Colorado Legislative Council Staff

December 2022 | Economic & Revenue Forecast

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Executive Summary

This report presents the budget outlook based on current law and the December 2022 forecast for General Fund revenue, cash fund revenue, and the state TABOR outlook. 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 2021-22

Preliminary figures indicate that the General Fund ended FY 2021-22 with a reserve of $3.20 billion, or 26.6 percent of appropriations, exceeding the statutorily required 13.4 percent reserve by $1.59 billion. State revenue exceeded the Referendum C cap by $3.73 billion, triggering a General Fund obligation to pay TABOR refunds during FY 2022-23.

FY 2022-23

The General Fund is expected to end FY 2022-23 with a 14.6 percent reserve, $55.7 million below the statutorily required 15.0 percent reserve. General Fund revenue collections are expected to fall by $828.1 million, primarily as a result of policy changes enacted through ballot measures approved at the November 2022 general election. Despite the decrease in revenue, collections are expected to surpass the Referendum C cap by $2.47 billion.

FY 2023-24 Unbudgeted

General Fund revenue is expected to modestly exceed FY 2022-23 collections as economic growth continues to slow; however, the FY 2023-24 Referendum C cap will incorporate inflation for calendar year 2022, which this forecast projects at 8.1 percent. The General Assembly is projected to have $1.32 billion, or 7.2 percent, more available to spend or save relative to what is budgeted to be spent or saved in FY 2022-23 after the application of current law transfers and the 15.0 percent statutory reserve requirement. This amount does not incorporate caseload growth, inflation, or other budgetary pressures. The General Fund Budget Overview section also presents the budget outlook in the context of the Governor's November 2022 budget proposal for FY 2023-24. In that scenario, the General Fund would be expected to end the year with a 14.6 percent reserve, $57.7 million below the statutorily required 15.0 percent reserve.

FY 2024-25 Unbudgeted

General Fund revenue is expected to grow 4.9 percent and total $18.20 billion, with state revenue subject to TABOR exceeding the Referendum C cap by $1.37 billion. The budget outlook for FY 2024-25 depends in large part on choices the General Assembly will make for FY 2023-24.

Risks to the budget outlook. Rising costs for government services will put upward pressure on appropriations, limiting budget flexibility. Further, the revenue outlook carries significant uncertainty, with bidirectional risk. Ballot measures passed at the November election shrank the expected TABOR surplus. One short-term effect is a narrower margin for forecast error, such that economic performance below forecast expectations could cause revenue to fall below the Referendum C cap and limit the amount available for the budget.

Cash Fund Revenue

Cash fund revenue subject to TABOR in the current FY 2022-23 is expected to total $2.74 billion, an increase of 2.7 percent, with most of the growth occurring in transportation-related revenue and other cash funds revenue. Cash fund revenue growth is expected to accelerate to 4.6 percent in FY 2023-24, before slowing in FY 2024-25 to 3.9 percent. Strong growth in transportation-related and other cash funds revenue is expected to offset declines in severance tax and insurance-related revenue throughout the forecast period. The forecast for cash fund revenue is presented beginning on page 43, and summarized in Table 13 on page 43.

Unemployment Insurance Trust Fund insolvency. After closing FY 2020-21 with a deficit of $1.0 billion, the balance of the Unemployment Insurance Trust Fund improved in FY 2021-22 as benefits paid declined from pandemic highs. The fund became insolvent in August 2020, when benefits exceeded available funds, and Colorado began borrowing from the federal government to fund benefits payments. A move to the highest rate schedule to begin 2022, along with an increase in the chargeable wage base, has improved the fund's position. The fund was further bolstered by the injection of $600 million in federal American Rescue Plan Act funds. Colorado repaid the remaining federal loan balance with a private loan in November 2022. As of December 15, 2022, Colorado has no federal loans outstanding, down from a balance of $1.01 billion in March 2022. The fund balance is expected to steadily improve, exceeding pre-pandemic levels by the end of the forecast period.

Economic Outlook

This forecast anticipates continued slow growth in Colorado and the nation through 2023, and a return to a more moderate pace of expansion in 2024. In the latter half of 2022, the Federal Reserve's aggressive steps to rein in inflation have become the primary risk to the current economic expansion. The intent of this monetary policy "tightening" is to suppress economy-wide demand, dampening prices and slowing inflation. The Fed's approach risks both underreacting, in which case it would fail to contain inflation, and overreacting, in which case it would depress demand so severely as to trigger a recession. To this point, inflation and labor market data suggest that the doctors at the Fed have prescribed the correct dosage.

Different areas of the economy are exhibiting different degrees of strength and weakness. Labor markets continue to be a bright spot with low levels of unemployment, plentiful job openings, and rising wages. Household incomes have held up even after the end of pandemic-era government supports, sustaining rates of consumer spending and retail trade that have just outpaced inflation. High inflation remains present, but data suggest that most price pressures are receding. On the other hand, rising interest rates are taking their toll on the housing market and stifling financial opportunities for business investment.

Discussion of the economic outlook begins on page 93, and summaries of expectations for the U.S. and Colorado economies are presented, respectively, in Tables 26 and 27 on pages 118 and 119.

School Finance Outlook

An update to the school finance outlook begins on page 21.

FY 2022-23. Relative to the FY 2022-23 appropriation made during the 2022 session, the state aid requirement for total program funding is expected to be $75 million lower than previously budgeted. This reflects lower-than-expected enrollment but higher-than-expected at-risk populations in the 2022-23 school year, which increase the overall total program cost by $17 million on net. The increased cost is more than offset by a higher forecast for the local share, now expected to be $92 million more than previously forecast on stronger-than-expected gains in property tax revenue.

FY 2023-24. The state aid requirement is expected to decrease $148 million in FY 2023-24 relative to current year levels. This estimate assumes that the budget stabilization factor is held constant and is based on revised inflation expectations and the 2022 kindergarten through twelfth grade (K-12) enrollment forecast, which suggest that total program requirements will increase by $494 million year-over-year. Additionally, the 2022 assessed valuation forecast implies a $642 million increase in the local share in FY 2023-24 over current year levels.

K-12 Enrollment

Enrollment for the current school year totals 839,082 student FTE across Colorado's public schools, down 4,182 FTE or 0.5 percent from the previous year. Decreasing enrollment is likely due to lower birth rates, smaller cohorts of students moving through the system, and high housing prices. The decline may be slightly tempered by the slow return of students who left public schools during the COVID-19 pandemic. Enrollment is projected to fall further through the forecast period, by 2,282 student FTE, or 0.3 percent, in the 2023-24 school year, and by 1,629 student FTE, or 0.2 percent in the 2024-25 school year. Risks to the forecast are balanced. Enrollment may exceed expectations should students who left public schools during the COVID-19 pandemic return more quickly than expected, and may fall short of them should high housing costs, slower in-migration, and lower birth rates result in larger enrollment declines than expected. Enrollment projections begin on page 53.

Assessed Valuation

A forecast for assessed values—the amount of property values that are subject to taxation at local mill levies—begins on page 61. In 2022, assessed values increased by 5.5 percent. While residential values declined 1.1 percent due to legislative adjustments to the residential assessment rate, resurgent oil and gas activity following the pandemic drove nonresidential values up 12.2 percent. In the 2023 reassessment year, assessed values are forecast to increase 22.5 percent, reflecting rapid home price growth, oil and gas production, and broad-based increases for other property types like vacant land, commercial, and industrial property. Although legislative adjustments will somewhat moderate expected growth, increases are expected to significantly outpace prior reassessment cycles. Weaker market conditions are expected for the 2024 intervening year and 2025 reassessment cycle. However, assessed values are forecast to increase due in large part to legislative adjustments as temporary assessment rate reductions expire.

The assessed values forecast is impacted by a number of policy adjustments. With the passage of Amendment B in 2020, the Colorado Constitution no longer requires the General Assembly to adjust the residential assessment rate (RAR) to maintain a constitutional target percentage. This forecast incorporates application of the assessment rates in Senate Bill 21-293 and Senate Bill 22-238. Each bill includes temporary assessment rate reductions impacting the 2022 through 2024 property tax years, reducing valuations relative to levels that would otherwise be forecast.

Corrections Populations

A forecast for the state's adult prison population and parole caseload begins on page 73. A forecast for juvenile correctional populations, including commitment, parole, and detention populations, begins on page 87.

The state's **adult prison population** rose to 15,033 in June 2022, increasing by 927 offenders as the criminal justice system continued its transition from the pandemic-related reset. The prison population is expected to increase to 17,474 inmates in June 2023 and 18,432 inmates in June 2024.

The in-state **adult parole population** continued to decline in FY 2021-22, falling to 7,862 in June 2022. The parole population will continue to fall in FY 2022-23, to 7,315 in June 2023, before increasing to 7,610 parolees in June 2024 as releases begin to rise following prison admissions.

The **juvenile commitment population** fell to an average of 276 youths in FY 2021-22, and is expected to continue to decline through FY 2024-25, to 207 youths. The **juvenile parole population** averaged 110 youths in FY 2021-22, and is expected to increase slightly before declining through the forecast period, to 93 youths in FY 2024-25. The **detention population** is expected to increase from 159 youths in FY 2021-22, to 178 youths in FY 2022-23, before declining again through FY 2024-25. The detention population is expected to remain below the 215-bed cap imposed by Senate Bill 21-071.

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 the following:

- an FY 2023-24 budget scenario that applies the Governor's November 1, 2022, proposed budget to this economic and revenue forecast (Table 2);
- a summary of changes in expectations relative to the September 2022 forecast (Table 3);
- discussion of the forecast adjustments made as a result of ballot measures passed at the November 2022 general election;
- statutory transfers to transportation and capital construction funds (Table 4);
- the disposition of fiscal policies dependent on revenue conditions;
- General Fund rebates and expenditures (Table 5); and
- cash fund transfers to and from the General Fund (Table 6).

Legislative Assumptions

This forecast is based on current law, including the FY 2022-23 budget package and other changes to appropriations, revenue, and transfers enacted during the 2022 regular legislative session and the 2022 general election. Appropriations amounts are based on the FY 2022-23 appropriations report.

FY 2021-22

Preliminary data indicate that the General Fund ended FY 2021-22 with a reserve of $3.20 billion or 26.6 percent of appropriations, exceeding the statutorily required 13.4 percent reserve by $1.59 billion (Table 1, lines 16 through 19). The State Auditor's performance audit report on the FY 2021-22 schedule of TABOR revenues indicates that state revenue exceeded the Referendum C cap by $3.73 billion, triggering a General Fund obligation to pay TABOR refunds to taxpayers during FY 2022-23.

FY 2022-23

The General Fund is expected to end FY 2022-23 with a 14.6 percent reserve, $55.7 million below the statutorily required 15.0 percent reserve (Table 1, line 19). Expectations for the year-end reserve were revised up by $194.9 million over the September forecast, which had anticipated a $250.6 million deficit relative to the reserve requirement. General Fund revenue collections are expected to fall by $828.1 million from their FY 2021-22 level, but state revenue subject to TABOR is still expected to exceed the Referendum C cap by $2.47 billion.

FY 2023-24 (Unbudgeted)

General Fund revenue is expected to modestly exceed FY 2022-23 collections as economic growth continues to slow. Meanwhile, the annual adjustment to the Referendum C cap for FY 2023-24 will incorporate inflation in Denver-Aurora-Lakewood consumer prices for calendar year 2022, which this forecast projects at 8.1 percent. As a result, state revenue subject to TABOR is expected to exceed the Referendum C cap by $1.53 billion. This forecast presents two scenarios for the General Fund budget outlook for FY 2023-24.

Table 1
General Fund Overview
Dollars in Millions

	Funds Available	FY 2021-22 Preliminary	FY 2022-23 Estimate	FY 2023-24 Estimate	FY 2024-25 Estimate
1	Beginning Reserve	$3,181.5	$3,201.9	$1,995.3	*
2	General Fund Revenue	$17,697.9	$16,869.8	$17,350.0	$18,195.3
3	Transfers from Other Funds *(Table 6)*	$59.5	$42.2	$27.8	$26.6
4	**Total Funds Available**	**$20,938.9**	**$20,113.9**	**$19,373.2**	*****
5	Percent Change	27.1%	-3.9%	-3.7%	*
	Expenditures	**Preliminary**	**Budgeted**	**Estimate**	**Estimate**
6	General Fund Appropriations	$12,031.2	$13,673.9	*	*
7	TABOR Refund Obligation Under Art. X, §20, (7)(d)	$3,850.0	$2,619.0	$1,533.6	$1,374.5
8	Rebates and Expenditures *(Table 5)*	$149.6	$193.9	$245.8	$253.3
9	Transfers to Other Funds *(Table 6)*	$837.9	$924.7	$527.3	$590.6
10	Transfers to the State Education Fund[1]	$123.0	$290.0	$0.0	$0.0
11	Transfers to Transportation Funds *(Table 4)*	$484.9	$88.0	$0.0	$117.5
12	Transfers to Capital Construction Funds *(Table 4)*	$354.0	$482.2	$20.0	$20.0
13	**Total Expenditures**	**$17,830.6**	**$18,271.8**	*	*
14	Percent Change	33.8%	2.5%	*	*
15	Accounting Adjustments[2]	$93.5	153.2	*	*
	Reserve	**Preliminary**	**Estimate**	**Estimate**	**Estimate**
16	Year-End General Fund Reserve	$3,201.9	$1,995.3	*	*
17	Year-End Reserve as a Percent of Appropriations	26.6%	14.6%	*	*
18	Statutorily Required Reserve[3]	$1,612.2	$2,051.1	*	*
19	**Amount in Excess or (Deficit) of Statutory Reserve**	**$1,589.7**	**($55.7)**	*	*
20	Excess Reserve as a Percent of Expenditures	8.9%	-0.3%	*	*
	Perspectives on FY 2022-23 (Unbudgeted)		**Estimate**	**Estimate**	**Estimate**
	Scenario A: Holds FY 2022-23 Appropriations Constant[4]				
21	Amount in Excess or (Deficit) of 15% Reserve Requirement		($55.7)	$1,321.5	*
22	As a Percent of Prior-Year Expenditures			7.2%	*
	Scenario B: Assumes the Governor's FY 2023-24 Budget Request[5]				
23	Amount in Excess or (Deficit) of 15% Reserve Requirement		$176.2	($57.7)	$112.1
24	As a Percent of Prior-Year Expenditures			-0.3%	0.6%
	Addendum	**Preliminary**	**Estimate**	**Estimate**	**Estimate**
25	Percent Change in General Fund Appropriations	9.6%	13.7%	*	*
26	5% of Colorado Personal Income Appropriations Limit	$17,519.5	$18,519.6	$20,111.5	$21,358.4
27	Transfers to State Education Fund per Amendment 23	$993.5	$1,002.3	$1,011.4	$1,057.7

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

[1]Includes transfers pursuant to HB 20-1420; SB 21-208; and HB 22-1390, net of amendments in SB 22-202. Does not include transfers to the SEF under Amendment 23, which are shown on line 27.

[2]FY 2021-22 includes $121.1 million for underrefunds of TABOR surpluses from prior years. FY 2022-23 includes $153.2 million expected to be underrefunded from the current year TABOR refund obligation due to the passage of Proposition 121.

[3]The required reserve is calculated as a percent of operating appropriations: 13.4 percent in FY 2021-22, and 15 percent each year thereafter.

[4]This scenario holds appropriations in FY 2023-24 equal to appropriations in FY 2022-23 (line 6) to determine the total amount of money available relative to FY 2022-23 expenditures, net of the obligations in lines 7 through 12.

[5]This scenario assumes the Governor's November 1, 2022, budget proposal. For FY 2022-23, it reduces appropriations by a net of $201.7 million, increasing the FY 2023-24 year-end balance. For FY 2023-24, it includes all requested appropriations, placeholders, and transfers. For FY 2024-25, it assumes the FY 2023-24 ending balance and includes estimated out-year appropriations and transfers included in the request. For more information, see Appendix D of the November 14, 2022, JBC Staff briefing document available at: https://leg.colorado.gov/sites/default/files/overview-11-14-22.pdf

Scenario A: Holds appropriations constant in FY 2023-24. Because a budget has not yet been enacted for FY 2023-24, Table 1 (lines 21 and 22) shows the amount of revenue available to be spent or saved in FY 2023-24 relative to the amount appropriated in FY 2022-23. Based on this forecast, the General Assembly will have $1.32 billion, or 7.2 percent, more available to spend or save than in FY 2022-23. This amount assumes current law obligations for FY 2023-24, including transfers, rebates, and expenditures (Table 1, lines 8 through 12), as well as a 15.0 percent reserve requirement and the projected TABOR refund obligation. The $1.32 billion amount is a cumulative amount based on prior year revenue expectations and the budget situation in FY 2022-23. Any changes in revenue or adjustments made to the budget for FY 2022-23 will carry forward into FY 2023-24. This amount holds FY 2022-23 appropriations constant and therefore does not reflect any caseload, inflationary, or other budget pressures.

Scenario B: Governor's budget request. Scenario B, shown on lines 23 and 24 of Table 1, presents the amount of revenue in excess or deficit of the statutorily required 15 percent reserve for FY 2022-23 through FY 2024-25 assuming adoption of the Governor's November 1, 2022, budget proposal. These estimates are provided for informational purposes and to allow for comparison with the budget outlook from the Office of State Planning and Budgeting. The inclusion of Scenario B should not be considered an endorsement of the Governor's proposal by Legislative Council Staff.

- **FY 2022-23.** The Governor's proposal would reduce current year appropriations by $201.7 million on net via mid-year adjustments. The General Fund would end FY 2022-23 with a $176.2 million surplus relative to the statutory reserve requirement, resulting in a higher beginning balance for FY 2023-24.

- **FY 2023-24.** The Scenario B adjustments made to the FY 2023-24 budget outlook are summarized in Table 2. Scenario B assumes General Fund appropriations of $14,660.2 million for FY 2023-24. This amount includes all appropriations in the Governor's proposal, except $223.0 million in proposed appropriations for budget line items included in this forecast as rebates and expenditures (Table 1, line 8). It also includes the Governor's proposed placeholders for supplemental requests and budget amendments ($113.0 million) and 2023 legislation ($15.0 million). It incorporates $282.7 million in additional transfers for capital construction and controlled maintenance, and $164.0 million in additional transfers to other cash funds.

- Relative to Scenario A, Scenario B includes $1,433.0 million more in total expenditures for FY 2023-24, including $986.3 million in additional appropriations and $446.7 million in additional transfers. As a result of increased appropriations, the statutory reserve requirement is estimated to be $147.9 million higher. The General Fund is estimated to end FY 2023-24 with a 14.6 percent reserve, $57.7 million below the statutorily required 15.0 percent reserve.

Table 2
FY 2023-24 Budget Scenario B; Applies the Governor's Budget Proposal to this Forecast
Dollars in Millions

		FY 2023-24
1	**Excess Reserve Under Scenario A**	**$1,321.5**
	Change in Beginning Balance	
2	Effect of Proposed FY 2022-23 Mid-Year Appropriations Reductions	$201.7
	Change in Appropriations	
3	Change in Budget Requests Funded through Long Bill[1]	$858.3
4	Placeholder for Supplemental Requests and Budget Amendments	$113.0
5	Placeholder for 2023 Legislation	$15.0
6	**Total Change in Appropriations**	**$986.3**
	Change in Transfers	
7	Placeholder for Capital Transfers	$282.7
8	Placeholder for Transfers to Other Cash Funds	$164.0
9	**Total Change in Transfers**	**$446.7**
10	**Change in Expenditures** (Line 6 plus Line 9)	**$1,433.0**
11	**Change in Required Reserve** (15% of Line 6)	**$147.9**
12	**Total Change in General Fund Obligations**	**$1,580.9**
13	**Excess Reserve Under Scenario B** (Line 1 plus Line 2 minus Line 12)	**($57.7)**

Source: December 2022 LCS Forecast and Joint Budget Committee Staff analysis of Governor's November 1, 2022, budget proposal.
[1]Nets out $223.0 million from the Governor's proposed appropriations for General Fund rebates and expenditures, which Legislative Council Staff forecasts independently.

- **FY 2024-25.** Scenario B assumes that the General Fund will begin FY 2024-25 with a balance of $2,141.3 million after incorporation of the assumptions for FY 2023-24. The scenario assumes General Fund appropriations of $15,347.7 million for FY 2024-25. This amount includes all out-year changes to appropriations in the Governor's proposal, except $231.7 million in proposed appropriations for budget line items included in this forecast as rebates and expenditures. It also includes the Governor's proposed placeholders for supplemental requests and budget amendments ($118.0 million) and 2023 legislation ($15.0 million). Relative to Scenario A, Scenario B also includes $245.3 million in additional transfers for capital construction and controlled maintenance.

- Under Scenario B, the General Fund is expected to end FY 2024-25 with a 15.7 percent reserve, $112.1 million above the statutorily required 15.0 percent reserve.

Risks to the General Fund Budget Outlook

Consumer price inflation has begun to moderate, but costs for governments may continue to rise. Energy prices have cooled since the beginning of the summer, leading consumer price indices for the national economy and Denver-Aurora-Lakewood area to show less inflation since June. Still, prices for many services continue to increase as labor and capital costs rise. Costs borne by state agencies will likely continue to increase, pressuring many General Fund budget items. High inflation in calendar year 2022, now forecast to end the year at 8.1 percent, will contribute to a large adjustment to the Referendum C cap, allowing the state to retain more of the revenue it collects. However, that jump will occur in FY 2023-24, while costs are rising now.

Recession risk threatens the budget outlook. The December 2022 economic forecast anticipates that the U.S. and Colorado economies will avoid a recession in 2022 and 2023. However, the forecast acknowledges that the path for continued expansion is narrow, and a wide array of unforeseen shocks could push the economy into a downturn. A recession would likely reduce revenue below the Referendum C cap, thereby reducing the amount available for the General Fund budget in FY 2023-24 and beyond.

Ballot measures narrow the margin for forecast error. This forecast incorporates significant downward adjustments to General Fund revenue as a result of ballot measures approved by voters at the November 2022 general election. The specific measures are discussed in more detail later in this chapter. The two largest measures include a tax cut and a measure diverting revenue from the General Fund to affordable housing programs. Both of these have no net impact on the budget outlook in the forecast because they correspondingly decrease the General Fund obligation for TABOR refunds. However, because the expected TABOR surplus has shrunk, the forecast has less space to absorb downside risk to the revenue outlook before a downside revenue surprise would affect the budget.

Higher-than-expected cash funds revenue will increase General Fund budget pressures. Some cash funds—including severance tax revenue, which is the state's most volatile revenue stream—are subject to the TABOR limit. Because TABOR surpluses are refunded using General Fund money, higher than expected cash funds revenue would create additional budgetary pressures for the General Fund.

Pending lawsuit risks a General Fund obligation for income tax refunds. If it is not overruled on appeal, the November 2022 Colorado Court of Appeals decision in *Anschutz v. Colorado Department of Revenue* will result in a state obligation to pay refunds to taxpayers who are able to benefit from certain retroactive tax provisions in the federal Coronavirus Aid, Relief, and Economic Security Act (CARES Act) for tax years 2018 and 2019. The magnitude of this impact has not been estimated. Information on how the case impacts this forecast can be found on page 37.

Changes Between the September and December Forecasts

Table 3 presents revisions to the General Fund budget outlook relative to the September forecast. These changes are explained below.

FY 2021-22. Actual data for FY 2021-22 will become available upon the State Controller's publication of the Annual Comprehensive Financial Report, expected before the March 2023 forecast. Preliminary data indicate a year-end reserve of $3,201.9 million, $57.2 million more than shown in the September forecast.

The difference is mostly attributable to a $79.1 million upward revision to net transfers. Two revenue streams, insurance premium tax revenue credited to the Health Insurance Affordability Fund and sales tax revenue credited to the Housing Development Grant Fund, had previously been shown in the forecast as requiring transfers of General Fund revenue to the affected cash funds. Consistent with the State Controller's accounting, which treats these streams as cash fund revenue requiring no General Fund transfer, this forecast omits these transfers for FY 2021-22 and all later years. The remainder of the difference is related to the TABOR accounting, with a smaller remaining TABOR refund obligation from prior years requiring a smaller positive accounting adjustment than shown in September.

FY 2022-23. Expectations for the year-end excess reserve were revised up by $194.9 million relative to the September forecast. As shown in Table 3, the revision to the excess reserve amount is the net impact of much larger decreases to revenue and expenditures. The General Fund revenue forecast was revised down by $1.08 billion relative to September, largely as a result of the passage of Proposition 121, which reduces the state income tax rate beginning for tax year 2022, and Proposition 123, which diverts a portion of income tax revenue to a new State Affordable Housing Fund. These adjustments were totally offset by a corresponding reduction in the General Fund obligation for TABOR refunds. The improvement in the General Fund position is mostly due to the higher expected beginning balance, corrected accounting for the same two transfers identified in the FY 2021-22 explanation above, and a downgrade in the forecast for cash fund revenue subject to TABOR, which results in a smaller General Fund obligation for TABOR refunds.

