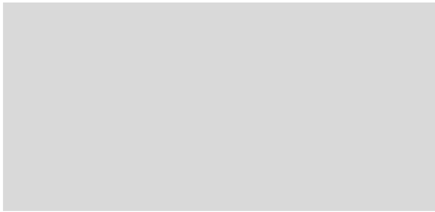
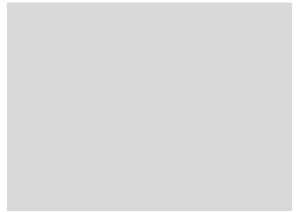
Colorado Legislative Council Staff

December 2019 | Economic & Revenue Forecast





December 20, 2019

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Executive Summary

This report presents the budget outlook based on current law and the December 2019 General Fund revenue, cash fund revenue, and TABOR forecasts. This December forecast also includes annual forecasts for kindergarten through twelfth grade (K-12) enrollment and assessed valuation, which inform an updated school finance outlook. Additionally, this forecast includes projections for the adult and juvenile corrections populations. Consistent with other quarterly 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

Preliminary, unaudited figures from the Office of the State Controller indicate that the General Fund ended FY 2018-19 with an estimated 11.3 percent reserve, $452.4 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 an 8.8 percent reserve, $184.0 million above the 7.25 percent statutory reserve. Revenue subject to TABOR is expected to exceed the Referendum C cap by $304.3 million, resulting in a TABOR refund in FY 2020-21. The TABOR refund obligation is expected to fully fund reimbursements to local governments for property tax exemptions with remaining refunds returned to taxpayers via the six-tier sales tax refund mechanism.

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 $832.5 million, or 6.3 percent, more to spend or save in the General Fund than what is budgeted to be spent and saved in FY 2019-20. If the General Assembly were to grow appropriations by historical rates experienced during an economic expansion, this amount is reduced to a $55.5 million surplus above the required 7.25 percent reserve. Any changes to revenue or expenditures in FY 2019-20 will change these amounts. Revenue is expected to come in $367.3 million above the Referendum C cap in FY 2020-21, resulting in a TABOR refund obligation for FY 2021-22.

Risks to the forecast. Taxpayers continue to adjust to the changes under the federal Tax Cuts and Jobs Act (TCJA), recent court decisions on corporate income tax payments, and ongoing sales tax reform for out-of-state (including online) transactions. Based on collections to date, these changes pose upside risks to the forecast in FY 2019-20, with risks dissipating in subsequent years. Risks are skewed to the downside in FY 2020-21 as slowing economic growth and leading business and financial indicators continue to suggest an elevated risk of recession during the forecast period.

Cash Fund Revenue

Preliminary cash fund revenue subject to TABOR totaled $2.44 billion in FY 2018-19, an increase of $133.7 million or 5.8 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 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.

Total cash fund revenue subject to TABOR is expected to grow 2.2 percent in the current FY 2019-20. Consistent with economic expectations, revenue is expected to increase 1.6 percent in FY 2020-21 to total $2.53 billion, before rising an additional 2.1 percent to total $2.59 billion in FY 2021-22.

Economic Outlook

Economic activity is expected to continue to expand in the U.S. and Colorado in 2020 and 2021, albeit at a slower pace as labor markets continue to tighten. Ongoing job gains, rising wages, and moderate consumer spending continue to sustain the economic expansion. Business activity remains elevated. However, several clouds have emerged on the horizon. Trade tensions and slower global economic demand continue to hamper manufacturing, the energy industry, and export activity. Additionally, higher wages and slower economic activity are expected to put mounting downward pressure on business profits, leading to restructuring in a growing number of industries. Risks remain skewed to the downside as both the state and national economies move further into the late stages of economic expansion.

School Finance Outlook

FY 2019-20. Increased funding obligations from higher than expected enrollment are expected to be partially offset by increased local tax collections. The net result is an additional $9 million in state aid obligations above what was previously expected during the 2019 legislative session.

FY 2020-21. Based on revised inflation expectations and the 2019 kindergarten through twelfth grade (K-12) enrollment forecast, total program requirements for FY 2020-21 are expected to increase by $155 million on a year-over-year basis. The 2019 assessed valuation forecast implies a $77 million increase in the local share in FY 2020-21, resulting in a $78 million increase in required state aid.

K-12 Enrollment

The enrollment count for the current (2019-20) school year totaled 868,597 student FTE across Colorado's public schools, up 30,518 student FTE, or 3.6 percent, from the previous school year. This growth is primarily due to the passage of House Bill 19-1262, which counts full-day kindergarten students as 1.0 FTE (up from 0.5 FTE).

Colorado's public school enrollment has been steadily slowing since FY 2014-15 as smaller age cohorts have entered the public school system. Statewide K-12 enrollment is projected to be relatively flat in the 2020-21 school year, increasing by about 310 student FTE. Enrollment in the 2021-22 school year is expected to increase by another 231 student FTE. Lower birth rates will continue to constrain growth throughout the forecast period. Growth will be strongest in the northern and Colorado Springs regions, where strong job growth and new and relatively affordable housing options will continue to attract young families. Enrollment in the metro Denver region is expected to decline, as smaller age cohorts replace larger cohorts and a lack of affordable housing slows the number of new families moving into the region.

Assessed Valuation

Assessed values increased 17.0 percent statewide between 2018 and 2019 as residential and many nonresidential properties were reassessed to update their market values for current sales. Statewide assessed values are expected to increase 3.4 percent in 2020, the intervening year between reassessment, mainly based on growth in oil and gas production in the state. In 2021, statewide assessed values are expected to increase 8.6 percent following the next reassessment of properties. In 2021, the residential assessment rate is expected to decrease from 7.15 percent to 7.13 percent.

Prison and Parole Populations

The state's **adult prison population** is forecast to decline from 19,951 inmates in June 2019 to 19,614 inmates in June 2020 and 19,505 inmates in June 2021. Based on new trends in case filings and sentencing, the prison population is expected to decrease over the next 18 months as a result of fewer new prison commitments from the state criminal courts. Offender releases have increased and are expected to remain at elevated levels.

As more offenders are released from prison, the in-state **adult parole population** is expected to increase from 9,352 offenders in June 2019 to 9,757 offenders in June 2020 and 9,959 offenders in June 2021.

All three estimated **juvenile corrections populations** are expected to continue to decline as the state increasingly utilizes diversion programs and alternative sentencing in lieu of incarceration. The average daily population at commitment facilities in the Division of Youth Services is expected to fall from 578 youths in FY 2018-19 to 488 youths in FY 2019-20 and 452 youths in FY 2020-21. Fewer commitments will drive attendant decreases in the parole population, which will fall from an average of 213 youths in FY 2018-19 to 184 youths in FY 2019-20 and 149 youths in FY 2020-21. Finally, the juvenile detention population is also expected to decrease, from an average of 254 youths in FY 2018-19 to 242 youths in FY 2019-20 and 237 youths in FY 2020-21.

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General Fund Budget Overview

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

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

FY 2018-19

Based on preliminary, unaudited figures from the Office of the State Controller, the General Fund is expected to end FY 2018-19 with an 11.3 percent reserve, $452.4 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 will be 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.

The General Fund excess reserve is expected to be $120.5 million higher than projected in September, reflecting the assumption that the year-end General Fund balance will be equal to the amount published in the Office of the State Controller's FY 2018-19 Basic Financial Statements. The year-end balance will be updated to reflect the amount shown in the Comprehensive Annual Financial Report for FY 2018-19 when it becomes available.

FY 2019-20

The General Fund is expected to end the year with an 8.8 percent reserve, $184.0 million higher than the budgeted 7.25 percent reserve. Revenue is expected to exceed the Referendum C cap by $304.3 million, resulting in a TABOR refund in FY 2020-21. The TABOR refund obligation will fully fund FY 2020-21 local government reimbursements for the senior homestead and disabled veteran property tax exemptions, with the remaining obligation refunded via the six-tier sales tax mechanism.

Relative to the September forecast, the FY 2019-20 year-end balance is projected to be $62.3 million higher. This upward revision reflects the larger year-end balance in FY 2018-19 carrying into the beginning balance for FY 2019-20 and a higher General Fund obligation for TABOR refunds. Gross General Fund revenue expectations were reduced by $10.9 million with reduced expectations for individual income tax revenue more than offsetting higher expectations for sales tax collections. Expectations for cash fund revenue subject to TABOR were revised upward by $51.5 million relative to September on higher than expected transportation-related revenue and severance tax collections year-to-date.

Table 1
General Fund Overview
Dollars in Millions

	Funds Available	FY 2018-19 Preliminary	FY 2019-20 Estimate	FY 2020-21 Estimate	FY 2021-22 Estimate
1	Beginning Reserve	$1,366.0	$1,266.6	$1,055.2	*
2	General Fund Revenue	$12,564.0	$12,942.7	$13,475.1	$14,031.0
3	Transfers from Other Funds *(Table 5)*	$38.0	$70.6	$18.6	$19.5
4	**Total Funds Available**	**$13,968.0**	**$14,279.9**	**$14,548.9**	*
5	Percent Change	12.3%	2.2%	1.9%	*
	Expenditures	Preliminary	Budgeted	Estimate	Estimate
6	General Fund Appropriations Subject to Limit[1]	$11,230.5	$12,017.8	*	*
7	TABOR Refund Obligation Under Art. X, §20, (7)(d)[2]	$428.5	$304.3	$367.3	$453.4
8	Rebates and Expenditures *(Table 4)*	$249.8	$142.4	$141.4	$140.5
9	Transfers to Other Funds *(Table 5)*	$219.8	$194.0	$248.7	$262.0
10	Transfers to the State Education (SB 13-234 & SB 19-246)	$25.0	$40.3	$0.0	$0.0
11	Transfers to Transportation Fund *(Table 2)*	$495.0	$300.0	$50.0	$50.0
12	Transfers to Capital Construction Funds *(Table 2)*	$180.5	$225.8	$20.0	$20.0
13	**Total Expenditures**	**$12,829.1**	**$13,224.6**	*	*
14	Percent Change	14.4%	3.1%	*	*
15	Accounting Adjustments[3]	$127.7	*	*	*
	Reserve	Preliminary	Budgeted	Estimate	Estimate
16	Year-End General Fund Reserve	$1,266.6	$1,055.2	*	*
17	Year-End Reserve as a Percent of Appropriations	11.3%	8.8%	*	*
18	Statutorily Required Reserve[4]	$814.2	$871.3	*	*
19	**Amount in Excess or (Deficit) of Statutory Reserve**	**$452.4**	**$184.0**	*	*
20	Excess Reserve as a Percent of Expenditures	3.5%	1.4%	*	*
	Perspective on FY 2020-21 (Unbudgeted)			Estimate	Estimate
	Scenario A: Hold FY 2019-20 Appropriations Constant[5]				
21	Amount in Excess or (Deficit) of 7.25% Statutory Reserve			$832.5	*
22	As a Percent of Prior-Year Expenditures			6.3%	*
	Scenario B: Increase FY 2019-20 Appropriations by Inflation and Population Growth (3.3%)[6]				
23	Amount in Excess or (Deficit) of 7.25% Statutory Reserve			$407.1	*
24	As a Percent of Prior-Year Expenditures			3.1%	*
	Scenario C: Increase FY 2019-20 Appropriations by Historical Growth During Expansions (6.0)[7]				
25	Amount in Excess or (Deficit) of 7.25% Statutory Reserve			$55.5	*
26	As a Percent of Prior-Year Expenditures			0.4%	*
	Addendum	Preliminary	Estimate	Estimate	Estimate
27	Percent Change in General Fund Appropriations	7.4%	7.0%	*	*
28	5% of Colorado Personal Income Appropriations Limit	$14,479.0	$15,537.7	$16,647.1	$17,662.6
29	Transfers to State Education Fund Per Amendment 23	$692.8	$701.4	$731.3	$760.3

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

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

[2]Pursuant to Section 24-75-201 (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. The FY 2018-19 amount includes $0.1 million in underrefunds from FY 2014-15.

[3]For FY 2018-19, assumes the 2019 Colorado Basic Financial Statements General Fund budgetary fund balance. Also reflects a $0.1 million underrefunded 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.

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

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

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

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

FY 2020-21 (Unbudgeted)

Because a budget has not yet been enacted for FY 2020-21, Table 1 (line 21) 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 $832.5 million, or 6.3 percent, more to spend or save in the General Fund than what is budgeted for FY 2019-20. This amount assumes FY 2020-21 transfers, rebates and expenditures, and TABOR refund obligations under current law. The $832.5 million amount is attributable to the FY 2019-20 excess reserve carrying into the FY 2020-21 beginning balance, year-over-year growth in General Fund revenue, and smaller transfers from the General Fund in FY 2020-21 (lines 10 through 13). Table 1 provides two additional scenarios (lines 23 and 25), the former assumes appropriations growth equal to 2020 inflation plus population growth (3.3 percent), and the latter applying 6.0 percent appropriations growth—the average annual rate of growth during the last two expansions. Under these scenarios, the state would have an excess reserve of $407.1 million or $55.5 million, respectively. Any changes made to the FY 2019-20 budget will result in changes in these amounts.

Relative to the September forecast, General Fund revenue expectations were increased by $166.1 million on higher expectations for individual income and sales tax revenue. Expectations for cash fund revenue subject to TABOR were increased by $45.0 million on higher expectations for most revenue sources. Revenue subject to TABOR is now expected to exceed the Referendum C cap by $367.3 million in FY 2020-21.

Risks to the Forecast

This December forecast is based on actual revenue collections fiscal year-to-date through November 2019, as well as economic expectations and revenue growth expected under current law. Changes to current law and economic downturns tend to be the largest drivers of forecast error. Ongoing shifts in taxpayer behavior in response to evolving federal income tax and state sales tax policy environments continue to pose upside risks to the forecast. For FY 2020-21 and FY 2021-22, however, risks remain skewed to the downside as the state and national economies move further into the business cycle. These factors are described in greater detail below.

How much do collections fiscal year-to-date tell us about FY 2019-20?

This forecast is based on actual collections data for the first five months of the fiscal year (July through November). On average, collections for these five months have historically accounted for about 38 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. March and June forecasts tend to be significantly more accurate because data become available for part and all of these tax collections. Respectively, actual data incorporated into March and June forecasts have historically averaged about 62 percent and 90 percent of total fiscal year collections.

Federal tax law changes. Colorado's state income tax collections are based on federal taxable income. Income tax law changes under the federal Tax Cuts and Jobs Act (TCJA) resulted in shifts in taxpayer behavior that boosted state income tax collections in both FY 2017-18 and FY 2018-19. Further shifts are expected in FY 2019-20 as taxpayers adjust their filing behavior, incorporating lessons learned from paying their 2018 taxes, the first tax year for which the new changes apply. Individual income taxpayers responded to the TCJA in part by significantly increasing their quarterly estimated payments in the first quarter of tax year 2019, which significantly boosted FY 2018-19 collections. This

forecast anticipates that these payments will begin to normalize in FY 2019-20. Specifically, higher payments made early in 2019 are expected to borrow from final payments made in March and April 2020. To the extent that higher payments made in the first quarter of 2019 instead reflect strong economic activity, individual income tax collections may be higher than expected in this forecast.

Sales tax collections for out-of-state retailers. The 2018 U.S. Supreme Court ruling in *South Dakota* v. *Wayfair, Inc.*, subsequent administrative rule changes, and the passage of House Bill 19-1240 pose an upside risk to the sales tax revenue forecast. These changes require out-of-state (including online) retailers to collect and remit state sales taxes and are expected to increase state collections by up to $72 million annually when fully implemented. However, the actual impact will depend on consumer behavior, tax administration, and the timing of retailer compliance with new state requirements.

Recession risk. On early signs of stabilization in manufacturing and energy industries and ongoing strength in employment and consumption activity, the near-term risk of recession has abated for 2020. However, slowing economic momentum and weakness in several leading indicators of business and investor activity still point to an elevated risk of recession during the forecast period, which extends through FY 2021-22.

General Fund Transfers to Transportation and Capital Construction

Statutory transfers from the General Fund to transportation and capital construction funds are shown in Table 2. In the General Fund overview shown in Table 1, these transfers are reflected on lines 11 and 12. Other noninfrastructure-related transfers to and from the General Fund are summarized in Table 6, and shown on lines 3 and 9 of Table 1.

Table 2
Infrastructure Transfers from the General Fund
Dollars in Millions

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

Capital Construction Funds	2018-19	2019-20	2020-21	2021-22
HB 15-1344*		$20.0	$20.0	$20.0
SB 17-262	$60.0	$60.0		
HB 18-1006	$0.7			
HB 18-1340	$119.8			
HB 19-1250		$0.2		
SB 19-172		$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 4.

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

Fiscal Policies Dependent on Revenue Conditions

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

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

- **Partial refundability of the conservation easement tax credit is available in tax year 2019 and is expected to be available in tax years 2020, 2021, and 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 expects a TABOR surplus in each of FY 2019-20, FY 2020-21, and FY 2021-22. If one or more of these surpluses occur, partial refundablility of the credit will be available in tax years 2020, 2021, and/or 2022.

Table 3
Availability of Tax Policies Dependent on Revenue Conditions

Fiscal Policy	Availability Criteria	Availability
Historic Property Preservation Income Tax Credit (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. Expected to be available in tax years 2020, 2021, and 2022.

**Estimates may differ in future analyses.*

Table 4
General Fund Rebates and Expenditures
Dollars in Millions

Category	Preliminary FY 2018-19	Percent Change	Estimate FY 2019-20	Percent Change	Estimate FY 2020-21	Percent Change	Estimate FY 2021-22	Percent Change
Senior and Veterans Property Tax Exemptions	$145.9	10.3%	$153.2	5.0%	$161.9	5.7%	$170.4	5.3%
TABOR Refund Mechanism[1]	-$39.5		-$153.2		-$161.9		-$170.4	
Cigarette Rebate	$9.4	-3.8%	$9.3	-0.3%	$9.1	-2.4%	$8.9	-2.3%
Old-Age Pension Fund	$86.8	-4.9%	$82.8	-4.6%	$79.9	-3.5%	$77.8	-2.7%
Aged Property Tax and Heating Credit	$5.5	13.0%	$6.5	16.6%	$6.7	4.1%	$6.4	-4.8%
Older Coloradans Fund	$10.0	-60.0%	$10.0	0.0%	$10.0	0.0%	$10.0	0.0%
Interest Payments for School Loans	$7.4	48.3%	$7.4	0.2%	$7.4	0.0%	$7.4	0.0%
Firefighter Pensions	$4.2	-3.4%	$4.4	4.1%	$4.6	4.1%	$4.7	4.1%
Amendment 35 Distributions	$0.8	-2.7%	$0.8	-2.5%	$0.8	-1.0%	$0.8	-1.0%
Marijuana Sales Tax Transfer to Local Governments	$19.3	11.5%	$21.2	10.0%	$22.9	8.0%	$24.4	6.8%
Total Rebates and Expenditures	**$249.8**	**-14.1%**	**$142.4**	**-43.0%**	**$141.4**	**-0.7%**	**$140.5**	**-0.7%**

Totals may not sum due to rounding.

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

Table 5
Cash Fund Transfers
Dollars in Millions

Transfers to the General Fund		2018-19	2019-20	2020-21	2021-22
HB 05-1262	Amendment 35 Tobacco Tax	$0.8	$0.8	$0.8	$0.8
SB 13-133 & SB 18-191	Limited Gaming Fund	$16.4	$16.8	$17.8	$18.7
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**	**$70.6**	**$18.6**	**$19.5**
Transfers from the General Fund		**2018-19**	**2019-20**	**2020-21**	**2021-22**
SB 11-047	Bioscience Income Tax Transfer to OEDIT	$6.9	$7.1	$7.5	$7.8
SB 14-215	Marijuana Tax Cash Fund	$125.0	$137.1	$148.0	$158.0
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	$24.0	$25.9	$27.7
HB 16-1161[2]	Older Coloradans Fund & Veterans Grant Program Fund *(conditional)*	$16.9			
HB 16-1288	Industry Infrastructure Fund	$0.3			
SB 17-255	Technology Advancement and Emergency Fund	$2.0			
HB 18-1323	Pay For Success Contracts Pilot Program Funding	$0.4	$0.5	$0.5	$0.4
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	$55.7	$15.7
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 19-125	Housing Development Grant Fund		$8.8	$10.4	$51.7
Total Transfers from the General Fund		**$219.8**	**$194.0**	**$248.7**	**$262.0**
Net General Fund Impact		**($181.8)**	**($123.3)**	**($230.1)**	**$242.5**

[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. This forecast assumes that all future community corrections appropriations will be expended and that no transfer will be made in future years.

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School Finance Outlook

This section presents information on the outlook for school finance from a state budgetary perspective, both in the current (FY 2019-20) and subsequent (FY 2020-21) fiscal years. This outlook incorporates information from the K-12 enrollment and assessed value projections, located on page 41 and page 49, respectively, of the forecast document. Enrollment changes are a major determinant of overall required formula funding (total program), since funding is allocated on a per pupil basis. Similarly, assessed values on real property determine a school district's property tax base, which, along with a school district's total program mill levy, determine a school district's available property tax revenue. This revenue, supplemented by specific ownership tax revenue from vehicle registrations, constitutes the local share of school district funding. Subject to available budgetary resources, the difference between total program funding requirements and the local share is the amount the state must cover through state equalization payments, or state aid.

Relative to last year's appropriation, the **FY 2019-20** requirement for state aid has increased by about $9 million. This is because:

- total program requirements have increased by $20 million; and
- revenue available for the local share increased by $11 million.

For **FY 2020-21**, the state aid requirement is expected to increase by $78 million on a year-over-year basis because:

- total program requirements will increase by $155 million; and
- revenue available for the local share will increase by $77 million.

The available contribution for school finance from the State Education Fund for FY 2020-21 will increase by $44 million and the General Fund requirement will increase by $15 million on a year-over-year basis under the following assumptions:

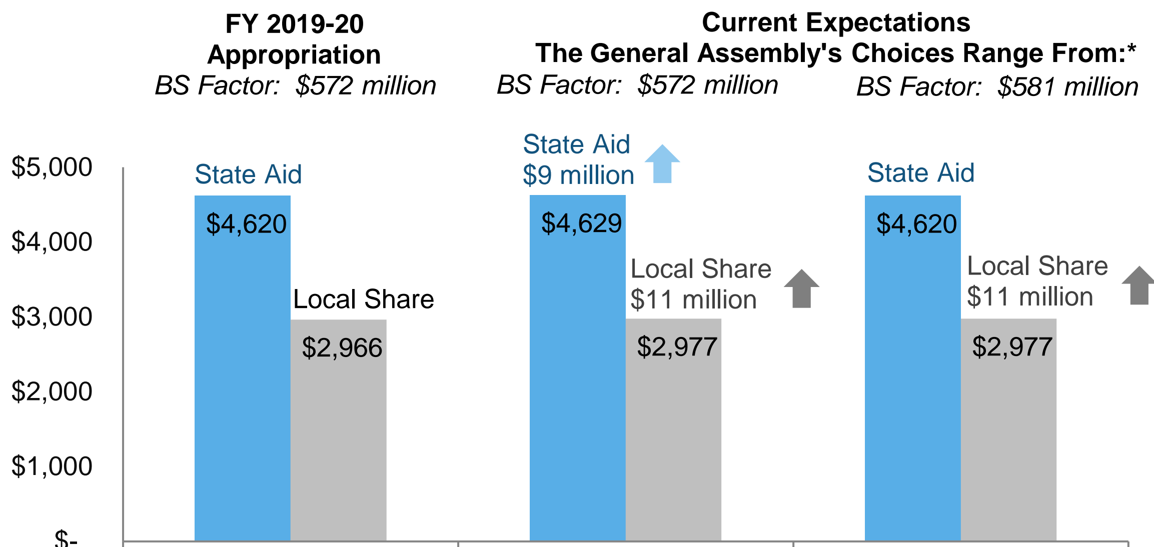
- a $150 million ending balance for the State Education Fund in FY 2020-21; and
- the budget stabilization factor is maintained at its current level.

Funding Status for the Current Fiscal Year (FY 2019-20)

Higher than expected enrollment and increased expectations for property tax revenue collections are expected to reduce budgetary flexibility by $9 million in the current fiscal year relative to the initial appropriation enacted in 2019. Preliminary funded pupil counts and funded at-risk pupil counts are higher than estimates last year. Specifically, the funded pupil count increased by just over 1,400 students, while funded at-risk totals increased by 1,200 students. This increases the overall total program cost by about $20 million relative to the initial appropriation. At the same time, the preliminary estimate for the local share is $11 million, or 0.4 percent, higher than expected during the 2019 legislative session. This includes an increase of just over $20 million in property taxes and a decrease of nearly $9 million in specific ownership taxes. As shown in Figure 1 below, the combination of these changes means that the state's obligation for school finance is $9 million higher than the appropriation for state aid made in the 2019 legislative session. The General Assembly could choose

to increase either the General Fund or the State Education Fund appropriation by $9 million, increase the budget stabilization factor by $9 million, or anything in between, to address this additional obligation.

Figure 1
Change in Expectations for School Finance Funding, FY 2019-20
Dollars in Millions



**The range of choices to address the additional $9 million school finance obligation.*

Impact of Full Day Kindergarten

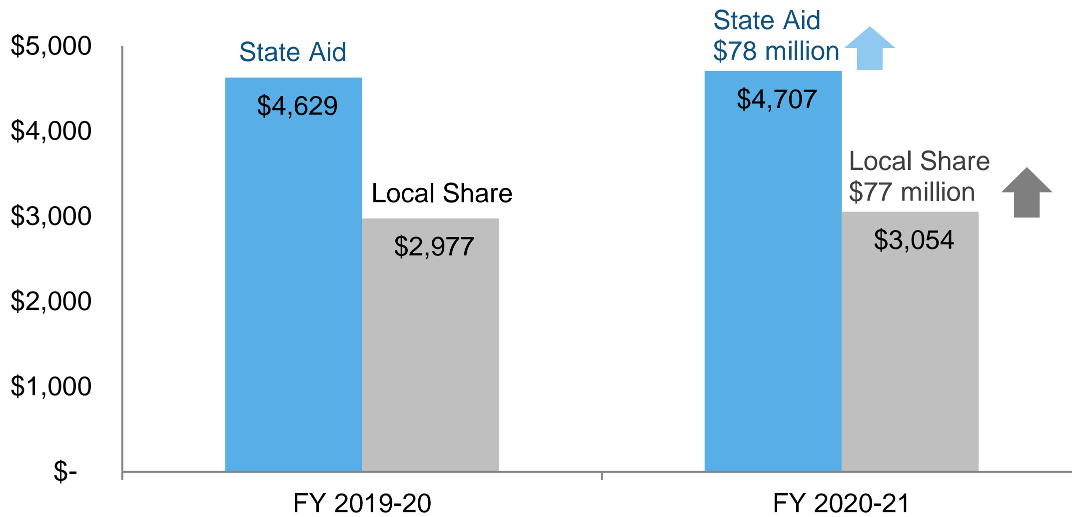
During the 2019 legislative session, the General Assembly enacted House Bill 19-1262, State Funding for Full-Day Kindergarten (FDK). The bill increased the funding level for kindergarten students enrolled in a FDK program from 0.58 FTE to 1.0 FTE, while students enrolled in a half-day kindergarten (HDK) program were funded at 0.58 FTE.

Estimates for the increase in funded pupil count resulting from the bill ranged from 22,367 (assuming 85 percent utilization of FDK) to 25,896 (assuming 100 percent utilization of FDK). The actual increase was 23,802, resulting in an increase in total program requirements of about $204 million and state aid requirements of $198.3 million.

Funding Outlook for Next Fiscal Year (FY 2020-21)

Total program funding requirements are expected to increase by $155 million between FY 2019-20 and FY 2020-21. The estimated funded pupil count is expected to increase only by about 100 pupils on a year-over-year basis. Inflation expectations for 2019 have increased modestly since the September forecast from 1.8 percent to 1.9 percent. As shown in Figure 2, the combination of these two factors increases the overall required cost of total program by about $155 million on a year-over-year basis. This total includes an increase of $78 million in required state aid, as assessed values are projected to grow by 3.5 percent in FY 2020-21 on a year-over-year basis, leading to an increase of $77 million in the local share.

Figure 2
Change in Expectations for School Finance Funding, FY 2019-20 to FY 2020-21
Dollars in Millions



Assuming an ending balance of $150 million in FY 2020-21 and a $100 million ending balance thereafter in the State Education Fund and the budget stabilization factor is held constant, the available contribution from that fund for FY 2020-21 is projected to increase by $44 million on a year-over-year basis. This implies that the corresponding General Fund requirement for school finance will increase by $15 million relative to FY 2019-20.

Summary of Updated Information Incorporated into the School Finance Model

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

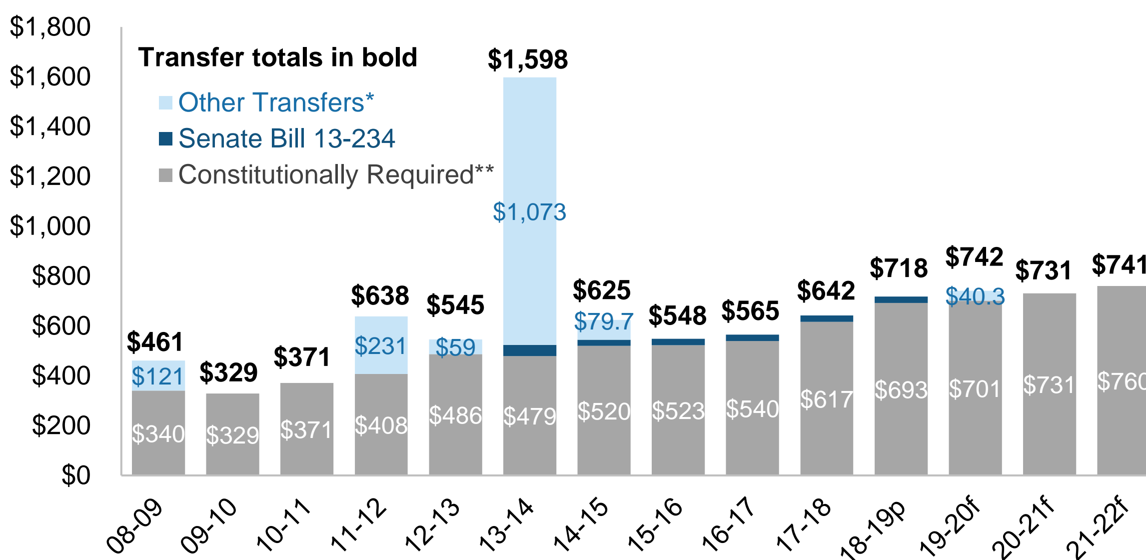
In addition, CDE also obtains district-level information on assessed values and specific ownership tax revenue. This information is combined with certified mill levies for each district, to obtain estimates for the amount of funding school districts will receive from local revenue sources. Updated enrollment and local share estimates thus combine to provide the best estimate for the state's obligation for state equalization payments for both the current and subsequent fiscal years. Final true-up for the FY 2019-20 appropriation for state aid will occur through passage of a mid-year supplemental bill for CDE. The appropriation for state aid in FY 2020-21 will be made through passage of the 2020 Long Bill and the 2020 School Finance Act.

State Education Fund Transfers

The Colorado Constitution requires the State Education Fund to receive one-third of 1 percent of taxable income. In FY 2019-20, the State Education Fund is expected to receive $701.4 million as a result of this requirement, with higher amounts in the following year resulting from growth in taxable income among Colorado taxpayers.

In addition, the General Assembly has at different times authorized the transfer of additional moneys from the General Fund to the State Education Fund (see Table 1, line 10). Money in the State Education Fund is required to be used to fund kindergarten through twelfth grade public education. Figure 3 shows a history and forecast for revenue sources to the State Education Fund through the end of the forecast period. General Fund transfers to the State Education Fund pursuant to Senate Bill 13-234, which have occurred annually since FY 2013-14, are scheduled to end after FY 2018-19. The 2019 school finance act, Senate Bill 19-246, includes a one-time $40.3 million General Fund transfer to the State Education Fund in FY 2019-20, after which only constitutionally required transfers are scheduled under current law.

Figure 3
Revenue to the State Education Fund
Dollars in Millions

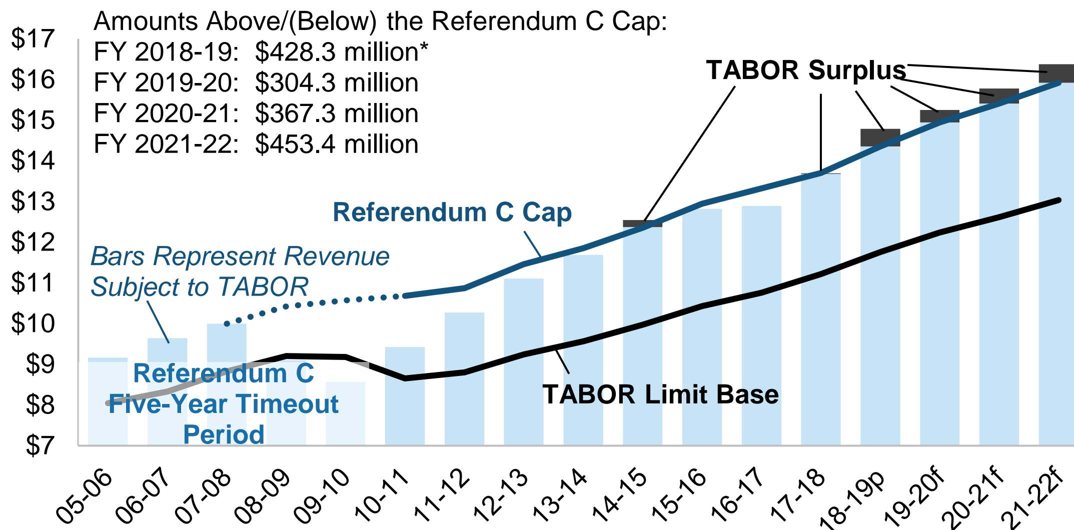


Source: Colorado State Controller's Office and Legislative Council Staff forecast (f).
**Includes transfers under SB 09-260 for FY 2008-09, SB 11-183 and SB 11-156 for FY 2011-12, HB 12-1338 for FY 2012-13 and FY 2013-14, and HB 14-1342 for FY 2014-15, and SB 19-246 for FY 2019-20.*
***One-third of 1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

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 24 and illustrated in Figure 4, which also provides a history of the TABOR limit base and the Referendum C cap.

Figure 4
TABOR Revenue, TABOR Limit Base, and the Referendum C Cap
Dollars in Billions



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

FY 2018-19. The State Controller's August 30 revenue certification indicated that state revenue subject to TABOR exceeded the Referendum C cap by $428.3 million in FY 2018-19. After accounting for a small outstanding refund obligation attributable to underrefunds of prior TABOR surpluses, the Controller reported that the state is obligated to refund **$428.5 million** in the current FY 2019-20.

TABOR refunds will be 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 will not be used on 2019 tax forms.

FY 2019-20. State revenue subject to TABOR is expected to exceed the Referendum C cap by **$304.3 million**, which is expected to trigger a TABOR refund obligation in FY 2020-21 equal to the surplus amount plus any adjustment for overrefunds or underrefunds of the FY 2018-19 surplus. Relative to the September forecast, expectations for cash fund revenue subject to TABOR have increased by a greater amount than expectations for General Fund revenue have deceased. This

surplus is expected to be refunded via both property tax exemptions administered at the county level and a **six-tier sales tax refund** to all full-year resident Colorado taxpayers.

FY 2020-21. State revenue subject to TABOR is expected to exceed the Referendum C cap by **$367.3 million** in FY 2020-21, triggering an equivalent TABOR refund in FY 2021-22. Expectations for the FY 2020-21 surplus have been increased relative to those published in September based on higher expectations for General Fund and cash fund revenue subject to TABOR. The surplus is expected to be refunded via both property tax exemptions and a six-tier sales tax refund.

FY 2021-22. Revenue is expected to exceed the Referendum C cap by **$453.4 million**, triggering an equivalent TABOR refund in FY 2022-23. Expectations for the surplus have increased relative to the September forecast primarily as a result of increased expectations for General Fund revenue. The surplus is expected to be refunded via both property tax exemptions and a six-tier sales tax refund.

Table 6 compares forecast expectations for revenue subject to TABOR between the September 2019 and this December 2019 forecast.

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

FY 2019-20	December	September	Change
TABOR Revenue	**$15,253.1**	**$15,213.1**	**$40.0**
General Fund*	$12,760.7	$12,772.2	($11.5)
Cash Funds*	$2,492.5	$2,440.9	$51.5
Referendum C Cap	**$14,948.8**	**$14,948.8**	**$0.0**
Revenue Above/(Below) Ref C Cap	**$304.3**	**$264.3**	**$40.0**
FY 2020-21	**December**	**September**	**Change**
TABOR Revenue	**$15,779.5**	**$15,570.1**	**$209.4**
General Fund*	$13,246.1	$13,081.7	$164.4
Cash Funds*	$2,533.4	$2,488.4	$65.0
Referendum C Cap	**$15,412.3**	**$15,427.2**	**($14.9)**
Revenue Above/(Below) Ref C Cap	**$367.3**	**$142.9**	**$224.4**
FY 2021-22	**December**	**September**	**Change**
TABOR Revenue	**$16,374.3**	**$16,055.4**	**$318.9**
General Fund*	$13,786.6	$13,483.3	$303.3
Cash Funds*	$2,587.6	$2,572.1	$15.5
Referendum C Cap	**$15,920.9**	**$15,920.9**	**$0.0**
Revenue Above/(Below) Ref C Cap	**$453.4**	**$134.5**	**$318.9**

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

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

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

Fiscal Year Spending

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

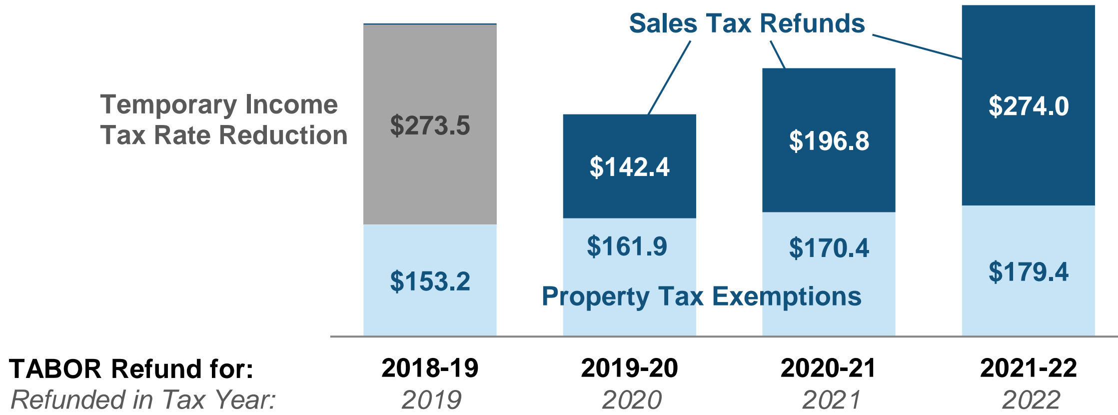
For more information about the TABOR revenue limit, see the Legislative Council Staff memorandum at this link: http://leg.colorado.gov/sites/default/files/the_tabor_revenue_limit.pdf

TABOR refund mechanisms. Figure 5 shows the mechanisms that are expected to be used to issue TABOR refunds during the forecast period.

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

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

Figure 5
TABOR Refund Mechanisms
Dollars in Millions



The FY 2018-19 TABOR refund obligation triggered a **temporary income tax rate reduction**. This mechanism temporarily reduces the state income tax rate from 4.63 percent to 4.50 percent for all individual and corporate income taxpayers. The reduction will apply for tax year 2019, and the tax rate will revert to 4.63 percent beginning tax year 2020 unless the state again collects a sufficiently large TABOR surplus to trigger the rate reduction. Like all TABOR refund mechanisms, the rate reduction is accounted as an expenditure rather than a reduction in General Fund revenue.

Any TABOR surplus amount that exceeds the amount that can be refunded via the property tax reimbursement mechanism and is not refunded via the temporary income tax rate reduction is refunded to full-year Colorado resident individual income taxpayers via the **sales tax refund mechanism**. Because the amount remaining to be refunded from the FY 2018-19 TABOR surplus was expected to be less than 50¢ per qualifying taxpayer, this mechanism will not be used on 2019 tax forms. To the extent that mechanisms used to refund the FY 2018-19 surplus result in overrefunds or underrefunds of revenue, adjustments will be made to the amounts refunded in succeeding years.

Estimated TABOR refunds required for FY 2019-20, FY 2020-21, and FY 2021-22 are expected to fall short of the amount required to trigger the temporary income tax rate reduction. Any amount not refunded via property tax exemptions will be refunded via the sales tax refund mechanism. When the amount required to be refunded using the sales tax refund mechanism exceeds $15 per taxpayer, statute requires that refunds be distributed in six tiers according to a taxpayer's adjusted gross income. The projected tiers for tax years 2020, 2021, and 2022 are shown in Table 7.

