts. For the fiscal year in which a relevant forecast is published, if revenue subject to TABOR is projected to fall below a "cutoff" amount equal to the projected Referendum C cap minus $30 million dollars, a transfer will be made. The transfer is equal to the greater of $30 million, or the UPTF fund balance. As presented in Table 4, based on this March forecast, a transfer is expected for both FY 2020-21 and FY 2021-22 because revenue is expected to be below the cutoff. However, the June 2021 and June 2022 forecasts will determine the actual amount of this transfer. A forecast is not yet available for FY 2022-23.

Table 4
Availability of Transfers from the Unclaimed Property Tax Fund Under HB 19-1322

		FY 2020-21 Estimate	FY 2021-22 Estimate	FY 2022-23 Estimate
1	Forecast that Determines Availability	June 2021	June 2022	June 2023
2	Available UPTF Balance*	$126.3 million	$126.3 million	Forecast not yet available.
3	Referendum C Cap	$15,412.3 million	$15,951.7 million	
4	Transfer Cutoff *(line 3 minus $30 million)*	$15,382.3 million	$15,921.7 million	
5	Revenue Subject to TABOR	$14,782.7 million	$15,809.0 million	
6	Revenue Above or (Below) Cutoff	$599.6 million	$112.7 million	
7	**Transfer Amount****	**$30.0 million**	**$30.0 million**	

**The estimate of the available balance in the UPTF is based on the most recent five-year average.*
***Actual transfer amounts will depend on the UPTF fund balance and future forecast expectations.*

Table 5
General Fund Rebates and Expenditures
Dollars in Millions

Category	Actual FY 2018-19	Percent Change	Estimate FY 2019-20	Percent Change	Estimate FY 2020-21	Percent Change	Estimate FY 2021-22	Percent Change
Senior and Veterans Property Tax Exemptions	$145.9	10.3%	$152.1	4.2%	$163.6	7.5%	$170.0	4.0%
TABOR Refund Mechanism*	-$39.5		-$152.1		$0.0		$0.0	
Cigarette Rebate	$9.4	-3.8%	$9.4	0.1%	$9.0	-3.8%	$8.8	-2.3%
Old Age Pension Fund	$86.8	-4.9%	$83.5	-3.8%	$81.5	-2.4%	$80.6	-1.2%
Aged Property Tax and Heating Credit	$5.5	13.0%	$6.3	13.1%	$6.6	4.5%	$6.1	-6.6%
Older Coloradans Fund	$10.0	-60.0%	$10.0	0.0%	$10.0	0.0%	$10.0	0.0%
Interest Payments for School Loans	$7.4	48.3%	$6.5	-11.9%	$6.5	-0.1%	$6.5	0.0%
Firefighter Pensions	$4.2	-3.4%	$4.3	1.4%	$4.4	2.7%	$4.5	2.7%
Amendment 35 Distributions	$0.8	-2.7%	$0.8	-2.2%	$0.8	-2.1%	$0.8	-0.9%
Marijuana Sales Tax Transfer to Local Governments	$19.3	11.5%	$21.9	13.7%	$23.3	6.5%	$24.7	5.8%
Total Rebates and Expenditures	**$249.8**	**-14.1%**	**$142.7**	**-42.9%**	**$305.7**	**114.3%**	**$312.0**	**2.1%**

Totals may not sum due to rounding.

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

Table 6
Cash Fund Transfers
Dollars in Millions

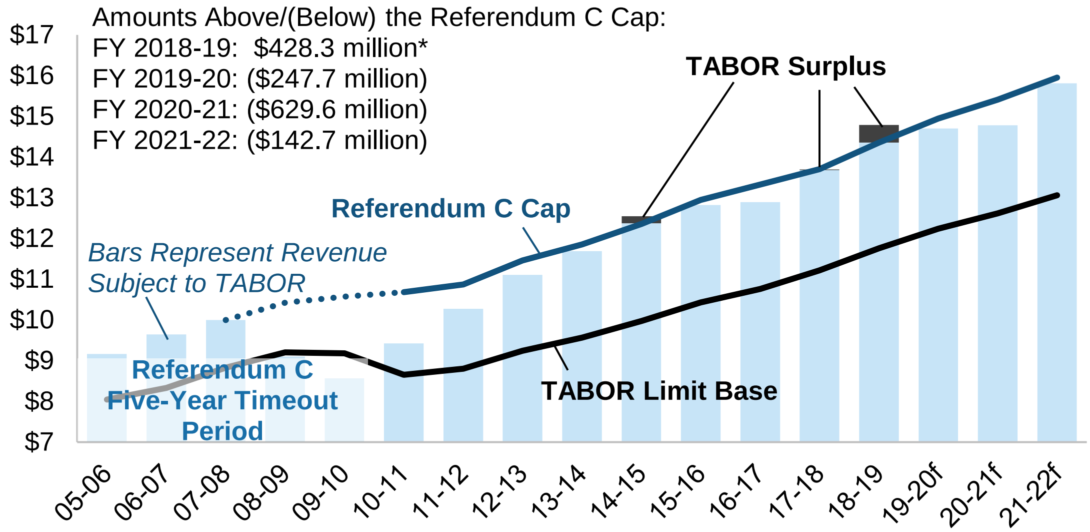
Transfers to the General Fund		2018-19	2019-20	2020-21	2021-22
HB 05-1262	Amendment 35 Tobacco Tax	$0.8	$0.8	$0.8	$0.8
SB 13-133 & SB 18-191	Limited Gaming Fund	$16.4	$11.2	$12.1	$13.8
SB 17-265 & SB 19-208	State Employee Reserve Fund		$23.0		
HB 18-1338	Reduced Revenue Severance Tax Transfers	$20.8			
SB 19-158	Pet Animal Care and Facility Fund		$0.01	$0.01	$0.01
SB 19-261	Unclaimed Property Trust Fund		$30.0		
Total Transfers to the General Fund		**$38.0**	**$65.0**	**$12.8**	**$14.6**
Transfers from the General Fund		**2018-19**	**2019-20**	**2020-21**	**2021-22**
SB 11-047	Bioscience Income Tax Transfer to OEDIT	$6.9	$6.9	$7.1	$7.6
SB 14-215	Marijuana Tax Cash Fund	$125.0	$141.7	$150.8	$159.5
HB 14-1016[1]	Procurement Technical Assistance Cash Fund	$0.2	$0.2		
SB 15-244 & SB 17-267	State Public School Fund	$20.1	$24.8	$26.4	$28.0
HB 16-1161[2]	Older Coloradans Fund & Veterans Grant Program Fund (conditional)	$16.9	$0.0		
HB 16-1288	Industry Infrastructure Fund	$0.3			
SB 17-255	Technology Advancement and Emergency Fund	$2.0			
HB 18-1323	Pay For Success Contracts Pilot Program Funding	$0.4	$0.5	$0.5	$0.4
HB 18-1338	Reduced Revenue Severance Tax Transfers	$27.4			
HB 18-1363	Recommendations Of Child Support Commission	$0.04	$0.04	$0.04	$0.04
HB 18-1357	Behavioral Health Care Ombudsperson Parity Reports	$0.01			
HB 18-1423	Rural Fire Protection District Equipment Grants	$0.3			
SB 18-016[3]	Transitioning from Criminal & Juvenile Justice System	$0.4	$0.0	$0.0	$0.0
SB 18-132	1332 State Waiver Catastrophic Health Plans	$0.01			
SB 18-280	Tobacco Litigation Settlement Cash Fund	$20.0			
HB 19-1026	Parks and Wildlife Fines		$0.4	$0.4	$0.4
HB 19-1147	Traumatic Brain Injury Program		$0.5		
HB 19-1168 & HB 19-1245	Reinsurance Cash Fund		$15.0	$59.7	$19.7
HB 19-1174, HB 19-1216, HB 19-1233, HB 19-1269, HB 19-1283	Division of Insurance Cash Fund for Out-of-Network Health Care Services, Insulin Prices, Investments in Primary Care, Mental Health Parity, and Disclosure of Insurance Liability Coverage		$0.3	$0.2	$0.2
HB 19-1245	Housing Development Grant Fund		$8.2	$8.0	$51.3
Total Transfers from the General Fund		**$219.8**	**$198.5**	**$253.1**	**$267.1**
Net General Fund Impact		**($181.8)**	**($133.5)**	**($240.3)**	**($252.5)**

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

TABOR Outlook

This section presents the state TABOR refund obligation for FY 2018-19 and the outlook for the state's TABOR situation through FY 2021-22. Forecasts for TABOR revenue are summarized in Table 8 on page 16 and illustrated in Figure 2, which also provides a history of the TABOR limit base and the Referendum C cap.

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

FY 2018-19. The State Controller's Schedule of TABOR Computations for FY 2018-19 indicates that state revenue subject to TABOR exceeded the Referendum C cap by $428.3 million in FY 2018-19. After accounting for a small outstanding refund obligation attributable to underrefunds of prior TABOR surpluses, the state is obligated to refund **$428.5 million** in the current FY 2019-20.

TABOR refunds are made to taxpayers first via **property tax exemptions** administered at the county level. After subtracting the property tax exemption amount estimated in September 2019, the remaining refund obligation triggered a **temporary income tax rate reduction** for 2019 income taxes on tax returns filed in 2020. After accounting for the expected impacts of these two mechanisms, the remainder to be refunded was estimated to be about 49¢ per taxpayer. Because the refund amount rounded to less than $1 per taxpayer, the sales tax refund mechanism was not used on 2019 tax forms.

FY 2019-20 through FY 2021-22. Consistent with downward revisions to the General Fund and cash fund revenue forecasts discussed in later sections of this forecast document, state revenue subject to TABOR is expected to fall short of the Referendum C cap in all three years of the current forecast period. Table 7 compares forecast expectations for revenue subject to TABOR between the December 2019 forecast and this March 2020 forecast.

Table 7
Change in TABOR Estimates, December 2019 to March 2020
Dollars in Millions

FY 2019-20	March	December	Change
TABOR Revenue	**$14,701.2**	**$15,253.1**	**($552.0)**
General Fund*	$12,357.5	$12,760.7	($403.2)
Cash Funds*	$2,343.7	$2,492.5	($148.8)
Referendum C Cap	**$14,948.8**	**$14,948.8**	**$0.0**
Revenue Above/(Below) Ref C Cap	**($247.7)**	**$304.3**	**($552.0)**

FY 2020-21	March	December	Change
TABOR Revenue	**$14,782.7**	**$15,779.5**	**($996.8)**
General Fund*	$12,491.9	$13,246.1	($754.2)
Cash Funds*	$2,290.8	$2,533.4	($242.6)
Referendum C Cap	**$15,412.3**	**$15,412.3**	**$0.0**
Revenue Above/(Below) Ref C Cap	**($629.6)**	**$367.3**	**($996.8)**

FY 2021-22	March	December	Change
TABOR Revenue	**$15,809.0**	**$16,374.3**	**($565.3)**
General Fund*	$13,405.4	$13,786.6	($381.2)
Cash Funds*	$2,403.6	$2,587.6	($184.0)
Referendum C Cap	**$15,951.7**	**$15,920.9**	**$30.8**
Revenue Above/(Below) Ref C Cap	**($142.7)**	**$453.4**	**($596.1)**

**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.*

Because revenue is expected to fall short of the Referendum C cap in all three years, this forecast projects that the state will not incur an obligation for TABOR refunds through at least FY 2021-22. As a result, no refunds to taxpayers are expected to be made via property tax exemptions or refund mechanisms using the income tax form through tax year 2022.

Accounting of State Highway Fund revenue. The State Highway Fund (SHF) in the Department of Transportation primarily receives distributions of fuel tax and registration fee revenue allocated via the Highway Users Tax Fund, which is subject to TABOR when initially collected, and transportation-related payments to Colorado from the federal government, which are exempt from TABOR as federal funds.

As shown in Table 11 on page 25, the SHF also directly received $39.9 million in revenue subject to TABOR during FY 2018-19. This amount primarily included interest income and payments from local governments used to generate matching grants for local transportation projects. Pursuant to an Attorney General's opinion regarding the accounting of these funds, the Office of the State Controller is expected to treat SHF revenue from local governments as TABOR-exempt beginning in FY 2019-20. This forecast correspondingly excludes expected local government payments to the SHF from its calculation of transportation-related cash fund revenue subject to TABOR. Revenue credited to the SHF from other sources, such as interest income, is still accounted as subject to TABOR and forecast accordingly.

Income tax rate. The state income tax rate was temporarily reduced from 4.63 percent to 4.50 percent for tax year 2019 to refund part of the FY 2018-19 TABOR surplus. Because no TABOR surplus is expected for FY 2019-20, the income tax rate will return to 4.63 percent for tax year 2020.

The rate reduction refunds revenue collected during FY 2018-19 that was restricted in the General Fund to pay TABOR refunds required in FY 2019-20. It does not reduce the amount of income tax revenue accrued to the General Fund for FY 2019-20 and subsequent years.

Homestead exemption reimbursements. In years when the state refunds a TABOR surplus, revenue over the TABOR limit is first required to be refunded to senior and disabled veteran homeowners via state reimbursements to local governments for the senior and disabled veteran property tax exemptions. This amount correspondingly reduces the General Fund obligation that would otherwise be required for reimbursements.

As shown in Table 5 on page 11, the restricted FY 2018-19 TABOR surplus was more than enough to fully fund the FY 2019-20 property tax exemption reimbursement obligation, now estimated at $152.1 million. Because the state is not expected to collect a TABOR surplus in FY 2019-20 or FY 2020-21, Table 5 shows that the reimbursement obligations for FY 2020-21 and FY 2021-22 will be paid from General Fund revenue in those years, rather than restricted prior year TABOR surpluses.

Table 8
TABOR Revenue Limit and Retained Revenue
Dollars in Millions

		Actual FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22
	TABOR Revenue				
1	General Fund[1]	$12,350.4	$12,357.5	$12,491.9	$13,405.4
2	Cash Funds	$2,438.0	$2,343.7	$2,290.8	$2,403.6
3	**Total TABOR Revenue**	**$14,788.4**	**$14,701.2**	**$14,782.7**	**$15,809.0**
	Revenue Limit				
4	Allowable TABOR Growth Rate	4.8%	4.1%	3.1%	3.5%
5	Inflation (*from Prior Calendar Year*)	3.4%	2.7%	1.9%	2.2%
6	Population Growth (*from Prior Calendar Year*)	1.4%	1.4%	1.2%	1.3%
7	TABOR Limit Base[2]	$11,759.3	$12,241.5	$12,621.0	$13,062.7
8	Voter Approved Revenue Change (Referendum C)	$2,600.7	$2,459.7	$2,161.7	$2,746.3
9	Total TABOR Limit / Referendum C Cap	$14,360.1	$14,948.8	$15,412.3	$15,951.7
10	**TABOR Revenue Above (Below) Referendum C Cap**	**$428.3**	**($247.7)**	**($629.6)**	**($142.7)**
	Retained/Refunded Revenue				
11	Revenue Retained under Referendum C[2]	$2,600.7	$2,459.7	$2,161.7	$2,746.3
12	Fiscal Year Spending *(revenue available to be spent or saved)*	$14,360.1	$14,701.2	$14,782.7	$15,809.0
13	Outstanding Underrefund Amount[3]	$0.1			
14	**Revenue Refunded to Taxpayers**[4]	**$428.5**	**$0.0**	**$0.0**	**$0.0**
15	TABOR Reserve Requirement	$430.8	$441.0	$443.5	$474.3

Totals may not sum due to rounding.

[1]General Fund revenue differs from the amount in the General Fund revenue summary because of accounting adjustments across TABOR boundaries.

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

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

[4]Pursuant to Section 24-75-201 (2), C.R.S., revenue above the Referendum C cap is required to be set aside during the year it is collected to be refunded in the following fiscal year. For example, excess revenue collected in FY 2018-19 was set aside in the budget for FY 2018-19 to be refunded in FY 2019-20 on tax returns for tax year 2019.

General Fund Revenue

This section presents the Legislative Council Staff outlook for General Fund revenue, the state's main source of funding for operating appropriations. Table 9 on page 21 summarizes General Fund revenue collections for FY 2018-19 and projections for FY 2019-20 through FY 2021-22.

FY 2018-19. Final figures from the Office of the State Controller indicate that General Fund revenue totaled $12.6 billion after accounting for the diversion to the State Education Fund under Amendment 23. Revenue increased 7.2 percent, or $0.8 billion, relative to FY 2017-18.

FY 2019-20. General Fund revenue collections are expected to decrease 0.1 percent during the current fiscal year. Expectations were reduced $396.1 million, or 3.1 percent, relative to the December 2019 forecast. Some of the reduction in expectations reflects lower-than-expected revenue collections during the winter months, particularly in individual income tax estimated payments. However, most of the revision is attributable to decreases in economic activity expected to manifest over the final months of the fiscal year. Economic distortions associated with actions to stem the spread of the COVID-19 virus are expected to constrain corporate and small business proprietors' income, investment income, and retail trade activity. Reduced revenue expectations for the latter part of the fiscal year are broad-based across most revenue streams, though the extent of the slowdown depends on the level of dispersion of the virus and the duration and pervasiveness of business closures.

FY 2020-21. Revenue collections are expected to grow 1.4 percent from FY 2019-20 levels and total $12.7 billion. Revenue expectations were reduced $749.9 million, or 5.6 percent, relative to the December 2019 forecast. The downward revision reflects expectations that subdued business investment and consumer activity and supply-side constraints from a slowdown in global trade will continue into the second half of calendar year 2020 and weigh on income tax collections for the 2020 tax year.

FY 2021-22. Revenue is expected to rebound, increasing 7.3 percent in FY 2021-22 to total $13.7 billion. The forecast anticipates reacceleration to revenue growth as business and consumer activity normalize. The largest revenue streams, individual income tax revenue and sales tax revenue, are expected to grow at a moderate-to-strong pace.

Risks to the forecast. Risks to the forecast are heavily skewed to the downside and the risk of recession in 2020 is elevated. General Fund revenue is sensitive to the pervasiveness and duration of economic disruptions resulting from public health measures employed to contain and control the COVID-19 virus. This forecast assumes that business income, wage payments, and consumer spending will recover following disruptions concentrated in the second quarter of 2020, when business activity is expected to slow considerably and consumers are expected to spend less. Under this scenario, certain industries, including airlines, hotels, restaurants, and entertainment, are expected to experience near-term contractions in activity. If disruptions continue for a longer duration or additional industries are impacted, the state economy will enter a recession. This possibility poses significant downside risk to the General Fund revenue collections.

Further, the March 2020 oil price collapse is expected to reduce tax collections from oil producers, downstream businesses, and their employees. The forecast assumes that collections from these taxpayers will recover later in FY 2020-21, but sustained low oil prices will weaken the industry and result in lower revenue than estimated. Conversely, a recovery in global crude oil prices could result in stronger than expected revenue during the forecast period.

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

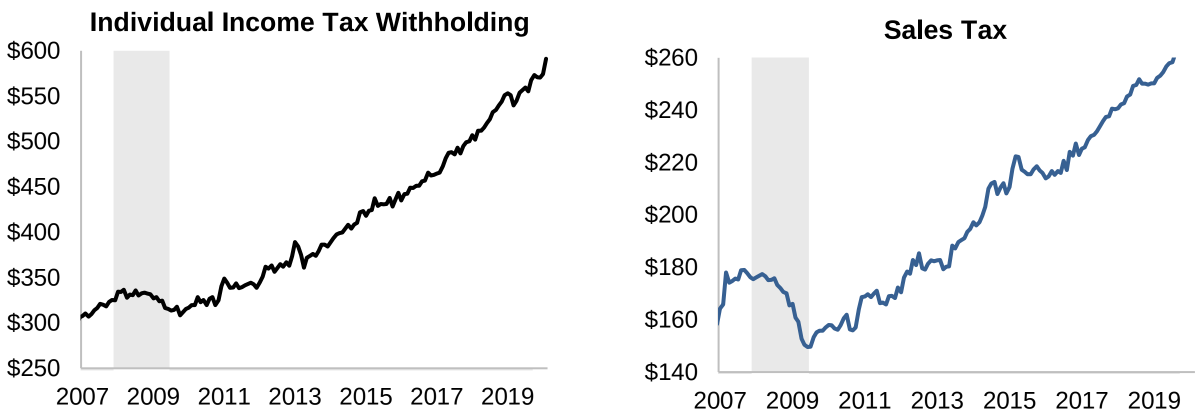
Individual income tax. Individual income tax revenue includes revenue collected from households, businesses other than C corporations, and fiduciaries paying the state's 4.63 percent income tax on their Colorado taxable income. Most individual income tax revenue is credited to the General Fund, though an amount of revenue representing one-third of 1 percent of taxable income is diverted to the State Education Fund (SEF) and used for school finance purposes. This portion is exempt from the TABOR limit as a voter-approved revenue change under Amendment 23. Payers of the individual income tax are the most significant contributors to the General Fund. The tax accounted for just over 60 percent of FY 2018-19 General Fund revenue, net of the SEF diversion.

FY 2019-20. Individual income tax revenue increased 6.6 percent over the first eight months of FY 2019-20 compared with the same period of FY 2018-19. Despite the strength in collections through February, revenue is expected to increase 0.5 percent to total $8.3 billion for the current fiscal year. The uncertainty surrounding COVID-19 is expected to shift taxpayer behavior, exacerbating the income impacts of COVID-19-related business closures and dampened consumer activity. Individual income tax revenue expectations for the current fiscal year were revised downward by $241.3 million, or 2.8 percent, relative to those published in December 2019, accounting for over half of the decrease in gross General Fund revenue expectations for the current fiscal year.

Wage withholding, the largest component of individual income tax revenue, has seen strong increases fiscal year-to-date, reflecting recent wage increases and a withholding form change from the Department of Revenue (Figure 3, left). As quarantines and business closures begin to affect wage and salary income, wage withholding will weaken, beginning as soon as March 2020. For the 2020 tax year, both federal and state tax administrators changed the format of forms used by employers to determine tax withholding. The new state form requires higher withholding from some employees. This forecast assumes that elevated withholding during the first half of the 2020 tax year will result in elevated refunds of overpaid taxes when taxpayers file their annual returns next year.

FY 2020-21. The outlook for individual income tax collections has become less certain for FY 2020-21 on an elevated risk of recession. This forecast anticipates that individual income tax revenue will total $8.5 billion, increasing 2.1 percent over the prior fiscal year. Weakness in the oil and gas and related industries and impacts of the COVID-19 pandemic will put downward pressure on wages and will reduce business incomes for several industries. Relative to the December 2019 forecast, expectations were reduced by $527.0 million, accounting for nearly two-thirds of the reduction in expectations for gross General Fund revenue in FY 2020-21. The decrease is attributable to reduced expectations for estimated payments and wage withholding, and increased expectations for refunds of overpaid 2020 taxes during the regular filing period next year.

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



Source: Office of the State Controller and Department of Revenue. Data are seasonally adjusted by Legislative Council Staff using the Census x12 method. Data are shown on a cash-accounting basis as three-month moving averages. Data are through February 2020. February 2020 data are preliminary.

FY 2021-22. Revenue is expected to grow 7.3 percent and reach $9.1 billion in FY 2021-22 as wages and business activity rebound from COVID-19-related economic distortions. Relative to the December 2019 forecast, expectations were reduced by $291.0 million, accounting for lower growth in prior years.

TABOR refund mechanism. The FY 2018-19 TABOR surplus triggered a temporary income tax rate reduction during tax year 2019. This TABOR refund mechanism temporarily reduces the state income tax rate from 4.63 percent to 4.50 percent for one year only, unless the state collects a sufficiently large TABOR surplus to trigger the rate reduction for a second year. The rate reduction refunds revenue collected during FY 2018-19 that has been restricted in the General Fund to pay TABOR refunds required in FY 2019-20.

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 5.3 percent to total $3.2 billion during the current FY 2019-20 before growing by 1.9 percent in FY 2020-21 and 8.2 percent in FY 2021-22. Sales tax collections are shown in the right panel of Figure 3. The uptick in growth year-to-date during FY 2019-20 is largely attributable to legislative changes in House Bill 19-1240, which changed how out-of-state, including online, sales are taxed. These changes have boosted collections that otherwise would reflect slower consumer activity. Significant downside risks to the sales tax forecast may emerge depending on the pervasiveness and duration of the COVID-19 outbreak. The food services, accommodation, travel, and entertainment industries are expected to face the strongest headwinds as large gatherings are cancelled or postponed, and tourists cancel vacation plans. Durable goods purchases are also projected to decline as consumers delay large purchases amid economic uncertainty.

Use taxes. The 2.9 percent state use tax is due when sales tax is owed, but is not collected at the point of sale. Use tax revenue is largely driven by capital investment among manufacturing, energy, and mining firms. Use tax collections surged during FY 2018-19, growing 11.5 percent to total $345.5 million on the strength of a recovering energy industry. However, capital investments have fallen this fiscal year. Revenue is expected to reverse course and decline during FY 2019-20 and FY 2020-21 by 43.9 percent and 5.0 percent, respectively, before recovering with 16.5 percent growth in FY 2021-22. Oil industry capital expenditures have slowed on tight credit conditions and weak global demand. Recent price shocks will continue to reduce use tax collections from the energy industry.

Legislative changes and the rules promulgated by the Department of Revenue to collect out-of-state retail sales tax will gradually convert retail use tax collections, around 64 percent of total use tax collections as of FY 2018-19, to sales tax collections. This trend will also put downward pressure on collections throughout the forecast period.

Corporate income tax. After reaching record levels in FY 2018-19, corporate income tax revenue will decline in the next two fiscal years. Corporate income tax revenue totaled $919.8 million in FY 2018-19, the highest level of collections in the state's history on the back of a strong economy, federal tax law changes that took effect in 2018, and a large audit concluded by the Department of Revenue. Collections are expected to decline 13.9 percent to $792.2 million in FY 2019-20 and decline an additional 9.0 percent to $720.9 million in FY 2020-21 as the full extent of the demand and supply shocks ripple through the economy and manifest in reduced payments. Corporate income tax revenue will fall on lower profits as firms experience weakened demand, increased input costs, and disruption to the workforce due to COVID-19-related distortions.

Corporate income tax revenue is volatile and the revenue stream has significant exposure to at least two sectors that are expected to suffer significant hits: the oil and gas industry and the travel industry. To the extent that economic performance falls short of expectations, corporate income tax revenue will likewise be lower than forecast. This forecast expects an immediate reduction in corporate income tax revenue in the last four months of the current fiscal year and weakness throughout calendar year 2020. Compared with the December 2019 forecast, expectations for corporate income tax collections were reduced $54.3 million in FY 2019-20 and $77.0 million in FY 2020-21.