FY 2023-24. The amount of General Fund revenue available to spend or save under Scenario A was increased by $238.2 million relative to the September forecast. As for FY 2022-23, the forecast includes lower expectations for revenue and TABOR refunds that mostly net to zero. The impact on the General Fund bottom line is mostly attributable to higher expectations for the beginning balance and lower expectations for cash fund transfers due to the accounting changes explained above.

Table 3
Changes in the General Fund Budget Situation Relative to the September 2022 Forecast
Dollars in Millions, Positive Amounts Reflect an Increase Relative to September

Components of Change	FY 2021-22	FY 2022-23	FY 2023-24	Description of Changes
Funds Available	**-$0.1**	**-$1,004.1**	**-$511.1**	
Beginning Reserve	$0.0	$57.2	$194.9	Carries each year's higher end balance into the next fiscal year.
General Fund Revenue	$0.0	-$1,078.4	-$706.5	See Table 12. Reflects tax rate cut and affordable housing diversion.
Transfers from Other Funds	-$0.1	$17.1	$0.6	See Table 6.
Expenditures	**-$97.6**	**-$1,045.7**	**-$749.2**	
Operating Appropriations	$0.0	$0.0		
TABOR Refund Obligation	-$18.4	-$1,009.6	-$749.2	See Table 8. Reflects reduced forecast for revenue subject to TABOR.
Rebates and Expenditures	$0.0	$48.5	$101.1	See Table 5. Incorporates healthy school meals program.
SEF Transfers	$0.0	$0.0	$0.0	
Transportation Transfers	$0.0	$0.0	$0.0	
Capital Const. Transfers	$0.0	$0.0	$0.0	
Other Cash Fund Transfers	-$79.2	-$84.7	-$101.2	See Table 6. Corrects accounting for certain transfers.[1]
Required Reserve	$0.0	$0.0		
Accounting Adjustment	-$40.3	$153.2		Reflects underrefunds of prior TABOR surplus amounts.
Surplus Relative to Required Reserve	**$57.2**	**$194.9**		Nets the above changes.
		Amount Available – Scenario A	**$238.2**	Nets the above changes.

[1]Allocations of insurance premium tax revenue to the Health Insurance Affordability Cash Fund, and of sales tax revenue to the Housing Development Grant Fund, had been accounted as transfers in the September 2022 forecast and earlier forecasts. Beginning in this forecast, they are accounted as cash fund revenue instead, consistent with the Office of the State Controller's treatment of these transactions.

Adjustments for 2022 Ballot Measures

Colorado voters approved eight statewide ballot measures at the November 2022 general election. This forecast makes adjustments for:

- **Proposition 121**, which reduces the state income tax rate to 4.4 percent for 2022 and later years. The measure is expected to reduce revenue by about $670 million in FY 2022-23. However, that amount represents a one-and-a-half-year impact, including the effect on tax due for the first half of calendar year 2022, which cannot at this point be accrued back to FY 2021-22. The revenue impact for FY 2023-24 and later years is expected at roughly $440 million. Because the measure reduces General Fund revenue subject to TABOR, it reduces TABOR refund obligations through the forecast period by an equal amount, with no net impact on the budget.

- **Proposition 123**, which requires a portion of income tax revenue equal to one-tenth of one percent of taxable income to be deposited in a new State Affordable Housing Fund beginning in 2023. The diversion amount is estimated at $147.6 million in FY 2022-23 and $303.4 million in FY 2023-24, as shown in Table 12, line 13, on page 41. The measure also exempts this revenue from TABOR as a voter-approved revenue change, meaning that the General Fund revenue decrease is offset by a decrease in TABOR refund obligations, with no net impact on the budget.

- **Proposition FF**, which increases income taxes by requiring taxpayers with adjusted gross income over $300,000 to add back a portion of their federal standard or itemized deductions when computing the Colorado taxable income. The measure is estimated to increase taxes by $48.7 million in FY 2022-23 and by $97.4 million in FY 2023-24. These amounts are included in the General Fund revenue forecast, but they are exempt from TABOR. The revenue is required to be spent for the healthy school meals program and is identified as a statutory expenditure in Table 5 on page 17.

- **Amendment E**, which modestly increases General Fund rebates and expenditures for the homestead property tax exemption.

- **Proposition 125**, which modestly increases expectations for General Fund revenue from excise taxes on wine.

The forecast does not include adjustments for **Amendment D**, **Proposition GG**, or **Proposition 122**, which are not expected to have significant direct impacts on the budget.

General Fund Transfers for Transportation and Capital Construction

Statutory transfers from the General Fund to transportation and capital construction funds are shown in Table 4. In the General Fund overview shown in Table 1, these transfers are included on lines 11 and 12. Other non-infrastructure-related transfers to and from the General Fund are summarized in Table 6, and shown on lines 3 and 9 of Table 1.

Table 4
Infrastructure Transfers from the General Fund
Dollars in Millions

Transportation Funds	2021-22	2022-23	2023-24	2024-25
SB 21-260	$282.5	$2.5		$117.5
SB 21-265	$124.0			
HB 22-1351		$78.5		
HB 22-1411	$36.5			
SB 22-176	$1.9	$7.0		
SB 22-180	$40.0			
Total	**$484.9**	**$88.0**	**$0.0**	**$117.5**

Capital Construction Funds	2021-22	2022-23	2023-24	2024-25
HB 15-1344*	$20.0	$20.0	$20.0	$20.0
SB 21-064	$0.1			
SB 21-224	$328.8			
HB 22-1195	$5.1			
HB 22-1340		$462.2		
Total	**$354.0**	**$482.2**	**$20.0**	**$20.0**

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

General Fund contributions to transportation. Legislation enacted in 2022 directs $78.4 million to transportation-related cash funds in FY 2021-22, and $85.5 million to transportation-related cash funds in FY 2022-23. In FY 2021-22, transfers enacted in 2022 direct:

- $40.0 million to the State Highway Fund (SB 22-180);
- $36.5 million to the Highway Users Tax Fund (HB 22-1411); and
- $1.9 million to the Southwest Chief Rail Line Economic Development, Rural Tourism, and Infrastructure Repair and Maintenance Fund (SB 22-176).

In FY 2022-23, transfers enacted in 2022 direct:

- $31.4 million to the Highway Users Tax Fund (HB 22-1351);
- $0.5 million to the Unused State-Owned Real Property Fund (SB 22-176); and
- $53.6 million to the State Highway Fund ($47.1 million from HB 22-1351; $6.5 million from SB 22-176).

General Fund transfers for capital projects. Legislation enacted in 2022 directs $5.1 million in FY 2021-22 and $462.2 million in FY 2022-23 for capital construction and IT capital projects.

Fiscal Policies Dependent on Revenue Conditions

Certain fiscal policies are dependent upon forecast revenue conditions. These policies are summarized below.

Partial refundability of the conservation easement tax credit is expected to be available for tax years 2022 through 2025. 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. The state collected a TABOR surplus in FY 2021-22, and this forecast expects a TABOR surplus in each of FY 2022-23, FY 2023-24, and FY 2024-25. Therefore, partial refundability of the credit is expected to be available for tax years 2022, 2023, 2024, and 2025.

Contingent transfers for affordable housing. House Bill 19-1322 created conditional transfers from the Unclaimed Property Trust Fund (UPTF) to the Housing Development Grant Fund for affordable housing projects for three fiscal years. House Bill 20-1370 delayed the start of these contingent transfers until FY 2022-23. The transfers are contingent based on the balance in the UPTF as of June 1 and the Legislative Council Staff June 2023 forecast and subsequent June forecasts. For the fiscal year in which a relevant forecast is published, if revenue subject to TABOR is projected to fall below a "cutoff" amount equal to the projected Referendum C cap minus $30 million dollars, a transfer will be made. The transfer is equal to the greater of $30 million, or the UPTF fund balance. Based on this forecast, no transfer is expected for FY 2022-23 through FY 2024-25, as revenue subject to TABOR is expected to come in well above the cutoff amount.

Table 5
General Fund Rebates and Expenditures
Dollars in Millions

Category	Preliminary FY 2021-22	Percent Change	Estimate FY 2022-23	Percent Change	Estimate FY 2023-24	Percent Change	Estimate FY 2024-25	Percent Change
Senior and Veterans Property Tax Exemptions	$162.1	2.7%	$161.3	-0.5%	$161.1	-0.1%	$170.0	5.5%
TABOR Refund Mechanism[1]	-$162.1		-$161.3		-$161.1		-$170.0	
Property Tax Assessed Value Reductions					$238.6		$0.0	
TABOR Refund Mechanism[2]					-$238.6		NA	
Proposition FF Healthy School Meals Program[3]			$48.7		$97.4	100.0%	$103.6	6.3%
Cigarette Rebate	$8.2	-11.2%	$7.2	-12.8%	$7.0	-2.0%	$6.8	-2.8%
Old Age Pension Fund	$76.9	-2.5%	$66.6	-13.5%	$68.0	2.2%	$68.2	0.3%
Aged Property Tax and Heating Credit	$5.9	-8.0%	$9.7	66.1%	$9.6	-1.3%	$9.3	-2.8%
Older Coloradans Fund	$10.0	25.0%	$10.0	0.0%	$10.0	0.0%	$10.0	0.0%
Interest Payments for School Loans	$1.0	-20.9%	$5.6	454.7%	$5.6	0.0%	$5.6	0.0%
Firefighter Pensions	$4.5	4.4%	$4.7	3.3%	$4.8	2.0%	$4.8	0.0%
Amendment 35 Distributions	$0.7	-6.9%	$0.7	0.0%	$0.7	-2.1%	$0.7	-0.3%
Marijuana Sales Tax Transfer to Local Governments	$25.6	-11.7%	$23.5	-8.4%	$24.7	5.2%	$25.6	3.9%
Business Personal Property Exemptions[4]	$16.7	NA	$17.3	3.4%	$18.0	4.0%	$18.7	4.0%
Total Rebates and Expenditures	**$149.6**	**-49.4%**	**$193.9**	**29.6%**	**$245.8**	**26.8%**	**$253.3**	**3.1%**

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

[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.

[2]Pursuant to SB 22-238, local government reimbursements for these property tax reductions are the second TABOR refund mechanism used to meet the refund obligation incurred in FY 2022-23 only.

[3]Income tax revenue generated as a result of the tax increase approved by voters in Proposition FF is credited to the General Fund, required to be expended for the Healthy School Meals program, and exempt from TABOR.

[4]Pursuant to HB 21-1312, local governments are reimbursed for expanded business personal property tax exemptions.

Table 6
Cash Fund Transfers
Dollars in Millions

Transfers to the General Fund		2021-22	2022-23	2023-24	2024-25
HB 05-1262	Amendment 35 Tobacco Tax	$0.7	$0.7	$0.7	$0.7
HB 08-1216	Consumer Outreach and Education Program	$0.02	$0.0	$0.0	$0.0
SB 13-133 & HB 20-1400	Limited Gaming Fund	$14.0	$20.5	$21.5	$21.8
HB 17-1343	Repeal of Intellectual and Developmental Disabilities Services Cash Fund		$16.9		
SB 17-261	Repeal of 2013 Flood Recovery Account	$8.3			
HB 20-1427	2020 Tax Holding Fund	$4.1	$4.1	$4.1	$4.1
SB 21-209	Repealed Cash Funds		$0.1		
SB 21-251	Loan Family Medical Leave Program			$1.5	
HB 22-1350	Workers, Employers, and Workforce Centers Cash Fund	$32.4			
Total Transfers to the General Fund		**$59.5**	**$42.2**	**$27.8**	**$26.6**

Transfers from the General Fund		2021-22	2022-23	2023-24	2024-25
SB 11-047 & HB 13-1001	Bioscience Income Tax Transfer to OEDIT	$14.6	$13.6		
SB 14-215	Marijuana Tax Cash Fund	$165.7	$151.7	$159.6	$165.9
SB 15-244 & SB 17-267	State Public School Fund	$29.0	$26.6	$28.0	$29.1
HB 18-1323	Pay For Success Contracts Pilot Program Funding	$0.4			
HB 20-1116	Procurement Technical Assistance Program Extension	$0.2	$0.2	$0.2	$0.2
HB 20-1427	2020 Tax Holding Fund	$208.0	$205.2	$200.2	$249.3
HB 20-1427[1]	Preschool Programs Cash Fund	$0.4	$0.0		
HB 21-1149	Energy Sector Career Pathway in Higher Education	$5.0			
HB 21-1285	Funding to Support Creative Arts Industries	$18.0			
SB 21-225	Repay Cash Funds For 2020 Transfers	$10.0			
SB 21-252	Community Revitalization Grant Program	$65.0			
SB 21-281	Severance Tax Trust Fund Allocation		$9.5		
SB 21-283	Cash Fund Solvency	$4.3			

[1]HB 20-1427 requires the transfer of 73% of additional sales tax revenue due to the imposition of the minimum cigarette price to the Preschool Programs Cash Fund on June 30th in 2021, 2022, and 2023.

Table 6 (Cont.)**Cash Fund Transfers**
Dollars in Millions

Transfers from the General Fund (Continued)		2021-22	2022-23	2023-24	2024-25
HB 22-1001	Reduce Fees For Business Filings		$8.4		
HB 22-1004	Driver License Fee Reduction		$3.9		
HB 22-1011	Wildfire Mitigation Incentives for Local Governments		$10.0		
HB 22-1012	Wildfire Mitigation and Recovery		$7.2		
HB 22-1115	Prescription Drug Monitoring Program		$2.0		
HB 22-1132	Regulation and Services for Wildfire Mitigation		$0.1		
HB 22-1151	Turf Replacement Program		$2.0		
HB 22-1194	Local Firefighter Safety Resources	$5.0			
HB 22-1197	Effective Date of Dep't of Early Childhood	$3.0			
HB 22-1295[1]	Preschool Programs Cash Fund			$139.2	$146.0
HB 22-1298	Fee Relief for Nurses, Nurse Aides, and Technicians		$11.7		
HB 22-1299	Fee Relief for Mental Health Professionals		$3.7		
HB 22-1362	Building Greenhouse Gas Emissions	$25.0			
HB 22-1381	CO Energy Office Geothermal Grant Program		$12.0		
HB 22-1382	Support Dark Sky Designation and Promotion		$0.04		
HB 22-1394	Fund Just Transition Community & Worker Supports		$15.0		
HB 22-1408	Modify Incentives for Film Production		$2.0		
HB 22-1411	Money from Coronavirus State Fiscal Recovery Fund	$28.0			
SB 22-036	State Payment Old Hire Death and Disability Benefits		$6.7		
SB 22-130	Authority For Public-Private Partnerships		$15.0		
SB 22-134	State Fair Master Plan Funding	$4.0			
SB 22-151	Safe Crossings for Colorado Wildlife and Motorists		$5.0		
SB 22-163	Establish State Procurement Equity Program		$2.0		
SB 22-168	Backcountry Search and Rescue	$1.0			
SB 22-180	Programs to Reduce Ozone Through Transit	$28.0			
SB 22-183	Crime Victims Services	$6.0	$1.0		
SB 22-191[2]	Procurement of Information Technology Resources				
SB 22-193	Air Quality Improvement Investments	$102.0	$1.5		
SB 22-195	Conservation District Grant Fund		$0.1	$0.1	$0.1
SB 22-202	State Match for Mill Levy Override Revenue		$10.0		
SB 22-206	Disaster Preparedness and Recovery Resources	$35.0			
SB 22-214	General Fund Transfer to PERA Payment Cash Fund		$198.5		
SB 22-215	Infrastructure Investment and Jobs Act Cash Fund	$80.3			
SB 22-238	State Public School Fund		$200.0		
Total Transfers from the General Fund		**$837.9**	**$924.7**	**$527.3**	**$590.6**
Net General Fund Impact		**-$778.4**	**-$882.5**	**-$499.5**	**-$564.0**

[1]The transfer required in HB 22-1295 may be made from the General Fund or the State Education Fund.
[2]Beginning in FY 2023-24, SB 22-191 directs transfers of unspent prior year General Fund appropriations for IT procurement. Any transfer amount for FY 2023-24 is included in the FY 2022-23 General Fund appropriation amount and not included here.

School Finance Outlook

This section presents information on the outlook for school finance from a state budgetary perspective, both in the current year (FY 2022-23) and subsequent year (FY 2023-24). This outlook incorporates information from the K-12 enrollment and assessed value projections, located on page 53 and page 61, 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 2022-23** requirement for state aid has decreased by about $75 million. This is because:

- total program requirements have increased by just over $17 million; and
- revenue available for the local share increased by just over $92 million.

For **FY 2023-24**, the state aid requirement is expected to decrease by $148 million on a year-over-year basis because:

- total program requirements will increase by $494 million relative to current year levels; and
- revenue available for the local share will increase by $642 million relative to current year levels.

State funding for total program will depend on budget decisions made by the General Assembly, including the amount of the budget stabilization factor, and the funding allocation between the General Fund and State Education Fund. For example, the contribution for school finance from the State Education Fund for FY 2023-24 would decrease by $149 million and the General Fund requirement would increase by $49 million on a year-over-year basis under the following scenario:

- a $1.3 billion ending balance for the State Education Fund in FY 2023-24; and
- the budget stabilization factor is eliminated in FY 2023-24.

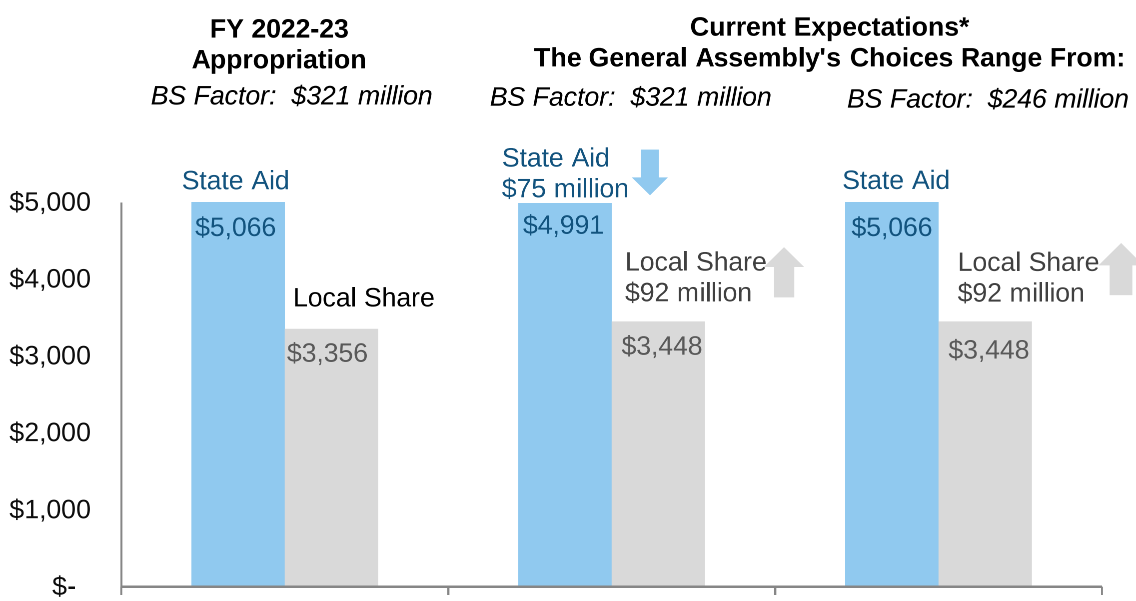
Funding Status for the Current Fiscal Year (FY 2022-23)

Lower than expected enrollment and increased expectations for property tax revenue collections are expected to increase budgetary flexibility by $75 million in the current fiscal year relative to the initial appropriation enacted in 2022. Preliminary funded pupil counts are lower, while funded at-risk pupil counts are higher than estimates made last year. Specifically, the funded pupil count decreased by about 1,600 students, while funded at-risk totals increased by nearly 26,000 students from preliminary estimates. This increases the overall total program cost by just over $17 million relative to the initial appropriation.

At the same time, the preliminary estimate for the local share is about $92 million, or 2.8 percent, higher than expected during the 2022 legislative session. This includes an increase of $90 million in property taxes and an increase of about $2 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 $75 million lower than the appropriation for state aid made in the 2022 legislative session. The General Assembly could choose to decrease either the General Fund or the State Education Fund appropriation by $75 million, decrease the budget stabilization factor by $75 million, or anything in between, to address this reduction in the state's obligation.

Figure 1
Change in Expectations for School Finance Funding, FY 2022-23
Dollars in Millions



**The range of choices to address the additional $75 million in school finance flexibility.*

At-Risk Population Bounce Back from the COVID-19 Pandemic

The 2022 legislative appropriation for school finance was made under conditions of heightened uncertainty due to the COVID-19 pandemic. In House Bill 22-1390, the estimated funded pupil count and local share were based on the December 2021 enrollment forecast, and anticipated a lower level in the number of at-risk students.

During the 2021-22 academic year, the provision of universal free lunch reduced the number of families that submitted the required paperwork to qualify for the federal free and reduced price lunch program. Because qualification for this program is the primary determinant of at-risk funding, the reported number of at-risk students likely did not accurately reflect the true number of eligible students. In the current year, families must complete the required paperwork to qualify for free and reduced price lunch. The notable increase in students eligible for at-risk funding from this year's October count is likely more reflective of the true number of eligible students.

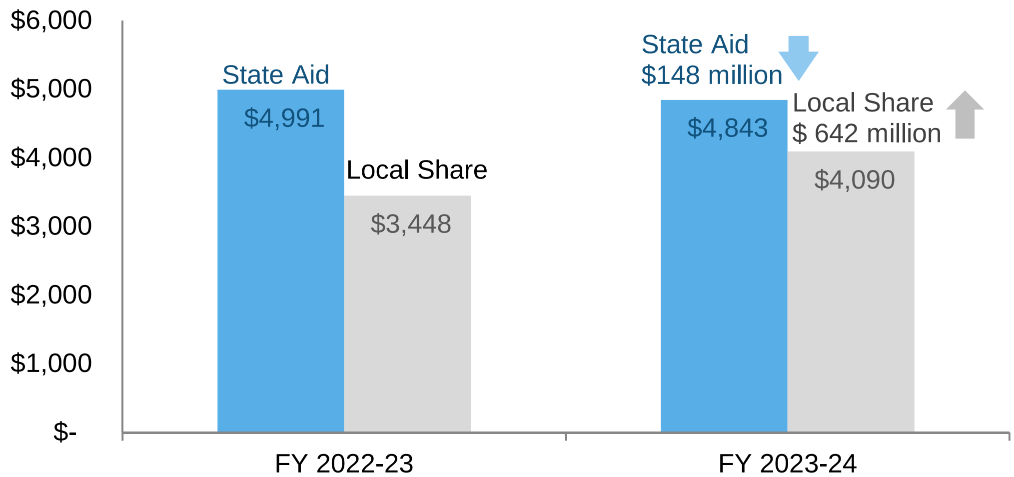
Additional Local Share from House Bill 21-1164

During the 2021 legislative session, the General Assembly enacted House Bill 21-1164, designed to authorize the Colorado Department of Education (CDE) to implement a correction schedule for district total program mill levies by phasing down total program mill levy credits. As a result of this legislation, in FY 2022-23, 15 districts increased their total program mill levy by less than one mill, while another 89 districts increased their levy by one mill. While the increase in local share attributable to this correction schedule is declining as additional districts reach either the cap of 27 mills or their lowest fully funded level for total program mill levies, the correction schedule remains an important driver for the increase in local share.

Funding Outlook for Next Fiscal Year (FY 2023-24)

Total program funding requirements are expected to increase by nearly $494 million between FY 2022-23 and FY 2023-24. Paradoxically, the estimated funded pupil count is expected to decrease by nearly 22,000 pupils on a year-over-year basis due largely to the passage of House Bill 22-1295 and the transfer of preschool FTE to the Department of Early Childhood as part of the universal preschool program. At the same time, however, inflation expectations for 2022 have increased dramatically over 2021 levels, rising from 3.5 to 8.1 percent. The combination of these two factors increases the overall required cost of total program by about $494 million on a year-over-year basis. At the same time, assessed values are projected to jump by 23 percent in FY 2023-24 on a year-over-year basis, driving a $642 million increase in the local share. As shown in Figure 2, the net impact of the change in the total program cost and the expected local share increase is a year-over-year decrease of $148 million in the state aid requirement.