Table 7
Forecast Average Taxpayer TABOR Refunds
Via Sales Tax Refund Mechanism and Temporary Income Tax Rate Reduction

Amounts shown reflect refunds for full-year Colorado resident taxpayers only

FY 2018-19 Refund Obligation, Tax Year 2019 Forecast

Adjusted Gross Income	Sales Tax	Income Tax Rate Cut *(Average)*	Single Filers Total	Sales Tax	Income Tax Rate Cut *(Average)*	Joint Filers Total
up to $40,000	$0	$10	**$10**	$0	$1	**$1**
$40,000 to $85,000	-	58	**58**	-	31	**31**
$85,000 to $133,000	-	114	**114**	-	96	**96**
$133,000 to $181,000	-	174	**174**	-	162	**162**
$181,000 to $226,000	-	226	**226**	-	225	**225**
$226,000 and up	-	627	**627**	-	649	**649**

FY 2019-20 Refund Obligation, Tax Year 2020 Forecast

Adjusted Gross Income	Six-Tier Sales Tax	Income Tax Rate Cut	Single Filers Total	Six-Tier Sales Tax	Income Tax Rate Cut	Joint Filers Total
up to $41,000	$28	$0	**$28**	$56	$0	**$56**
$41,000 to $87,000	38	-	**38**	76	-	**76**
$87,000 to $135,000	44	-	**44**	88	-	**88**
$135,000 to $184,000	50	-	**50**	100	-	**100**
$184,000 to $230,000	54	-	**54**	108	-	**108**
$230,000 and up	87	-	**87**	174	-	**174**

FY 2020-21 Refund Obligation, Tax Year 2021 Forecast

Adjusted Gross Income	Six-Tier Sales Tax	Income Tax Rate Cut	Single Filers Total	Six-Tier Sales Tax	Income Tax Rate Cut	Joint Filers Total
up to $41,000	$39	$0	**$39**	$78	$0	**$78**
$41,000 to $88,000	52	-	**52**	104	-	**104**
$88,000 to $138,000	60	-	**60**	120	-	**120**
$138,000 to $187,000	68	-	**68**	136	-	**136**
$187,000 to $234,000	74	-	**74**	148	-	**148**
$234,000 and up	118	-	**118**	236	-	**236**

FY 2021-22 Refund Obligation, Tax Year 2022 Forecast

Adjusted Gross Income	Six-Tier Sales Tax	Income Tax Rate Cut	Single Filers Total	Six-Tier Sales Tax	Income Tax Rate Cut	Joint Filers Total
up to $42,000	$53	$0	**$53**	$106	$0	**$106**
$42,000 to $90,000	71	-	**71**	142	-	**142**
$90,000 to $141,000	82	-	**82**	164	-	**164**
$141,000 to $191,000	94	-	**94**	188	-	**188**
$191,000 to $239,000	102	-	**102**	204	-	**204**
$239,000 and up	163	-	**163**	326	-	**326**

Table 8
TABOR Limit and Retained Revenue
Dollars in Millions

		Preliminary FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22
	TABOR Revenue				
1	General Fund[1]	$12,350.4	$12,760.7	$13,246.1	$13,786.6
2	Cash Funds[1]	$2,438.0	$2,492.5	$2,533.4	$2,587.6
3	**Total TABOR Revenue**	**$14,788.4**	**$15,253.1**	**$15,779.5**	**$16,374.3**
	Revenue Limit				
4	Allowable TABOR Growth Rate	4.8%	4.1%	3.1%	3.3%
5	Inflation (*from Prior Calendar Year*)	3.4%	2.7%	1.9%	2.1%
6	Population Growth (*from Prior Calendar Year*)	1.4%	1.4%	1.2%	1.2%
7	TABOR Limit Base[2]	$11,759.3	$12,241.5	$12,621.0	$13,037.5
8	Voter Approved Revenue Change (Referendum C)	$2,600.7	$2,707.4	$2,791.3	$2,883.4
9	Total TABOR Limit / Referendum C Cap[2]	$14,360.1	$14,948.8	$15,412.3	$15,920.9
10	**TABOR Revenue Above (Below) Referendum C Cap**	**$428.3**	**$304.3**	**$367.3**	**$453.4**
	Retained/Refunded Revenue				
11	Revenue Retained under Referendum C[3]	$2,600.7	$2,707.4	$2,791.3	$2,883.4
12	Fiscal Year Spending *(revenue available to be spent or saved)*	$14,360.1	$14,948.8	$15,412.3	$15,920.9
13	Outstanding Underrefund Amount[4]	$0.1			
14	**Revenue Refunded to Taxpayers[5]**	**$428.5**	**$304.3**	**$367.3**	**$453.4**
15	TABOR Reserve Requirement	$430.8	$448.5	$463.6	$478.9

Totals may not sum due to rounding.

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

[2]Assumes that the State Innovation Waiver Reinsurance Program will qualify as an enterprise in FY 2019-20 and FY 2021-22, and will not qualify in FY 2020-21. For FY 2020-21, assumes that the program will not collect any revenue in fees.

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

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

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

General Fund Revenue

This section presents the Legislative Council Staff outlook for General Fund revenue, the state's main source of funding for operating appropriations. Table 9 on page 30 summarizes preliminary, unaudited General Fund revenue collections for FY 2018-19 and projections for FY 2019-20 through FY 2021-22.

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

FY 2019-20. General Fund revenue collections are expected to increase at a slower rate, 3.0 percent, to total $12.9 billion in the current fiscal year. Shifts in taxpayer behavior in response to new tax policy environments are expected to continue to drive collection growth. In particular, individual income taxpayers responded to the TCJA in part by significantly increasing their quarterly estimated payments during tax year 2019, which significantly boosted FY 2018-19 collections. This forecast anticipates that these payments will begin to normalize in 2019-20 as taxpayer adjust to the new tax law changes. Higher payments made early in 2019 are expected to borrow from final payments made in March and April 2020. Corporate income taxes are expected to decline following a change in the tax treatment of holding companies pursuant to the Colorado Supreme Court's decisions in *Oracle Corporation and subsidiaries v. Colorado Department of Revenue* ("*Oracle*") and *Agilent Technologies, Inc. v. Colorado Department of Revenue* ("*Agilent*"). Finally, sales tax collections by out-of-state retailers have outpaced previous expectations thus far as state tax law changes following the U.S. Supreme Court decision in *South Dakota v. Wayfair* have shifted tax collections from use tax to sales tax.

Expectations for gross General Fund revenue are nearly unchanged relative to the September forecast. Reduced expectations for use tax and individual income tax revenue more than offset an increase in expectations for sales tax revenue. In total, expectations were reduced $10.9 million, or 0.1 percent.

FY 2020-21. Revenue collections are expected to grow 4.1 percent from FY 2019-20 levels and total $13.5 billion. The revenue forecast anticipates stronger year-over-year growth in individual income tax revenue as TCJA-related distortions normalize and economic activity resumes as the primary driver of growth. Additionally, declines in corporate income tax and use tax revenue are expected to moderate.

Relative to the September forecast, expectations for FY 2020-21 revenue have been increased by $166.1 million, or 1.2 percent. The upward revision is mostly attributable to improved expectations for individual income tax revenue, up $161.2 million, on a healthier economic outlook and better expectations for household investment income. An upward revision of $100.7 million to sales tax revenue expectations is mostly offset by an $87.9 million downward revision to use tax revenue expectations. Corporate income tax revenue expectations are essentially unchanged from September.

FY 2021-22. Revenue is expected to increase 4.1 percent in FY 2021-22 and total $14.0 billion. The forecast anticipates deceleration in individual income tax revenue consistent with slower economic growth. Partially offsetting this deceleration, corporate income and use tax revenue are expected to rebound slightly.

Risks to the forecast. This forecast contains both upside and downside risk due to the late stage of the economic expansion and uncertainty surrounding continued shifts in taxpayer behavior in response to the TCJA, the *Oracle* and *Agilent* decisions, and ongoing reform of the collection of sales and use tax on out-of-state transactions. In particular, the forecast for FY 2019-20 has been revised downward based on the expectation that estimated individual income tax payments made during calendar year 2019 will borrow against final payments made for tax year 2019 in the spring of 2020. If no such decrease in final payments occurs, or if the decrease in final payments is less than estimated, gross General Fund revenue could be greater than estimated for FY 2019-20.

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, estates, trusts, and other 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.

Current conditions. Preliminary, unaudited reports indicate that individual income tax revenue increased $669.8 million, or 8.8 percent, to total $8.2 billion during FY 2018-19. The year-on-year increase represents a moderate deceleration from FY 2017-18, when individual income tax collections grew 12.1 percent. In both years, the growth in income tax collections is attributable both to economic strength and to changes in taxpayer behavior resulting from the TCJA.

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

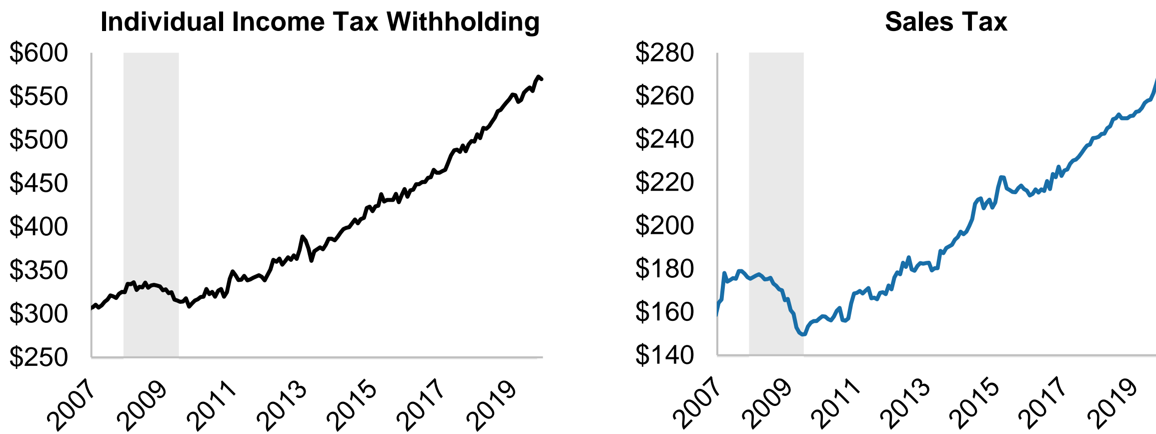
Many taxpayers were met with higher-than-expected 2018 tax bills in the spring of 2019. The state was required to refund $761.2 million to taxpayers who overpaid taxes via wage withholding or estimated tax payments during tax year 2018, an increase of just $8.6 million, or 1.1 percent, from the prior tax filing season. By contrast, taxpayers who underpaid during the tax year and were required to remit cash payments paid $703.0 million over the three month filing season, an increase of $157.6 million, or 28.9 percent, from the prior filing season.

Collections for the current tax year suggest that taxpayers responded to their higher-than-expected 2018 tax bills by increasing their estimated tax payments during 2019. Estimated payments are made

by taxpayers whose income is attributable to non-wage sources, such as from ownership of a business, property rents, or returns on investments. Estimated individual income tax payments made between February 2019 and November 2019 increased $260 million, or about 23.6 percent, over the same ten-month period in 2018. While a portion of the increase reflects economic growth, this forecast assumes that elevated 2019 estimated payments portend a decrease in final payments for tax year 2019 to be made during the spring of 2020.

Wage withholding increased at a moderate 6.0 percent pace through the first 11 months of tax year 2019, suggesting moderate-to-strong economic growth and comparatively minor distortions from the tax policy change. Wage withholding is tracked in the left panel of Figure 6. As shown, withholding has slowed modestly from a 6.4 percent over-the-year increase during the first half of 2019 to a 5.5 percent increase during the first five months of the current fiscal year.

Figure 6
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 November 2019. November 2019 data are preliminary.

Forecast. Individual income tax revenue is expected to total $8.5 billion in FY 2019-20, an increase of 3.4 percent from FY 2018-19 on an accrual accounting basis. While contributions from economic activity are expected to be sufficient to sustain revenue growth at a moderate pace, the combination of elevated final tax payments for the 2018 tax year during FY 2018-19 and elevated estimated payments for the 2019 tax year during calendar year 2019 is expected to contribute to a drop-off in final tax payments for the 2019 tax year during the spring of 2020. To the extent that the higher estimated payments made in 2019 are instead reflective of economic activity, the forecast is subject to upside risk for FY 2019-20.

Growth in individual income tax revenue is expected to accelerate to 5.4 percent in FY 2020-21 before settling at 4.2 percent in FY 2021-22. Next year's forecast assumes normalization of TCJA-related distortions. Wage withholding will drive individual income tax collections through the forecast period at a decelerating pace as employment growth slows. Consistent with changes to the economic forecast, expectations for individual income tax revenue have been revised upward by $161.2 million in FY 2020-21 and $334.9 million in FY 2021-22.

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. Except to the extent that it causes taxpayers to behave differently, the rate reduction will not reduce the amount of income tax revenue accrued to the General Fund for FY 2019-20 and subsequent years, and this forecast does not include any adjustment for this reason.

Sales taxes. The 2.9 percent state sales tax is assessed on the purchase of goods, except those specifically exempted, and a relatively small collection of services. Sales tax revenue grew 4.4 percent to total $3.1 billion during FY 2018-19. Sales tax receipts are expected to increase 9.0 percent to total $3.3 billion during the current FY 2019-20 before growing by 3.8 percent in FY 2020-21 and 3.9 percent in FY 2021-22. The uptick in growth during FY 2019-20 is largely attributable to legislative changes for out-of-state retailers under House Bill 19-1240 and House Bill 19-1245, as other indicators of consumer spending indicate that retail sales have slowed in recent months. Current year sales tax expectations were increased by $126.0 million, or 3.9 percent, relative to the September forecast, primarily as a result of greater than expected revenue.

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

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

Use taxes. The 2.9 percent state use tax is due when sales tax is owed, but is not collected at the point of sale. Use tax revenue is largely driven by capital investment among manufacturing, energy, and mining firms. Use tax collections surged during FY 2018-19, growing 11.5 percent to total $345.5 million on the strength of a recovering energy industry. However, capital investments have

fallen this fiscal year with the slowdown in new drilling activity. Oil industry capital expenditures have slowed as existing capacity for U.S. production remains strong and global demand is soft. Additionally, the rules promulgated by the Department of Revenue to collect out-of-state retail sales tax will gradually convert retail use tax collections, around 7 percent of total use tax collections in 2018, to sales tax collections. Downside risks to the use tax forecast outweigh the upside risks, as there is some uncertainty regarding how many use tax accounts will convert to sales tax accounts under House Bill 19-1240. On these trends, use tax revenue is expected to decline in FY 2019-20 and FY 2020-21 by 36.1 percent and 6.6 percent, respectively, before moderating in FY 2021-22.

Corporate income tax. Corporate income tax revenue will remain at historical highs through the forecast period. After setting a record in FY 2018-19, corporate income tax revenue will recede somewhat in the three-year forecast period as firms pay higher wages and supply constraints start to pinch corporate profits late in the business cycle.

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, and a large audit concluded by the Department of Revenue at the end of FY 2018-19. Corporate income tax revenue is projected to total $846.5 million in FY 2019-20 and $797.9 million in FY 2020-21. This is a decline from FY 2018-19 as audit collections will be lower, and firms are expected to face lower profit margins due to a tight labor market and slowing economic activity. Compared with the September forecast, expectations for corporate income tax collections were largely unchanged.

Table 9
General Fund Revenue Estimates
Dollars in Millions

	Category	Preliminary FY 2018-19	Percent Change	Estimate FY 2019-20	Percent Change	Estimate FY 2020-21	Percent Change	Estimate FY 2021-22	Percent Change
	Excise Taxes								
1	Sales	$3,054.0	4.4	$3,329.2	9.0	$3,456.5	3.8	$3,592.9	3.9
2	Use	$345.5	11.5	$220.8	-36.1	$206.2	-6.6	$213.8	3.7
3	Retail Marijuana Sales	$192.7	14.5	$212.0	10.0	$228.9	8.0	$244.4	6.8
4	Cigarette	$32.6	-5.8	$31.9	-2.0	$31.2	-2.4	$30.5	-2.3
5	Tobacco Products	$22.3	35.8	$24.0	7.6	$25.1	4.8	$26.1	3.9
6	Liquor	$48.3	3.9	$50.4	4.3	$52.3	3.9	$54.2	3.6
7	**Total Excise**	$3,695.3	5.5	$3,868.2	4.7	$4,000.2	3.4	$4,161.9	4.0
	Income Taxes								
8	Net Individual Income	$8,247.0	8.8	$8,528.2	3.4	$8,991.1	5.4	$9,372.3	4.2
9	Net Corporate Income	$919.8	17.6	$846.5	-8.0	$797.9	-5.7	$819.4	2.7
10	Total Income Taxes	$9,166.8	9.7	$9,374.7	2.3	$9,789.0	4.4	$10,191.7	4.1
11	Less: Portion Diverted to the SEF	-$692.8	12.3	-$701.4	1.2	-$731.3	4.3	-$760.3	4.0
12	**Income Taxes to the General Fund**	$8,474.0	9.5	$8,673.3	2.4	$9,057.7	4.4	$9,431.4	4.1
	Other Sources								
13	Estate	$0.0	NA	$0.0	NA	$0.0	NA	$0.0	NA
14	Insurance	$314.7	3.6	$331.7	5.4	$346.0	4.3	$361.5	4.5
15	Pari-Mutuel	$0.5	-1.7	$0.5	1.0	$0.5	1.6	$0.5	-2.1
16	Investment Income	$26.5	35.8	$28.2	6.4	$29.5	4.4	$33.8	14.9
17	Court Receipts	$4.2	-5.3	$4.5	8.3	$4.2	-6.7	$4.4	4.8
18	Other Income	$48.9	25.7	$36.2	-26.0	$37.0	2.2	$37.5	1.5
19	**Total Other**	$394.7	-17.8	$401.2	1.6	$417.2	4.0	$437.8	4.9
20	**Gross General Fund Revenue**	**$12,564.0**	**7.2**	**$12,942.7**	**3.0**	**$13,475.1**	**4.1**	**$14,031.0**	**4.1**

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 sports betting tax, marijuana sales and excise tax, Federal Mineral Lease, and unemployment insurance revenue. These forecasts are presented separately because they are not subject to TABOR limitations.

Preliminary cash fund revenue subject to TABOR totaled $2.44 billion in FY 2018-19, an increase of $133.7 million or 5.8 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 aided taxes levied on the extraction of natural resources. Transportation-related revenue, the largest source of cash fund revenue subject to TABOR, was flat, adding just over $500,000, as the pace of economic expansion slowed.

Total cash fund revenue subject to TABOR is expected to grow by 2.2 percent in the current fiscal year and increase slightly throughout the remainder of the forecast period. In FY 2020-21, cash fund revenue is expected to increase by 1.6 percent over year-ago levels to total $2.53 billion, before rising an additional 2.1 percent to total $2.59 billion by the end of the forecast period in FY 2021-22.

Based on preliminary figures, **transportation-related** revenue subject to TABOR totaled $1,275.9 million in FY 2018-19. Transportation revenue will increase 3.5 percent in FY 2019-20 before declining by 0.8 percent in FY 2020-21. 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 tick up slightly by 0.3 percent in FY 2019-20 and 0.5 percent in FY 2020-21 on slower economic and population growth in the state and the purchase of increasingly more fuel-efficient vehicles. The HUTF also receives revenue from other sources, including registration fees. In FY 2018-19, total registration fees declined 0.2 percent as the state migrated to a new administration system for registration fees. Registration fees are expected to grow at 2.2 percent in FY 2019-20 as collections under the new system normalize. Fees will grow an additional 1.3 percent in FY 2020-21. Total HUTF revenue is expected to increase 1.0 percent to $1,119.8 million in FY 2019-20 and 0.8 percent to $1,129.0 million in FY 2020-21.

The **State Highway Fund** (SHF) is the primary fund for the state Department of Transportation to meet state transportation needs. The SHF receives money from HUTF allocations, local government matching grants, and interest earnings. Revenue allocated from the HUTF is subject to TABOR when it is originally collected in the HUTF, but it is not counted against the TABOR limit a second time when allocated to the SHF. The two largest sources of revenue directly collected into the SHF are local government matching grants and interest earnings. Local government revenue into the SHF fluctuates based on local budgeting decisions and large annual fluctuations are common. Based on collections year-to-date, SHF revenue subject to TABOR is expected to increase 64.8 percent to $65.8 million in FY 2019-20 due to a one-time payment of $26 million from the city of Fort Collins for

the I-25 north project. SHF revenue will decline to $41.7 million in FY 2020-21 as the revenue adjusts back to the historic trend.

Other transportation cash fund revenue subject to TABOR is expected to total $134.6 million in FY 2019-20, up 5.6 percent from the previous year, and grow by an additional 3.4 percent the following year before slowing down slightly 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.

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 2.2 percent to $115.0 million in FY 2019-20, and 1.3 percent to $116.5 million in FY 2020-21. Revenue from the bridge safety surcharge fee typically grows at rates similar to vehicle registration fee collections.

Table 10
Cash Fund Revenue Subject to TABOR
Dollars in Millions

	Preliminary FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22	CAAGR*
Transportation-Related	$1,275.9	$1,320.1	$1,309.8	$1,319.3	
Percent Change	0.0%	3.5%	-0.8%	0.7%	1.1%
Severance Tax	$255.2	$157.3	$127.0	$131.6	
Percent Change	78.4%	-38.4%	-19.3%	3.6%	-19.8%
Gaming Revenue[1]	$107.0	$108.0	$110.2	$112.4	
Percent Change	0.1%	0.9%	2.0%	2.0%	1.6%
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%	1.5%	1.1%	1.5%
Capital Construction-Related Interest[2]	$4.7	$8.1	$6.1	$5.3	
Percent Change	1.6%	69.9%	-24.4%	-12.5%	4.0%
2.9% Sales Tax on Marijuana[3]	$10.8	$10.9	$11.1	$11.2	
Percent Change	-33.1%	1.7%	1.4%	1.2%	1.4%
Other Cash Funds[4]	$683.0	$782.9	$864.0	$902.5	
Percent Change	3.5%	14.6%	10.4%	4.5%	9.7%
Total Cash Fund Revenue[5]	$2,438.0	$2,492.5	$2,533.4	$2,587.6	
Subject to the TABOR Limit	5.8%	2.2%	1.6%	2.1%	2.0%

Totals may not sum due to rounding.

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

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

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

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

[4]This table does not include Healthcare Affordability and Sustainability Fee revenue to be collected by the State Innovation Waiver Reinsurance Program under HB 19-1168. The program is expected to qualify as an enterprise for FY 2019-20 and FY 2021-22, and is not expected to collect any fee revenue during FY 2020-21.

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

Table 11
Transportation Revenue by Source
Dollars in Millions

	Preliminary FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22	CAAGR*
Highway Users Tax Fund (HUTF)					
Motor and Special Fuel Taxes	$654.9	$656.9	$660.1	$664.1	0.5%
Percent Change	-0.1%	0.3%	0.5%	0.6%	
Total Registrations	$382.7	$390.9	$396.0	$400.4	1.5%
Percent Change	-0.2%	2.2%	1.3%	1.1%	
Registrations	$229.1	$234.8	$237.6	$239.8	
Road Safety Surcharge	$132.2	$134.2	$136.2	$138.2	
Late Registration Fees	$21.4	$22.0	$22.2	$22.4	
Other HUTF Receipts[1]	$71.1	$72.0	$72.8	$73.5	1.1%
Percent Change	1.7%	1.2%	1.1%	1.0%	
Total HUTF	**$1,108.7**	**$1,119.8**	**$1,129.0**	**$1,138.0**	**0.9%**
Percent Change	0.1%	1.0%	0.8%	0.8%	
State Highway Fund (SHF)[2]	$39.9	$65.7	$41.7	$39.1	-0.6%
Percent Change	-1.8%	64.8%	-36.5%	-6.2%	
Other Transportation Funds	$127.4	$134.6	$139.1	$142.2	3.7%
Percent Change	0.0%	5.6%	3.4%	2.3%	
Aviation Fund[3]	$33.7	$34.7	$35.2	$35.4	
Law Enforcement-Related[4]	$8.6	$8.8	$8.9	$9.0	
Registration-Related[5]	$85.1	$91.1	$95.0	$97.8	
Total Transportation Funds	**$1,275.9**	**$1,320.1**	**$1,309.8**	**$1,319.3**	**1.1%**
Percent Change	0.0%	3.5%	-0.8%	0.7%	

Totals may not sum due to rounding.

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

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

[2]Includes only SHF revenue subject to TABOR.

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

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

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

Addendum: TABOR-Exempt FASTER Revenue

	Preliminary FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22	CAAGR*
Bridge Safety Surcharge	$112.5	$115.0	$116.5	$117.8	1.8%
Percent Change	4.1%	2.2%	1.3%	1.1%	

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 $157.3 million in FY 2019-20 and $127.0 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 39.6 percent in FY 2019-20 to $142.4 million as taxpayers are able to claim tax credits based on higher property tax payments. Oil and natural gas severance tax revenue will decline 20.8 percent in FY 2020-21 to $112.8 million based on lower oil prices and larger property tax credits.

Table 12
Severance Tax Revenue Forecast by Source
Dollars in Millions

	Preliminary FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22	CAAGR*
Oil and Gas	$235.7	$142.4	$112.8	$117.4	-20.7%
Percent Change	86.8%	-39.6%	-20.8%	4.0%	
Coal	$3.6	$3.3	$3.0	$2.7	-8.5%
Percent Change	-4.9%	-8.1%	-8.3%	-9.2%	
Molybdenum and Metallics	$2.4	$2.4	$2.5	$2.5	0.4%
Percent Change	-15.0%	0.4%	0.4%	0.4%	
Total Severance Tax Revenue	$241.7	$148.1	$118.3	$122.5	-20.3%
Percent Change	82.0%	-38.7%	-20.1%	3.6%	
Interest Earnings	$13.5	$9.2	$8.7	$9.0	-12.5%
Percent Change	32.1%	-31.8%	-5.5%	4.1%	
Total Severance Tax Fund Revenue	$255.2	$157.3	$127.0	$131.6	-19.8%
Percent Change	78.4%	-38.4%	-19.3%	3.6%	

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

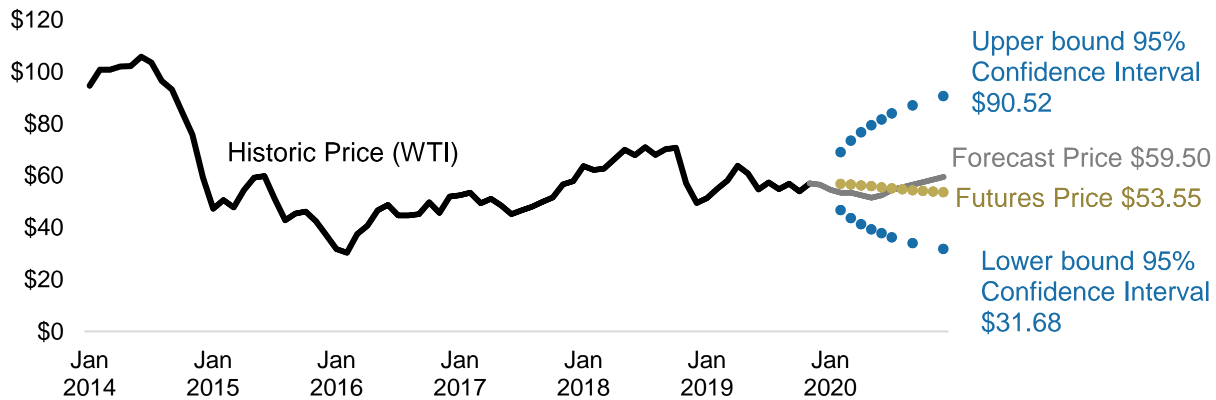
Oil and natural gas production in Colorado will continue to grow through the forecast period and prices are expected to gradually increase, with Colorado oil producers receiving an average of $59.56 per barrel in 2018, $53.45 per barrel in 2019, and $55.14 in 2020. Natural gas producers will receive an average of $2.51 per thousand cubic feet (Mcf) in 2019 and $2.53 per Mcf in 2020.

Oil and gas producers pay gross severance taxes based on the current value of oil and gas production, and are allowed to take a credit for property taxes paid. Property taxes are based on the prior year's production value and are paid in arrears, effectively creating a two-year lag between production and property tax payments. The property tax credit against severance taxes amplifies the volatility of the oil and gas severance tax. The ebb and flow of prices and production led to an estimated 45.6 percent increase in the value of oil and gas produced in 2018. Property taxes paid in 2019 and 2020 are based on 2018 production, resulting in a faster increase in the ad valorem tax credit than in gross severance taxes. The combination of rapid growth in previous years and moderate growth currently results in a reduction in severance tax collections between FY 2018-19 and FY 2019-20. This pattern is repeated in FY 2020-21, as production growth moderates in 2020.

The severance tax forecast is consistent with the assessed values forecast for school finance. However, there is significant uncertainty in the price of oil and gas, which poses both an upside and downside risk to the severance tax forecast. Figure 7 shows the price of West Texas Intermediate (WTI) crude

oil from January 2014 through November 2019, the forecast price through December 2020, and the 95 percent confidence interval derived by trading contracts sold on the New York Mercantile Exchange commodities futures markets. The U.S. Energy Information Administration forecasts the price of WTI in December 2020 at $59.50 per barrel. Based on futures contracts, there is a 95 percent probability that the price will be between $31.68 per barrel and $90.52 per barrel.

Figure 7
WTI Crude Oil Forecast Price and NYMEX Confidence Intervals
Dollars per Barrel



Source: U.S. Energy Information Administration, December 2019 Short-Term Energy Outlook.
WTI = West Texas Intermediate.

Coal severance tax revenue declined 4.9 percent in FY 2018-19 and will decline modestly through the forecast period as electricity generation continues to transition away from coal to renewable sources and natural gas. Coal severance taxes are expected to decline 8.1 percent in FY 2019-20 to $3.3 million and decline 8.3 percent to $3.0 million in FY 2020-21.

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

Finally, interest earnings are expected to total $9.2 million in FY 2019-20 and $8.7 million in FY 2020-21. Interest revenue in FY 2019-20 will be based on a higher average balance in severance tax accounts following the passage of Senate Bill 19-016. SB 19-016 distributes severance tax revenue in the year following 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 $107.0 million in FY 2018-19 and is expected to grow by 0.4 percent to $107.9 million in FY 2019-20. Relatively flat tax revenue can be attributed to competition with larger markets like Las Vegas when economic conditions are strong. Compared with FY 2019-20, gaming revenue is expected to grow at a faster rate, 2.0 percent, during FY 2020-21 and FY 2021-22. Casino expansions and gaming town infrastructure projects are expected to be completed in both 2019 and 2020, and the legalization of sports betting has spurred renewed interest in other states' casino industry.

Years when total gaming tax revenue grows by more than 2.8 percent therefore result in disproportionately higher distributions of Amendment 50 revenue. 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. This revenue primarily supports the state community college system.

Sports betting was legalized in the state after the passage of House Bill 19-1327 and voter approval of Proposition DD during the November 2019 election. The statutory deadline for implementation is May 2020, when sports betting will be legal both onsite at the casinos in Colorado's three gaming towns and online through casinos.

Revenue collected from sports betting activity will include both licensing fees, set at $125,000 per license biennially, 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 TABOR limits; however, the license fee revenue will be subject to TABOR. The fiscal note from House Bill 19-1327 estimated FY 2019-20 sports betting revenue collections to be between $6.3 million and $6.5 million, the majority of which will be derived from license fees, since sports betting tax revenue collections will only occur-during two months of the fiscal year under the May 2020 implementation date. In FY 2020-21, revenue collections are estimated at between $9.7 million and $11.2 million, the majority of which will come from tax collections. Updated tax and fee revenue estimates will be provided as new information becomes available.

Sports betting revenue will be distributed to pay for the following in the order listed below:

- all administrative costs incurred by the Department of Revenue's Division of Gaming first;
- 6 percent to a hold harmless fund to reimburse recipients of current casino gaming tax revenue for any potential loss in revenue due to the legalization of sports betting;
- $130,000 for counseling services and a gambling crisis hotline in the Office of Behavior Health in the Department of Human Services for gambling addiction problems; and
- the remaining amount to Water Plan Implementation Cash Fund to fund water projects under the state Water Plan.

Marijuana tax revenue totaled $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 revenue will continue to grow through the forecast period reaching $291.4 million in FY 2019-20 and $311.3 million in FY 2020-21. Slower growth in marijuana tax revenue is a sign of a maturing market five years post-legalization. The majority of the revenue from the marijuana industry is voter approved revenue

exempt from TABOR, however the 2.9 percent state sales tax is included in the state's revenue limit. Tax revenue from marijuana sales is shown in Table 13.

Table 13
Tax Revenue from the Marijuana Industry
Dollars in Millions

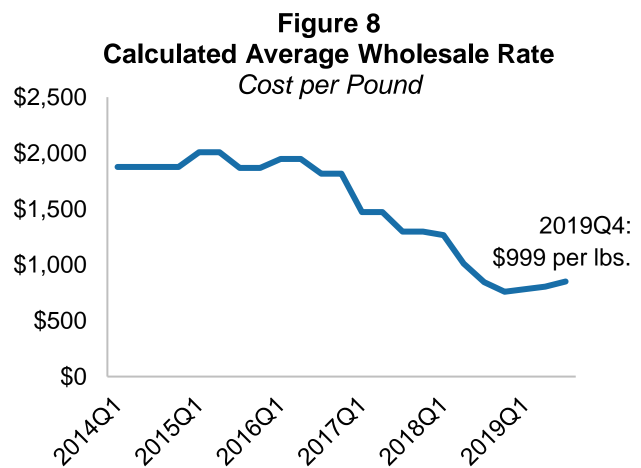
	Preliminary FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22	CAAGR*
Proposition AA Taxes					
Special Sales Tax	$193.2	$212.0	$228.9	$244.4	8.1%
State Share of Sales Tax	$173.9	$190.8	$206.0	$219.9	
Local Share of Sales Tax	$19.3	$21.2	$22.9	$24.4	
15% Excise Tax	$58.9	$68.4	$71.3	$71.6	6.7%
Total Proposition AA Taxes	**$252.2**	**$280.4**	**$300.2**	**$316.0**	**7.8%**
2.9 Sales Tax (Subject to TABOR)					
2.9% Sales Tax on Medical Marijuana	$9.4	$9.4	$9.5	$9.5	0.4%
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**	**$10.9**	**$11.1**	**$11.2**	**1.4%**
Total Taxes on Marijuana	**$262.9**	**$291.4**	**$311.3**	**$327.2**	**7.6%**

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

The special sales tax is the largest marijuana revenue source, equals 15 percent of the retail price of marijuana, and is expected to reach $212.0 million in FY 2019-20 and $228.9 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 $68.4 million in FY 2019-20 and $71.3 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. 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 8. Between the third and fourth quarters of 2019, the price increased from $850 per pound to $999 per pound. Reporting on the marijuana industry indicates that the price increase is due to recalls over mold and mildew issues cutting into the supply of marijuana. It is not clear as of the publication of this forecast if the issue has been resolved. The wholesale price is a significant determinant of marijuana excise tax revenue and poses both an upside and downside risk to the forecast.

Figure 8
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 to remain flat through the forecast period, generating $9.4 million in FY 2019-20 and $9.5 million in FY 2020-21. Retail marijuana dispensaries will remit the state sales tax on marijuana accessories totaling $1.2 million in FY 2019-20 and $1.3 million in FY 2020-21. Revenue from the 2.9 percent sales tax is deposited in the Marijuana Tax Cash Fund and is subject to TABOR.

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.

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 2.3 percent to $111.2 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 going back several years, causing the Department of Interior to refund revenue from prior years and reducing distributions to Colorado by $7.5 million in FY 2020-21. FML revenue will grow gradually in the last two years of the forecast to $115.9 million in FY 2020-21 and $120.5 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 . 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 8.

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

Table 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	$1,239.1	$1,303.1	
Plus Income Received					
UI Premium	$523.0	$495.5	$479.1	$467.8	-3.65%
Interest	$23.3	$29.1	$31.5	$34.1	
Total Revenues	**$546.3**	**$524.6**	**$510.6**	**$501.9**	-2.79%
Percent Change	-6.0%	-4.0%	-2.7%	-1.7%	
Less Benefits Paid	$365.5	$389.6	$446.6	$460.3	7.99%
Percent Change	-8.2%	6.6%	14.6%	3.1%	
Ending Balance	**$1,104.1**	**$1,239.1**	**$1,303.1**	**$1,344.7**	6.79%
Solvency Ratio					
Fund Balance as a Percent of Total Annual Private Wages	0.87%	0.91%	0.90%	0.88%	

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

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K-12 Enrollment Forecast

This section of the forecast presents projections for kindergarten through twelfth grade (K-12) enrollment in Colorado's public schools. Projections are presented in full-time equivalent (FTE) terms, and are an important factor in determining funding levels for Colorado's 178 school districts. Table 15 summarizes current and projected enrollment for the 2019-20 through 2021-22 school years by forecast region. Figures 12 and 13 on pages 47 and 48 show enrollment growth projections by forecast region and school district, respectively, for the 2020-21 school year.

- The enrollment count for the current (2019-20) school year totaled 868,597 student FTE across Colorado's public schools, up 30,518 student FTE, or 3.6 percent, from the previous school year. This growth is primarily due to the passage of House Bill 19-1262, which counts full-day kindergarten students as 1.0 FTE (instead of 0.5 FTE) and provides free full-day kindergarten to families. Colorado's public school enrollment has been steadily slowing since FY 2014-15, as smaller age cohorts have been entering the public school system. Had full-day kindergarten students been counted as 1.0 FTE in the 2018-19 school year, total enrollment would have been down 0.2 percent in the current year.

- Statewide K-12 enrollment is projected to be relatively flat in the 2020-21school year, increasing by about 310 student FTE. Enrollment in the 2021-22 school year is expected to increase by another 231 student FTE.

- Slower birth rates will continue to constrain growth throughout the forecast period. Growth will be strongest in the northern and Colorado Springs regions, where strong job growth, and new and relatively more affordable housing options will continue to attract young families. Enrollment in the metro Denver region is expected to decline, as smaller cohorts replace larger cohorts across grades and the lack of affordable housing slows the number of new families moving into the region.

Table 15
K-12 Public School Enrollment
Full-Time Equivalent (FTE) Students

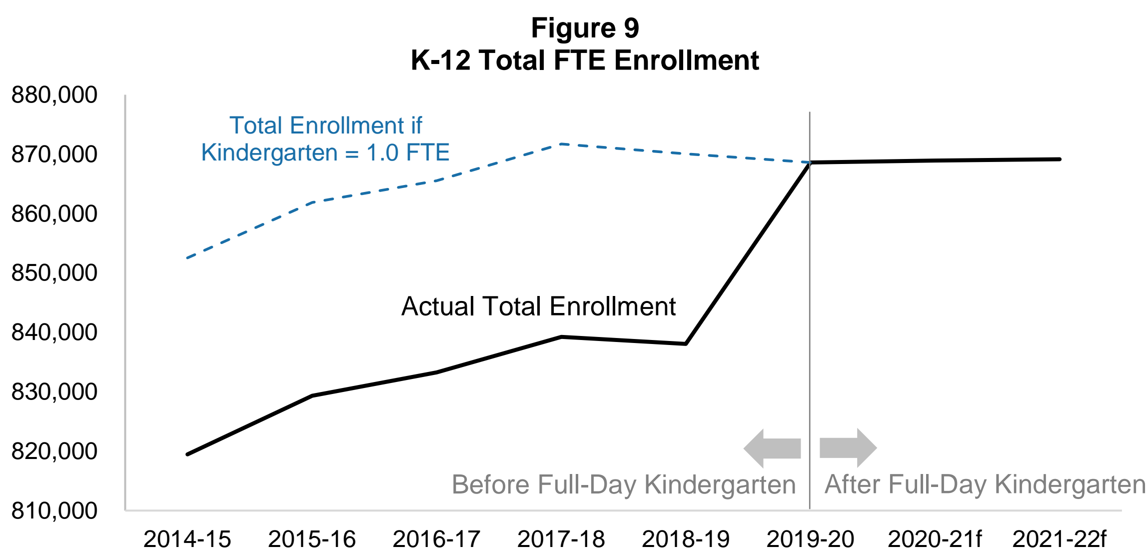
Region	Actual 2019-20	Percent Change*	Estimated 2020-21	Percent Change	Estimated 2021-22	Percent Change	Average Growth**
Metro Denver	494,190	3.2%	491,985	-0.4%	490,832	-0.2%	-0.3%
Northern	91,722	4.8%	93,069	1.5%	93,690	0.7%	1.1%
Colorado Springs	124,019	4.7%	125,051	0.8%	125,791	0.6%	0.7%
Pueblo	33,370	4.0%	33,139	-0.7%	32,809	-1.0%	-0.8%
Eastern Plains	26,898	4.4%	27,188	1.1%	27,456	1.0%	1.0%
San Luis Valley	7,414	2.8%	7,489	1.0%	7,545	0.7%	0.9%
Mountain	25,489	2.6%	25,368	-0.5%	25,272	-0.4%	-0.4%
Southwest Mountain	13,589	4.1%	13,615	0.2%	13,680	0.5%	0.3%
Western	51,909	3.3%	52,002	0.2%	52,064	0.1%	0.1%
Statewide Total	868,597	3.6%	868,907	0.0%	869,138	0.0%	0.0%

Source: Colorado Department of Education and Legislative Council Staff.
**Percent change from 2018-19, when kindergarten students were counted as 0.5 FTE.*
***Compound average annual growth rate between 2019-20 and 2021-22.*

Forecast Comparison

Relative to the Legislative Council Staff forecast published last December, actual enrollment in the 2019-20 school year was 29,614 FTE, or 3.5 percent, higher than expected. This difference primarily results from the passage of House Bill 19-1262, which funds and counts full-day kindergarten students as 1.0 FTE beginning in the 2019-20 school year. Until the 2018-19 school year, kindergarten students were counted as 0.5 FTE. Had full-day kindergarten students been counted as 1.0 FTE in the December 2018 forecast, actual FTE in the 2019-20 school year would be down 2,625 FTE, compared with the forecast last year. Figure 9 shows actual K-12 enrollment compared with K-12 enrollment if kindergarten students were funded as 1.0 FTE prior to the 2019- 20 school year.