Table 9
General Fund Revenue Estimates
Dollars in Millions

	Category	Actual FY 2018-19	Percent Change	Estimate FY 2019-20	Percent Change	Estimate FY 2020-21	Percent Change	Estimate FY 2021-22	Percent Change
	Excise Taxes								
1	Sales	$3,054.0	4.4	$3,214.5	5.3	$3,276.9	1.9	$3,545.3	8.2
2	Use	$345.5	11.5	$193.8	-43.9	$184.1	-5.0	$214.6	16.5
3	Retail Marijuana Sales	$193.2	14.9	$219.1	13.4	$233.2	6.5	$246.7	5.8
4	Cigarette	$32.6	-5.8	$32.0	-1.7	$30.8	-3.8	$30.1	-2.3
5	Tobacco Products	$22.3	35.8	$23.9	7.5	$25.4	6.1	$26.5	4.3
6	Liquor	$48.3	3.9	$50.1	3.7	$52.2	4.1	$53.8	3.2
7	**Total Excise**	$3,695.9	5.5	$3,733.4	1.0	$3,802.6	1.9	$4,117.0	8.3
	Income Taxes								
8	Net Individual Income	$8,247.0	8.8	$8,286.9	0.5	$8,464.0	2.1	$9,081.3	7.3
9	Net Corporate Income	$919.8	17.6	$792.2	-13.9	$720.9	-9.0	$745.3	3.4
10	Total Income Taxes	$9,166.8	9.7	$9,079.1	-1.0	$9,184.9	1.2	$9,826.6	7.0
11	Less: Portion Diverted to the SEF	-$692.8	12.3	-$680.1	-1.8	-$687.8	1.1	-$734.0	6.7
12	**Income Taxes to the General Fund**	$8,474.0	9.5	$8,399.0	-0.9	$8,497.1	1.2	$9,092.6	7.0
	Other Sources								
13	Estate	$0.0	NA	$0.0	NA	$0.0	NA	$0.0	NA
14	Insurance	$314.7	3.6	$339.4	7.9	$354.0	4.3	$369.6	4.4
15	Pari-Mutuel	$0.5	-1.7	$0.5	-1.4	$0.5	2.0	$0.5	-1.0
16	Investment Income	$26.5	35.8	$33.7	27.1	$29.8	-11.7	$30.8	3.5
17	Court Receipts	$4.2	-5.3	$4.6	10.7	$4.4	-4.3	$4.3	-2.3
18	Other Income	$48.9	25.7	$35.9	-26.5	$36.7	2.1	$37.2	1.5
19	**Total Other**	$394.7	-17.8	$414.2	4.9	$425.4	2.7	$442.5	4.0
20	**Gross General Fund Revenue**	**$12,564.6**	**7.2**	**$12,546.6**	**-0.1**	**$12,725.1**	**1.4**	**$13,652.1**	**7.3**

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

Cash Fund Revenue

Table 10 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.

FY 2018-19. Final figures from the Office of the State Controller indicate cash fund revenue subject to TABOR totaled $2.44 billion in FY 2018-19, an increase of $133.7 million or 5.9 percent from the prior fiscal year. The most significant increase was in severance tax collections, which grew by $112.2 million, or 78.4 percent. The improvement in oil and gas production activity and in rising prices aided taxes levied on the extraction of natural resources. Transportation-related revenue, the largest source of cash fund revenue subject to TABOR, was flat, adding just over $500,000, as the pace of economic expansion slowed.

Forecast for FY 2019-20 through FY 2021-22. Total cash fund revenue subject to TABOR in the current FY 2019-20 is expected to total $2.34 billion, a decline of 3.9 percent from the previous year. The crude oil market rout and drop in travel activity due to the COVID-19 virus disruption that began to meaningfully affect the state in early March are expected to impact several cash fund sources in the current and the following fiscal years. Specifically, revenue to transportation-related, gaming, and severance cash funds are expected to decline in FY 2019-20 and FY 2020-21 before picking up in FY 2021-22.

Transportation-related revenue subject to TABOR totaled $1,275.9 million in FY 2018-19. Transportation revenue will decrease 3.2 percent in FY 2019-20 and by 0.6 percent in FY 2020-21 before growing by 2.9 percent in FY 2021-22. The forecast for TABOR revenue to transportation-related cash funds is shown in Table 11.

The largest source of revenue into the **Highway Users Tax Fund** (HUTF) is the motor fuel excise tax (22¢ per gallon of gasoline and 20.5¢ per gallon of diesel fuel). After remaining relatively flat in FY 2018-19, growth in fuel excise tax collections is expected to decline by 2.9 percent in FY 2019-20 and 1.5 percent in FY 2020-21 on slower economic growth in the state, more workers telecommuting, and a broad decline in public activity. The HUTF also receives revenue from other sources, including registration fees. In FY 2018-19, total registration fees were relatively flat, but are expected to grow at 1.6 percent in FY 2019-20, as collections under the new system normalize, and at 0.9 percent in FY 2020-21. Total HUTF revenue is expected to decrease 1.2 percent to $1,095.5 million in FY 2019-20 and by 0.5 percent to $1,089.8 million in FY 2020-21.

The **State Highway Fund** (SHF) is the primary fund for the state Department of Transportation to meet state transportation needs. Revenue allocated from the HUTF is subject to TABOR when it is originally collected in the HUTF, but it is not counted against the TABOR limit a second time when allocated to the SHF. The SHF receives money from HUTF allocations, interest earnings, and, prior to FY 2019-20, from local government matching grants. The state Attorney General issued an opinion in March 2020 stating that local government matching grants are no longer subject to TABOR, thus reducing SHF revenue for the current and subsequent fiscal years. Based on collections year-to-date and incorporating the accounting change, SHF revenue subject to TABOR is expected to decrease 36.5 percent to $25.3 million in FY 2019-20 and by 1.2 percent to $25.0 million in FY 2020-21.

Table 10
Cash Fund Revenue Subject to TABOR
Dollars in Millions

	Actual FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22	CAAGR*
Transportation-Related	$1,275.9	$1,235.4	$1,228.4	$1,263.8	
Percent Change	0.0%	-3.2%	-0.6%	2.9%	-0.3%
Severance Tax	$255.2	$140.5	$46.1	$56.1	
Percent Change	78.4%	-45.0%	-67.2%	21.8%	-39.6%
Gaming Revenue[1]	$107.0	$98.3	$98.7	$101.6	
Percent Change	0.1%	-8.2%	0.4%	3.0%	-1.7%
Insurance-Related	$22.6	$24.9	$23.8	$22.9	
Percent Change	26.7%	10.3%	-4.4%	-3.8%	0.5%
Regulatory Agencies	$78.8	$80.3	$81.5	$82.4	
Percent Change	-2.1%	1.9%	1.6%	1.1%	1.5%
Capital Construction-Related Interest[2]	$4.7	$8.3	$6.5	$5.4	
Percent Change	1.6%	74.7%	-22.1%	-15.8%	4.6%
2.9% Sales Tax on Marijuana[3]	$10.8	$12.0	$12.2	$12.4	
Percent Change	-33.1%	11.9%	1.6%	1.4%	4.9%
Other Cash Funds	$683.0	$744.1	$793.6	$858.9	
Percent Change	3.5%	8.9%	6.7%	8.2%	7.9%
Total Cash Fund Revenue[4]	**$2,438.0**	**$2,343.7**	**$2,290.8**	**$2,403.6**	
Subject to the TABOR Limit	5.8%	-3.9%	-2.3%	4.9%	-0.5%

Totals may not sum due to rounding.

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

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

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

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

Other transportation cash fund revenue subject to TABOR is expected to decline 10.1 percent to total $114.5 million in FY 2019-20, and decline again by 0.8 percent in FY 2020-21 before reaccelerating to 5.9 percent in FY 2021-22. Other transportation revenue is from the sale of aviation and jet fuel, certain registration fees, and driving fines, some of which were also affected by the switch to the new revenue administration system. Weaker collections are largely attributable to lower expectations for aviation fuel revenue, as fewer people are expected to travel over the next several months, and on lower-than-expected registration-related fees.

Revenue to the **Statewide Bridge Enterprise** is not subject to TABOR and is shown as an addendum to Table 11. Revenue to this enterprise is expected to grow 1.6 percent to $118.4 million in FY 2019-20, and 1.1 percent to $119.4 million in FY 2020-21. Revenue from the bridge safety surcharge fee typically grows at the same rate as vehicle registrations.

Table 11
Transportation Revenue by Source
Dollars in Millions

	Actual FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22	CAAGR*
Highway Users Tax Fund (HUTF)					
Motor and Special Fuel Taxes	$654.9	$636.0	$626.3	$646.0	-0.5%
Percent Change	-0.1%	-2.9%	-1.5%	3.1%	
Total Registrations	$382.7	$389.0	$392.4	$396.4	1.2%
Percent Change	-0.2%	1.6%	0.9%	1.0%	
Registrations	*$229.1*	*$232.7*	*$235.1*	*$236.8*	
Road Safety Surcharge	*$132.2*	*$134.2*	*$135.7*	*$136.6*	
Late Registration Fees	*$21.4*	*$22.1*	*$22.6*	*$23.1*	
Other HUTF Receipts[1]	$71.1	$70.5	$71.1	$73.8	1.2%
Percent Change	1.7%	-0.8%	0.8%	3.8%	
Total HUTF	**$1,108.7**	**$1,095.5**	**$1,089.8**	**$1,116.2**	0.2%
Percent Change	0.1%	-1.2%	-0.5%	2.4%	
State Highway Fund (SHF)[2]	$39.9	$25.3	$25.0	$27.2	-12.0%
Percent Change	-1.8%	-36.5%	-1.2%	8.8%	
Other Transportation Funds	$127.4	$114.5	$113.6	$120.3	-1.9%
Percent Change	0.0%	-10.1%	-0.8%	5.9%	
Aviation Fund[3]	*$33.7*	*$26.8*	*$25.0*	*$29.9*	
Law Enforcement-Related[4]	*$8.6*	*$8.5*	*$8.4*	*$8.3*	
Registration-Related[5]	*$85.1*	*$79.3*	*$80.2*	*$82.2*	
Total Transportation Funds	**$1,275.9**	**$1,235.4**	**$1,228.4**	**$1,263.8**	-0.3%
Percent Change	0.0%	-3.2%	-0.6%	2.9%	

Totals may not sum due to rounding.

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

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

[2]Includes only SHF revenue subject to TABOR. Beginning in FY 2019-20, SHF revenue subject to TABOR no longer includes local government grants and contracts.

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

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

[5]Includes revenue from Emergency Medical Services registration fees, emissions registration and inspection fees, motorcycle and motor vehicle license fees, and POST Board registration fees.

Addendum: TABOR-Exempt FASTER Revenue

	Actual FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22	CAAGR*
Bridge Safety Surcharge	$116.2	$118.1	$119.4	$120.2	2.9%
Percent Change	3.6%	1.6%	1.1%	0.7%	

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

Severance tax revenue, including interest earnings, totaled $255.2 million in FY 2018-19 and is expected to total $140.5 million in FY 2019-20, before falling to $46.1 million in FY 2020-21. Severance tax revenue is more volatile than other revenue sources due to the boom-bust nature of the oil and gas sector and Colorado's tax structure. The forecast for the major components of severance tax revenue is shown in Table 12.

Severance tax collections from **oil and natural gas** totaled $235.7 million in FY 2018-19 and are forecast to decline 45.7 percent in FY 2019-20 to $127.9 million as collections are expected to deteriorate for the remainder of the fiscal year. Oil and natural gas severance tax revenue will decline 74.6 percent in FY 2020-21 to $32.4 million as low oil prices will significantly constrain the U.S. oil and gas sector.

Table 12
Severance Tax Revenue Forecast by Source
Dollars in Millions

	Actual FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22	CAAGR*
Oil and Gas	$235.7	$127.9	$32.4	$42.3	-43.6%
Percent Change	86.8%	-45.7%	-74.6%	30.4%	
Coal	$3.6	$2.7	$2.5	$2.4	-12.7%
Percent Change	-4.9%	-22.9%	-8.0%	-6.0%	
Molybdenum and Metallics	$2.4	$2.4	$2.5	$2.5	0.3%
Percent Change	-15.0%	0.3%	0.3%	0.3%	
Total Severance Tax Revenue	**$241.7**	**$133.1**	**$37.4**	**$47.1**	-42.0%
Percent Change	82.0%	-44.9%	-71.9%	26.0%	
Interest Earnings	$13.5	$7.4	$8.7	$9.0	-12.5%
Percent Change	32.1%	-45.2%	17.5%	4.1%	
Total Severance Tax Fund Revenue	**$255.2**	**$140.5**	**$46.1**	**$56.1**	-39.6%
Percent Change	78.4%	-45.0%	-67.2%	21.8%	

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

Global oil prices declined 24 percent on March 9, 2020, the second largest one-day decline on record as Russia and Saudi Arabia abandoned supply levels to keep global oil supply balanced and moved to capture market share. Global production surged on top of weak global demand. With the impacts of COVID-19 and already muted global economic activity, there is less demand for oil as there are fewer goods to transport, less manufacturing activity, and flights are canceled. Prices will remain low throughout 2020 and put increasing pressure on the Colorado oil and gas industry.

Historically, supply reductions have followed price declines by about six months. Production declines in Colorado will start to take hold in the first half of FY 2020-21 causing revenues to crater. Property taxes for 2019 have already been paid on near historic production levels, which will reduce severance taxes to $0 for many oil wells in 2020 through the ad valorem credit. This forecast is consistent with average Colorado oil prices of $36.81 per barrel in 2020 and $48.20 per barrel in 2021. Natural gas prices are forecast at $1.89 per thousand cubic feet in 2020 and $2.32 per thousand cubic feet in 2021.

It is unclear how far production of oil and natural gas will fall as a result of prolonged low oil prices. The forecast was adjusted to account for production declines, but it will take at least six months before companies report reduced production.

More information about the oil and gas severance tax can be found in the Legislative Council Staff memo posted here: http://leg.colorado.gov/publications/effective-tax-rates-oil-and-natural-gas.

Coal severance tax revenue declined 4.9 percent in FY 2018-19 and will decline through the forecast period as electricity generation continues to transition away from coal to renewable sources and natural gas. Based on current year-to-date collections, coal severance taxes are expected to decline 22.9 percent in FY 2019-20 to $2.7 million and 8.0 percent to $2.5 million in FY 2020-21.

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

Finally, interest earnings on severance tax revenue are expected to total $7.4 million in FY 2019-20 and $8.7 million in FY 2020-21. Interest earnings in FY 2019-20 will be based on a higher average balance in severance tax accounts following the passage of Senate Bill 19-016. SB 19-016 distributes severance tax revenue in the year following when the revenue is collected; therefore, the principal builds through the fiscal year generating interest revenue.

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

Limited gaming revenue subject to TABOR totaled $104.8 million in FY 2018-19 and is expected to decline by 8.2 percent to $98.3 million in FY 2019-20 before ticking up a modest 0.4 percent in FY 2020-21. Colorado casinos have seen declining revenue to date this fiscal year. The fiscal year decline will be exacerbated as many consumers reduce their time spent in public places to stem the spread of COVID-19. Additionally, three casinos came under new ownership in December and another three in January, which lowers the gaming tax to the lowest tax bracket for casinos under the new owners. Gaming taxes are forecast to reaccelerate to 3.0 percent in FY 2021-22, as tourism and leisure spending increases.

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

Sports betting was legalized in the state after the passage of House Bill 19-1327 in the 2019 legislative session, as well as the passage of Proposition DD during the November 2019 election. The statutory deadline for implementation is May 2020, when sports betting will be legal both at the casinos in the three gaming towns and online through casinos. A forecast of sports betting revenue will be available in future forecasts, once tax collections data for several months become available.

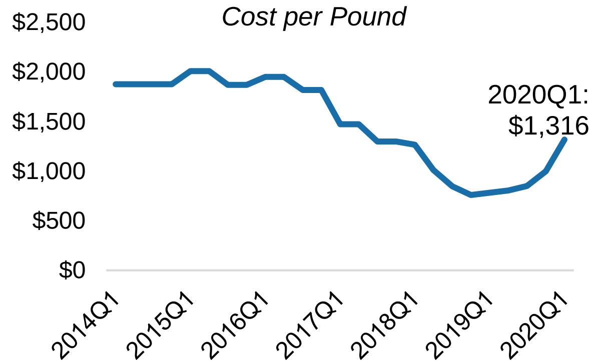
Revenue collected from sports betting activity will include licensing fees, set at between $1,200 and $2,000 per operator and master license biannually, an operations fee, and tax revenue, which is set at 10 percent of casinos' net sports betting proceeds. As voter approved revenue, sports betting tax revenue will not be subject to the TABOR limit; however, the fee revenue will be subject to TABOR. License fees collected through February total about $72,000. A Sports Betting Operations Fee was created under the rules adopted by the Limited Gaming Commission to cover a portion of administrative costs. The intent of the fee is to cover the remaining costs after license fees are paid, and will be set by the commission before June 1st of each fiscal year.

Total **marijuana tax revenue** equaled $262.9 million in FY 2018-19, a 4.6 percent increase from the prior year and the slowest growth in marijuana tax revenue since legalization. Marijuana tax revenues will continue to grow through the forecast period reaching $307.4 million in FY 2019-20 and $330.6 million in FY 2020-21. 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 13.

The special sales tax is the largest marijuana revenue source, and is taxed at a rate of 15 percent of the retail price of marijuana. Special sales tax revenue is expected to reach $219.1 million in FY 2019-20 and $233.2 million in FY 2020-21. The state distributes 10 percent of the special sales tax to local governments and retains the rest to be used in the Marijuana Tax Cash Fund, the General Fund, and the State Public School Fund. The excise tax is the second largest source of marijuana revenue and is dedicated to the BEST Fund for school construction. The excise tax is expected to generate $76.3 million in FY 2019-20 and $85.1 million in FY 2020-21.

The excise tax is based on the calculated or actual wholesale price of marijuana when it is transferred from the cultivator to the retailer. There is considerable uncertainty about the calculated price due to a lack of available information. The wholesale price bottomed out at $759 per pound of marijuana flower in the fourth quarter of 2018 and has steadily increased since then, as shown in Figure 4. In the first quarter of 2020, the average wholesale rate of $1,316 per pound is the highest level since the second quarter of 2017. The wholesale price is a significant determinate of the excise tax revenue and it is not clear if the price will continue to increase or fall, consistent with the downward trend from 2016 to 2019. The wholesale price remains as both and upside and downside risk to the forecast.

Figure 4
Calculated Average Wholesale Rate
Cost per Pound



Source: Colorado Department of Revenue.

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 generate $10.5 million in FY 2019-20 and remain flat through the forecast period, generating $10.6 million in FY 2020-21 and $10.6 million in FY 2021-22. Retail marijuana dispensaries will remit the state sales tax on marijuana accessories totaling $1.2 million in FY 2019-20 and $1.3 million in FY 2020-21. Revenue from the 2.9 percent sales tax is deposited in the Marijuana Tax Cash Fund and is subject to TABOR.

More information about how marijuana tax revenue is used in the state budget can be found on the Colorado Legislative Council Staff website here: http://leg.colorado.gov/publications/marijuana-revenue-state-budget

Table 13
Tax Revenue from the Marijuana Industry
Dollars in Millions

	Actual FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22	CAAGR*
Proposition AA Taxes					
Special Sales Tax	$193.2	$219.1	$233.2	$246.7	8.5%
State Share of Sales Tax	$173.9	$197.2	$209.9	$222.0	
Local Share of Sales Tax	$19.3	$21.9	$23.3	$24.7	
15% Excise Tax	$58.9	$76.3	$85.1	$90.5	15.4%
Total Proposition AA Taxes	**$252.2**	**$295.4**	**$318.3**	**$337.2**	10.2%
2.9 Sales Tax (Subject to TABOR)					
2.9% Sales Tax on Medical Marijuana	$9.4	$10.5	$10.6	$10.6	4.3%
2.9% Sales Tax on Retail Marijuana	$1.1	$1.2	$1.3	$1.4	
TABOR Interest	$0.3	$0.3	$0.3	$0.4	
Total 2.9% Sales Tax	**$10.8**	**$12.0**	**$12.2**	**$12.4**	4.9%
Total Taxes on Marijuana	**$262.9**	**$307.4**	**$330.6**	**$349.6**	10.0%

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

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

FML revenue totaled $113.8 million in FY 2018-19, a 31.5 percent increase, as the state fulfills its obligations for previous payments associated with canceled leases on the Roan Plateau. In FY 2019-20, FML revenue is forecast to decrease 26.9 percent to $83.2 million. This decrease is attributable to a royalty rate reduction granted by the Bureau of Land Management to the Colowyo coal mine in Routt County. This rate reduction was approved for several prior years, causing the Department of Interior to refund revenue from prior years and will reduce distributions to Colorado. FML revenue will grow gradually in the last two years of the forecast to $92.5 million in FY 2020-21 and $104.7 million in FY 2021-22.

Forecasts for **Unemployment Insurance (UI) Trust Fund** revenue, benefit payments, and year-end balance are shown in Table 14. Revenue to the UI Trust Fund has not been subject to TABOR since

FY 2009-10 and is therefore excluded from Table 10. Revenue to the Employment Support Fund, which receives a portion of the UI premium surcharge, is subject to TABOR and is included in the revenue estimates for other cash funds in Table 10.

The ending balance for the state's UI Trust Fund was $1.1 billion in FY 2018-19, up 19.7 percent from the previous year. The trust fund ending balance has been steadily increasing since FY 2012-13 as the fund benefited from the state's healthy labor market and historically low unemployment rates. In FY 2018-19, the total amount of benefits paid from the fund dropped to $365.5 million, a decline of 8.2 percent from the previous fiscal year. Premium contributions continued to tick down slightly in FY 2018-19.

UI benefits paid are expected to pick up slightly in the last half of FY 2019-20 as the significant drop in crude oil prices puts pressure on Colorado producers and COVID-19 related disruptions begin to hinder the air transportation, leisure and hospitality, and entertainment industries. Benefits paid are expected to grow further in FY 2020-21 as the effects of COVID-19 impact other areas of the economy. By FY 2021-22, the amount of benefits paid are expected to stabilize.

Table 14
Unemployment Insurance Trust Fund
Revenues, Benefits Paid, and Fund Balance
Dollars in Millions

	Actual FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22	CAAGR*
Beginning Balance	$922.3	$1,104.1	$1,188.7	$914.9	
Plus Income Received					
UI Premium	$523.0	$498.9	$481.4	$500.7	-1.45%
Interest	$23.3	$28.8	$31.1	$33.6	
Total Revenues	**$546.3**	**$527.7**	**$512.5**	**$534.3**	-0.74%
Percent Change	-6.0%	-3.4%	-2.9%	4.3%	
Less Benefits Paid	$365.5	$443.0	$786.4	$707.7	24.64%
Percent Change	-8.2%	21.2%	77.5%	-10.0%	
Ending Balance	**$1,104.1**	**$1,188.7**	**$914.9**	**$741.4**	-12.43%
Solvency Ratio					
Fund Balance as a Percent of Total Annual Private Wages	0.87%	0.87%	0.63%	0.48%	

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

Economic Outlook

Conditions in the U.S. and Colorado economies are changing by the hour on news of the new coronavirus. The economy entered March with the tailwinds of low unemployment, high consumer confidence, and growing personal income. In 2019 and early 2020, businesses and manufacturing activity were constrained by the tight labor market, global supply chain disruptions, and safety concerns regarding the Boeing 737 MAX airliner. As the severity of the coronavirus and the potential threat to human life became apparent to the public in late February and early March of this year, financial markets reacted and attracted the attention of the world.

The public health response has been proportional to the threat of the virus, which has caused significant economic disruptions in the U.S. and globally. The travel industry experienced plummeting reservations on cancelled conferences, a lack of demand for flights, fewer hotel stays, and cruise cancelations. Colleges and universities have cancelled in-person instruction, major sporting and civic events have been cancelled or delayed, schools have been closed for extended periods, and the public has responded by preparing for periods of self-quarantine. These actions will reduce the number of COVID-19-related deaths if they are successful at limiting the spread of the virus.

An additional concern to the economy is low oil prices. With low global demand for oil, Russia and Saudi Arabia announced production increases the week of March 9, 2020, plummeting the price of West Texas Intermediate Crude to $32.98 per barrel. It is unprofitable to produce oil at this price for many domestic oil and gas producers, including most Colorado producers. The industry is resilient, but if these price levels persist, there will be significant contractions in the oil and gas industry that will add additional stress to the U.S. economy. Tables 15 and 16 on pages 56 and 57 present histories and expectations for economic indicators for the U.S. and Colorado, respectively.

Forecast assumptions and the downside risks of COVID-19. The spread of the novel coronavirus and associated disease, COVID-19, and the efforts to contain it pose a significant downside risk to the economic outlooks for the U.S. and Colorado. As this forecast goes to print, measurable economic impacts are generally limited to slowing global economic activity, supply chain disruptions—particularly for products manufactured in China—and financial market volatility. The impact on U.S. consumer spending, the largest driver of economic activity, has not yet been quantified, but changes in consumer behavior are already evident as growing fear has prompted stockpiling of shelf-stable goods. The cancellation of business travel has been widespread, demand for leisure travel is below levels following September 11, 2001, and major sporting and cultural events have been cancelled. These actions will ripple through the economy, and the full magnitude of their effect will not be known for some time.

The timing and severity of the COVID-19 outbreak will influence the policy tools used to contain the virus and sustain economic activity. After lowering U.S. interest rates in an emergency preemptive move on March 3, 2020, the Federal Reserve announced on March 12, 2020, that it would use capital injections, as well, to buoy volatile financial markets. The Federal Reserve announced further interest rate cuts and asset purchases on March 15, 2020. Additionally, Congress and President Trump are moving to provide fiscal stimulus to address COVID-19. These and other policies may blunt the economic impact of business closures, the standstill in travel and related tourism, and event cancellations. However, even with offsetting policy responses, the economic impacts of COVID-19 are expected to pose a sizable drag on economic activity in 2020.