Figure 2
Change in Expectations for School Finance Funding, FY 2022-23 to FY 2023-24
Dollars in Millions



Funding Projection Scenario – Elimination of the Budget Stabilization Factor

Assuming an ending balance in the State Education Fund of $1.3 billion in FY 2023-24, $850 million in FY 2024-25, $750 million in FY 2025-26, and $650 million in FY 2026-27, and the budget stabilization factor is eliminated in FY 2023-24, the contribution from that fund for FY 2023-24 is projected to decrease by $149 million on a year-over-year basis. This implies that the corresponding General Fund requirement for school finance will increase by $49 million relative to FY 2022-23. Under this scenario, the required contribution from the General Fund in FY 2024-25 would need to increase by $22 million, or 0.5 percent, in order to maintain a zero budget stabilization factor, and have an ending balance in the State Education Fund of $850 million.

The above scenario eliminates the budget stabilization factor in FY 2023-24, holds General Fund contribution for school finance to minimal annual increases over the four-year simulation period, and spends down the State Education Fund to half its current level over that time horizon, leaving a significant balance available for other policy priorities that the General Assembly may have. It must be emphasized, however, that this scenario is largely dependent on the assumed increases in property tax revenue within the local share. Specifically, this scenario assumes 21.9 percent and 8.9 percent increases to the local share in the 2023 and 2025 reassessment years, respectively.

Summary of Updated Information Incorporated into the School Finance Model

Enrollment. Each fall, school districts collect enrollment information from all 178 school districts and the Charter School Institute (CSI). Districts report preliminary totals to 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. Enrollment components include the overall pupil count for grades 1-12, as well as total kindergarten, online, extended high school, and CSI students, and are provided on a full-time equivalent (FTE) basis. 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 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.

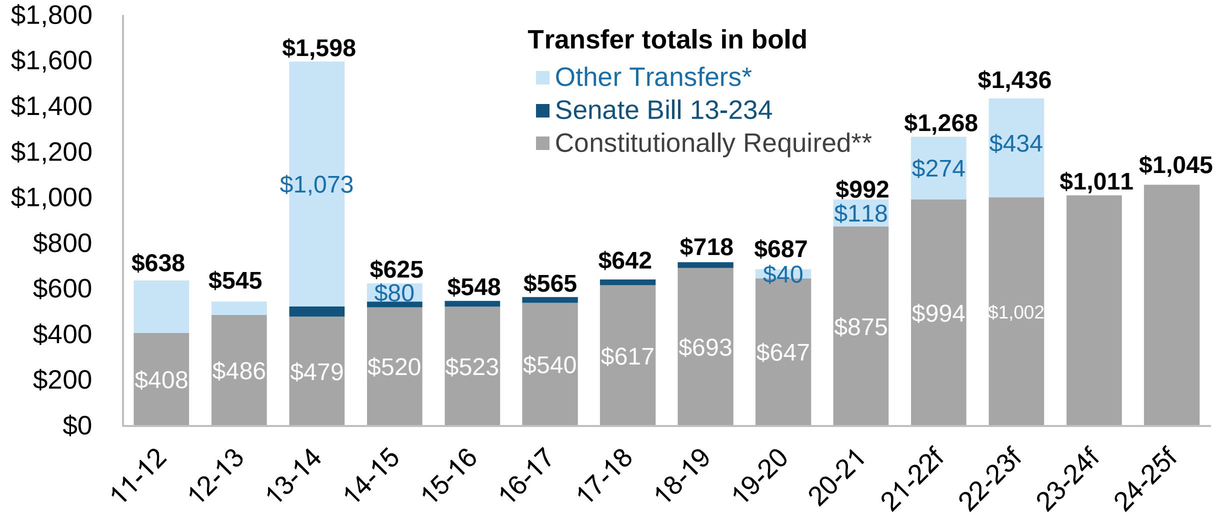
Local share. In addition, CDE obtains district-level information on assessed values and specific ownership tax revenue. This information is combined with certified mill levies for each district to obtain estimates for the amount of funding school districts will receive from local revenue sources.

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 2022-23 appropriation for state aid will occur through passage of a mid-year supplemental bill for CDE. The appropriation for state aid in FY 2023-24 will be made through passage of the 2023 Long Bill and the 2023 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 2022-23, the State Education Fund is expected to receive $1.00 billion as a result of this requirement, with higher amounts in the following year resulting from growth in taxable income among Colorado taxpayers. Figure 3 shows revenue to the State Education Fund.

Figure 3
Revenue to the State Education Fund
Dollars in Millions



Source: Colorado State Controller's Office and Legislative Council Staff forecast. p = Preliminary. f = Forecast.
**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, HB 14-1342 for FY 2014-15, SB 19-246 for FY 2019-20, HB 20-1420 for FY 2020-21 and FY 2021-22, HB 20-1427 for FY 2020-21 through FY 2022-23, SB 21-208 for FY 2021-22, and HB 22-1390 for FY 2022-23.*
***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.*

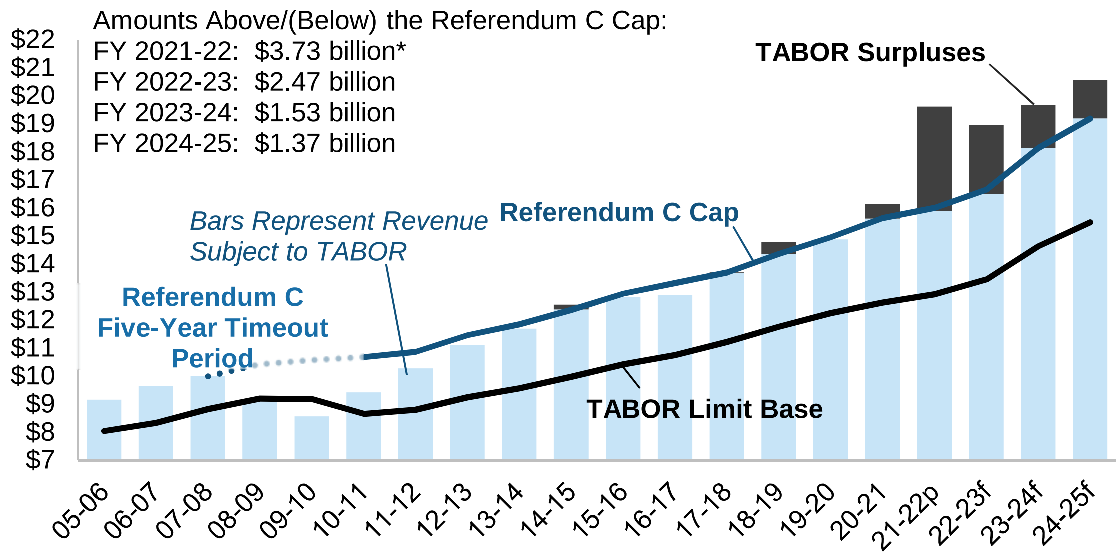
In addition, the General Assembly has at different times authorized the transfer of additional moneys from the General Fund to the State Education Fund (see Table 1, line 10). House Bill 20-1420 includes a transfer of $113 million in FY 2020-21 and $23 million in FY 2021-22 to the State Education Fund, and Senate Bill 21-208 includes a $100 million transfer in FY 2021-22. Also, House Bill 22-1390 transferred $290 million in FY 2022-23 from the General Fund to the State Education Fund. Money in the State Education Fund is required to be used to fund kindergarten through twelfth grade public education.

Finally, Proposition EE, which was approved by voters in the November 2020 election, also transfers revenue from increased cigarette, tobacco and nicotine taxes to the State Education Fund for three fiscal years. These amounts are currently estimated at $4.9 million in FY 2020-21, $151.3 million in FY 2021-22, and 143.5 million in FY 2022-23. These amounts represent a portion of the transfers from the General Fund to the 2020 Tax Holding Fund shown in Table 6 under House Bill 20-1427.

TABOR Outlook

The state TABOR outlook is presented in Table 8 and illustrated in Figure 4, which also provides a history of the TABOR limit base and the Referendum C cap. In FY 2021-22, state revenue subject to TABOR exceeded the Referendum C cap, creating a state obligation for TABOR refunds to taxpayers in FY 2022-23. State revenue subject to TABOR is projected to exceed the Referendum C cap in each of FY 2022-23, FY 2023-24, and FY 2024-25, creating a state obligation for TABOR refunds to taxpayers in each of, FY 2023-24, FY 2024-25, and FY 2025-26.

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 2021-22 differs from surplus amount because it includes $121.1 million in under-refunds from prior TABOR surpluses.*

FY 2021-22. On September 1, 2022, the State Controller certified that state revenue subject to TABOR exceeded the Referendum C cap by $3.73 billion in FY 2021-22. After accounting for an outstanding refund obligation attributable to under-refunds of prior TABOR surpluses as well as adjustments in accordance with the October 2022 State Auditor's Report, the state is obligated to refund $3.85 billion in the current FY 2022-23. The FY 2021-22 surplus is being refunded to taxpayers via the TABOR refund mechanisms under current law, which are explained in greater detail below.

Forecasts for FY 2022-23 through FY 2024-25. State revenue subject to TABOR is projected to exceed the Referendum C cap throughout the forecast period. Revenue is expected to exceed the cap by $2.47 billion in the current FY 2022-23, and by $1.53 billion in FY 2023-24 and $1.37 billion in FY 2024-25. Refunds of those amounts are expected to be returned to taxpayers in the fiscal year following each surplus. The actual refund obligation in any given year will incorporate any over- or under-refund of prior year surpluses.

Relative to the September forecast, expectations for revenue subject to TABOR were decreased through the forecast period and by over $1 billion in the current fiscal year, due to lower expectations for General Fund and cash fund revenue subject to TABOR associated primarily with ballot measures approved by voters in November 2022. These include Proposition 121, which reduces the state income tax rate, and Proposition 123, which diverts a portion of general fund revenue for affordable housing. Together these measures account for an estimated $815.8 million in reduction in General Fund revenue subject to TABOR in the current fiscal year.

Enterprise disqualification and requalification. When a state program no longer satisfies the requirements to qualify as a TABOR enterprise, it is "disqualified." The program's revenue becomes subject to TABOR and an upward adjustment equal to that revenue amount is also made to the Referendum C cap.[1] Similarly, downward adjustments are made to both revenue and the Referendum C cap when an enterprise requalifies. This forecast includes enterprise adjustments for the Auraria Higher Education Center, which was disqualified in FY 2020-21 and requalified in FY 2021-22, and for Adams State University, which was disqualified in FY 2021-22 and is assumed to requalify in FY 2022-23. Single-year enterprise adjustments have no net impact on the amount to be refunded to taxpayers. However, if an enterprise remains disqualified for multiple years, growth in that enterprise's revenue between those years may increase (or decrease) the TABOR refund obligation if its revenue grows faster (or slower) than allowable growth.

Risks to the forecast. Estimates of the TABOR surplus and TABOR refund obligation represent the amount by which state revenue subject to TABOR is expected to exceed the Referendum C cap. Therefore, any error in the General Fund or cash funds revenue forecasts will result in an error of an equal amount in the TABOR refund forecast. Any forecast error for inflation or population growth will also impact the TABOR situation by resulting in higher or lower allowable growth in the Referendum C cap.

In an environment where large TABOR refunds are expected, TABOR insulates the General Fund budget from the impacts of error in the General Fund revenue forecast. Greater than expected General Fund revenue will result in a larger General Fund obligation for TABOR refunds, with no net impact on the amount available for the General Fund budget. Lower than expected General Fund revenue will result in a smaller obligation for TABOR refunds, and will impact the budget only if the error is great enough to erase the entire projected TABOR surplus.

By contrast, error in the forecast for cash fund revenue subject to TABOR poses a risk to the outlook for the General Fund budget. Greater than expected revenue from cash fund sources would increase the General Fund obligation for TABOR refunds, thereby reducing the amount available for the budget.

TABOR refund mechanisms. TABOR refund mechanisms and expected refund amounts are shown in Figure 5. Current state law includes two ongoing and two temporary TABOR refund mechanisms.

[1] For more information on TABOR and TABOR enterprises, see the Legislative Council Staff memoranda titled: "The TABOR Revenue Limit", available at: https://leg.colorado.gov/sites/default/files/r21-96_the_tabor_revenue_limit_0.pdf and "State Government Enterprises, available at: https://leg.colorado.gov/sites/default/files/r21-99_state_government_enterprises_0.pdf.

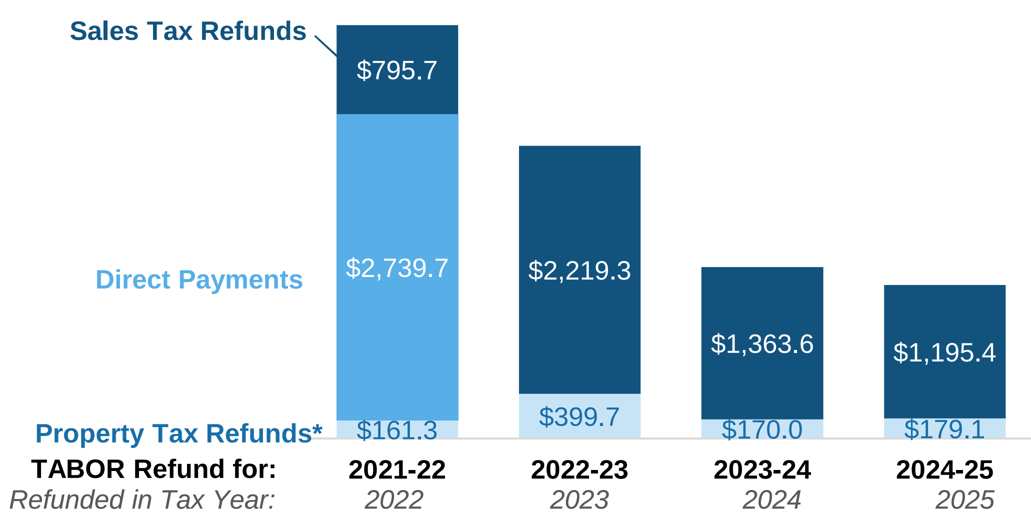
The two ongoing refund mechanisms include the property tax exemptions for seniors and veterans with a disability and the six-tier sales tax refund mechanism based on taxpayers' incomes. Amendment E, approved by voters in November 2022, will extend property tax exemptions to Gold Star spouses starting in tax year 2023. A third refund mechanism, the temporary reduction in the income tax rate from 4.55 percent to 4.50 percent was rendered inoperable by Proposition 121, which permanently reduces the income tax rate to 4.40 percent beginning in tax year 2022.

Based on this forecast, both ongoing refund mechanisms are expected to be used for tax years 2022, 2023, 2024, and 2025. Table 7 on page 31 presents estimated six-tier sales tax refund amounts for each year of the forecast period. The $795.7 million in sales tax refunds for tax year 2022 set by the Department of Revenue in September 2022 is expected to result in an under-refund of $153.2 million in the current fiscal year, which would have been refunded via the temporary reduction in the income tax rate if not for the passage of Proposition 121 and is now expected to be refunded in FY 2023-24 instead.

Senate Bill 22-233 establishes an additional refund mechanism to refund a portion of the FY 2021-22 surplus for tax year 2022 through direct payments to taxpayers, after funding the property tax exemptions and before funding the six-tier sales tax refund mechanism. Direct payments in 2022 are $750 for single-filing taxpayers and $1,500 for households filing jointly.

Senate Bill 22-238 establishes an additional refund mechanism to refund a portion of the FY 2022-23 surplus for tax year 2023 through reductions in the assessed valuations of residential and nonresidential property, which determine property taxes. A portion of local governments' foregone property tax revenue as a result of the bill is reimbursed by the state government, and reimbursements up to $240 million are accounted as a TABOR refund mechanism under the bill. This mechanism is estimated to refund $238.6 million in property tax year 2023. Figure 5 includes this mechanism with the "Property Tax Refunds" label.

Figure 5
Expected TABOR Refunds and Refund Mechanisms
Dollars in Millions



Source: Legislative Council Staff December 2022 forecast.
** Includes $238.6 million to be refunded from the FY 2022-23 TABOR surplus under Senate Bill 22-238.*

Refunds made via property tax reductions reduce obligations that would otherwise be paid from General Fund revenue. Refunds made via the sales tax refund are paid to taxpayers when they file their state income tax returns. Direct payments were required to be sent to most taxpayers by October 2022. TABOR refund mechanisms are accounted for as an offset against the amount of surplus revenue restricted to pay TABOR refunds, rather than as a revenue reduction. Therefore, the General Fund revenue forecast does not incorporate downward adjustments as a result of refund mechanisms being activated.

Proposition EE TABOR refund requirement. Revenue from the increased taxes on cigarettes, tobacco products, and nicotine products in Proposition EE totaled $208.5 million in FY 2021-22, exceeding the estimate of FY 2021-22 tax revenue published in the 2020 Blue Book by $22.0 million. TABOR requires that this amount be refunded to taxpayers in the current FY 2022-23; however, state law currently does not include a mechanism to issue this refund. The refund amounts in this section do not include this obligation because it is unknown at this time how this refund will be paid. These amounts will be updated in the future if the refund is paid from the General Fund, or uses any of the mechanisms in place to issue refunds of TABOR surplus amounts. For more information on this requirement, see the General Fund Revenue section of this forecast document.

Table 7
Projected TABOR Refunds via the Six-Tier Sales Tax Refund Mechanism

Tax Year 2022 Refunds from FY 2021-22 TABOR Refund Obligation

Taxpayer Distribution by AGI			Single Filers	Joint Filers
	up to	$48,000	$153	$306
$48,001	to	$95,000	$208	$416
$95,001	to	$151,000	$234	$468
$151,001	to	$209,000	$285	$570
$209,001	to	$268,000	$300	$600
$268,001	and up		$486	$972

Tax Year 2023 Refunds from FY 2022-23 TABOR Refund Obligation

Taxpayer Distribution by AGI			Single Filers	Joint Filers
	up to	$50,000	$432	$864
$50,001	to	$100,000	$576	$1,152
$100,001	to	$158,000	$663	$1,326
$158,001	to	$219,000	$788	$1,576
$219,001	to	$279,000	$848	$1,696
$279,001	and up		$1,364	$2,728

Tax Year 2024 Refunds from FY 2023-24 TABOR Refund Obligation

Taxpayer Distribution by AGI			Single Filers	Joint Filers
	up to	$52,000	$263	$526
$52,001	to	$102,000	$350	$700
$102,001	to	$163,000	$403	$806
$163,001	to	$225,000	$479	$958
$225,001	to	$289,000	$516	$1,032
$289,001	and up		$830	$1,660

Tax Year 2025 Refunds from FY 2024-25 TABOR Refund Obligation

Taxpayer Distribution by AGI			Single Filers	Joint Filers
	up to	$53,000	$228	$456
$53,001	to	$105,000	$304	$608
$105,001	to	$167,000	$349	$698
$167,001	to	$231,000	$415	$830
$231,001	to	$297,000	$447	$894
$297,001	and up		$719	$1,438

AGI = Adjusted gross income.

Note: Amounts do not include estimates for taxpayer refunds via the 2022 direct payments under Senate Bill 22-233 or via reimbursements to local governments for property tax exemptions.

Table 8
TABOR Limit and Retained Revenue
Dollars in Millions

		Preliminary FY 2021-22	Estimate FY 2022-23	Estimate FY 2023-24	Estimate FY 2024-25
	TABOR Revenue				
1	General Fund[1]	$17,075.4	$16,381.3	$16,805.5	$17,585.9
2	Cash Funds	$2,666.3	$2,741.8	$2,867.8	$2,980.5
3	**Total TABOR Revenue**	**$19,741.7**	**$19,123.1**	**$19,673.4**	**$20,566.4**
	Revenue Limit				
4	Allowable TABOR Growth Rate	2.2%	4.2%	8.9%	5.8%
5	Inflation (*from Prior Calendar Year*)	2.0%	3.5%	8.1%	4.9%
6	Population Growth (*from Prior Calendar Year*)[2]	0.3%	0.7%	0.8%	0.9%
7	TABOR Limit Base	$12,930.3	$13,445.2	$14,641.8	$15,491.1
8	Voter Approved Revenue Change (Referendum C)	$3,082.6	$3,212.1	$3,498.0	$3,700.8
9	Total TABOR Limit / Referendum C Cap[3]	$16,012.9	$16,657.3	$18,139.8	$19,191.9
10	**TABOR Revenue Above** (Below) **Referendum C Cap**	**$3,728.9**	**$2,465.8**	**$1,533.6**	**$1,374.5**
	Retained/Refunded Revenue				
11	Revenue Retained under Referendum C[4]	$3,082.6	$3,212.1	$3,498.0	$3,700.8
12	Fiscal Year Spending (*revenue available to be spent or saved*)	$16,012.9	$16,657.3	$18,139.8	$19,191.9
13	Outstanding Underrefund Amount[5]	$121.1	$153.2		
14	**Revenue Refunded to Taxpayers**	**$3,850.0**	**$2,619.0**	**$1,533.6**	**$1,374.5**
15	TABOR Reserve Requirement	$480.4	$499.7	$544.2	$575.8

Totals may not sum due to rounding.
[1]Revenue differs from the amount in the General Fund revenue summaries because of accounting adjustments across TABOR boundaries.
[2]Following each decennial census, the April 1 census population counts are used instead of July 1 population estimates for purposes of calculating the growth factors for the TABOR limit. Population estimates are used in all other years for purposes of the growth calculation.
[3]This forecast assumes that all enterprises will maintain enterprise status. If an enterprise is disqualified, both revenue subject to TABOR and the Referendum C cap will have equal upward adjustments.
[4]Revenue retained under Referendum C is referred to as "General Fund Exempt" in the budget.
[5]This amount represents under-refunds from prior years. This forecast expects that tax year 2022 mechanisms will be insufficient to fully refund the FY 2021-22 refund obligation, resulting in an expected outstanding under-refund amount to be refunded with the FY 2022-23 TABOR surplus in tax year 2023.

General Fund Revenue

This section presents the outlook for General Fund revenue, the state's main source of funding for discretionary operating appropriations. The three primary sources of General Fund revenue are individual income tax, sales tax, and corporate income tax collections. It also consists of excise taxes (retail marijuana, cigarette, and liquor) and other miscellaneous sources (insurance, pari-mutuel, investment income and court receipts). Table 12 on page 41 summarizes preliminary General Fund revenue collections for FY 2021-22 and projections for FY 2022-23 through FY 2024-25.

FY 2021-22. General Fund revenue collections increased 23.7 percent over FY 2020-21 levels to total $17.7 billion in FY 2021-22. The extraordinary revenue increase was broad-based among the largest categories, reflecting much higher than expected individual and corporate income tax payments, alongside impressive increases in sales and use taxes and the first full year of tobacco tax collections under Proposition EE.

Forecast for FY 2022-23 through FY 2024-25. General Fund revenue is expected to fall 4.7 percent and total $16.9 billion in FY 2022-23. Though inflationary pressures and higher interest rates are expected to slow economic activity, the decrease is mainly attributable to the passage of Proposition 121 that was approved at the November 2022 General Election. Proposition 121 reduced the state income tax rate for individuals and corporations from 4.55 percent to 4.40 percent beginning in tax year 2022. Proposition 121 reduced projections for individual and corporate income tax revenue by $670 million, or 5.2 percent, in FY 2022-23.

General Fund revenue is expected to increase by 2.8 in FY 2023-24 and by 4.9 percent in FY 2024-25 as the economy begins its return to a more moderate pace of expansion.

Forecast revisions. Revisions to the FY 2022-23 forecast now also incorporate ballot measures that were approved at the November 2020 General Election. Relative to the September forecast, the revenue outlook for the current FY 2022-23 has been revised downward by nearly $1.1 billion. Revenue expectations were revised downward by about $700 million for FY 2023-24.

Risks to the forecast. Risks to the General Fund revenue forecast remain elevated. On the upside, revenue collections have consistently outperformed forecast expectations since the beginning of the pandemic recession. Higher inflationary pressures and stronger-than-expected wage gains could boost sales tax and individual income tax collections above the amounts projected in this forecast.

Downside risks include depressed capital gains on ongoing near-term equity market volatility, adverse business impacts from higher-than-expected inflation, or slower than expected economic activity in response to monetary policy tightening.

Limited information is available to confirm the impact of recent income tax policy changes and the extent to which federal fiscal stimulus has supported state income taxes over the past two years. These policy impacts complicate the ability to assess the underlying strength of the state tax base, which could be stronger or weaker than currently forecast.

Legislative adjustments. This forecast incorporates the estimated fiscal impacts of legislation enacted by the General Assembly during the 2022 legislative session. Legislative impacts on the General Fund revenue outlook are presented in Table 9.