Figure 9
K-12 Total FTE Enrollment



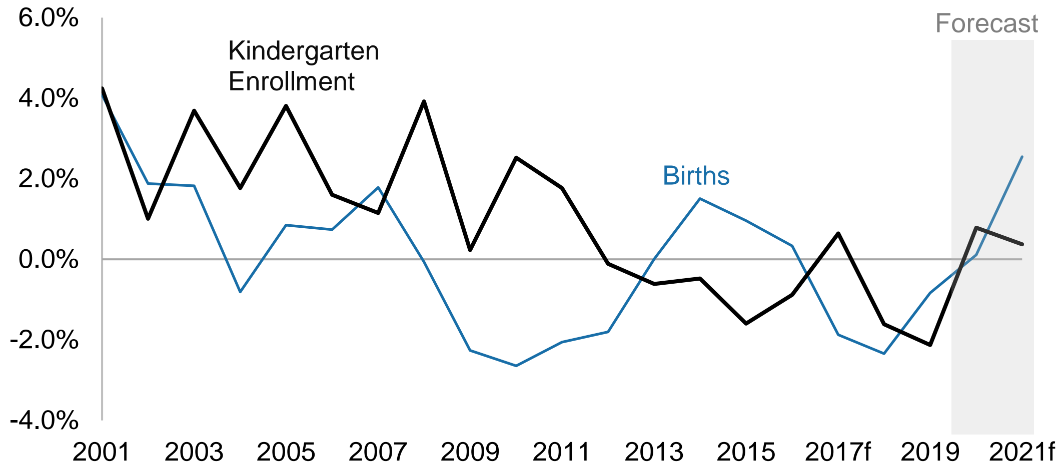
Source: Colorado Legislative Council Staff.

Statewide Enrollment Trends

Colorado's public school enrollment has been steadily slowing in recent years as smaller age cohorts enter the public school system. Enrollment in Colorado schools is expected to remain flat throughout the forecast period. In the 2020-21 school year, public schools are expected to add about 310 FTE students statewide relative to the prior year. Growth is expected in all regions of the state except for the metro Denver, Mountain, and Pueblo regions, which are expected to decline slightly. In the 2021-22 school year, K-12 public school enrollment is expected to remain relatively flat again compared with the previous year.

Lower birthrates are muting enrollment growth. A decline in the number of births during the Great Recession continues to constrain enrollment growth in Colorado. As shown in Figure 10, birth rates in Colorado fell each year between 2008 and 2012 following healthy gains over most of the ten prior years. As a result, smaller student cohorts began entering into the K-12 school system in the 2014-15 school year.

Figure 10
Colorado Kindergarten Enrollment and Resident Births
Percent Change, Year-over-Year



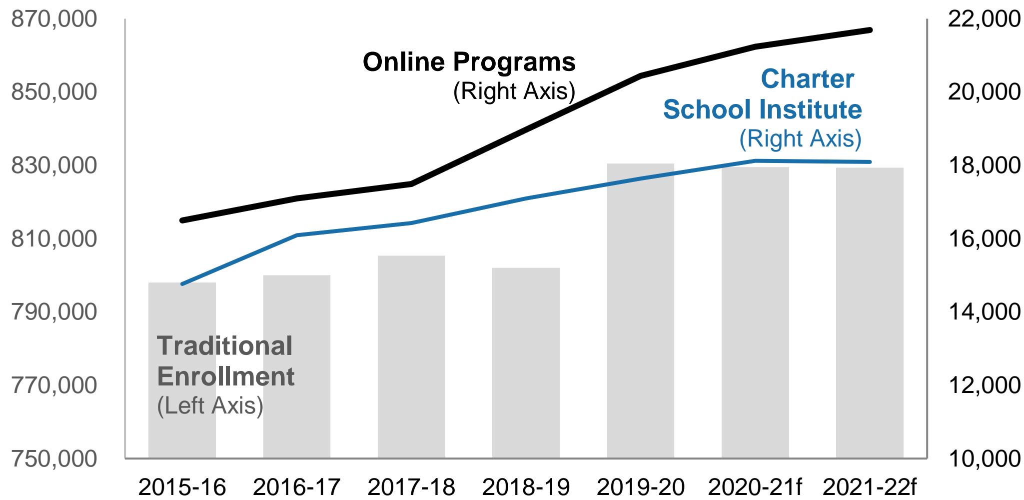
Source: Colorado Department of Local Affairs, State Demography Office, Colorado Department of Education and Legislative Council Staff.

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

Online and CSI enrollment. Enrollment in online programs and Charter School Institute (CSI) schools continued to grow in the 2019-20 school year. These options now represent 2.3 percent and 2.0 percent of total statewide enrollment, respectively (Figure 11). Online enrollment picked up in the 2019-20 school year, adding almost 1,500 student FTE. Much of the growth is attributable to the online programs based in the Falcon and Las Animas school districts. These programs have recently expanded their online portfolios, which has increased enrollment. Both online and CSI enrollment is expected to continue to grow through the forecast period, but at a slower pace from the current school year.

There is some upside risk to forecast for CSI enrollment for the 2020-21 school year. One charter school in Adams 14 and one in Roaring Fork RE-1 have applied to transfer back into their districts, which would decrease total CSI enrollment by about 1,115 FTE if approved and increase traditional district enrollment by an equal amount. Additionally, one Douglas County school may transfer into CSI with 562 students. If these transfers occur, CSI enrollment could increase by 553 FTE in the 2020-21 school year.

Figure 11
Online, CSI, and Traditional Enrollment
*Full-Time Equivalent (FTE) Students**



Source: Colorado Department of Education and Legislative Council Staff.
**FY 2015-16 through FY 2018-19 kindergarten students are counted as 0.5 FTE.*

Enrollment by Region

The following briefly summarizes enrollment trends for school districts in the nine forecast regions of the state.

The **metro Denver region**, which includes Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson counties, accounted for 57.1 percent of total Colorado enrollment in the 2019-20 school year. Before the passage of House Bill 19-1262, FTE growth in the region had been steadily slowing since FY 2013-14. FTE growth is expected to continue to slow and decline slightly by 0.4 percent, or 2,204 FTE, in 2020-21 school year. Smaller age cohorts are gradually replacing larger, older cohorts, while a lack of affordable housing has been slowing enrollment growth in many areas of the region.

The Denver Public School District remains the largest school district in the state, with just over 86,636 FTE. Enrollment in this district had been steadily falling since FY 2014-15 before the passage of HB 19-1262 and is expected to remain relatively flat through the forecast period. In-migration in the metro Denver area remains strong, but has been dominated by young professionals without children.

The Brighton School District continues to experience some of the fastest enrollment growth in the state. Robust growth in this school district is expected to continue, with strong growth in residential construction and more affordable housing options. In addition, the district is experiencing higher birth rates than the statewide average.

Enrollment growth in the northern region, including Larimer and Weld counties, remains among the strongest in the state. Enrollment in the region has outpaced statewide growth since the 2010-11 school year, reflecting stronger job growth and new residential developments. Regional enrollment is expected to grow 1.5 percent and 0.7 percent in the 2020-21 and 2021-22 school years, respectively.

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

The **Colorado Springs** regional economy, which is experiencing strong job growth and offers relatively affordable housing, is attracting families to the area. Total enrollment growth in the region is expected to increase by 0.8 percent in the 2020-21 and 0.6 percent in the 2021-22 school years.

Total enrollment in the **Pueblo region,** including Fremont, Custer, Huerfano, Las Animas, and Pueblo counties is expected to continue recent trends and fall through the forecast period. The regional economy has picked up momentum, but slow or declining population growth in the region continues to constrain enrollment. Enrollment in the region is expected to decline by about 230 FTE in 2020-21 and 331 FTE in 2021-22.

Enrollment in the **eastern plains region** continued to grow at a healthy rate in the 2019-20 school year. School districts closer to the metro Denver and northern regions, such Morgan and Elbert counties, are seeing the largest enrollment growth rates, buoyed by new residential construction. The region is expected to add about 290 FTE in the 2020-21 school year, an increase of 1.1 percent, before adding another 268 FTE in 2021-22, an increase of 1.0 percent.

The **San Luis Valley region**, consisting of Alamosa, Conejos, Costilla, Mineral, Rio Grande, and Saguache counties, is the smallest in terms of K-12 enrollment. Regional population growth has been relatively flat since 2010, and the regional economy is highly dependent on agriculture, an industry that has suffered from low commodity prices during recent several years. Enrollment is expected to increase modestly, with projected growth rates of 1.0 percent in the 2020-21 school year, and 0.7 percent in the 2021-22 school year.

Enrollment in the **mountain region**, consisting of Chaffee, Clear Creek, Eagle, Gilpin, Grand, Jackson, Lake, Park, Pitkin, Routt, Summit, and Teller counties, is expected to decline slightly, losing just over 200 student FTE over the forecast period. Despite relatively strong labor markets, overall enrollment growth is declining due to falling birth rates and a lack of affordable housing options. Residents in mountain resort communities are moving out of the region in search of cheaper housing options.

Enrollment in the **western region**, including Delta, Garfield, Gunnison, Hinsdale, Mesa, Moffat, Montrose, Ouray, Rio Blanco, and San Miguel counties, is expected to remain relatively flat in the 2020-21 and 2021-22 school years, growing by 0.2 percent and 0.1 percent, respectively. A comparatively lower cost of living and improving labor market are attracting in-migration to the region

Relatively affordable housing and growing industry opportunities have attracted families to the **southwest mountain region** in recent years. Enrollment growth rates of 0.2 percent and 0.5 percent are expected for the 2020-21 and 2021-22 school years, respectively.

Risks to the Forecast

As birth rates in the state steadily decline and net in-migration moderates, smaller school-aged cohorts will continue to put downward pressure on school enrollment. If economic activity in the state slows and the high cost of childcare is not moderated, birth rates and in-migration of school aged children

may fall further than expected. Enrollment growth varies regionally, with families moving in search of affordable housing. Rising housing costs may produce larger shifts in enrollment than expected, as the Front Range expands into the Eastern Plains and families move out of the costly mountain region. Additionally, energy industry volatility poses a risk to enrollment in many regions of the state. Rising (or falling) oil and gas natural prices could increase (or decrease) enrollment in districts in the western, southwest mountain, and northern regions of the state more than expected.

Figure 12
Forecast Percent Change in Enrollment by School District
2020-21 School Year

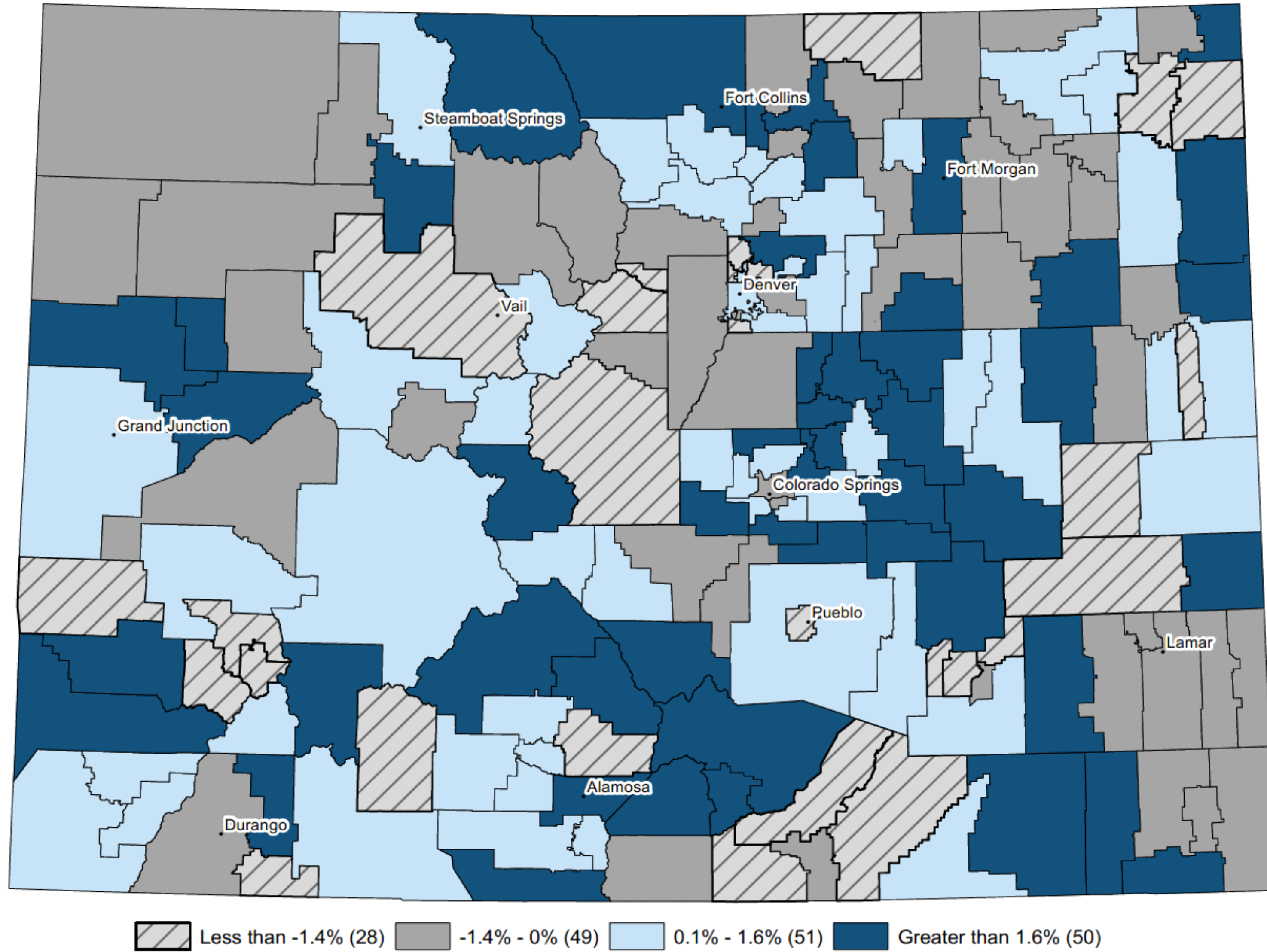
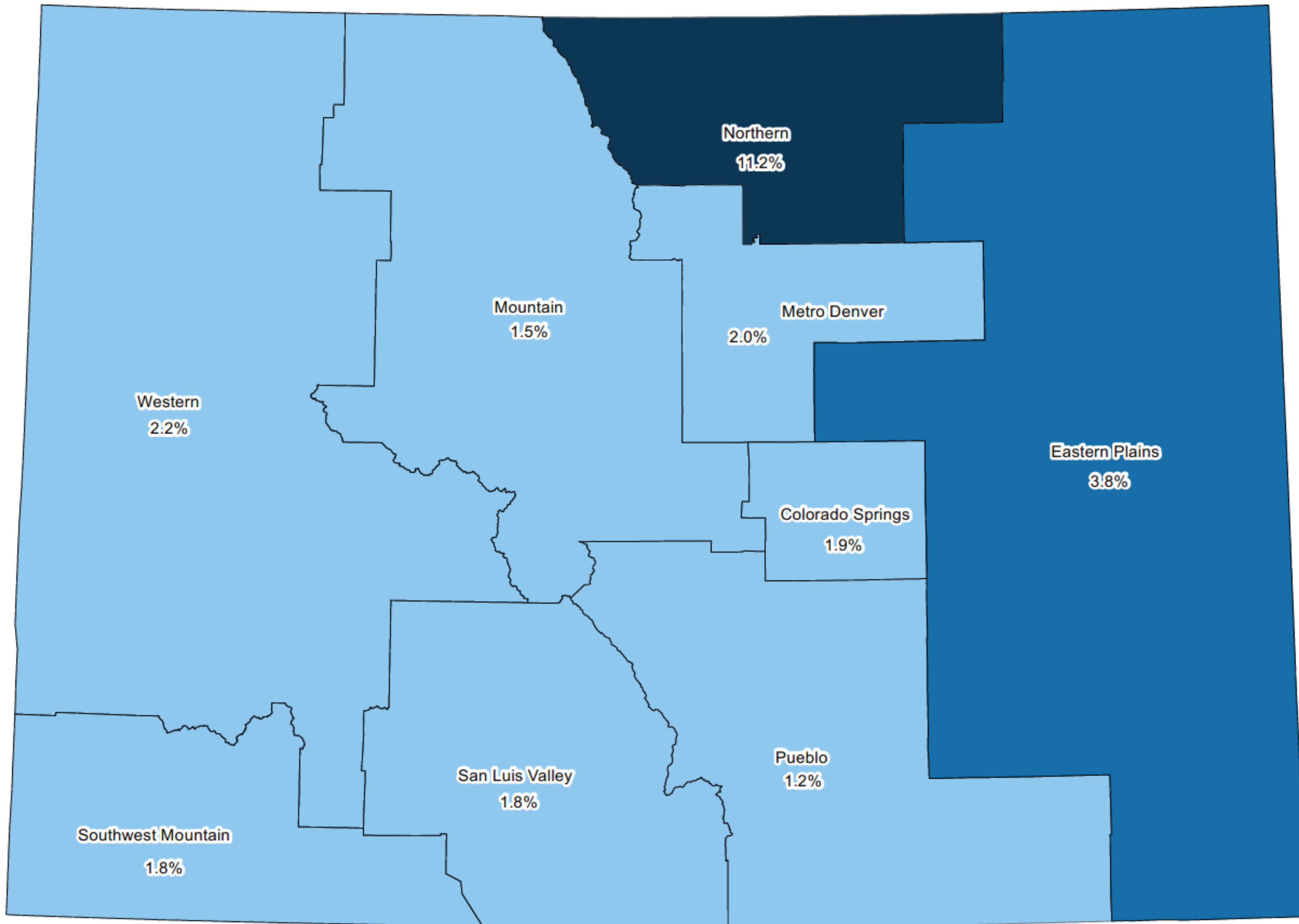


Figure 13
Forecast Percent Change in Enrollment by Economic Region
2020-21 School Year



Assessed Value Projections

This section provides projections of assessed values for residential and nonresidential property in Colorado and the residential assessment rate through 2022. Property values and the assessment rate determine assessed values, which are an important determinant of property taxes. Property taxes are the largest source of local government tax revenue in Colorado and are collected by counties, cities, and special districts.

Local property tax revenue is also the first source of funding for local public school districts. Assessed property values within a school district are thus an important determinant of the amount of state aid provided to each school district. Districts then receive state equalization payments in an amount equal to the difference between formula funding and their local share. More information on school finance can be found starting on page 15.

Summary

Assessed values increased 17.0 percent statewide between 2018 and 2019. This change reflects the 2019 reassessment of most properties in the state and captures the change in property values between 2016 and 2018 when home values and commercial properties were appreciating rapidly. Every two years, county assessors determine new values for residential, commercial, industrial, and vacant properties, based on the previous 18 months of sales as part of the reassessment process.

Statewide assessed values are expected to increase 3.4 percent in 2020, the intervening year between reassessments, mainly based on growth in oil and gas production in the state. In 2021, statewide assessed values are expected to increase 8.6 percent following the next reassessment of properties.

Residential Assessment Rate

After each reassessment cycle, the General Assembly sets the Residential Assessment Rate (RAR) to maintain the ratio between residential and nonresidential assessed values as required by the state constitution. In 2019, the RAR was changed from 7.20 percent to 7.15 to maintain the ratio of assessed values between residential and nonresidential property. In order to maintain the constitutionally required ratio following the 2019 reassessment, the RAR is expected to decrease from **7.15 percent to 7.13 percent** for 2021 and 2022.

Assessed Values

Total statewide assessed (taxable) values reached $135.6 billion in 2019, 17.0 percent higher than 2018. Robust growth between 2018 and 2019 was due to a strong economy across the state and the fact that 2019 was a reassessment year. Commercial and residential properties appreciated quickly prior to the reassessment, propelling growth in market values. In addition, growth from oil and gas property in certain regions of the state helped to grow the value of nonresidential property.

In 2020, which is not a reassessment year, total assessed values are expected to increase 3.4 percent due to new construction and increased oil and natural gas production. Residential and nonresidential assessed values are shown in Table 16 on page 50 and Figure 14 on page 50. Maps with assessed values by region and school districts are shown in Figures 16 and 17 on pages 54 and 55.

Table 16
Residential and Nonresidential Assessed Values
Millions of Dollars

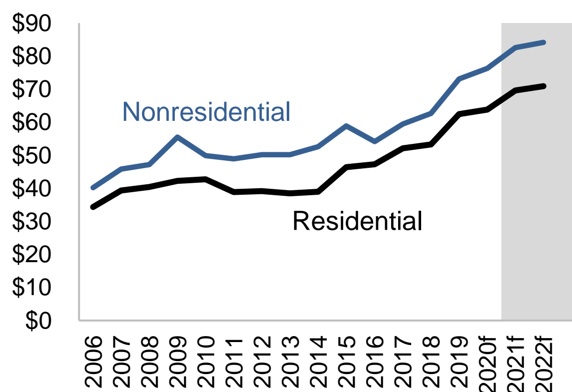
Year	Residential Assessed Value	Residential Percent Change	Nonresidential Assessed Value	Nonresidential Percent Change	Total Assessed Value	Total Percent Change
2007	$39,331	14.5%	$45,816	14.0%	$85,147	14.2%
2008	$40,410	2.7%	$47,140	2.9%	$87,550	2.8%
2009	$42,298	4.7%	$55,487	17.7%	$97,785	11.7%
2010	$42,727	1.0%	$49,917	-10.0%	$92,644	-5.3%
2011	$38,874	-9.0%	$48,962	-1.9%	$87,835	-5.2%
2012	$39,198	0.8%	$50,211	2.6%	$89,409	1.8%
2013	$38,456	-1.9%	$50,153	-0.1%	$88,609	-0.9%
2014	$38,997	1.4%	$52,578	4.8%	$91,575	3.3%
2015	$46,378	18.9%	$58,899	12.0%	$105,277	15.0%
2016	$47,261	1.9%	$54,157	-8.1%	$101,419	-3.7%
2017	$52,162	10.4%	$59,468	9.8%	$111,630	10.1%
2018	$53,279	2.1%	$62,636	5.3%	$115,915	3.8%
2019	$62,486	17.3%	$73,086	16.7%	$135,572	17.0%
2020f	$63,777	2.1%	$76,344	4.5%	$140,121	3.4%
2021f	$69,649	9.2%	$82,577	8.2%	$152,226	8.6%
2022f	$70,914	1.8%	$84,163	1.9%	$155,076	1.9%

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

Residential assessed values. In 2019, statewide residential *market* values increased 18.1 percent as county assessors revalued property to account for home sales that occurred in 2017 and the first half of 2018.

Home prices appreciated most quickly in the relatively lower cost metro areas of the state including Colorado Springs, Greeley, Pueblo, and Grand Junction and rural areas of the state just east of the large metro areas along the Front Range. Home price appreciation slowed in the Denver metro area, Fort Collins, and resort communities in the mountains during the 2019 reassessment from extremely robust growth that occurred during the 2017 reassessment cycle.

Figure 14
Statewide Assessed Values
Billions of Dollars



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

The growth in residential *market* values was somewhat offset by the reduction in the RAR from 7.20 percent in 2018 to 7.15 percent for 2019 and 2020. After applying the new RAR, *assessed* values for residential property increased 17.3 percent in 2019 compared with 2018 values.

In 2020, residential *assessed* values will increase 2.1 percent due to new construction across the state, as county assessors will place construction on the tax rolls.

In 2021, the next reassessment year, residential *assessed* values will increase 9.2 percent, reflecting home price appreciation closer to sustainable levels and an RAR of 7.13 percent. Colorado Springs is expected to experience the fastest home price appreciation, followed by Weld County in the northern region and Pueblo. There will also be strong growth in home prices in the counties surrounding expensive housing markets like Denver, Boulder, and resort communities.

Nonresidential assessed values. The assessment rate for nonresidential property is fixed in the constitution and in law, so changes in *actual* value are proportionally reflected in the *assessed* value. Statewide assessed nonresidential property values increased 16.7 percent in 2019. This increase is attributable to the reassessment of commercial, industrial, and vacant land, and booming production of oil and natural gas in 2018.

While commercial, industrial, and vacant land will not be reassessed in 2020, continued increases in oil and gas production and higher values for state assessed utilities will result in a 4.5 percent increase in nonresidential assessed values in 2020.

Continued growth in the economy will support higher rents and low vacancy rates through the forecast period. This will be reflected in new valuations for commercial, industrial, and vacant land in 2021 when these property classes are reassessed. Continued production increases in oil and gas during the reassessment year will help nonresidential assessed values increase 8.2 percent between 2020 and 2021.

Figure 14 on page 50 depicts residential and nonresidential assessed values from 2006 through the end of the forecast period ending in 2022.

Regional Impacts and Variations

Assessed values in each region of the state are determined by the unique mix of properties and economic forces specific to that region. Table 17 shows the 2019 assessed value by region and the expected change throughout the forecast period.

Table 17
2019 Assessed Value and Forecast Changes
Millions of Dollars

Region	Assessed Value 2019p	Forecast Changes *Year-Over-Year* 2020	2021	2022	3-Year Annual Average
Colorado Springs	$8,700	1.9%	12.2%	1.8%	5.1%
Eastern Plains	$3,165	3.8%	6.3%	2.2%	4.0%
Metro Denver	$73,817	2.0%	9.1%	1.5%	4.1%
Mountain	$13,620	1.5%	8.1%	1.5%	3.6%
Northern	$20,297	11.2%	8.9%	3.6%	7.6%
Pueblo	$2,976	1.2%	5.3%	0.8%	2.4%
San Luis Valley	$703	1.8%	2.6%	1.7%	2.0%
Southwest Mountain	$3,087	1.8%	3.7%	1.5%	2.3%
Western	$9,206	2.2%	6.0%	1.4%	3.1%
Statewide Total	$135,572	3.4%	8.6%	1.9%	4.5%

p = Preliminary data from the Colorado Department of Local Affairs, Division of Property Taxation.

All regions of the state are expected to increase in total assessed value between 2019 and 2020. The northern region and eastern plains will have the fastest growth based on increased production in oil and natural gas observed in 2019, which will be reported to county assessors for 2020 property taxes. The other seven regions of the state will grow based on new construction and increases in the value of state assessed properties.

2021 reassessment. The unique mix of properties in each region will determine the change in value between 2020 and 2021, after the 2021 reassessment. Statewide, home price appreciation has slowed, as affordability has become an issue in the Denver metro area and some of the resort communities. This will be reflected in the 2021 reassessment. Commercial properties are expected to appreciate as vacancy rates remain low and rents may increase modestly due to the continued growth in the economy. Vacant land will appreciate more quickly as it is purchased as either residential or commercial development. The value of oil and gas property will continue to grow, though at slower rates than in recent years, based on production increases and stable prices. State assessed utilities will grow slowly and agricultural land values are expected to be relatively stable. Trends for each region are summarized in Table 17 and shown in Figure 18. Figure 15 reports the growth in total *assessed* values and trends impacting residential and nonresidential property by region.

Figure 15
Summary of Projected Changes in Values by Region between 2020 and 2021

Region	Total Assessed Value Growth	Residential Trends	Nonresidential Trends
Metro Denver	9.1%	• Slower appreciation in Denver and Boulder. • More growth in lower cost suburbs.	• Reassessment of commercial, industrial, and retail buildings with higher rents and lower vacancy rates. • Additional flights into DIA will help boost state assessed value.
Colorado Springs	12.2%	• Fastest home price appreciation in the state as homebuyers seek more affordable areas.	• Reassessment of commercial, industrial, and retail buildings with higher rents and lower vacancy rates.
Northern	8.9%	• Slower appreciation in Larimer County. • Faster appreciation and new developments in Weld County.	• Reassessment of commercial, industrial, and retail buildings with higher rents and lower vacancy rates. • Increased oil and gas development.
Western	6.0%	• Rapid home price appreciation in Grand Junction as homebuyers seek more affordable areas. • Some counties have less growth as local economies shift away from natural resources.	• Reassessment of commercial, industrial, and retail buildings with higher rents and lower vacancy rates. • Less natural resource activity in some counties.
Pueblo	5.3%	• Home price appreciation in Pueblo as demand shifts south from Colorado Springs region.	• Reassessment of commercial, industrial, and retail buildings with higher rents and lower vacancy rates. • Lower state assessed values as the Comanche Power Plant winds down.
Eastern Plains	6.3%	• Rapid home price appreciation in counties on the eastern fringe of the metro area. • Slow growth in other parts of the region.	• Stable value for agricultural property.
Mountain	8.1%	• Slower growth in expensive resort areas. • Strong home price appreciation in counties surrounding expensive resort areas.	• Reassessment of commercial, industrial, and retail buildings with higher rents and lower vacancy rates. • Continuing declines in natural resource value in Clear Creek County.
Southwest Mountains	3.7%	• Pagosa Springs will outpace home price appreciation in Durango due to affordability concerns.	• Reassessment of commercial, industrial, and retail buildings with higher rents and lower vacancy rates.
San Luis Valley	2.6%	• Continued slow growth in home prices.	• Stable value for agricultural property.

Figure 16
Forecast Percent Change in Total Assessed Valuation by Economic Region
2020-21 Assessment Year

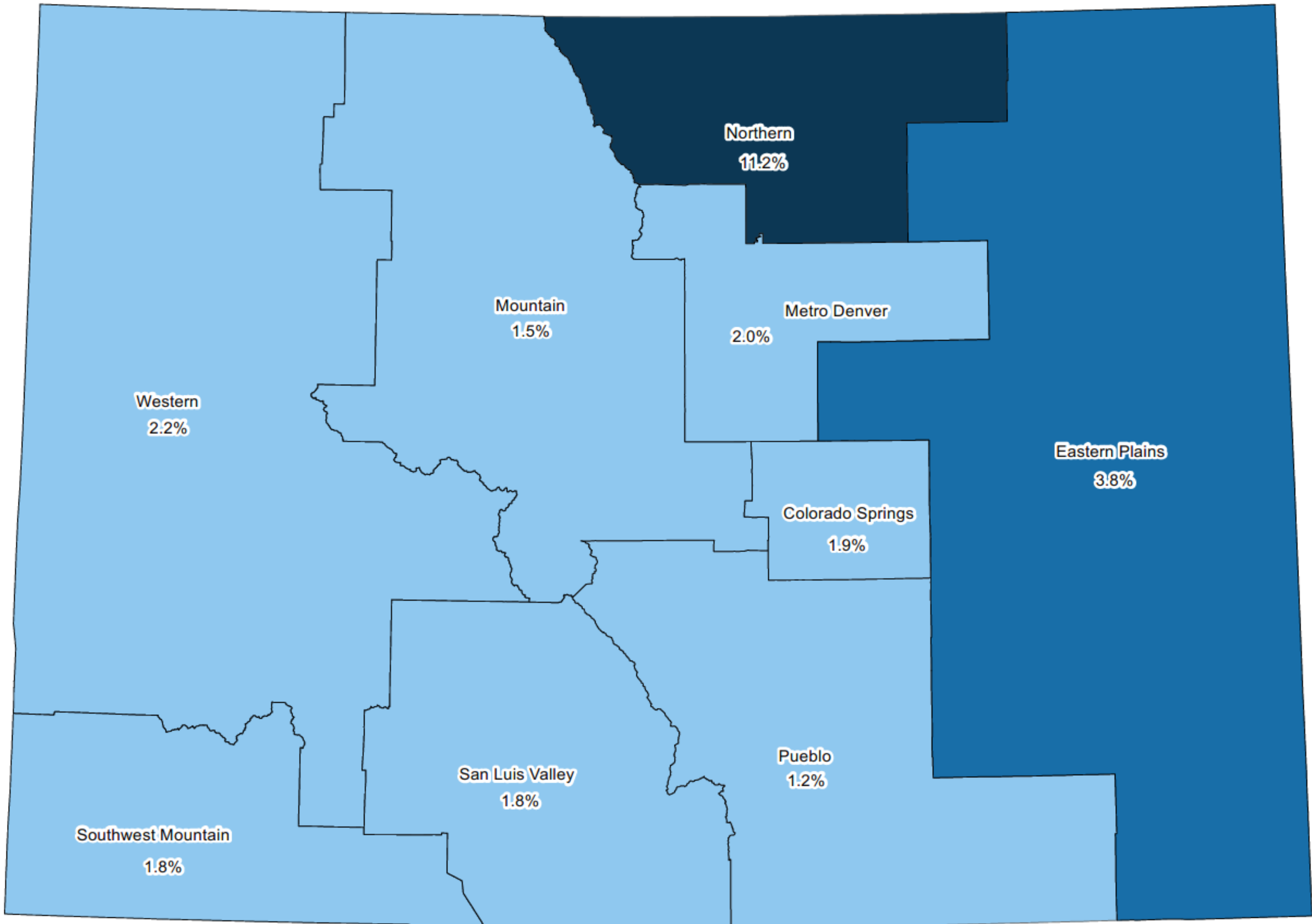


Figure 17
Forecast Percent Change in Total Assessed Valuation by School District
2020-21 Assessment Year

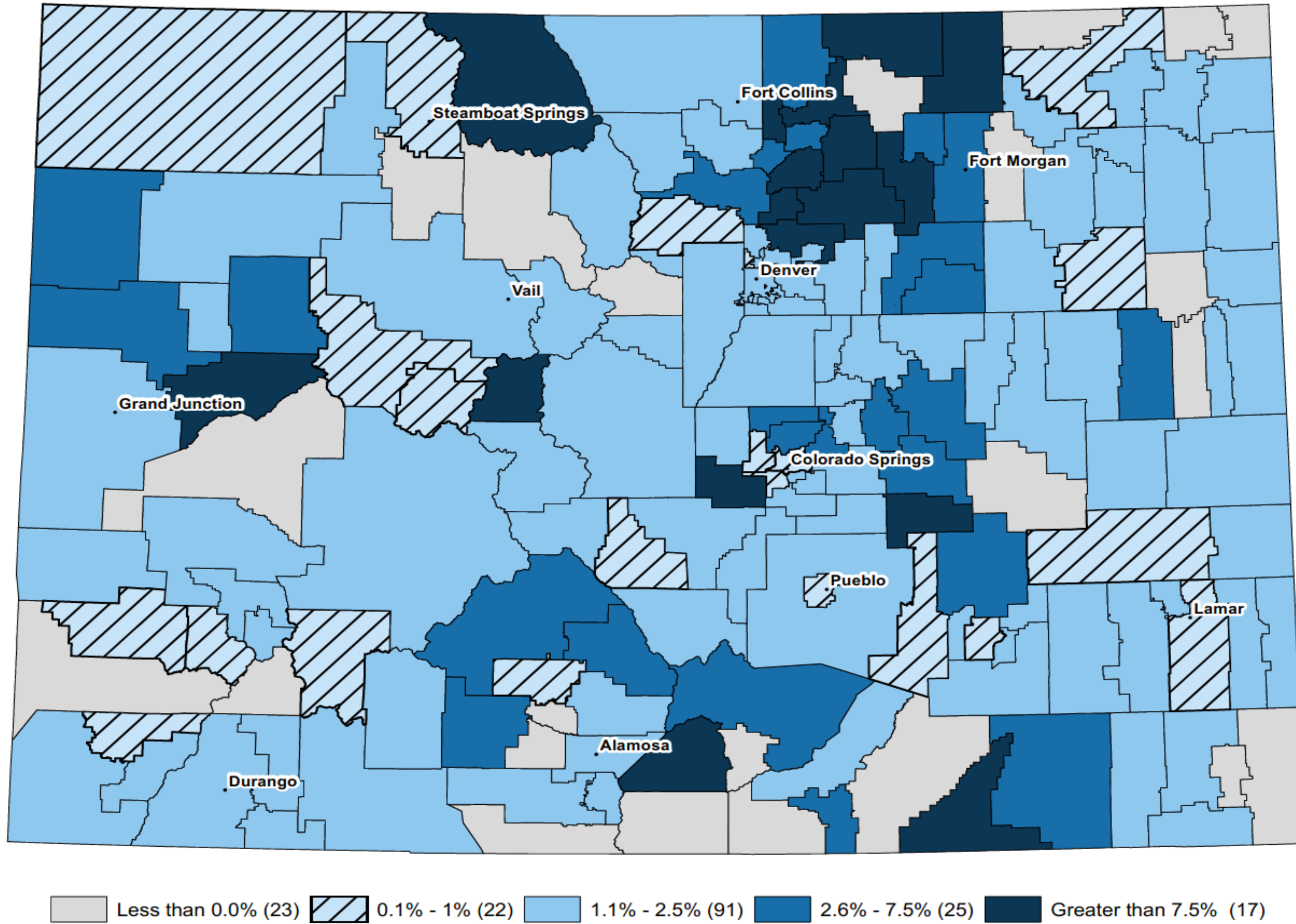
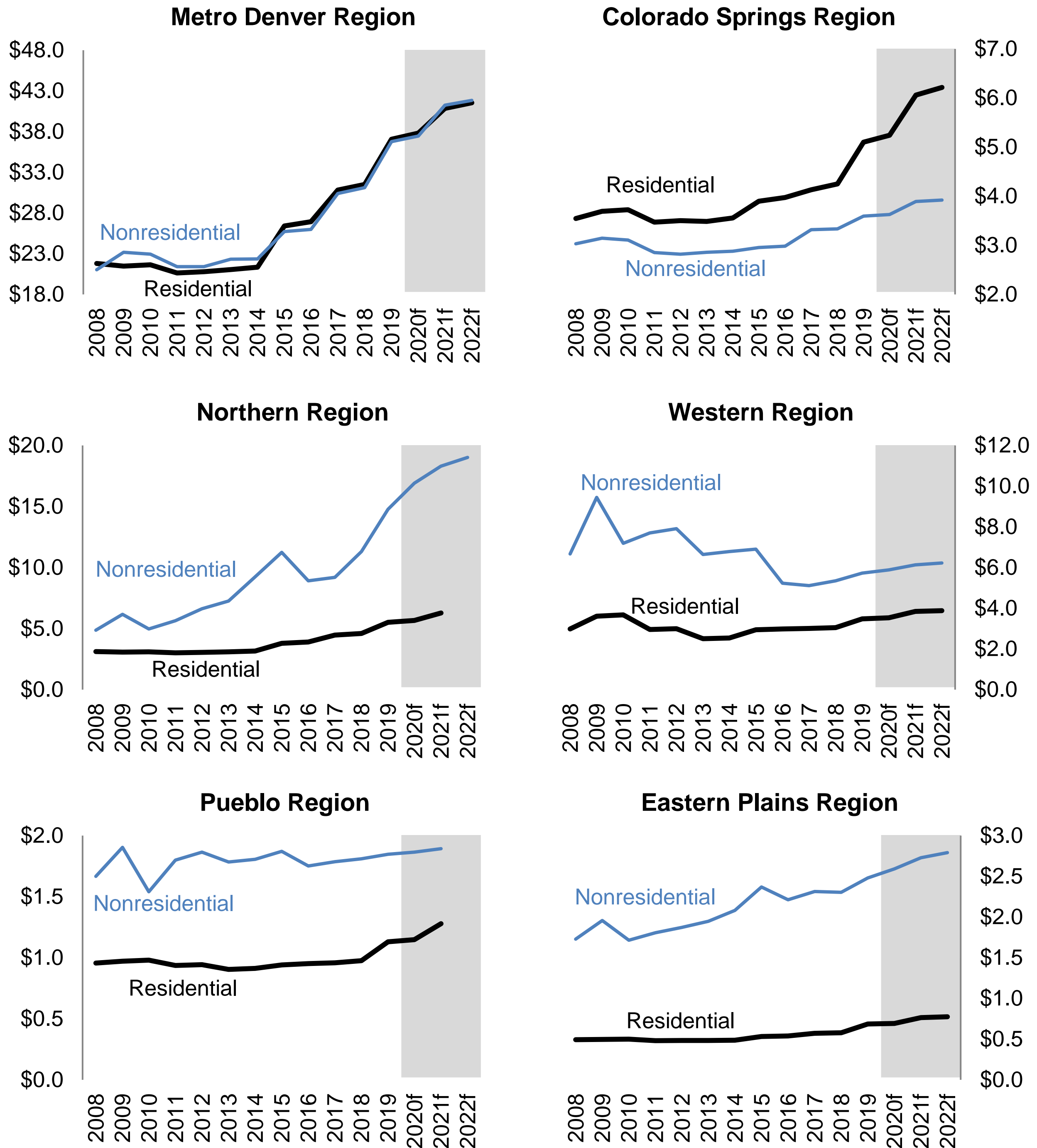
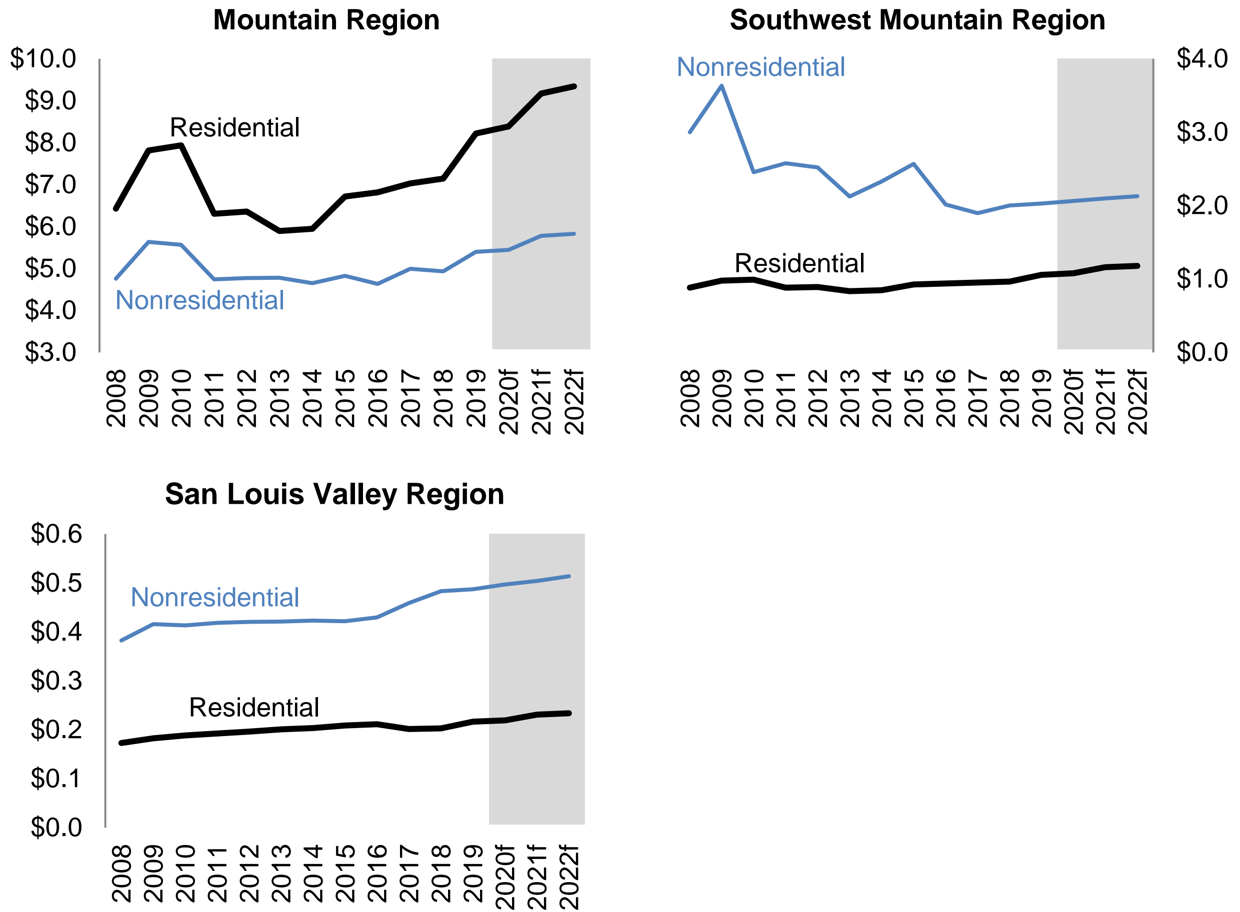


Figure 18
Assessed Values by Region
Billions of Dollars



Source: Department of Local Affairs, Division of Property Taxation and Legislative Council Staff forecast (f).