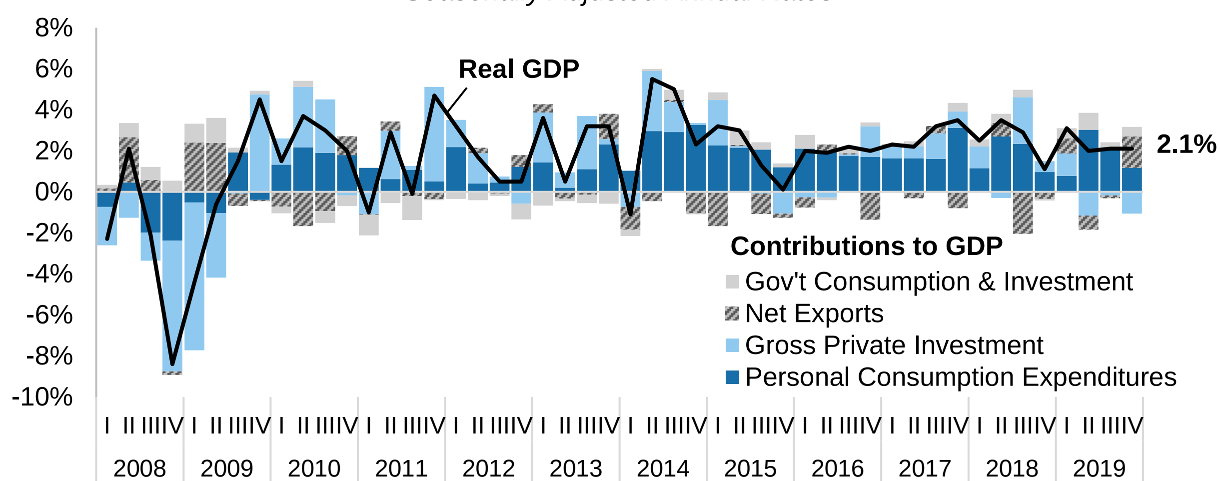
This forecast assumes that the number of confirmed COVID-19 cases in the U.S. will grow in the weeks and months ahead. However, early actions to contain the virus will slow its contagion and the virus will subside in the summer months. A rapid, widespread outbreak and/or multi-month, large-scale actions taken to contain its spread will result in slower economic activity than forecast. Additionally, a strong return of the virus in the fall poses ongoing downside risks for the current and next year. Conversely, COVID-19 may be contained more quickly than expected, resulting in a rapid return to the sustained economic expansion following the current slowdown and market volatility.

Gross Domestic Product

The U.S. economy continued to grow at a healthy pace in 2019 despite headwinds from a slowing global economy and diminished business investment through most of the year. Real gross domestic product (GDP), an estimate of the inflation-adjusted value of final U.S. goods and services, grew by an annualized rate of 2.3 percent in 2019 (Figure 5), a slight deceleration from the 2.9 percent rate in the prior year. Strength in consumer spending and a rebound in the residential real estate market in the second half of the year helped bolster the nation's economy, which registered its tenth consecutive year of economic growth. In addition, an improved U.S. trade balance and higher government spending contributed to the improvement. The Colorado economy continues to outpace the nation and is among the top states for economic activity. Through the third quarter of 2019, Colorado's economy expanded by 3.3 percent from the same period one year prior.

- Growth in the U.S. and Colorado economies will moderate in 2020 and 2021 on constraints from slower global economic growth and the economic impacts of COVID-19. Real U.S. GDP is expected to grow 1.4 percent in 2020 as the economic drag from COVID-19 peaks in the second quarter. Real U.S. GDP is expected to resume a stronger pace of growth, rising 1.8 percent in 2021.

Figure 5
Contributions to Real U.S. Gross Domestic Product
Seasonally Adjusted Annual Rates



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

The U.S. consumer continues to fuel the growth. Consumer spending, as measured by personal consumption expenditures and accounting for more than two-thirds of total economic output, grew at a 2.6 percent annualized rate in 2019, after growing by 3.0 percent in the prior year. Spending was broad-based across both goods and services, but household spending increased most for long-lasting, big-ticket items, such as household appliances and automobiles. Consumption of durable goods rose 4.8 percent, following a strong 6.3 percent growth rate in 2018. Though consumer confidence softened in the last quarter of 2019, a strong labor market and improving wage growth managed to offset headwinds from the U.S.-China trade war and a global slowdown. Consumer spending and consumption is under pressure from the spread of COVID-19 and actions to contain the outbreak. As this forecast goes to print, the impact of COVID-19 on consumer activity is difficult to quantify and will not be known for several months. The timing and severity of the spread of the virus poses a significant downside risk to consumer activity.

Tepid business investment in 2019. Business investment grew by 1.8 percent in 2019, after three years of solid growth. Investment in nonresidential structures was the primary drag on total U.S. business investment, declining by 4.3 percent after increasing by 4.1 percent in the prior year. A slowing global economy and trade uncertainty created challenges for many U.S. businesses, causing them to reevaluate their expectations and capital expenditures. However, investment in intellectual products, such as patents, trademarks and copyrights, has offset some of the pullback in nonresidential structure investment. In 2019, business investment in intellectual property grew by a healthy 7.6 percent, after increasing by 7.4 percent in the prior quarter. Intellectual property investment has grown at a healthy rate in each quarter since 2015. Momentum in residential investment in the last two quarters of 2019 was not enough to offset declines in the prior six quarters, and resulted in a slight decline in residential investment in 2019. Similar to consumer activity, COVID-19 poses a significant downside risk to business investment in 2020, as supply disruptions and the possibility of business closures weigh on the outlook.

Trade policy uncertainty remained elevated in 2019. The U.S. trade balance improved in 2019 primarily from a boost in petroleum products and a reduction in imports. Through most of 2019, trade tensions remained elevated, with tariffs influencing global supply chains and global demand for U.S. goods. Recent trade agreements with China, Mexico, and Canada are expected ease the uncertainty and complexity for U.S. businesses, which had been contributing to a drag on investment activity. Finally, total government expenditures were up 2.3 percent in 2019, up from 1.7 percent in the prior year

Colorado continues to maintain more economic momentum than the nation as a whole. After growing by a solid 3.5 percent in 2018, the Colorado real GDP continued to grow at a healthy rate through the third quarter of 2019, increasing by 3.3 percent over the same quarter in the prior year. By comparison, the nation's economy grew by 2.1 percent over the same period. As of the third quarter of 2019, Colorado ranked the sixth fastest for economic growth in the nation. The economies of Texas, Utah, Wyoming, New Mexico, and Rhode Island grew at a faster rate.

Most industries are contributing to growth. Contributions to economic growth in the state remain broad-based across most industries, with information, mining, retail, and health care and social assistance sectors posting the largest contributions to the increase in Colorado's GDP in the third quarter of 2019. Colorado's information industry and workforce continue to attract new companies and employees to the state, with over 4,100 technology companies located in Colorado. The mining industry, which includes oil and gas extraction, contributed about $23 billion to the Colorado economy in the third quarter of 2019, up almost 22.5 percent from the same quarter last year. While oil and gas prices remain low, the industry continues to contribute to the state's economy through higher oil production.

Households and Consumers

To this point, the economic expansion has relied in large part on the U.S. consumer. A tight labor market helped to boost consumer confidence and contributed to multiple years of consumption growth going into the first quarter of 2020. In 2020, the economy is expected to lose momentum as most sources of household income are affected by COVID-19-related economic distortions.

- Growth in U.S. personal income is expected to fall to 1.8 percent in 2020, in which case household incomes would fall on a per capita, inflation-adjusted basis. Incomes are expected to rebound in subsequent years, growing 4.2 percent in 2021 and 4.9 percent in 2022.

- Personal income growth in Colorado is likewise expected to slow significantly, growing 2.6 percent in 2020 before rebounding to grow 5.2 percent in 2021.

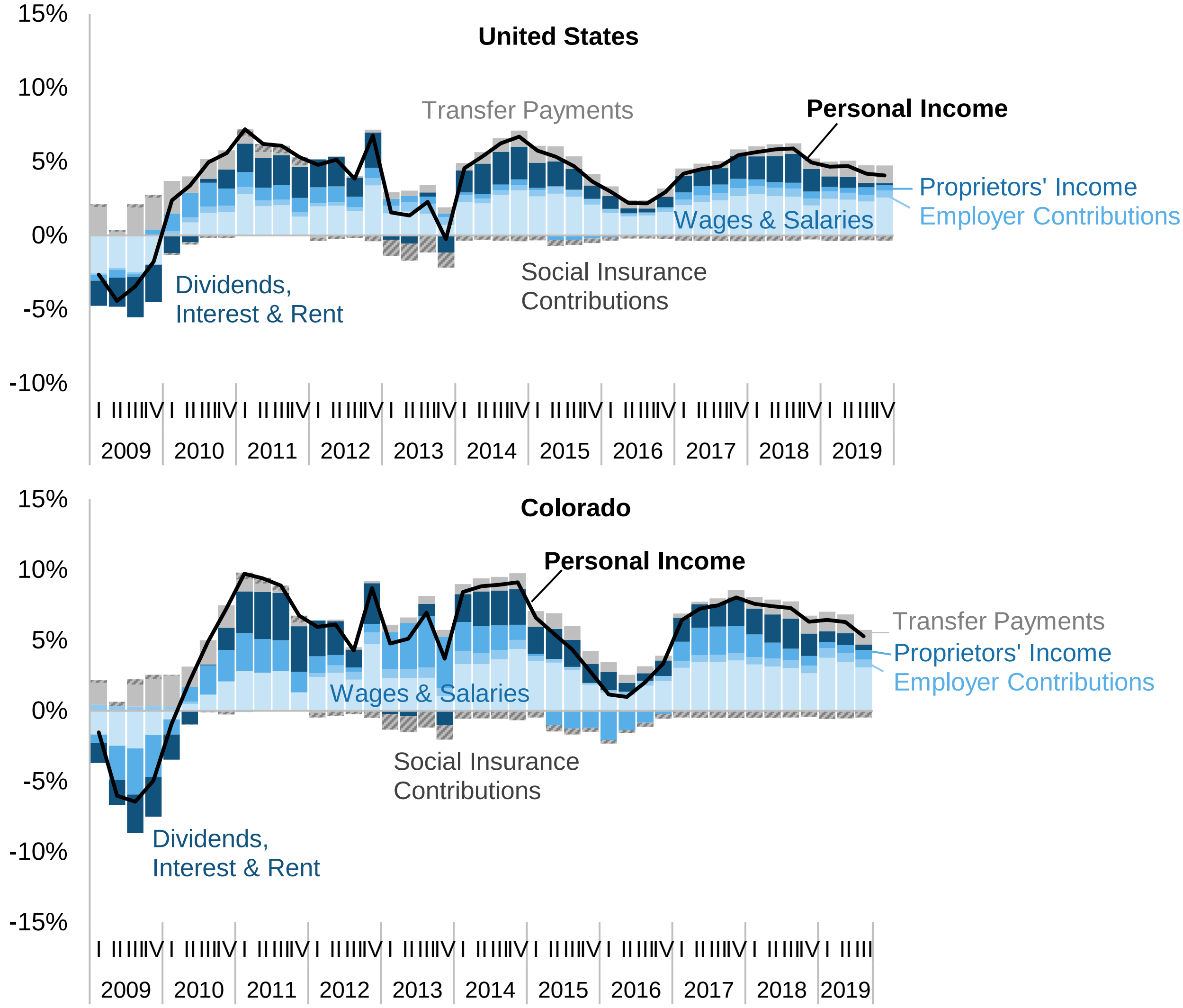
- Consumer activity will slow as the country responds to COVID-19. The severity and duration will depend on how quickly we are able to contain the spread of the disease.

Wage and salary earnings have sustained income growth to this point. Personal income growth slowed slightly in the latter half of 2019. Households ended 2019 with 4.4 percent more income over the year prior, a deceleration from the 5.6 percent growth rate posted in 2018. On a per capita, inflation-adjusted basis, personal income grew by a moderate 2.1 percent. Incomes for Colorado households grew quite a bit faster than the nationwide rate. In Colorado, personal income grew 6.0 percent through the third quarter of 2019 relative to the same period a year prior, or 2.5 percent on a per capita, inflation-adjusted basis.

Quarterly contributions to U.S. and Colorado personal income growth are presented in Figure 6. As shown, the composition of personal income has changed in similar ways across the two geographies, even as Colorado income growth consistently outpaced the national rate. Contributions from dividend, interest, and rental income and from business proprietors' income have diminished since early 2017. Acceleration in wage and salary income growth has offset part of the slowdown in investment and business income, while the rate of overall personal income growth has slowed over the same period.

All types of household income are exposed to COVID-19. Public health measures taken to constrain the spread of the COVID-19 virus will significantly limit personal income growth during 2020, with substantial decreases expected in the second quarter. All of the largest sources of household income – wages and salaries; business proprietors' income; and investment income from dividends, interest, and rent – will be affected.

Figure 6
Personal Income and Its Components
Contributions to Percent Change, Year-over-Year



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

The most immediate impacts of COVID-19 distortions have already manifested in the stock and bond markets, where most investors suffered significant losses during March 2020. Quarantines undertaken to protect public health will significantly reduce business income for sole proprietors and other small business owners. Workers who earn hourly wages and tips have the greatest degree of exposure, as business closures and reduced staffing needs will result in lost wage income while consumer activity is reduced. By contrast, salaried employees and those able to continue work from home are less exposed.

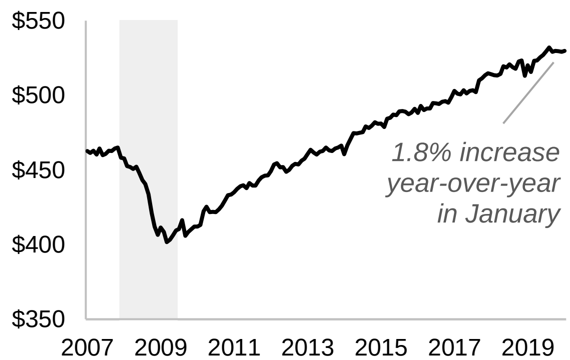
The degree to which personal income slows or decreases during 2020 will depend on the amount of time for which consumer activity is reduced. Assuming that public health measures enacted in the spring allow for normalization in economic conditions in the summer and fall, personal income may increase slowly on an annual basis rather than declining from 2019 levels. However, sustained weakness in consumer and business activity would reduce incomes through the year, correspondingly reducing the amount available for consumers to spend and likely triggering a recession.

Personal income growth is expected to rebound in 2021 and 2022. Economic activity is expected to return to trend following significant distortions during 2020. In this scenario, continued labor market tightening will increase labor costs for businesses, shifting personal income toward wage earners and salaried employees, rather than proprietors. Such an outlook depends on whether the economy is able to navigate COVID-19 distortions without triggering a recession. In a recession scenario, layoffs would cause significant labor market slack and lower the base level from which income growth in 2021 and 2022 could occur.

Solid but moderating consumer spending. Consumer activity, the driving force behind this economic expansion, will be interrupted as the country responds to COVID-19. Inflation-adjusted U.S. retail sales were up 3.2 percent in December year-to-date over the same period last year, while January sales moderated to 1.8 percent growth year-over-year (Figure 7). Clothing, sporting goods, electronics, and department store retail sectors continue to decline, as the retail space shifts further to ecommerce. Restaurants and bars, motor vehicle sellers, and miscellaneous store retailers all saw moderate growth between 4 percent and 5 percent in January over the prior year, not accounting for inflation. Spending on services outpaced spending on goods during the fourth quarter of last year, while durable goods consumption declined modestly.

Strong consumer sentiment heading into February. The February Survey of Consumers by the University of Michigan suggests that consumers continued to be optimistic about economic conditions, largely driven by low unemployment rates and the tight labor market. Recent evidence, however, suggests that consumer sentiment is flagging significantly in response to the growing uncertainty associated with the COVID-19 outbreak and the resulting stock market volatility. Consumer spending will be reduced in response to COVID-19 in the U.S. as individual consumption routines are disrupted in the second quarter of the year. Barring a prolonged outbreak, consumer spending is expected to see moderate declines in 2020.

Figure 7
Real U.S. Retail and Food Service
Billions of 2019 Dollars



Sources: U.S. Bureau of Labor Statistics and U.S. Census Bureau; 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.

Labor Markets

Labor market indicators for both the U.S. and Colorado remain strong with unemployment rates near historic lows. Improved job opportunities and higher wages had lured many into the labor market and keeping would-be retirees from retirement. Additionally, the rising cost of living in many areas and subdued investment earnings are causing many to seek or maintain employment. While labor force participation is fueling continued job growth, worker shortages and labor disruptions from the response to COVID-19 are a concern across the economy.

- U.S. nonfarm employment is expected to increase at a pace of 0.6 percent in 2020 and 0.8 percent in 2021 as firms navigate the response to COVID-19. The U.S. unemployment rate is expected to average 4.0 percent in 2020, and will decline slightly to 3.8 percent in 2021.

- In Colorado, nonfarm employment will grow 0.8 percent in 2020 and 1.3 percent in 2021. Rising labor force participation and relatively faster population growth will sustain employment gains at slightly higher rates than the nation as a whole. The Colorado unemployment rate is expected to average 3.2 percent in 2020 and 3.1 percent in 2021.

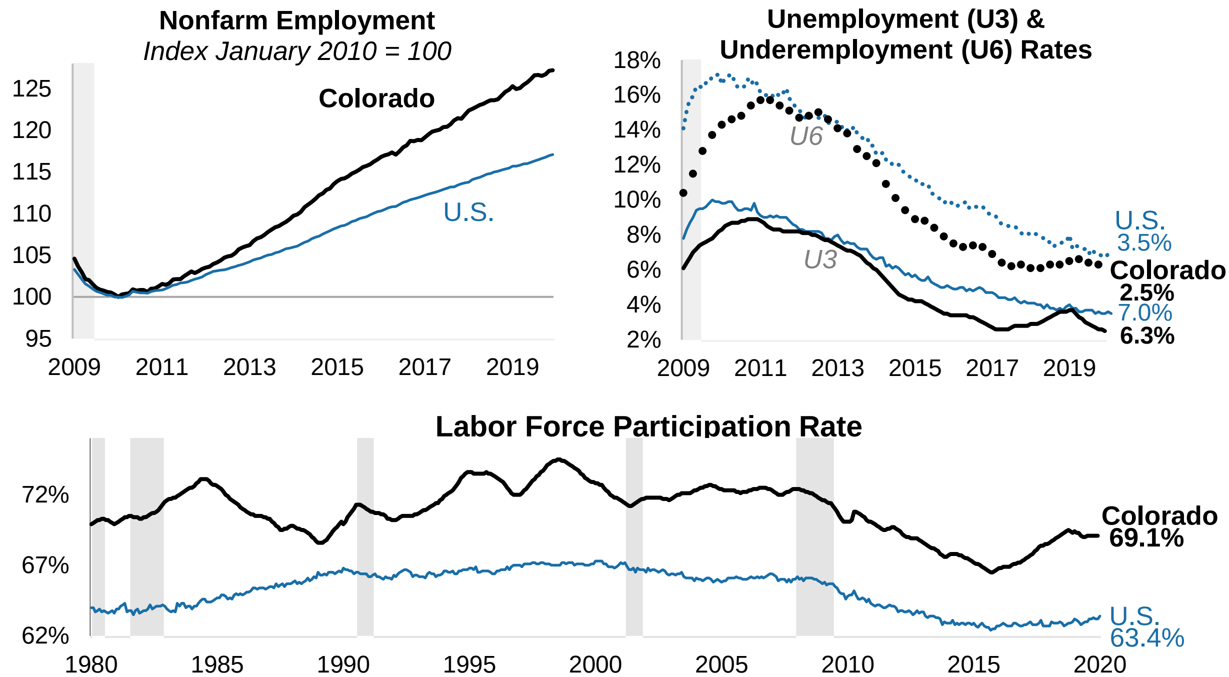
Measures of unemployment reached historic lows in early 2020. In 2019, the U.S. unemployment rate was 3.7 percent, down from 3.9 percent in 2018. The nation's number of unemployed has been hovering near historical lows for almost two years. The February 2020 rate of 3.5 percent was the lowest level since December 1969. The "underemployment" (U6) rate, a broader measure that captures discouraged workers and those who work part-time but desire full-time work, also continues to decline and remains near historic lows. The U.S. underemployment rate ticked down to 7.0 percent in February and Colorado's underemployment rate fell to 6.3 percent in 2019 (Figure 8, top right).

Colorado's unemployment rate of 2.5 percent in December 2019 remains one of the lowest in the country. Only North Dakota, South Carolina, Utah, and Vermont reported lower rates in same month, all of them registering a rate of 2.4 percent. The number of new unemployment claims in Colorado have been steady and remain near all-time lows. However, the low unemployment rate continues to put stress on employers as a shortage of workers hinder business growth. Labor shortage has been comprehensive across most industries, but most notable in the construction and transportation sectors.

While the unemployment rate is low in February 2020, the labor force will experience significant upheaval through the spring in response to COVID-19. Contract employees and gig workers have the most significant exposure with little job security and little income due to the drop in demand. Many other employees will be forced to work from home or take time off work in order to maintain social distancing. The first measure of the impact on the unemployment rate will likely be reported in May 2020 when April employment figures are reported.

Strong labor markets draw workers into the labor force. Colorado's labor force participation rate has dipped slightly since the beginning of the year, but remains at a cyclically high level despite an accelerating number of annual retirements (bottom of Figure 8). Recent increases in labor force participation rates of particular demographic groups, including women and minorities, indicate that the tight labor market is increasingly drawing workers off the sidelines. This, along with a continued gradual increase in the prime-age participation rate, suggest that there may still be more room for growth in employment even if unemployment rates remain low.

Figure 8
Selected U.S. and Colorado Labor Market Indicators



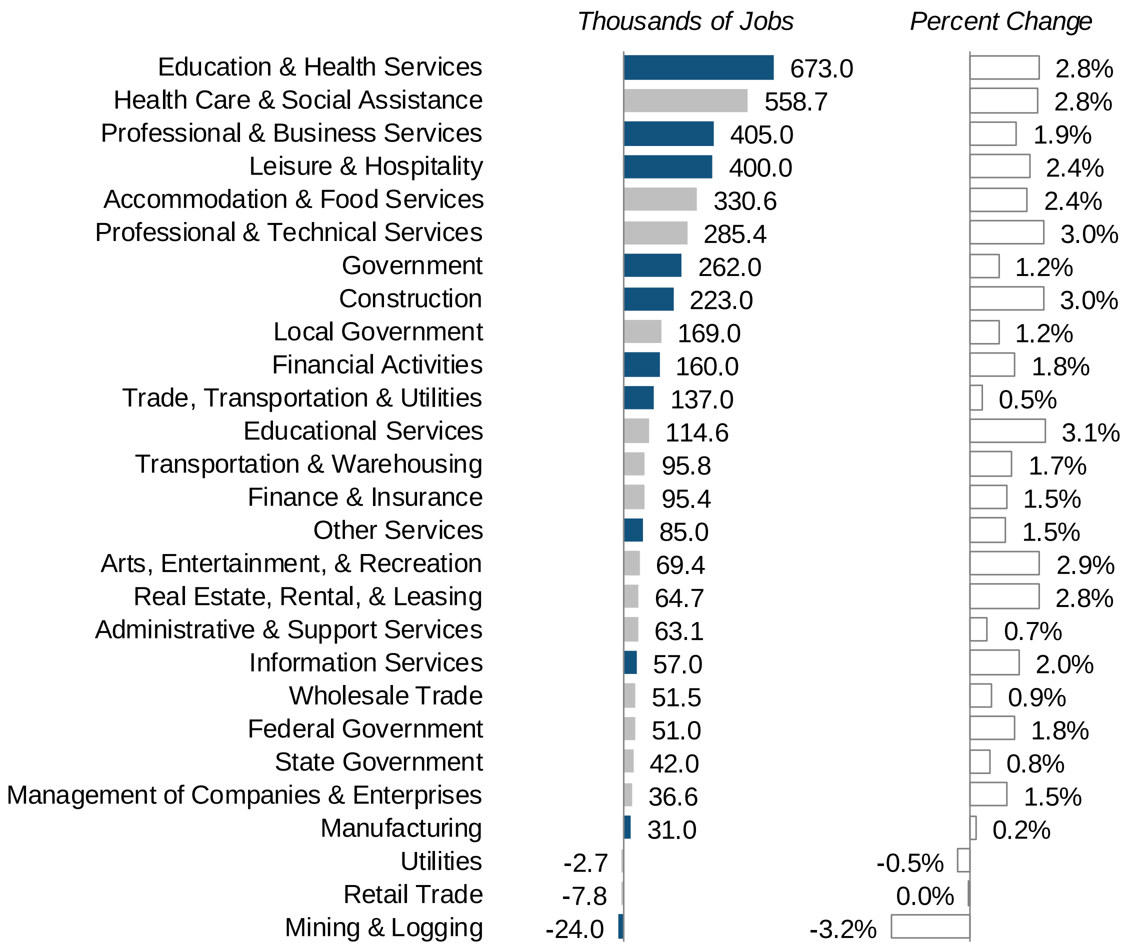
Source: U.S. Bureau of Labor Statistics. Data are seasonally adjusted and are through January 2020 for the U.S. and October 2019 for Colorado. Colorado nonfarm employment includes data revisions expected by Legislative Council Staff from the Bureau of Labor Statistics' annual rebenchmarking process.
**Underemployment rates for Colorado are shown as four-quarter averages, while data for the U.S. are monthly.*
***Labor force participation is calculated as the percent of the civilian population, age 16 and older, who are working or seeking employment.*

U.S. labor market indicators remain positive, but job gains have slowed. Despite several headwinds, U.S. employers added new employees at a healthy rate in 2019. Nonfarm employment increased by 1.4 percent in 2019 from the prior year, and monthly nonfarm payroll growth averaged about 178,000 in 2019. However, 2019 employment growth represents a slight deceleration from the 2018 increase of 1.6 percent. The slowdown is indicative of a tight labor market and slowing business activity.

Job gains have slowed but remain broad-based. In February 2020, the U.S. economy added over 2.4 million new jobs over year-ago levels, marking the 113th straight month of positive job growth. Job gains were realized across most industries with the largest sectors, education and health services and professional and business services, continuing to drive overall U.S. job growth (Figure 9).

The March employment report covers the week of March 8 and will be released in April. It is not clear if firms will report the impact of the COVID-19 response on staffing levels so it is likely that the first indication of the impact on the labor markets will be with the release of the April labor report in May. The travel industry has announced reduced staffing levels in response to flight cancellations, while retail trade, arts, entertainment, recreation, accommodation, and food services will likely be hit hard from the lack of demand.