Table 9
General Fund Revenue Impacts of 2022 Legislation
Dollars in Millions

	FY 2021-22	FY 2022-23	FY 2023-24
HB 22-1005 Healthcare Preceptors Tax Credit		($0.15)	($0.30)
HB 22-1007 Assistance Landowner Wildfire Mitigation		($0.15)	($0.30)
HB 22-1010 Early Childhood Educator Income Tax Credit	($6.20)	($12.90)	($13.70)
HB 22-1025 Repeal of Infrequently Used Tax Expenditures		$0.20	$0.40
HB 22-1026 Alternative Transportation Options Tax Credit		($11.00)	($23.50)
HB 22-1051 Modify Affordable Housing Tax Credit			
HB 22-1055 Sales Tax Exemption Essential Hygiene Products		($5.20)	($11.00)
HB 22-1083 Colorado Homeless Contribution Income Tax Credit		($2.60)	($6.10)
HB 22-1149 Advanced Industry Investment Tax Credit		($1.10)	($2.90)
HB 22-1205 Senior Housing Income Tax Credit	($50.00)	($50.00)	
HB 22-1310 529 Account Administrative Expenses		($0.09)	($0.18)
HB 22-1320 ABLE Savings Accounts		($0.23)	($0.49)
HB 22-1392 Contaminated Land Income Tax & Property Tax Credit	($1.00)	($3.50)	($5.00)
HB 22-1406 Qualified Retailer Retain Sales Tax		($39.30)	
HB 22-1418 Extension of Certain Unused Tax Credits			($5.00)
SB 22-006 Sales Tax Assistance for Small Business		($2.50)	($2.80)
SB 22-051 Policies to Reduce Emissions from the Built Environment		($2.10)	($4.30)
Total	**($57.20)**	**($130.62)**	**($75.17)**

Income Tax

Taxable income earned by all Colorado individuals and corporations is taxed at a flat rate. Under **Proposition 121**, approved by voters in November 2022, the income tax rate was lowered from 4.55 percent to 4.40 percent for 2022 and all future years. Revenue is credited to the General Fund and is subject to TABOR, except that:

- an amount equal to one third of one percent of taxable income is transferred to the State Education Fund (SEF) and exempt from TABOR under **Amendment 23**, approved by voters in 2000;

- beginning January 2023, an amount equal to one-tenth of one percent of taxable income is transferred to the State Affordable Housing Fund and exempt from TABOR under **Proposition 123**, approved by voters in November 2022; and

- beginning January 2023, an amount raised by requiring non-corporate taxpayers with adjusted gross incomes over $300,000 to add back a portion of their federal standard or itemized deductions when computing their Colorado taxable income is credited to the General Fund, exempt from TABOR, and required to be spent for the healthy school meals program created in **Proposition FF**, approved by voters in November 2022.

This section presents forecasts separately for income taxes paid by individuals and non-corporate businesses, and for income taxes paid by C corporations.

Individual Income Tax

Individual income tax revenue is the largest source of General Fund revenue, accounting for about 61 percent of revenue to the General Fund in FY 2021-22, net of the SEF transfer.

FY 2021-22. In FY 2021-22, preliminary individual income tax collections reached $11.72 billion before the SEF transfer, an increase of 23.6 percent over year-ago levels, as tax receipts continued to exceed expectations. Table 10 presents net tax receipts for tax years 2020 and 2021, including the forecast for cash with returns and refunds to be received in December 2022. An increase in refunds was offset by significant increases in withholding, estimated payments, and final cash payments. The rapid increase in wage withholding is consistent with rapid wage and salary growth, estimated at 10.2 percent in 2021, compared with 2.3 percent in 2020 (Figure 6 on page 37, left). However, income tax revenue volatility that exceeds growth in personal incomes illustrates the effects of federal and state tax policy changes, as well as taxpayer decision making in response to an uncertain economy and evolving tax policy environment.

Table 10
Individual Income Tax Receipts by Source, Tax Years 2020 and 2021[1]
Dollars in Millions

	Tax Year 2020 Actual	Tax Year 2021 Estimated	Percent Change
Withholding	$7,526	$8,510	13.1%
Estimated Payments	$1,569	$1,965	25.3%
Cash With Returns[2]	$1,398	$2,283	63.2%
Refunds[2]	($1,457)	($1,949)	33.8%
Total	**$9,036**	**$10,930**	**19.6%**

Source: Office of the State Controller; Department of Revenue; and December 2022 Legislative Council Staff forecast.

[1]For illustrative purposes, withholding and estimated payments for a tax year show receipts between February of that year and January of the following year. Cash with returns and refunds for a tax year show transactions between January and December of the following year. Tax received during these time periods may be for the current or any prior tax year, but are assumed to be representative of the tax years indicated.

[2]Cash with returns and refunds for tax year 2020 include preliminary data for November 2022 and forecasted transactions for December 2022. TABOR refund amounts that reduced final payments are added to cash with returns.

Estimated payments and cash with returns were up substantially over year-ago levels through November 2022, suggesting that taxpayers may have underestimated 2021 tax liability due to pandemic-related distortions, bolstering 2021 cash payments as well as 2022 estimated payments.

Investors may have pulled forward capital gains, as well, in anticipation of inflation, interest rate hikes, and financial market volatility impacting financial asset values.

Preliminary income tax revenue for FY 2021-22 is greater than estimated tax year 2021 payments because it includes accruals of anticipated tax revenue for tax year 2022. Accruals, which were made over the summer at the end of the fiscal year, did not anticipate the revenue decrease from the income tax rate cut in Proposition 121, so the entire impact of the rate cut in tax year 2022 is reflected in the forecast for FY 2022-23.

Forecast for FY 2022-23. Individual income tax collections are expected to decline by 6.7 percent in FY 2022-23 to total $10.94 billion before the SEF and affordable housing transfers. The forecast anticipates a $780 million decline in revenue relative to FY 2021-22. Expectations for revenue were reduced by $1.09 billion relative to the September 2022 forecast.

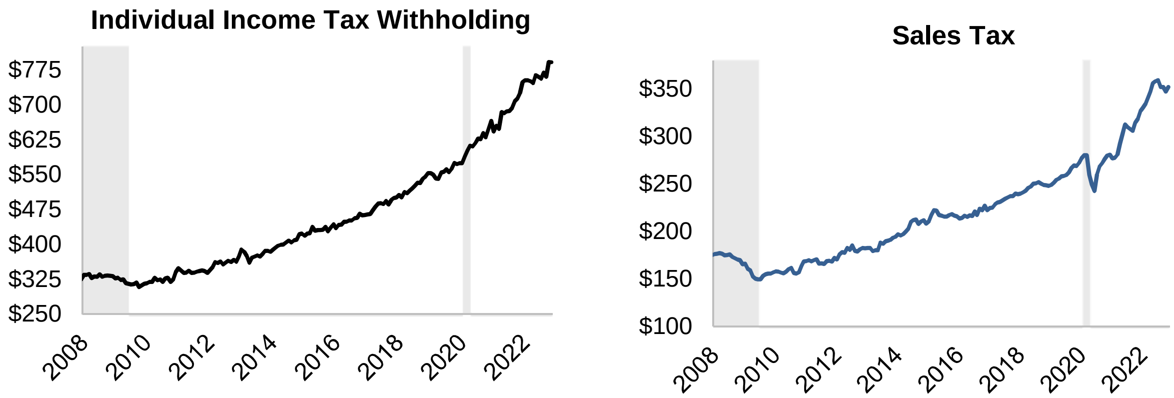
Most of the downward revision is attributable to the income tax rate cut in Proposition 121. The rate cut is anticipated to reduce revenue by $600 million in FY 2022-23, but roughly one-third of this impact is for refunds of overpaid taxes for the 2022 portion of FY 2021-22, which can no longer be accrued back to that fiscal year. The ongoing impact of the rate reduction on individual income taxes is estimated to be between $380 million and $390 million in FY 2023-24 and FY 2024-25.

In addition to the rate cut, the forecast was revised down on lower-than-expected income tax wage withholding. Withholding between July and November averaged about $750 million per month, versus September 2022 forecast expectations of about $770 per month. Expectations for estimated payments and cash with returns were also revised down, while expectations for refunds were revised up.

Beginning in FY 2022-23, the forecast for individual income tax revenue includes an upward adjustment for Proposition FF, which requires taxpayers with adjusted gross income over $300,000 to add back a portion of their federal standard or itemized deductions. This amount is accounted as General Fund revenue, but required to be spent for the healthy school meals program. The estimated half-year impact for FY 2022-23 is $48.7 million, as shown in Table 5, General Fund Rebates and Expenditures, on page 17.

Forecast for FY 2023-24 and FY 2024-25. Individual income tax collections are expected to grow by 3.6 percent in FY 2023-24 to $11.34 billion, and by 4.1 percent in FY 2024-25 to $11.80 billion. Estimates for both years were revised down on net relative to the September 2022 forecast, with expected decreases attributable to the income tax rate cut in Proposition 121 more than offsetting increased revenue from the tax addition in Proposition FF. The revenue outlook is less certain than normal, owing to significant changes in state and federal tax policy compounding already-high uncertainty in the underlying economic outlook.

Figure 6
Selected General Fund Revenue Sources
Millions of Dollars in Monthly Collections



Source: Office of the State Controller with Legislative Council Staff seasonal adjustments. Data are shown as a three-month moving average on a cash basis. November 2022 collections are preliminary.

Legislative adjustments. In addition to the ballot measures discussed above, this forecast includes significant adjustments for the future impacts of recent legislation passed by the General Assembly on individual income tax revenue. For tax year 2022, **House Bill 22-1205** creates a refundable, means-tested income tax credit for senior Coloradans who do not claim a homestead property tax exemption. **House Bill 22-1010** creates a refundable income tax credit for early childhood educators for tax years 2022 through 2025. Twelve bills enacted during the 2022 legislative session establish or extend income tax credits or deductions, many temporarily, and are expected to reduce income tax revenue by between $55 million and $140 million annually during the forecast period.

Pending lawsuit. The federal Coronavirus Aid, Relief, and Economic Security Act (CARES Act), enacted in March 2020, retroactively expanded federal income tax deductions that reduced federal taxable income for tax years 2018 and 2019. The Colorado Department of Revenue issued an emergency rule in June 2020, interpreting state statute in a manner that prohibited taxpayers from applying the retroactive changes to federal taxable income to reduce their Colorado taxable income for tax years 2018 and 2019 and receive refunds of state income tax paid. The Legislative Council Staff June 2020 forecast included an upward adjustment to the income tax forecast as a result of the emergency rule.

On November 17, 2022, a three-judge panel of the Colorado Court of Appeals ruled in *Anschutz v. Colorado Department of Revenue* that the Colorado statute in question automatically incorporates Congressional amendments to the Internal Revenue Code, including retroactive amendments. Therefore, absent a future ruling from an *en banc* Court of Appeals or the Colorado Supreme Court, the state will be required to pay the state income tax refunds sought by the plaintiffs in *Anschutz* and those sought by similarly-situated taxpayers. The appeal period in which state may petition the Colorado Supreme Court to take up the case ends on December 29, 2022. Legislative Council Staff is investigating the amount of refunds that the state would be required to pay if the Court of Appeals decision in *Anschutz* remains in effect, but has insufficient data to include an estimate in this forecast. Any forthcoming refunds issued pursuant to the decision will reduce revenue relative to the forecast and therefore pose a significant downside risk to the income tax revenue outlook.

Corporate Income Tax

Every C corporation that has property, payroll, or sales in Colorado is subject to the state corporate income tax. Corporate income taxes have historically been a volatile revenue source because they are highly susceptible to changes in the broader economy and to federal tax policy. After growing at a brisk pace in the prior fiscal year, corporate income tax revenue grew at a robust rate of 32.5 percent in FY 2021-22, totaling $1.57 billion, a record high for Colorado corporate income tax revenue. High inflation resulting in record profit margins contributed to the strong growth.

Forecast for FY 2022-23. After two years of extraordinary growth, inflationary pressures, and as subsidies from federal aid diminish, corporate income tax revenue is expected to fall by 15.0 percent in FY 2022-23. The decrease incorporates an anticipated $68 million reduction in corporate income taxes in FY 2022-23 attributable to the rate cut established by Proposition 121. However, despite the rate cut, corporate income tax revenue expectations were revised upward by $68 million relative to the September forecast. Corporate estimated payments continue to come in stronger than expectations.

Forecast for FY 2023-24 and FY 2024-25. Corporate income tax collections are expected to fall again in FY 2023-24 but remain near historical highs. Revenue is expected to total $1.27 billion in FY 2023-24. Corporate income taxes are expected to pick up again in FY 2024-25. Estimates for both years were relatively unchanged to the September 2022 forecast.

Legislative adjustments. This forecast includes adjustments for the impacts of recent legislation on corporate income tax revenue. For tax years 2023 and 2024, **House Bill 22-1026** replaces a tax deduction with a tax credit for employers offering subsidized public transportation and ridesharing benefits to their employees.

Sales Tax

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. Growing throughout the pandemic and subsequent recovery, sales tax receipts have been supported by robust consumer and business activity, large fiscal stimulus measures, excess household savings, and a return by consumers to businesses selling taxable services. Paralleling inflation at four-decade highs, sales tax revenues were up 19.6 percent in FY 2021-22.

Although price pressures have eroded real wage gains and many households have spent down excess savings, sales tax receipts continue to post strong growth, and have started the fiscal year up 12.1 percent year-to-date through November. However, consumer activity is expected to weaken moving in 2023. Households have expressed more trepidation over their expected financial situations in the year ahead, and spending expectations have moderated. Additionally, inflationary pressures continue to weigh on consumer confidence and interest rates have impacted household wealth. The outlook anticipates these factors will continue to dampen purchase of goods in the near-term. Sales tax receipts are expected to increase by a slower 6.1 percent pace in FY 2022-23. Growth will also be impacted by legislation, including new exemptions and temporary business tax relief. Despite slower personal income and price growth through the forecast period, sales tax receipts are expected to grow a little faster in FY 2023-24, increasing by 6.6 percent. In FY 2024-25, sales tax receipts are expected to grow in line with personal income and increase by 4.7 percent.

Use Tax

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 revenues have recorded a strong start the fiscal year, and are expected to increase 12.3 percent in FY 2022-23. Revenues have likely been supported by oil and gas investment and construction activity. Moving through the forecast period, use tax is expected to grow at a slower pace of 3.7 percent in FY 2023-24 along with slower investment activity, before increasing by 6.6 percent in FY 2024-25. Rising interest rates will weigh on investment during the forecast period as firms continue to manage rising costs and a tight labor market.

Proposition EE Cigarette, Tobacco, and Nicotine Taxes

Table 12 includes a line for Proposition EE taxes, which are deposited in the General Fund, transferred to the 2020 Tax Holding Fund, and distributed to fund affordable housing, eviction legal defense, rural schools, tobacco education programs and, in the future, preschool programs. Table 12 shows expected revenue collections, while equivalent transfers from the General Fund to the 2020 Tax Holding Fund are shown in Table 6 on page 18. Proposition EE taxes totaled $49.0 million in FY 2020-21 and $208.0 million in FY 2021-22.

Proposition EE was referred to voters under House Bill 20-1427 and approved in November 2020. The measure increased cigarette and tobacco taxes, created a new tax on nicotine products, and created a minimum price for cigarette sales. Revenue from the new taxes is exempt from TABOR as a voter-approved revenue change. Beginning January 1, 2021, the cigarette tax increased from $0.84 to $1.94 per pack; the tax for tobacco products increased from 40 percent to 50 percent of manufacturer's list price (MLP); and the new tax for nicotine products, 30 percent of MLP, was instituted. The measure stated that the tax rates should continue to increase incrementally until FY 2027-28, reaching $2.64 per pack for cigarettes and 62 percent of MLP for tobacco and nicotine products.

The 2020 Blue Book estimated that total Proposition EE revenue would bring in $186.5 million in its first full fiscal year, FY 2021-22. Because actual revenue came in at $208 million in FY 2021-22, therefore exceeding the Blue Book estimate, TABOR requires the General Assembly to either refer a ballot measure to retain the excess revenue, or refund the excess revenue to taxpayers and reduce the tax rates in proportion to the excess. The Blue Book estimate was 10.3 percent lower than actual revenue. Therefore, this forecast makes the assumption that each of the tax rates will be reduced by 10.3 percent beginning in April 2023. The assumed reduced tax rates are shown in Table 11. This assumption reduces Proposition EE revenue by $6.4 million in FY 2022-23, $23.9 million in FY 2023-24, and $29.7 million in FY 2024-25 relative to if the tax rates were unchanged.

Cigarette revenue is the largest portion of Proposition EE, making up 74 percent of total revenue in FY 2021-22. Cigarette use tends to decline over time, but cigarette revenue is expected to increase in FY 2024-25 due to an increase in the tax rate. Nicotine is the next largest revenue stream, and revenue has increased steadily each quarter since it was introduced in 2021. Nicotine revenue is expected to continue to increase over the forecast period due to growing consumption and inflation. Tobacco makes up the rest of the Prop EE revenue, bringing in $12.6 million in FY 2021-22. The impact of the minimum price for cigarettes is expected to fall to $0 starting in FY 2022-23, as high inflation has resulted in very few cigarette sales being impacted by the price floor.

Table 11
Assumed Proposition EE Tax Rates

	April 2023 - June 2024	July 2024 - June 2026	July 2026 Onward
Cigarettes			
Original Prop EE Tax Rate *(per pack)*	$1.10	$1.40	$1.80
Reduced Tax Rate *(per pack)*	$0.99	$1.26	$1.61
Tobacco			
Original Prop EE Tax Rate	10%	16%	22%
Reduced Tax Rate	9%	14%	20%
Nicotine			
Original Prop EE Tax Rate	50%	56%	62%
Reduced Tax Rate	45%	50%	56%

Table 12
General Fund Revenue Estimates
Dollars in Millions

	Category	Preliminary FY 2021-22	Percent Change	Estimate FY 2022-23	Percent Change	Estimate FY 2023-24	Percent Change	Estimate FY 2024-25	Percent Change
	Excise Taxes								
1	Sales	$4,089.0	19.6	$4,338.8	6.1	$4,624.6	6.6	$4,843.9	4.7
2	Use	$232.6	8.6	$261.2	12.3	$270.9	3.7	$288.9	6.6
3	Retail Marijuana Sales	$258.7	-10.2	$234.7	-9.3	$246.9	5.2	$256.5	3.9
4	Cigarette	$26.0	-13.8	$25.5	-1.9	$25.0	-2.0	$24.3	-2.8
5	Tobacco Products	$26.6	-8.3	$25.3	-4.9	$27.4	8.3	$28.8	4.9
6	Liquor	$56.3	5.6	$58.4	3.6	$60.6	3.8	$62.8	3.8
7	Proposition EE Tobacco Taxes	$208.0	324.3	$205.2	-1.4	$200.2	-2.4	$249.3	24.5
8	**Total Excise**	$4,897.2	20.0	$5,149.1	5.1	$5,455.6	6.0	$5,754.5	5.5
	Income Taxes								
9	Net Individual Income	$11,717.8	23.6	$10,938.4	-6.7	$11,336.1	3.6	$11,803.1	4.1
10	Net Corporate Income	$1,568.6	32.5	$1,333.6	-15.0	$1,266.0	-5.1	$1,410.2	11.4
11	Total Income Taxes	$13,286.4	24.6	$12,272.0	-7.6	$12,602.0	2.7	$13,213.3	4.9
12	Less: Portion diverted to the SEF	-$993.5	13.6	-$1,002.3	0.9	-$1,011.4	0.9	-$1,057.7	4.6
13	Less: Portion diverted for Affordable Housing	$0.0	NA	-$147.6	NA	-$303.4	105.5	-$317.3	4.6
14	Income Taxes to the General Fund	$12,292.9	25.6	$11,122.1	-9.5	$11,287.2	1.5	$11,838.3	4.9
	Other Sources								
15	Estate	$0.0	NA	$0.0	NA	$0.0	NA	$0.0	NA
16	Insurance	$390.2	16.0	$430.9	10.4	$442.0	2.6	$458.6	3.8
17	Pari-Mutuel	$0.4	34.8	$0.4	-3.6	$0.4	5.3	$0.5	8.2
18	Investment Income	$69.2	38.3	$120.2	73.7	$114.8	-4.5	$94.1	-18.0
19	Court Receipts	$2.4	-31.4	$2.1	-12.3	$2.1	0.7	$2.1	-2.3
20	Other Income	$45.6	-10.1	$62.0	35.9	$47.8	-22.8	$47.2	-1.3
21	Total Other	$507.8	15.2	$615.6	21.2	$607.1	-1.4	$602.5	-0.8
22	**Gross General Fund Revenue**	**$17,697.9**	**23.7**	**$16,886.8**	**-4.6**	**$17,350.0**	**2.7**	**$18,195.3**	**4.9**

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

Cash Fund Revenue

Table 13 summarizes the forecast for cash fund revenue subject to TABOR. Typically, the largest cash fund revenue sources subject to TABOR are motor fuel taxes and other transportation-related revenue, gaming taxes, and severance taxes. The end of this section also presents the forecasts for marijuana tax revenue, federal mineral lease payments, and the outlook for the Unemployment Insurance Trust Fund. These forecasts are presented separately because they are not subject to TABOR limitations.

FY 2021-22. Preliminary figures from the Office of the State Controller indicate cash fund revenue subject to TABOR totaled $2.67 billion in FY 2021-22. Nearly 70 percent of the increase in cash fund revenue in FY 2021-22 is attributable to the sizable increase in severance tax revenue, which rose by $310.3 million as a result of significantly elevated energy prices.

Table 13
Cash Fund Revenue Subject to TABOR
Dollars in Millions

	Preliminary FY 2021-22	Estimate FY 2022-23	Estimate FY 2023-24	Estimate FY 2024-25	CAAGR*
Transportation-Related	$1,229.3	$1,261.8	$1,380.8	$1,467.9	
Percent Change	6.4%	2.6%	9.4%	6.3%	6.1%
Severance Tax	$325.0	$316.0	$237.5	$196.6	
Percent Change	2,113.0%	-2.8%	-24.8%	-17.2%	-15.4%
Gaming Revenue[1]	$115.4	$119.2	$122.7	$124.9	
Percent Change	13.3%	3.3%	3.0%	1.8%	2.7%
Insurance-Related	$24.3	$22.6	$21.4	$21.9	
Percent Change	15.4%	-6.9%	-5.3%	2.3%	-3.4%
Regulatory Agencies	$92.3	$81.0	$87.0	$88.4	
Percent Change	3.6%	-12.2%	7.4%	1.6%	-1.4%
2.9% Sales Tax on Marijuana[2]	$11.8	$8.0	$8.4	$8.7	
Percent Change	-23.9%	-32.2%	4.7%	3.4%	-9.8%
Housing Development Grant Fund	$66.5	$72.2	$77.0	$81.1	
Percent Change	203.7%	8.6%	6.6%	5.4%	6.9%
Other Cash Funds[3]	$871.7	$933.4	$1,010.0	$1,072.1	
Percent Change	6.4%	7.1%	8.2%	6.2%	7.1%
Total Cash Fund Revenue[4]	**$2,669.7**	**$2,741.8**	**$2,867.8**	**$2,980.5**	
Subject to the TABOR Limit	20.4%	2.7%	4.6%	3.9%	3.7%

Totals may not sum due to rounding.

** CAAGR: Compound average annual growth rate for FY 2021-22 to FY 2024-25.*

[1]Gaming revenue in this table does not include extended gaming revenue from Amendments 50 and 77, because it is not subject to TABOR.

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

[3] For FY 2019-20 through FY 2021-22, includes transfers from the Unclaimed Property Trust Fund to the General Fund per SB 19-261 and HB 20-1381. Revenue to this fund is TABOR exempt, but becomes subject to TABOR when transferred out of the fund.

FY 2022-23 through FY 2024-25. Cash fund revenue subject to TABOR in the current FY 2022-23 is expected to total $2.74 billion. Revenue will increase by 2.7 percent with most of the growth occurring in transportation-related revenue and other cash funds revenue. Cash fund revenue growth is expected to accelerate to 4.6 percent in FY 2023-24, before slowing in FY 2024-25 to 3.9 percent. Relative to September, multiple cash fund forecasts were revised downwards for the current FY 2022-23, including transportation-related revenue, severance tax revenue, and other cash funds revenue. Marijuana Tax Cash Fund revenue declined by 23.9 percent in FY 2021-22, and is expected to decline by another 32.2 percent in the current FY 2022-23, before increasing throughout the rest of the forecast period.

Transportation-related revenue subject to TABOR increased by 6.4 percent in FY 2021-22. The revenue increase was driven by motor fuel and aviation fuel tax revenues as commuter traffic and travel activity starts to normalize after plummeting in 2020. Energy prices spiked in the second quarter of 2022, reducing motor fuel consumption but boosting sales tax revenue from aviation fuel, which is assessed as a percentage of the price of the fuel. Revenue is expected to increase by 2.6 percent in FY 2022-23 as travel activity continues to improve and new road usage fees go into effect in April 2023. Revenue is expected to increase by 9.4 percent in FY 2023-24 and 6.3 percent in FY 2024-25. The forecast for transportation-related revenue is presented in Table 14.