Figure 18 (Continued)
Assessed Values by Region
Billions of Dollars



Source: Department of Local Affairs, Division of Property Taxation and Legislative Council Staff forecast (f).

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Adult Prison Population and Parole Caseload Projections

This section presents forecasts of the state's adult prison population and parole caseload for FY 2019-20 through FY 2021-22. The section includes a discussion of the historical and current trends affecting these populations, the adjustments made since the December 2018 forecast, and relevant recent legislation. It concludes with an analysis of risks to the forecast.

Key Findings

Prison population:
The number of offenders committed to the custody of the Department of Corrections (DOC), including those in state prisons, private prisons, community corrections facilities, county jails, and other locations.

Parole caseload:
Offenders who have been released from prison but remain under DOC supervision. Depending on context, this term may refer only to parolees located in Colorado.

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

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

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

Population decrease. The Department of Corrections (DOC) jurisdictional population ("prison population") was 19,951 on June 30, 2019, and declined by 185 offenders, or 0.9 percent, from the same date a year prior. The trajectory of the prison population deviated from that anticipated in the December 2018 forecast, which expected monthly increases through the end of FY 2018-19 and a June 30 population of 20,432. The prison population increased through February, and the entire 0.9 percent fiscal year decrease occurred over a three month period between March 31 and June 30.

The most important driver of the prison population decrease was a change in the trajectory of new court commitments, which account for a majority of prison admissions. New court commitments had increased consistently and significantly between mid-2015 and early 2019. They have fallen since early 2019, a stark reversal of course that suppressed prison admissions. At the same time, administrative efforts to accelerate releases of parole-eligible inmates pulled forward some departures from DOC facilities, contributing to the population decline.

The prison population has continued its drop over the first half of FY 2019-20. Between June 30 and November 30, the prison population fell by an additional 213 offenders, or 1.1 percent. The contributors to the decrease have not changed: the falling population is attributable to declines in new court commitments and elevated discretionary releases to parole.

Parole increase. The June 30, 2019, in-state parole population was 9,352, an increase of 600 offenders, or 6.9 percent, over the year prior. The in-state parole population slightly exceeded the December 2018 forecast, which had anticipated an increase of 6.2 percent on the year. The parole population was buttressed by accelerated releases of parole-eligible inmates, which drove discretionary releases to parole to a ten-year high.

Forecast summary. As shown in Table 18 on page 64 (prison population) and Table 19 on page 68 (parole caseload), the following outcomes are anticipated over the forecast period:

- **Overall population.** The prison population is expected to fall to 19,614 inmates on June 30, 2020, a decrease of 1.7 percent over the whole of FY 2019-20 or a decrease of 0.6 percent relative to the

most recent population count on November 30. The forecast assumes that admissions will continue to fall but at a slower rate than observed over calendar year 2019, and that releases to parole will remain elevated but dip from their peak level. Extrapolating these trends further, the prison population is expected to fall by an additional 0.6 percent to reach 19,505 on June 30, 2021. The prison population forecast has been revised downward significantly relative to the December 2018 forecast, primarily as a result of emerging trends in felony case filings and new court commitments.

- **Male population.** The male population is expected to fall from 17,935 inmates in June 2019 to 17,676 inmates in June 2020, representing a decrease of 1.4 percent, before declining 0.6 percent to 17,577 inmates in June 2021. Trends driving changes in the male population are similar to those for the aggregate state inmate population. During calendar year 2020, decline in the male population is expected to be slower than in the female population due to the anticipated closing of five community corrections facilities in Denver that had previously been available for men serving diversionary sentences. Assumptions concerning the closure of these facilities are discussed in more detail below.

- **Female population.** Over the long run, the share of women in the state inmate population has increased; however, the women's share of the state's total prison population has stabilized at about 10 percent since early 2018. This population is expected to decrease 3.9 percent from 2,016 offenders in June 2019 to 1,938 offenders in June 2020, and to decrease 0.5 percent further to 1,928 offenders in June 2021.

- **Parole caseload.** In-state parole caseload is expected to increase from 9,352 offenders in June 2019 to 9,757 offenders in June 2020 and 9,959 offenders in June 2021. The parole population will rise as the number of releases remains elevated, and as the number of revoked offenders falls further as a result of Senate Bill 19-143.

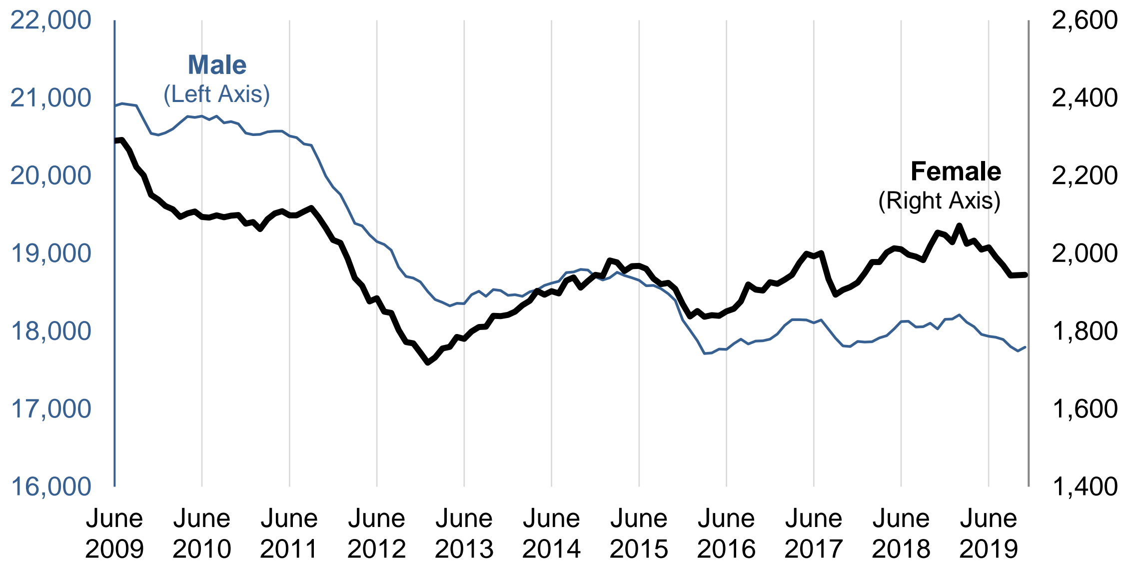
Prison Population Forecast

Historical and recent trends. The state's prison population rose through the 1990s and 2000s, reaching its peak at 23,220 inmates in July 2009. Since 2009, changes in the population have been less consistent. The inmate population fell significantly between August 2010 and April 2013, dropping 12.1 percent. Then, after roughly two years of growth, the population again began to decline quickly in July 2015 following the adoption of Senate Bill 15-124, which limited parole revocations for technical parole violations. The population increased for three years between March 2016 and February 2019, growing by 701 inmates, or 3.6 percent, during that span, before beginning its most recent decline.

Between February and November of 2019, the prison population declined by 513 inmates, or 2.5 percent. The decrease mostly reduced the facility population at state-operated prisons, which decreased by 410 inmates over the same period. The DOC has managed the decline by reducing the population at certain prisons that were operating very near capacity at the beginning of the year. For example, the population at Sterling Correctional Facility was reduced from 98.7 percent to 95.4 percent of capacity, and the population at the Arkansas Valley Correctional Facility was reduced from 99.9 percent to 97.6 percent of capacity. Across the DOC system of state-operated prisons, the population was reduced from 98.4 percent to 95.8 percent of capacity, though some facilities, like Fremont Correctional Facility, remain completely full. The inmate population at private prisons fell

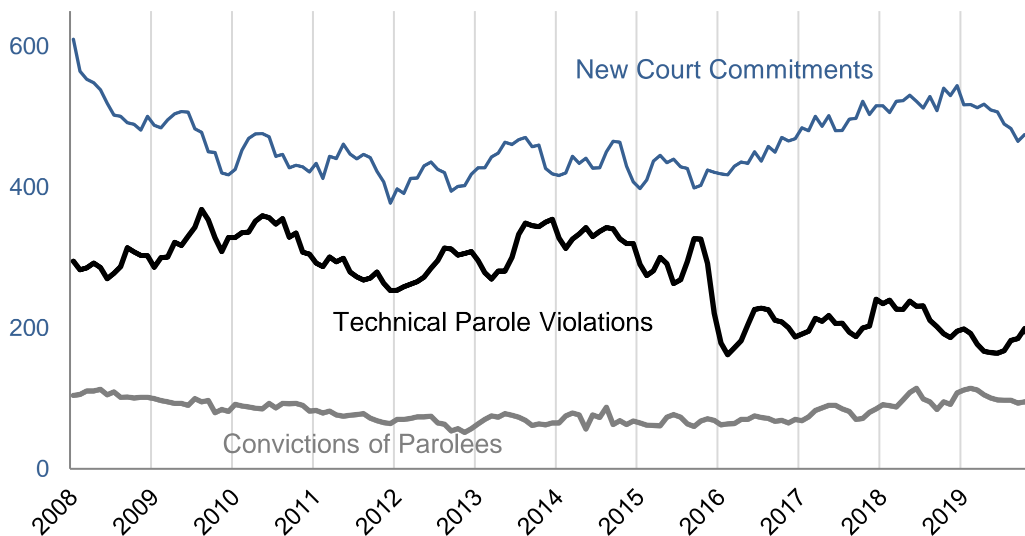
by 64 offenders between February and November, with the rest of the decrease occurring in the non-prison jurisdictional population, such as community corrections. Population trends are presented in Figure 19.

Figure 19
Prison Population by Sex
June 2009 to November 2019



Source: Colorado Department of Corrections.

Figure 20
State Prison Admissions by Source*
Three-Month Moving Average



Source: Colorado Department of Corrections.
**Omits admissions for returns from prior releases to probation, court order discharge or appeal bond, interstate compact, and youthful offender system terminations. The omitted categories produced a combined average of eight admissions per month over the sample period.*

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

Trends in prison admissions are presented in Figure 20. After increasing 10.5 percent in 2017 and 5.2 percent in 2018, prison admissions fell by 7.7 percent over the first 11 months in 2019 compared with the same period in 2018. About half of the decline was attributable to a decrease in readmissions for technical parole violations, which fell during the second half of 2018. The other half of the decrease is attributable to a decline in new court commitments that has occurred since the beginning of 2019. Of these two contributors, the decrease in new court commitments is a more notable trend. The recent decline in court commitments represents a stark reversal from a well-established three-year trajectory of increases. Further, new court commitments represent the majority of all prison admissions, and inmates admitted by new court commitments will remain in prison for a significantly longer duration than those revoked from parole.

Decreases in court commitments reflect a decrease in felony case filings and DOC sentences since the start of the year. The Judicial Branch reports that felony case filings in state district courts fell 3.5 percent year-over-year through October 2019, versus annual increases that averaged 9.4 percent between 2015 and 2018. Case filings decreased across all types of crime that drive DOC sentences, including:

- property crime filings,[1] which decreased 0.6 percent through October after increasing at an average annual rate of 5.5 percent over the previous five years;
- drug filings, which decreased 2.5 percent through October after increasing at an average annual rate of 15.6 percent over the previous five years; and
- violent crime filings,[2] which decreased 1.2 percent through October after increasing at an average annual rate of 12.2 percent over the previous five years.

Releases. Releases from prison are more volatile than admissions. Figure 21 presents state prison releases in each of the four most significant categories. The two largest categories, discretionary parole and mandatory parole, represent the conditions under which an inmate may first be released onto parole. *Discretionary* parole releases indicate that the State Board of Parole chose to release an offender early, on or after his or her parole eligibility date but before his or her mandatory release date, while *mandatory* parole releases indicate that the offender was not granted early parole and instead was allowed to leave a DOC facility only after having reached his or her mandatory release date. As shown in Figure 21, discretionary releases spiked during the spring of 2019 as the board accelerated releases of parole-eligible offenders in advance of those offenders' mandatory release dates. The surge in discretionary parole releases was reflected in an attendant dropoff in mandatory parole releases during the immediate succeeding months.

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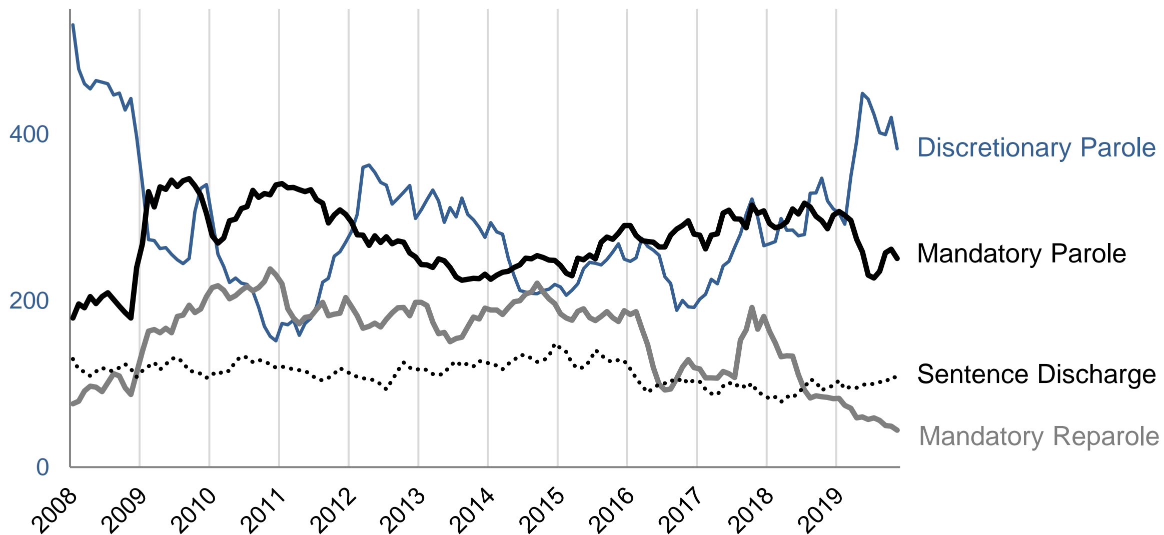
[1]For the purpose of this analysis, "property crime" includes felony district court filings categorized by the Judicial Branch as being for arson, burglary, criminal mischief, theft, and trespassing.
[2]For the purpose of this analysis, "violent crime" includes felony district court filings categorized by the Judicial Branch as being for assault, child abuse, homicide, kidnapping, robbery, vehicular assault, and vehicular homicide.

The two other major release categories pertain to offenders who previously have been released on parole and who were subsequently revoked to a DOC facility. One of these categories, *mandatory reparole*, is expected to fall to zero over the current forecast period. Previously, the Parole Board was able to revoke an offender's parole and return the offender to a DOC facility for a determinate period of time, after which period the offender was required to be rereleased to parole. Senate Bill 19-143 limits the circumstances under which the board may revoke an offender to instances in which a parolee possesses a deadly weapon, refuses to comply with sex offender treatment, has unlawful contact with a victim, or tampers with or removes an electronic monitoring device. Under the bill, all offenders who are revoked must be returned to a DOC facility for the duration of their sentence, after which point the offender is *discharged* from DOC custody and not subjected to additional parole supervision. Neither the board nor the DOC has the authority to extend an offender's period of supervision beyond that to which he or she was initially sentenced by a judge.

Figure 21
State Prison Releases by Source*
Three-Month Moving Average



Source: Colorado Department of Corrections.
**Omits releases to probation, court-ordered discharges, releases on appeal bonds and inmate deaths. The omitted categories produced a combined average of 19 releases per month over the sample period.*

In addition to eliminating revocations to DOC custody for a determinate period, Senate Bill 19-143 makes other changes that are expected to accelerate releases to parole. Previously, House Bill 17-1326 had created a file review system, whereby inmates who had reached their parole eligibility date and satisfied certain risk and crime criteria could be released to parole following a Parole Board member's review of their file, as opposed to following a parole application hearing. When the prison vacancy rate falls below 3 percent for 30 consecutive days, Senate Bill 19-143 further attempts to accelerate releases of low and medium risk parole-eligible inmates by allowing the DOC to submit to the board a list of low and medium risk parole-eligible inmates with an approved parole plan for board review within 30 days. Further, the bill requires a majority vote by the full board to deny parole for an inmate assessed as low or very low risk with an approved parole plan and a recommended release. In response to concerns regarding Parole Board backlog, Senate Bill 19-165 increases the number of board members from seven to nine to further accelerate releases.

Forecast assumptions. New court commitments are expected to continue their decrease through the forecast period, though at a decelerating rate. This assumption is consistent with the most recent data from the Office of the State Court Administrator, which suggest that the level of case filings shows signs of stabilizing after its recent decrease. Discretionary releases to parole are expected to remain above their historical average following the enactment of legislation to encourage faster releases; however, these releases are expected to decrease from present levels as the number of low-risk, parole-eligible inmates has fallen. Revocations of parolees for technical parole violations are expected to continue to fall in accordance with the imposition of additional constraints on revocations in Senate Bill 19-143. However, lengths of prison stays for revoked offenders are expected to increase as the number of mandatory reparole releases falls to zero. Table 18 shows historical and projected prison populations by sex from FY 2009-10 through FY 2021-22.

Table 18
Adult Prison Population by Sex
As of June 30 each Fiscal Year

Fiscal Year	Males	Percent Change	Females	Percent Change	Total	Percent Change
FY 2009-10	20,766	-0.6%	2,094	-8.6%	22,860	-1.4%
FY 2010-11	20,512	-1.2%	2,098	0.2%	22,610	-1.1%
FY 2011-12	19,152	-6.6%	1,885	-10.2%	21,037	-7.0%
FY 2012-13	18,355	-4.2%	1,780	-5.6%	20,135	-4.3%
FY 2013-14	18,619	1.4%	1,903	6.9%	20,522	1.9%
FY 2014-15	18,655	0.2%	1,968	3.4%	20,623	0.5%
FY 2015-16	17,768	-4.8%	1,851	-5.9%	19,619	-4.9%
FY 2016-17	18,108	1.9%	1,993	7.7%	20,101	2.5%
FY 2017-18	18,125	0.1%	2,011	0.9%	20,136	0.2%
FY 2018-19	17,935	-1.0%	2,016	0.2%	19,951	-0.9%
FY 2019-20*	17,676	-1.4%	1,938	-3.9%	19,614	-1.7%
FY 2020-21*	17,577	-0.6%	1,928	-0.5%	19,505	-0.6%
FY 2021-22*	17,605	0.2%	1,959	1.6%	19,564	0.3%

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

Impacts of closures of Denver community corrections facilities. In August 2019, the Denver City Council voted not to renew contracts with two of its community corrections facility operators, The GEO Group and CoreCivic. Two facilities operated by The GEO Group are scheduled to close on December 31, 2019, and four facilities operated by CoreCivic are scheduled to close on June 30, 2020. As of the date of this forecast, Denver is conducting policy deliberations regarding a partial, short-term extension of its contract with CoreCivic. Because the city council has voted not to renew the contracts and no potential extension has been approved, this forecast assumes that the six facilities will close as scheduled.

Community corrections facilities house DOC jurisdictional inmates referred to residential transitions programs ("transition placements"), DOC parolees occupying condition of parole beds ("parole placements"), and offenders with direct, diversion sentences to community corrections who are not DOC inmates ("diversion placements").

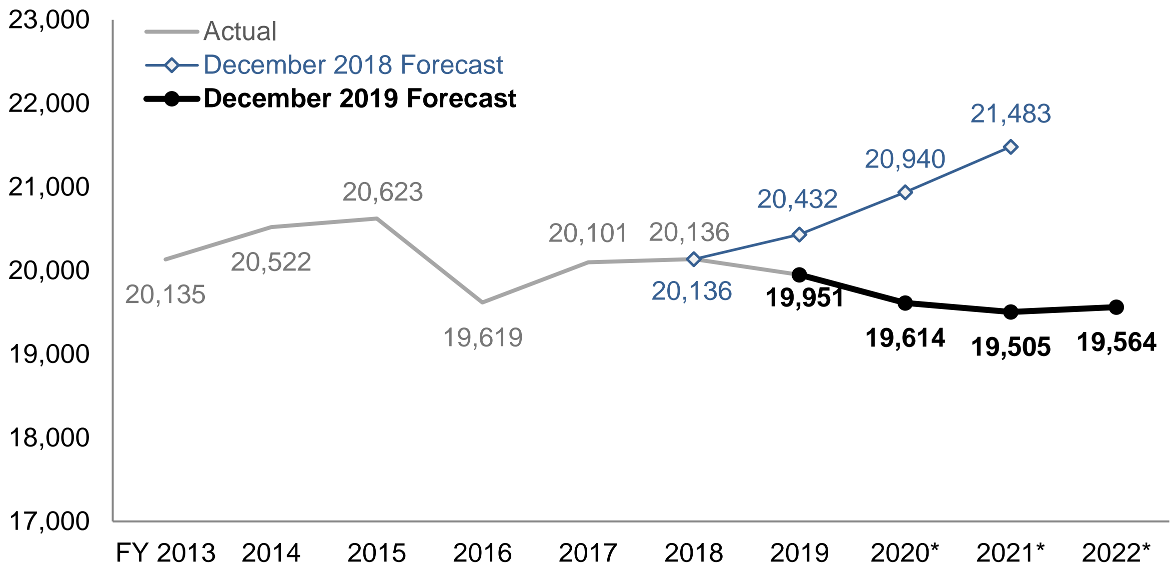
The forecast assumes that a subset of lost diversion placements will result in new court commitment admissions to the DOC prison population. While offenders occupying diversion beds at GEO- and CoreCivic-operated community corrections facilities in Denver on the date of their closure are assumed to be accommodated elsewhere in the community corrections system, the lost diversion placements are expected to constrain the number of Denver defendants who can be sentenced to community corrections in lieu of DOC. It is assumed that 59 percent of men and 72 percent of women who would otherwise be sentenced to diversion placements at GEO and CoreCivic in Denver will instead be sentenced to DOC. This is the share of diversion placements at community corrections facilities statewide where the offender was assessed as high or very high risk, based on the assumption that a judge is unlikely to resentence high or very high risk offenders to probation if community corrections placements are unavailable. Based on these assumptions, closure of the GEO and CoreCivic facilities is expected to increase new court commitments to DOC by 11.2 males and 1.5 females per month beginning in early 2020.

This forecast does not make any adjustments for the potential loss of transition placements and parole placements at Denver community corrections. It is assumed that offenders who lose transition placements will remain DOC jurisdictional inmates and will be transferred to another Denver community corrections facility, a community corrections facility in another county, intensive supervision parole-inmate (ISP-I) status, a state or private prison, or the DOC jail backlog. It is assumed that parolees who lose parole placements will remain in the parole population and be transferred to another community corrections facility, intensive supervision parole (ISP) status, or regular parole status.

If there is no upside impact on admissions from community corrections facility closures, either because placements remain available or because the diversion population is accommodated through other means, this forecast would anticipate a lower prison population through the forecast period. The estimated population would be 19,552 in June 2020, 19,285 in June 2021, and 19,223 in June 2022.

Adjustments to the forecast for total population. Figure 22 illustrates the inmate population forecasts published in December 2018 and December 2019. This forecast makes significant downward revisions to population expectations for both June 2020 and June 2021. Revisions are primarily attributable to the assumed continuation of the downward trend in new court commitments, and also reflect higher expectations for discretionary releases than in last year's forecast.

Figure 22
Adult Inmate Population, Forecast-to-Forecast Comparison



*Source: Colorado Department of Corrections and Legislative Council Staff. Actual values shown for FY 2012-13 through FY 2018-19. *Current forecast period.*

Parole Forecast

Colorado's parole population encompasses offenders who have been released from prison but have not yet been discharged from DOC supervision. These offenders may live with family or friends in the community, they may be housed in community corrections facilities, or they may be detained in county jails for violating parole terms. Offenders who reside in Colorado are generally supervised by DOC's Division of Adult Parole. With authorization, offenders may be supervised by parole officers in another U.S. state, and some offenders from other states are paroled to Colorado. Offenders who stop reporting to their parole officers, or who illegally leave the state without authorization, are counted as absconders.

Offenders may be released to parole on or after their parole eligibility date at the discretion of the Parole Board (discretionary parole). Offenders who are not granted discretionary parole are released at their mandatory release date (mandatory parole). An offender's parole period is dictated by statute according to his or her initial sentence. Offenders who violate parole terms may be revoked to DOC following a Parole Board revocation hearing, though the circumstances under which revocations are allowed have been narrowed following the enactment of Senate Bill 19-143. Under the bill, offenders who are revoked remain incarcerated until their statutory discharge date, after which they are discharged from DOC supervision entirely. Parolees who are convicted for new crimes may again be sentenced to DOC custody and returned to prison to begin a new sentence.

For these reasons, the prison and parole populations are intertwined. This forecast uses the assumptions already identified for the prison population as determinants in the parole caseload projections. For example, an inmate for whom the Parole Board grants discretionary or mandatory parole is assumed to add to the parole population, and an offender revoked to DOC is assumed to subtract from the parole population.

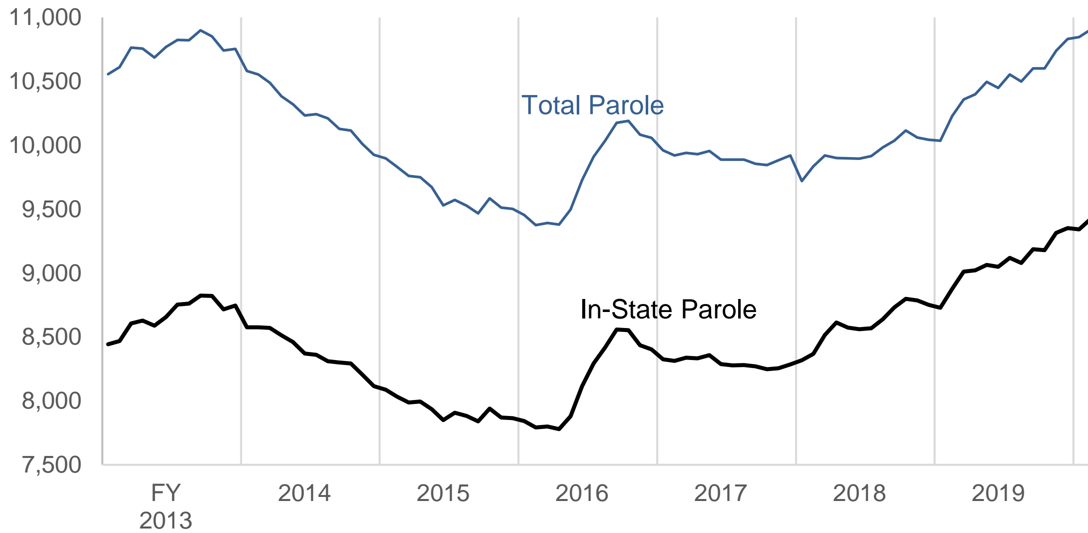
Historical and recent trends. The parole population declined significantly between early 2013 and the fall of 2015, dropping by 11.8 percent over a 31-month period. That decline was attributable to reduced parole durations, particularly as offenders were sentenced under then-new drug felony crime classifications carrying shorter parole periods than other felonies. Beginning in late 2015, the parole population climbed at an unprecedented speed following the implementation of Senate Bill 15-124 as the number of parolees readmitted to prison for technical parole violations plummeted. Between November 2015 and March 2016, the number of parolees located in the state increased by 10.0 percent.

The parole population fell during the summer of 2016, then stabilized over the next year. Since early 2018, the parole population has reliably increased following policy changes that have accelerated releases to parole and limited the circumstances under which a parolee can be returned to prison. These include:

- House Bill 17-1326, which created a file review system to replace parole application hearings for certain inmates;
- House Bill 18-1251, which required that parole application hearings be conducted immediately following a jurisdictional inmate's completion of a residential transitions placement;
- House Bill 18-1410, which allowed the DOC to request that the Parole Board conduct certain application hearings if the prison vacancy rate fell below 2 percent for a sustained period; and
- Senate Bill 19-143, which constrained revocations and broadened the circumstances in which DOC could request that certain application hearings be conducted.

Excluding absconders, the total parole population between July 2019 and November 2019 averaged 10,840 parolees, an increase of 5.2 percent over the average across the same months in 2018. However, most of the increase occurred during the last fiscal year, and the parole population has increased by only 0.3 percent since the start of the current fiscal year. A history of in-state and total parole caseload is presented in Figure 23.

Figure 23
Colorado Parole Caseload



Source: Colorado Department of Corrections. Omits absconders.

Forecast assumptions. Consistent with expectations for elevated releases relative to the historical average, this forecast projects increasing parole caseload through the forecast period. Because parole durations are short relative to prison sentences for more serious felonies, parole caseload is more volatile than the prison population. Table 19 shows historical and projected adult parole projections, by location, from FY 2009-10 through FY 2021-22.

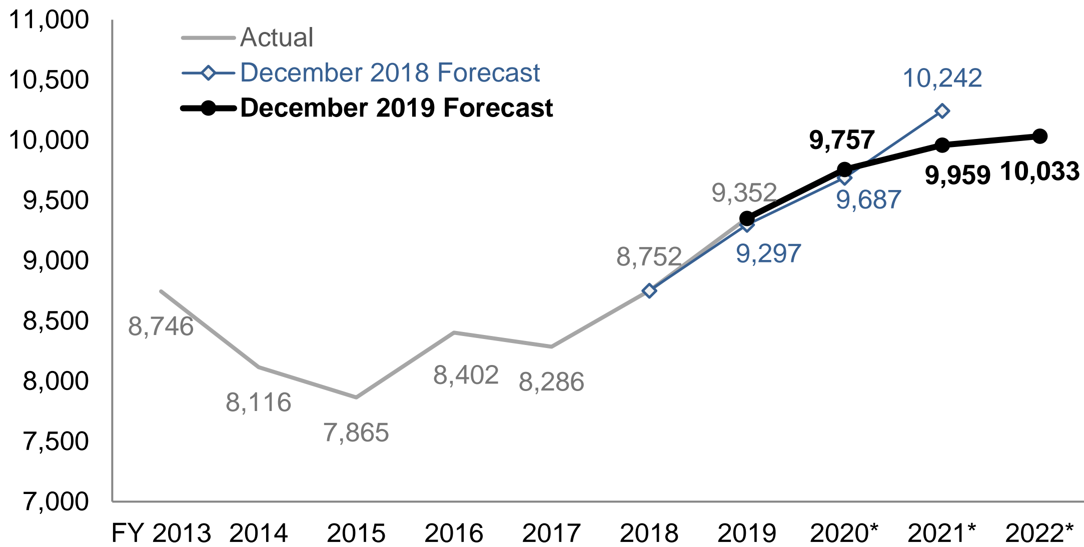
Table 19
Parole Population
As of June 30 each Fiscal Year

Fiscal Year	In-State Parole	Percent Change	Out-of-State Parole	Percent Change	Total	Percent Change
FY 2009-10	8,535	-5.3%	2,100	3.5%	10,635	-3.7%
FY 2010-11	8,181	-4.1%	1,922	-8.5%	10,103	-5.0%
FY 2011-12	8,445	3.2%	2,066	7.5%	10,511	4.0%
FY 2012-13	8,746	3.6%	2,008	-2.8%	10,754	2.3%
FY 2013-14	8,116	-7.2%	1,808	-10.0%	9,924	-7.7%
FY 2014-15	7,865	-3.1%	1,636	-9.5%	9,501	-4.3%
FY 2015-16	8,402	6.8%	1,656	1.2%	10,058	5.9%
FY 2016-17	8,286	-1.4%	1,633	-1.4%	9,919	-1.4%
FY 2017-18	8,752	5.6%	1,290	-21.0%	10,042	1.2%
FY 2018-19	9,352	6.9%	1,480	14.7%	10,832	7.9%
FY 2019-20*	9,757	4.3%	1,431	-3.3%	11,188	3.3%
FY 2020-21*	9,959	2.1%	1,468	2.6%	11,427	2.1%
FY 2021-22*	10,033	0.7%	1,485	1.2%	11,518	0.8%

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

Adjustments to the forecast for parole. Figure 24 illustrates the in-state parole caseload forecasts published in December 2018 and December 2019. The 2018 forecast anticipated that June 2019 in-state caseload would be 9,297 parolees. Actual caseload was 9,352, a difference of 55 parolees or 0.6 percent. Expectations for the June 2020 population have been correspondingly revised slightly upward. Expectations for the June 2021 population have been revised downward as the population of inmates eligible for parole release decreases.

Figure 24
Adult In-State Parole Population, Forecast-to-Forecast Comparison



Source: Colorado Department of Corrections and Legislative Council Staff.
*Actual values shown for FY 2012-13 through FY 2018-19. *Current forecast period.*

Factors Affecting the Adult Prison Population and Parole Caseload

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

Population. All other things being equal, a larger population may result in a greater number of criminal offenses, arrests, criminal felony filings, and prison commitments. Colorado's population is projected to grow about 3.2 percent through the forecast period, which may put mild upward pressure on the inmate population.

Economic factors. Prison admissions exhibited essentially no correlation with economic conditions during the Great Recession and the subsequent recovery. Accordingly, this forecast assumes no correlation between economic conditions and the prison population.

Criminal justice system. The actions of the state courts affect inmate population growth. In particular, commitment of offenders to prison is the most significant determinant of the inmate

population. The mix of crimes sentenced also affects the prison population because more serious crimes entail longer durations of stay in correctional facilities.

Parole policy and Parole Board administration. Statute defers the authority to grant discretionary inmate releases to the appointed members of the State Board of Parole. Subject to statutory requirements, the Board is autonomous, and any change in its pattern of releases would have a significant effect on the state prison population and parole caseload.

An October 2019 report by the Department of Public Safety's Division of Criminal Justice investigated Parole Board decisions to release or defer parole applicants according to the applicants' risk and readiness levels. It found that the Parole Board was significantly more responsive to an applicant's readiness level than his or her risk level, which suggests that the ability of an inmate to complete certain treatment and reentry programs while in prison has a significant effect on his or her probability of being granted discretionary parole.

Departmental administration. The DOC's Division of Prisons oversees the state's prisons and, within constraints imposed by an offender's sex and custody level, has discretion to place inmates in appropriate facilities. As referenced above, because the Parole Board appears more willing to grant parole to inmates who have completed certain treatment and reentry programs, navigation of inmates to the facilities in which those programs are offered may have an effect on the rate at which inmates are granted parole.

The DOC's Division of Adult Parole oversees the state's parole officers. Division leaders must decide in which cases to pursue revocation when an offender violates the conditions of his or her parole. Under Senate Bill 19-143, the division is able to pursue revocation only in specifically identified circumstances.

Community Corrections. In addition to housing convicted offenders who are serving diversionary sentences in lieu of being sentenced to DOC, community corrections facilities are used to house DOC jurisdictional inmates in residential transitions programs. Admission of an offender to a community corrections facility occurs at the discretion of the local board that oversees that facility. These boards' willingness or unwillingness to accept offenders from DOC may be a determinant of an offender's possibility of release to parole, particularly in light of House Bill 18-1251.

The assumed impact of Denver's nonrenewal of contracts with two of its community corrections providers is discussed in detail above.

Colorado Supreme Court Ruling in *Allman v. People*. In September 2019, the Colorado Supreme Court ruled in *Allman v. People* that judges are not statutorily empowered to sentence defendants to both imprisonment and probation for multiple offenses in the same case. The Supreme Court's ruling is expected to result in the resentencing of offenders who received both sentences. For the purpose of this forecast, it is assumed that offenders who have been sentenced to prison will not have their prison sentences vacated as a result of the ruling, and that future defendants who would otherwise be sentenced to both prison and probation will be sentenced only to prison instead.

Legislation. Legislation enacted by the General Assembly may influence the state prison population and parole caseload. During the 2019 legislative session, the General Assembly enacted 10 bills that may impact the state prison population and/or parole caseload in the future. These are described below.

- **House Bill 19-1030** creates the crime of unlawful sexual communication with a minor by an adult in a position of trust, which is a class 6 felony or a class 5 felony if committed with the intent of engaging in sexual exploitation or sexual contact. To the extent that offenders are convicted and sentenced to prison for the new crime, and would not have otherwise been sentenced to prison, the bill could increase admissions from new court commitments. The impact on the prison population is assumed to be minimal.

- **House Bill 19-1155** expands the definition of sexual contact for the purpose of the preexisting crimes of unlawful sexual contact or sexual assault on a child. To the extent that offenders are convicted and sentenced to prison as a result of the expanded definition, and would not have otherwise been sentenced to prison, the bill could increase admissions from new court commitments. The impact on the prison population is assumed to be minimal.

- **House Bill 19-1250** creates the criminal offense of unlawful sexual conduct by a peace officer. The bill is expected to increase admissions to DOC from new court commitments and is assessed as increasing the prison population by 1.0 offender per year beginning in FY 2020-21, and the parole population by 1.0 offender per year beginning in FY 2021-22.

- **Senate Bill 19-008** requires the DOC to allow medication-assisted treatment for substance abuse to continue in cases when an inmate was receiving treatment in a county jail prior to transfer into DOC custody. The bill is not expected to impact admissions to DOC, and it is assumed not to impact releases. To the extent that the Parole Board evaluates a parole applicant differently as a result of his or her use of medication-assisted treatment, the bill could increase or decrease discretionary releases to parole.

- **Senate Bill 19-043** increases the number of district court judges. To the extent that the additional judges expedite the pace at which criminal cases are tried and sentenced, the bill could accelerate admissions to the DOC, which would increase the prison population. The impact on the prison population will depend on the extent to which new judges alleviate case backlog or expedite the resolution of cases.

- **Senate Bill 19-143** makes a number of changes to parole, many of which are discussed above. The bill broadens the circumstances in which the DOC can refer offenders to the Parole Board for application hearings, requires a majority vote of the Parole Board to deny the parole application of certain very low or low risk inmates, narrows the circumstances in which a parolee may be revoked for a technical parole violation, requires that revoked parolees be returned to the DOC for the duration of their sentence, lengthens the allowable jail confinement period for intermediate sanctions, and expands eligibility for participation in a parolee work training program. The impact of the bill on the prison and parole population is bidirectional because it is expected to increase discretionary releases to parole, decrease revocations to the DOC, and lengthen the prison length of stay for revoked parolees. On net, the bill is expected to decrease the prison population

and increase the parole population by indeterminate amounts that will depend on Parole Board and Division of Adult Parole decision making.

- **Senate Bill 19-165** increases the number of Parole Board members from seven to nine. It is expected to accelerate the pace at which parole application hearings can be conducted, which will decrease the prison population and increase the parole population correspondingly.

- **Senate Bill 19-172** creates offenses for unlawful abandonment or false imprisonment of an at-risk person. This offense is usually a class 1 misdemeanor; however, false imprisonment of an at-risk person can become a class 6 felony depending on the circumstances of the crime. The bill is expected to increase admissions to DOC from new court commitments and is assessed as increasing the prison population by 0.6 offenders per year beginning in FY 2020-21, and the parole population by 0.4 offenders per year beginning in FY 2020-21.

- **Senate Bill 19-211** extends a preexisting Mental Health Criminal Justice Diversion Grant Program in four judicial districts. To the extent that the bill allows for continued diversion of offenders who would otherwise be sentenced to the DOC, the bill decreases admissions from new court commitments. The impact on the prison population is assumed to be minimal.