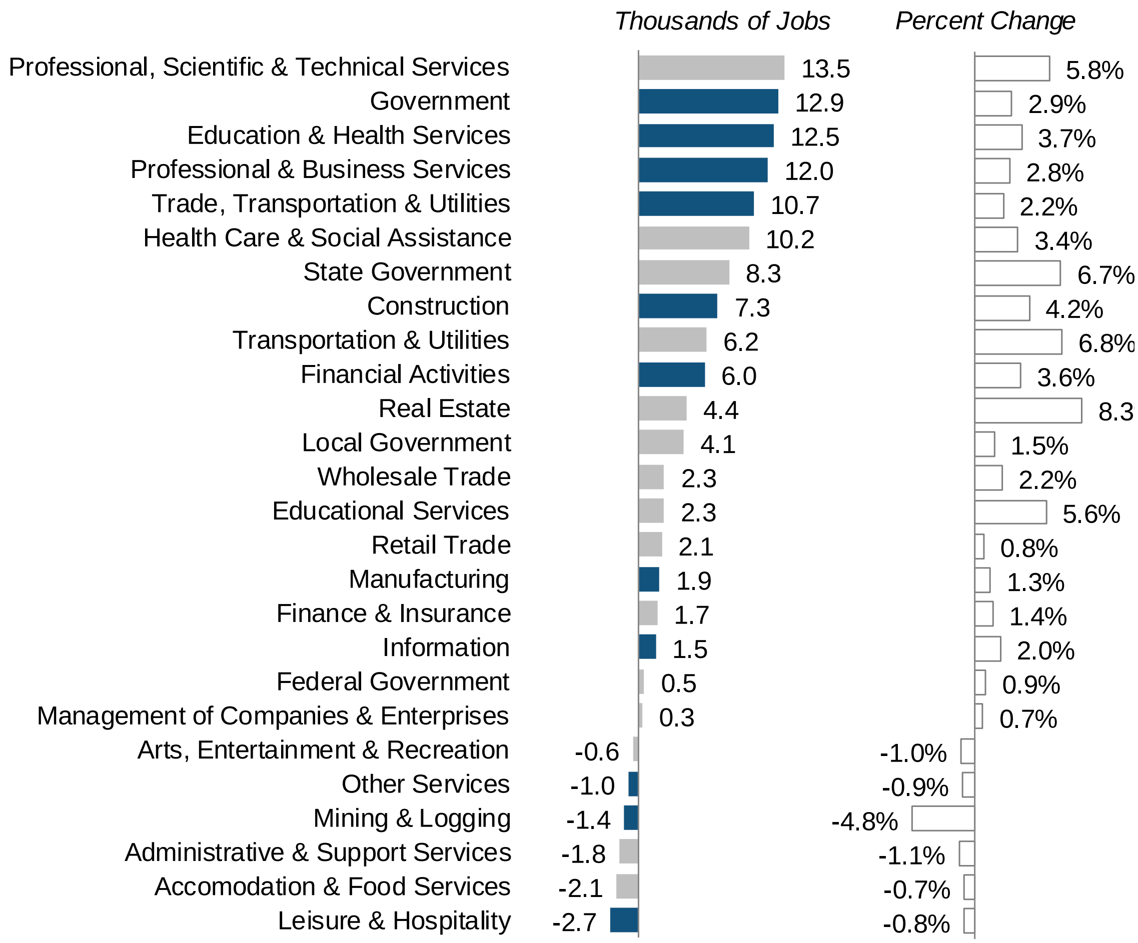
Figure 9
U.S. Job Gains and Losses by Industry
Year-over-Year Change, February 2020 over February 2019



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 job gains remain healthy across most industries. The professional and business services supersector, which includes the professional, scientific and technical sector, continues to be the main employment driver in the state, adding almost 13,500 new jobs in December 2019 compared with the same month last year (Figure 10). The professional and business services supersector is the largest of all private sectors, comprising almost 20 percent of statewide employment. The real estate subsector also accelerated in December 2019 over the same month last year, increasing by a robust 8.3 percent from the same month one year prior. The transportation and utilities subsector continue to benefit from several new Amazon distribution facilities in the state. Each of these industries have some exposure to the disruption caused by the COVID-19 disease.

Figure 10
Colorado Job Gains and Losses by Industry
Year-over-Year Change, December 2019 over December 2018



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

Business Income and Activity

Weak business conditions in 2019 set the stage for more pronounced headwinds as the world reacts to the outbreak of COVID-19. Firms were already rethinking their supply chains and adjusting inventories with China in response to the uncertain trade terrain in 2019, and this will be amplified by the outbreak of the virus in the first and second quarters of 2020. U.S. firms are now facing shortages of intermediate goods and finished products from China, which will limit their operations in 2020. In addition, businesses must anticipate more severe disruptions as COVID-19 spreads widely in the U.S. and results in business closures and significant changes in consumer behavior.

- Business activity will soften further in 2020 and into 2021 on weak global demand and firms hesitant to make large capital improvements until there is more certainty with economic conditions.

Manufacturing activity was weak in 2019. Business activity was tepid in 2019 on weak manufacturing activity. Manufacturing activity and business investment faced a number of headwinds, including safety concerns with the Boeing 737 MAX airliner, international trade policy uncertainty, and a strong dollar. Boeing halted the delivery of the 737 MAX airplane in March after two fatal crashes and paused production of the airplane in January 2020, as a fix has not yet been identified. Throughout 2019, the China and U.S. trade relationship remained uncertain as both countries increased tariffs and threatened an escalating trade war.

In December 2019, an agreement was announced to ease tariffs and increase trade between the world's two largest economies, but that came after firms reevaluated supply chains and domestic firms ramped up imports before potentially higher tariffs. Phase 1 of the trade deal was signed in January 2020, but any pick-up in business activity has been masked by disruptions due to the outbreak of COVID-19 in China. Finally, weak global economic growth and uncertainty has driven the value of the dollar higher, making it more costly for U.S. firms to produce goods and services relative to the rest of the world.

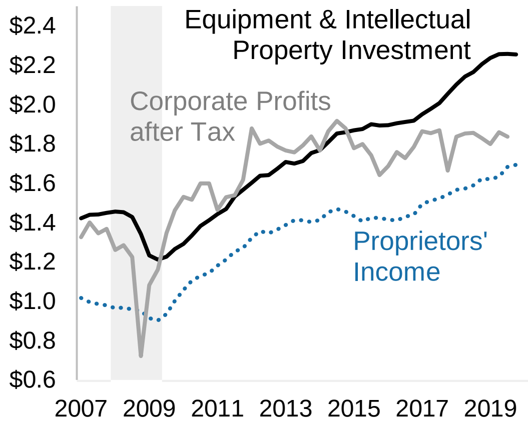
While elevated, business profits and investments are flagging. Figure 11 shows selected measures of business activity. Business investment in software and equipment grew only 0.2 percent in the fourth quarter of 2019, following tepid growth of 0.4 percent in the third quarter. In the third quarter of 2019, corporate profits declined 4.9 percent from the previous quarter and have declined in three of the past four quarters. Profits will likely fall further in the first half of 2020 as firms realize the impact of the COVID-19 response and the massive disruptions in consumer activity and to their own workforces.

Slowing indicators for manufactriong and business activity. The Institute for Supply Management (ISM) produces an index of manufacturing and non-manufacturing business activity each month based on a survey of firms. Both the non-manufacturing business activity index of 57.8 and the manufacturing index of 50.1 indicate expanding activity (with values above 50) in February. In January, the manufacturing index inched above 50 for the first time in six months as firms finally started to adjust to Phase 1 of the U.S.-China trade deal announced in December.

As measured by the Federal Reserve, industrial production (Figure 11, bottom left), peaked in December 2018 and gradually decreased through 2019. Manufacturing activity in January 2020 decreased 0.3 percent from December 2019, and was basically unchanged over the previous year. Manufacturing and industrial production orders (Figure 11, bottom right) have been stable since last summer. The value of durable goods orders decreased 1.3 percent over the first nine months of 2019 compared with the same period in 2018, while total orders have decreased 0.5 percent year-to-date.

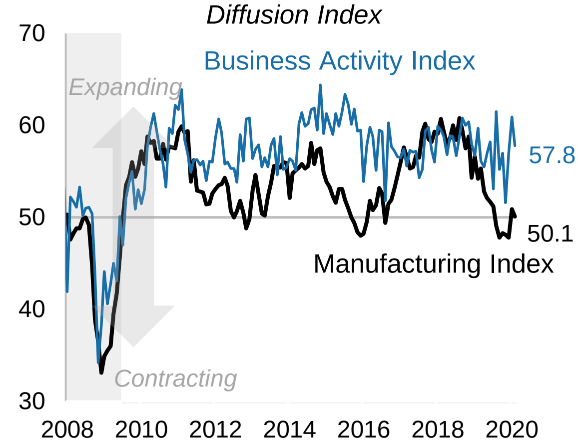
Figure 11
Selected Indicators of U.S. Business Activity

Business Investment, Income and Profits
Trillions of Dollars



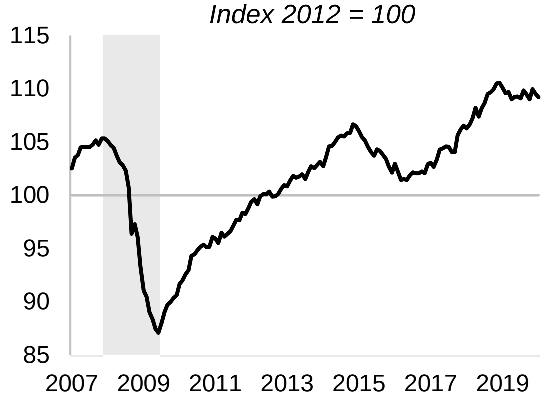
Source: U.S. Bureau of Economic Analysis.
Data are not adjusted for inflation.

Institute for Supply Management Indices
Diffusion Index



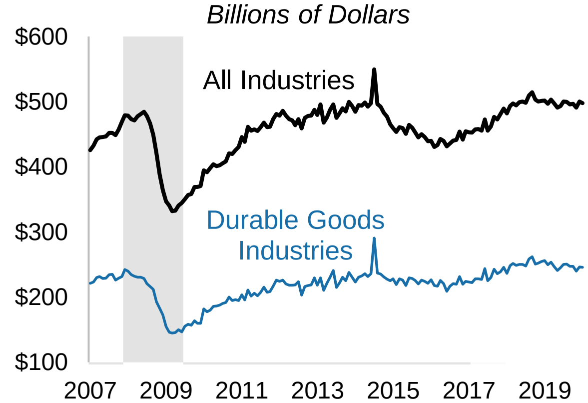
Source: Institute for Supply Management.

Industrial Production Index
Index 2012 = 100



Source: Federal Reserve Board of Governors.

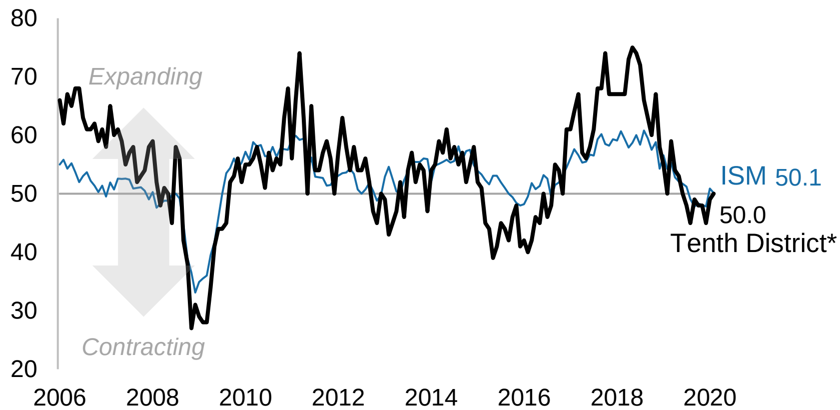
New Manufacturers' Orders
Billions of Dollars



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

Local manufactruing conditions hold steady. The Federal Reserve Bank of Kansas City produces a manufacturing index similar to the ISM index for businesses within its region, which includes Colorado in addition to six other states. The Kansas City Fed index registered 50.0 in February, indicating flat activity after seventh straight months of contraction, as shown in Figure 12.

Figure 12
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.*

Monetary Policy and Inflation

The ongoing economic expansion has been characterized by steady gains in employment and persistently low inflation. Demographic change continues to influence household spending and savings patterns, applying downward pressure to price growth over time. These trends had helped inflation rates remain at or below target, and the Federal Reserve had pursued a course of interest rates well below those in previous expansions.

In response to fading economic momentum during 2019, the Fed announced a series of interest rate cuts to reinvigorate growth. Faced with risks posed by the spread of COVID-19, the Fed made further rate cuts in early March 2020, and again in mid-March 2020, to stabilize volatile markets and counteract negative business and investor sentiment. The March cuts were the most significant changes that the Fed has made during the current business cycle. Further communications suggest that the Fed is exploring the use of other monetary policy tools to provide additional stimulus.

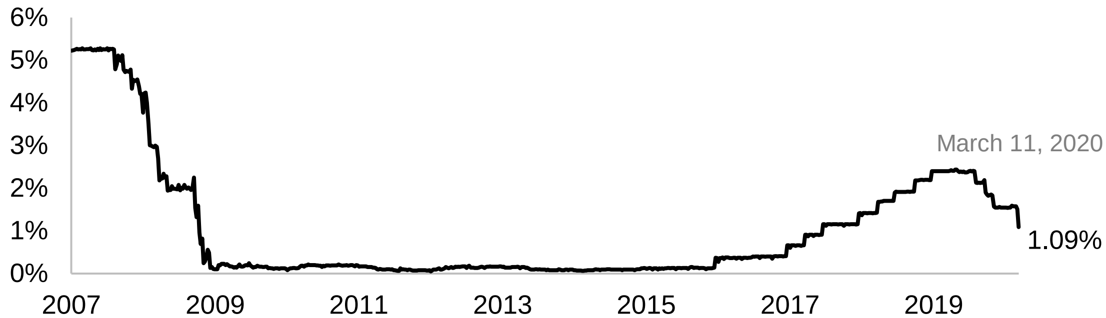
Additional monetary policy easing, coupled with supply chain disruptions, poses near-term upside risks to inflation. However, the recent drop in crude oil prices, if sustained, will offset these upside risks, as will sputtering consumer demand associated with COVID-19. Long-term demographic changes and relatively slow global economic growth are expected to continue to put downward pressure on prices in the years ahead.

- Headline inflation for all urban consumers in the United States is expected to reach 2.2 percent in 2020 before falling to 2.1 percent in 2021.

- Similarly, headline inflation in the Denver-Aurora-Lakewood combined statistical area is forecast at 2.2 percent in 2020 and 2.1 percent in 2021.

Monetary stimulus. In response to what it called "evolving risks to economic activity" associated with COVID-19, the Federal Open Market Committee (FOMC) voted unanimously on March 3, 2020 to cut the target federal funds rate by 50 basis points. On March 15, the FOMC voted to cut the target federal funds rate by a further 100 basis points, acknowledging that "the coronavirus will weigh on economic activity in the near term and pose risks to the economic outlook." These cuts were especially notable because they occurred at special meetings scheduled outside of the Fed's normal calendar. Figure 13 does not capture the most recent cut because data were unavailable at time of printing; the target federal funds rate is set between 0.00 percent and 0.25 percent, as it was between 2009 and 2015.

Figure 13
Effective Federal Funds Rate



Source: Federal Reserve Board of Governors.

In addition to interest rate reductions, the Fed is utilizing capital injections and boosting the money supply. The Federal Reserve Bank of New York announced on March 12 its plan to make over $1 trillion available via one-month and three-month asset repurchase (repo) agreements. Repo agreements allow security owners to temporarily liquidate their assets with a requirement to repurchase those assets after a prearranged period of time. On March 15, the FOMC announced plans to increase the Fed's asset portfolio through purchases of Treasury securities and mortgage-backed securities totaling $500 billion and $200 billion, respectively, over the coming months.

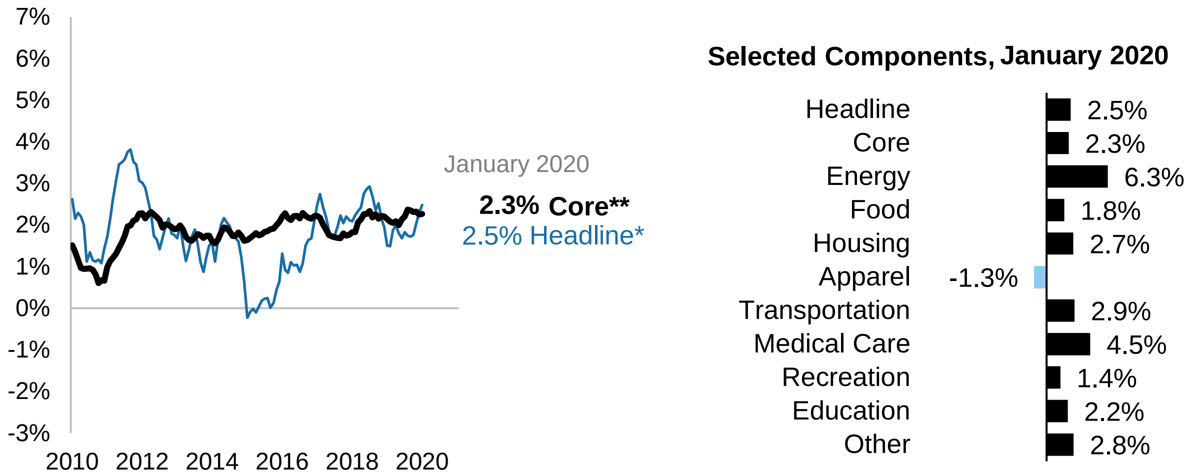
In concert with the interest rate cuts, monetary policy stimulus may serve to counterbalance decreased foreign and domestic demand, ebbing consumer confidence, and tighter financial conditions.

Future actions are dependent on economic activity. The course of future monetary policy decisions will depend on the extent to which near-term economic activity decelerates or declines. Future decisions may also depend on changes to the composition of the FOMC. President Trump has nominated as Fed governors two economists who have expressed support for additional monetary stimulus; their nominations are now before the U.S. Senate.

Some observers caution that lowering interest rates now could limit the Fed's available policy options to respond to a future recession, arguing that the potency of future monetary stimulus may depend on the extent to which interest rates can be decreased.

Inflationary pressure will recede. Consumer prices increased 2.5 percent at the national level between January 2019 and January 2020. The components of consumer price inflation are presented in Figure 14. As shown, headline inflation in all consumer prices modestly outpaced core inflation, which excludes the volatile food and energy components. The difference was largely driven by energy prices, which increased 6.3 percent year-over-year in January. Subdued inflation in other cost components has continued apace, in line with earlier expectations.

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.*

As shown in the left panel of Figure 14, headline inflation ticked up modestly in recent months, while core inflation remained relatively steady. Inflationary pressure is expected to subside following a plunge in oil prices and based on the assumption that consumer demand will deflate. Deflationary pressures are expected to outweigh upside inflationary risks posed by interest rate cuts and supply chain disruptions for goods produced in China and other countries where factories have closed.

Inflation is expected to taper off modestly through the forecast period as longer-term trends, including demographic change, and relatively slow global economic growth continue to put downward pressure on prices.

Denver-Aurora-Lakewood inflation. Inflation in the Denver-Aurora-Lakewood combined statistical area continues to exceed that for the nation as a whole. In 2019, Denver-Aurora-Lakewood inflation was estimated at 2.1 percent, slightly higher than national inflation of 1.8 percent. Prices for the Front Range are expected to increase in line with those around the country as inflation in the housing component, in particular, continues to dissipate.

Energy Markets

The energy markets are going through a perilous period and global economic conditions present unique challenges to the domestic oil and gas sector. As the coronavirus spread around the globe oil prices were low but stable on slow global economic growth. The Organization of Petroleum Exporting Countries met on March 6 and were unable to come to an agreement on production. Without an agreement, Russia and Saudi Arabia announced production increases sending the global oil markets out of balance and the price fell 24 percent overnight, the second largest daily price decline in history. Prices took a further hit as flights were cancelled and cruises were suspended, signaling a further reduction in demand for oil.

The goal of increasing supply is to keep prices low and expand the market share of oil from Russia and Saudi Arabia at the expense of the U.S. energy industry. On March 11, 2020, the price of West

Texas Intermediate Crude closed at $32.98 per barrel, down 28.1 percent from $45.90 per barrel since March 5. Only a few areas of the country are expected to have production costs low enough to be profitable at $32.98 per barrel. The Tenth District of the Federal Reserve, which includes Colorado, surveyed oil and gas producers on which price is necessary to produce oil in October. The average price needed was $55.00 per barrel, with a range of $35.00 to $75.00 per barrel.

- The energy sector will contract in response to low oil prices set at the global level and firms are at risk of going out of business. Recent efficiencies in the industry will help buy some time, but credit began to tighten at the end of 2018 and it is unlikely that the financial industry will extend credit in the midst of the volatile global energy environment.

Record domestic oil production. U.S. crude oil and natural gas production continued to increase in 2019 (Figure 15, bottom left). This boom is due to increases in production from tight rock formations and new technologies, such as horizontal drilling and hydraulic fracturing. U.S. crude oil production increased 17 percent in 2018 and increased further in 2019 by 11 percent. Texas, New Mexico, and the Gulf of Mexico contributed the most to these gains; however, Colorado set a record in 2019 with estimated production of 514,000 barrels per day. It took about six months following previous price declines for a drop in production. There will be lower production in 2020 than 2019, but the severity of the contraction is difficult to predict.

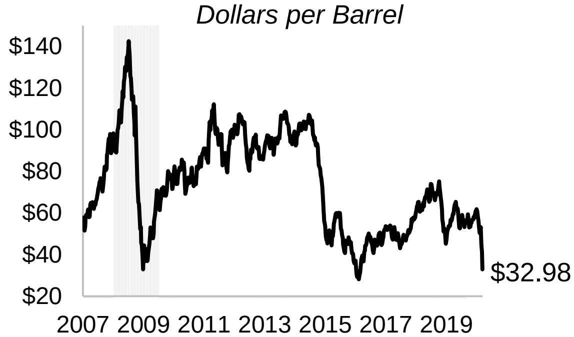
Energy prices lower on less global demand. West Texas Intermediate crude oil prices remained between $55 and $62 per barrel in the second half of 2019, before declining in the first two months of 2020 on slower global growth and rising risks with the spread of COVID-19 (Figure 15, top left). The global markets remained balanced through February with prices hovering around $50 per barrel of West Texas Intermediate Crude. The Organization of Pertroleum Exporting Countries and Russia met on March 6, 2020 and were unable to agree on production targets, at which point Russia and Saudi Arabia announced increases in oil production sending prices plummeting. Global oil prices fell 24 percent on March 9, the second largest decline in history, and were $32.98 per barrel on March 11. While U.S. oil producers increased oil production through 2019 (Figure 15, bottom left) production will fall as firms consolidate their activities in response to low oil prices. Production declines will likely begin to be reported in about six months as new wells are left uncompleted and drilling rigs are idled.

Cheap access to credit in 2017 and 2018 helped to drive investment in productive oil geology and technologically advanced wells, leading to cheaper costs of production per barrel of oil. This credit began to dry up in 2019, as the price of oil remained stable. It is unlikely that the financial industry will loosen credit conditions in the current environment and the oil industry is likely to contract if current prices persist for any sustained amount of time.

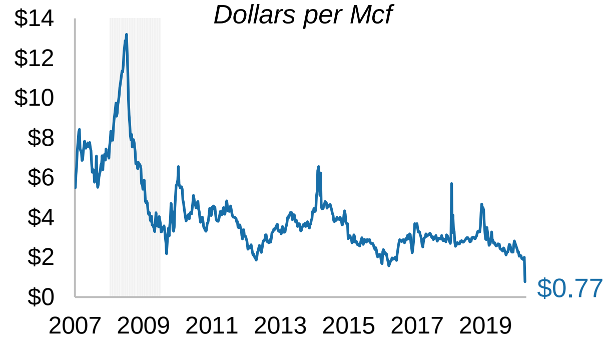
Natural gas production increased by 9.8 percent in 2019 according to the Energy Information Administration, despite persistently low Henry Hub natural gas prices (Figure 15, top right). Production will continue to grow by an estimated 2.9 percent in 2020 based on increasing production in the Appalachian Basin in the Northeast, followed by production increases in Texas and New Mexico. Increased demand from residential, commercial, and electricity generation customers drove production increases. After overtaking coal as the largest source of electricity in 2018, natural gas is estimated to comprise 37 percent of the electricity generated in 2019 and 39 percent of the electricity generated in 2020, according to the U.S. Energy Information Administration.

Figure 15
Selected Indicators of Oil and Gas Industry Activity

Crude Oil Price, West Texas Intermediate
Dollars per Barrel

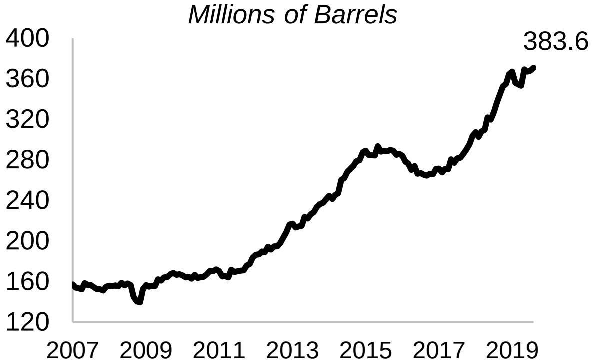


Henry Hub Natural Gas Spot Price
Dollars per Mcf



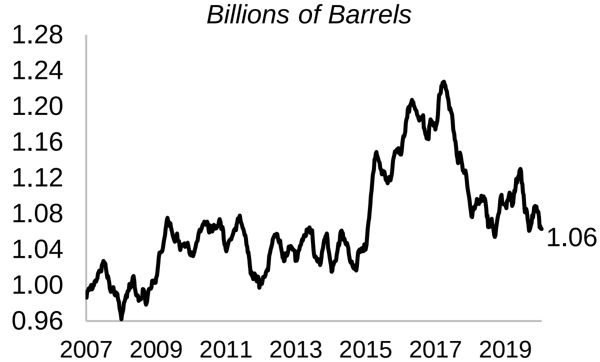
Source: U.S. Energy Information Administration. Weekly average prices. Data are not seasonally adjusted.

U.S. Crude Oil Production
Millions of Barrels



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

U.S. Crude Oil Stocks
Billions of Barrels



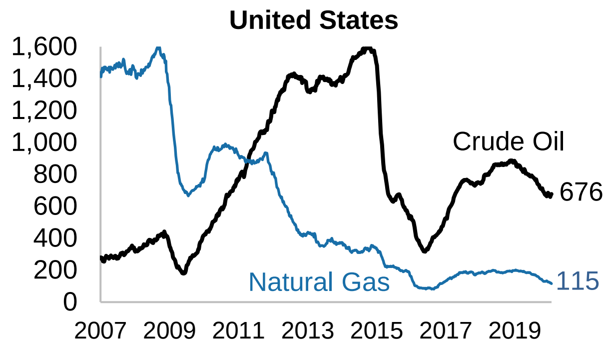
Source: U.S. Energy Information Administration. Data are not seasonally adjusted.