Motor fuel tax receipts grew by 6.7 percent in FY 2021-22, and are expected to approach pre-pandemic peak levels in FY 2022-23. While fuel consumption is expected to grow through the forecast period, improving vehicle fuel efficiency and permanent shifts to remote or hybrid work for some has dampened expectations for growth. Additionally, Senate Bill 21-260 created a road usage fee on gasoline and diesel fuel that will bolster transportation revenue going forward, starting at two cents per gallon and increasing over time. House Bill 22-1351 delayed the implementation of the fees until April 2023.

Growing motor fuel revenue is expected to be partially offset by reduced revenue from the road safety surcharge through FY 2023-24. Senate Bill 21-260 and House Bill 22-1351 temporarily reduced the surcharge by $11.10 in calendar years 2022 and 2023, and it will return to its original rate in 2024. Due to the rate reduction, revenue from registrations is expected to fall by 11.0 percent in FY 2022-23.

Table 14
Transportation Revenue by Source
Dollars in Millions

	Preliminary FY 2021-22	Estimate FY 2022-23	Estimate FY 2023-24	Estimate FY 2024-25	CAAGR*
Highway Users Tax Fund (HUTF)					
Motor and Special Fuel Taxes	$633.3	$650.6	$658.4	$665.5	1.7%
Percent change	6.7%	2.7%	1.2%	1.1%	
Road Usage Fees	$0.0	$14.8	$89.9	$121.1	NA
Percent change	NA	NA	506.9%	34.7%	
Total Registrations	$387.8	$345.2	$376.2	$416.3	2.4%
Percent change	-3.1%	-11.0%	9.0%	10.7%	
Registrations	*$244.2*	*$233.7*	*$228.0*	*$230.9*	
Road Safety Surcharge	*$110.4*	*$76.3*	*$112.2*	*$148.3*	
Late Registration Fees	*$33.2*	*$35.2*	*$36.0*	*$37.0*	
Other HUTF Receipts[1]	$51.5	$75.2	$77.1	$78.7	15.2%
Percent change	7.2%	45.9%	2.6%	2.0%	
Total HUTF	**$1,072.6**	**$1,085.8**	**$1,201.5**	**$1,281.5**	6.1%
Percent change	2.9%	1.2%	10.7%	6.7%	
State Highway Fund (SHF)[2]	$21.3	$22.6	$22.9	$23.2	2.9%
Percent change	15.5%	6.1%	1.7%	1.0%	
Other Transportation Funds	$135.4	$153.4	$156.4	$163.2	6.4%
Percent change	41.8%	13.2%	2.0%	4.4%	
Aviation Fund[3]	*$46.4*	*$51.0*	*$47.2*	*$49.0*	
Multimodal Transportation Options Fund[4]	*$0.0*	*$7.0*	*$7.3*	*$7.7*	
Law Enforcement-Related[5]	*$6.7*	*$6.6*	*$6.5*	*$6.4*	
Registration-Related[6]	*$82.4*	*$88.7*	*$95.4*	*$100.1*	
Total Transportation Funds	**$1,229.3**	**$1,261.8**	**$1,380.8**	**$1,467.9**	6.1%
Percent change	6.4%	2.6%	9.4%	6.3%	

Totals may not sum due to rounding. NA = Not applicable.
**CAAGR: Compound average annual growth rate for FY 2021-22 to FY 2024-25.*
[1]Includes daily rental fee, oversized overweight vehicle surcharge, interest receipts, judicial receipts, drivers' license fees, and other miscellaneous receipts in the HUTF.
[2]Includes only SHF revenue subject to Article X, Section 20, of the Colorado Constitution (TABOR). Beginning in FY 2019-20, SHF re subject to TABOR no longer includes local government grants and contracts.
[3]Includes revenue from aviation fuel excise taxes and the 2.9 percent sales tax on the retail cost of jet fuel.
[4]Retail delivery fee revenue credited to the fund under SB 21-260.
[5]Includes revenue from driving under the influence (DUI) and driving while ability impaired (DWAI) fines.
[6]Includes revenue from Emergency Medical Services registration fees, emissions registration and inspection fees, motorcycle and motor vehicle license fees, and POST Board registration fees.

Most fuel taxes and vehicle registration fees are credited to the **Highway Users Tax Fund** (HUTF) and disbursed to the Department of Transportation, the State Patrol within the Department of Public Safety, the Division of Motor Vehicles within the Department of Revenue, the Department of Natural Resources, and to county and municipal governments for transportation purposes. The State Patrol, Department of Revenue, and Department of Natural Resources receive HUTF funds through annual appropriations. The remaining revenue is allocated to the Department of Transportation via the State

Highway Fund, counties, and municipalities. Revenue from different sources is distributed following different formulas in state law. A summary of estimated distributions is shown in Table 15.

Table 15
HUTF Distribution Forecast
Dollars in Millions

	Actual FY 2021-22	Estimate FY 2022-23	Estimate FY 2023-24[1]
Department of Public Safety[2]	$171.9	$182.6	$182.6
Department of Revenue[3]	$5.3	$10.3	$9.1
Department of Natural Resources[4]	$0.3	$0.3	$0.3
State Highway Fund (CDOT)	$554.1	$549.3	$619.3
Counties	$223.3	$221.6	$230.1
Municipalities	$156.3	$156.7	$163.7
Total HUTF Distributions	**$1,111.2**	**$1,120.8**	**$1,205.1**
Total HUTF Non-Exempt Revenue	**$1,072.6**	**$1,085.8**	**$1,201.5**
Assumed Exempt Revenue	$2.1	$3.6	$3.6
Transfers to HUTF	$36.5	$31.4	$0.0

[1]Long Bill appropriations are assumed to be held constant from FY 2022-23 to FY 2023-24.
[2]Allocations for CDPS are made "off-the-top", regardless of the amount of revenue collected.
[3]Revenue is appropriated to the Department of Revenue in the Long Bill. The actual amount distributed to the department is often less than the amount appropriated due to lower revenue collections. The amount estimated in FY 2022-23 reflects the full appropriation from the Long Bill and House Bill 22-1338. House Bill 22-1338 affects FY 2022-23 only.
[4]The Department of Natural Resources receives an ongoing appropriation of $300,000 for capital construction.

Severance tax revenue, including interest earnings, totaled $325.0 million in FY 2021-22, an increase from $14.7 million in the prior year. Severance tax revenue is expected to decline throughout the forecast period as oil and gas prices recede from historic highs and ad valorem tax credit utilization increases. 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 16.

Table 16
Severance Tax Revenue Forecast by Source
Dollars in Millions

	Preliminary FY 2021-22	Estimate FY 2022-23	Estimate FY 2023-24	Estimate FY 2024-25	CAAGR*
Oil and Gas	$308.7	$301.0	$222.7	$182.6	-16.1%
Percent Change	54,406.3%	-2.5%	-26.0%	-18.0%	
Coal	$3.2	$4.0	$3.6	$3.1	-1.3%
Percent Change	68.3%	25.1%	-9.5%	-15.0%	
Molybdenum and Metallics	$2.7	$1.5	$1.4	$1.4	-20.5%
Percent Change	22.0%	-45.0%	-5.0%	-4.0%	
Total Severance Tax Revenue	**$314.6**	**$306.5**	**$227.8**	**$187.1**	-15.9%
Percent Change	6,591.5%	-2.6%	-25.7%	-17.9%	
Interest Earnings	$10.3	$9.5	$9.7	$9.52	-2.7%
Percent Change	3.5%	-8.3%	2.9%	-2.3%	
Total Severance Tax Fund Revenue	**$325.0**	**$316.0**	**$237.5**	**$196.6**	-15.4%
Percent Change	2,113.0%	-2.8%	-24.8%	-17.2%	

**CAAGR: Compound average annual growth rate for FY 2021-22 to FY 2024-25.*

Severance tax collections from **oil and natural gas** reached historic levels in FY 2021-22, totaling $308.7 million, as a result of skyrocketing oil and gas prices. Collections are expected to decline modestly in FY 2022-23 to $301.0 million as oil prices decline, natural gas prices moderate, and ad valorem tax credit utilization increases. Following 2022, falling energy prices are expected to result in more significant declines in oil and natural gas severance tax revenue in FY 2023-24 and FY 2024-25.

After increasing by 68 percent in FY 2021-22 to $3.2 million, **coal severance tax** revenue is expected to increase in FY 2022-23 by another 25.1 percent, to $4.0 million. Similar to many other commodities, coal prices increased significantly in 2021 and 2022, which put upward pressure on coal severance tax revenue. With coal prices expected to level out and then decline in the medium term, coal severance tax revenue is expected to decline through the rest of the forecast period.

Metal and molybdenum mines paid approximately $2.7 million in severance taxes on the value of minerals produced in FY 2021-22 and are expect to pay $1.5 million in FY 2022-23. In 2021, prices for molybdenum increased nearly 100 percent. Prices have since come down from this peak, but still remain elevated.

Finally, **interest earnings** on severance tax revenue were approximately $10.3 million in FY 2021-22 and are forecast to decline to $9.5 million in FY 2022-23.

Limited gaming revenue includes taxes, fees, and interest earnings collected in the Limited Gaming Fund and the State Historical Fund. 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. Casinos on tribal lands in southwestern Colorado are not subject to the state tax.

Emerging from the recession, gaming revenues have more than rebounded due to recent legislation and pent-up demand following the pandemic-induced shutdowns and capacity restrictions. Amendment 77 allowed gaming communities to remove bet limits and permit more games beginning in May 2021, which brought new investment into each area. Along with renovations of existing properties, the Monarch Casino recently finished its multi-year expansion project, and the construction of the new Chamonix casino hotel in Cripple Creek will double the town's room capacity and is expected to boost gaming revenues into the next fiscal year. Tax revenue is expected to grow by 7.7 percent in FY 2022-23, increase another 3.4 percent in FY 2023-24, then slow to 1.8 percent in FY 2024-25.

Gaming revenue is subject to TABOR except for revenue attributable to gaming expansions enacted under Amendment 50 and Amendment 77 (extended gaming), which is TABOR-exempt. Senate Bill 22-216 modified the allocation of limited and extended gaming revenue through the forecast period. The bill set limited gaming revenue subject to TABOR at about $114.0 million for FY 2021-22. As tax revenues grow, gaming revenue subject to TABOR – including fees and interest – is expected to increase by 3.3 percent in FY 2022-23 to $119.2 million. Through the forecast period, gaming revenue subject to TABOR is expected to grow 3.0 percent in FY 2023-24 and 1.8 percent in FY 2024-25.

Sports betting was legalized in the state after the passage of Proposition DD at the November 2019 election. Betting launched on May 1, 2020, and has grown significantly since its inception through October 2022. Revenue collected from sports betting activity includes licensing fees, set at between $1,200 and $2,000 per operator, a master license charged biannually, an operations fee, and tax revenue, which is set at 10 percent of casinos' net sports betting proceeds. As voter-approved revenue, sports betting tax revenue is not subject to the TABOR limit; however, fee revenues are subject to TABOR. Sports betting revenue subject to TABOR ended FY 2021-22 up 2.7 percent over the prior fiscal year, reaching $2.3 million. Sports betting revenue subject to TABOR is expected to increase slightly over the forecast period, with a projection of $2.3 million in FY 2022-23, $2.3 million in FY 2023-24, and $2.4 million in FY 2024-25. This revenue is included in the Other Cash Funds forecast.

In FY 2021-22, sports betting taxes exempt from TABOR totaled $12.5 million, up about 52.5 percent from FY 2020-21. Betting activity continues to grow, and combined with legislative changes that will limit the amount of free bets that can be deducted from net sports betting proceeds, robust growth is anticipated through the forecast period. Sports betting revenue not subject to TABOR is expected to grow by 76.1 percent in the current fiscal year, to $22.0 million, as tax collections so far have more than doubled compared to the same period in FY 2021-22. Exempt sports betting revenue is forecast to reach $26.2 million in FY 2023-24 and $28.9 million in FY 2024-25. The funds are distributed to communities impacted by sports betting, to behavioral health programs, and to the state water plan.

Marijuana tax revenue totaled $369.9 million in FY 2021-22, a 12.9 percent decrease from the prior fiscal year, the first annual decline in revenue since recreational marijuana was introduced in 2014. Marijuana tax revenues are forecast to decline again in FY 2022-23 by 16.3 percent to $309.8 million, as shown in Table 17. The decline in marijuana tax revenue is largely due to a return to normal consumption patterns after the COVID pandemic, alongside reduced marijuana tourism from neighboring states. Marijuana collections increased dramatically during and after the COVID-19-induced recession, and appear to be returning to more normal levels as travel and activity restrictions have faded. Concurrently, a growing number of states are legalizing recreational and medical marijuana use, including some of Colorado's neighbors, which has reduced marijuana tourism to Colorado. Marijuana tax revenue is expected to continue its upward trend in FY 2023-24 and FY 2024-25, albeit with slower growth rates than seen historically. 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 subject to the state's revenue limit. Tax revenue from marijuana sales is shown in Table 17.

The special sales tax is the largest source of marijuana revenue and is imposed at a rate of 15 percent of the retail price of marijuana. The special sales tax generated $258.7 million in FY 2021-22. Revenue from the special sales tax is expected to decline to $234.7 million in FY 2022-23, a 9.3 percent decrease from the prior year. Revenue is expected to grow through the rest of the forecast period, reaching $246.9 million in FY 2023-24 and $256.5 million by FY 2024-25. The state distributes 10 percent of the special sales tax to local governments and retains the rest in the Marijuana Tax Cash Fund, the General Fund, and the State Public School Fund.

Table 17
Tax Revenue from the Marijuana Industry
Dollars in Millions

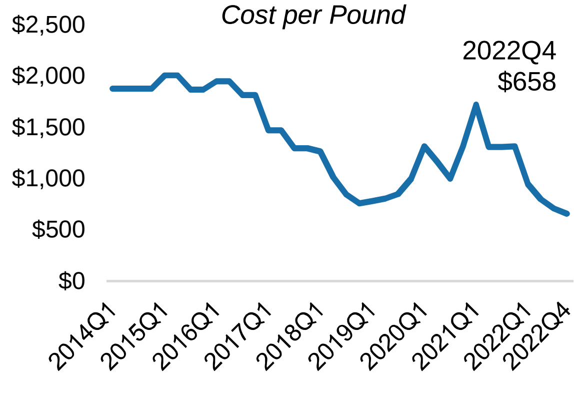
	Preliminary FY 2021-22	Estimate FY 2022-23	Estimate FY 2023-24	Estimate FY 2024-25	CAAGR*
Proposition AA Taxes					
Special Sales Tax	$258.7	$234.7	$246.9	$256.5	-0.3%
State Share of Sales Tax	$232.9	$211.2	$222.2	$230.8	
Local Share of Sales Tax	$25.9	$23.5	$24.7	$25.6	
15% Excise Tax	$99.4	$67.1	$70.1	$72.4	-10.0%
Total Proposition AA Taxes	**$358.1**	**$301.8**	**$317.0**	**$328.9**	-2.8%
Percent Change	-12.4%	-15.7%	5.0%	3.7%	
2.9 Sales Tax (Subject to TABOR)					
2.9% Sales Tax on Medical Marijuana	$9.2	$5.7	$5.9	$6.1	-12.8%
2.9% Sales Tax on Retail Marijuana	$2.3	$2.1	$2.2	$2.3	-0.3%
TABOR Interest	$0.2	$0.2	$0.2	$0.2	
Total 2.9% Sales Tax	**$11.8**	**$8.0**	**$8.4**	**$8.7**	-9.8%
Percent Change	-23.9%	-32.2%	4.7%	3.4%	
Total Marijuana Tax Revenue	**$369.9**	**$309.8**	**$325.4**	**$337.5**	-3.0%
Percent Change	-12.9%	-16.3%	5.0%	3.7%	

**CAAGR: Compound average annual growth rate for FY 2021-22 to FY 2024-25.*

The excise tax is the second-largest source of marijuana revenue and is dedicated to the BEST Fund for school construction. After several years of strong growth, marijuana excise tax revenue fell in FY 2021-22 and is forecast to fall again in FY 2022-23. Slowing demand and declining wholesale prices will continue to weigh on excise tax collections through the current fiscal year. Revenue from marijuana excise taxes is expected to fall to $67.1 million in FY 2022-23. Revenue collections are expected to grow modestly through the rest of the forecast period.

The excise tax is based on the calculated or actual wholesale price of marijuana when it is transferred from the cultivator to the retailer. There is considerable uncertainty about the trajectory of the calculated price due to a lack of available information. The wholesale price fell to $658 per pound for the fourth quarter of 2022 as shown in Figure 7. After facing upward pressure in 2020 due to increased demand and constrained supply, the wholesale price has declined since. The wholesale price is a significant determinant of excise tax revenue, and remains both an upside and downside risk to the forecast.

Figure 7
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. The medical marijuana sales tax generated $9.2 million in FY 2021-22, and is expected to generate $5.7 million in FY 2022-23. The number of medical marijuana card holders has declined significantly in recent months, and is expected to result in falling medical marijuana tax revenue. Retail marijuana dispensaries remitted $2.3 million in sales tax in FY 2021-22. Collections are expected to decline in FY 2022-23 to $2.1 million and then to increase modestly throughout the rest of the forecast period. Revenue from the 2.9 percent sales tax is deposited in the Marijuana Tax Cash Fund and is subject to TABOR.

Federal Mineral Lease (FML) revenue is the state's portion of the money the federal government collects from mineral production on federal lands. Collections are mostly determined by the value of mineral production on federal land and royalty rates negotiated between the federal government and mining companies. Since FML revenue is exempt from TABOR, the forecast is presented separately from other sources of state revenue.

As shown in Table 18, FML revenue totaled $125.1 million in FY 2021-22, a 51.3 percent increase from FY 2020-21. In FY 2022-23, FML revenue is forecast to increase 27.0 percent to $158.9 million. The rapid increase in natural gas prices that started in 2021 has led to elevated FML revenues. Prior to the recession, natural gas prices were around $2.20 per million BTU. As of November 2022, prices were about $5.45 per million BTU and are expected to rise through January 2023. Prices are expected to fall through much of 2023, leading to declining FML revenues in FY 2023-24.

Table 18
Federal Mineral Lease Revenue Distribution
Dollars in Millions

	Preliminary FY 2021-22	Estimate FY 2022-23	Estimate FY 2023-24	Estimate FY 2024-25
Total FML Revenue	$125.1	$158.9	$139.8	$142.4
Bonus Payments (portion of total revenue)	**$3.8**	**$4.8**	**$4.2**	**$4.3**
Local Government Permanent Fund	$1.9	$2.4	$2.1	$2.1
Higher Education FML Revenue Fund	$1.9	$2.4	$2.1	$2.1
Other (non-bonus) **FML Revenue**	**$121.4**	**$154.1**	**$135.7**	**$138.1**
State Public School Fund	$58.6	$74.5	$65.5	$66.7
Colorado Water Conservation Board	$12.1	$15.4	$13.6	$13.8
DOLA Grants	$24.3	$30.8	$27.1	$27.6
DOLA Direct Distribution	$24.3	$30.8	$27.1	$27.6
School Districts	$2.1	$2.6	$2.3	$2.3
Higher Education FML Revenue Fund	$1.9	$2.4	$2.1	$2.1

DOLA = Department of Local Affairs.

Note: The table shows the actual and projected revenue distributions to the various FML recipients. It does not reflect transfers of FML revenue from the recipients and funds to other funds, such as the General Fund, that have occurred.

Forecasts for **Unemployment Insurance (UI) Trust Fund** revenue, benefit payments, and year-end balances are shown in Table 19. Revenue to the UI Trust Fund is not subject to TABOR and is therefore excluded from Table 13. Revenue to the Employment Support Fund and Benefit Recovery Fund, which receive a portion of the UI premium surcharge, is subject to TABOR and is included in the revenue estimates for other cash funds in Table 13.

The UI Trust Fund began FY 2021-22 with a deficit of $1.0 billion, but as benefits payments continued to decline from the unprecedented levels reached during the COVID-19 pandemic in 2020 and 2021, the balance of the UI Trust Fund improved, ending the year with a deficit of only $133.1 million. When the balance of the UI Trust Fund falls below zero, the federal government requires that another revenue source be found to continue funding the UI program. Colorado began borrowing from the Federal Unemployment Account (FUA) to fund benefit payments in August 2020. FUA loans were extended interest-free until September 6, 2021, at 2.28 percent during the remainder of 2021 and a rate of 1.59 percent in 2022.

This forecast incorporates adjustments to fund revenues and loan balances enacted with **Senate Bill 20-207** and **Senate Bill 22-234**. Senate Bill 22-207 suspends the solvency surcharge for 2021 and 2022, and, beginning in 2022, incrementally increases the chargeable wage base to $17,000 in 2022, $20,400 in 2023, and $23,800 in 2024. Senate Bill 22-234 continues the suspension of the solvency surcharge for 2023, and allocates American Rescue Plan Act funds for repayment of FUA loans and interest. Pursuant to Senate Bill 22-234, $580 million was used to repay outstanding FUA loans in May 2022, while $20 million was set aside for the required September 30, 2022, interest payment on remaining outstanding loans. Colorado repaid the remaining federal loan balance with a $33.1 million private loan in November 2022. As of December 15, 2022, Colorado has no federal loans outstanding, down from a balance of $1.013 billion in March 2022.

The amount of UI benefits paid declined in FY 2021-22, to $483.8 million, and is expected to decline further, by 0.8 percent in FY 2022-23, to $480.1 million, as continued strength in the state's labor market offsets increases in average benefits paid. Benefits paid are expected to increase in FY 2023-24 and FY 2024-25, to $578.7 million and $659.6 million, respectively, with softening labor markets expected as monetary policy slows economic growth. Revenues to the fund are expected to reach $950.8 million in FY 2022-23, including a $33.1 million infusion of private loan funds to repay all federal loans outstanding, thereby avoiding an increase in federal UI premiums that would have otherwise occurred on January 1, 2023. The solvency surcharge is expected to be applied in FY 2023-24 and FY 2024-25, as the June 30, 2023, and June 30, 2024, fund balances are expected to fall shy of the 0.7 percent of annual private wages threshold required to turn it off. Fund revenues are expected to increase through the forecast period, allowing continued improvement in the UITF balance and shifting employers to lower premium rate schedules in January 2024 and January 2025. At $1.2 billion on June 30, 2025, and 0.65 percent of annual private wages, the UITF balance is forecast to exceed the $1.1 billion pre-pandemic fund balance, which was then 0.87 percent of annual private wages.

Table 19
Unemployment Insurance Trust Fund
Revenues, Benefits Paid, and Fund Balance
Dollars in Millions

	Actual FY 2021-22	Estimate FY 2022-23	Estimate FY 2023-24	Estimate FY 2024-25	CAAGR*
Beginning Balance	($1,014.2)	($133.1)	$304.5	$752.8	
Plus Income Received					
UI Premium	$783.8	$917.7	$884.3	$915.4	5.3%
Solvency Surcharge	$0.0	$0.0	$133.6	$217.0	
Interest	$0.0	$0.0	$9.1	$22.6	
Other**	$581.1	$33.1	$0.0	$0.0	
Total Revenues	**$1,364.9**	**$950.8**	**$1,027.0**	**$1,155.0**	**-5.4%**
Percent Change	127.1%	-30.3%	8.0%	12.5%	
Less Benefits Paid	($483.8)	($480.1)	($578.7)	($659.6)	10.9%
Percent Change	-76.1%	-0.8%	20.5%	14.0%	
Private Loan Repayment	$0.0	($33.1)	$0.0	$0.0	
Ending Balance	**($133.1)**	**$304.5**	**$752.8**	**$1,248.2**	
Solvency Ratio					
Fund Balance as a Percent of Total Annual Private Wages	-0.09%	0.18%	0.41%	0.65%	

Totals may not sum due to rounding.
**CAAGR: Compound average annual growth rate for FY 2021-22 to FY 2024-25.*
***Other income includes Coronavirus Relief Funds, Title XII Repayment Funds, and private loans applied to federal loans outstanding.*

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 20 summarizes current and projected enrollment for the 2022-23 through 2024-25 school years by forecast region. Figure 9 on page 59 shows enrollment growth projections by school district for the 2023-24 school year.

- **FY 2022-23.** Enrollment for the current school year totaled 839,082 student FTE across Colorado's public schools, down 4,182 FTE or 0.5 percent from the previous year. This decline is likely due to lower birth rates, smaller cohorts of students moving through the system, and high housing prices. The decline may be slightly tempered by the slow return of students who left public schools during the COVID-19 pandemic.