- **Senate Bill 19-259** allows for the temporary use of the south campus of the Centennial Correction Facility when the state male inmate vacant bed rate falls below 1 percent for two consecutive months. The bill is not expected to affect the prison population. If the male inmate vacant bed rate were to fall below 1 percent for two consecutive months, the bill could increase the share of jurisdictional inmates located at state-operated prisons and decrease the share located at private prisons, the jail backlog, or other locations.

Risks to the Forecast

Among projections published in this document, the correctional population forecasts are unique in that the values they estimate do not move reliably in response to economic or demographic conditions. Instead, these forecasts are based on expectations for behavior by would-be offenders, prosecutors, juries and judges, inmates, parole board members, and DOC administrators. The forecast does not anticipate changes in current patterns of behavior beyond those that can be extrapolated from currently available data. For example, the forecast anticipates that the decrease in new court commitments will slow during the current fiscal year consistent with actual felony case filings reported by state courts. However, the forecast does not account for any changes in the way in which current cases are tried and sentenced, and cannot account for future changes in case filings beyond currently observable patterns. Further, while criminal justice policy has often been changed by legislation and executive decision making, the forecast is based on current law and practice. All of these factors compound risks to this forecast.

The prison population forecast carries upside and downside risks. This forecast anticipates that the decrease in new court commitments will slow, but that admissions from new court commitments will continue to decrease through the forecast period. If the number of felony cases again begins to increase, or if an increasing percentage of case terminations result in a commitment to DOC, then admissions may increase rather than decrease. On the other hand, if case filings again begin to fall at the more pronounced rate exhibited earlier this year, then admissions may decrease by more than

expected. Further, the forecast anticipates that the level of discretionary parole releases will remain elevated but continue to decline from their recent peak. If discretionary releases continue at a faster pace than anticipated, then the prison population will decrease faster than expected. These risks are functions of behavior by offenders, participants in the criminal justice system, and members of the Parole Board.

The parole population forecast carries related risks. Fundamentally, a greater number of releases than assumed would result in parole caseload above this forecast, while a smaller number of releases than assumed would reduce parole caseload below this forecast. While there is an inverse relationship between the prison and parole populations, the two groups can move in the same direction depending on the total number of commitments to DOC as a whole.

The December 2019 forecast contains elevated upside and downside risk as a result of specific current conditions. Notably, the forecast assumes that the scheduled closure of six Denver community corrections facilities will contribute to prison admissions, but this assumption is prospective because the facilities remain open as of this writing. If all offenders who would otherwise receive diversion sentences to these facilities remain outside the prison population, or if a greater share of these offenders are imprisoned than expected, the actual population will be correspondingly lower or higher than forecast. Additionally, the forecast does not have a basis from which to quantify the impacts of additional judges, additional Parole Board members, or changes to the circumstances and duration for which parolees can be revoked. These policy changes likewise magnify both upside and downside risks to the forecast.

Youth Corrections Population Projections

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

Summary

All three DYS-administered populations are expected to continue to decline, and expectations for commitment and parole populations have been revised to reflect more significant declines than those anticipated previously. The following outcomes are anticipated over the forecast period:

- The DYS **commitment population** will decrease over the forecast period from an average daily population of 578 youths in FY 2018-19 to 426 youths in FY 2021-22.
- The average daily **parole population** will correspondingly fall from 213 youths in FY 2018-19 to 141 youths in FY 2021-22.
- The DYS **detention population** will decrease from an average daily population of 254 youths in FY 2017-18 to 234 youths in FY 2021-22.

Juvenile Offender Sentencing Options

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

Commitment. Depending on age and offense history, a juvenile may be committed to the custody of the DYS for a determinate period of between one and seven years for committing an offense that would be a felony or misdemeanor if committed by an adult. The commitment population is housed at long-term commitment facilities.

Detention. The court may sentence a juvenile to a detention facility if he or she is found guilty of an offense that would constitute a class 3, 4, 5, or 6 felony or a misdemeanor if committed by an adult. Detention sentences may not exceed 45 days and are managed by the DYS. The detention population is housed at short-term detention facilities, and most youths remain in detention for less than a month.

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

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

Influences on the Juvenile Offender Population

Court sentencing practices. Total juvenile delinquency filings increased consistently during the 1990s, peaking in 1998. Since then, filings have fallen, but have stabilized since FY 2016-17. The decrease in case filings correlated with the rising availability of diversion programs, which kept some cases from being heard in the juvenile courts. In addition to changes in the number of cases adjudicated, changes to statute and sentencing practice have led to the rise of alternative sentencing options, which have correspondingly reduced the population of detained and committed youths.

Legislative action. Policies affecting sentencing alternatives for juveniles affect the size of the detention and commitment populations. These include the creation of diversionary programs as alternatives to incarceration, mandated caps on sentence placements, and changes to parole terms. During the 2019 legislative session, three bills passed that may affect the juvenile detention, commitment, and parole populations through the current forecast period; these are described below. Additionally, page __ of this forecast document lists bills enacted that created new crimes. To the extent that juveniles are adjudicated for any of the listed new crimes, those bills may also affect the populations administered by DYS.

- **Senate Bill 19-108** creates the Juvenile Justice Reform Committee and, among other responsibilities, tasks the committee with developing tools for risk and needs assessment, mental health screening, and diversion program eligibility assessment to be used by juvenile courts and the DYS. It also requires that the DYS consult with the committee to develop a length-of-stay matrix for commitment populations to determine when committed youths are eligible for release. It requires the existing Working Group for Criteria for the Placement of Juvenile Offenders to create a screening tool to determine whether a juvenile should be placed in detention or in an alternative sentencing placement, and requires that courts use the screening tool to determine when a juvenile may be placed in detention. The bill also allows for juvenile diversion program contracts at the judicial district level, with grants to be made by the new committee, and makes changes to the juvenile probation system.

  The bill's impact on the youth corrections populations will depend on the tools that the committee develops, how these tools are implemented by the courts and the DYS, and the degree to which the bill expands the use of diversionary programs and alternative sentencing. This forecast anticipates that the bill's most likely impacts are to decrease the number of youth detentions and commitments and to reduce the length of stay for committed youths. Because the timing and magnitude of these impacts is uncertain, the bill introduces new upside and downside risks to all three population forecasts.

- **Senate Bill 19-185** makes being the victim of human trafficking of a minor for involuntary or sexual servitude an affirmative defense to any criminal violation, except for class 1 felonies, and renders a minor charged with prostitution immune from any criminal liability or juvenile delinquency if probable cause exists to believe the minor was a victim of human trafficking for involuntary or sexual servitude. To the extent that it decreases the number of youths adjudicated and sentenced to the DYS, the bill will decrease the detention, commitment, and parole populations.

- **Senate Bill 19-210** reduces the DYS detention cap from 382 beds to 327 beds. The bill also codifies the transition of the Spring Creek Youth Services Center from a detention facility to a commitment facility, and the transition of the Zebulon Pike Youth Services Center from a commitment facility to a detention facility. During the current forecast period, the youth detention population is forecast to remain below the cap; however, the bill establishes a lower population ceiling if detentions increase at some point in the future.

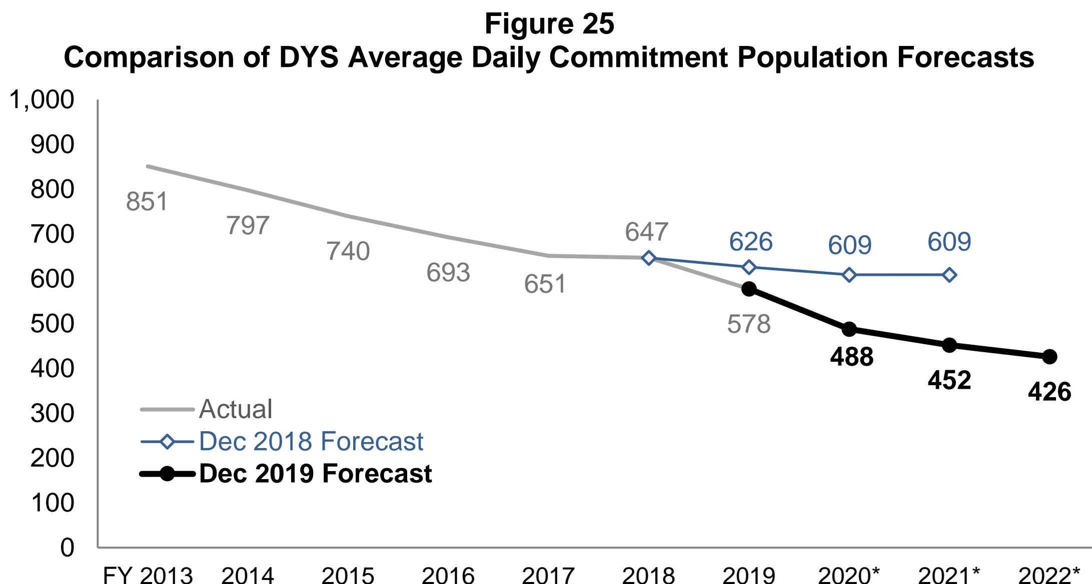
Division of Youth Services Sentencing Placements and Population Forecast

Commitment. The commitment population consists of juveniles adjudicated for a crime and committed to DYS custody. In FY 2018-19, the average daily commitment population was 578 youths, representing a 10.7 percent decrease from the prior year. Between FY 2019-20 and FY 2021-22, the commitment population is expected to drop to 426 youths, a significant decrease that reflects the rise of diversion programs and alternative sentencing and a decrease in commitments to the DYS.

The FY 2018-19 average daily commitment population fell short of the December 2018 forecast by 58 youths. The most important determinant of the population decrease was a reduction in the number of youths newly committed to the DYS. Between FY 2017-18 and FY 2018-19, the number of new commitments to the DYS fell from 361 youths to 256 youths, a decrease of 29.1 percent. The pace of decrease represents a significant departure from FY 2017-18, when commitments fell by 1.1 percent, and FY 2016-17, when commitments were flat.

Expectations for the commitment population have been revised downward to reflect the emerging trend in new commitments. The forecasts for FY 2019-20 and FY 2020-21 have been reduced as shown in Figure 25.

Figure 25
Comparison of DYS Average Daily Commitment Population Forecasts

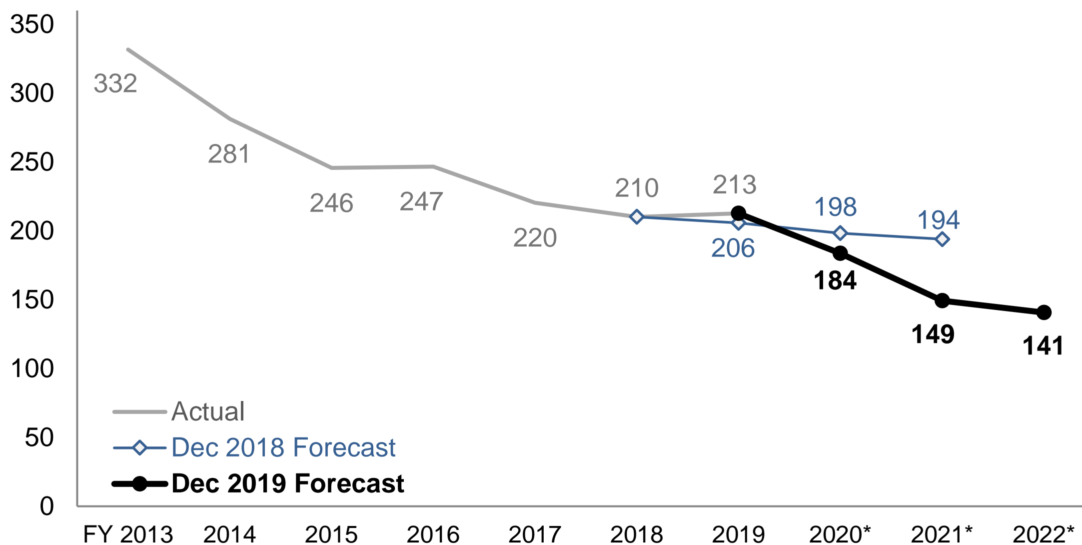


Source: Colorado Department of Human Services Division of Youth Services and Legislative Council Staff.
**Forecast.*

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

The juvenile parole population averaged 213 youths in FY 2018-19. The average parole population was seven youths greater than anticipated in last year's forecast, as shown in Figure 26. The parole population has declined moderately since the spring and averaged 202 youths over the first three months of FY 2019-20. The parole population is expected to average 184 parolees over the entirety of FY 2019-20, and to fall further to average 149 parolees during FY 2020-21 and 141 parolees during FY 2021-22 as the number of releases from commitment facilities drops off. Expectations for the FY 2019-20 parole population have been reduced modestly, while expectations for FY 2020-21 have been reduced more significantly as a result of the observed decrease in commitments of youths over the last year.

Figure 26
Comparison of DYS Average Daily Parole Population Forecasts

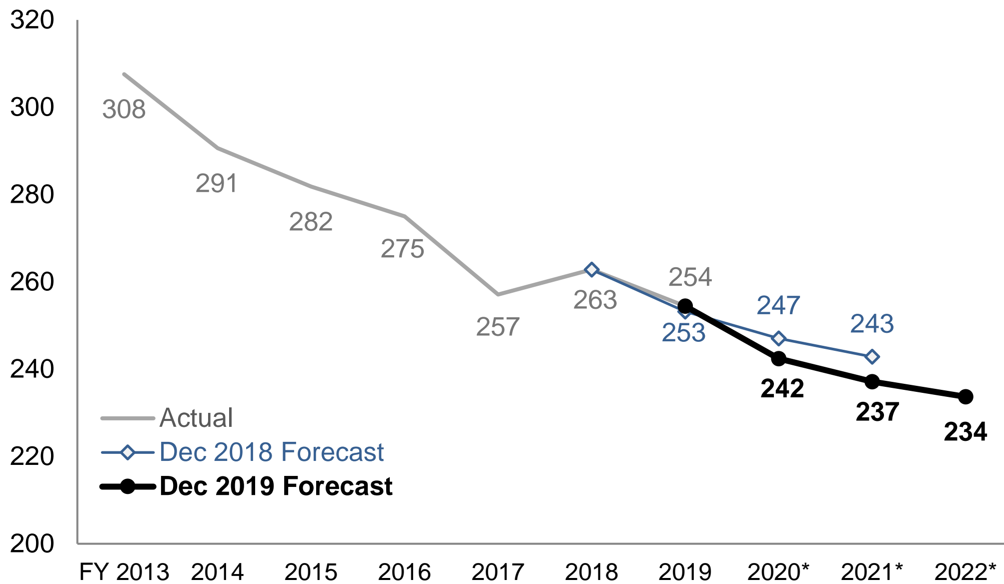


Source: Colorado Department of Human Services Division of Youth Services and Legislative Council Staff.
**Forecast*

Detention. The DYS manages eight secure facilities housing detained youth. Under Senate Bill 19-210, the detention population cap was reduced to 327 youths, though the detention population remains well below the statutory cap. Relative to the commitment and parole populations, the detention population is more volatile because of the short sentences served by detained youth.

Figure 27 presents expectations for the youth detention population. The detention population averaged 254 youths in FY 2018-19 and exceeded the December 2018 forecast by one youth. The population is expected to continue to decline through the forecast period, though the pace of the decline will depend on the extent to which detentions are limited as a result of the screening tools developed pursuant to Senate Bill 19-108. Expectations for the detention population have been revised downward modestly from those published last year.

Figure 27
Comparison of DYS Average Daily Detention Population Forecasts



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

Risks to the Forecast

Commitment and detention sentences are at the discretion of the courts. The population forecasts assume that sentencing patterns will remain consistent with current practices. In particular, this forecast anticipates that the rapid decline in sentences to DYS commitment observed during FY 2018-19 will continue as diversion programs become more widely available and alternative sentencing remains widely used. If judges decide to place more offenders under DYS supervision, populations will be greater than forecast.

This forecast assumes that the implementation of Senate Bill 19-108 will contribute to further decreases in the detention and commitment populations, but the timing and magnitude of this effect will depend on decisions to be made by the Juvenile Justice Reform Committee and the implementation of the tools it produces. If the bill results in significant methodological changes regarding the adjudication and sentencing of youth, it may contribute to population changes that are not anticipated in this forecast.

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

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Economic Outlook

Economic activity is expected to continue to expand for the U.S. and Colorado in 2020 and 2021, albeit at a slower pace as labor shortages pose an increasing drag on business growth. Under an increasingly tight labor market, wage pressures are rising, but not for all industries as the population ages and shifts toward automation continue. Job growth continues to be fueled by increased labor force participation. Employment gains, coupled with growth in wages, are sustaining consumer activity—the catalyst of recent economic growth.

November and early December economic indicators provide early evidence of stabilization in energy and manufacturing sectors, easing concerns over a near-term recession. However, the slower economic growth environment and tight labor markets are expected to challenge many industries over the next two years. Businesses are expected to restructure through consolidation and additional shifts toward automation in efforts to chase profits as the aforementioned trends become more prominent.

Geopolitical and trade policy risks are expected to continue into 2020, challenging supply chains, contributing to business uncertainty, and slowing global economic growth. Inflationary pressures remain subdued on slower appreciation in housing costs, both in Colorado and nationally. With inflationary pressure in check, the Federal Reserve is expected to hold interest rates steady. Risks to the forecast remain skewed to the downside as the economy marches further into the late stages of economic expansion. Tables 20 and 21 on pages 104 and 105 present histories and expectations for economic indicators for the U.S. and Colorado, respectively.

Gross Domestic Product

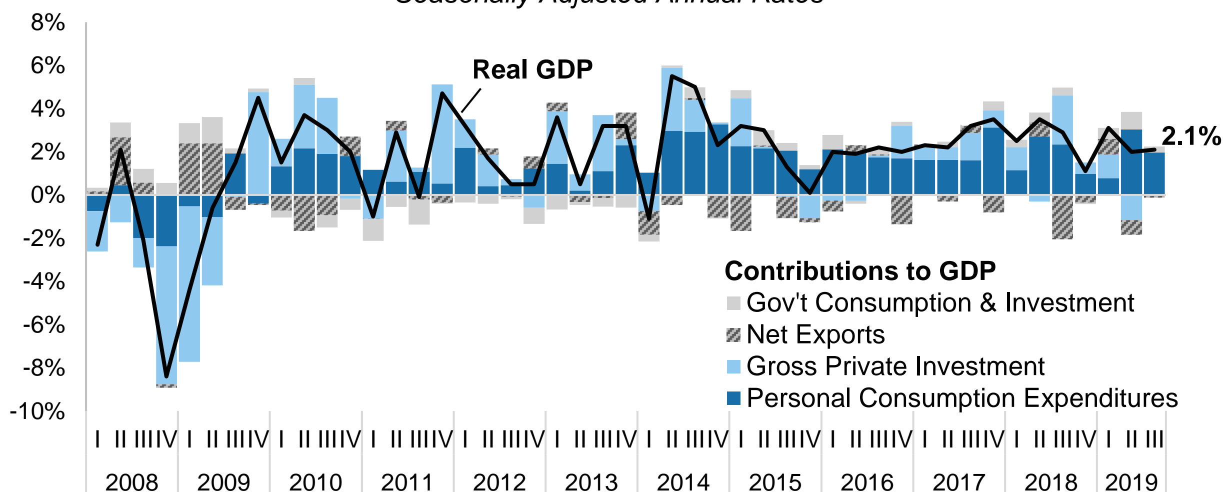
The U.S economy continued to grow at a healthy pace through the third quarter of the year despite recurrent trade policy uncertainty with China, a slowing global economy, and diminished business investment. Real gross domestic product (GDP), an estimate of the inflation-adjusted value of final U.S. goods and services, grew by an annualized rate of 2.1 percent in the third quarter of 2019 (Figure 28), a slight improvement from the 2.0 percent rate in the prior quarter. Strength in consumer spending and a rebound in the residential real estate market helped offset the drop in nonresidential fixed investment. In addition, an improved U.S. trade balance and higher government spending contributed to the improvement in economic growth in the third quarter of the year. The Colorado economy continues to outpace the nation and is among the top states for economic activity. Through the first half of 2019, Colorado's economy expanded 3.7 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 the tight labor market and slower global economic growth. Real U.S. GDP is expected to grow 2.3 percent in 2019, before slowing to 1.9 percent in 2020 and 1.7 percent in 2021.

Solid U.S. consumer spending continues to fuel the economy. Consumer spending, as measured by personal consumption expenditures and accounting for more than two-thirds of total economic output, grew at a 2.9 percent annualized rate over the quarter, after growing by a robust 4.6 percent in the second quarter of the 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 8.3 percent in the third quarter, following a

strong 13.0 percent growth rate in the second quarter. Though consumer confidence has softened in recent months, a strong labor market and improving wage growth have offset headwinds from the U.S.-China trade war and global slowdown.

Figure 28
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.

New business investment dropped in the third quarter, but at a slower rate than expected. Business investment for the July through September 2019 period declined slightly for the second consecutive quarter, after three years of solid growth. Total business investment declined by a modest 0.1 percent after falling 6.3 percent in the prior quarter. Investment in nonresidential structures was the primary drag on total U.S business investment in the third quarter of the year, declining by 12.0 percent after falling by 11.1 percent in the prior quarter. A slowing global economy and ongoing trade uncertainty have created challenges for many U.S. businesses, causing them to reevaluate their expectations and capital expenditures. However, investment in intellectual products, such as patents, trademarks and copyrights, has offset some of the pullback in nonresidential structure investment. In the third quarter of 2019, business investment in intellectual property grew by a healthy 5.1 percent, after increasing by 3.6 percent in the prior quarter. Intellectual property investment has grown at a healthy rate in each quarter since 2015. Residential investment positively contributed to economic growth in the third quarter of the year after posing a drag in the prior six quarters.

Trade tensions continue to distort international markets. While net exports posed a slight drag on economic activity in the third quarter of the year, the U.S. trade balance improved on a boost from petroleum products. U.S. imports, which are subtracted from GDP growth, rose slightly in the third quarter, more than offsetting growth in exports. Trade tensions remain elevated, with tariffs disrupting global supply chains and global demand for U.S. goods. Ongoing tensions are expected to continue to add uncertainty and complexity for U.S. businesses, contributing to a drag on investment activity. Finally, total government expenditures were up 1.6 percent in the third quarter. A $6.3 billion, or 5.1 percent increase, in federal nondefense spending was the major contributor to the increase.

The Colorado economy continues to outpace the nation and remains among the top states for economic activity. After growing by a solid 3.5 percent in 2018, the Colorado real GDP continued to grow at a healthy rate through the second quarter of 2019, increasing by 3.4 percent over the same quarter last year, compared with the nation's economy which grew by 2.3 percent over the same period. As of the second quarter of the year, Colorado ranked the seventh fastest for economic growth in the nation. The economies of Texas, New Mexico, Washington State, Wyoming, Utah, and Arizona grew at a faster rate in the first quarter of 2019. Through the first half of 2019, Colorado's economy is up 3.7 percent from the same period one year earlier, well outpacing nationwide growth.

Improvement persists across most industries. 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 second quarter of 2019. Colorado's information industry and workforce continue to attract new companies and employees to the state, with over 4,100 technology companies located in Colorado. The mining industry, which includes oil and gas extraction, contributed about $3.3 billion to the Colorado economy in the first quarter, up almost 15 percent from the same quarter last year. Despite stable oil and gas prices, the industry continues to contribute significantly to the state's economy through higher oil production.

Households and Consumers

The U.S. consumer continues to sustain economic growth. On modest but persistent growth in wages, households continue to purchase goods and services at a healthy pace. To date, the consumer has been un-phased by the global economic slowdown, trade tensions, and weaknesses in the manufacturing and energy sectors, in part because inflationary pressures have remained modest. Slower job gains in 2020 are expected to slow the pace of consumption activity unless wage increases accelerate.

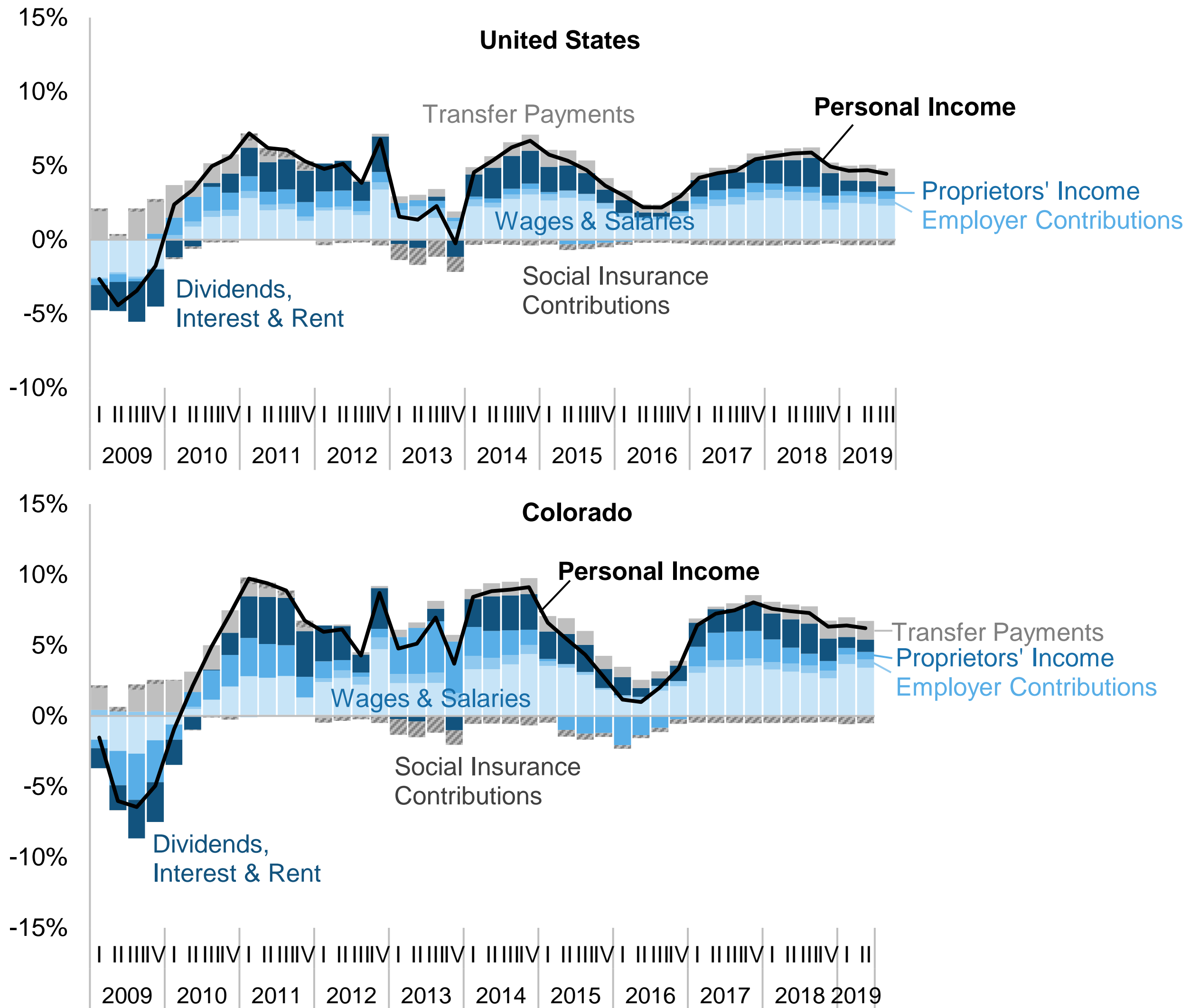
- Growth in U.S. personal income is expected to reach 4.6 percent in 2019, before slowing to 4.5 growth in 2020 as the nation adds fewer jobs to payrolls.

- Personal income in Colorado is expected to outpace the nation, growing 6.1 percent in 2019 and 5.2 percent in 2020. An ever tighter labor market will drive wages and salaries higher, while slowing job growth will pose a rising headwind.

- Consumer activity is expected to slow in 2020 with more moderate growth in household income.

Wage contributions are sustaining growth in household income. Personal income growth has continued apace thus far in 2019. Through the first three quarters of the year, U.S. household income grew by 4.8 percent, representing modest deceleration from the 5.6 percent increase posted during 2018. Personal income growth in Colorado continues to outpace the nation; however, income gains are likewise decelerating. Growth in state personal income slowed modestly from 7.1 percent in 2018 to 6.3 percent in the first half of 2019. Quarterly contributions to U.S. and Colorado personal income growth are reflected in Figure 29.

Figure 29
Personal Income and Its Components
Contributions to Percent Change, Year-over-Year



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

The changing composition of personal income reveals how the economy is evolving as the business cycle ages. Consistent with an economy in late cycle expansion, U.S. and Colorado households are reaping larger increases in wage and salary earnings as growth in other sources of income slows. Through the first three quarters of 2019, wages and salaries now account for a majority of U.S. household income, meaning that wage income nationwide slightly exceeded the sum of investment income, proprietors' income, transfer payments, and other sources. Faster increases in wage and salary income are consistent with a tight labor market, where businesses are incentivized to offer better compensation when competing against other employers for limited available labor. Greater expenses for wages leaves marginally less profit to proprietors or shareholders.

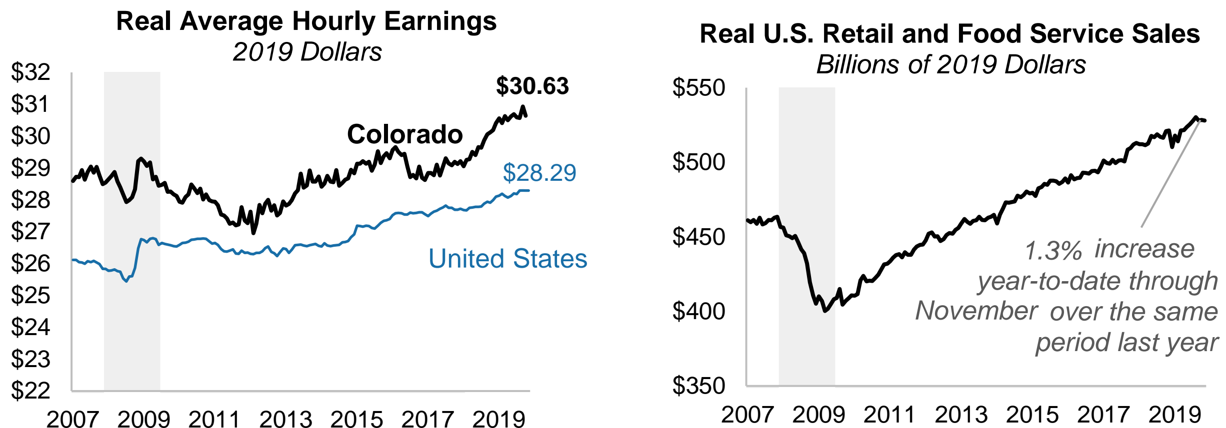
At both the national and state levels, business ownership and investment income is declining as a share of total household income. These sources of income continue to increase but at a progressively slower pace. In Colorado, income from dividends, interest, and rent increased 3.5 percent between the first half of 2018 and the first half of 2019, outpacing contributions from population growth and inflation by less than half a percentage point. The outlook for dividend income has brightened with stock market stabilization. On the other hand, the outlook for interest income has dimmed on recent interest rate cuts, and expectations for rent income have flagged on the cooling Front Range housing market.

Household income also includes transfer payments – principally government support programs – where growth is accelerating. Colorado household income from transfer payments increased 10.7 percent between the first half of 2018 and the first half of 2019, compared with a 6.3 percent increase nationally over the same period. The uptick in transfer payments received is expected to continue for demographic reasons as the state population receiving Social Security and Medicare increases.

Data revisions to personal income series. State personal income estimates are produced by the Bureau of Economic Analysis (BEA) in the U.S. Department of Commerce. The BEA estimates national personal income by specific categories and uses state-level data to apportion estimated national income to U.S. states and territories. State personal income estimates are revised as new data become available, and revisions often apply across many years of historical estimates. For example, the BEA now estimates that Colorado personal income increased 7.1 percent during 2018, compared with the 5.7 percent estimate published in our September 2019 forecast document. This forecast document reports the most recent estimates available, and our expectations for future years have been updated accordingly.

Consumer activity continues to lead economic activity. On higher wages (Figure 30, left), consumer activity remains elevated, although the pace of spending has slowed. Consistent with prior expansions, consumers have been the backbone of this expansion, with the strong job market providing the fuel for continued consumer confidence. Real U.S. retail sales rose 1.3 percent year-to-date through November over the same period last year (Figure 30, right). Spending slowed in most sectors over the prior year, with declines for electronics retailers, sporting goods and hobby retailers, clothing retailers, and gas stations. Bright spots remain in nonstore retailers, with online sales well outpacing brick-and-mortar sales. Motor vehicle and parts, grocery, and health and personal care stores also showed solid growth year-to-date in 2019.

Figure 30
Selected Indicators of Household Income and Spending



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

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 are luring 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 are a growing concern across many industries.

- U.S. nonfarm employment is expected to increase at a pace of 1.6 percent in 2019, before moderating to 1.2 percent in 2020 as labor markets tighten. The U.S. unemployment rate is expected to average 3.7 percent in 2019 and rise to 3.9 percent in 2020 as an increasing number of workers seek employment.

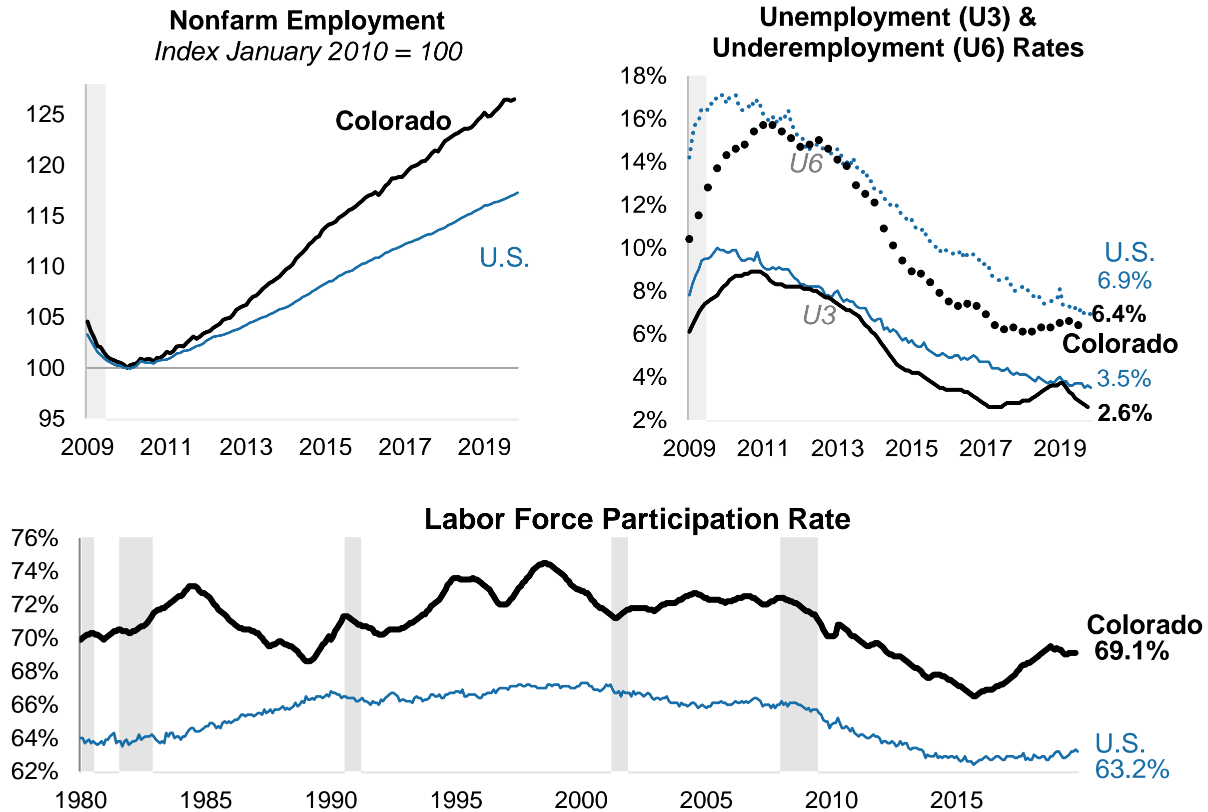
- In Colorado, nonfarm employment will grow 1.9 percent in 2019 and 1.5 percent in 2020. Rising labor force participation and relatively faster population growth will sustain employment gains at slightly higher rates than the nation as a whole. The Colorado unemployment rate is expected to average 3.1 percent in 2019 and 3.3 percent in 2020.

Unemployment rates remain at historical lows. In November 2019, the U.S. unemployment rate was 3.5 percent, 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. In November 2019, the underemployment rate was 6.9 percent, down from 8.1 percent in January (Figure 31, top right).

Strong labor markets are counteracting structural shifts. 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 31). Growing labor force participation since 2015 suggests that the tight labor market is now strong enough to counteract the aging population and structural shifts toward automation that have displaced many low-skilled workers.

The increase in labor force participation among those over the age of 55 has been notable, marking a shift toward working later in life.

Figure 31
Selected U.S. and Colorado Labor Market Indicators



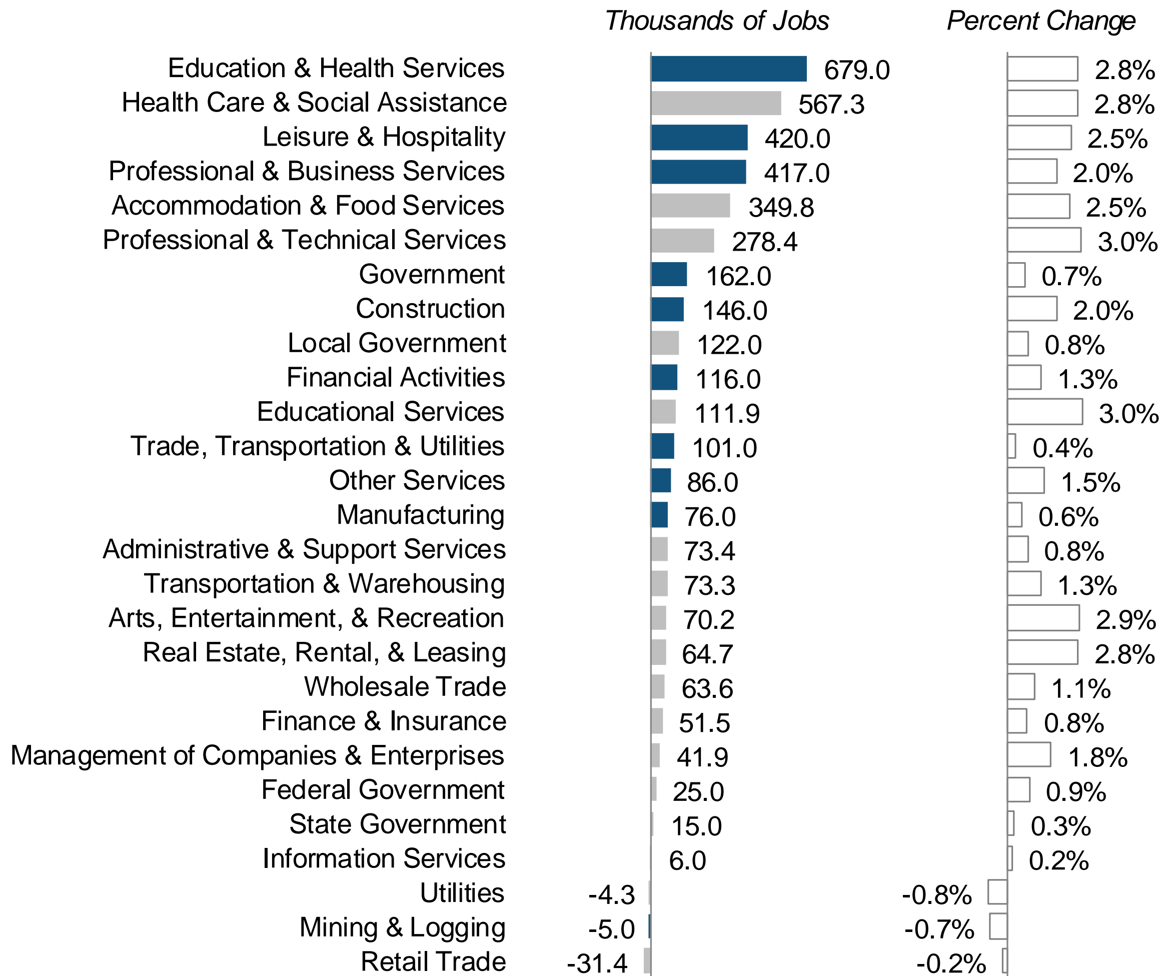
Source: U.S. Bureau of Labor Statistics. Data are seasonally adjusted and are through August 2019 for the U.S. and April 2019 for Colorado. Colorado nonfarm employment includes data revisions expected by Legislative Council Staff from the Bureau of Labor Statistics' annual rebenchmarking process.
**Underemployment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

U.S. labor market indicators remain positive, but job gains have slowed. U.S. employers continue to add new employees in spite of a gloomy outlook for global growth and elevated U.S.-China trade tensions. In November 2019, U.S. job gains were 1.5 percent higher than in the same month last year, marking the 110th straight month of positive job growth. Though the U.S. labor market continues to expand, job growth has been losing momentum through the current year. Monthly nonfarm payroll growth has averaged 180,000 January through November 2019, down from the 223,000 average from the same period last year. The slowdown is indicative of a tight labor market and slowing business activity.