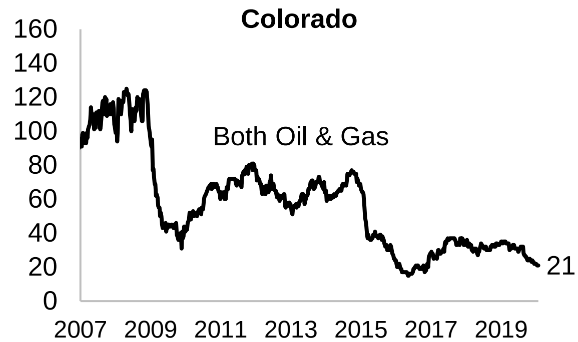
New drilling activity continues to ease. New drilling activity, as measured by active drilling rigs (Figure 16, left), declined 8.6 percent between 2018 and 2019. In the last week of January 2020, there were 676 active oil rigs and 115 active natural gas rigs. This decline in active drilling wells comes in response to tighter credit conditions in the energy industry and more productive wells.

Colorado energy activity. Drilling activity in Colorado has mirrored the national trend, as 21 active drilling rigs in the third week of January represents a decline of 40.0 percent since the same period in 2019. Despite a modest number of drilling rigs, Colorado crude oil production continues to increase. The Energy Information Administration estimates that crude oil production per well in the Niobrara formation, which includes Colorado, increased from less than 200 barrels per day in 2010 to nearly 1,200 barrels per day in 2019. New wells are more efficient due to the use of hydraulic fracturing and horizontal drilling.

A survey of oil producers in the Tenth District of the Federal Reserve, which includes Colorado, indicated a significant decline in the regional energy sector’s business conditions in the first quarter of 2020. Introducing low oil prices into this challenging environment will cause consolidation, if not severe contraction, in Colorado's oil and gas sector. Current price levels are not profitable; however, it is impossible to predict how long prices will remain this low or the ultimate production levels in Colorado in a few years.

Figure 16
Active Rig Counts





Source: Baker Hughes. Data are not seasonally adjusted.

Housing & Residential Construction

Momentum in the U.S. residential real estate market picked up in 2019 after softening in the second half of 2018. Low mortgage rates and slower price appreciation gains have boosted home sales and new homebuilding (Figure 17) across many areas in the country. However, affordability remains a concern, stemming from rising construction costs, a shortage of skilled labor, and a lack of buildable lots. Recent data suggest that the U.S. housing market is going through a transitional period, as younger people are choosing to move to smaller and more affordable metro areas in the country. Similar to the nation, Colorado's real estate market began to cool in 2018, particularly in the metro Denver area. However, the market picked up momentum at the end of 2019 with interest rate cuts.

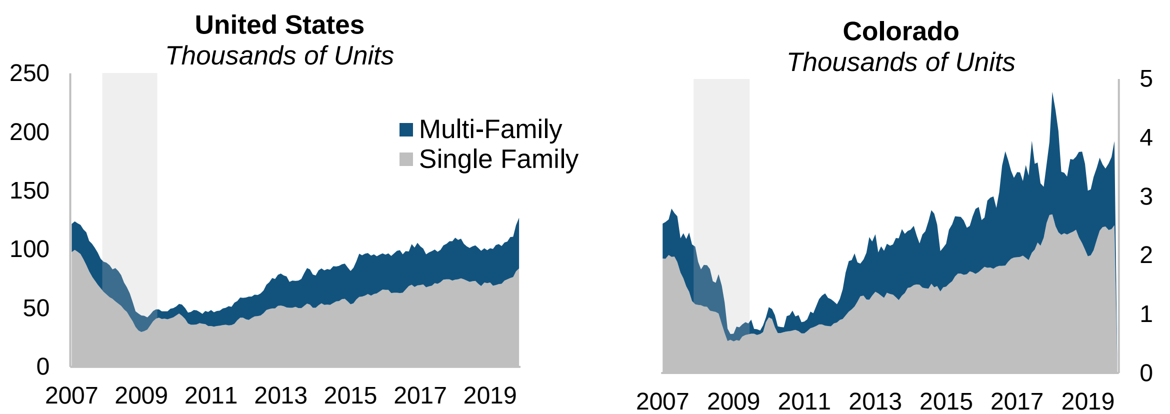
- Colorado housing construction activity, as measured by residential construction permits, will remain elevated in 2020, declining 4.0 percent from 2019 levels. Permits are expected to decline slightly in 2021, but remain at healthy levels.

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

High housing costs are influencing migration. Amid a supply-demand imbalance and strengthening demand for more affordable homes, homebuilders have discounted prices and are shifting toward more entry-level construction. According to the U.S. Census Bureau, the median sales price of houses sold in the country was $321,300 in 2019, down from $326,000 in 2018. In addition, migration data published by the Census Bureau show that younger people (those under the age of 40) are choosing to move to relatively smaller and affordable metro areas, which is putting upward pressure on apartment and home prices in those desirable markets.

Homebuilder confidence remains high. In February 2020, the Housing Market Index, a monthly survey published by the National Association of Home Builders that is designed to take the pulse of residential builder confidence, reported a reading of 74, up from 62 in the same month one year prior. A reading above 50 indicates a favorable outlook on home sales, while below 50 indicates a negative outlook. The index has been steadily increasing since the beginning of 2019. Lower interest rates, a strong labor market, and rising wages have contributed to the improvement in the national residential real estate market.

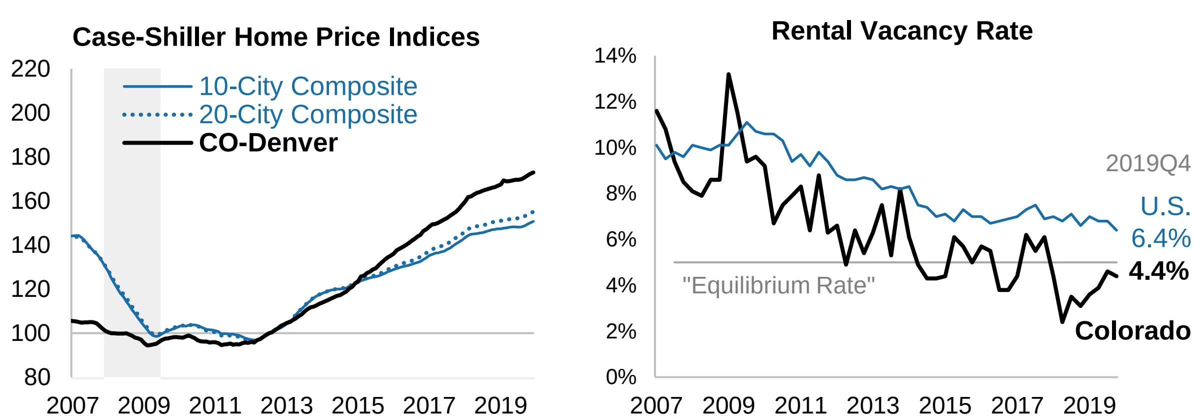
Figure 17
New Residential Construction Housing Starts



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

Colorado's residential real estate market continues to balance out. Colorado's residential real estate market was steady in 2019 after several years of robust growth. The Case-Schiller home price index for Denver showed a 3.7 percent price increase in 2019 (Figure 18, left), a slowdown relative to the 7.6 percent and 5.0 percent annual growth rates in 2017 and 2018, respectively. Lower interest rates, historically low rental vacancy rates (Figure 18, right), slower home price appreciation, and an increase in supply are supporting activity in the Colorado real estate market. However, in many areas of the state, home price appreciation has and still is outpacing wage growth, contributing to affordability concerns. Low housing inventories and low mortgage interest rates are expected to continue to support the market, although activity will be slower than in recent years.

Figure 18
U.S. and Colorado Shelter Price Indicators



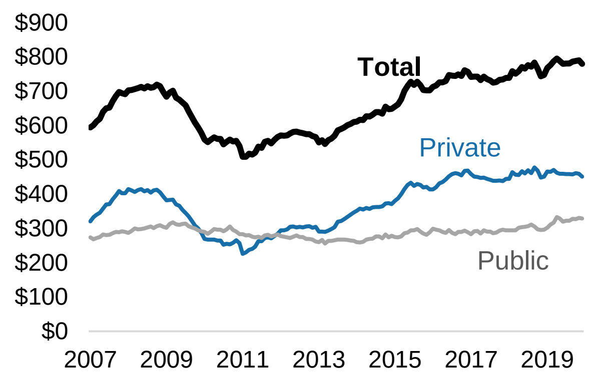
Source: S&P Dow Jones Indices LLC. Seasonally adjusted data through December 2019.

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

Nonresidential Construction

U.S. nonresidential construction activity continued to make modest gains in 2019, albeit at a slower pace than experienced in prior years. In 2019, spending on nonresidential construction projects in the U.S. totaled $9,397.3 billion, up 3.0 percent from 2018. Public spending was the main driver for growth in 2019, increasing by 7.3 percent compared with 2018 (Figure 19). Much of the 2019 public spending occurred in infrastructure projects, power (38.3 percent), and water supply (33.8 percent)

Figure 19
U.S. Nonresidential Construction Spending
Billions of Dollars



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

In 2018, Colorado's nonresidential construction market experienced a banner year on several large projects, including the expansion of Denver International Airport. In 2019, new construction activity slowed considerably from the high 2018 levels, but represents many projects spread throughout most areas of the state. Prior to 2018, growth had been mainly restricted to the metro Denver and northern regions of the state. Some major projects expected to start in 2020 are the $230 million Colorado Convention Center expansion, Elitch's River Mile projects, expansion of the Gaylord Rockies hotel, and the new World Trade Center. In addition, a restart of the Denver International Airport renovation project is expected in 2020. These projects and others are expected to help the industry grow modestly in 2020, but some contractors are beginning to get concerned about their diminishing backlog of work.

- Coming off of slower activity in 2019, the value of nonresidential construction starts in Colorado is expected to modestly decline in 2020, decreasing by 4.3 percent. As many industries hold off on construction project in an uncertain economic climate, activity is expected to decline 8.5 percent in 2021.

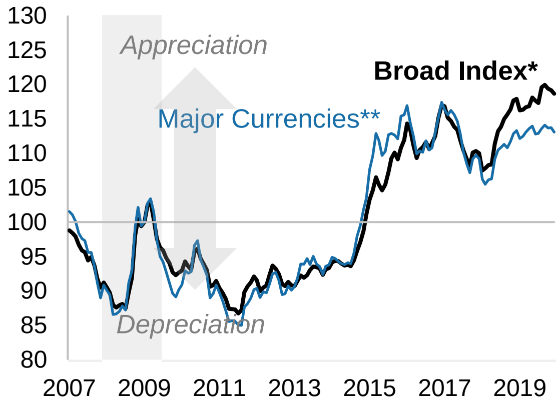
Global Economy

The easing of trade tensions and renewed manufacturing activity signaled an uptick in global growth for 2020; however, rapidly emerging downside risks associated with the spread of COVID-19 have clouded the near-term outlook. The outbreak and spread of COVID-19, and ongoing geopolitical tensions will put downward pressure on economic growth in 2020.

U.S. dollar maintains strength, while trade activity remains subdued. The U.S. dollar continues to appreciate against other major currencies (Figure 20, left), which may continue in the near term as global economic uncertainty persists under the spread of COVID-19. U.S. exports, already weakened by tariffs, are less competitive with a strong dollar. Combined, these factors have depressed exports (Figure 20, right). On the bright side for U.S. consumers, imports become relatively cheaper under a strong dollar. This has helped offset some of the price impacts of tariffs on foreign importers to the U.S. over the last year and a half.

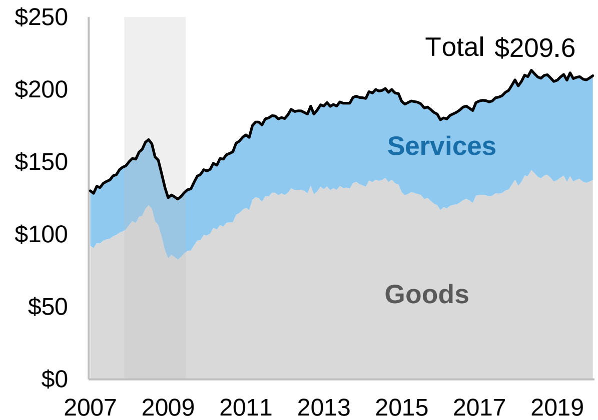
Figure 20
Selected Indicators of Trade Activity

Trade Weighted U.S. Dollar
Index 100 = January 2009



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

Total U.S. Monthly Exports
Billions of Dollars



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

IMF projects slow global economic growth in 2020. The IMF downgraded its January forecast in response to COVID-19, and is now projecting that global growth will accelerate slightly to 3.2 percent in 2020, and tick up to 3.4 percent in 2021. Disruptions associated with COVID-19 will be partially offset by easing trade tensions and greater certainty with a smooth initial Brexit. The IMF expects the U.S. to lead advanced economy growth at 2.0 percent in 2020, while the euro area, the U.K., and Japan are all expected to see growth between 1.0 and 1.4 percent. That said, IMF regional projections were released prior to COVID-19 cases confirmed in the U.S. and other advanced economies, and the outbreak in Italy. Emerging and developing economies are forecast to grow at 4.4 percent in 2020, up from 3.9 percent in 2019. Stronger growth will result from more robust economic activity in Southeast Asia, as supply chains shift away from China and towards countries like Vietnam and Malaysia, and as India and Latin America begin to see a rebound in growth.

Tepid outlook for Chinese growth with new hurdles to demand. After finalizing Phase 1 of a trade deal with the U.S., the Chinese economy has been on lock-down in efforts to control the spread of COVID-19. GDP growth in China slowed to 6.1 percent in 2019, down from 6.6 percent the year prior and still within the government's target growth range. While China's economic restructuring has necessarily slowed growth, the effects from trade tensions on demand for Chinese manufactured and intermediate goods contributed to the slowdown last year. In early January, the IMF projected 6.0 percent growth during 2020, but has since suggested growth may fall to 5.6 percent this year due to subdued economic activity as a result of the coronavirus outbreak. China's manufacturing purchasing manager's index fell to 35.7 at the end of February, an all-time low for the index and down almost 15 points from January (below 50 is contractionary territory). First, and possibly second, quarter growth will depend on how quickly the virus is contained and manufacturing plants resume production.

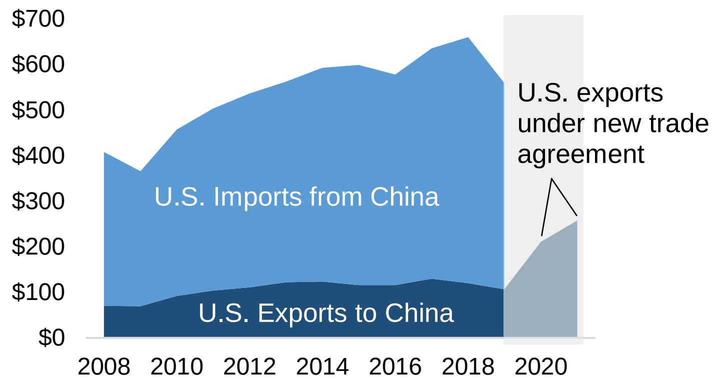
International Trade

This year began with the enactment of the U.S.-Mexico-Canada trade agreement and the signing of a phase one deal between the U.S. and China, ushering in a period of calmer trade relations between the U.S. and its three largest trading partners. Trade remains top of mind, however, with new trade deals on the horizon and old tensions still percolating.

Trade activity during 2019 remained muted and 2020 downside risks are mounting. U.S. exports were down 1.3 percent, while imports declined 1.7 percent during 2019, largely driven by much larger decreases in U.S.-China trade. In Colorado, imports in 2019 declined by 2.9 percent, driven by a large decline in imports from China, while exports declined by 2.7 percent, with exports to Mexico dropping by almost 15 percent last year. Supply chain disruptions due to the COVID-19 outbreak in China have dampened trade activity in the first two months of 2020, both from a slowdown in Chinese manufacturing activity and in broader shipping activity. The Port of Los Angeles, which handles over one-third of all U.S. container imports, is projecting a 25 percent drop in container volumes during February and a 15 percent drop during the first quarter of the year.

U.S-China trade embarks on a new phase of relations. With a first round of negotiations complete, U.S. tariffs on imports were reduced from 15 percent to 7.5 percent on $110 billion of goods, and China cut tariffs in half on $75 billion in U.S. imports. Despite these initial cuts, tariffs remain on approximately two-thirds of Chinese imports and over one-half of U.S. imports. Under the deal, China agreed to purchase an additional $200 billion worth of U.S. goods and services over the next two years, mostly agricultural, manufacturing, energy, and service exports. These purchases have not yet begun, as the coronavirus outbreak in China has slowed economic activity throughout the country. The additional purchase of U.S. exports by China would be a significant increase over the 2017 baseline, as a total of $185.8 billion worth of goods and services was exported from the U.S. to China that year. This would ramp up to $210.9 billion in 2020 and $257.5 billion in 2021, as shown in Figure 21. Other agreements in the deal include stronger intellectual property rights protections in China, an agreement that China will not engage in competitive currency devaluations, and an opening of China's financial services sector. A Phase 2 deal is not currently on the horizon and will likely depend on meeting Phase 1 agreements.

Figure 21
U.S.-China Trade
Dollars in Billions



Source: WiserTRADE. U.S. export projections from Peterson Institute for International Economics.

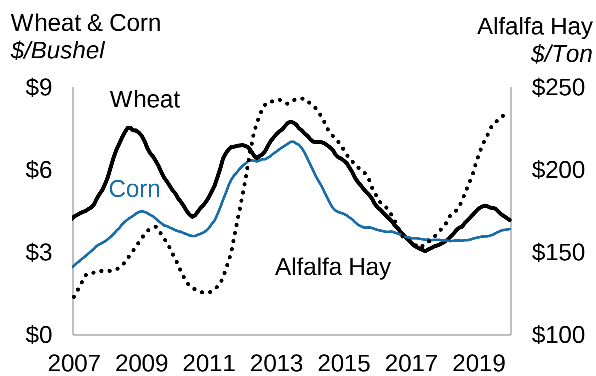
Further trade deals remain under negotiation. Trade deals are under discussion with India, the United Kingdom (UK), the European Union (EU), and Kenya. Trade tensions with India have been on the upswing, with India imposing retaliatory tariffs on U.S. imports after the U.S. imposed tariffs on steel and aluminum imports. A bilateral deal did not materialize in February as expected and current tariffs remain in place. The UK's exit from the EU sparked negotiations on bi- and multi-lateral trade agreements, including a possible agreement with the U.S. The U.S. has opened negotiations with Kenya, one of the largest U.S. trading partners in sub-Saharan Africa, for a bilateral trade agreement, in part to mitigate the influence that China has had on the region with its Belt and Road initiative. The U.S. levied tariffs on a wide variety of EU goods in 2019 after a World Trade Organization (WTO) decision to allow U.S. retaliation for EU subsidies to its aircraft manufacturing sector. Tensions remain, as the U.S. increased tariffs on European aircraft imports from 10 percent to 15 percent, and the WTO may allow further retaliation by the EU.

Agriculture

Agricultural producers face ongoing headwinds from low commodity prices and increasing competition from global producers. Exports of goods that face retaliatory tariffs in ongoing trade tensions declined in 2019, while purchases of agricultural equipment are either costlier or unattainable for the same reasons. Easing credit conditions have lifted some of the pressure, but even with China's promise to purchase billions in agricultural goods the outlook for farms remains cloudy on the slowdown in global economic activity.

Commodity prices show mixed results. Feed crop prices continue to outperform cereal prices on strong demand for beef, as shown in Figure 22. Volatility in international markets with the spread of COVID-19 has spilled over into commodity futures markets. Hay prices remain high on strong demand from ranchers, although they have begun to moderate slightly. Colorado milk production was up 6.1 percent during the fourth quarter of 2019, and prices were up 17 percent in December 2019 year-over-year, creating a favorable situation for dairy farmers to offset lower exports from the state. Cattle inventory in January was down 5 percent year-over-year due to drops in beef cows and calves, while milk cow inventories are up. Pork production and prices are both up, as the effects of the African swine fever epidemic in China cut global supply.

Figure 22
Prices Received for Colorado Crops



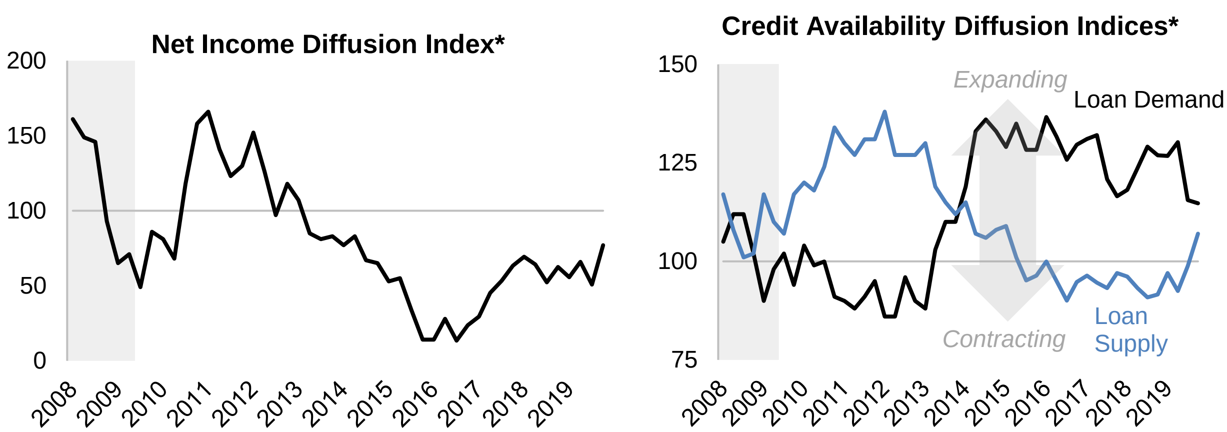
Source: U.S. Department of Agriculture, National Agriculture Statistics Service. Data shown as a 12-month moving average through December 2019.

Agricultural industry wary of trade promises. Under the Phase 1 trade deal between the U.S. and China, China promised to import an additional $32 billion in agricultural products from the U.S. over the next two years. This represents close to a 50 percent increase per year in agricultural exports to China, which averaged $22 billion annually between 2013 and 2017. With the onset of COVID-19 and the resulting pause in economic activity in China, these purchases are delayed. Trade activity overall has fallen significantly during the first two months of the year on lower demand and higher precautionary measures. Prices and production are unlikely to respond to greater demand from China until purchases begin, and prices may not react at all, since other countries have increased some crop production to offset lower imports from the U.S., resulting in higher supply levels.

Hemp production continues its rise in the state. Colorado planted the most hemp acreage in 2019 of any state, after the 2018 farm bill legalized hemp throughout the country. About 80,000 acres were planted in Colorado during 2019, and an additional 40,000 acres are expected to be added in 2020. With the rapid increase in supply, prices are beginning to take a hit, dropping almost 80 percent from 2018 to 2019, especially as the amount of hemp produced is growing faster than processing capacity. Regulations at the federal level are currently under development that Colorado producers say could harm the state's more mature industry. The Colorado Department of Agriculture developed a statewide initiative, called Colorado Hemp Advancement and Management Plan (CHAMP), to assist with relevant information for the industry, and is expected to publish their initial report in March 2020.

Farm income improved in the fourth quarter but remains depressed. Farm income in the Federal Reserve's Tenth District continues to suffer from crop price volatility, lower trade volume, and unfavorable weather conditions; however, it decreased at a slower pace, particularly in the mountain region that includes Colorado (Figure 23, left). Lower farm income combined with higher costs for capital inputs have led to less investment in farm equipment and falling loan demand (Figure 23, right). Loan demand still remains high, although the fourth quarter of 2019 saw a faster decline in demand, which pushed relative loan supply up. Farm loan repayment rates improved during the same period, while renewals and extensions ticked down slightly. These trends are expected to reverse course during the first quarter of 2020, however.

Figure 23
Select Farm Financial Conditions in the Federal Reserve's Tenth District



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

Summary

Growth in the U.S. and Colorado economies is expected to moderate in 2020 and 2021. Historically low unemployment rates, wage gains, and consumer activity that had sustained the economic expansion are expected to be overshadowed by the economic impacts of COVID-19.

The spread of COVID-19 and actions to stem its contagion have prompted stock market volatility and further weakening in business investment and trade activity at the start of 2020. Consumer activity will be significantly impacted as the COVID-19 outbreak widens. The timing and severity of the spread of the virus poses a significant near-term risk to both the state and national economies.

Risks to the Forecast

Several factors could result in either stronger or weaker economic activity than forecast. Recent developments have heavily skewed these risks to the downside.

Downside. In addition to the risks and uncertainty posed by the impacts of COVID-19 on supply chains, trade, consumer activity and confidence, and global economic growth, the epidemic has the potential to compound the risks associated with existing vulnerabilities. For example, increased uncertainty has generated greater stock market volatility, which may, in turn, undermine consumer confidence and slow consumer spending further than expected. While U.S. consumers have to this point continued to fuel economic growth, further slowing may ignite a cycle of slowing or declining business, job, and wage growth.

Business investments will be hampered by new sources of uncertainty stemming from COVID-19, combined with ongoing geopolitical risks and trade policy uncertainty. Manufacturing, energy, and exports continue to pose a drag on economic growth. The added uncertainty surrounding COVID-19 and an accompanying pull-back in business investment or consumer activity could have outsized impacts on overleveraged businesses and financial markets. The expansion of private and public debt in the low interest rate environment of the last decade poses a substantial risk of financial fragility and business solvency. Corporate and sovereign debt defaults could ignite contagion effects that spread through the global financial system, especially if financial markets are already weakened by fears of the spreading coronavirus.

Upside. In the U.S., additional monetary easing or fiscal policy stimulus could boost near-term growth above expectations. An $8.3 billion spending bill was signed into law on March 6, 2020, to help state and local health departments contain the spread of the coronavirus. A second bill to address COVID-19 is moving through congress and more federal support is possible. Alternatively, COVID-19 may be contained more quickly than expected, resulting in a rapid return to the sustained economic expansion following the current slowdown and market volatility.