- **FY 2023-24 and FY 2024-25.** Statewide K-12 enrollment is projected to slightly decline in the next school year, decreasing by 2,282 student FTE, or 0.3 percent. Enrollment in the 2024-25 school year is projected to decline by 1,629 student FTE, or 0.2 percent. This forecast assumes that Colorado will continue to see declining enrollment, slightly offset by the return of some students to the public school system.

Table 20
K-12 Public School Enrollment
Full-Time Equivalent (FTE) Students

Region	Actual 2022-23	Percent Change	Estimated 2023-24	Percent Change	Estimated 2024-25	Percent Change	Average Growth*
Colorado Springs	122,718	0.1%	123,301	0.5%	123,833	0.4%	0.5%
Eastern Plains	25,076	0.0%	25,257	0.7%	25,293	0.1%	0.4%
Metro Denver	472,401	-0.9%	468,459	-0.8%	465,830	-0.6%	-0.7%
Mountain	24,516	-0.3%	24,499	-0.1%	24,364	-0.6%	-0.3%
Northern	92,359	0.6%	93,500	1.2%	94,405	1.0%	1.1%
Pueblo	32,096	0.3%	31,880	-0.7%	31,612	-0.8%	-0.8%
San Luis Valley	6,957	-1.2%	6,967	0.1%	6,948	-0.3%	-0.1%
Southwest Mountain	13,345	-2.1%	13,333	-0.1%	13,313	-0.2%	-0.1%
Western	49,616	-1.0%	49,605	0.0%	49,574	-0.1%	0.0%
Statewide Total	**839,082**	**-0.5%**	**836,800**	**-0.3%**	**835,172**	**-0.2%**	**-0.2%**

Source: Colorado Department of Education and Legislative Council Staff.
**Compound average annual growth rate between 2022-23 and 2024-25.*

Forecast Comparison

Relative to the Legislative Council Staff forecast published last December, actual enrollment in the 2022-23 school year was 4,627 FTE, or 0.5 percent, lower than expected. The prior year forecast projected flat enrollment in 2022-23, based on the assumption that the pre-pandemic trend of declining enrollment due to low birth rates and housing affordability would be offset by some students slowly returning to brick-and-mortar public schools as pandemic-related impacts dissipated. This dynamic appears to have occurred, although the decline in enrollment significantly exceeded the number of returning students.

Risks to the Forecast

There are both upside and downside risks to the forecast. To the upside, there is potential that students return to brick-and-mortar schools more quickly than expected. Parents sought alternative educational arrangements in the 2020-21 school year, such as home, online, Charter School Institute (CSI), and private schools. Those changes appear to have continued in the years since, with some students starting to return to their traditional district schools. As those students get older, and when they reach transition points, such as entering middle or high school, they may return to brick-and-mortar schools more quickly than expected.

Additionally, high housing costs are causing young families to move between districts or out of state. As a result, regional shifts in enrollment are likely to continue as families seek affordable housing. Birth rates in Colorado have generally declined in recent years and net in-migration has moderated, resulting in smaller cohorts moving through the system. To the extent that the cohorts are smaller than expected, there is downside risk to the forecast.

Current Enrollment Trends

Colorado's public school enrollment significantly decreased at the height of the COVID-19 pandemic in 2020-21, but has since returned to the prior trend of moderately declining enrollment. The forecast expects that enrollment will continue to decline, by 0.3 percent in 2023-24 and 0.2 percent in 2024-25. Enrollment is not expected to return to pre-pandemic levels during the forecast period.

- **Kindergarten.** Total kindergarten enrollment decreased by 2,298 student FTE, or 3.8 percent, in the 2022-23 school year. After a substantial decrease in kindergarten enrollment in 2020-21 and a subsequent increase in 2021-22, kindergarten enrollment in the current year likely reflects a return to pre-pandemic trends. Kindergarten enrollment is expected to remain relatively flat throughout the forecast period, declining by 0.4 percent in 2023-24 and staying flat in 2024-25.

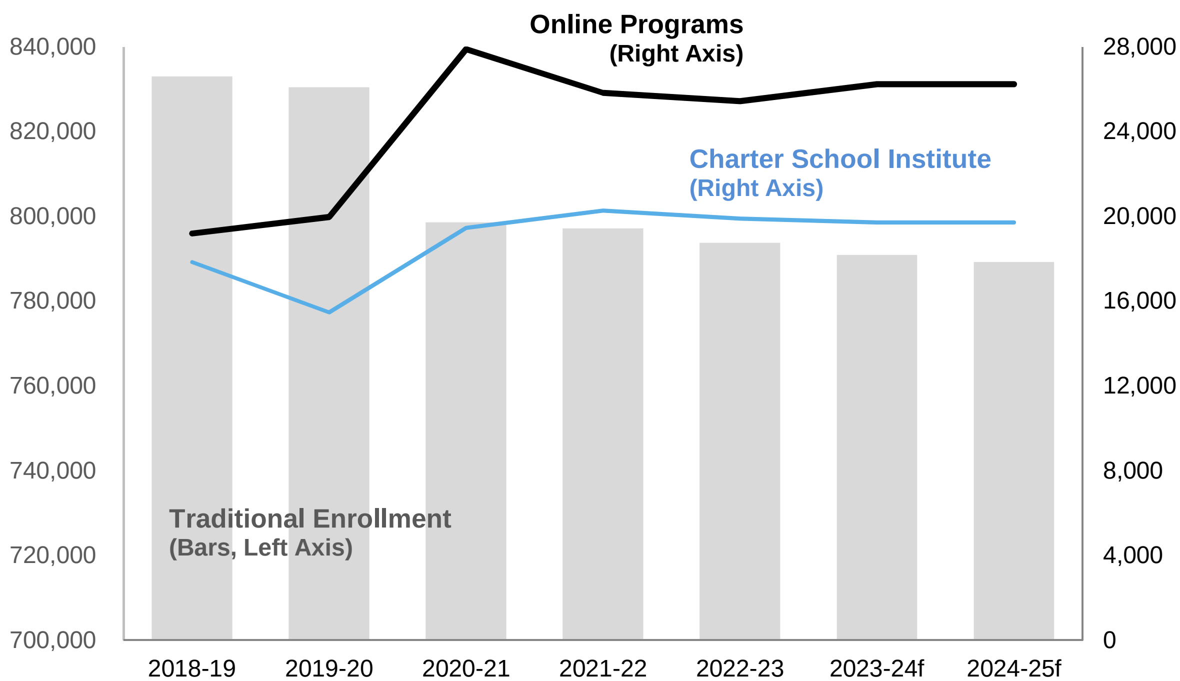
- **Grades 1-12.** Total enrollment in grades 1 through 12 fell by 0.2 percent (1,885 FTE) this year, with brick and mortar enrollment declining by 0.2 percent, online declining by 0.6 percent, and CSI declining by 1.3 percent. Small student cohorts are moving through the system, replacing larger graduating cohorts. Additionally, students who left brick-and-mortar education during the pandemic are slowly returning, offsetting some of the declines. Enrollment in grades 1 through 12 is expected to decline by 0.3 percent in the 2023-24 school year, and by 0.2 percent in the 2024-25 school year.

- **Extended high school.** Enrollment in extended high school programs increased 51 percent, from 500 FTE in 2021-22 to 754 FTE, in the current 2022-23 school year. The increase is the result of recent policy changes that removed the cap on participation in the ASCENT program (House Bill 22-1390) and created the TREP program (Senate Bill 21-185). Participation in extended high school programs is expected to continue to increase as school districts further publicize and grow the programs. There is significant upside risk that participation in these programs could exceed current expectations of 26 percent to 36 percent growth annually during the forecast period.

> ***What is extended high school?*** Extended high school enrollment includes students in their fifth or sixth year of high school through the Accelerating Students through Concurrent Enrollment (ASCENT), Teacher Recruitment Education and Preparation (TREP), or Pathways in Technology Early College High School (p-tech) programs. These students are funded at the same flat rate as online students.

- **Comparison of education models.** Figure 8 below shows recent and forecasted traditional, CSI, and online enrollment. Brick and mortar education declined 0.4 percent in 2022-23 school year, while online enrollment declined 1.5 percent, and CSI enrollment declined 1.8 percent.

Figure 8
Online, CSI, and Traditional Enrollment



- **Online.** Enrollment in multi-district online schools declined by 1.5 percent (398 FTE) in the 2022-23 school year, reflecting some students returning to traditional education, or switching to other private alternatives. Online enrollment reached a high in the 2020-21 school year due to students switching educational models during the COVID-19 pandemic, and has declined in each of the two following years. Enrollment in multi-district online schools is expected to increase through the forecast period; however, that reflects the shift of two online schools from a single-district designation to a multi-district designation, rather than new students switching to online schools. It also accounts for the opening of one new multi-district online school.

What does online enrollment include?
Online enrollment includes students enrolled in multi-district online schools. It does not include students enrolled in remote learning through their brick and mortar school or in single-district online schools, as these students are counted as part of traditional enrollment. These students are funded at the same flat rate as extended high school students.

- **CSI.** Enrollment in CSI charter schools decreased 1.8 percent (368 FTE) in the current 2022-23 school year. This is likely due to shifts in school offerings and some students shifting to a district school. CSI enrollment is expected to decline by 1.0 percent in the 2023-24 school year, due to the possible shift of a large school from CSI authorization to district authorization, partially offset by two new schools opening.

Long-Term Enrollment Trends

Longer-term trends impacting K-12 enrollment in the state are expected to continue to influence enrollment throughout the forecast period. Some of these trends include:

- **Birth rates**. A decline in the number of births starting with the Great Recession continues to constrain enrollment growth in Colorado. According to the State Demography Office, birth rates in Colorado fell each year between 2008 and 2013 and between 2017 and 2019, resulting in smaller cohorts entering the K-12 school system. In the long term, the State Demography Office has projected an increase in births beginning in 2022, which may increase enrollment beginning in five years.

- **Housing affordability.** Rising housing costs are influencing the distribution of enrollment across the state. In particular, high housing costs in the metro Denver area are pushing families with school-age children to relocate to the exurbs or more affordable metro areas and, in some cases, to leave the state altogether. In the mountain region, high housing costs are pushing families to move into relatively more affordable areas outside resort communities. These shifts contribute to previously more affordable regions also experiencing growth in housing costs.

- **In-migration.** In-migration to Colorado has slowed in recent years, with both domestic and international in-migration decreasing in the last two years. People moving into Colorado have been younger and childless, while the slowdown in the arrival of foreign migrants with higher fertility rates results in fewer children in the state. This may slowly reverse as the population ages, as pandemic-related restrictions on migration continue to dissipate, and as remote work opportunities grow.

Enrollment by Region

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

- **Metro Denver region.** Total enrollment declined by 0.9 percent in the current school year, with declines in urban and suburban school districts, and growth for exurban districts. The continued decline is likely due to high housing prices making it challenging for families to afford homes in urban and many suburban areas, as well as lower birth rates in recent years. Total enrollment is expected to decline 0.8 percent in 2023-24 and 0.6 percent in 2024-25, as housing costs continue to rise and large cohorts graduate, with some students slowly returning to brick and mortar schools.

- **Northern region.** Total enrollment in the Northern region increased 0.6 percent in 2022-23, the largest increase among the state's nine regions. The region has seen new housing developments that attract young families, and remains relatively more affordable than the Denver Metro area, although housing affordability is a concern in some districts. Enrollment is expected to continue to increase through the forecast period, as housing is expected to remain relatively affordable and the region is expected to be supported by growth in oil and gas prices.

- **Colorado Springs region.** Total enrollment in the Colorado Springs region increased by 0.1 percent for the second consecutive year. Brick-and-mortar enrollment remained flat, while CSI enrollment declined by 5 percent, and online enrollment increased by 3 percent. The region has experienced relatively affordable housing that attracted young families in recent years, although housing affordability may be eroding in some districts. In addition, some districts may be seeing students slowly return to traditional education following pandemic-related disruptions. Total enrollment is expected to grow by 0.5 percent in 2023-24 and 0.4 percent in 2024-25, reflecting two new online schools potentially opening in the region.

- **Pueblo-Southern Mountains region.** Total enrollment in the Pueblo-Southern Mountains region grew by 0.3 percent in 2022-23, or about 100 FTE. Most of this growth was in brick-and-mortar enrollment, offset by declines in online and CSI enrollment. This may be attributable in part to students slowly returning to traditional education, as well as some population growth. Enrollment in the region is expected to decline by 0.7 percent in 2023-24 and 0.8 percent in 2024-25 due to long-term trends of an aging population, low birth rates, and employment challenges.

- **Eastern Plains region.** Enrollment in the Eastern Plains region remained flat in 2022-23, decreasing by just 7 FTE. Brick-and-mortar enrollment increased by 0.7 percent, offset by a decrease in online enrollment. There is variation within the region, with growth in communities along I-76 in Morgan County and east of Castle Rock in Elbert County, and small changes or declines in more remote areas that are challenged by declining population, low birth rates, housing, and lack of job opportunities. Enrollment is expected to grow slightly through the forecast period, consistent with current trends within the region.

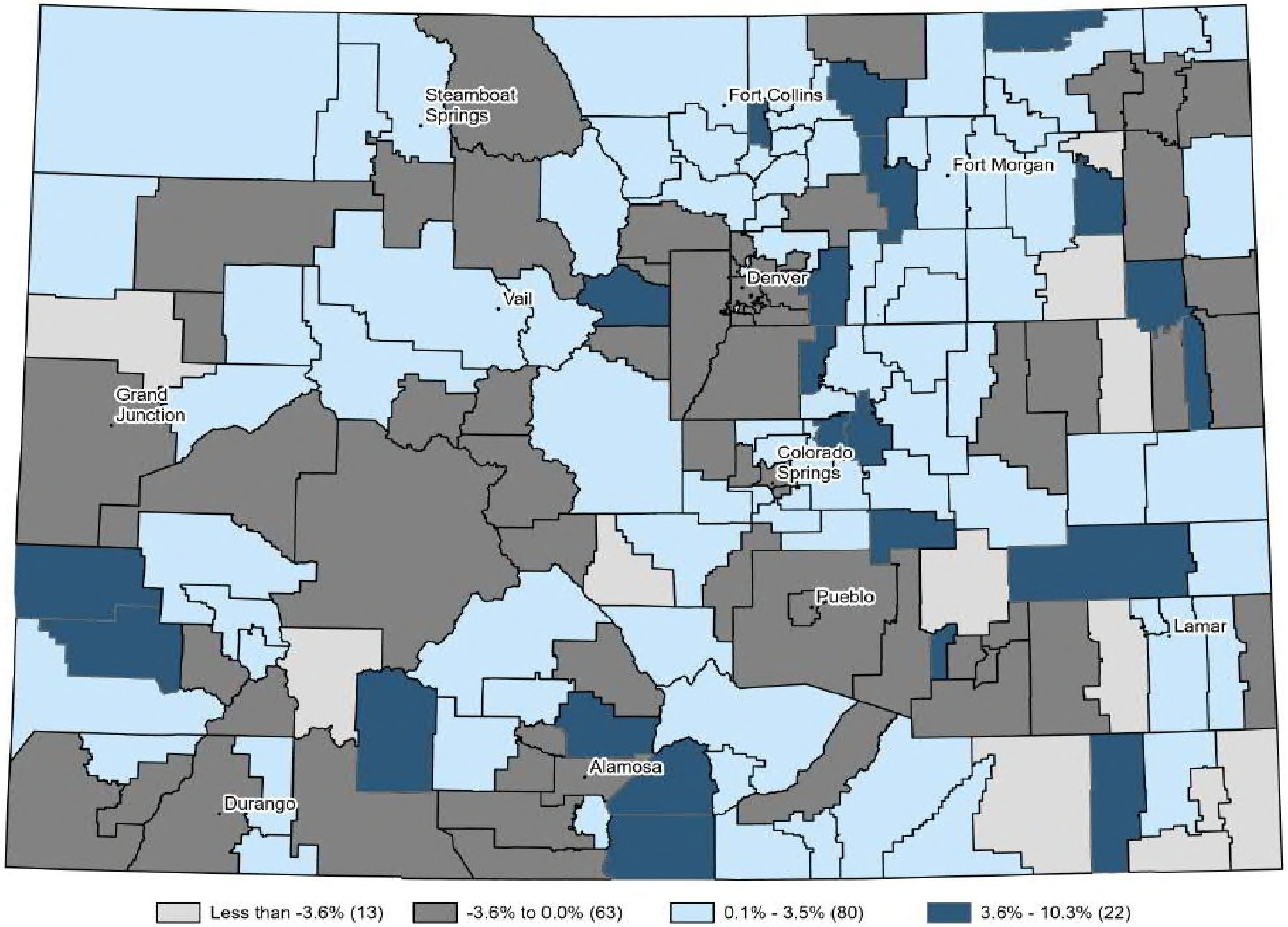
- **San Luis Valley region.** Enrollment in the San Luis Valley has declined for several years, and declined by another 1.2 percent in 2022-23. It is expected to remain flat in 2023-24 and decline by 0.3 percent in 2024-25. As a rural region, many districts are challenged by low birth rates, lack of job opportunities for families, and other demographic pressures. Enrollment changes are driven by brick-and-mortar enrollment, as the online enrollment population remains small.

- **Mountain region.** After an increase in enrollment in 2021-22 as a result of a post-pandemic return to public schools, total enrollment in the Mountain region declined by 0.3 percent in 2022-23. The decline is likely the result of high housing costs in the region, offset by some students who returned to traditional schools. Enrollment is expected to continue to decline through the forecast period, by 0.1 percent in 2023-24 and 0.6 percent in 2024-25.

- **Western region**. Total enrollment decreased by 1.0 percent in 2022-23, reflecting both a decline in brick-and-mortar and CSI enrollment. The region has seen increasing in-migration in recent years; however, enrollment is constrained by increasing housing costs. Recent economic challenges in some districts have also led to a decline in enrollment. Enrollment is expected to remain flat in 2023-24, and to decline by 0.1 percent in 2024-25.

- **Southwest Mountain region.** Total enrollment in the Southwest Mountain region declined by 2.1 percent in 2022-23, reflecting a decline in both online and brick-and-mortar enrollment and offset by an increase in CSI enrollment. The region saw significant growth in online enrollment during the pandemic; and the decline in 2022-23 is likely due to students transitioning back into their local districts. Enrollment is expected to decline 0.1 percent in 2023-24 and 0.2 percent in 2024-25 due to continued job pressures and a lack of affordable housing in the region.

Figure 9
Forecast Percent Change in Enrollment by School District
FY 2022-23 to FY 2023-24



Source: Legislative Council Staff December 2022 forecast.

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Assessed Value Projections

This section provides projections of assessed values for residential and nonresidential property in Colorado through 2025. Property values and assessment rates determine assessed values, the taxable portion of a property's value to which mill levies are applied. 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 an important determinant of the amount of state aid provided to each school district. Districts 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 21.

2022 Assessed Values

Every two years, county assessors determine new values for most classes of property as part of the reassessment process. In intervening years such as 2022, assessed values increase primarily due to new construction and certain property types that are assessed annually, including oil and gas, mining, and state assessed properties. Data from the Division of Property Taxation (DPT) in the Department of Local Affairs indicate that statewide taxable assessed values reached $150.2 billion in 2022, an increase of 5.5 percent from 2021. This change mainly reflects new residential and nonresidential construction and resurgent oil and gas activity following the pandemic. Values for nonresidential property increased by 12.2 percent, more than offsetting a 1.1 percent decline in residential values.

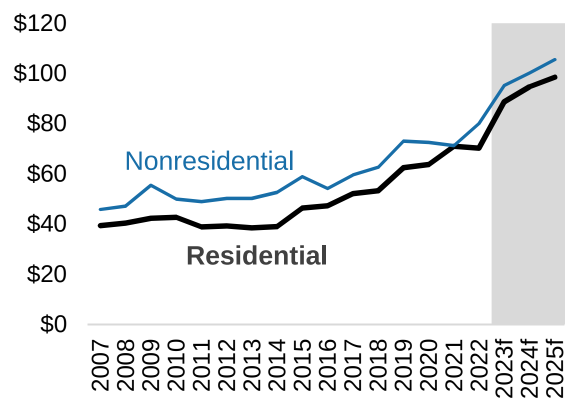
Residential values were in line with December 2021 forecast expectations, falling short of the forecast by $124.9 million, or 0.2 percent. Nonresidential values, however, exceeded December 2021 forecast expectations by $6.2 billion, or 7.8 percent, as oil and gas activity outpaced forecast expectations. Total 2022 taxable, assessed values were $6.1 billion, or 4.1 percent, above the December 2021 forecast.

Assessed Value Forecast

The forecast for assessed values is presented in Figure 10 and Table 21. Assessed values are expected to increase 22.5 percent in property tax year 2023, a reassessment year when most property classes are reassessed. Assessed values are expected to increase 5.9 percent in the 2024 intervening year, and an additional 4.7 percent in 2025, another reassessment year.

Expectations incorporate temporary reductions in the assessment rates for 2022 and 2023 for certain property classes and subclasses pursuant to Senate Bill 21-293. Additionally, the forecast incorporates extended temporary assessment rate reductions pursuant to Senate Bill 22-238 for 2023 and 2024, adjustments lowering valuations for commercial

Figure 10
Statewide Assessed Values
Billions of Dollars



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

and residential property types in 2023, and the end of the temporary assessment rate reductions in 2024 and 2025. Adjustments for each bill are described in more detail below. Inclusion of these adjustments reduces the growth rate for 2023, and increases the growth rate for 2024 and 2025, relative to what would be expected otherwise.

Table 21
Residential and Nonresidential Assessed Values
Millions of Dollars

	Residential		Nonresidential		Total	
Year	Assessed Value	Percent Change	Assessed Value	Percent Change	Assessed Value	Percent Change
2007	$39,331	14.5%	$45,816	14.0%	$85,147	14.2%
2008	$40,410	2.7%	$47,140	2.9%	$87,550	2.8%
2009	$42,298	4.7%	$55,487	17.7%	$97,785	11.7%
2010	$42,727	1.0%	$49,917	-10.0%	$92,644	-5.3%
2011	$38,874	-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%
2020	$63,751	2.0%	$72,480	-0.8%	$136,231	0.5%
2021	$70,985	11.3%	$71,295	-1.6%	$142,279	4.4%
2022	$70,180	-1.1%	$79,986	12.2%	$150,166	5.5%
2023f	$88,777	26.5%	$95,179	18.9%	$183,956	22.5%
2024f	$94,678	6.6%	$100,219	5.3%	$194,897	5.9%
2025f	$98,530	4.1%	$105,508	5.3%	$204,038	4.7%

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

After a decrease during the 2022 intervening year resulting from cuts to the residential assessment rate in Senate Bill 21-293, **residential values** are expected to jump during the 2023 reassessment cycle, which captures appreciation in market values between June 30, 2020, and June 30, 2022. This is consistent with home price increases following the pandemic in Colorado and nationally, owing to supply constraints, increased costs for building materials and labor, low interest rates, strong labor markets, and elevated household savings. Growth in residential values will be offset somewhat by additional changes to property valuation pursuant to Senate Bill 22-238, including a lower residential assessment rate in 2023 along with a subtraction of up to $15,000 from the actual value of each residential property before application of the assessment rate. The faster-than-usual increase for the 2024 intervening year reflects the expiration of some of these temporary measures.

Market conditions are expected to slow potential growth in residential valuations in 2025, a reassessment cycle that captures appreciation between June 30, 2022 and June 30, 2024. That period will begin with the peak property values observed in the spring of 2022. However, slow growth in market values will be partially offset by a higher residential assessment rate after temporary reductions under Senate Bill 22-238 expire.

In 2023, **nonresidential assessed value** is expected to grow by 19 percent. After pandemic lows weighed down their valuations in the 2021 and 2022 property tax years, values for commercial and industrial properties are expected to rebound with the 2023 reassessment. Oil and gas valuations, which are assessed annually based on the value of production for the prior year, grew rapidly in 2022, further contributing to the expected overall increase for the 2023 tax year. Like residential values, growth in nonresidential values will be partially offset by changes in Senate Bill 22-238. The bill lowers the assessment rate for most types of nonresidential property to 27.9 percent in 2023. Further, the bill includes a temporary subtraction from the actual value of commercial property up to $30,000 before application of the assessment rate. In 2024, the expiration of these provisions, along with changes due to new construction will contribute to values growing by 5.3 percent. A decline in the value of oil and gas production is expected to partially offset these gains. For the 2025 reassessment year, modest improvements in market conditions alongside the expiration of temporary assessment rate reductions for agricultural and renewable energy property subclasses will contribute to values growing by another 5.3 percent.