Job gains have slowed but remain broad-based. In November 2019, the U.S. economy has added over 2.2 million new jobs over year-ago levels, with the largest sectors, education and health services and professional and business services, continuing to drive overall U.S. job growth (Figure 32). Over the past year, these two supersectors have gained just over one million jobs, accounting for almost half

(49.7 percent) of employment gains over the period. Construction and manufacturing industries continue to trend upward, adding 177,000 and 138,000 jobs, respectively, since August 2018, though the pace of growth has slowed. Retail trade employers continue to shed jobs from their payrolls as the sector continues to adopt new strategies in the era of e-commerce.

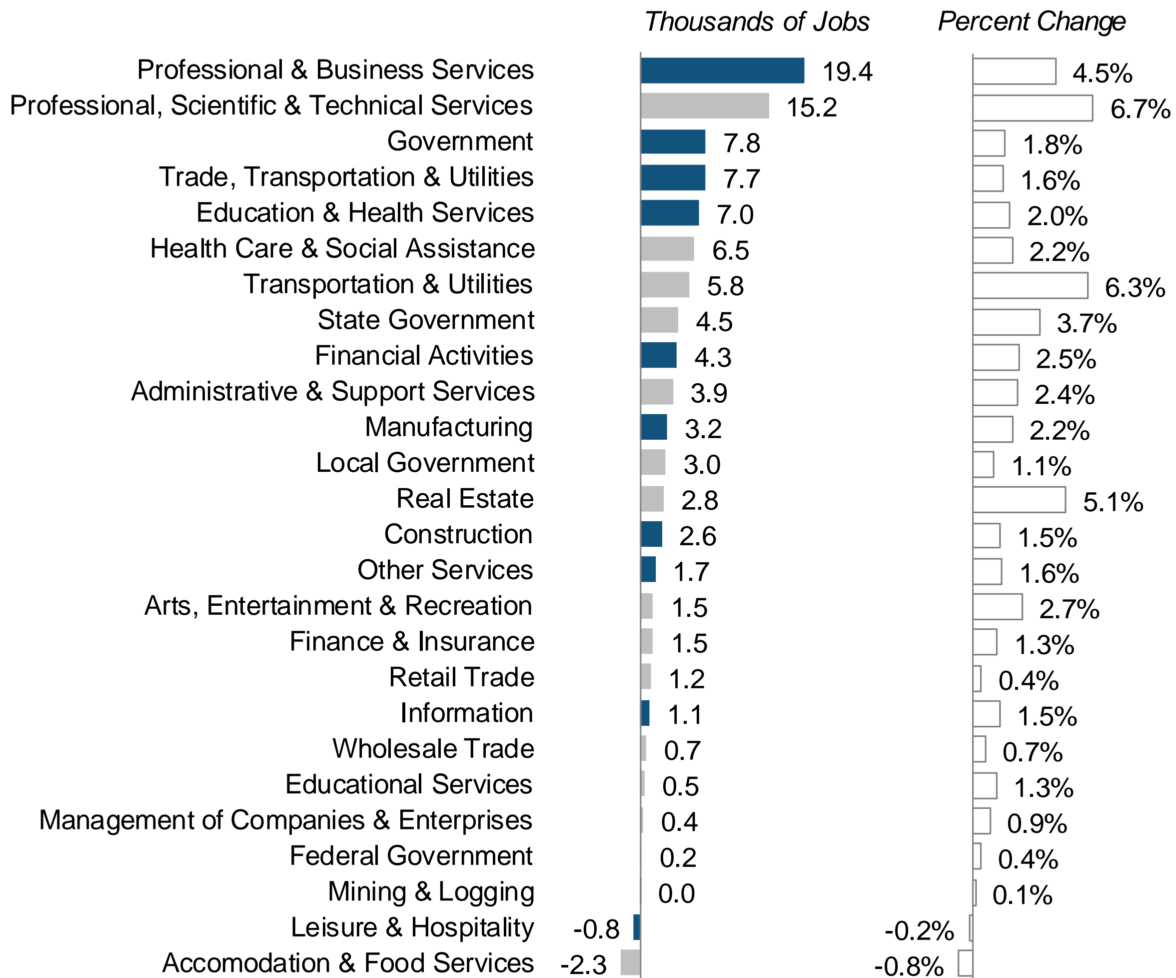
Figure 32
U.S. Job Gains and Losses by Industry
Year-over-Year Change, November 2019 over November 2018



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

Colorado 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 19,400 new jobs in October 2019 compared with the same month last year (Figure 33). The professional and business services supersector is the largest of all private sectors, comprising almost 20 percent of statewide employment. The transportation and utilities sector also accelerated in October 2019 over the same month last year, increasing by 6.3 percent. The sector has benefited from several new Amazon distribution facilities in the state.

Figure 33
Colorado Job Gains and Losses by Industry
Year-over-Year Change, October 2019 over October 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.

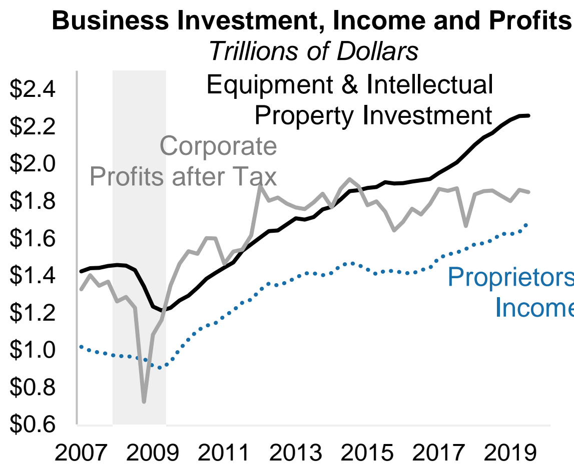
Business Income and Activity

Business activity softened in the second half of 2019. On trade tensions and the global economic slowdown, manufacturing, export, and energy industries have contracted. While some indicators point to stabilization at lower levels, downstream industries are feeling the weight of these drags, giving way to broader-based concerns.

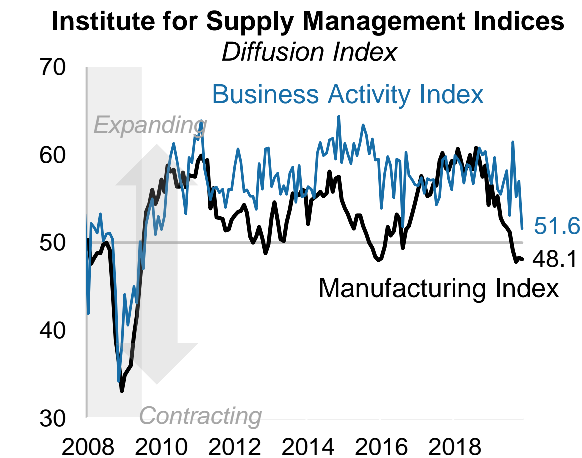
- Business activity is expected to remain slow at the start of 2020 on ongoing trade tensions, sluggish global economic activity, and an ongoing manufacturing and energy slump. The weight of these drags are expected to ease in the latter half of the year. However, rising wages and tighter labor markets are expected to put increasing pressure on growth in business activity.

Business income and investment has slowed. Figure 34 shows selected measures of business activity. Business investment and earnings are often leading indicators of economic activity. Business investment in software and equipment slowed in the third quarter of 2019, growing 1.1 percent over the previous quarter. In the third quarter of 2019, corporate profits increased 13.9 percent from the previous quarter, reversing two quarters of declines. Yet, even with the gains in the second quarter, corporate profits were only 0.3 percent higher than the same period in 2018.

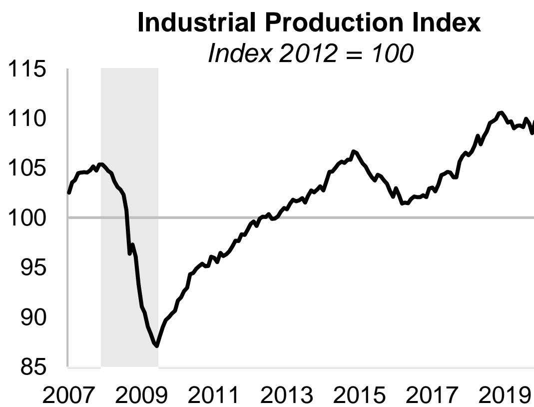
Figure 34
Selected Indicators of U.S. Business Activity



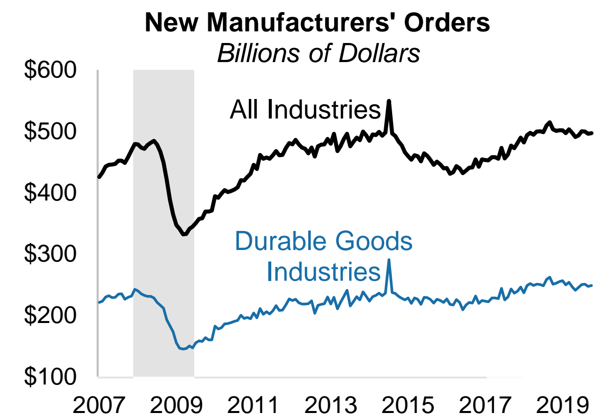
Source: U.S. Bureau of Economic Analysis.
Data are not adjusted for inflation.



Source: Institute for Supply Management.



Source: Federal Reserve Board of Governors.



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

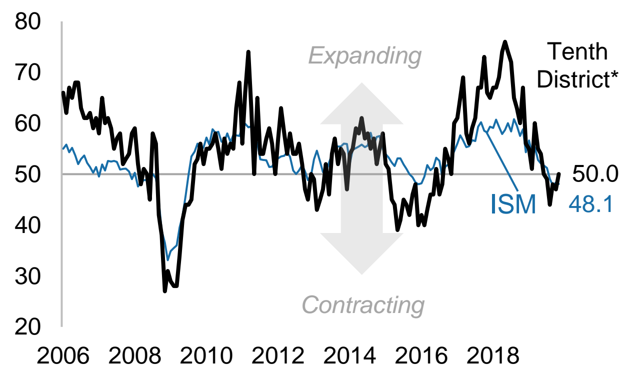
The manufacturing slump persists. The manufacturing sector contracted in the second half of 2019. Trade policy uncertainty has caused manufacturing firms to postpone and rethink supply chains that run through China, Europe, and South America. Increased uncertainty has also caused the dollar to appreciate, making domestic products more expensive relative to manufacturers in the rest of the world. The Institute for Supply Management (ISM) produces an index of manufacturing and non-manufacturing business activity each month based on a survey of firms. The November 2019 manufacturing index of 48.1 represented the fourth consecutive month of manufacturing activity in contractionary territory (below a value of 50). ISM non-manufacturing business activity index fell to

a value of 51.6 in November. While still in expansionary territory, this marks a significant slowdown from readings during most of the economic expasion.

As measured by the Federal Reserve, industrial production (Figure 34, bottom left) peaked in December 2018 and has decreased year-to-date. Manufacturing and industrial production orders (Figure 34, bottom right) have been stable since last summer. The value of durable goods orders has decreased 0.6 percent over the first nine months of 2019 compared with the same period in 2018, while total orders have decreased 0.2 percent year-to-date.

Local manufacturing activity stabilized in November. The Federal Reserve Bank of Kansas City produces a manufacturing index similar to the ISM index for businesses within its region, which includes Colorado and six other states. The Kansas City Fed index registered 50.0 in November, indicating some stabilization in the industry (Figure 35). Relative to the nationwide ISM index, the Tenth District has an outsized oil and gas presence, which has been a significant source of contraction in recent months.

Figure 35
Manufacturing Activity in the Tenth District



Source: Institute for Supply Management (ISM) and Federal Reserve Bank of Kansas City.
**The Tenth District composite index is adjusted to the ISM.*

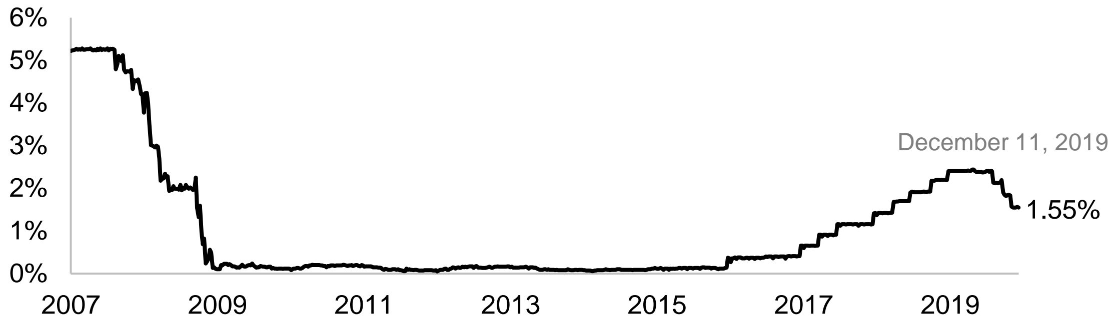
Monetary Policy and Inflation

After a "mid-cycle adjustment" of three interest rate cuts in 2019, the Federal Reserve is signaling plans to maintain current conditions with stable interest rates and 2 percent target inflation. The possibility of trade policy-related risks of a shock to inflation and the broader economy, while still present, have failed to take shape on an elevated U.S. dollar, and slowdown in global demand for commodities. Price pressures in Colorado have moderated over the past two years and are now roughly on par with those present nationally.

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

Interest rate cuts have come to an end for now. After eight interest rate hikes over nine quarters entering 2019, persistently low inflation, elevated trade risks, and softening in some business sectors conspired to create a reversal of course. The Federal Open Market Committee (FOMC) approved cuts of 25 basis points in the target federal funds rate at its July, September, and October meetings, bringing the target rate to between 1.50 and 1.75 percent. Cutting rates offered some monetary policy stimulus, potentially motivating more near-term investment and boosting employment while permitting a modest uptick in prices. Figure 36 shows the trajectory of the effective federal funds rate over the current business cycle.

Figure 36
Effective Federal Funds Rate

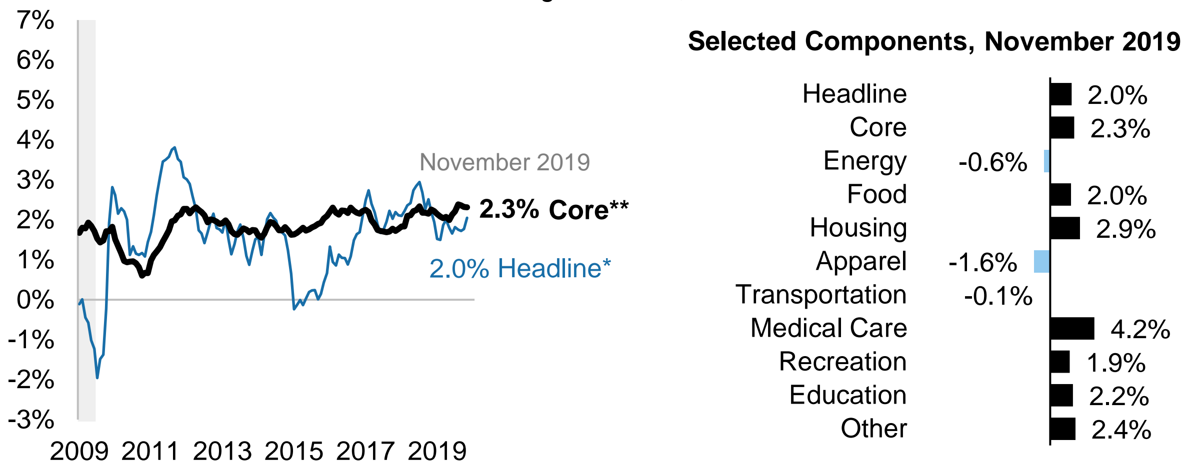


Source: Federal Reserve Board of Governors.

Rate cuts are not expected in the near future unless economic conditions deteriorate. At the year-end December FOMC meeting, the committee signaled an intent to hold interest rates steady through the end of 2020.

Subdued inflation continues. Inflationary pressures remain subdued on drags from energy prices, the slowdown in global demand for goods, and an elevated U.S. dollar, which keeps the cost of imports relatively low. Headline consumer prices increased at a rate of 2.0 percent between November 2018 and November 2019, slightly outpacing the 1.6 percent inflation in the Fed's preferred PCE inflation measure. Core inflation, excluding volatile food and energy prices, appreciated at a marginally quicker pace, growing 2.3 percent in November over year-ago prices. As shown in the right panel of Figure 37, modest to moderate inflationary pressure was the norm across most components of the consumer price index, with energy price deflation being the one notable exception.

Figure 37
Consumer Price Index Inflation for All Urban Areas in the U.S.
Percent Change in Prices, Year-over-Year

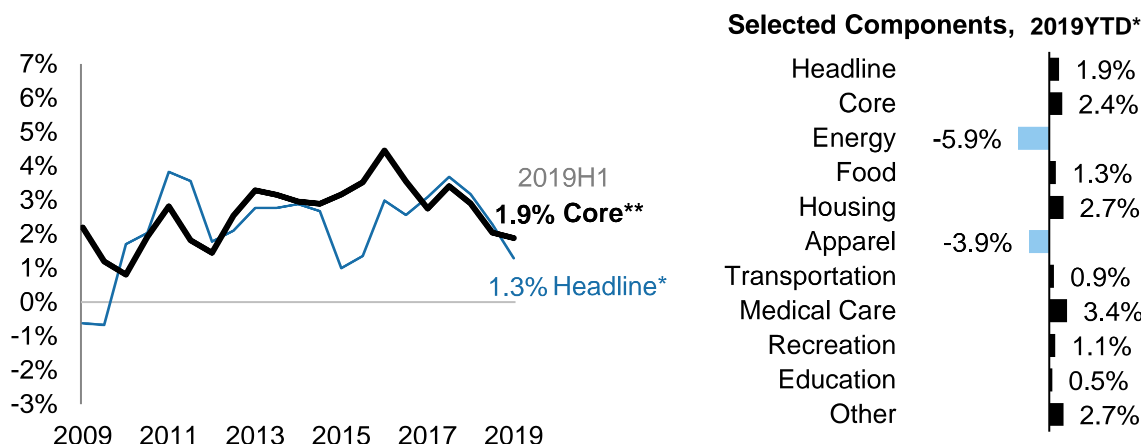


Source: U.S. Bureau of Labor Statistics. Inflation is calculated as the percent change in prices.
**Headline inflation includes all products and services. **Core inflation excludes food and energy prices.*

Expectations for inflation have stabilized as certain risks to the outlook, particularly on the trade front, have moderated some. Tariff-related contributions to inflation were less significant than some economists feared, though further deterioration in trade relations could still pose an upside risk to the price outlook. The FOMC's policy course assumes that inflation will remain slightly below its target.

Colorado consumer prices have slowed with the housing market. Consumer price inflation data for the Denver-Aurora-Lakewood core based statistical area are presented in Figure 38. In 2018, the U.S. Bureau of Labor Statistics began reporting bi-monthly data in addition to semi-annual reports, allowing for more current analysis of regional inflationary pressures. Data released year-to-date through November suggest easing inflationary pressures in the Denver metro area, with drags from lower energy prices and apparel, as well as moderation in housing costs over the past year.

Figure 38
Denver-Aurora-Lakewood Consumer Price Index (CPI-U) Inflation
Percent Change in Prices, Year-over-Year



Source: U.S. Bureau of Labor Statistics. Inflation is calculated as the percent change in prices.
** Data for 2019 shown for the first half of the year over the same period last year.*
***Year-to-date inflation averaging prices using bi-monthly data for January, March, May, July, September, and November.*

Energy Markets

Energy markets continue to adjust to a low price environment on the slowdown in global demand for traditional fuel sources. For crude oil producers, many years of easy lending helped to fuel a boom in production that continues into today. Yet, new drilling activity has dried up along with the free flow of lending as crude oil prices remain low.

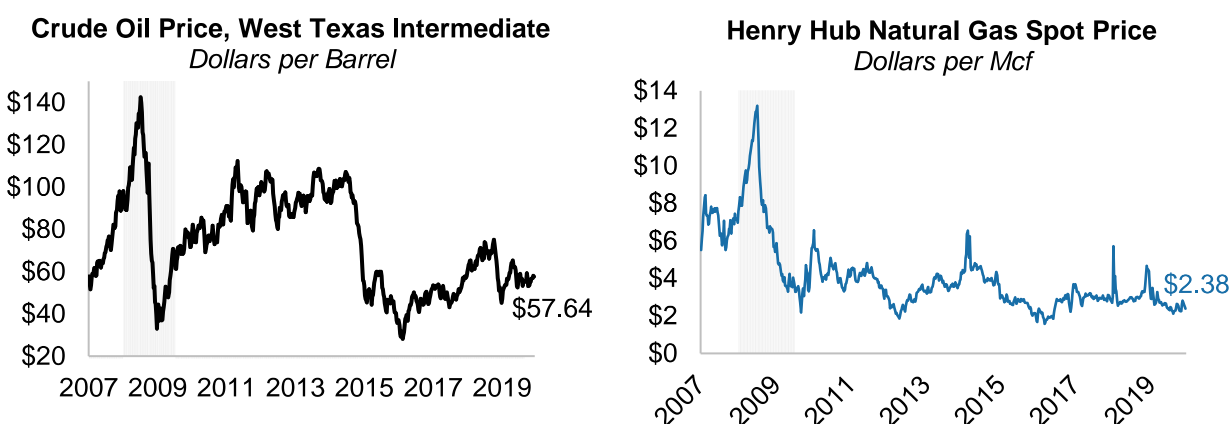
- Production efficiencies and weaker global demand are expected to continue maintaining downward pressure on energy prices during the forecast period, although supply disruptions from geopolitical risks pose an upside risk to prices.

While oil prices are relatively low, crude oil production remains elevated. The U.S. oil and gas industry continues to set production records based on recent investment activity and productive wells. As capacity has expanded, credit standards for the industry have tightened, forcing firms to focus on efficiencies from existing wells rather than expansion of new wells. The robust supply of

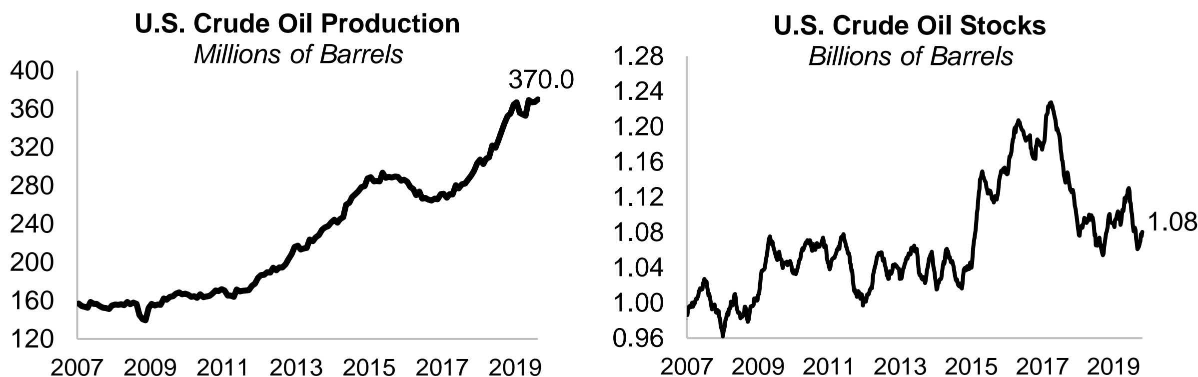
crude oil will keep oil prices in check, even as the Organization of Petroleum Exporting Countries (OPEC) recently announced deeper production cuts starting in 2020. Nationally, there is an oversupply of natural gas as energy companies can increase production from efficient gas wells and continue to market gas produced as a by-product from oil wells.

West Texas Intermediate crude oil prices have remained between $53 and $59 through the summer as robust domestic oil production has kept prices stable (Figure 39, top left). Prices in the second week of December were $57.64 per barrel of West Texas Intermediate Crude, virtually the same as the price of observed last year. Despite stable oil prices, U.S. oil producers continue to increase oil production (Figure 39, bottom left).

Figure 39
Selected Indicators of Oil and Gas Industry Activity



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



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

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

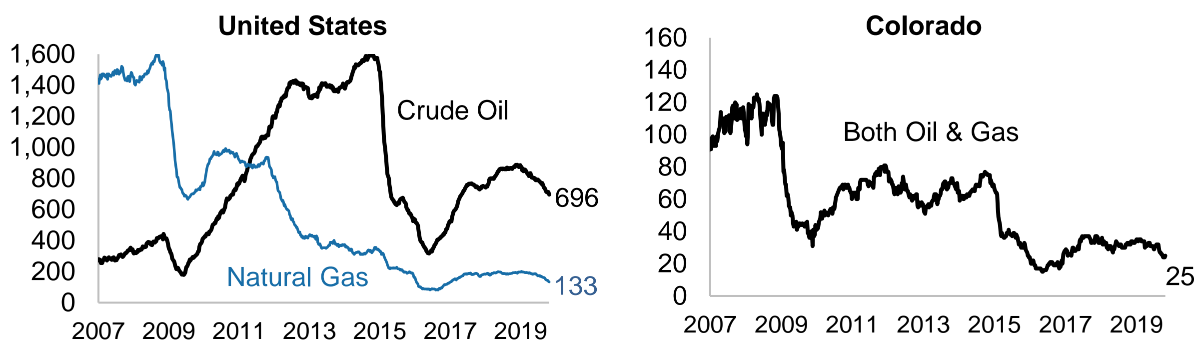
Cheap access to credit in 2017 and 2018 helped to drive investment in productive oil geology and technologically advanced wells, leading to cheaper costs of production per barrel of oil. The lower costs of production and higher volume have insulated oil producers from fluctuating oil prices and driven investment in pipeline and refining capacity. These changes in the industry will continue to boost domestic crude oil production even as the number of new wells being developed slows. The additional capacity of the oil industry will also buffer the price of oil from global supply shocks or

production cuts announced by OPEC. As a result of elevated production of crude oil, the U.S. became a net exporter of oil beginning in September 2019.

Natural gas production increased by 10 percent in 2019 according to the Energy Information Administration, despite persistently low Henry Hub natural gas prices (Figure 39, top right). Production will continue to grow into 2020 on existing capacity. However, growth will slow as fewer wells directed toward natural gas were developed in 2019. Increased demand from residential, commercial, and electricity generation customers drove production increases. After overtaking coal as the largest source of electricity in 2018, the U.S. Energy Information Administration estimates that natural gas will comprise 37 percent of the electricity generated in 2019 and 39 percent of the electricity generated in 2020.

New drilling activity has slowed. New drilling activity for oil and gas, as measured by active drilling rigs (Figure 40, left), declined 21.4 percent between the end of 2018 and the last week of October 2019 to total of 696 oil rigs and 133 natural gas rigs. This decline in active drilling activity comes in response to tighter credit conditions in the energy industry and more productive wells. Stable oil and natural gas prices have caused producers to focus on rig efficiency and well-level production to support production levels rather than new wells.

Figure 40
Active Rig Counts



Source: Baker Hughes. Data are not seasonally adjusted.

Colorado energy activity. Drilling activity in Colorado has mirrored the national trend, as 25 active drilling rigs in the third week of October represents a decline of 28.6 percent since the end of 2018. Despite a modest number of drilling rigs, Colorado crude oil production continues to increase. The Energy Information Administration estimates that crude oil production per well in the Niobrara formation, which includes Colorado, increased from 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. Drilling activity and business activity dipped in the third quarter of 2019 due to persistently low prices. The primary reason for diminished business conditions are low oil and gas prices, which keep energy producers from increasing drilling activity and remove the urgency for developing new wells. Secondary

concerns include tight credit conditions, investor pressures, lack of pipeline capacity, and difficulty finding labor.

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 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 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 has been steadily picking up momentum through the final quarter of the year, albeit at a slower pace compared with recent years.

- Following high levels of new activity, Colorado housing construction permits are expected to remain elevated, but fall 12.4 percent in 2019 and decline an additional 4.2 percent in 2020.

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

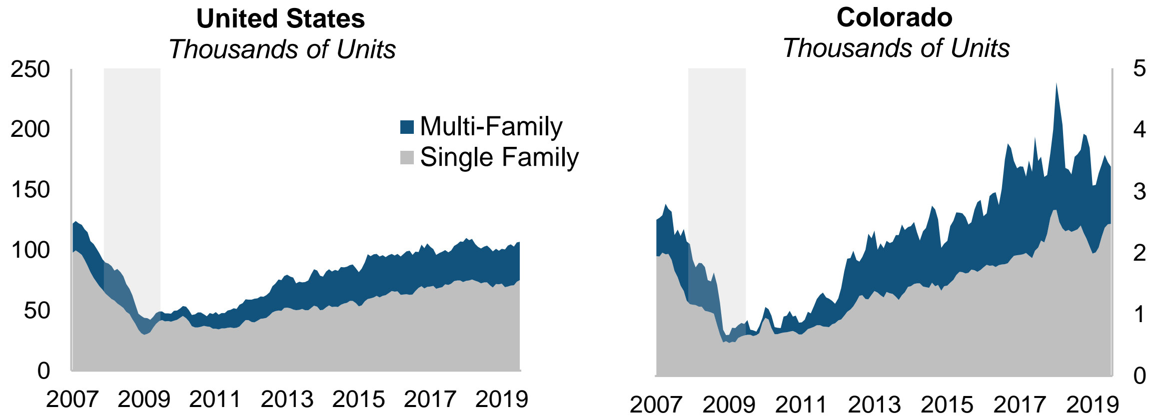
The U.S. housing market remains stable, but a lack of affordable housing continues to hinder growth. The U.S. housing market weakened at the end in 2018 (Figure 41, left), as rising interest rates added to already growing affordability concerns. With the Federal Reserve's policy shift on interest rates, the U.S. residential real estate market has steadied. Homebuilders continue to report strong demand for new housing fueled by a strong labor market and steady income growth, but a lack of entry-level housing inventory continues to hinder the housing market. High construction costs from ongoing labor and lot shortages and rising material costs are making it more difficult to profit on lower-priced homes. As a result, most of the building encompasses the move-up and high-end levels, not entry-level homes where demand is strongest.

Data suggest that the U.S. housing market is going through a transitional period. Amid a supply-demand imbalance and strengthening demand for more affordable homes, homebuilders have discounted prices and are shifting toward more entry-level construction. According to the U.S. Census Bureau, the median sales price of houses sold in the country was $299,400 in September 2019, down from $328,300 from the same period one year earlier. 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 despite falling prices. In November, 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 70. A reading above 50 indicates a favorable outlook on home sales, while below 50 indicates a negative outlook. The index has been steadily increasing through the year after posting a reading of 58 in January. Lower interest rates, a

strong labor market, and rising wages have contributed to the improvement in the national residential real estate market.

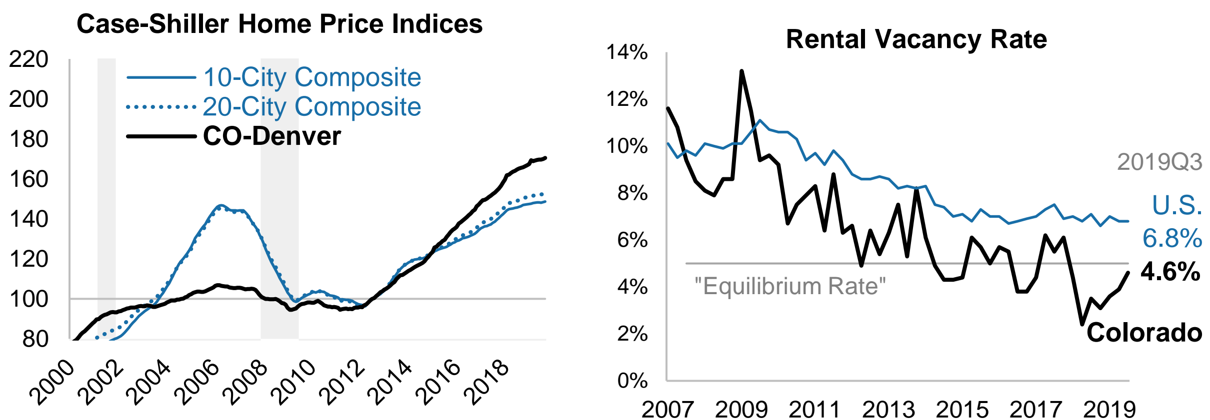
Figure 41
New Residential Construction Housing Starts



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 has been steady in 2019 after several years of robust growth. The Case-Schiller home price index for Denver showed a 3.0 percent price increase in September 2019 relative to the same period last year (Figure 42, left), much lower than 7.6 percent and 5.0 percent annual growth rates in 2017 and 2018, respectively. Lower interest rates, historically low rental vacancy rates (Figure 42, right), moderating price increases, and an increase in supply are supporting activity in the Colorado real estate market. The lower borrowing costs and stabilizing price appreciation are making it easier for buyers to purchase a home in most areas of the state. Low inventory and mortgage rates are expected to continue to support the market, although activity will be slower than in recent years. Additional home price indicators are shown on page 110 for Colorado's metropolitan areas.

Figure 42
U.S. and Colorado Shelter Price Indicators



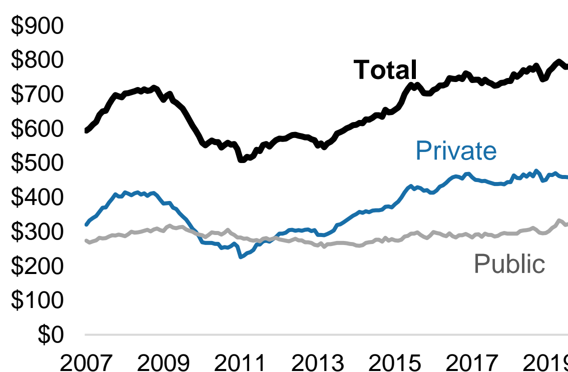
Source: S&P Dow Jones Indices LLC. Seasonally adjusted data through September 2019.

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

Nonresidential Construction

U.S. nonresidential construction activity continued to make gains at the end of 2019, albeit at a slower pace than experienced in earlier months of the year. Through October 2019, total spending on nonresidential construction projects in the U.S was $7,813.1 billion, up 2.3 percent from the same period one year prior, but representing a slight deceleration from August and September's growth rates of 2.7 percent and 2.4 percent, respectively. Both public and private spending supported growth in 2019, though spending on public projects accounted for most of the growth (Figure 43). 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 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.

Figure 43
U.S. Nonresidential Construction Spending
Billions of Dollars



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

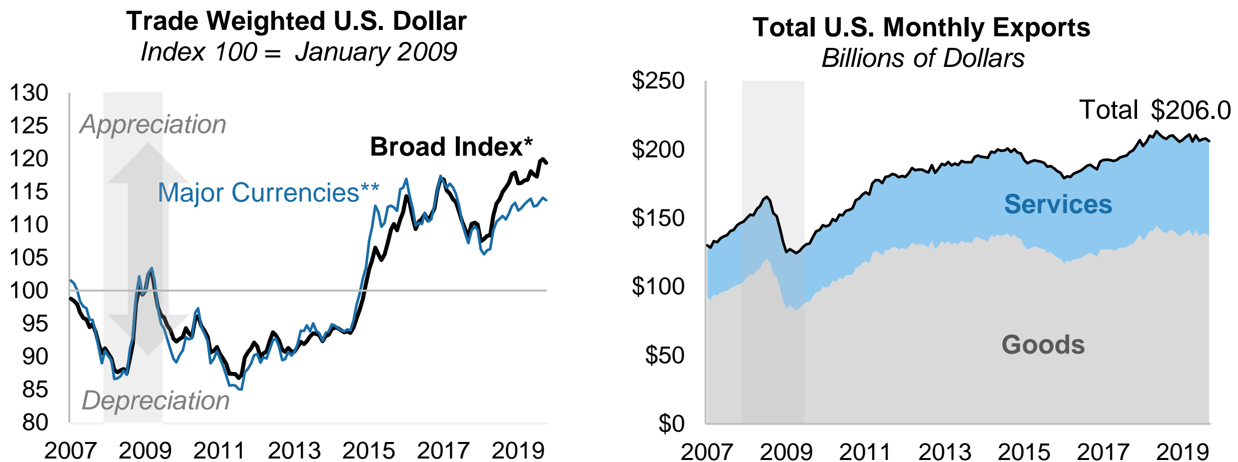
- Coming off several large-scale projects in 2018, nonresidential construction in Colorado is expected to decline 40.9 percent in 2019, before rebounding 25.2 percent in 2020.

Global Economy

The global economy continues to slow across countries with varying levels of development and for various reasons. Projections for global growth this year and next are the lowest they have been since the global financial crisis, which began in 2007. Traditional monetary and fiscal policy tools have proven less effective in recent years, with many advanced economies pursuing new strategies including interest rates at or below zero percent, and many countries are taking on higher levels of debt to stimulate growth. The headwinds to growth remain strong with ongoing global trade tensions and uncertainty clouding much of the outlook for next year.

The U.S. dollar remains strong relative to foreign currencies. The U.S. dollar's rise has continued for over a year now, as the global economic slowdown persists and investors seek safe haven in the dollar (Figure 44, left). U.S. interest rates fell by 75 basis points this year, but remain higher than most other advanced economies' rates, pushing demand for U.S. Treasury bonds higher. U.S. exports, already weakened by tariffs, are less competitive with a strong dollar. Combined, these factors have depressed exports (Figure 44, 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 44
Selected Indicators of Trade Activity



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

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

Global growth projections for 2019 the weakest since 2009. The International Monetary Fund (IMF) is forecasting 3.0 percent global growth for 2019, down 0.3 percent from April's projections. There is a widespread weakening in industrial production as a result of trade tensions and a significant slowdown in demand for durable goods, including car production and sales. The World Trade Organization projects international trade in 2019 to grow by 1.2 percent, down from 2.9 percent in 2018, and 4.6 percent in 2017. Slowdowns are most pronounced across the advanced economies, particularly in the Eurozone area, but emerging and developing economies, notably across Latin America, face significant pressure as well due to heighted economic policy and geopolitical risk factors. Bright spots can be found in emerging and developing Asia, as some supply chains have shifted production to countries such as Vietnam.

Both internal and external factors contributing to China's slowdown. The economy of the world's most populous country is facing slower rates of growth. The Chinese economy is expected to expand by 5.9 percent in 2019 and 6.0 percent in 2020. Led by government policies, the Chinese economy continues to shift from a manufacturing and export-led economy to a more diversified, consumer-driven and service-oriented economy. Additionally, several policies have recently been put in place to rein in public and private sector debt. These structural shifts have posed near-term drags on growth but hold the promise of a more stable and higher-growth future for the Chinese economy. Trade tensions with the U.S. have reduced demand for Chinese exports, putting downward pressure on the manufacturing sector and lowering business confidence. Easing of these tensions poses an upside risk to the Chinese economy.

North American and European economies slowed in 2019, with faster growth projected for 2020. Colorado's primary trading partners, Canada and Mexico, faced slower growth in 2019, with Canada's economic activity projected to grow 1.5 percent and Mexico's economy expanding at a modest 0.4 percent based on the latest projections by the IMF. The global slowdown and uncertainty in

international trade have adversely affected both countries. Canada's economy remains resilient on a more service-oriented and less export-driven base. Mexico's economy faces uncertainty surrounding the unsigned U.S.-Mexico-Canada Trade Agreement (USMCA), lower investor confidence under a new political administration, and reduced government spending. Mexico's economy had two consecutive quarters of contracting GDP during the first half of the year, but the downturn was not widespread enough to be considered a recession by recession-dating agencies. Rebounds in growth are projected for 2020 in both countries, with 1.8 percent and 1.3 percent growth projected in Canada and Mexico, respectively.

Global trade, Brexit, and little reaction to easing monetary policy continue to drag down growth in the Eurozone. Interest rates have been set below zero since 2014, with the latest cut by the European Central Bank in September to a rate of -0.5 percent. Industrial output in Germany declined 5.3 percent year-to-date through October in 2019 over year-ago levels on headwinds from lower global demand for German goods, structural and policy changes in the automotive industry, and regional economic uncertainty. Britain continues to contemplate Brexit, and Italy continues to face political turmoil. Growth in the Euro Area eased from 1.9 percent in 2018 to 1.2 percent projected for 2019. Growth in the Eurozone economy is expected to pick up slightly to 1.4 percent next year. However, the final resolution of Brexit poses an ongoing risk to the area economy.