Table 15
National Economic Indicators

						Legislative Council Staff Forecast		
Calendar Years	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Real GDP (*Billions*)[1]	$17,403.8	$17,688.9	$18,108.1	$18,638.2	$19,072.7	$19,320.6	$19,668.4	$20,101.1
Percent Change	2.9%	1.6%	2.4%	2.9%	2.3%	1.3%	1.8%	2.2%
Nonfarm Employment (*Millions*)[2]	141.8	144.3	146.6	148.9	150.9	151.8	153.1	155.0
Percent Change	2.1%	1.8%	1.6%	1.6%	1.4%	0.6%	0.8%	1.3%
Unemployment Rate[2]	5.3%	4.9%	4.3%	3.9%	3.7%	4.0%	3.8%	3.8%
Personal Income (*Billions*)[1]	$15,717.8	$16,121.2	$16,878.8	$17,819.2	$18,601.4	$18,936.2	$19,731.5	$20,698.4
Percent Change	4.8%	2.6%	4.7%	5.6%	4.4%	1.8%	4.2%	4.9%
Wage and Salary Income (*Billions*)[1]	$7,856.7	$8,083.5	$8,462.1	$8,888.5	$9,297.4	$9,492.6	$9,891.3	$10,405.7
Percent Change	5.1%	2.9%	4.7%	5.0%	4.6%	2.1%	4.2%	5.2%
Inflation[2]	0.1%	1.3%	2.1%	2.4%	1.8%	2.2%	2.1%	2.0%

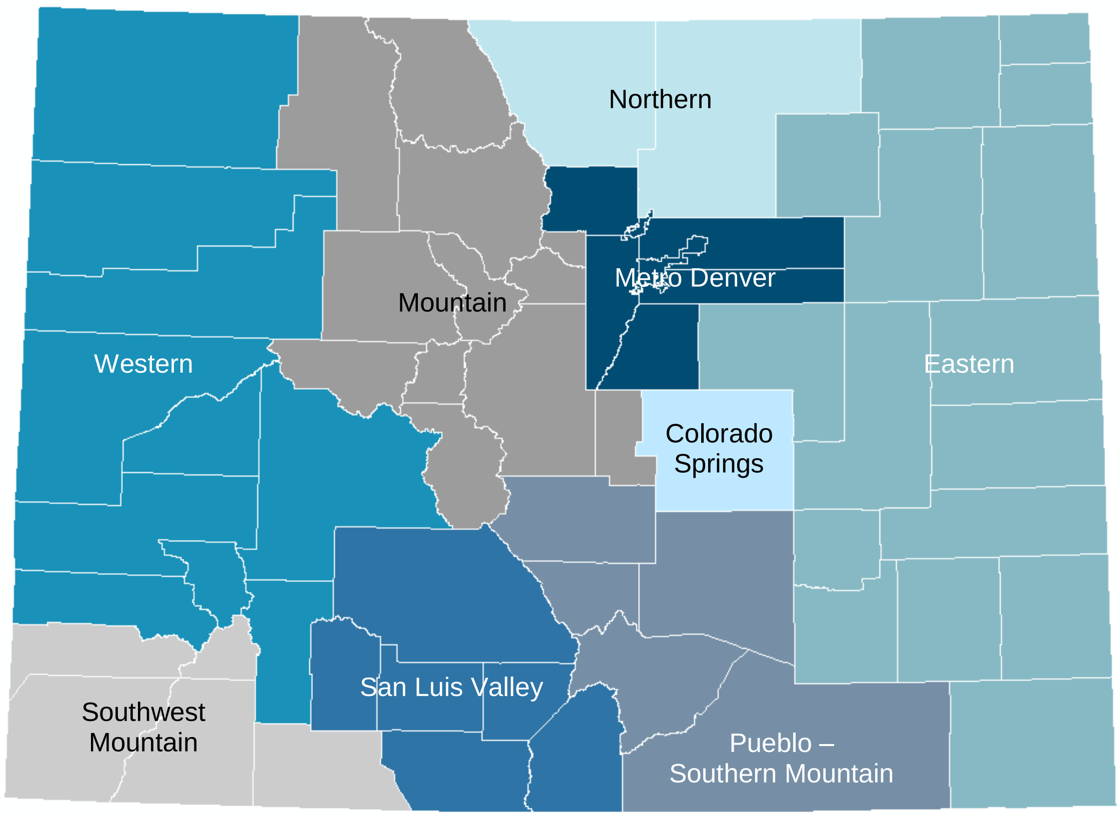
Sources
[1]U.S. Bureau of Economic Analysis. Real gross domestic product (GDP) is adjusted for inflation. Personal income and wages and salaries not adjusted for inflation.
[2]U.S. Bureau of Labor Statistics. Inflation shown as the year-over-year change in the consumer price index for all urban areas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

Table 16
Colorado Economic Indicators

Calendar Years	2015	2016	2017	2018	2019	2020	2021	2022
						Legislative Council Staff Forecast		
Population (*Thousands, as of July 1*)[1]	5,450.6	5,539.2	5,611.9	5,691.3	5,758.7	5,833.6	5,909.4	5,986.3
Percent Change	1.9%	1.6%	1.3%	1.4%	1.2%	1.3%	1.3%	1.3%
Nonfarm Employment (*Thousands*)[2]	2,540.8	2,601.5	2,660.6	2,725.4	2,778.1	2,800.3	2,836.7	2,879.3
Percent Change	3.1%	2.4%	2.3%	2.4%	1.9%	0.8%	1.3%	1.5%
Unemployment Rate[2]	3.8%	3.2%	2.7%	3.3%	3.0%	3.2%	3.1%	3.0%
Personal Income (*Millions*)[3]	$284,234	$289,581	$310,755	$332,943	$352,919	$362,095	$380,924	$401,494
Percent Change	4.8%	1.9%	7.3%	7.1%	6.0%	2.6%	5.2%	5.4%
Wage and Salary Income (*Millions*)[3]	$146,531	$151,016	$160,719	$170,115	$181,512	$187,865	$198,761	$210,091
Percent Change	5.7%	3.1%	6.4%	5.8%	6.7%	3.5%	5.8%	5.7%
Housing Permits (*Thousands*)[1]	31.9	39.0	40.7	42.6	42.0	40.3	39.4	40.8
Percent Change	11.1%	22.3%	4.4%	4.8%	-1.5%	-4.0%	-2.1%	3.4%
Nonresidential Building (*Millions*)[4]	$4,990.8	$5,999.6	$6,148.4	$8,056.5	$4,776.1	$4,570.8	$4,182.3	$4,462.5
Percent Change	14.7%	20.2%	2.5%	31.0%	-40.7%	-4.3%	-8.5%	6.7%
Denver-Aurora-Lakewood Inflation[5]	1.2%	2.8%	3.4%	2.7%	1.9%	2.2%	2.1%	2.0%

Sources
[1]U.S. Census Bureau. Residential housing permits are the number of new single and multi-family housing units permitted for building.
[2]U.S. Bureau of Labor Statistics.
[3]U.S. Bureau of Economic Analysis. Personal income and wages and salaries not adjusted for inflation. Forecast shown for 2019.
[4]F.W. Dodge.
[5]U.S. Bureau of Labor Statistics. Inflation shown as the year-over-year change in the consumer price index.
Note: Legislative Council Staff has discontinued the Colorado retail trade forecast due to data limitations.

Colorado Economic Regions



A Note on Data Revisions

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

Like the employment data, residential housing permits and agriculture data are also based on surveys. These data are revised periodically. Nonresidential construction data in the current year reflects reported construction activity. These data are revised the following year to reflect actual construction activity.

Metro Denver Region

Colorado's seven-county metro Denver region continued a healthy economic expansion in 2019. However, peak growth appears to be behind the metro area, as labor shortages, cooler real estate markets, and lower levels of construction activity have slowed momentum in economic growth. Among regions in the state, the metro Denver region has the largest population and workforce. The region is characterized by a strong, diversified economy, with growing concentrations in the information technology and finance sectors. Economic indicators for the region are summarized in Table 17.

Table 17
Metro Denver Region Economic Indicators
Adams, Arapahoe, Broomfield, Boulder, Denver, Douglas, and Jefferson Counties

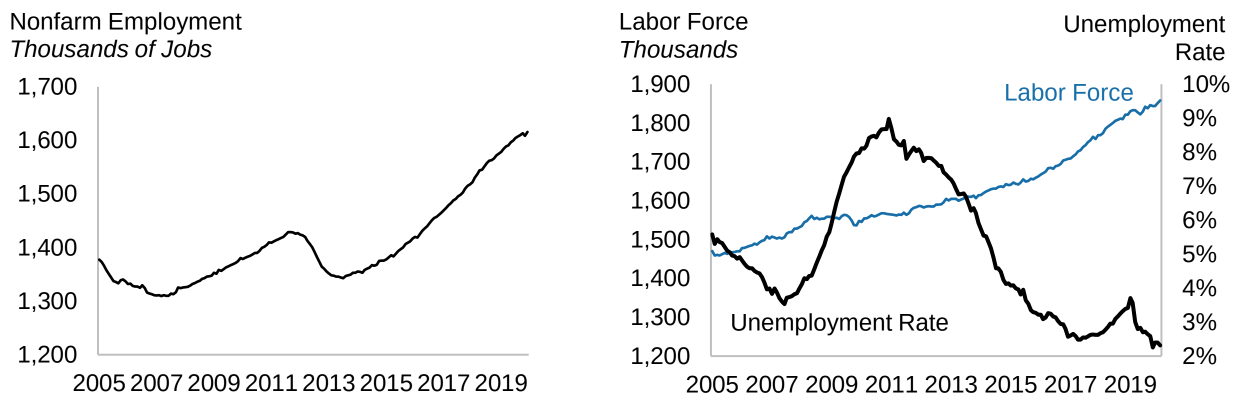
	2015	2016	2017	2018	2019
Employment Growth[1]	3.1%	2.3%	1.9%	2.4%	1.9%
Unemployment Rate[2]	3.6%	3.0%	2.6%	3.1%	2.7%
Housing Permit Growth[3]					
Denver-Aurora MSA Single Family	17.8%	12.2%	3.8%	7.9%	-6.1%
Boulder MSA Single Family	74.2%	10.2%	-4.3%	15.7%	-9.5%
Nonresidential Construction Growth[4]					
Value of Projects	25.6%	27.9%	-11.1%	44.6%	-41.9%
Square Footage of Projects	43.6%	6.9%	-14.6%	-13.8%	-9.5%
Level (*Millions*)	21,170	22,624	19,330	16,670	15,093
Number of Projects	20.7%	9.9%	-24.2%	-19.2%	-14.5%
Level	1,130	1,242	942	761	651

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

Labor market. Regional employment data are subject to ongoing revisions. Current published data for the metro Denver region suggest that the number of jobs in the area increased 1.9 percent in 2019 relative to 2018 levels (Figure 24, left). The metro Denver labor market continues to tighten on slowing net migration and a shortage of skilled labor. These trends are expected to continue to slow regional employment and economic growth in 2020. The area unemployment rate averaged 2.7 percent in 2019 (Figure 24, right), reflecting slower growth in both the labor force and number of jobs, consistent with a late stage economic expansion.

Housing. Metro Denver residential construction activity continues to moderate (Figure 25, left). The relatively high cost of housing in the region has dampened interest among many would-be buyers, while construction labor and land shortages have also constrained new residential construction activity. Metro Denver is home to largest share of residential construction activity in the state. The slowdown in the region led the state into a slowdown in 2019. Permits for new residential construction activity in both the Denver-Aurora and Boulder metropolitan statistical areas contracted in 2019 by 6.1 percent and 9.5 percent, respectively. While activity has receded, it remains elevated relative to historical levels. Following several years of double-digit gains, home price appreciation moderated in 2019 on a larger supply of homes and potential homebuyers establishing price ceilings by walking away from homes on the market. At the end of 2019, prices accelerated in conjunction with the reduction in interest rates. However, further leveling off in home prices is expected as supply and demand come into balance with potential buyers seeking more affordable options elsewhere.

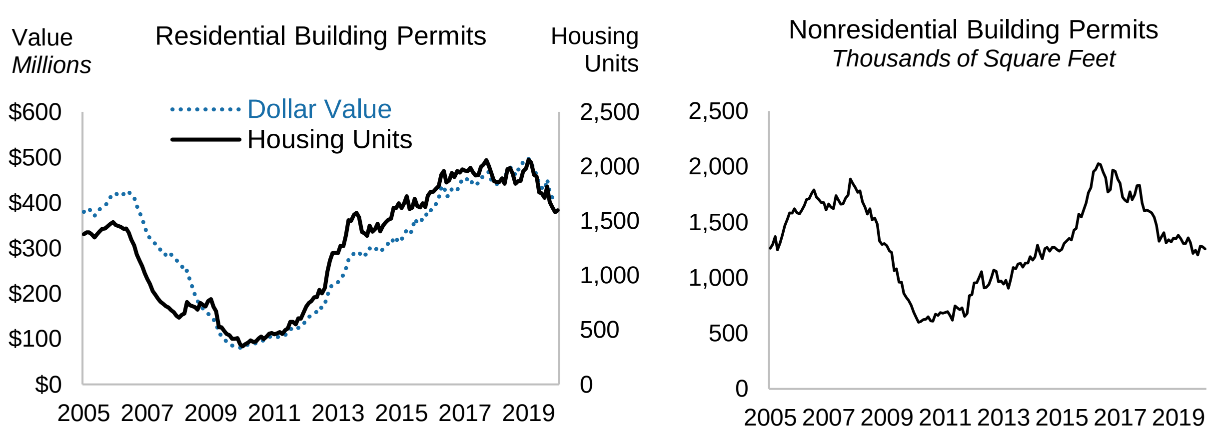
Figure 24
Metro Denver Region Labor Market Activity



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

Nonresidential construction. Metro Denver nonresidential building activity slowed further in 2019. The value, square footage (Figure 25, right), and number of projects declined in 2019 relative to prior-year levels. The value of construction of hotel and motels, hospitals and health treatment centers, and manufacturing buildings led growth in the region, partially offsetting declines in most other nonresidential building.

Figure 25
Metro Denver Region Construction Activity



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

Northern Region

Larimer and Weld counties comprise the diverse economy of the Northern Region. Larimer County's economy continues to expand with population growth drawn to the Fort Collins area, while Weld County's economic activity is driven largely by the oil and gas and agricultural industries. Colorado's energy industry is at significant risk from global economic conditions. The region's labor market is tight with healthy employment gains and a low unemployment rate. Construction industry activity slowed in 2019, as building activity comes off of high levels. Table 18 shows economic indicators for the northern region.

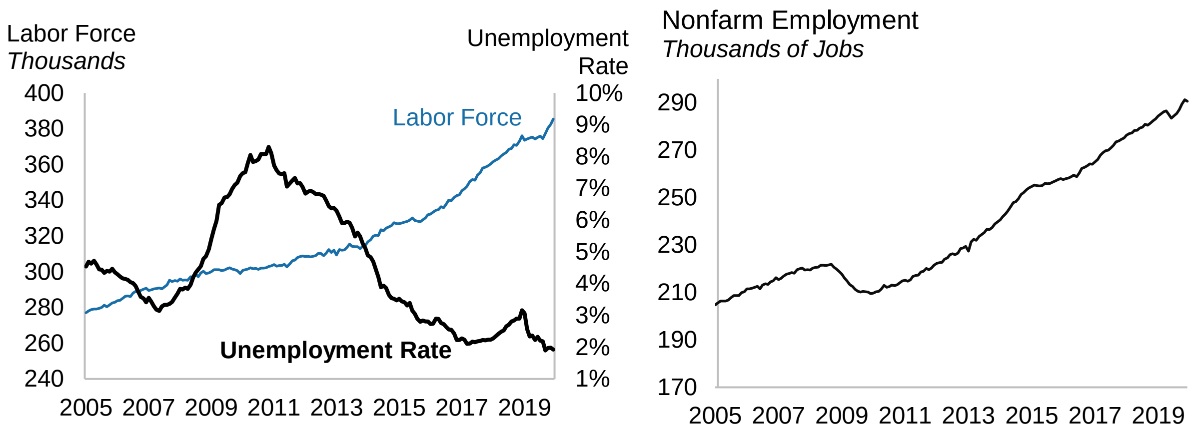
Table 18
Northern Region Economic Indicators
Weld and Larimer Counties

	2015	2016	2017	2018	2019
Employment Growth[1]					
Fort Collins-Loveland MSA	4.0%	3.8%	3.7%	2.7%	2.4%
Greeley MSA	-0.2%	-0.3%	-0.4%	2.4%	2.3%
Unemployment Rate[2]					
Fort Collins-Loveland MSA	3.3%	2.8%	2.3%	2.8%	2.4%
Greeley MSA	3.8%	3.3%	2.6%	3.0%	2.6%
State Cattle and Calf Inventory Growth[3]	-4.4%	1.0%	6.7%	2.6%	8.0%
Natural Gas Production Growth[4]	44.3%	14.6%	5.6%	18.9%	18.3%
Oil Production Growth[4]	39.4%	-7.3%	13.5%	36.0%	5.6%
Housing Permit Growth[5]					
Fort Collins-Loveland MSA Total	-8.1%	47.9%	-18.2%	8.4%	-18.2%
Fort Collins-Loveland MSA Single Family	1.3%	-2.9%	21.0%	-14.1%	-4.9%
Greeley MSA Total	-3.5%	-7.8%	23.1%	24.6%	-2.2%
Greeley MSA Single Family	3.8%	-9.9%	16.4%	32.1%	-8.4%
Nonresidential Construction Growth[6]					
Value of Projects	25.8%	-46.2%	44.1%	-57.9%	-15.4%
Square Footage of Projects	19.8%	-14.8%	17.8%	-29.0%	-22.2%
Level (*Thousands*)	3,983	3,393	3,996	2,838	2,207
Number of Projects	-7.8%	-19.7%	6.3%	16.3%	-22.5%
Level	238	191	203	236	183

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

Labor market. The region's labor market continues to grow faster than the state as a whole. Employment growth in the Fort Collins-Loveland metropolitan statistical area (MSA) increased 2.4 percent in 2019 over year-ago levels. Employment growth has slowed for the past five years due to the tight labor market, which has led to difficulty finding new employees in an area with a low unemployment rate. Employment growth in the Greeley MSA decelerated to 2.3 percent in 2019 due to the tight labor market and a pullback in the oil and gas sector of the economy. Area unemployment is stable with the average 2019 Fort Collins-Loveland MSA unemployment rate at 2.4 percent and the Greeley MSA at 2.6 percent, both below the statewide unemployment rate of 3.2 percent for the same period. Figure 26 shows employment trends for the northern region.

Figure 26
Northern Region Labor Market Activity



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

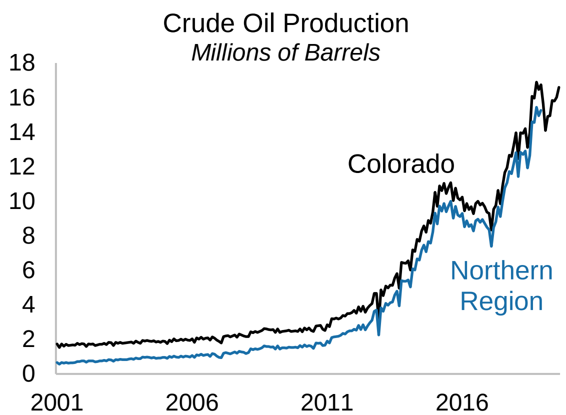
Agriculture. The northern region produces about a quarter of the value of Colorado's agricultural products due to the heavy concentration of the livestock industry in Weld County. Despite tariffs on agricultural commodities and the reshuffling of global supply chains, the number of cattle and calves on feed increased 8.0 percent in 2019 over year-ago levels. Flooding in 2019 reduced forage on grazing land, increasing the demand for hay to feed cattle herds. The price of a ton of alfalfa hay was $233.58 in December 2019, a $29.83 increase over December 2018.

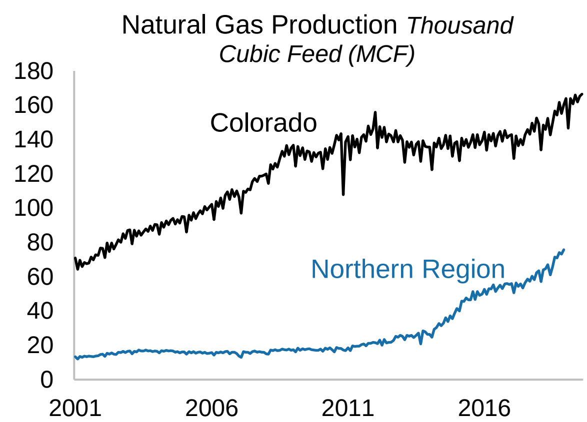
Energy sector. Oil production in the northern region, particularly in Weld County, has dominated statewide production for over a decade (Figure 27). Oil production climbed through October 2019, increasing 5.6 percent after increasing by a robust 36.0 percent in 2018. Energy companies are placing increasing amounts of natural gas on the market as it is produced as a by-product of oil production. Natural gas production in northern Colorado increased 18.9 percent in 2018 and 18.3 percent through the first ten months of 2019 over the same period last year. With oil prices falling to around $32 per barrel in March, the energy sector faces significant headwinds, as this price would not likely be able to cover production costs. It generally takes six months for a fall in oil prices to reduce production. It is impossible to forecast the full extent of the impact on Colorado energy producers at this time. Oil and gas producers face potential closures in the months ahead, since debt levels are already high for many and credit has been tight.

Housing. Housing construction in the northern region softened in 2019 after robust growth in preceding years. Building permits declined 18.2 percent in the Fort Collins area and declined 2.2 percent in Greeley in 2019. These declines are coming off strong growth in 2018, propelled by several large multi-family projects that are unlikely to be repeated (Figure 28, left). While housing construction has been subdued in 2019, home prices continue to rise. The Colorado Association of Realtors report that the median sale price for a home in Larimer County reached $418,000 in January

2020, a 1.9 percent increase from January 2019. The median sale price in Weld County reached $358,900 in January 2020, reflecting growth of 3.0 percent from year-ago levels.

Figure 27
Colorado Energy Production

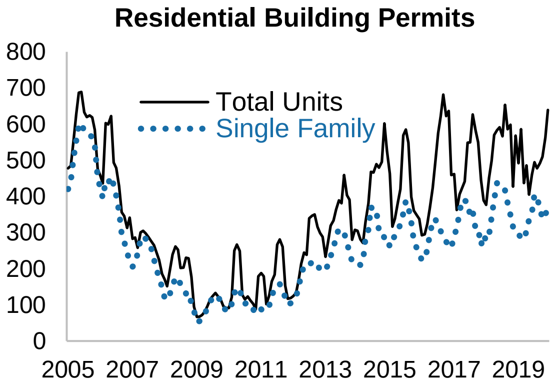




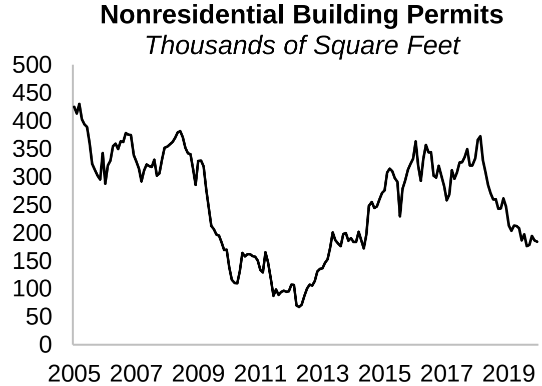
Source: Colorado Oil and Gas Conservation Commission. Monthly data through October 2019.

Nonresidential construction. Nonresidential construction activity in the region declined in 2019, as there was less investment in the oil and natural gas sector. The value of nonresidential construction projects decreased 15.4 percent, the square footage declined 22.2 percent (Figure 28, right), and the number of projects declined 22.5 percent in 2019. The decline in nonresidential construction activity reflects a shift in the oil and gas industry as firms refocus on profits rather than growth under tighter lending standards.

Figure 28
Northern Region Construction Activity

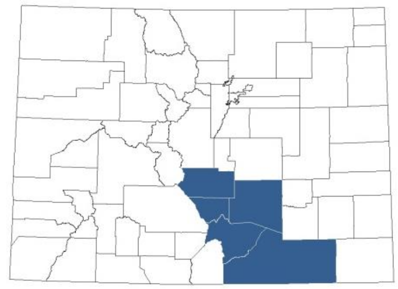


Source: U.S. Census Bureau. Data shown as three-month moving averages. Data are not seasonally adjusted and are through December 2019.



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

Pueblo – Southern Mountains Region



The Pueblo – Southern Mountains region includes five southern Front Range counties surrounding the City of Pueblo. After two years of solid growth, the region's labor market activity slowed in 2018, but picked up pace again in 2019. Relatively affordable housing continues to attract people to the area, aiding the residential real estate market. The City of Pueblo's convention center expansion is expected to support economic activity in the region in 2020. In addition, recent successes in attracting new, high tech industries to the region are expected to contribute to economic growth. Indicators for the regional economy are presented in Table 19.

Table 19
Pueblo Region Economic Indicators
Custer, Fremont, Huerfano, Las Animas, and Pueblo Counties

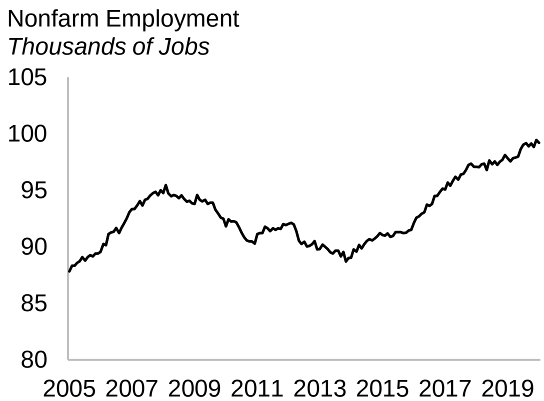
	2015	2016	2017	2018	2019
Employment Growth					
Pueblo Region[1]	0.9%	2.8%	2.8%	1.0%	1.2%
Pueblo MSA[2]	2.0%	1.8%	1.1%	0.1%	0.4%
Unemployment Rate[1]	5.7%	4.8%	4.1%	5.0%	4.3%
Housing Permit Growth[3]					
Pueblo MSA Total	69.4%	6.0%	14.9%	45.1%	3.8%
Pueblo MSA Single Family	29.9%	29.9%	16.2%	52.6%	-6.2%
Nonresidential Construction Growth[4]					
Value of Projects	2.6%	-22.6%	-64.5%	224.5%	44.5%
Square Footage of Projects	14.6%	-3.8%	-52.6%	145.1%	-19.7%
Level (*Thousands*)	355	341	162	397	318
Number of Projects	-18.6%	50.0%	-72.2%	55.0%	19.4%
Level	48	72	20	31	37

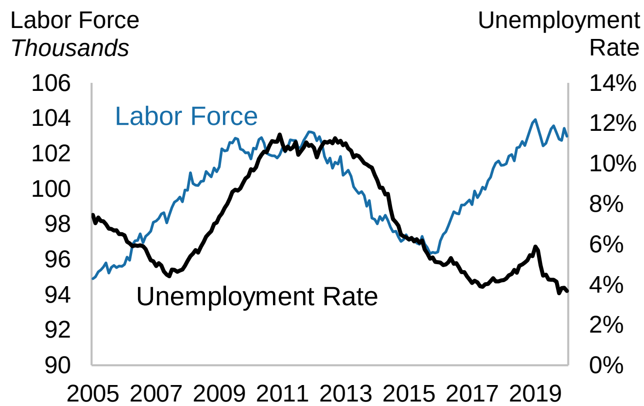
MSA = Metropolitan statistical area.
[1]U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through December 2019.
[2]U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through December 2019.
[3]U.S. Census. Growth in the number of residential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

Labor market. Labor market indicators for the Pueblo region improved in 2019, after slowing in 2018, and the region's unemployment rate dropped in 2019 compared with the prior year. Employment growth in the Pueblo region increased by 1.2 percent in 2019, while the Pueblo metropolitan statistical area, which only includes Pueblo County, grew by 0.4 percent over 2018 levels. The average monthly unemployment rate in 2019 was 4.3 percent, down from 5.0 percent the prior year. Government, health services, and retail trade continue to be the top three sources of jobs in the county. Several planned projects are expected to support labor market activity in the current year. EVRAZ, a producer of engineered steel products, is considering a $500 million expansion and modernization of its Pueblo steel mill, and Xcel Energy has plans to convert its Comanche coal fired power plant to include large solar farms.