Residential and Nonresidential Assessment Rates

In the November 2020 election, voters approved Amendment B, which repealed the Gallagher Amendment from the state constitution. As a result, the General Assembly is no longer required to set the residential assessment rate (RAR) to maintain a constitutional ratio between residential and nonresidential assessed values. Based on a 2021 analysis, the RAR would have decreased from 7.15 percent to 6.08 percent for the 2021-2022 reassessment cycle if the Gallagher Amendment were still in place. However, the actual assessment rate would have been set by the General Assembly during the 2021 legislative session, and may have differed from this estimate. The downstream impacts of Amendment B on policy decisions and market valuations are less clear due to subsequent policy changes, including Senate Bill 21-293, Senate Bill 22-238, and economic decisions made by property taxpayers. As a result, Legislative Council Staff are unable to estimate how the assessment rate would have changed for the 2023-2024 reassessment cycle and later reassessment cycles if the Gallagher Amendment remained in place.

During the 2021 legislative session, the General Assembly adopted **Senate Bill 21-293**. The bill temporarily reduces assessment rates for certain classes and subclasses of property for the 2022 and 2023 property tax years only. Specifically:

- the assessment rate for multifamily residential property is reduced to 6.80 percent;
- the assessment rate for all other residential property is reduced to 6.95 percent;
- the assessment rate for agricultural property is reduced to 26.4 percent; and
- the assessment rate for property used to generate renewable energy is reduced to 26.4 percent.

In the 2022 session, the General Assembly adopted **Senate Bill 22-238**. The bill extended some of the changes in Senate Bill 21-293 while also temporarily reducing the assessment rates for other types of nonresidential and residential property, impacting the 2023 and 2024 property tax years. Specifically:

- the assessment rate for residential property is reduced to 6.765 percent in 2023;
- the assessment rate for multifamily residential property is reduced to 6.80 percent from 7.15 percent in 2024;

- the assessment rate for all other residential property is set at a level to be determined by the state property tax administrator, such that the projected total revenue reduction attributable to the changes in the bill is $700 million over the 2023 and 2024 property tax years;
- the assessment rate for agricultural and renewable energy producing property remains at 26.4 percent for 2024;
- the assessment rate for nonresidential property, except for oil and gas, producing mines, agricultural, and renewable energy, is reduced to 27.9 percent from 29.0 percent in 2023.

This forecast estimates the 2024 residential assessment rate for residential property other than multifamily property at **6.976 percent**, an upward revision from the 6.922 percent rate estimated in the fiscal note for SB 22-238. The actual rate will be determined by the property tax administrator in early 2024.

For 2025 and subsequent years, the residential assessment rates return to 7.15 percent. For nonresidential property types assessed at 27.9 percent during the 2023 property tax year, the assessment rate returns to 29.0 percent in 2024 and subsequent years. For 2025 and subsequent years, the assessment rate for agricultural and renewable energy producing property returns to 29.0 percent.

To accommodate the bill, this forecast relies on the 2021 shares of residential property that are multifamily property, and the 2021 shares of nonresidential property that are agricultural or renewable energy generating property, using data from DPT and data reported by counties in conjunction with the valuation for assessment study. To the extent that these shares increase or decrease during the forecast period, assessed values will be lower or higher than forecast.

For the 2023 property tax year only, SB 22-238 requires the state to reimburse a portion of the property tax revenue loss to local governments attributable to the assessment rate and valuation reductions in the bill. The amount of the reimbursement, or "backfill," to local governments depends on their specific characteristics, including the amount of lost revenue, their year-over-year growth in assessed values for 2023, and the population of the county in which they are located. This forecast estimates the backfill requirement at **$238.6 million** in FY 2023-24, as shown in Table 5, General Fund Rebates and Expenditures, on page 17. The bill requires that up to $240 million of the backfill be administered as a TABOR refund to property taxpayers for the 2023 property tax year and paid from the FY 2022-23 state TABOR surplus.

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 22 shows 2022 assessed value by region and the expected change throughout the forecast period, while Table 23 on page 67 includes discussion of specific regional trends. The map on page 70 show year-over-year growth in assessed values by region and school district for 2022, and the maps on page 71 show forecasted year-over-year growth by region and school district for the 2023 reassessment year. The table and maps include total taxable assessed values, meaning all assessed values for properties except those that are exempt from taxation, like schools or government buildings. Total values include incremental values that are not taxed due to local use of tax increment financing. Legislative Council Staff make adjustments to exclude those values when estimating the local share of total program funding for school finance.

Table 22
2022 Assessed Values and Forecast Changes
Millions of Dollars

Region	Assessed Value 2022	Forecast Changes Year-Over-Year 2023	2024	2025	3-Year Annual Average
Colorado Springs	$10,458	23.8%	7.5%	7.5%	12.7%
Eastern Plains	$3,536	8.2%	6.8%	3.3%	6.0%
Metro Denver	$81,344	16.7%	6.0%	5.1%	9.1%
Mountain	$14,602	44.3%	6.1%	5.8%	17.4%
Northern	$22,864	37.2%	3.8%	0.0%	12.5%
Pueblo	$3,379	3.1%	9.6%	1.8%	4.8%
San Luis Valley	$769	4.6%	9.4%	3.2%	5.7%
Southwest Mountain	$3,048	9.8%	11.3%	7.4%	9.5%
Western	$10,165	19.6%	6.6%	9.4%	11.7%
Statewide Total	**$150,166**	**22.5%**	**5.9%**	**4.7%**	**10.8%**

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

2022 intervening year. Regions with a large share of oil and gas property recorded the most significant increases in value. Value in the Northern region was up 30.4 percent, largely due to resurging oil and gas values in Weld County following the pandemic. Likewise, value was up 10.6 percent in the Western region as oil and gas activity spiked in Garfield County, and was up 6.2 percent in the Southwest Mountain region. Growth was dampened in heavily residential and agricultural regions due to the implementation of Senate Bill 21-293. This included the Front Range and rural areas of the state. The Mountain region was the only region to report a decline in 2022 (down 0.1 percent).

2023 reassessment year. All regions are expected to experience significant growth in actual residential and nonresidential property values, mirroring the rapid increases in home sales prices, the rise in value of oil and gas production, and broad-based increases across other property types such as commercial and industrial over the past couple years. Regions with greater shares of residential and oil and gas property are expected to lead the increase. The largest increases are expected for the Mountain and Northern regions, followed by the Colorado Springs, Metro Denver, and Western regions (Table 22). Regions with greater shares of agricultural and state assessed property are expected to report slower growth. Values will also be impacted by policy changes in Senate Bill 22-238. Notably, the bill's lower assessment rates and subtractions from actual value for residential and commercial property are expected to have a larger impact in regions with lower property values. Legislative adjustments are expected to contribute to slower relative growth for the Eastern Plains, Pueblo-Southern Mountains, and San Luis Valley regions.

2024 intervening year. Each region is expected to experience modest-to-moderate growth as assessment rates rise relative to those used for 2023. Valuations are likewise expected to increase as the subtractions from residential and commercial actual values expire. The outlook for 2024 will also be influenced by new construction activity that is expected to contribute to a modest increase in value.

2025 reassessment year. Regional growth is expected to continue as temporary assessment rate reductions under Senate Bill 22-238 expire. Weaker-than-usual growth is expected for regions with heavy concentrations of residential property as significantly slower home price growth and market conditions are expected compared with the 2023 reassessment. The current outlook is also influenced by a contraction in forecast oil and gas production, deviations from which could positively or negatively impact the forecast.

Risks to the forecast. The outlook for assessed values is less certain than usual due to an evolving property tax policy environment. In particular, assessed values for 2024 rely on the assumed 2024 assessment rate for residential property other than multifamily property, which will be set by the property tax administrator depending on local governments' reported revenue loss in property tax year 2023. The 2023 mill levy data needed to estimate this loss are unavailable, and this forecast relies on mill levy data that will be outdated when the assessment rate is actually set. Any error in expectations for lost revenue in 2023 will propagate additional error in the estimate of the assessment rate and assessed values in 2024.

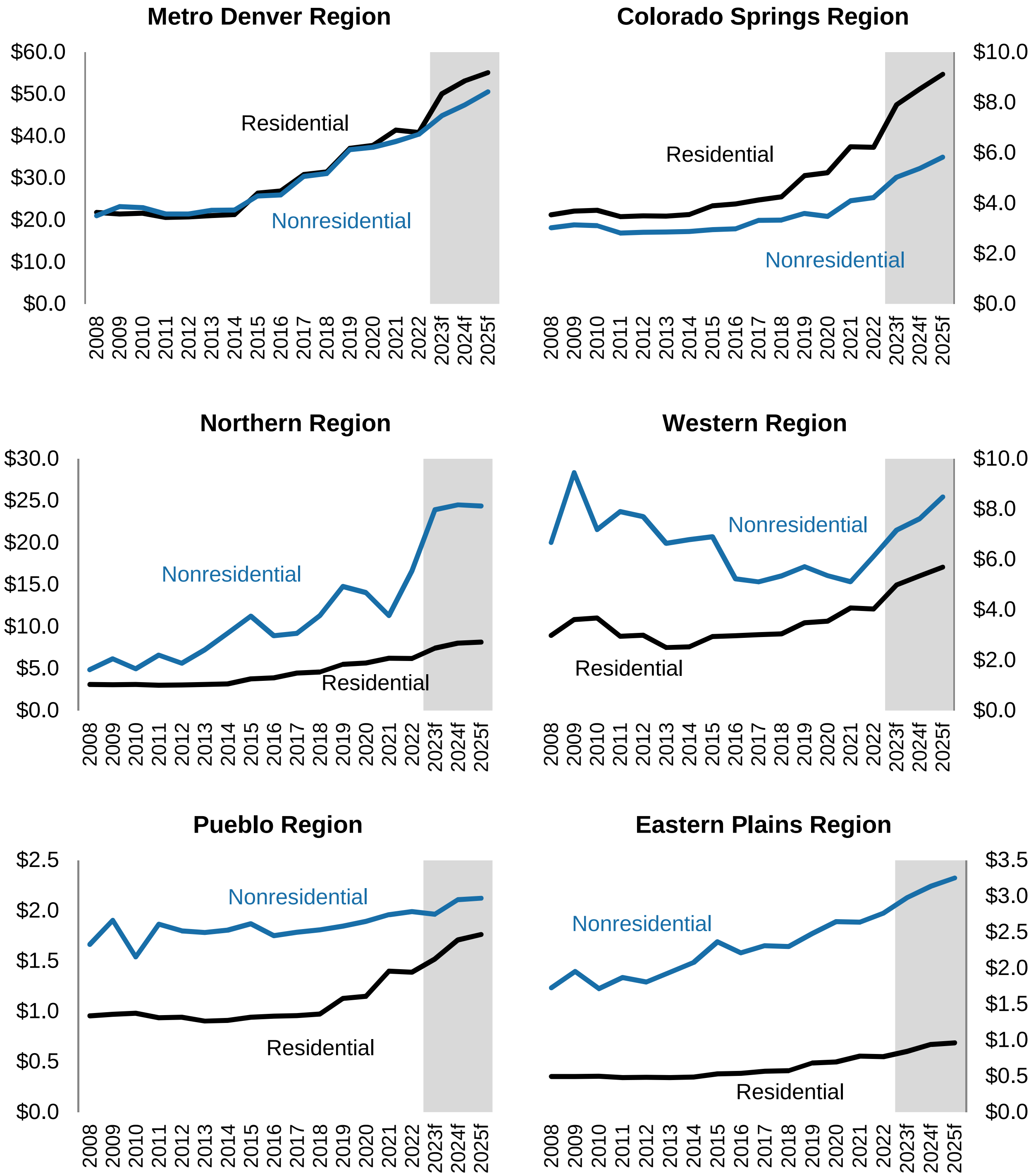
Property tax valuations for 2025 depend on market conditions as of June 30, 2024. This forecast assumes that the declining housing market will reverse course in late 2023 and early 2024, leading to modest appreciation over the two-year reassessment cycle. If values continue to fall through mid-2024, 2025 values will be lower than estimated. If values begin again to appreciate at the pace of the pre-2023 trend, 2025 values will be higher than estimated.

The detailed forecast of assessed values by school district is available online here: leg.colorado.gov/sites/default/files/images/lcs/lcs_av_forecast_by_school_district_dec_2022.xlsx.

Table 23
Regional Trends in Assessed Values

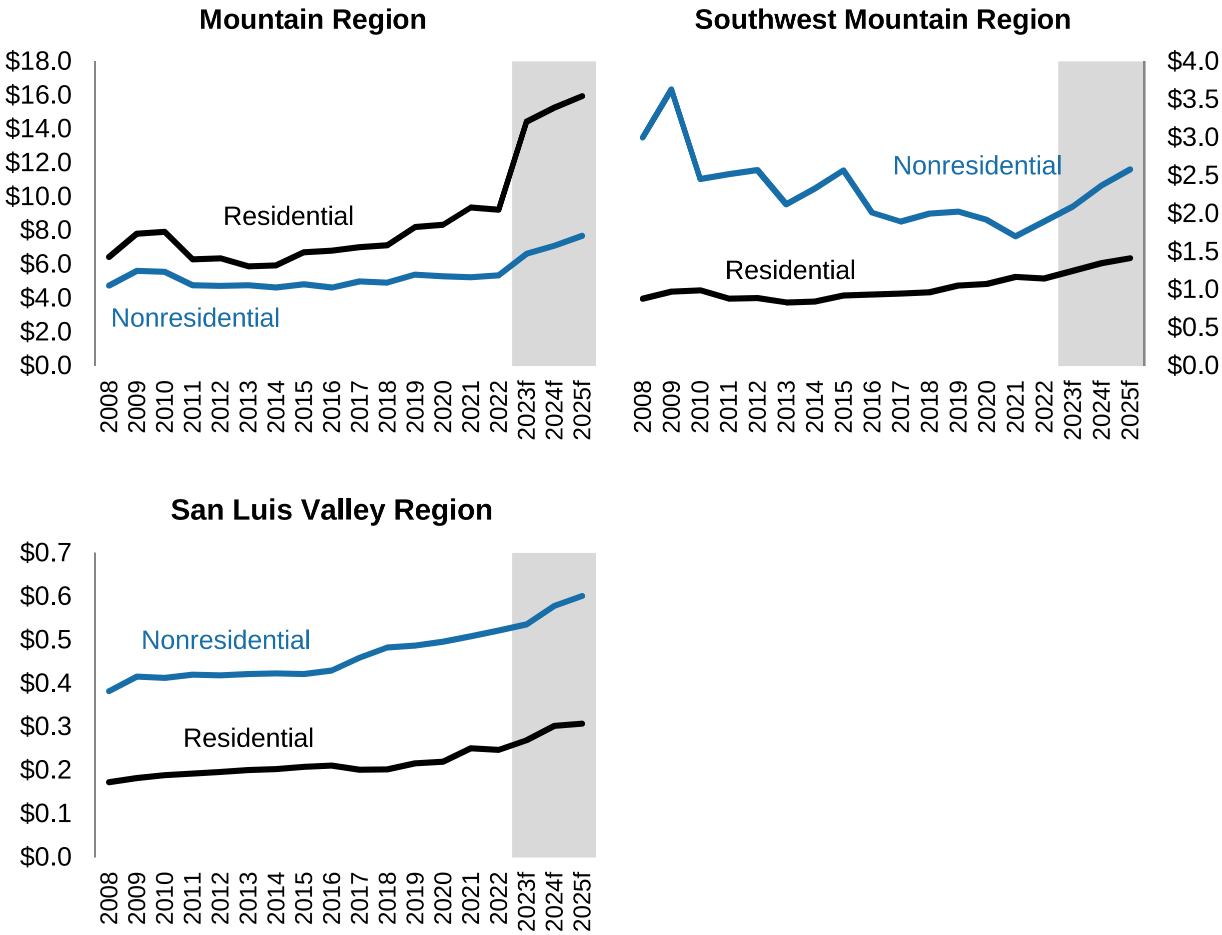
Region	Residential Trends	Nonresidential Trends
Metro Denver	• Reacceleration in home prices following the pandemic to contribute to strong growth. • Faster appreciation in northern, eastern, and southern suburban and exurban areas.	• Commercial valuations reaccelerating from pandemic sluggishness, with strength in central Denver and the suburbs. • Increase in oil and gas values in Adams County due to higher energy prices.
Colorado Springs	• Strong home price appreciation for most areas accompanying population growth and new construction. • Slower growth expected in southern and eastern areas competing with lower prices in neighboring regions.	• Strong growth in northern and central areas with concentrations of commercial activity. • Slower growth in areas with large amounts of state assessed property and limited new development.
Northern	• Strong home price appreciation across Larimer County and most of Weld County.	• Significant increases in oil and gas land values in Weld County due to higher energy prices. • Appreciation in Larimer County vacant land prices, especially in mountainous areas.
Western	• Strong home price appreciation across the region.	• Increase in oil and gas values in Garfield and Mesa counties due to higher energy prices. • Appreciation in commercial and vacant land.
Pueblo – Southern Mountains	• Strong home price appreciation in Pueblo, Cañon City, and Florence.	• Appreciation in retail, office, and industrial buildings, particularly in Pueblo and Fremont counties. • Appreciation in state assessed and agricultural land values.
Eastern Plains	• Slowing home price appreciation after historic increases in past two reassessment cycles. • Fastest appreciation on the fringes of Front Range metro areas.	• Moderate appreciation in state assessed and agricultural land values. • Faster appreciation in areas with oil and gas activity due to higher energy prices.
Mountain	• Rapid home price appreciation expected in both resort and non-resort areas following strong post-pandemic demand and low interest rates.	• Accelerating appreciation for commercial and vacant land values, although more muted than growth in residential. • Sluggish production expected for producing mines in Clear Creek, Lake, and Teller Counties.
Southwest Mountains	• Home price appreciation in La Plata and San Juan counties. • Slower home price growth in Montezuma County.	• Increase in oil and gas values due to higher energy prices. • Appreciation in commercial values.
San Luis Valley	• Slowing price appreciation after strong growth in 2021. • Price growth faster in western areas.	• Stable value for agricultural property and vacant land. • Commercial values increasing modestly to moderately in towns.

Figure 11
Assessed Values by Region
Billions of Dollars



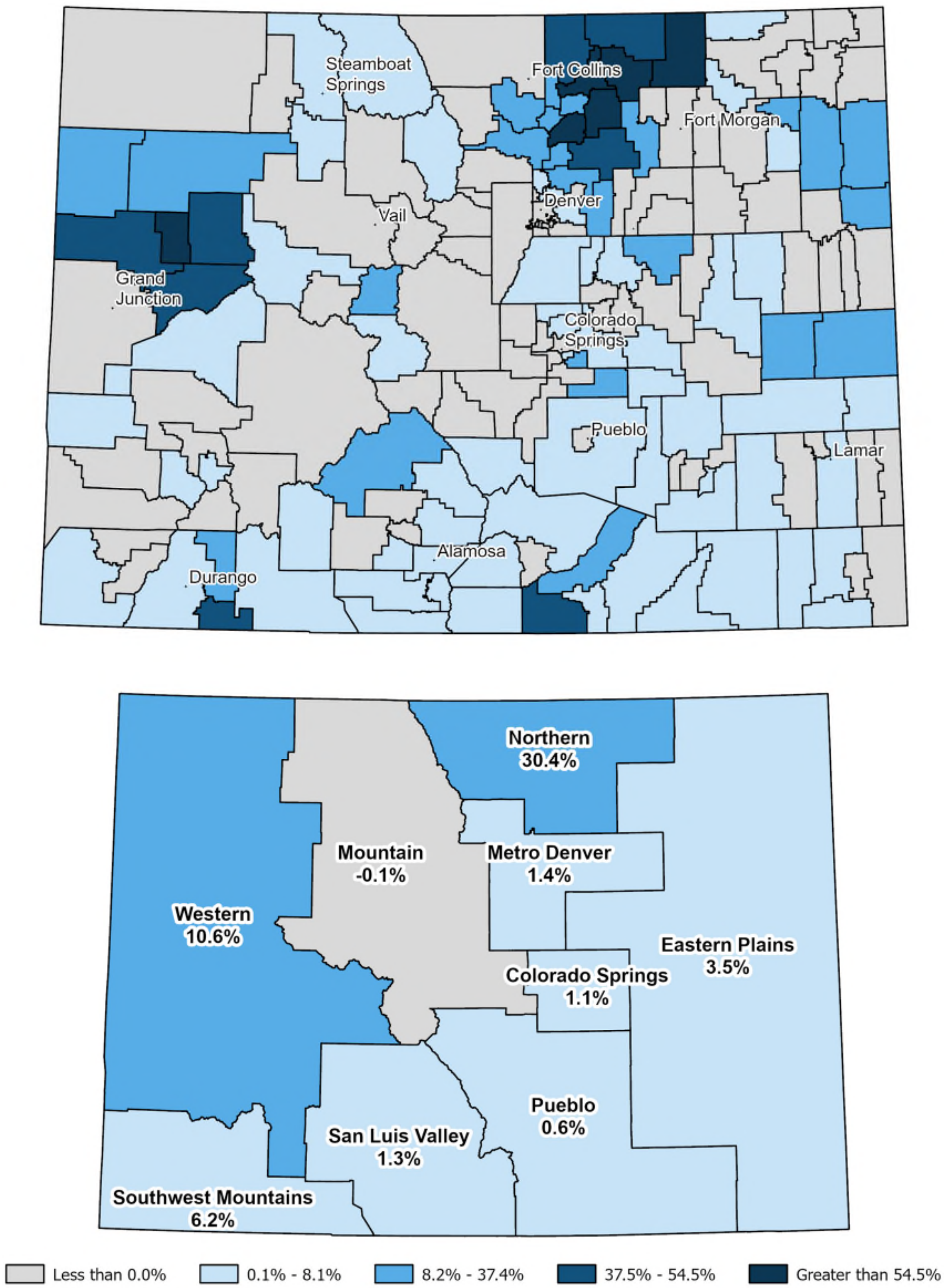
Source: Department of Local Affairs, Division of Property Taxation.
Legislative Council Staff forecast in 2023 through 2025.

Figure 11 (Cont.)
Assessed Values by Region
Billions of Dollars



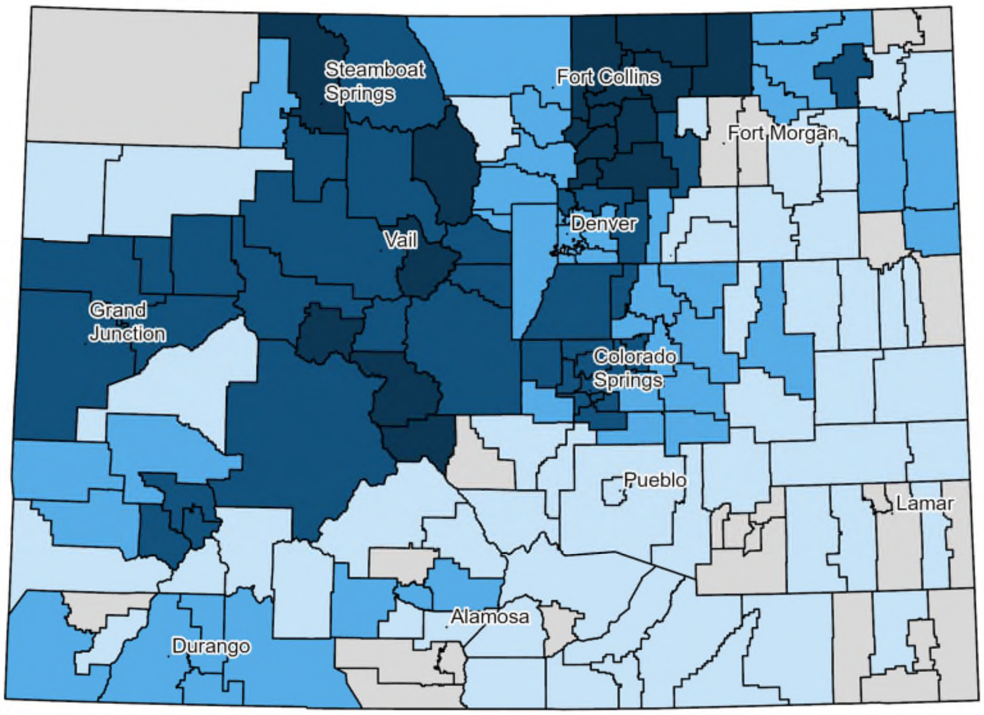
Source: Department of Local Affairs, Division of Property Taxation.
Legislative Council Staff forecast in 2023 through 2025.