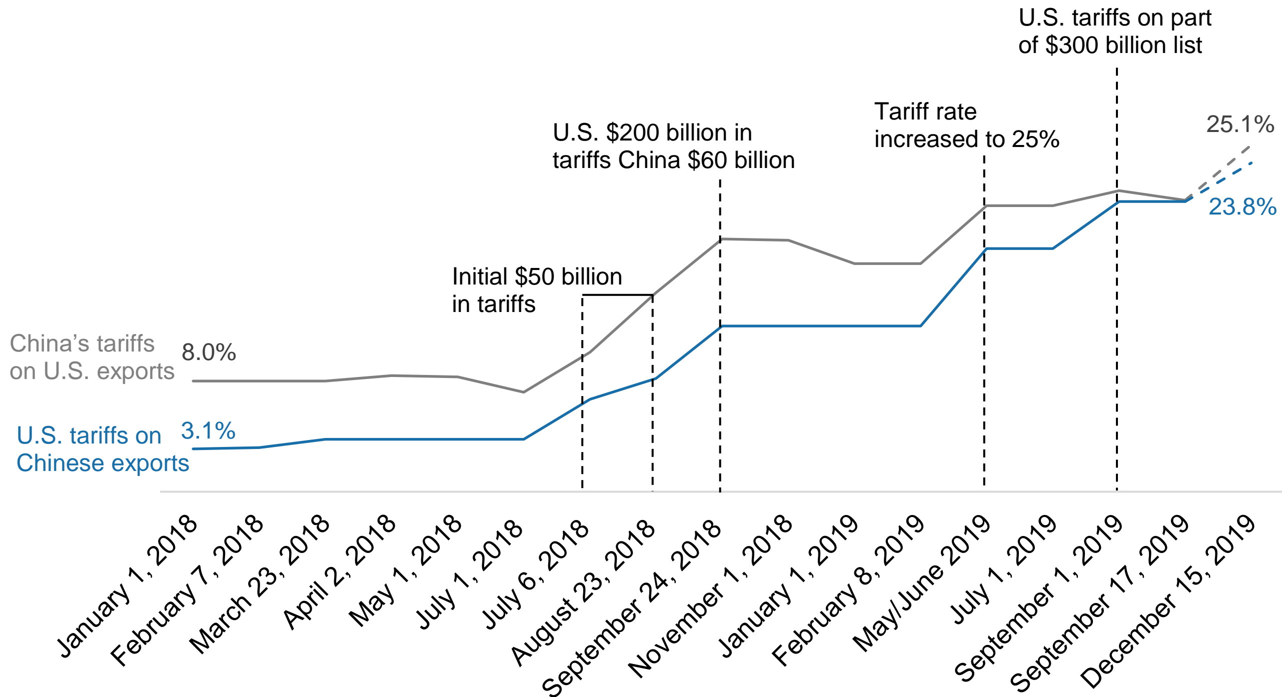
International Trade

International trade tensions are expected to continue well into 2020 with ongoing negotiations between the U.S. and China, pending USMCA ratification votes, and rising tensions between the U.S. and European Union (EU) member states. To date, the economic effects of tariffs have remained largely industry-specific, resulting in supply chain shifts and business uncertainty for U.S. manufacturers and exporters. These trends will continue into 2020 as trade tensions persist. Tariffs on imported goods pose an ongoing upside risk to inflation and downside risk to consumer and business activity to the extent that consumers and businesses absorb higher costs of imported goods.

U.S.-China trade negotiations. The U.S. imposed additional 15 percent tariffs on $110 billion in Chinese imports in September, but cancelled the October scheduled increase from 25 percent to 30 percent on $250 billion in imports. Additional tariffs planned for December 15 remain in flux. The Trump Administration announced a delay in the escalation of tariffs on December 7, 2019. However, escalation may still occur depending on the outcome of ongoing negotiations. If the December tariffs did take effect, China's tariffs on U.S. exports would average 25.1 percent on relevant goods, and the U.S. tariffs rates on Chinese imports would average 23.8 percent, as shown in Figure 45.

Transatlantic trade. The World Trade Organization ruled in favor of the U.S. in October regarding a case challenging the subsidies granted by the EU to airline company Airbus, the main competitor of U.S.-based Boeing. Following the ruling, the U.S. imposed tariffs on $7.5 billion in goods imported from the EU ranging from Airbus-produced aircraft and parts to French wine. The U.S. administration is still considering imposing tariffs on auto and auto parts imported from the EU for national security reasons.

Figure 45
U.S. and China Tariff Timeline
Average Tariff Rate, Percent



Source: Peterson Institute for International Economics.

Subdued U.S. and Colorado trade activity. After several years of growth in exports and imports on improved economic conditions, both decreased year-to-date through September. The value of total U.S. imports fell 0.3 percent and exports are down 1.2 percent year-to-date through September over year-ago levels. In Colorado, both imports and exports each declined 4.6 percent during the same period. The decrease in trade activity is driven by those goods subject to U.S. and retaliatory tariffs, including steel and aluminum goods, agricultural products, and intermediate goods.

Agriculture

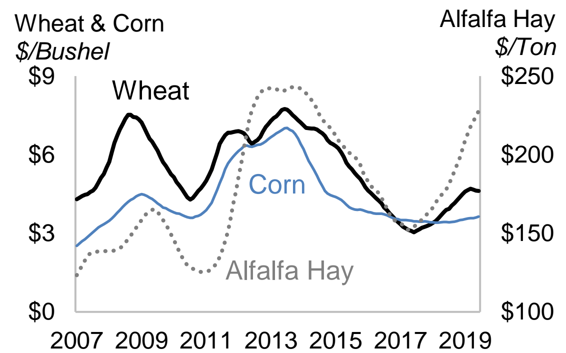
Persistent trade policy uncertainty and low commodity prices continue to hamper agricultural producers in the state. Export levels of agricultural products decreased in 2019 for goods subject to tariffs. Additionally, agricultural equipment costs increased with escalations in tariff rates. While some farmers and ranchers are enjoying higher prices for crops and livestock, the slowdown in global demand and ongoing trade policy risks are expected to continue to dampen farm incomes.

Prices have been volatile with weather conditions. Heavy rains around planting and early snow at harvest time have created volatility in grain markets, as shown in Figure 46. Wheat futures are up on lower production estimates for the spring wheat season, and corn prices remain volatile on lower production, lower domestic and international demand, and Brazil's continued expansion of its export markets. Hay prices remain high on strong demand from ranchers, although they have begun to moderate slightly in recent months. Colorado milk production is up, as are milk prices in the state, creating a favorable situation for dairy farmers to offset lower exports from the state. Cattle inventory through November is 5 percent higher than in November 2018 on sustained domestic and

international demand for U.S. beef. Pork production and prices are both up, as the effects of the swine flu epidemic in China cut global supply.

Planting is outpacing processing capabilities for hemp. Colorado planted the most hemp acreage in 2019, after the 2018 farm bill legalized hemp throughout the country. About 80,000 acres were planted in the state this year, up from 30,000 acres in 2018. With the rapid increase in supply, prices are beginning to take a hit, especially as the amount of hemp produced is growing faster than processing capacity. In addition to the large processing plant near Pueblo, another broke ground this summer west of Greeley. 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 year-long research in March 2020.

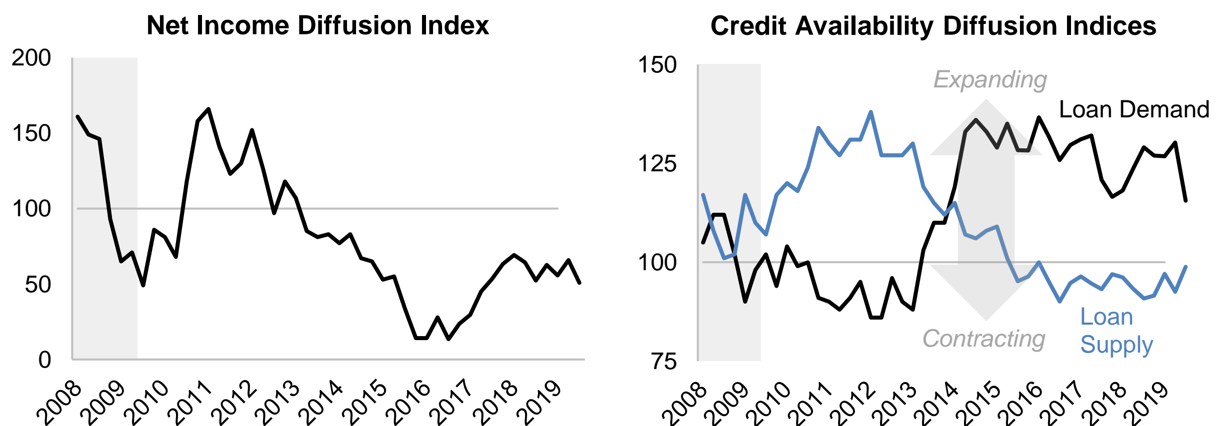
Figure 46
Prices Received for Colorado Crops



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

Farm income is projected to decrease in 2019. Farm income in the Federal Reserve's Tenth District continues to suffer from crop price volatility and uncertain international trade conditions (Figure 47, left). Lower farm income combined with higher costs for capital inputs have led to less investment in farm equipment and falling loan demand (Figure 47, right). Loan demand still remains high, while loan repayment rates fall and the number of renewals and extensions increase. Problem loans in the mountain states, which include Colorado, have decreased relative to last year, but a greater number of loans in the region are now on the watch list.

Figure 47
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 third quarter of 2019. Values above 100 indicate expansion; values below 100 indicate contraction.

Summary

Economic activity is expected to continue to expand in the U.S. and Colorado in 2020 and 2021, albeit at a slower pace as labor markets continue to tighten. Ongoing job gains, rising wages, and moderate consumer spending continue to sustain the economic expansion. Business activity remains elevated. However, several clouds have emerged on the horizon. Trade tensions and slower global economic demand continue to hamper manufacturing, the energy industry, and export activity. Additionally, higher wages and slower economic activity are expected to put mounting downward pressure on business profits, leading to restructuring in a growing number of industries. Risks remain skewed to the downside as both the state and national economies move further into the late stages of economic expansion.

Risks to the Forecast

Several factors could result in stronger or weaker economic activity than forecast. These risks are viewed as skewed to the downside over the forecast period.

Downside. While U.S. consumers continue to carry economic growth, their contributions have slowed in 2019. Slowing employment growth, less than robust wage gains, industry restructuring, and elevated political uncertainty may pose larger than expected drags on consumer activity in the near-term. Trade policy uncertainty and geopolitical risks could hamper capital expenditures and business investments more than expected in coming months. Additionally, to the extent that the manufacturing, energy, and export slump become more pronounced or spread to other industries, business activity could see contractions among a wider array of sectors.

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

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

Table 20
National Economic Indicators

Calendar Years	2014	2015	2016	2017	2018	Legislative Council Staff Forecast 2019	2020	2021
Real GDP (*Billions*)[1]	$16,912.0	$17,403.8	$17,688.9	$18,108.1	$18,638.2	$19,066.8	$19,429.1	$19,759.4
Percent Change	2.5%	2.9%	1.6%	2.4%	2.9%	2.3%	1.9%	1.7%
Nonfarm Employment (*Millions*)[2]	138.9	141.8	144.3	146.6	149.1	151.4	153.3	154.3
Percent Change	1.9%	2.1%	1.8%	1.6%	1.7%	1.6%	1.2%	0.7%
Unemployment Rate[2]	6.2%	5.3%	4.9%	4.4%	3.9%	3.7%	3.9%	4.4%
Personal Income (*Billions*)[1]	$14,991.7	$15,717.8	$16,121.2	$16,878.8	$17,819.2	$18,638.9	$19,477.6	$20,256.7
Percent Change	5.7%	4.8%	2.6%	4.7%	5.6%	4.6%	4.5%	4.0%
Wage and Salary Income (*Billions*)[1]	$7,475.2	$7,856.7	$8,083.5	$8,462.1	$8,888.5	$9,324.0	$9,762.3	$10,162.5
Percent Change	5.1%	5.1%	2.9%	4.7%	5.0%	4.9%	4.7%	4.1%
Inflation[2]	1.6%	0.1%	1.3%	2.1%	2.4%	1.8%	2.1%	2.1%

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 21
Colorado Economic Indicators

Calendar Years	2014	2015	2016	2017	2018	Legislative Council Staff Forecast 2019	2020	2021
Population (*Thousands, as of July 1*)[1]	5,351.2	5,452.1	5,540.9	5,615.9	5,695.6	5,763.9	5,833.1	5,908.9
Percent Change	1.5%	1.9%	1.6%	1.4%	1.4%	1.2%	1.2%	1.3%
Nonfarm Employment (*Thousands*)[2]	2,463.5	2,540.8	2,601.5	2,660.6	2,725.4	2,777.2	2,818.8	2,849.8
Percent Change	3.5%	3.1%	2.4%	2.3%	2.4%	1.9%	1.5%	1.1%
Unemployment Rate[2]	5.0%	3.8%	3.2%	2.7%	3.3%	3.1%	3.3%	3.5%
Personal Income (*Millions*)[3]	$271,308	$284,234	$289,581	$310,755	$332,943	$353,252	$371,621	$389,087
Percent Change	8.8%	4.8%	1.9%	7.3%	7.1%	6.1%	5.2%	4.7%
Wage and Salary Income (*Millions*)[3]	$138,626	$146,531	$151,016	$160,719	$170,115	$181,342	$191,497	$200,689
Percent Change	7.0%	5.7%	3.1%	6.4%	5.8%	6.6%	5.6%	4.8%
Housing Permits (*Thousands*)[1]	29.3	30.4	36.9	41.0	47.0	41.1	39.4	40.2
Percent Change	7.5%	4.0%	21.2%	11.2%	14.5%	-12.4%	-4.2%	2.0%
Nonresidential Building (*Millions*)[4]	$4,350.9	$4,990.8	$5,999.6	$6,148.4	$8,056.5	$4,761.4	$5,961.3	$6,229.5
Percent Change	20.1%	14.7%	20.2%	2.5%	31.0%	-40.9%	25.2%	4.5%
Denver-Aurora-Lakewood Inflation[5]	2.8%	1.2%	2.8%	3.4%	2.7%	1.9%	2.1%	2.2%

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

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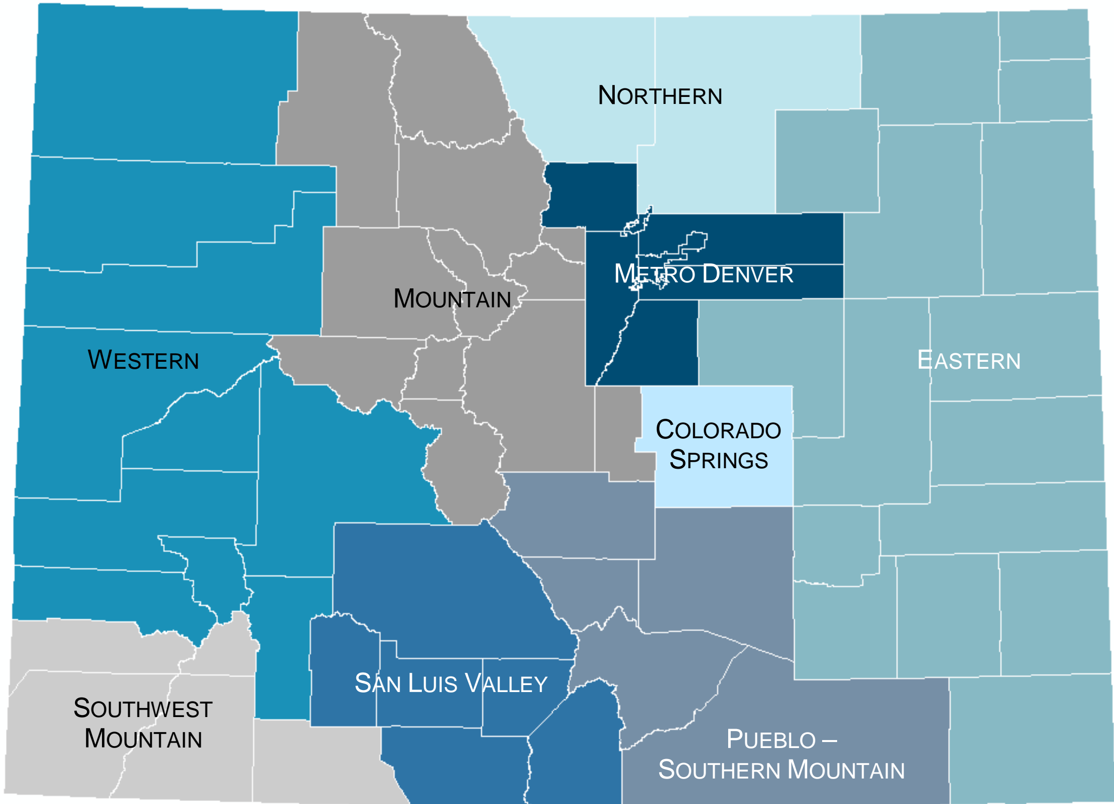
Colorado Economic Regions



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. Retail trade sales data are no longer reported due to data limitations.

Metro Denver Region

Colorado's largest regional economy, the seven-county metro Denver region, continues to expand. Though, labor shortages and cooling construction and real estate activity are slowing momentum. The region is characterized by a strong, diversified economy, with growing sector concentrations in information technology and finance. Home price appreciation continues to moderate in the area as supply and demand are coming into balance and potential buyers are seeking more affordable options elsewhere. While the labor market continues to improve, labor shortages in a growing number of sectors threaten the outlook for the region. Economic indicators for the region are summarized in Table 22.

Table 22
Metro Denver Region Economic Indicators
Adams, Arapahoe, Broomfield, Boulder, Denver, Douglas, and Jefferson Counties

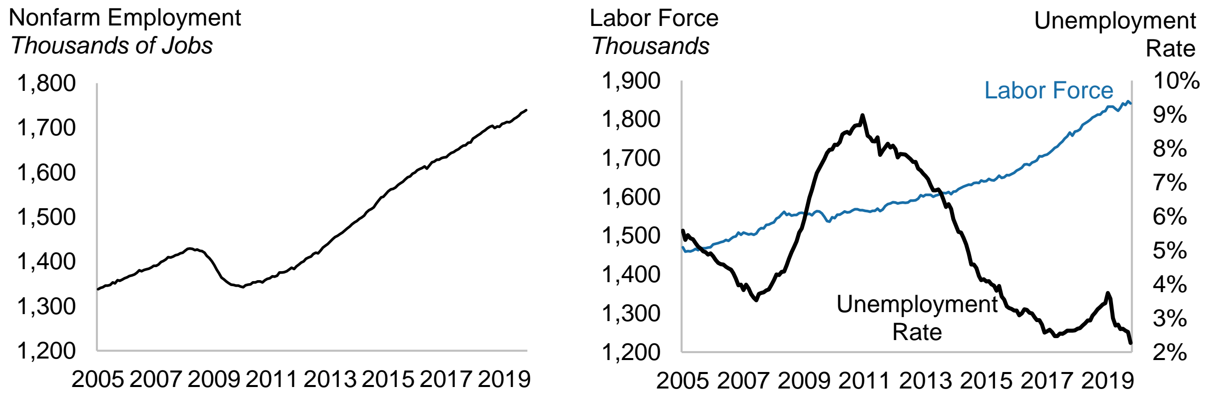
	2015	2016	2017	2018	YTD 2019
Employment Growth[1]	3.1%	2.3%	1.9%	2.4%	1.9%
Unemployment Rate[2]	3.6%	3.0%	2.6%	3.1%	2.8%
Housing Permit Growth[3]					
Denver-Aurora MSA Single Family	17.8%	12.2%	3.8%	24.2%	-7.6%
Boulder MSA Single Family	74.2%	10.2%	-4.3%	33.5%	-5.8%
Nonresidential Construction Growth[4]					
Value of Projects	25.6%	27.9%	-10.6%	42.8%	-45.0%
Square Footage of Projects	43.6%	6.9%	-13.4%	-17.3%	-15.0%
Level (*Millions*)	21,170	22,624	19,596	16,198	9,934
Number of Projects	20.7%	9.9%	-24.1%	-19.5%	-27.7%
Level	1,130	1,242	943	759	436

MSA = Metropolitan statistical area.
[1]U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through October 2019.
[2]U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through September 2019.
[3]U.S. Census. Growth in the number of residential building permits. Data through September 2019.
[4]F.W. Dodge. Data through September 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 through the first ten months of 2019 compared with the same period last year (Figure 48, left). The metro Denver labor market continues to tighten on slowing net migration and a shortage of skilled labor, which has dampened employment growth year-to-date. The area unemployment rate averaged 2.8 percent year-to-date through September (Figure 48, right), reflecting slower growth in both the labor force and employment growth, consistent with a late stage economic expansion.

Housing. Regional residential construction activity continues to slow, with both single and multi-family housing construction below the elevated levels over the past two years (Figure 49, left). The relatively high cost of housing in the metro Denver region has dampened interest among many possible buyers, while labor and land shortages have also constrained new residential construction activity.

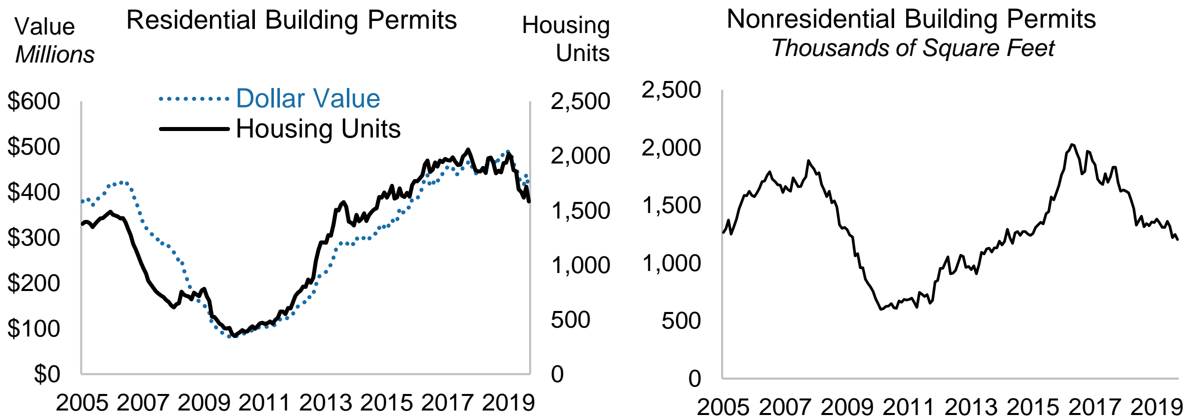
Figure 48
Metro Denver Region Labor Market Activity



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

Nonresidential construction. After peaking in 2016, metro Denver nonresidential building activity continues to moderate. The value, square footage (Figure 49, right), and number of projects have fallen at double-digit rates year-to-date through September 2019, relative to prior-year levels. Strong activity last year was driven by several large projects, including the Denver International Airport concourse expansion project and the National Western Stock Show redevelopment. The absence of similar projects explains most of the decline in 2019 to date. The value of construction of hospitals and health treatment centers, manufacturing buildings, and hotel and motels led growth in the region, partially offsetting declines elsewhere.

Figure 49
Metro Denver Region Construction Activity

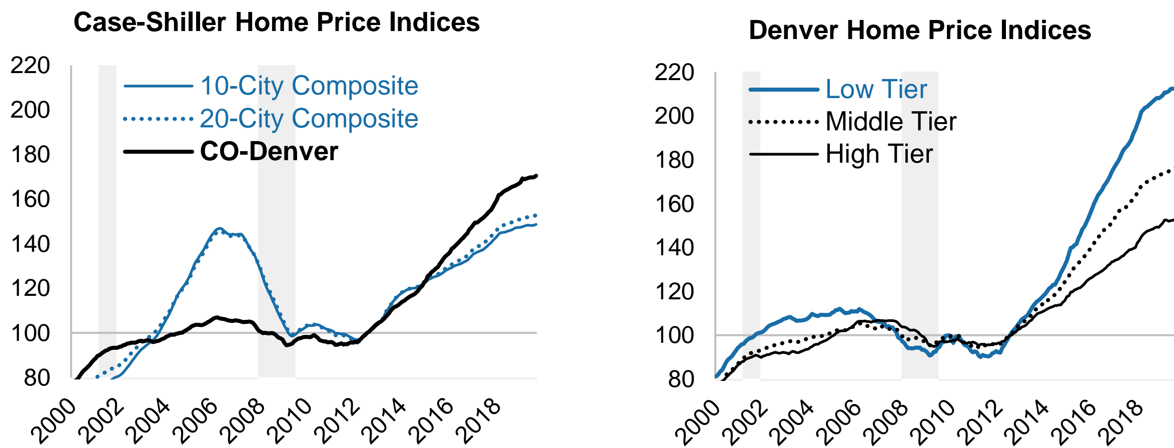


Source: F.W. Dodge. Data shown as twelve-month moving averages. Data are not seasonally adjusted and are through September 2019.

Regional home prices. Figure 50 compares growth in home price indices for the U.S., Colorado, and major metropolitan areas of the state. Home price appreciation has moderated in recent months in the metro Denver area on a growing supply of homes and as potential home buyers are establishing price ceilings by walking away from potential purchases (Figure 50, right and left). According to regional data published by the Federal Housing Finance Agency (FHFA), third quarter home price appreciation slowed over year-ago levels in the higher cost areas of the state, including Denver (3.5 percent), Boulder (3.3 percent), and Fort Collins (3.8 percent) metro areas. In relatively less expensive areas of the state, home prices continue to rise at a faster pace (Figure 50, bottom right). These areas include Colorado Springs (6.6 percent), Grand Junction, and Pueblo (both 6.2 percent).

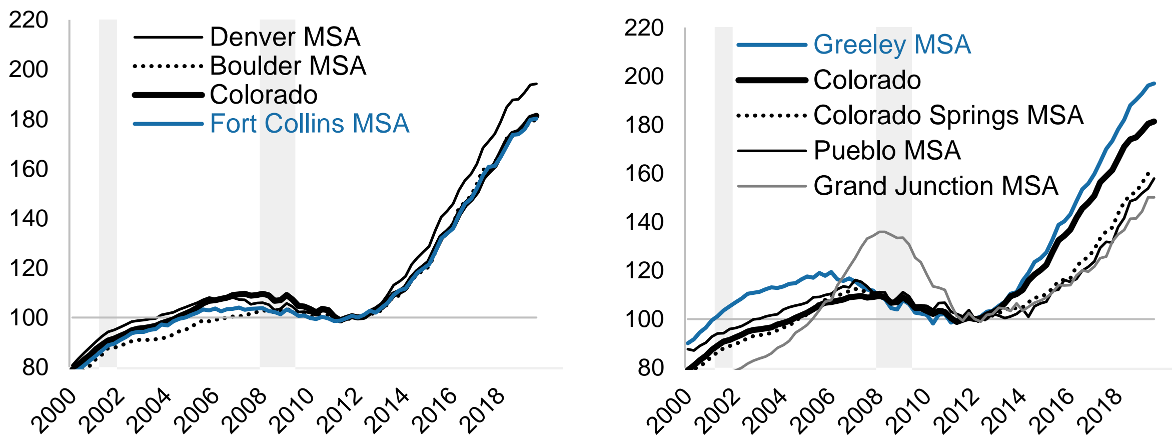
Figure 50
Metro Denver Region Home Price Indices

Case-Shiller Home Price Indices
Index 100 = July 2012 (Recent Trough in Prices)



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

FHFA Home Price Indices
Index 100 = 2012Q1 (Recent Trough in Prices)



Source: U.S. Federal Housing Finance Agency (FHFA). Data are through the third quarter of 2019.

Northern Region

Larimer and Weld counties comprise the diverse economy of the Northern Region. Larimer County's economy continues to grow 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. The region's labor market is tight with healthy employment gains and a low unemployment rate. Construction industry activity has slowed year-to-date, as building activity comes off high levels in 2018. Table 23 shows economic indicators for the northern region.

Table 23
Northern Region Economic Indicators
Weld and Larimer Counties

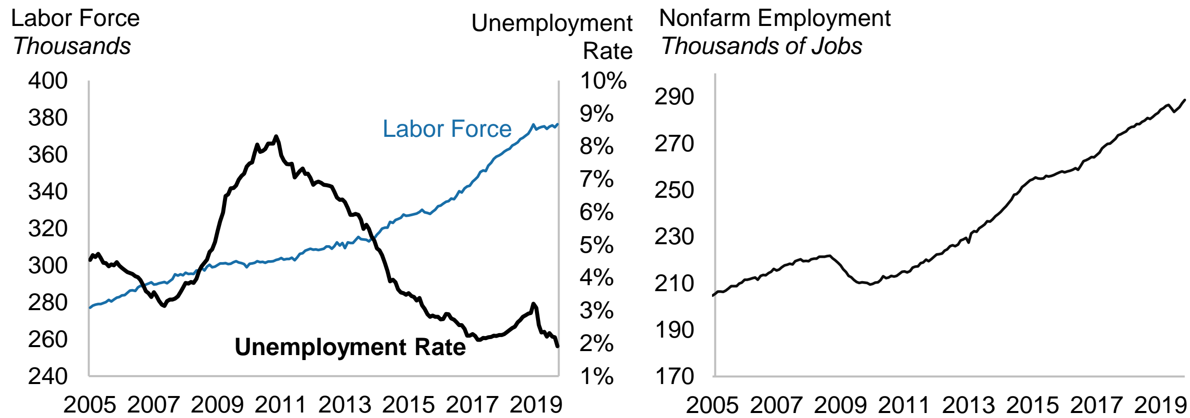
	2015	2016	2017	2018	YTD 2019
Employment Growth[1]					
Fort Collins-Loveland MSA	4.0%	3.8%	3.7%	2.7%	2.4%
Greeley MSA	-0.2%	-0.3%	-0.4%	2.4%	2.6%
Unemployment Rate[2]					
Fort Collins-Loveland MSA	3.3%	2.8%	2.3%	2.8%	2.5%
Greeley MSA	3.8%	3.3%	2.6%	3.0%	2.7%
State Cattle and Calf Inventory Growth[3]	-4.4%	1.0%	6.7%	2.6%	8.3%
Natural Gas Production Growth[4]	44.3%	14.6%	5.6%	18.9%	19.8%
Oil Production Growth[4]	39.4%	-7.3%	13.5%	36.0%	8.4%
Housing Permit Growth[5]					
Fort Collins-Loveland MSA Total	-8.1%	47.9%	-18.2%	21.3%	-15.1%
Fort Collins-Loveland MSA Single Family	1.3%	-2.9%	21.0%	-1.5%	-12.0%
Greeley MSA Total	-3.5%	-7.8%	23.1%	38.2%	-18.6%
Greeley MSA Single Family	3.8%	-9.9%	16.4%	47.0%	-14.2%
Nonresidential Construction Growth[6]					
Value of Projects	32.7%	1.8%	29.2%	65.3%	-84.4%
Square Footage of Projects	19.8%	-14.8%	17.8%	-25.9%	-38.1%
Level (*Thousands*)	3,983	3,393	3,996	2,960	1,336
Number of Projects	-3.9%	11.7%	2.5%	13.4%	-30.9%
Level	248	277	284	322	172

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

Labor market. The region's labor market continues to grow faster than the state as a whole. Employment growth in the Fort Collins-Loveland Metropolitan Statistical Area (MSA) increased 2.4 percent through October 2019 over year-ago levels. Employment growth has slowed for the past five years due to and the difficulty of finding new employees in an area with a low unemployment rate. Employment growth in the Greeley MSA has accelerated to 2.6 percent through October 2019 due to growth in the oil and gas sector of the economy. Area unemployment is stable, with the average

year-to-date Fort Collins-Loveland MSA unemployment rate at 2.7 percent and the Greeley MSA at 2.5 percent, both below the statewide unemployment rate of 3.2 percent for the same period. Figure 51 shows employment trends for the northern region.

Figure 51
Northern Region Labor Market Activity

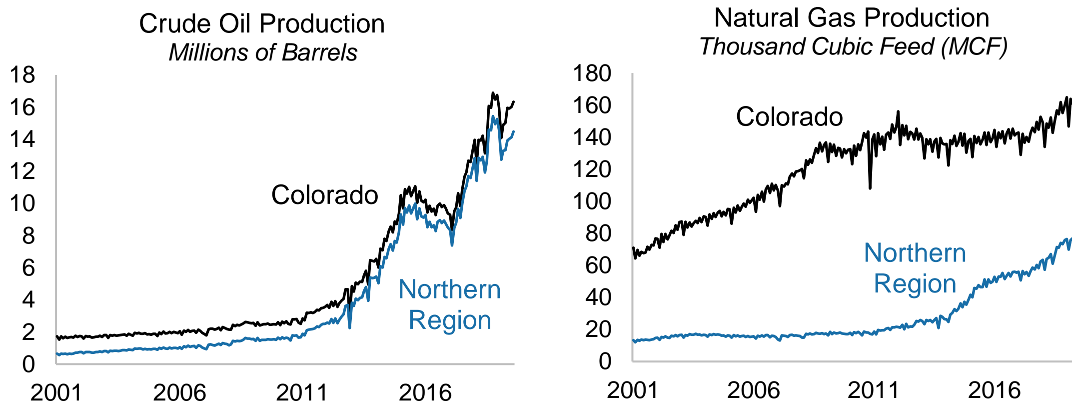


Source: U.S. Bureau of Labor Statistics; CES. Data are seasonally adjusted and are through September 2019.

Agriculture. The northern region produces about a quarter of the value of Colorado's agricultural products due to the livestock industry in Weld County. Despite tariffs on agricultural commodities and the reshuffling of global supply chains, the number of cattle and calves on feed increased 8.3 percent year-to-date through September 2019 over year-ago levels. Drought conditions in 2018 reduced forage on grazing land, increasing the demand for hay to feed cattle herds. The price of a ton of alfalfa hay was $234 in September 2019, a $19 increase over September 2018.

Energy sector. Oil production in the northern region, particularly in Weld County, has dominated statewide production for over a decade (Figure 52). Oil production continues to climb, increasing 8.4 percent year-to-date through August 2019 after increasing 36.0 percent in 2018. Energy companies are placing increasing amounts of natural gas on the market, putting it to productive uses rather than letting it escape as a by-product of oil production. Natural gas production in northern Colorado increased 18.9 percent in 2018 and 19.8 percent through the first eight months of 2019 over the same period last year. Oil and gas producers in Colorado had easy access to credit in 2017 and 2018, allowing them to expand exploration and development of new wells leading to a boost in production in recent years. Banks and other lenders are tightening lending standards across the energy industry, industry which will slow production growth in future years.

Figure 52
Colorado Energy Production

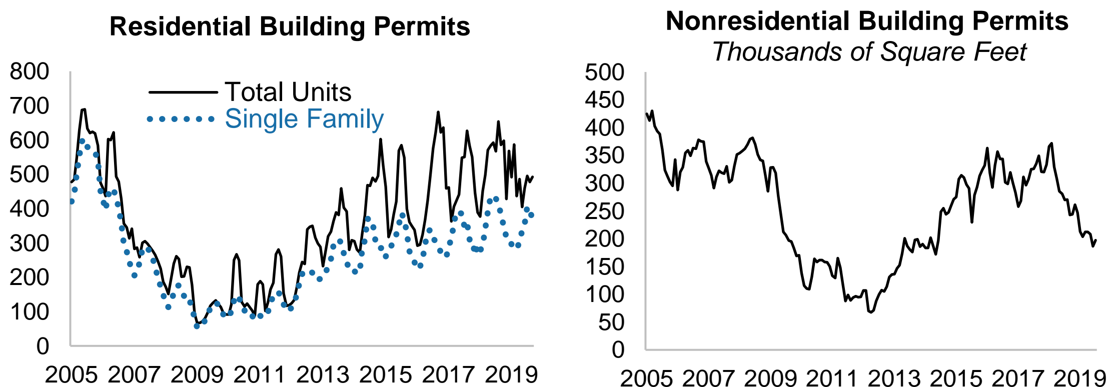


Source: Colorado Oil and Gas Conservation Commission. Monthly data through August 2019.

Housing. Housing construction in the northern region softened in 2019 after robust growth in preceding years. Building permits declined 15.1 percent in the Fort Collins area and declined 18.6 percent in Greeley year-to-date in 2019. These declines are coming off of strong growth in 2018, propelled by several large multi-family projects that are unlikely to be repeated (Figure 53, left). While housing construction has been subdued in 2019, home prices continue to rise. The real estate website Zillow estimates that the median home value in the Fort Collins Metropolitan Statistical Area (MSA) reached $385,300 in September 2019 while median home values in the Greeley MSA reached $329,400, growth of 3.7 percent and 4.2 percent from September 2018, respectively.

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 84.4 percent, the square footage declined 38.1 percent (Figure 53, right), and the number of projects declined 30.9 percent year-to-date 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 53
Northern Region Construction Activity



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

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

Pueblo – Southern Mountains Region

The Pueblo – Southern Mountains region includes five southern Front Range counties surrounding the City of Pueblo. After two years of solid growth, the region's labor market activity slowed in 2018, but has picked up pace in 2019 relative to the same period last year. Relatively affordable housing continues to attract people to the area, aiding the residential real estate market. The City of Pueblo's convention center expansion is expected to support economic activity in the region this year. In addition, recent successes in attracting new, high tech industries to the region are expected to contribute to economic growth. Indicators for the regional economy are presented in Table 24.

Table 24
Pueblo Region Economic Indicators
Custer, Fremont, Huerfano, Las Animas, and Pueblo Counties

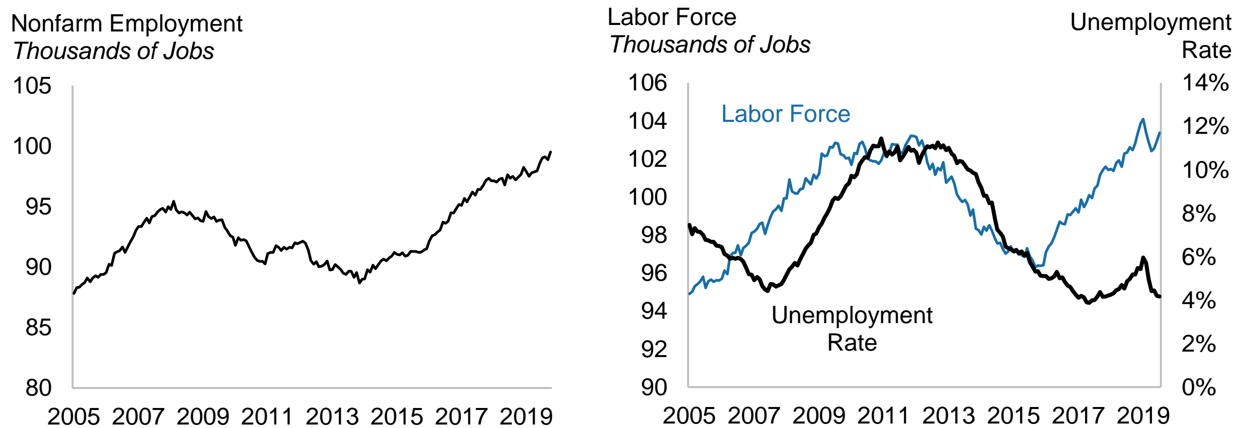
	2015	2016	2017	2018	YTD 2019
Employment Growth					
Pueblo Region[1]	0.9%	2.8%	2.8%	1.0%	1.2%
Pueblo MSA[2]	2.0%	1.8%	1.1%	0.1%	0.2%
Unemployment Rate[1]	5.7%	4.8%	4.1%	5.0%	4.4%
Housing Permit Growth[3]					
Pueblo MSA Total	69.4%	6.0%	14.9%	61.4%	-1.1%
Pueblo MSA Single Family	29.9%	29.9%	16.2%	69.8%	-12.9%
Nonresidential Construction Growth[4]					
Value of Projects	2.6%	-22.6%	-64.5%	224.5%	37.3%
Square Footage of Projects	14.6%	-3.8%	-52.6%	145.1%	-27.9%
Level (*Thousands*)	355	341	162	397	279
Number of Projects	-18.6%	50.0%	-72.2%	55.0%	-20.0%
Level	48	72	20	31	20

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

Labor market. After strong gains in 2016 and 2017, the region's labor market slowed in 2018. However, job growth has picked up pace, increasing by 1.2 percent year-to-date, through October 2019 relative to the same period last year. In the Pueblo Metropolitan Statistical Area, which only includes Pueblo County, job gains have been relatively flat through October of this year compared with the same period last 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 correction facilities offer work for many area residents. The area economy has experienced steady improvements in labor market activity since 2014 (Figure 54). Yet, the area employment-to-population ratio remains low and the regional unemployment rate remains elevated relative to the statewide average. Through October 2019, the unemployment rate averaged 4.4 percent, while the statewide rate averaged 2.9 percent over the same period.

Figure 54
Pueblo Region Labor Market Trends



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

Housing. The Pueblo County residential real estate market continues to pick up pace in 2019 after posting a strong year in 2018. In 2018, the county issued 523 total residential building permits, a 61.4 percent increase from 2017, and largest year-over-year gain since 2015 for the county. The number of total residential permits issued through October 2019 is down slightly from the same period last year, but remains at healthy levels (Figure 55). An affordable housing market compared with the northern and Metro Denver regions has many residents looking to relocate to the Pueblo region. The October 2019 single family median sales price in Pueblo County was $211,614, compared with $510,000 in the Metro Denver region, according to data from the Colorado Association of Realtors. Falling mortgage interest rates and an improving labor market should continue to boost demand for housing permits in the region.

Figure 55
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 September 2019.

Nonresidential construction. Following two years of mixed data in 2016 and 2017, nonresidential construction activity increased considerably in 2018. Amusement and public improvement-related projects have provided most of the lift for the region. The City of Pueblo has recently opened a

convention center expansion along the Historic Arkansas Riverwalk. Through this project, the city is adding a large exhibit hall and Professional Bull Riders-anchored sports performance center to the Pueblo Convention Center, a three-story parking garage across the street from the convention center, and a Gateway Plaza outdoor space, which is expected to be completed in 2019. The total cost for the improvements is projected to top $30 million. The bulk of the project will be paid for by state sales taxes under the state Regional Tourism Act program and state and federal grants.

Colorado Springs Region

The vibrant Colorado Springs economy continues to benefit from a virtuous cycle of economic activity and job growth. After robust growth in 2018, construction activity slowed at the start of 2019, but is expected to remain at elevated levels. The attraction of a strong job market, outdoor recreation, and comparatively lower real estate prices than the northern Front Range continue to bring young professionals into the area. The regional economy, which includes all of El Paso County, has a large public sector presence, supporting area defense operations, higher education institutions, and health care facilities. Increasingly diverse private sector growth also continues to support the area economy. Indicators for the regional economy are presented in Table 25.