The collapse of the Pueblo steel industry in the 1980s has left a long legacy for the region's economy. In the wake of industry collapse, the regional economy has diversified slowly, but a private sector void remains unfilled. Public sector jobs comprise a significant share of area employment. Additionally, health care providers, institutions of higher education, and state correctional facilities offer work for many area residents. The area economy has experienced steady improvements in labor market activity since 2014 (Figure 29). Yet, the area employment-to-population ratio remains low and the regional unemployment rate remains elevated relative to the statewide average. In 2019, the unemployment rate averaged 4.3 percent, while the statewide rate averaged 3.0 percent over the same period.

Figure 29
Pueblo Region Labor Market Trends





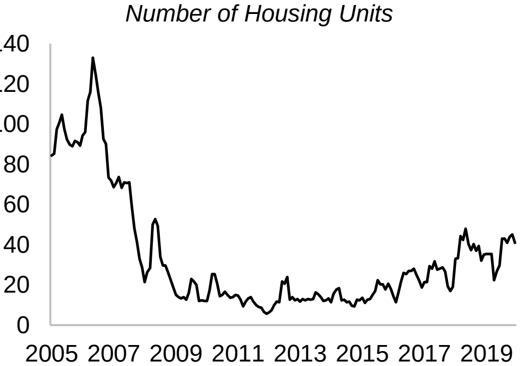
Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through December 2019.

Housing. Residential real estate market indicators continued to improve in 2019 after posting strong gains in 2018. In 2018, the county issued 477 total residential building permits, a 45.1 percent increase from 2017, and the most since 2007 when permits totaled 677 (Figure 30). The growth in the number of residential permits issued continued in 2019, totaling 488, or a 3.8 percent increase from the prior year.

An affordable housing market compared with the northern and Metro Denver regions has many residents looking to relocate to the Pueblo region. The January 2020 single family median sales price in Pueblo County was $201,000, compared to $510,000 in the Metro Denver region, according to data from the Colorado Association of Realtors. Falling mortgage interest rates and an improving labor market should continue to boost demand for housing permits in the region.

Nonresidential construction. Following two years of mixed data in 2016 and 2017, nonresidential construction activity increased

Figure 30
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 December 2019.

considerably in 2018 and continued to pick up pace in 2019. The value of nonresidential projects increased by 44.5 percent in 2019, after posting a robust 224.5 percent gain in 2018. Amusement and public improvement-related projects have provided most of the lift for the region. The City of Pueblo has recently opened a convention center expansion along the Historic Arkansas Riverwalk. Through this project, the city is adding a large exhibit hall and Professional Bull Riders-anchored sports performance center to the Pueblo Convention Center, a three-story parking garage across the street from the convention center, and a Gateway Plaza outdoor space. The total cost for the improvements is projected to top $30 million. The bulk of the project will be paid for by state sales taxes under the state Regional Tourism Act program in addition to state and federal grants. In addition, EVRAZ Rocky Mountain Steel in Pueblo reached a long-term contract with Xcel Energy to develop a 240 megawatt solar array at the mill site.

Colorado Springs Region

The vibrant Colorado Springs economy continues to benefit from a virtuous cycle of strong economic activity and job growth. Labor market indicators remain strong and nonresidential construction continues to pick up momentum in 2019. After robust growth in 2018, residential construction activity slowed in 2019, but remained at elevated levels. A strong job market, outdoor recreation, and comparatively lower real estate prices than the northern Front Range continue to attract young professionals into the area. The regional economy, which includes all of El Paso County, has a large public sector presence, supporting area defense operations, higher education institutions, and health care facilities. Increasingly diverse private sector growth also continues to support the area economy. Indicators for the regional economy are presented in Table 20.

Table 20
Colorado Springs Region Economic Indicators
El Paso County

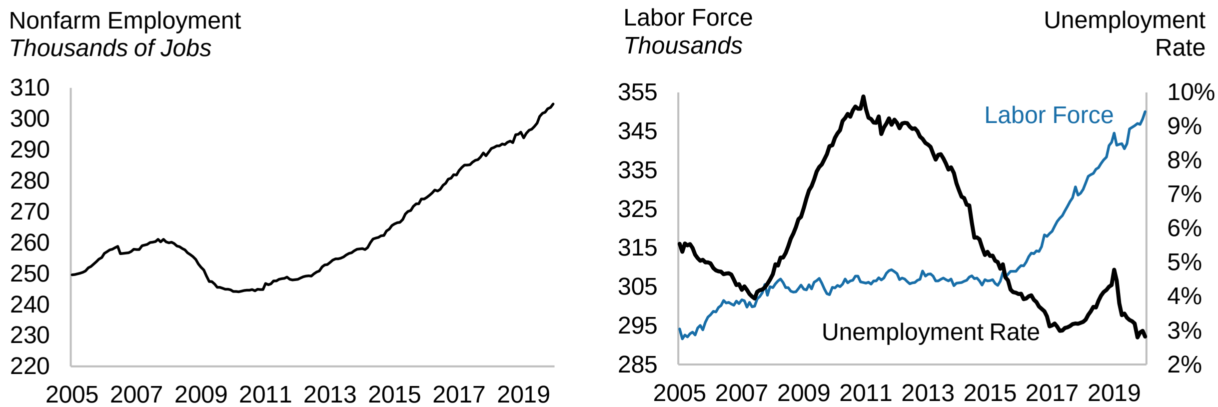
	2015	2016	2017	2018	2019
Employment Growth[1]					
Colorado Springs MSA	3.3%	2.9%	1.8%	2.2%	2.4%
Unemployment Rate[2]	4.6%	3.7%	3.1%	3.9%	3.3%
Housing Permit Growth[3]					
Total	-0.4%	41.3%	-3.9%	15.4%	-3.8%
Single Family	13.3%	19.7%	6.7%	9.6%	-4.1%
Nonresidential Construction Growth[4]					
Value of Projects	-1.0%	48.9%	-22.6%	19.7%	11.3%
Square Footage of Projects	-0.2%	26.1%	10.5%	9.2%	2.2%
Level (*Thousands*)	1,865	2,353	2,599	2,838	2,900
Number of Projects	13.5%	11.6%	30.0%	-1.6%	-32.2%
Level	379	423	550	541	367

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

Labor market. The Colorado Springs labor market grew for the ninth consecutive year in 2019, with employment gains increasing at a healthy rate of 2.4 percent, which represents a slight acceleration from 2018 (Figure 31, left). The Colorado Springs metropolitan statistical area averaged 1,140 new jobs each month in 2019, up from 530 from the previous year. Job growth has been broad-based across industries, with in-migration supporting demand for new construction, retail trade activity, and jobs in leisure and hospitality. Relatively affordable housing continues to boost in-migration to the region, which has brought new workers into the labor force over the past two years (Figure 31, right). The region's average unemployment rate was 3.3 percent in 2019, down from 3.9 percent in 2018. In February, Amazon announced plans to open a new fulfillment center in Colorado Springs, creating more than 1,000 full-time jobs.

Tax collections. The strong labor market, in-migration, and tourism have supported growth in retail sales in the region. According to reports released by the City of Colorado Springs, revenue from the city's general sales and use tax increased 3.0 percent in 2019. Tax statistics point to strong contributions from auto sales and tourism-related activity, including hotel, retail, and restaurant sales.

Figure 31
Colorado Springs Labor Market Activity



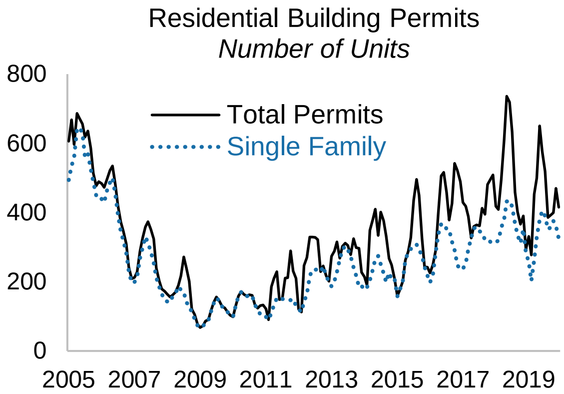
Source: U.S. Bureau of Labor Statistics; CES data (left) and LAUS data (right) are through December. Data are seasonally adjusted.

Housing. For the second year in a row, Colorado Springs was ranked as the nation's most desirable place to live in 2019, according to U.S. News & World Report. Though new residential permit issuances dipped slightly in 2019, the region's residential real estate market indicators remain strong. In January 2020, the median sales price for a single family home in the region was $338,500, up 11.1 percent from the previous year, according to the Colorado Association of Realtors. The number of days on the market declined to 31 days in January, down from 47 days in the same month one year ago. In 2019, the total number of residential permits issued in the region was 5,512, down 3.8 percent from the same period last year. However, the region is coming off of a banner year in which the total amount of building permits issued increased by a robust 15.4 percent in 2018 (Figure 32, left).

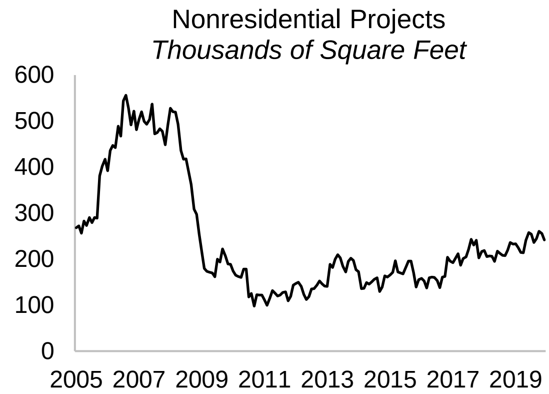
The region's healthy economy and several years of robust home price gains have pushed the cost of living higher, and affordable housing is becoming a concern. Strong demand has pushed down the months of supply of inventory in the region to one month in January 2020, and the number of homes for sale declined by 31 percent from January 2019. While still more affordable than real estate in the Denver metro region, Colorado Springs home prices continue to rise at solid rates as demand continues to outstrip supply.

Nonresidential construction. Relative to pre-recessionary levels, demand for new nonresidential construction has remained subdued throughout the recovery and expansion period, with a slow general upward trend (Figure 32, right). However, investment in nonresidential projects in the region picked up pace in 2019 and is expected to maintain this momentum through 2020. The new Olympic Museum in downtown Colorado Springs continues to take shape and is expected to open in 2020. Other major projects announced in the region and expected to start construction soon include the Weidner Field at Switchbacks Stadium, Robson Arena at Colorado College, and several new hotels in the downtown area of Colorado

Figure 32
Colorado Springs Construction Activity

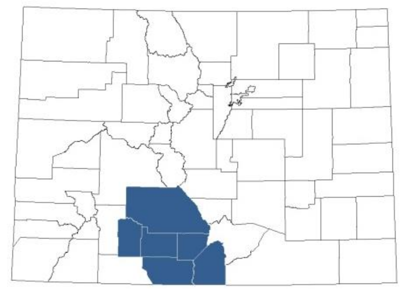


Source: U.S. Census Bureau. Data are shown as three-month moving averages. Data are not seasonally adjusted and are through December 2019.



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

San Luis Valley Region



Among the nine economic regions of the state identified in this forecast, the San Luis Valley has the state's smallest and oldest population with the lowest household incomes. The economy of the region's six counties is largely agricultural. Nonfarm employers include commercial, health, and government services, as well as a small but resilient tourism sector. Economic data for the region are sparse, but those available suggest that regional construction activity and employment growth have slowed in 2019. Economic indicators for the region are summarized in Table 21.

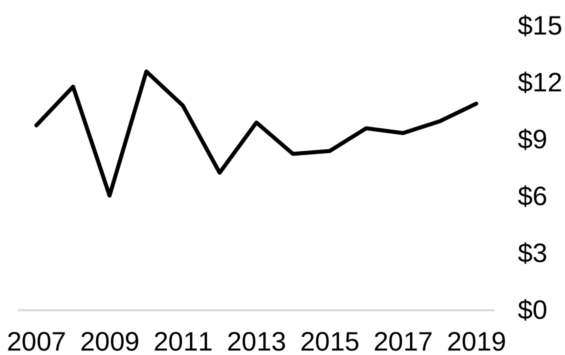
Table 21
San Luis Valley Region Economic Indicators
Alamosa, Conejos, Costilla, Mineral, Rio Grande, and Saguache Counties

	2015	2016	2017	2018	2019
Employment Growth[1]	4.0%	6.2%	4.5%	3.8%	2.1%
Unemployment Rate[1]	5.7%	4.4%	3.7%	4.4%	3.8%
San Luis Valley Agriculture District[2]					
Barley					
Acres Harvested	63,000	75,000	68,000	53,000	52,000
Crop Value ($/Acre)	$806	$685	$607	$650	NA
Potatoes					
Acres Harvested	57,400	57,100	55,600	55,000	51,100
Crop Value ($/Acre)	$3,301	$3,734	$3,572	$3,828	NA
Housing Permit Growth[3]	21.5%	-1.1%	16.8%	16.3%	-11.5%

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

Agricultural industry. The San Luis Valley's agricultural sector relies primarily on the production of potatoes, and secondarily on barley, although hemp and quinoa acreages have been on the upswing. Producers harvested 51,100 acres of potatoes during 2019, after harvesting 55,000 acres in 2018. Hemp, which has become popular in the valley for its tolerance of drier climates and its potentially high pay off, likely replaced the decline in potato acreage between 2018 and 2019. Potato shipments through the last week of February are down 2.2 percent over the same period last year, despite higher prices over the last couple of years (Figure 33). Barley production declined about 7 percent in 2019 over 2018 production levels, with fewer acres harvested and lower yields. Lower yields may be partially offset by slightly higher prices, which were up 1.5 percent year-over-year in 2019.

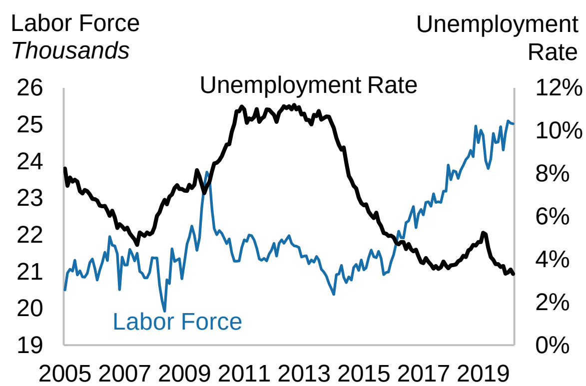
Figure 33
Prices Received for Colorado Potatoes
$/Cwt



Source: National Agricultural Statistics Service. Data shown as annual averages. Data through 2019.

Labor market. In addition to the agricultural industry, tourism, a large retirement community, and government services, including Adams State University, support the San Luis Valley economy. Employment conditions in the region have cooled off from a relatively frenetic pace over the last few years. Following employment growth of 3.8 percent in 2018, job growth in 2019 slowed to 2.1 percent over year-ago levels (Figure, left). Despite slower job growth, the unemployment rate has ticked down to 3.8 percent in 2019 from 4.4 percent in 2018 (Figure, right). Based on published data, the decrease in the unemployment rate is attributable to a slowdown in labor force growth, as shown in Figure 34 (right). While these figures suggest a slowdown in labor market activity, employment figures are more volatile in smaller regions such as the San Luis Valley and are subject to data revisions.

Figure 34
San Luis Valley Labor Market Activity

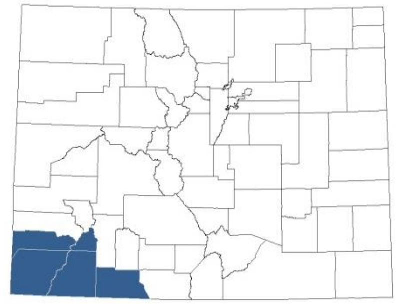


Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through December 2019.

Housing and population growth. After two consecutive years of strong growth, housing permits issued in the San Luis Valley declined by 11.5 percent in 2019 over year-ago levels. Population growth in the region is mixed, with Alamosa, Costilla, Mineral, and Saguache counties projected to experience mostly positive net migration and natural population increases over the next few years, while Conejos and Rio Grande counties are expected to see declines in both migration and population growth, according to the Colorado State Demography Office. Single-family home prices in Alamosa County rose 12.7 percent year-over-year in 2019, although the small number of home purchases in the region tends to cause volatility in the data. Housing prices remain at about half of the statewide average, according to the Colorado Association of Realtors, making this region a more affordable destination for retirees.

Tourism. Visits to the Great Sand Dunes National Park and Preserve have increased every year since 2013. Park visits rose 19.1 percent during 2019 on increased visitations every month after the first quarter of the year. National forest land, recreation areas, and wetlands surround the national park, making the area close to Alamosa a destination for outdoor enthusiasts. Additionally, the Cumbres and Toltec Scenic Railroad, which leaves from Antonito, a town just north of the New Mexico border, attracts a large number of tourists during the summer season, bringing in millions of dollars to the remote region.

Southwest Mountain Region



The southwest mountain region comprises five counties in the southwest corner of the state. This area boasts a diverse economy, with significant contributions from agriculture, tourism, and natural gas extraction, as well as typical regional services like health care and education. In 2019, the regional job market slowed modestly while housing development actively declined, consistent with a maturing economic expansion. The regional outlook for 2020 is clouded by coronavirus concerns, with downside risk especially apparent in the tourism industry. Economic indicators for the region are summarized in Table 22.

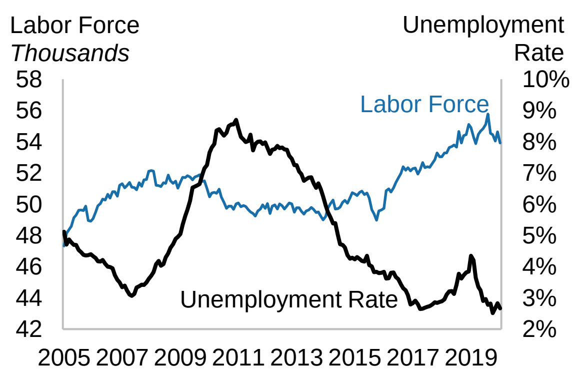
Table 22
Southwest Mountain Region Economic Indicators
Archuleta, Dolores, La Plata, Montezuma, and San Juan Counties

	2015	2016	2017	2018	2019
Employment Growth[1]	0.7%	3.9%	2.4%	2.0%	1.5%
Unemployment Rate[1]	4.0%	3.4%	2.8%	3.5%	3.0%
Housing Permit Growth[2]	17.9%	-4.6%	29.8%	24.1%	-41.0%
National Park Recreation Visits[3]	10.2%	7.5%	4.4%	-7.6%	-2.1%

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

Labor market. Surveys of the region's households indicate that nearly 800 more people were employed in 2019 than in 2018, representing growth of 1.5 percent. This marks the third straight year of modest deceleration in job growth. Job gains outpaced regional labor force growth of 1.0 percent, dropping the regional unemployment rate to 3.0 percent as shown in Figure 35.

Figure 35
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 December 2019.

The labor force is benefitting from a broader population increase, which remains a contributor to economic growth. The State Demography Office (SDO) estimates that the regional population grew 1.7 percent in 2019, outpacing the state as a whole, and topped 100,000 for the first time ever. Growth was fastest in La Plata County, home to Durango.

As shown in Figure 35, household survey responses indicate that the labor force population fell over the second half of 2019. Based on population data, this trend likely reflects the small sample of survey respondents from the region instead of actual declines. Consistent with continued increases in the regional population, the regional labor force is expected to continue to increase through the forecast period. Regional employment faces a less certain outlook, as reduced travel associated with COVID-19 is expected to reduce job opportunities at employers tied to tourism.

Housing. After significant additions to the regional housing supply, homebuilders have reduced their endeavors in the region. The number of permitted residential units declined 41.0 percent in 2019 compared with 2018. Builders face constraints from scarcity of buildable lots, diminished labor supply, and ebbing demand.

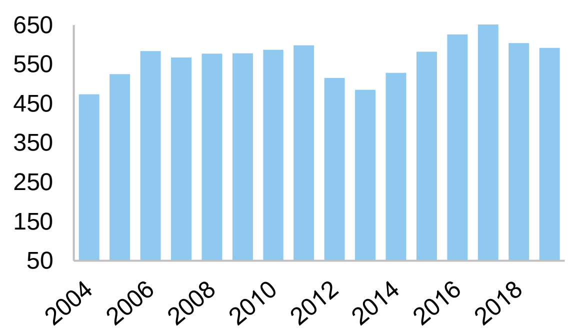
Individual local communities in this small region face different housing market challenges. The Durango Area Association of Realtors reported 1,136 home sales in La Plata County during 2019, virtually unchanged from 2018. However, sale prices increased 4.0 percent in the City of Durango, 25.0 percent for condos and townhomes in the mountain resort area, and 4.4 percent in nearby Bayfield. A total of 166 detached single family homes in Durango sold for a median price of $506,625, significantly higher than the in-town price of $334,000 in Bayfield.

The median residential property value in Archuleta County is estimated to be about $390,000. Data for San Juan and Dolores counties are insufficient to estimate a median price. The SDO expects the Dolores County population to decline in each year between 2019 and 2022, which will ease home price appreciation in addition to deepening other economic challenges.

Tourism. The region boasts tourist opportunities for year round outdoor recreation, historical cultural sites, and in town destinations. After a 2018 summer season marked by severe forest fires, regional tourism rebounded somewhat in 2019. However, tourism now faces new challenges as visitors cancel travel plans to avoid spreading or contracting the COVID-19 virus.

The region's ski industry had been experiencing an average winter. Through February, the U.S. Department of Agriculture's Natural Resources Conservation Service reported that snowpack (water equivalent) was 94 percent of normal in the region's San Miguel, Dolores, Animas, and San Juan Basin. On March 14, Governor Polis issued Executive Order D 2020 004, mandating closure of downhill ski areas between March 15 and March 22. The potential for longer closures, reduced visitations during the summer and fall, and the reemergence of the virus during the 2020-21 ski season each raise uncertainty and pose downside risks to regional tourism.

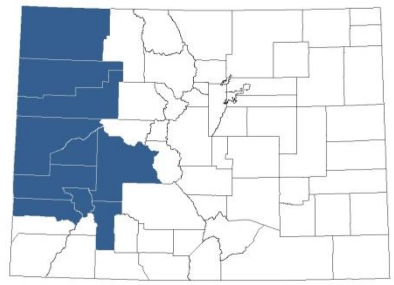
Figure 36
Southwest Mountain National Park Visits
Thousands



Source: National Park Service visitations for Mesa Verde National Park and Hovenweep National Monument. Data through 2019.

Annual visitations to Mesa Verde National Park and Hovenweep National Monument are presented in Figure 36. Visitations dropped slightly between 2018 and 2019 due to park closures associated with the federal government shutdown in early 2019, but outpaced 2018 levels over the remainder of the year.

Western Region



The ten-county western region has a diverse economy. Key industries in the more northern counties of Mesa, Garfield, Moffat, Rio Blanco, and Routt include energy and agriculture, while the counties of Delta, Gunnison, Hinsdale, Montrose, Ouray, and San Miguel are more reliant on tourism, mining, and retiree-related spending. In 2019, the region's economy continued to build on momentum from 2017 and 2018 as the area offers a more affordable option than the Front Range. Relatively affordable housing, outdoor recreation opportunities, and an improving labor market are attracting people from Denver and other areas of the state and country. Economic indicators for the region are summarized in Table 23.

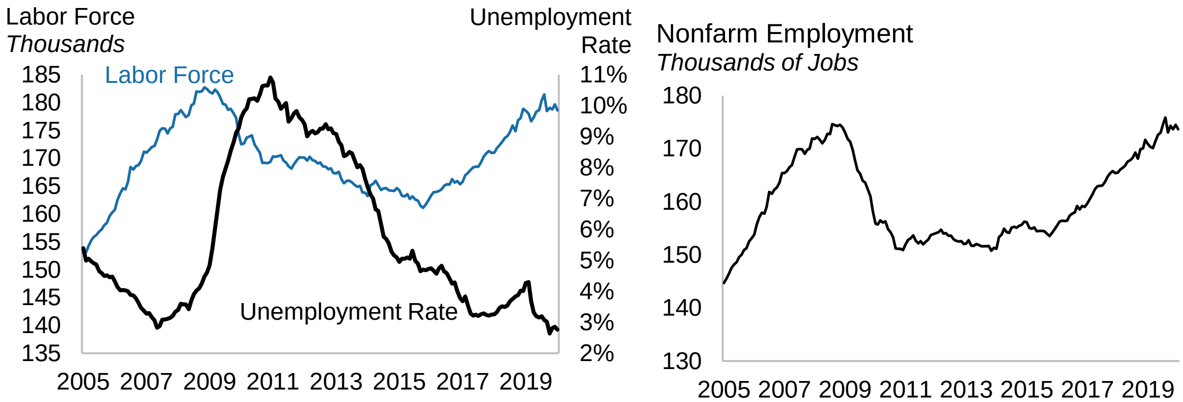
Table 23
Western Region Economic Indicators
Delta, Garfield, Gunnison, Hinsdale, Mesa, Moffat, Montrose, Ouray, Rio Blanco, and San Miguel Counties

	2015	2016	2017	2018	2019
Employment Growth					
Western Region[1]	-0.2%	2.1%	3.7%	3.0%	2.7%
Grand Junction MSA[2]	-0.2%	-0.3%	-0.4%	2.4%	2.3%
Unemployment Rate[1]	4.9%	4.4%	3.3%	3.7%	3.2%
Natural Gas Production Growth[3]	-12.8%	-6.7%	-2.1%	1.3%	2.0%
Housing Permit Growth[4]	24.7%	6.7%	42.8%	15.5%	-13.6%
Nonresidential Construction Growth[4]					
Value of Projects	-37.8%	16.4%	-33.1%	1.8%	55.9%
Square Footage of Projects	-41.0%	-3.9%	-17.6%	19.6%	6.3%
Level (*Thousands*)	602	579	477	571	607
Number of Projects	-16.4%	41.1%	-36.7%	18.0%	13.6%
Level	56	79	50	59	67

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

Labor market. The region's labor market continued to add jobs through 2019 and the unemployment rate declined as new jobs outpaced new entrants into the labor force. Compared with the same period in the prior year, employment increased 2.7 percent across the region in 2019 and 2.3 percent in the Grand Junction metropolitan statistical area, which includes the largest city in the region. After increasing at the end of 2018, the region's unemployment rate averaged 3.2 percent through 2019 (Figure 37, left). Both employment growth (Figure 37, right) and labor force growth moderated in the second half of 2019 since there are fewer people sitting out of the labor force as most people who are interested in working have already been induced to take new jobs. The construction, health care, and retail sectors have had the largest employment gains and wage increases have been broad-based.