Table 25
Colorado Springs Region Economic Indicators
El Paso County

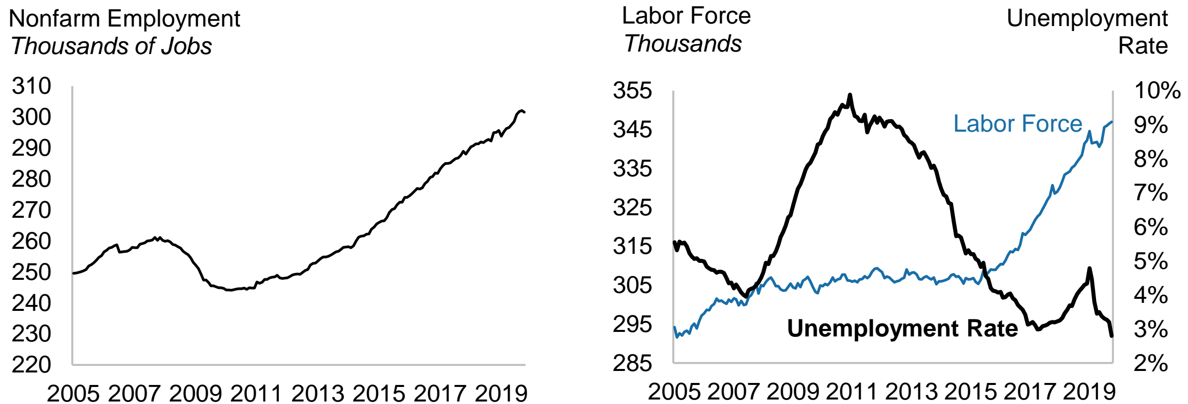
	2015	2016	2017	2018	YTD 2019
Employment Growth[1]					
Colorado Springs MSA	3.3%	2.9%	1.8%	2.2%	2.2%
Unemployment Rate[2]	4.6%	3.7%	3.1%	3.9%	3.5%
Housing Permit Growth[3]					
Total	-0.4%	41.3%	-3.9%	34.2%	-12.0%
Single Family	13.3%	19.7%	6.7%	25.9%	-8.8%
Nonresidential Construction Growth[4]					
Value of Projects	-1.0%	48.9%	-22.6%	16.8%	34.0%
Square Footage of Projects	-0.2%	26.1%	10.5%	7.4%	7.2%
Level (*Thousands*)	1,865	2,353	2,599	2,792	2,083
Number of Projects	13.5%	11.6%	30.0%	-2.0%	-25.6%
Level	379	423	550	539	296

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

Labor market. The Colorado Springs labor market continued to add jobs through October 2019 at a healthy rate, keeping pace with the solid 2.2 percent increase in 2018 (Figure 56, left). The Colorado Springs Metropolitan Statistical Area averaged 590 new jobs each month through October 2019, up from 333 from the same period last 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 56, right). The region's average unemployment rate was 3.5 percent in October, down from 3.9 percent in 2018.

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 3.23 percent year-to-date through October over the same period in the prior year. Tax statistics point to strong contributions from auto sales and tourism-related activity, including hotel, retail, and restaurant sales.

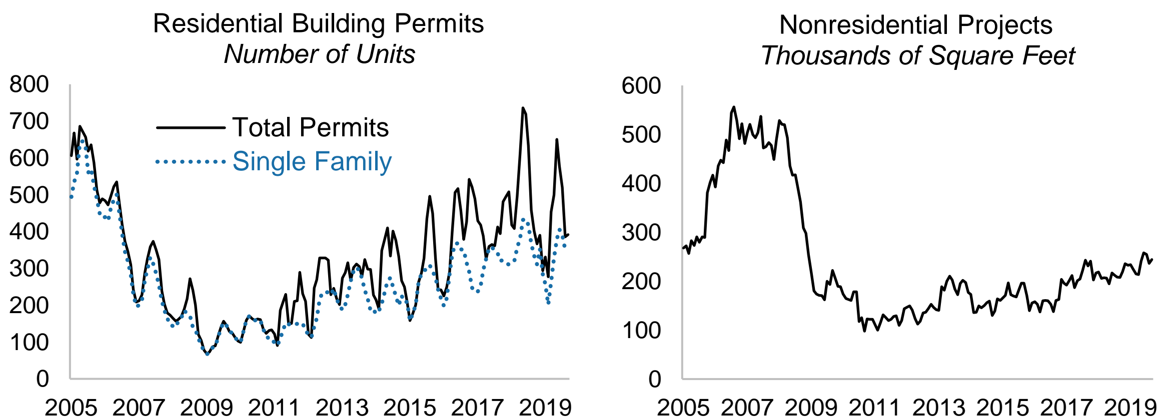
Figure 56
Colorado Springs Labor Market Activity



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

Housing. According to the U.S. News & World Report, Colorado Springs was ranked as the nation's most desirable place to live in 2018. Though new residential permit issuances have slowed through October 2019 compared with the same period last year, the region's residential real estate market conditions remain strong. In October the median sales price for a single-family home in the region was $335,000, up 9.8 percent from the previous year, and the inventory of homes for sale in the region was down 29.9 percent, according to the Colorado Association of Realtors. Year-to-date, the number of residential permits issued in the region was 4,266, down 12.0 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 34.2 percent in 2018. Of the 4,266 permits issued, single-family permits made up 72 percent of these construction applications (Figure 57, left). However, the region's healthy economy and several years of robust home price gains have pushed the cost of living higher, and affordable housing is becoming a concern. While still more affordable than real estate in the Denver metro region, Colorado Springs home prices continue to rise at solid rates as demand continues to outstrip supply.

Figure 57
Colorado Springs Construction Activity



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

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

Nonresidential construction. Relative to pre-recessionary levels, demand for new nonresidential construction has remained subdued throughout the recovery and expansion period, with a slow general upward trend (Figure 57, right). However, investment in nonresidential projects in the region gained moment in 2018 and is expected to maintain this momentum through 2019. The region is preparing to break ground on several projects at the U.S. Olympic Museum, Air Force Academy Visitors Center, Hybl Center for Sports Medicine, and Downtown Sports and Events Center. The new Olympic Museum in downtown Colorado Springs continues to take shape and is expected to open in 2020. Other major projects announced in the region and expected to start construction soon include the Weidner Field at Switchbacks Stadium, Robson Arena at Colorado College, and several new hotels in the downtown area of Colorado Springs.

San Luis Valley Region

Among the nine economic regions of the state identified in this forecast, the San Luis Valley has the state's smallest and oldest population, as well as its lowest household incomes. The economy of the region's six counties is largely agricultural. Nonfarm employers include commercial, health, and government services, as well as a small but resilient tourism sector. Economic data for the region are sparse, but those available suggest that regional construction activity and employment growth have slowed in 2019. Economic indicators for the region are summarized in Table 26.

Table 26
San Luis Valley Region Economic Indicators
Alamosa, Conejos, Costilla, Mineral, Rio Grande, and Saguache Counties

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

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

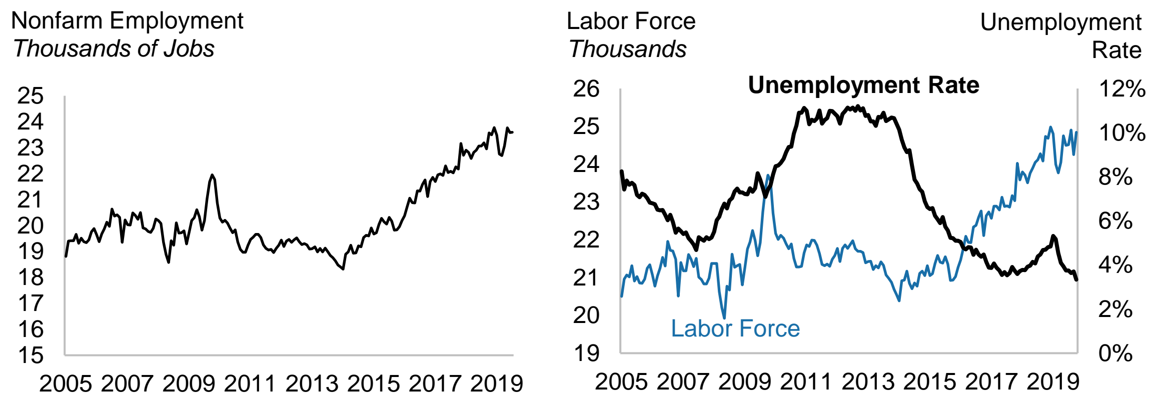
Agricultural industry. The San Luis Valley's agricultural sector relies primarily on the production of potatoes, and secondarily on barley, although hemp and quinoa acreages have been on the upswing. Producers planted 48,600 acres of potatoes this year, after harvesting 55,000 acres in 2018. Hemp, which has become popular in the valley for its tolerance of drier climates and its potentially high pay off, likely replaced the lower potato acreage. Potato shipments through the third week of November are down 4.5 percent over the same period last year, despite higher prices over the last couple of years (Figure 58). Barley production is down about 7 percent over last year, with fewer acres harvested and lower yields. Lower yields may be partially offset by slightly higher prices, which are up 2.2 percent through September compared with the same period last year.

Figure 58
Prices Received for Colorado Potatoes
$/Cwt

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

Labor market. In addition to the agricultural industry, tourism, a large retirement community, and government services, including Adams State University, support the San Luis Valley economy. Employment conditions in the region have cooled off from a relatively frenetic pace over the last few years. Following employment growth of 3.8 percent in 2018, job growth through the third quarter of 2019 slowed to 1.9 percent over year-ago levels (Figure 59, left). The unemployment rate has ticked down to 4.0 percent (Figure 59, right). Based on published data, the decrease in the unemployment rate is attributable to a slowdown in labor force growth, as shown in Figure 59 (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 59
San Luis Valley Labor Market Activity

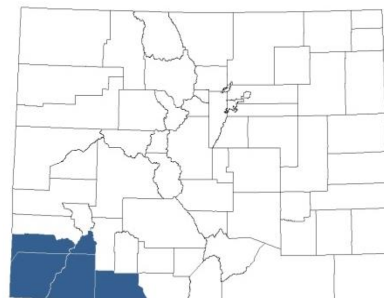


Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through September 2019.

Housing and population growth. After two consecutive years of strong growth, housing permits issued in the San Luis Valley declined by 13.6 percent through September this year over the same period last year. Population growth in the region is mixed, with Alamosa, Costilla, Mineral, and Saguache counties projected to experience mostly positive net migration and natural population increases over the next few years, while Conejos and Rio Grande counties are expected to see declines in both migration and population growth, according to the Colorado State Demography Office. Of the six counties in the region, only Alamosa and Conejos counties have higher median home prices through September this year. Single-family home prices in Alamosa County rose over 12.4 percent year-over-year through October, while prices are up in Conejos County by over 151 percent, possibly due to a few large home sales. 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 20.1 percent through October 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 south of Alamosa, attracts a large number of tourists during the summer season, bringing in millions of dollars to the remote region.

Southwest Mountain Region



The southwest mountain region comprises five counties in the southwest corner of the state. This area boasts a diverse economy, with significant contributions from agriculture, tourism, and natural gas extraction, as well as typical regional services like health care and education. The region is poised to post its fourth consecutive year of strong job gains, while housing development has tapered off substantially. Growth in the regional economy is decelerating, consistent with a mature business cycle. While growth has begun to slow, a low unemployment rate and strong, stable home prices indicate a presently healthy regional economy. Economic indicators for the region are summarized in Table 27.

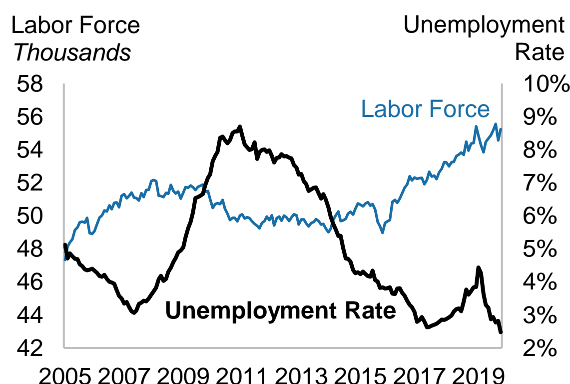
Table 27
Southwest Mountain Region Economic Indicators
Archuleta, Dolores, La Plata, Montezuma, and San Juan Counties

	2015	2016	2017	2018	YTD 2019
Employment Growth[1]	0.7%	3.9%	2.4%	2.0%	2.0%
Unemployment Rate[1]	4.0%	3.4%	2.8%	3.5%	3.1%
Housing Permit Growth[2]	17.9%	-4.6%	29.8%	24.1%	-40.3%
National Park Recreation Visits[3]	10.2%	7.5%	4.4%	-7.6%	-1.5%

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

Labor market. Even after years of expansion, the regional job market is still motivating more workers to enter the labor force. The rate of job gains has kept up with labor force growth, keeping regional unemployment low. Figure 60 illustrates the region's falling unemployment rate and persistent but decelerating growth in the regional labor force.

Figure 60
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 September 2019.

The labor force is benefitting from a broader population increase, which remains a contributor to economic growth. The State Demography Office (SDO) projects that the regional population topped 100,000 people for the first time ever this year. The SDO anticipates growth of 1.5 percent for each of 2019 and 2020, accelerating to 1.7 percent by the end of the forecast period. In all years, population growth in the region is expected to outpace the state growth rate. However, local outlooks are disparate. La Plata County, home to Durango, is expected to grow about twice as quickly as the region's other four counties combined.

Housing. After significant additions to the regional housing supply, homebuilders have reduced their endeavors in the region. The number of permitted residential units declined 40.3 percent through September compared with the first nine months of 2018. Builders face constraints from buildable lots, diminished labor supply, and ebbing demand.

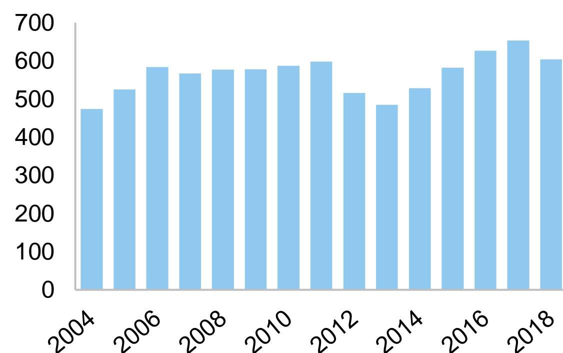
Individual local communities in this small region face different housing market challenges. Zillow's Home Value Index estimated the median residential property value in Montezuma County at $257,600 in September 2019, about 60 percent of the $429,400 estimate for next door La Plata County. However, Zillow also found that residential property values in Montezuma County had appreciated 15.6 percent since September 2018, the second-strongest rate among Colorado counties for which the number of home sales was sufficient to produce an estimate.

Data from actual home sales in La Plata County suggest that values – at least for homes on the market - may be lower than estimated by Zillow's index. The Durango Area Association of Realtors reported 868 home sales in La Plata County during the third quarter of 2019, up 2.4 percent over the same quarter in 2018. The median third quarter sale price was $385,000 for the county, down less than one percentage point over the year. A total of 120 detached single family homes in Durango sold for a median price of $504,250, significantly higher than the in-town price of $334,500 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 slacken home prices in addition to deepening other economic challenges.

Tourism. The regional tourism industry benefitted from bountiful winter snowfall during the 2018-19 ski season and a largely fire-free summer and fall. Peak season – June, July, and August – visitations to Mesa Verde National Park increased 6.5 percent over the same months last year, when they were depressed in part by fire-related closures of highways into the region. However, visitations were still 5.8 percent lower than their peak levels in 2017. Annual visitation statistics are presented in Figure 61.

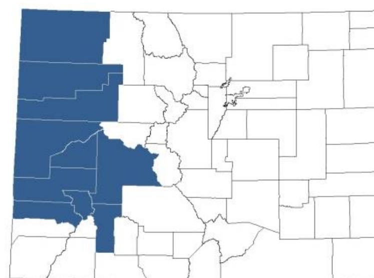
Figure 61
Southwest Mountain National Park Visits
Thousands



Source: National Park Service visitations for Mesa Verde National Park and Hovenweep National Monument. Data through 2018.

The winter ski season attracts visitors to destinations in northern La Plata County, San Juan County, and Archuleta County. The most recent long-lead forecast from the Climate Prediction Center (CPC) at the National Oceanic and Atmospheric Administration anticipates equal probabilities of above-normal and below-normal snowfall in the southwest mountains for the first three months of 2020. However, the CPC forecasts a higher than normal probability of elevated temperatures in the southwest mountains during the same period.

Western Region



The 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, 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 28.

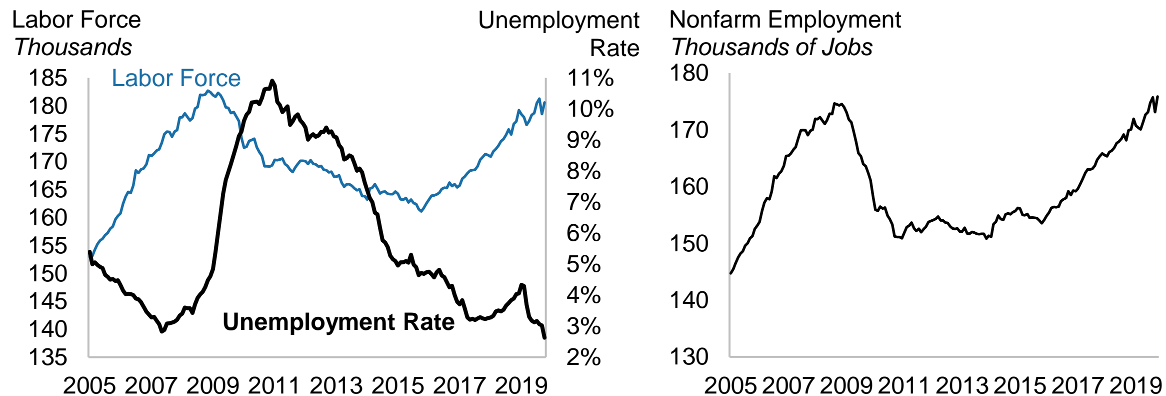
Table 28
Western Region Economic Indicators
Delta, Garfield, Gunnison, Hinsdale, Mesa, Moffat, Montrose, Ouray, Rio Blanco, and San Miguel Counties

	2015	2016	2017	2018	YTD 2019
Employment Growth					
Western Region[1]	-0.2%	2.1%	3.7%	3.0%	3.1%
Grand Junction MSA[2]	-0.2%	-0.3%	-0.4%	2.4%	2.6%
Unemployment Rate[1]	4.9%	4.4%	3.3%	3.7%	3.3%
Natural Gas Production Growth[3]	-12.8%	-6.7%	-2.1%	1.3%	2.9%
Housing Permit Growth[4]	24.7%	6.7%	42.8%	15.5%	-14.3%
Nonresidential Construction Growth[4]					
Value of Projects	-37.8%	16.4%	-33.4%	2.8%	90.9%
Square Footage of Projects	-41.0%	-3.9%	-18.2%	20.5%	9.1%
Level (*Thousands*)	602	579	474	571	515
Number of Projects	-16.4%	41.1%	-38.0%	22.4%	-4.3%
Level	56	79	49	60	44

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

Labor market. The region's labor market continued to add jobs through the first ten months of 2019 and the unemployment rate declined. Compared with the same period in the prior year, employment increased 3.1 percent across the region in the first ten months of 2019 and 2.6 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 3.3 percent through the first ten months of 2019 (Figure 62, left). An increasing labor force has helped to support employment growth in the region (Figure 62, right). The construction, health care, and retail sectors have had the largest employment gains, and wage increases have been broad-based.

Figure 62
Western Region Labor Market Activity



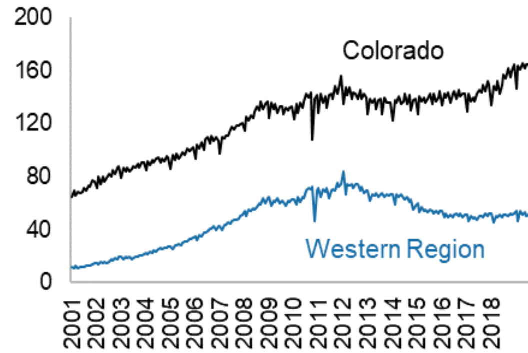
Source: U.S. Bureau of Labor Statistics; Data are seasonally adjusted and are through October 2019.

Construction. Residential construction activity declined 14.3 percent in the first nine months of 2019 over year-ago levels, despite rising demand for housing in the region. According to the real estate website Zillow, housing prices are up across the region. The strongest growth in home prices has been in Montezuma and Routt counties, growing 15.6 percent and 10.0 percent between September 2018 and September 2019, respectively. San Miguel and Ouray counties had slower growth in percentage terms, as home prices in those resort areas are higher than neighboring counties. 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 90.9 percent through the first nine months of 2019.

Energy sector. The Piceance Basin is located in the western region of Colorado and is the second largest potentially developable natural gas resource in the country. Natural gas production in the region increased 1.3 percent in 2018 and continued growing by 2.9 percent through the first eight months of 2019 (Figure 63). There is significant potential for the region's natural gas to meet the country's 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 is on pace to increase for the sixth consecutive year despite the federal government shutdown in January 2019. Visitation increased 42.7 percent through the first ten months of 2019 compared with the same period last year. Meanwhile, the nearby Curecanti National Recreation Area experienced a 1.3 percent increase in visitation for the same period. Rapidly changing water levels in Curecanti led to the temporary closure of some sites during the spring run-off, but higher water levels in the reservoir increased the access for boaters in the second half of 2019. Visitations to the Colorado National Monument near Grand Junction increased 8.9 percent through the first ten months of 2019, helped in part by the newly reconstructed Rim Rock Drive.

Figure 63
Natural Gas Production
Millions of BCF



Source: Colorado Oil and Gas Conservation Commission. Data through August 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 region boasts one of the state's strongest economies; however, recent indicators suggest a regional economic slowdown consistent with a mature economic expansion. Economic indicators for the mountain region are presented in Table 29.

Table 29
Mountain Region Economic Indicators
Chaffee, Clear Creek, Eagle, Gilpin, Grand, Jackson, Lake, Park, Pitkin, Routt, Summit, and Teller Counties

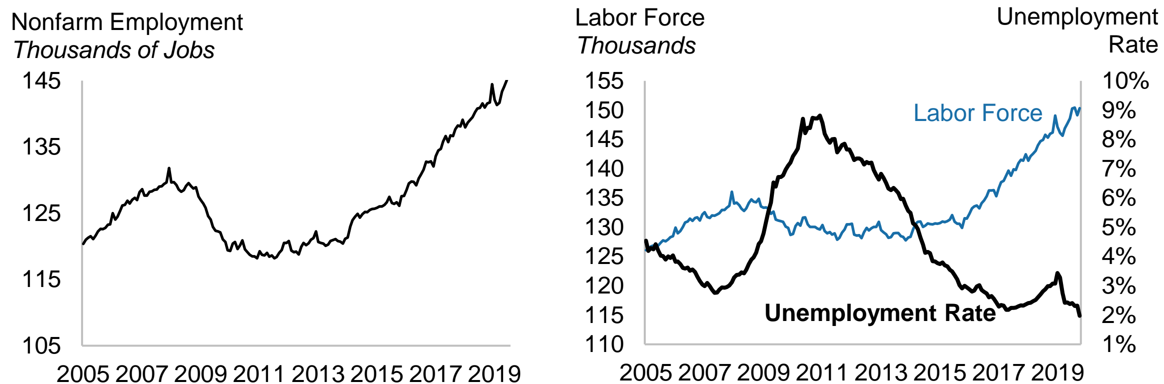
	2015	2016	2017	2018	YTD 2019
Employment Growth[1]	1.6%	3.5%	4.3%	3.0%	3.1%
Unemployment Rate[1]	3.3%	2.7%	2.3%	2.8%	2.5%
Housing Permit Growth[2]	-7.8%	29.0%	-10.7%	73.9%	-23.7%
Nonresidential Construction Growth[2]					
Value of Projects	44.0%	-31.3%	312.2%	-78.1%	0.2%
Square Footage of Projects	-62.0%	18.7%	232.7%	-65.1%	-20.2%
Level (*Thousands*)	514	609	2,028	708	561
Number of Projects	-33.3%	52.5%	1.6%	17.7%	-64.5%
Level	40	61	62	73	22

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

Labor market. Surveys of the region's households suggest that growth in regional nonfarm employment has decelerated since 2017 (Figure 64, left). The mature labor market has absorbed nearly all labor market slack (Figure 64, right), contributing to the region's state-low unemployment rate. Continued deceleration in employment growth is expected to result from labor shortages, contributing to greater wage pressures in the region's highly service-oriented and often costly economy. Some regional business organizations are reporting that difficulty finding employees has resulted in longer lengths of time for which jobs remain unfilled. Business organizations also report that labor supply is constrained by a lack of housing and health insurance options for employees.

The regional labor force has also leveled out, consistent with the absorption of labor market slack. While the region's population is growing at a rate similar to the states, variation from county to county is significant. Estimates from the State Demography Office (SDO) suggest that Teller and Chaffee counties – the region's fourth and fifth most populous, respectively – again attracted the most new residents on net this year, beating the larger, higher-cost communities in Eagle and Routt counties. The SDO also estimates that out-migration from Summit County has become significant enough to totally offset in-migration, and that Pitkin County, the state's most expensive, has posted three years of net out-migration, a trend expected to continue through 2021.

Figure 64
Mountain Region Labor Market Activity



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

Weather. While heavy winter snowfall and high spring snowpack was a boon for mountain tourism during the 2018-19 ski season, weather this winter may prove less fortuitous. The Climate Prediction Center (CPC) at the National Oceanic and Atmospheric Administration anticipates equal probabilities of above-normal and below-normal mountain snowfall during the first three months of 2020. However, the CPC forecasts an elevated probability of above-normal mountain temperatures over the same period.

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

Residential construction in the mountain region peaked during 2018 but remains strong. In both unit and dollar terms, homebuilding is poised in 2019 to post its second-best year during the ongoing economic expansion (Figure 65, left), bested only by banner construction last year. Permits for residential construction are being issued throughout the region, though development activity has been most aggressive in Summit County, the region's second most populous. Permits issued for homebuilding in Summit County outpaced larger Eagle County in both 2018 and over the first ten months of 2019. By October, four counties had already surpassed their total count of 2018 homebuilding permits: Routt County, where construction activity rebounded from a weaker performance last year; and comparatively small Clear Creek, Lake, and Jackson counties.

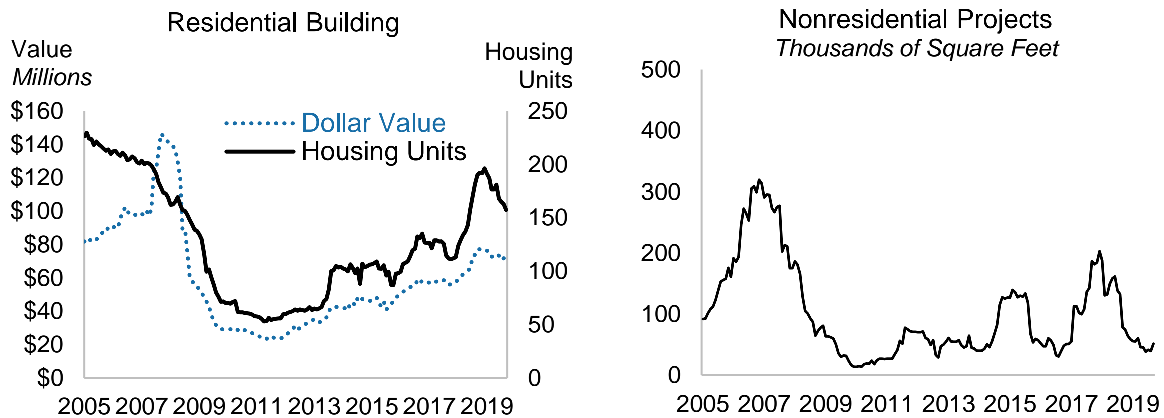
Residential transactions in mountain resort counties have declined, perhaps portending a cooler period in broader spending among wealthy consumers. Land Title Guarantee Company reports that residential transactions in five principal mountain region resort counties – Eagle, Grand, Pitkin, Routt, and Summit – fell 4 percent between the third quarter of 2018 and the third quarter of 2019, with increased sales in Eagle and Grand counties partially offsetting declining transactions in Routt, Pitkin, and Summit counties. Sale prices for both single family and multi-family units have generally continued to increase in the resort areas.

Nonresidential construction. Regional investment in nonresidential construction projects has cooled. Table 29 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 65. Data for the first three quarters of 2019 suggest that nonresidential construction was tepid in value and square footage terms. The number of projects was also modest: with only 22 nonresidential projects permitted through September, 2019 is on pace to be the weakest year for mountain region nonresidential construction during the current expansion.

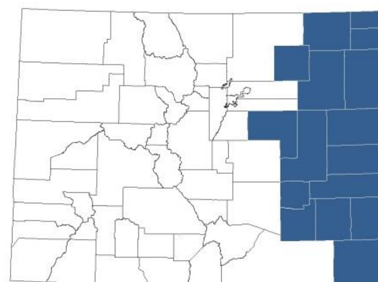
Reduced construction activity does not indicate a shrinking economy, but rather one that is growing more slowly. Fewer new projects offer fewer new opportunities for business expansion, hiring, and sales.

Figure 65
Mountain Region Construction Activity



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

Eastern Region



The eastern region includes Colorado's 16 rural plains counties. Agriculture is the primary industry in the region with retailers, other locally-focused businesses, and government operations supporting area farming and ranching communities. Out-migration and an aging population continue to put pressure on the labor market 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 30.

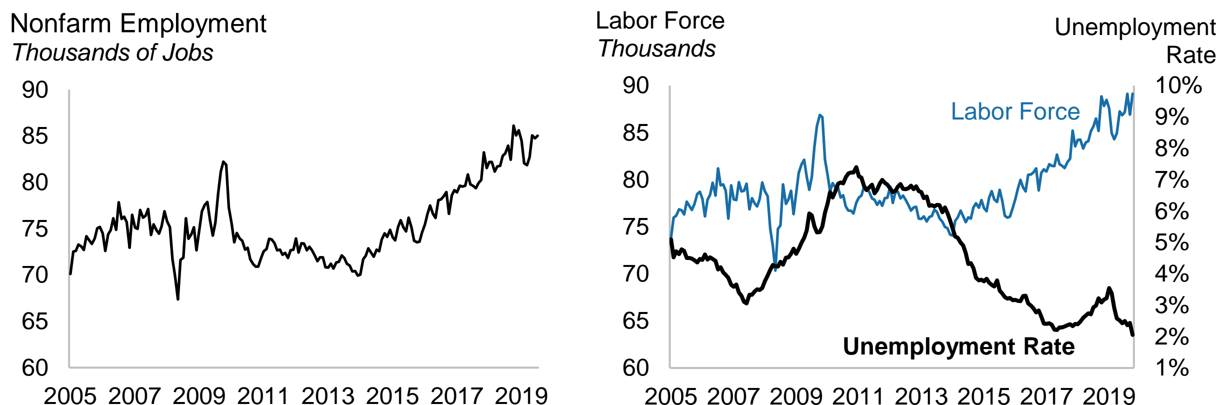
Table 30
Eastern Region Economic Indicators
Baca, Bent, Logan, Cheyenne, Crowley, Elbert, Kiowa, Kit Carson, Lincoln, Morgan, Otero, Phillips, Prowers, Sedgwick, Washington, and Yuma Counties

	2015	2016	2017	2018	YTD 2019
Employment Growth[1]	2.2%	4.1%	3.4%	3.6%	2.0%
Unemployment Rate[1]	3.5%	2.9%	2.3%	3.0%	2.6%
Crop Price Changes[2]					
Wheat ($/Bushel)	-25.6%	-27.9%	-2.9%	34.6%	-3.1%
Corn ($/Bushel)	-13.1%	-7.7%	-3.4%	2.8%	10.2%
Alfalfa Hay (Baled, $/Ton)	-13.9%	-15.5%	4.8%	23.8%	18.9%
Livestock[2]					
State Cattle and Calf Inventory Growth	-4.4%	1.0%	6.7%	2.6%	8.3%
Milk Production	3.9%	5.2%	6.7%	8.8%	5.2%

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

Labor market. After several years of persistent out-migration and natural population decline, the eastern region's population and birth rates are on the upswing. The falling population numbers put downward pressure on the labor force by squeezing an already tight labor market, putting upward pressure on wages, and leaving some agricultural producers without workers. Employment growth year-to-date through the third quarter of 2019 shows slower growth at 2.0 percent over year-ago levels, after growth of around 3.5 percent during 2017 and 2018. The area unemployment rate ticked down slightly to 2.6 percent through the third quarter of the year, indicating that the local labor force may be at capacity. The Colorado State Demographer's Office is projecting faster birth rates and net in-migration in the coming years, which may or may not alleviate some of the labor market pressure, as much of the projected growth is located in bedroom communities near the Denver Metro, Colorado Springs, and northern regions. Labor market activity for the eastern region can be found in Figure 66.

Figure 66
Eastern Region Labor Market Activity

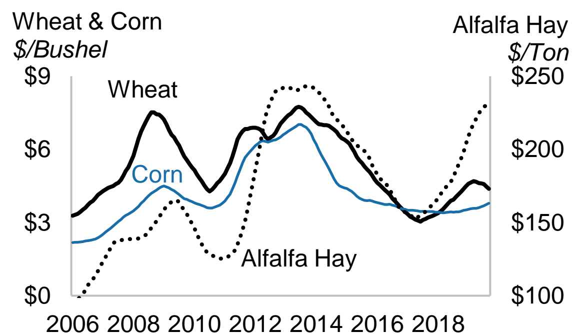


Source: U.S. Bureau of Labor Statistics; LAUS. Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through September 2019.

Agriculture and livestock. Low crop prices, tariffs on agricultural exports, and a tight labor market continue to put downward pressure on agricultural producers in the region. Ongoing tariffs on U.S. agricultural exports has contributed to the decline in total state agricultural exports this year, creating a loss in revenue for some producers that has not been fully offset by federal Market Facilitation Program payments. Reduced foreign demand has contributed to an oversupply of certain commodities, pushing down prices and farm income.

Prices received for Colorado crops can be found in Figure 67. Corn prices have been volatile this year but hit their lowest levels in September since the beginning of 2018. Alfalfa hay prices reached their highest price since 2013, at $240 per ton from January through June, and are up 18.9 percent year-over-year through September. Wheat prices hit the lowest level since the beginning of 2018 in September; wheat stocks are up on strong winter wheat yields, while exports are down on weaker global demand. The number of cattle and calves on feed is up 5.0 percent in November over last year on higher domestic and foreign demand for beef.

Figure 67
Prices Received for Colorado Crops



Source: National Agricultural Statistics Service. Data shown as twelve-month moving averages. Data through September 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 began their ascent around mid-2017, rising from about $145,000 in 2014 to almost $250,000 in 2019, still well below the statewide median. This rapid pace of growth, in both residents and prices, has been met with resistance, with some communities considering limits on their housing growth and changes to zoning.

Wind farms. Xcel Energy's wind farm was completed in 2018 and crosses five counties in the region, providing an injection of capital to those landowners that agree to house wind turbines. The company recently announced a new project to be built on 100,000 acres in Cheyenne and Kit Carson counties and completed at the end of 2020. Another large wind farm is slated to begin operations in Lincoln County in 2021. 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	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
GDP ($ *Billions*)[1]	$12,213.7	$13,036.6	$13,814.6	$14,451.9	$14,712.8	$14,448.9	$14,992.1	$15,542.6	$16,197.0	$16,784.9	$17,527.3	$18,224.8	$18,715.0	$19,519.4	$20,580.2
Percent Change	6.6%	6.7%	6.0%	4.6%	1.8%	-1.8%	3.8%	3.7%	4.2%	3.6%	4.4%	4.0%	2.7%	4.3%	5.4%
Real GDP ($ *Billions*)[1]	$14,406.4	$14,912.5	$15,338.3	$15,626.0	$15,604.7	$15,208.8	$15,598.8	$15,840.7	$16,197.0	$16,495.4	$16,912.0	$17,403.8	$17,688.9	$18,108.1	$18,638.2
Percent Change	3.8%	3.5%	2.9%	1.9%	-0.1%	-2.5%	2.6%	1.6%	2.2%	1.8%	2.5%	2.9%	1.6%	2.4%	2.9%
Unemployment Rate[2]	5.5%	5.1%	4.6%	4.6%	5.8%	9.3%	9.6%	8.9%	8.1%	7.4%	6.2%	5.3%	4.9%	4.4%	3.9%
Inflation[2]	2.7%	3.4%	3.2%	2.9%	3.8%	-0.3%	1.6%	3.1%	2.1%	1.5%	1.6%	0.1%	1.3%	2.1%	2.4%
10-Year Treasury Note[3]	4.3%	4.3%	4.8%	4.6%	3.7%	3.3%	3.2%	2.8%	1.8%	2.4%	2.5%	2.1%	1.8%	2.3%	2.9%
Personal Income ($ *Billions*)[1]	$10,035.1	$10,598.2	$11,381.7	$12,007.8	$12,442.2	$12,059.1	$12,551.6	$13,326.8	$14,010.1	$14,181.1	$14,991.7	$15,717.8	$16,121.2	$16,878.8	$17,819.2
Percent Change	5.8%	5.6%	7.4%	5.5%	3.6%	-3.1%	4.1%	6.2%	5.1%	1.2%	5.7%	4.8%	2.6%	4.7%	5.6%
Wage & Salaries ($ *Billions*)[1]	$5,421.6	$5,691.9	$6,057.0	$6,396.8	$6,534.3	$6,248.6	$6,372.1	$6,625.9	$6,927.5	$7,113.2	$7,475.2	$7,856.7	$8,083.5	$8,462.1	$8,888.5
Percent Change	5.5%	5.0%	6.4%	5.6%	2.1%	-4.4%	2.0%	4.0%	4.6%	2.7%	5.1%	5.1%	2.9%	4.7%	5.0%
Nonfarm Employment (*Millions*)[2]	131.8	134.0	136.5	138.0	137.2	131.3	130.4	131.9	134.2	136.4	138.9	141.8	144.3	146.6	149.1
Percent Change	1.1%	1.7%	1.8%	1.1%	-0.5%	-4.3%	-0.7%	1.2%	1.7%	1.6%	1.9%	2.1%	1.8%	1.6%	1.7%

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

Colorado Economic Indicators

Calendar Years	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Nonfarm Employment (*Thousands*)[1]	2,178.6	2,225.1	2,278.7	2,330.3	2,349.6	2,244.2	2,220.9	2,257.7	2,311.8	2,380.3	2,463.5	2,540.8	2,601.5	2,660.6	2,725.4
Percent Change	1.2%	2.1%	2.4%	2.3%	0.8%	-4.5%	-1.0%	1.7%	2.4%	3.0%	3.5%	3.1%	2.4%	2.3%	2.4%
Unemployment Rate[1]	5.5%	5.0%	4.3%	3.7%	4.9%	7.3%	8.7%	8.4%	7.9%	6.9%	5.0%	3.8%	3.2%	2.7%	3.3%
Personal Income ($ *Millions*)[2]	$164,106	$175,273	$189,476	$201,876	$208,738	$198,800	$205,372	$223,153	$237,142	$249,282	$271,308	$284,234	$289,581	$310,755	$332,943
Percent Change	3.7%	6.8%	8.1%	6.5%	3.4%	-4.8%	3.3%	8.7%	6.3%	5.1%	8.8%	4.8%	1.9%	7.3%	7.1%
Per Capita Personal Income ($)[2]	$35,870	$37,841	$40,140	$42,024	$42,689	$39,982	$40,682	$43,570	$45,659	$47,298	$50,700	$52,133	$52,262	$55,335	$58,456
Percent Change	2.7%	5.5%	6.1%	4.7%	1.6%	-6.3%	1.8%	7.1%	4.8%	3.6%	7.2%	2.8%	0.2%	5.9%	5.6%
Wage & Salary Income ($ *Millions*)[2]	$93,550	$98,774	$105,649	$112,526	$116,710	$112,228	$113,670	$118,414	$124,947	$129,521	$138,626	$146,531	$151,016	$160,719	$170,115
Percent Change	4.8%	5.6%	7.0%	6.5%	3.7%	-3.8%	1.3%	4.2%	5.5%	3.7%	7.0%	5.7%	3.1%	6.4%	5.8%
Retail Trade Sales ($ *Millions*)[3]	$62,288	$65,492	$70,437	$75,329	$74,760	$66,345	$70,738	$75,548	$80,073	$83,569	$90,653	$94,920	NA	NA	NA
Percent Change	6.1%	5.1%	7.5%	6.9%	-0.8%	-11.3%	6.6%	6.8%	6.0%	4.4%	8.5%	4.7%			
Housing Permits[4]	44,864	45,433	39,193	30,064	19,372	9,370	11,538	13,382	21,298	27,224	29,261	30,433	36,887	41,022	46,966
Percent Change	9.4%	1.3%	-13.7%	-23.3%	-35.6%	-51.6%	23.1%	16.0%	59.1%	27.8%	7.5%	4.0%	21.2%	11.2%	14.5%
Nonresidential Construction (*Millions*)[5]	$3,245	$4,275	$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
Percent Change	20.8%	31.7%	8.6%	13.3%	-21.8%	-18.5%	-6.2%	24.7%	-5.8%	-1.9%	20.1%	14.7%	20.2%	2.5%	31.0%
Denver-Aurora-Lakewood Inflation[1]	0.1%	2.1%	3.6%	2.2%	3.9%	-0.6%	1.9%	3.7%	1.9%	2.8%	2.8%	1.2%	2.8%	3.4%	2.7%
Population (*Thousands, July 1*)[4]	4,575	4,632	4,720	4,804	4,890	4,972	5,048	5,122	5,194	5,270	5,351	5,452	5,541	5,616	5,696
Percent Change	1.0%	1.2%	1.9%	1.8%	1.8%	1.7%	1.5%	1.5%	1.4%	1.5%	1.5%	1.9%	1.6%	1.4%	1.4%

Sources
[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.