Figure 37
Western Region Labor Market Activity



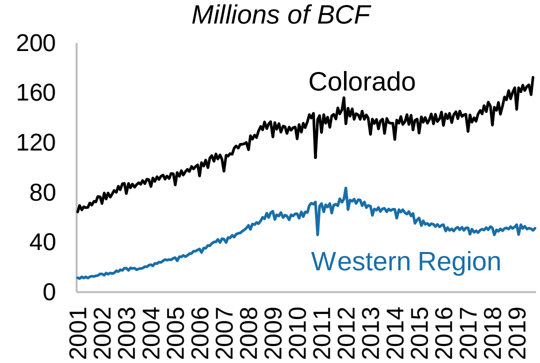
Source: U.S. Bureau of Labor Statistics; Data are seasonally adjusted and are through December 2019.

Construction. Residential construction activity declined 13.6 percent in 2019 over year-ago levels, despite rising demand for housing in the region. According to the Colorado Association of Realtors, the median home sold for $266,750 in January 2020, a 6.7 percent increase from January 2019. There was growth in median sales prices throughout the region in 2019. The region's nonresidential construction sector received a boost in March 2019 from two large projects: a new dorm building at Colorado Mesa University and a new nursing home in Rifle. While these large projects are unlikely to be repeated in the near future, they helped to boost growth in the value of nonresidential construction projects in the western region to 55.9 percent in 2019.

Energy sector. The Piceance Basin is located in the western region of Colorado and is the second largest potentially developable natural gas resource in the country. Natural gas production in the region increased 1.3 percent in 2018 and continued growing by 2.0 percent through the first ten months of 2019 (Figure 38). There is significant potential for the region's natural gas to meet the countries growing demand for gas-fired electricity generation; however, a glut of natural gas on the market has hampered new exploration and development of new wells. Energy firms are increasingly capturing natural gas as a by-product of oil production across the country, slowing growth in geological formations containing primarily natural gas.

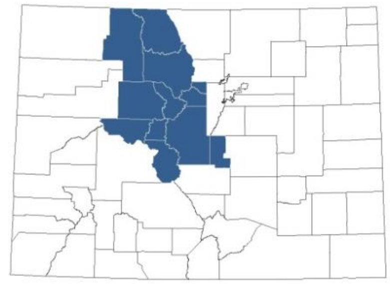
National park visitors. The number of visitors to the Black Canyon of the Gunnison National Park increased 40.1 percent in 2019 despite the federal government shutdown at the start of the year. Meanwhile, the nearby Curecanti National Recreation Area experienced a 10.2 percent decrease in visitation in 2019, the fewest number of visitors since 2013. Rapidly changing water levels in Curecanti led to the temporary closure of some sites during the spring run-off, but higher water levels in the reservoir increased the access for boaters in the second half of 2019. Visitations to the Colorado National Monument near Grand Junction increased 5.7 percent in 2019 to 397,032, the highest visitation since 2016.

Figure 38
Natural Gas Production
Millions of BCF



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

Mountain Region



The mountain region comprises twelve counties stretching from Poncha Pass north to the Wyoming border. The region is dependent on a robust tourism industry, yet smaller sectors – including mining and agricultural producers – make important contributions as well. The regional economy is one of the state's strongest; however, it is also the most exposed to reduced tourism and consumer activity associated with COVID-19. Economic indicators for the mountain region are presented in Table 24.

Table 24
Mountain Region Economic Indicators
Chaffee, Clear Creek, Eagle, Gilpin, Grand, Jackson, Lake, Park, Pitkin, Routt, Summit, and Teller Counties

	2015	2016	2017	2018	2019
Employment Growth[1]	1.6%	3.5%	4.3%	3.0%	2.7%
Unemployment Rate[1]	3.3%	2.7%	2.3%	2.8%	2.4%
Housing Permit Growth[2]	-7.8%	29.0%	-10.7%	73.9%	-7.0%
Nonresidential Construction Growth[2]					
Value of Projects	44.0%	-31.3%	312.2%	-78.1%	13.0%
Square Footage of Projects	-62.0%	18.7%	232.7%	-65.1%	-1.8%
Level (*Thousands*)	514	609	2,028	708	695
Number of Projects	-33.3%	52.5%	1.6%	17.7%	-52.1%
Level	40	61	62	73	35

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

Tourism. Winter snowfall surprised on the high side in the early months of the 2019-20 ski season. Through February, the U.S. Department of Agriculture's Natural Resources Conservation Service reported that snowpack (water equivalent) was 118 percent of normal in the upper Colorado River basin, including Eagle, Grand, Pitkin, and Summit counties; 118 percent of normal in the Yampa and White basin including Routt County; and 129 percent of normal in the South Platte River basin including Clear Creek County. Abundant winter snowfall supported robust tourism into early March, with the attendant strength in consumer activity boosting regional businesses.

The region's resorts were the first areas to be affected by the spreading coronavirus, with confirmed cases in Eagle, Pitkin, Summit, and Routt counties. On March 14, several ski area operators announced closures through March 22 in order to reduce the spread of COVID-19. Later the same day, Governor Polis issued Executive Order D 2020 004, mandating closure of all downhill ski areas between March 15 and March 22. Longer closures, whether voluntary or mandatory, could be on the horizon.

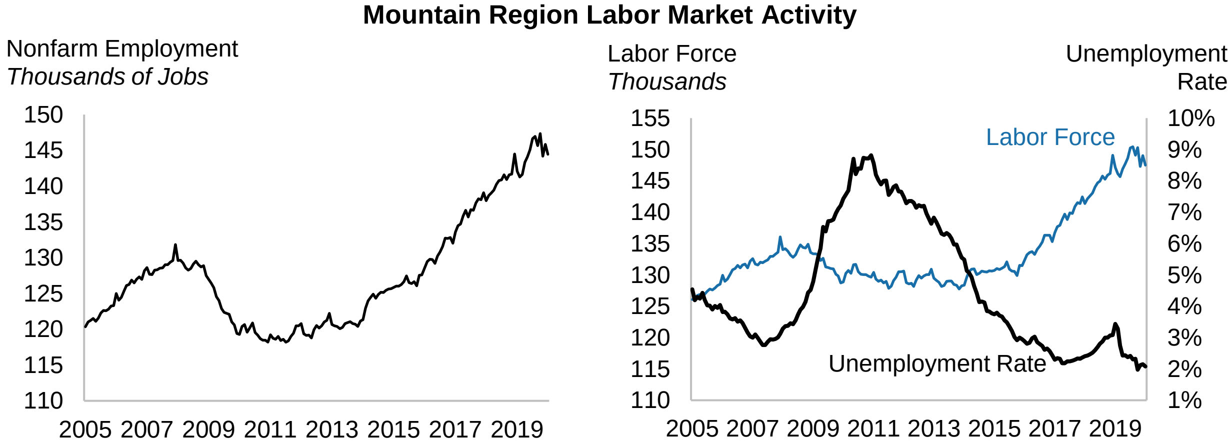
Reduced recreational travel in 2020 will pose significant economic challenges for tourism-dependent areas. Households and businesses are now faced with uncertainty related to longer closures during the 2019-20 ski season, potential decreases in summer season visitations by outdoor vacationers, and potential impacts on the 2020-21 ski season. International and out-of-state visitors tend to spend the most when visiting the region, but these travelers are also the most likely to cancel plans as they usually involve air travel. If the national economy were to enter recession, households needing to tighten their spending would cut travel budgets first, posing major downside risks to the outlook for the mountain region.

Labor market. Surveys of the region's households indicate that the number of persons employed in nonfarm work grew by about 3,750, or 2.7 percent, in 2019. As shown in the left panel of Figure 39, regional employment leveled out over the course of 2019, consistent with flattening labor force growth shown in the right panel. Employment growth has absorbed most labor market slack, contributing to the region's state-low unemployment rate. Some regional business organizations are reporting that difficulty finding employees has resulted in longer lengths of time for which jobs remain unfilled. Business organizations also report that labor supply is constrained by a lack of housing and health insurance options for employees.

Fewer opportunities for seasonal work are expected to weaken the regional labor market for as long as COVID-19 constraints reduce tourist visitations, contributing to labor market slack and deflating wage pressure during 2020. As the economy returns to trend beyond winter 2020-21, continued deceleration in employment growth is expected to result from labor shortages, contributing to greater wage pressures in the region's highly service-oriented economy and relatively high cost of living.

Regional population growth is leveling out. Estimates from the State Demography Office (SDO) indicate that the regional population grew 1.0 percent, slower than the state as a whole. Population growth was slowest in high-cost Pitkin and Summit counties, both of which are estimated to have lost more movers than they gained. Conversely, migration into three relatively inexpensive southeastern counties – Chaffee, Gilpin, and Park – led population growth in the region.

Figure 39
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 December 2019.

Housing. Regional housing demand is driven both by demographic trends and demand for vacation properties in resort areas. While the region's growing population and generally strong economy continue to drive the housing market, demand for luxury properties in resort areas has begun to abate.

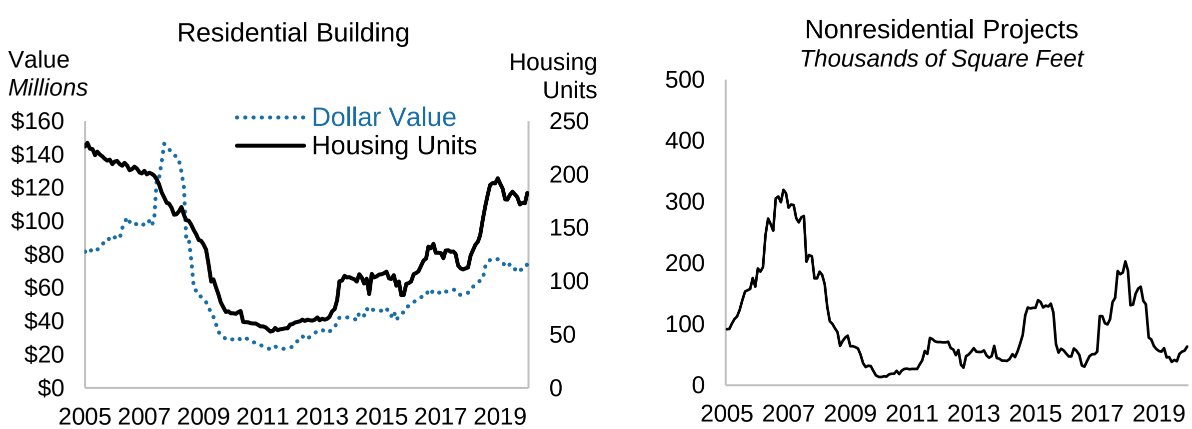
Residential construction in the mountain region peaked during 2018 but remained strong in 2019. In both unit and dollar terms, homebuilders posted their second-best year during the ongoing economic expansion (Figure 40, left), bested only by banner construction the year prior. Construction in some resort areas has not kept pace with demand, contributing to price appreciation and out-migration among service employees.

Residential transactions fell between 2018 and 2019 in each of the five counties included in Land Title Guarantee Company's quarterly mountain resort market analysis report: Eagle, Grand, Pitkin, Routt, and Summit. It was the second consecutive year of decline in all five counties. While the decrease could indicate reduced luxury spending by wealthy consumers, it might also reflect property owners' decisions to forego selling in favor of listing their properties on the short-term rental market. In dollar terms, gross sale volumes increased in four of the five counties, with particularly strong growth in Summit County, up 8.6 percent, and Grand County, up 6.7 percent. Pitkin County sales fell 0.4 percent, in part due to the meager supply of new construction, which accounted for just 1.7 percent of sale volume in the county. Sale prices increased in all five counties, with single family sale prices growing at rates in excess of 10 percent in Eagle, Pitkin, Routt, and Summit counties.

Nonresidential construction. Regional investment in nonresidential construction projects has cooled. Table 24 presents nonresidential construction indicators according to the number, value, and square footage of projects, the last of which is also illustrated in the right panel of Figure 40. Nonresidential builders started 35 projects in 2019, fewer than half the number started in 2018. Project square footage was essentially unchanged, and the value of projects increased moderately, suggesting the commencement of a few larger and more costly construction endeavors. On the whole, nonresidential construction remains subdued relative to earlier periods during the economic expansion.

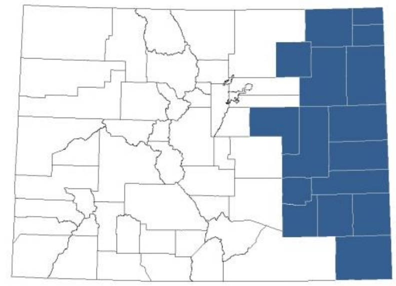
Fewer new projects offer fewer new opportunities for business expansion, hiring, and sales.

Figure 40
Mountain Region Construction Activity



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

Eastern Region



The eastern region includes 16 rural counties on Colorado's eastern plains. Agriculture is the primary industry in the region with retailers, other locally-focused businesses, and government operations supporting area farming and ranching communities. Out-migration and an aging population continue to put pressure on the labor force in the region, which has one of the lowest unemployment rates in the state. While most crop prices remain historically low, demand for beef has bolstered hay prices, as well as ranchers in the region. Economic indicators for the region are presented in Table 26.

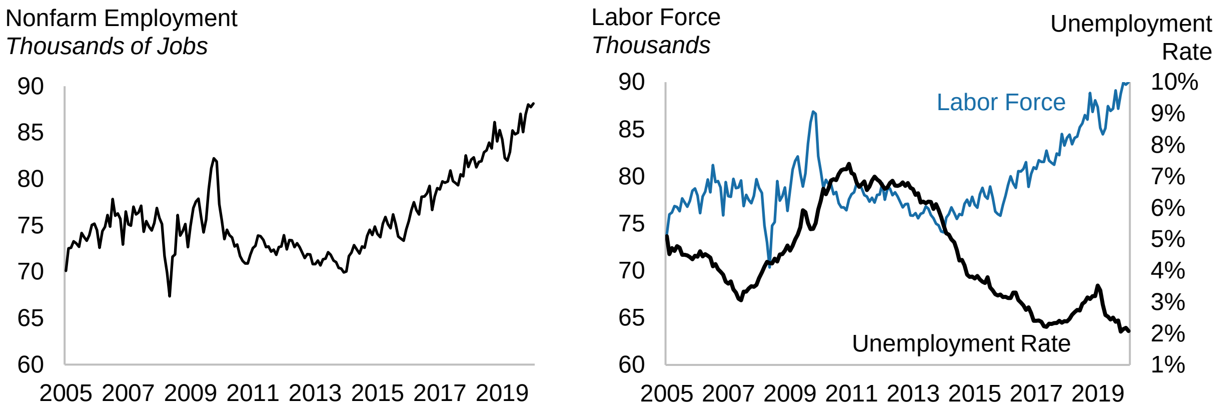
Table 26
Eastern Region Economic Indicators
Baca, Bent, Logan, Cheyenne, Crowley, Elbert, Kiowa, Kit Carson, Lincoln, Morgan, Otero, Phillips, Prowers, Sedgwick, Washington, and Yuma Counties

	2015	2016	2017	2018	2019
Employment Growth[1]	2.2%	4.1%	3.4%	3.6%	2.5%
Unemployment Rate[1]	3.5%	2.9%	2.3%	2.9%	2.5%
Crop Price Changes[2]					
Wheat ($/Bushel)	-25.6%	-27.9%	-2.9%	34.6%	-7.0%
Corn ($/Bushel)	-13.1%	-7.7%	-3.4%	2.8%	9.3%
Alfalfa Hay (Baled, $/Ton)	-13.9%	-15.5%	4.8%	23.8%	14.6%
Livestock[2]					
State Cattle and Calf Inventory Growth	-4.4%	1.0%	6.7%	2.6%	8.0%
Milk Production	3.9%	5.2%	6.7%	8.8%	5.5%

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

Labor market. As the most sparsely populated region in the state, the eastern plains faces a tight labor market. At 2.5 percent unemployment in 2019, the region has one of the lowest unemployment rates in the state. Reduced in-migration into the state, higher out-migration from the region to the Front Range, and the longest economic expansion in recorded U.S. history have all contributed to the low unemployment rate. Employment growth slowed in 2019 over the three years prior, since the lack of workers is constraining growth. The Colorado State Demographer's Office is projecting faster birth rates and net in-migration in the coming years, which may not alleviate some labor market pressure, as much of the projected growth is located in bedroom communities near the Denver Metro, Colorado Springs, and northern regions. Indicators of labor market activity for the eastern region can be found in Figure 41.

Figure 41
Eastern Region Labor Market Activity

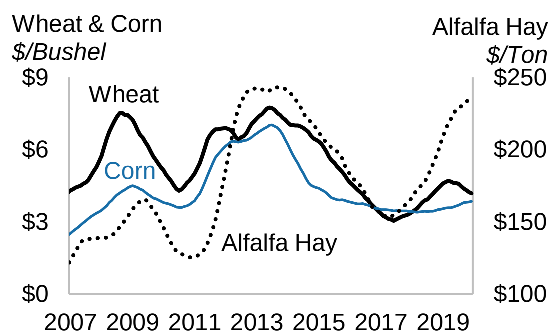


Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through December 2019.

Agriculture and livestock. The eastern plains is the largest agricultural-producing region in the state, and much of the region's economy is driven by the agricultural sector. Farm income declined after the drop in commodity prices leading into 2015 and has yet to recover. Low crop prices, increasing global supplies, and constrained access to global markets have kept incomes subdued.

Prices received for Colorado crops can be found in Figure 42. Corn prices have been volatile this year but remained mostly under $4 per ton during 2019. Alfalfa hay prices reached their highest price since 2013, at $240 per ton from January through June, but have moderated down to $230 per ton in December and stocks increased through 2019. Wheat prices remain low on record-setting winter wheat yields, while exports are down on weaker global demand. The number of cattle and calves on feed is up 6.0 percent in February over the same month last year on higher domestic and foreign demand for beef.

Figure 42
Prices Received for Colorado Crops



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

Housing. Despite the contraction of many rural community populations, counties bordering the northern region and the Front Range are seeing population growth, as former residents of larger, more expensive metro areas have left in search of more affordable housing. The median sales price for a home in Elbert County, which borders the metro Denver region, has risen from about $330,000 in 2014 to almost $500,000 in 2019, according to the Colorado Association of Realtors. Median prices for single-family homes in Morgan County have risen from about $145,000 in 2014 to almost $250,000 in 2019, still well below the median prices in neighboring Weld and Adams counties. This rapid pace of growth, in both population and home prices, has been met with resistance, with some communities considering limits on their growth.

Wind farms. Xcel Energy's wind farm was completed in 2018 and crosses five counties in the region, providing an injection of capital and a stable revenue source to those landowners that agree to house wind turbines. Xcel Energy recently announced a new project to be built on 100,000 acres in Cheyenne and Kit Carson counties that will be completed at the end of 2020. Another large wind farm is slated to begin operations in Lincoln County in 2021. As the state continues to address renewable energy goals, the abundance of wind in the region is expected to attract more investment in wind farms.

Appendix: Historical Data

National Economic Indicators

Calendar Years	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
GDP ($ *Billions*)[1]	$13,814.6	$14,451.9	$14,712.8	$14,448.9	$14,992.1	$15,542.6	$16,197.0	$16,784.9	$17,527.3	$18,224.8	$18,715.0	$19,519.4	$20,580.2	$21,427.1
Percent Change	6.0%	4.6%	1.8%	-1.8%	3.8%	3.7%	4.2%	3.6%	4.4%	4.0%	2.7%	4.3%	5.4%	4.1%
Real GDP ($ *Billions*)[1]	$15,338.3	$15,626.0	$15,604.7	$15,208.8	$15,598.8	$15,840.7	$16,197.0	$16,495.4	$16,912.0	$17,403.8	$17,688.9	$18,108.1	$18,638.2	$19,072.7
Percent Change	2.9%	1.9%	-0.1%	-2.5%	2.6%	1.6%	2.2%	1.8%	2.5%	2.9%	1.6%	2.4%	2.9%	2.3%
Unemployment Rate[2]	4.6%	4.6%	5.8%	9.3%	9.6%	8.9%	8.1%	7.4%	6.2%	5.3%	4.9%	4.3%	3.9%	3.7%
Inflation[2]	3.2%	2.9%	3.8%	-0.3%	1.6%	3.1%	2.1%	1.5%	1.6%	0.1%	1.3%	2.1%	2.4%	1.8%
10-Year Treasury Note[3]	4.8%	4.6%	3.7%	3.3%	3.2%	2.8%	1.8%	2.4%	2.5%	2.1%	1.8%	2.3%	2.9%	2.1%
Personal Income ($ *Billions*)[1]	$11,381.7	$12,007.8	$12,442.2	$12,059.1	$12,551.6	$13,326.8	$14,010.1	$14,181.1	$14,991.7	$15,717.8	$16,121.2	$16,878.8	$17,819.2	$18,601.4
Percent Change	7.4%	5.5%	3.6%	-3.1%	4.1%	6.2%	5.1%	1.2%	5.7%	4.8%	2.6%	4.7%	5.6%	4.4%
Wage & Salaries ($ *Billions*)[1]	$6,057.0	$6,396.8	$6,534.3	$6,248.6	$6,372.1	$6,625.9	$6,927.5	$7,113.2	$7,475.2	$7,856.7	$8,083.5	$8,462.1	$8,888.5	$9,297.4
Percent Change	6.4%	5.6%	2.1%	-4.4%	2.0%	4.0%	4.6%	2.7%	5.1%	5.1%	2.9%	4.7%	5.0%	4.6%
Nonfarm Employment (*Millions*)[2]	136.5	138.0	137.2	131.3	130.3	131.9	134.2	136.4	138.9	141.8	144.3	146.6	148.9	150.9
Percent Change	1.8%	1.1%	-0.6%	-4.3%	-0.7%	1.2%	1.7%	1.6%	1.9%	2.1%	1.8%	1.6%	1.6%	1.4%

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

Colorado Economic Indicators

Calendar Years	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Nonfarm Employment (*Thousands*)[1]	2,278.7	2,330.3	2,349.6	2,244.2	2,220.9	2,257.7	2,311.8	2,380.3	2,463.5	2,540.8	2,601.5	2,660.6	2,725.4	2,778.1
Percent Change	2.4%	2.3%	0.8%	-4.5%	-1.0%	1.7%	2.4%	3.0%	3.5%	3.1%	2.4%	2.3%	2.4%	1.9%
Unemployment Rate[1]	4.3%	3.7%	4.9%	7.3%	8.7%	8.4%	7.9%	6.9%	5.0%	3.8%	3.2%	2.7%	3.3%	3.0%
Personal Income ($ *Millions*)[2]	$189,476	$201,876	$208,738	$198,800	$205,372	$223,153	$237,142	$249,282	$271,308	$284,234	$289,581	$310,755	$332,943	NA
Percent Change	8.1%	6.5%	3.4%	-4.8%	3.3%	8.7%	6.3%	5.1%	8.8%	4.8%	1.9%	7.3%	7.1%	NA
Per Capita Income ($)[2]	$40,140	$42,024	$42,689	$39,982	$40,682	$43,570	$45,659	$47,298	$50,700	$52,133	$52,262	$55,335	$58,456	NA
Percent Change	6.1%	4.7%	1.6%	-6.3%	1.8%	7.1%	4.8%	3.6%	7.2%	2.8%	0.2%	5.9%	5.6%	NA
Wage & Salary Income ($ *Millions*)[2]	$105,649	$112,526	$116,710	$112,228	$113,670	$118,414	$124,947	$129,521	$138,626	$146,531	$151,016	$160,719	$170,115	NA
Percent Change	7.0%	6.5%	3.7%	-3.8%	1.3%	4.2%	5.5%	3.7%	7.0%	5.7%	3.1%	6.4%	5.8%	NA
Retail Trade Sales ($ *Millions*)[3]	$70,437	$75,329	$74,760	$66,345	$70,738	$75,548	$80,073	$83,569	$90,653	$94,920	NA	NA	NA	NA
Percent Change	7.5%	6.9%	-0.8%	-11.3%	6.6%	6.8%	6.0%	4.4%	8.5%	4.7%				
Residential Housing Permits[4]	38,343	29,454	18,998	9,355	11,591	13,502	23,301	27,517	28,698	31,871	38,974	40,673	42,627	41,973
Percent Change	-16.4%	-23.2%	-35.5%	-50.8%	23.9%	16.5%	72.6%	18.1%	4.3%	11.1%	22.3%	4.4%	4.8%	-1.5%
Nonresidential Construction ($ *Millions*)[5]	$4,641	$5,259	$4,114	$3,354	$3,147	$3,923	$3,695	$3,624	$4,351	$4,991	$6,000	$6,148	$8,057	$4,776
Percent Change	8.6%	13.3%	-21.8%	-18.5%	-6.2%	24.7%	-5.8%	-1.9%	20.1%	14.7%	20.2%	2.5%	31.0%	-40.7%
Denver-Aurora-Lakewood Inflation[1]	3.6%	2.2%	3.9%	-0.6%	1.9%	3.7%	1.9%	2.8%	2.8%	1.2%	2.8%	3.4%	2.7%	1.9%
Population (*Thousands, July 1*)[4]	4,720.4	4,803.9	4,889.7	4,972.2	5,047.3	5,121.1	5,192.6	5,269.0	5,350.1	5,450.6	5,539.2	5,611.9	5,691.3	5,758.7
Percent Change	1.9%	1.8%	1.8%	1.7%	1.5%	1.5%	1.4%	1.5%	1.5%	1.9%	1.6%	1.3%	1.4%	1.2%

NA = Not available.
[1]U.S. Bureau of Labor Statistics. Inflation shown as the year-over-year change in the consumer price index for Denver-Aurora-Lakewood metro area.
[2]U.S. Bureau of Economic Analysis. Personal income and wages and salaries not adjusted for inflation.
[3]Colorado Department of Revenue. Data are not available after 2015.
[4]U.S. Census Bureau. Residential housing permits are the number of new single and multi-family housing units permitted for building.
[5]F.W. Dodge.