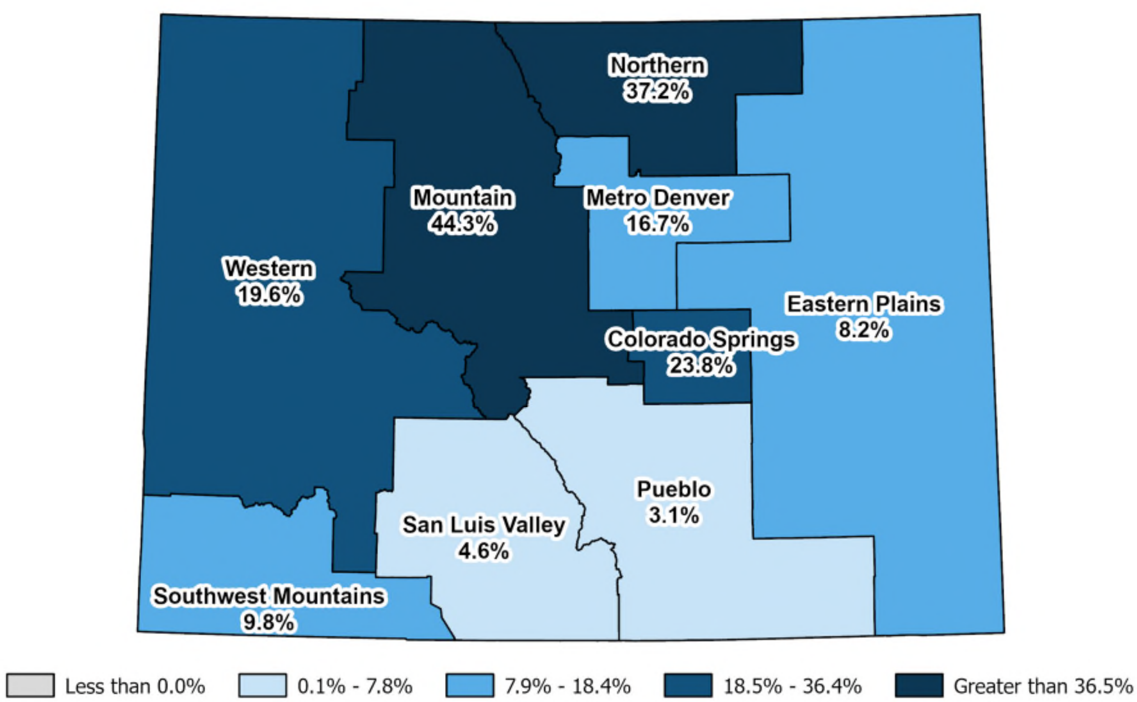
Figure 12
Preliminary Percent Change in Total Assessed Valuation by School District and Region
2022 Assessment Year (Budget Year 2022-23)



Legislative Council Staff December 2022 Forecast.

Figure 13
Preliminary Percent Change in Total Assessed Valuation by School District and Region
2022 Assessment Year (Budget Year 2023-24)





Legislative Council Staff December 2022 Forecast.

Adult Prison Population and Parole Caseload Projections

This section presents projections of the state's adult prison population and parole caseload for FY 2022-23 through FY 2024-25. It includes a discussion of the historical and current trends affecting these populations, changes to expectations since the December 2021 forecast, and relevant recent legislation. It concludes with an analysis of risks to the forecast.

Key Findings

Population increases after significant declines. After declining by 12.6 percent in FY 2019-20 and 11.5 percent in FY 2021-21, the Department of Corrections (DOC) jurisdictional population ("prison population") ended FY 2021-22 at 15,033, an increase of 927 offenders. The 6.0 percent increase was the largest percentage increase since FY 2005-06. The June 30, 2022, prison population exceeded the December 2021 forecast by 75 offenders, or 0.5 percent.

During the first five months of FY 2022-23, the prison population has continued to rise. Between June 30 and November 30, the prison population rose by 505 offenders, or 3.1 percent.

Parole decline continues. The June 30, 2022, in-state parole population was 7,862, a decrease of 1,336 from the previous year, or 14.5 percent. In comparison, the December 2021 forecast anticipated a smaller decline of 10.7 percent, to 8,216 offenders. As a result, the June 30, 2022, in-state parole population was below last year's forecast by 354 offenders, or 4.5 percent. The domestic parole population has continued to decline during the first five months of FY 2022-23, by 527 offenders, or 6.7 percent.

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 the 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 terms of parole.

As discussed further below, key drivers of the substantial prison and parole population fluctuations over the past three fiscal years are legislative changes affecting sentencing and parole, and the aftermath and recovery from the COVID-19 pandemic. The pandemic drove changes throughout the entire criminal justice system and continues to reverberate in unpredictable ways, including in policing behavior, court activity, DOC operations, releases to parole, parole supervision, and parole and probation revocations. While the immediate impacts of pandemic-related public health measures have dissipated, pandemic-related disruptions continue to impact the criminal justice system, with staffing turnover and shortages in policing, courts, DOC facilities, probation, and parole a significant factor in current operations.

Forecast summary. As shown in Table 24 on page 79 (prison population) and Table 25 on page 82 (parole caseload), the outcomes described below are anticipated over the forecast period.

- **Overall population.** The prison population is expected to increase to 17,474 inmates as of June 30, 2023, an increase of 6.8 percent during FY 2022-23, or an increase of 3.6 percent relative to the most recent population count on November 30. The forecast assumes that the effects of the COVID-19 pandemic and mitigation efforts in suppressing admissions has mostly dissipated, while the longer term impacts of legislative changes are now emerging more clearly. Uncertainty remains as policing, prison, and parole operations continue to transition. The population will be influenced significantly by current staffing shortages, the impacts of which are expected to dissipate in the forecast period, but which may drive longer term changes in practices across the system.

The forecast assumes that admissions, which began to rise in early 2021, will continue to increase at a similar rate before slowing in line with historical patterns, but from a lowered base level due to legislative changes. Additionally, releases to parole, which have shown signs of a slowing decline in recent months, will flatten before increasing to follow admissions. In FY 2023-24, the prison population is expected to increase by 5.5 percent, to reach 18,432 inmates by June 30, 2024. The prison population forecast for FY 2022-23 and FY 2023-24 has been revised up, reflecting recent trends.

- **Male population.** After increasing by 5.7 percent in FY 2021-22, the male prison population is expected to increase by 983 inmates, or 6.5 percent, to 16,016 inmates in June 2023. It is expected to increase further to 16,889 inmates in June 2024. Trends driving changes in the male population are similar to those for the overall state inmate population.

- **Female population.** After increasing by 9.2 percent in FY 2021-22, the female population is expected to increase by 131 inmates, or 9.8 percent, to 1,459 inmates in June 2023. The women's population is expected to increase by 5.8 percent to 1,543 inmates in June 2024. After reaching 10.1 percent in June 2019, the share of women in the state's prison population declined to 7.9 percent in June 2021, and is expected to average 8.4 percent over the forecast period.

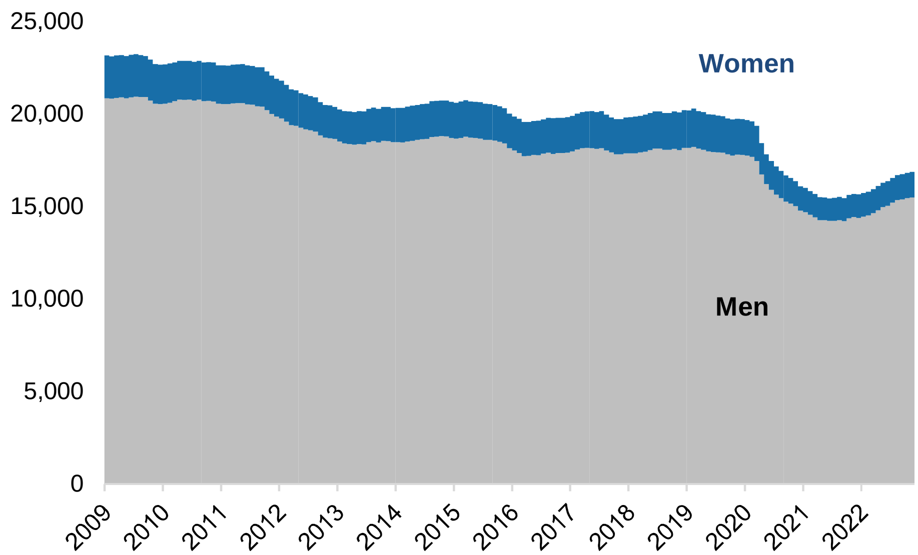
- **Parole caseload.** After declining by 14.5 percent to 7,862 in June 2022, the in-state parole caseload is expected to decline further, to 7,315 parolees in June 2023, before increasing to 7,610 parolees in June 2024. The parole population is expected to begin increasing following increases in the prison population.

Prison Population Forecast

Recent trends. Pandemic-related safety measures, alongside legislative changes, sharply reduced the prison population from early 2020 to mid-2021. After the population fell by less than 1 percent in FY 2018-19, FY 2019-20 and FY 2020-21 saw declines of 12.6 percent and 11.5 percent, respectively. As a result, the vacancy rate for state-operated prisons increased from 0.7 percent in February 2020 to a high of 29 percent in December 2021. The prison population rose by 6.0 percent, or 927 inmates, in FY 2021-22, the largest percentage increase in over a decade. The prison population has continued to rise in FY 2022-23, by a further 3.1 percent, or 505 inmates in the first five months of the fiscal year. In November 2022, the vacancy rate for state-operated prisons was 5.6 percent, accounting for a 7.8 percent decline in operational capacity since February 2020.

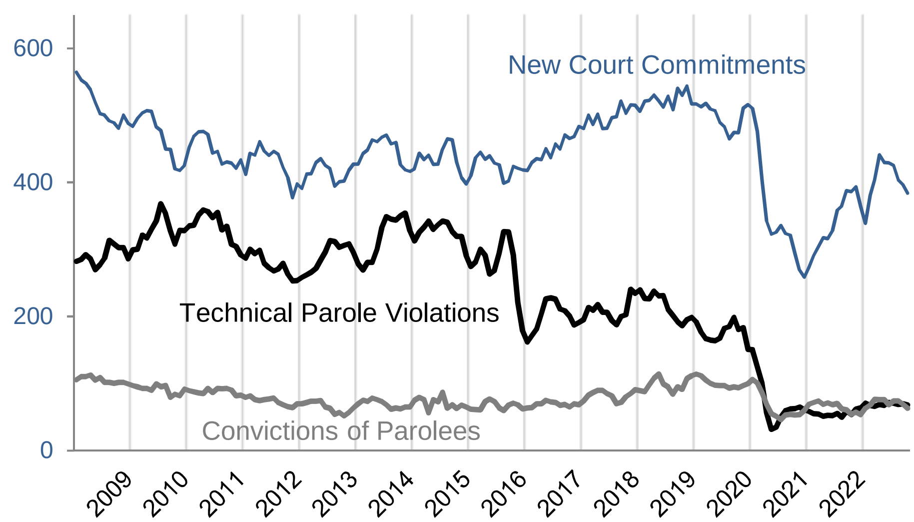
Admissions. An offender who is admitted to a DOC facility is generally recorded as having been admitted for one of three reasons. Most admissions are attributable to *new court commitments*—felony criminal cases in which a defendant is convicted and sentenced to a period of incarceration. The two other 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 parole conditions that was not prosecuted as a new crime.

Figure 14
Prison Population by Sex
June 2009 to November 2022



Source: Colorado Department of Corrections.

Figure 15
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 seven admissions per month over the sample period.*

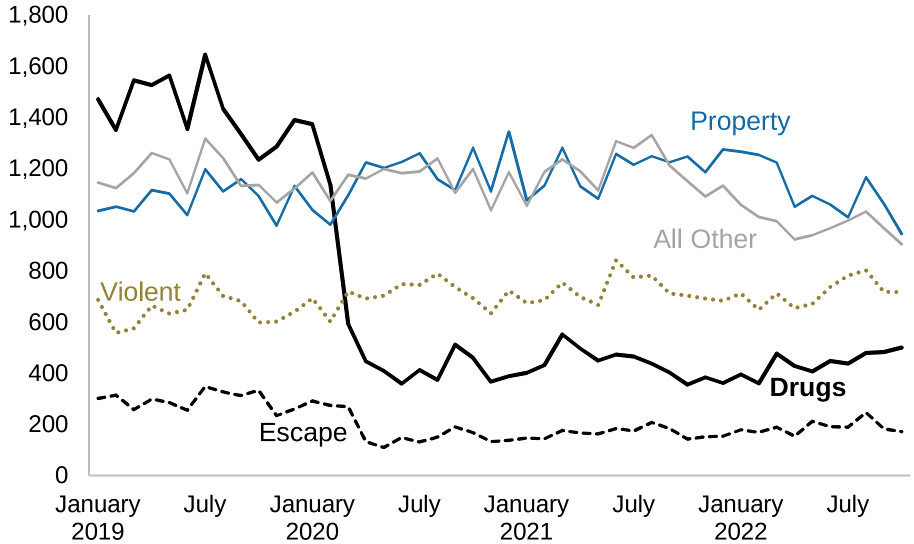
Trends in prison admissions are presented in Figure 15. Monthly admissions have generally trended up since reaching a low of 337 in November 2020, but remain low compared to historical levels. Year-to-date through November 2022, monthly admissions have averaged 541 and are up by 16.5 percent compared to the 2021 monthly average, but they are still 30.6 percent lower than in 2019. The decline in new court commitments accounted for about two-thirds of the decline in admissions in 2020, while decreased **readmissions for technical violations** accounted for almost one-quarter. New court commitments are leading the increase in 2022, while technical parole violations and admissions of parolees for new crimes remain suppressed. New court commitments represent the majority of all prison admissions, and inmates admitted by new court commitments will remain in prison for a longer duration than those revoked from parole.

The subdued level of **court commitments** reflects jury trial moratoria, reduced court capacity, and other changes in court operations due to the COVID-19 pandemic and related public health measures, which occurred alongside and amplified legislative changes, placing downward pressure on case filings and prison admissions. Pandemic-related impacts have fluctuated, with the magnitude lessening with each successive wave of the virus so that the pace of jury trials has almost recovered to pre-pandemic levels. Anomalies in court proceedings persist, with a larger number of failures to appear and continuances slowing the resolution of felony cases. From 2020 to 2022, the average time from case filing date to sentencing date has increased to 2.2 years, up from 1.8 years in the three years prior. Felony case filings in state district courts remain well below their pre-pandemic average of about 14,000 per quarter and stood at about 11,000 per quarter through September 2022. The relationship between case filings and DOC sentences is shifting, with sentences rising since mid-2021, even as case filings have continued to decline. Finally, judicial proceedings and practices are impacted by elevated staff turnover rates and subsequent shortages, particularly in trial courts, where turnover is roughly twice that of its historical average.

While the pandemic is partially responsible for some of these shifts, legislative changes are likely a key factor and therefore expected to continue to exert downward pressure on case filings and admissions and to shift sentencing rates for cases filed. In addition to **Senate Bill 19-143**, which tightened criteria for revocation to prison for a technical parole violation, **House Bill 20-1019** reclassified some types of absences or attempted absences from non-prison supervision, such as supervised parole or a direct sentence to community corrections, from a felony to a misdemeanor depending on the prior conviction. In addition, **House Bill 19-1263** reclassified several existing drug felonies as drug misdemeanors for offenses committed on or after March 1, 2020. **Senate Bill 21-271** reclassified the offense level for several felony offenses, including scaling back some felony offenses to misdemeanors. The drug and other felony reclassifications likely had a larger impact on case filings than on DOC sentences, as many of these cases would not have carried DOC sentences prior to the legislation.

As shown in Figure 16, the decline in case filings was driven largely by the decline in drug filings, with both drug and escape filings declining significantly in 2020, by 60 and 39 percent, respectively. For comparison, felony case filings for all other types of crimes fell by 1 percent in the same period. The effective date of House Bill 19- 1263 initially made its effects difficult to distinguish from the consequences of the pandemic, but as the pandemic's impacts have waned, the longer term legislative influence has more clearly emerged as felony drug case filings remain suppressed. Details of legislative changes are discussed further below.

Figure 16
State District Court Felony Case Filings by Crime Type



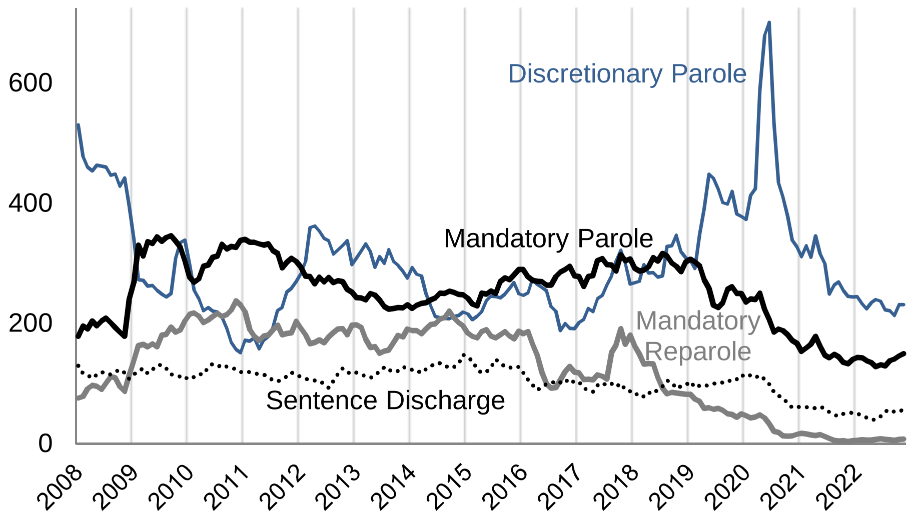
Source: Judicial Branch, State Court Administrator's Office.
Aggregation by Legislative Council Staff. Monthly data through October 2022.

Releases. Inmates may be released from incarceration in three primary ways: discretionary parole, mandatory parole or reparole, and sentence discharge. *Discretionary parole* releases occur when the State Board of Parole (Parole Board) chooses to release an offender who would otherwise remain incarcerated. For offenders who were admitted to DOC upon conviction for a crime, discretionary release may occur following the offender's parole eligibility date but before the offender's mandatory release date. The board, in its discretion, may also rerelease offenders who were readmitted to DOC following a violation of their terms of parole (technical parole violations).

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 their mandatory release date. In previous years, *mandatory reparole* releases occurred after a readmitted offender completed the term for which he or she was revoked to a DOC facility; however, mandatory reparoles have fallen nearly to zero following implementation of Senate Bill 19-143, which limited the circumstances under which the Parole Board may revoke an offender's parole and removed the option of mandatory reparole for those offenders. Instead, revoked offenders are required to serve out the duration of their sentence in a DOC facility before receiving a *sentence discharge*, unless they are granted discretionary reparole first.

Figure 17 presents state prison releases in each category. Although discretionary releases had trended upward between 2017 and early 2019, the implementation of Senate Bill 19-143 in mid-2019 contributed to accelerating releases of low- and medium-risk parole-eligible inmates to parole. The increase in discretionary parole releases was accompanied by an attendant drop-off in mandatory releases during the immediate succeeding months.

Figure 17
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 18 releases per month over the sample period.*

The COVID-19 pandemic accelerated release trends in early 2020 as the DOC and the Parole Board sought to contain potential outbreaks by allowing for more social distancing. A series of executive orders resulted in a surge of discretionary releases, particularly in April and May 2020. Releases returned to more normal levels in June 2020, and have declined since then, reflecting fast-tracked releases at the start of the pandemic as well as subdued admissions.

Through November 2022, an average of 431 offenders were released from prison each month in 2022, a decrease of 14.2 percent from the 2021 monthly average of 502 offenders, but slowing from the 36.6 percent decline in 2021. The decline reflects a smaller population of parole-eligible offenders following accelerated releases in 2020, fewer admissions of newly convicted offenders, and fewer readmissions of parolees. Releases have remained subdued for longer than admissions, and for longer than expected. While releases are expected to remain flat before beginning to rise in 2023, they are not expected to return to pre-pandemic levels following implementation of HB 19-1263 and other legislation as discussed above and below. The continued decline and subdual of releases are a major contributor to the subdued parole caseload.

Prison population forecast. A confluence of legislative and pandemic-related factors drove the DOC jurisdictional inmate population to its lowest level—15,434 inmates—in June 2021, with the inmate population rising since then. This forecast anticipates that the inmate population will continue to increase, with rising DOC sentences across most crime types expected to drive flattening increases as sentencing rates stabilize. Policy changes affecting drug and escape sentences have reduced admissions, and those trends are expected to persist. While admissions will increase through the forecast period, the inmate population is not expected to return to pre-pandemic levels through FY 2024-25.

The DOC population will increase 6.8 percent during FY 2022-23 to total 17,474 offenders in June 2023. The pace of growth will slow through the forecast period, as the population is expected to grow by a further 5.5 percent during FY 2023-24 to total 18,432 offenders in June 2024, and 2.3 percent during FY 2024-25 to reach 18,851 offenders in June 2025. The female population fell faster than the male population in FY 2020-21 and FY 2022-23, and has rebounded more quickly. This difference is expected to continue through the forecast period, but women are expected to make up a persistently smaller share of incarcerated persons than before the pandemic.

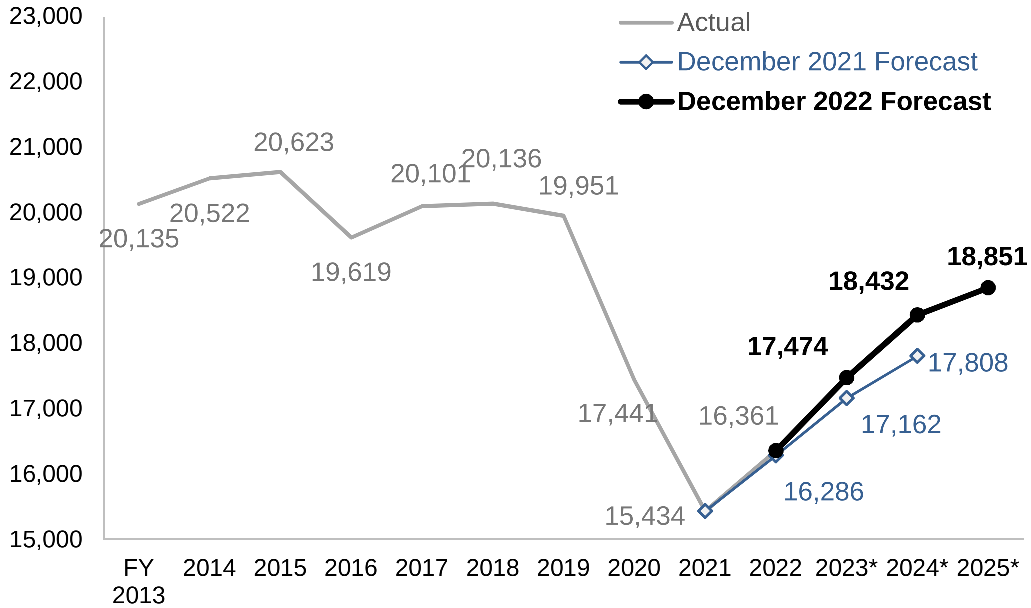
Table 24
Adult Prison Population by Sex
As of June 30 each Fiscal Year

Fiscal Year	Males	Percent Change	Females	Percent Change	Total	Percent Change
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	15,886	-11.4%	1,555	-22.9%	17,441	-12.6%
FY 2020-21	14,218	-10.5%	1,216	-21.8%	15,434	-11.5%
FY 2021-22	15,033	5.7%	1,328	9.2%	16,361	6.0%
FY 2022-23*	16,016	6.5%	1,459	9.8%	17,474	6.8%
FY 2023-24*	16,889	5.5%	1,543	5.8%	18,432	5.5%
FY 2024-25*	17,254	2.2%	1,597	3.5%	18,851	2.3%

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

Adjustments to the forecast for total population. Figure 18 illustrates the inmate population forecasts published in December 2021 and December 2022. The June 2022 population exceeded the December 2021 forecast by 75 inmates, or 0.5 percent. Reflecting a higher expected growth trajectory, this forecast makes upward revisions to the expected populations in June 2022 as well as June 2023.

Figure 18
Adult Inmate Population as of June 30



*Source: Colorado Department of Corrections and Legislative Council Staff. Actual values shown for FY 2012-13 through FY 2021-22. *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, be housed in community corrections facilities, or be detained in county jails for violating parole terms. Offenders who reside in Colorado are generally supervised by the DOC's Division of Adult Parole. With authorization, offenders may be supervised by parole officers in another state, and some offenders from other states are supervised in 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 the offender's 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 implementation of Senate Bill 19-143. Parolees who are convicted for new crimes may again be sentenced to DOC custody and returned to prison to begin a new sentence.

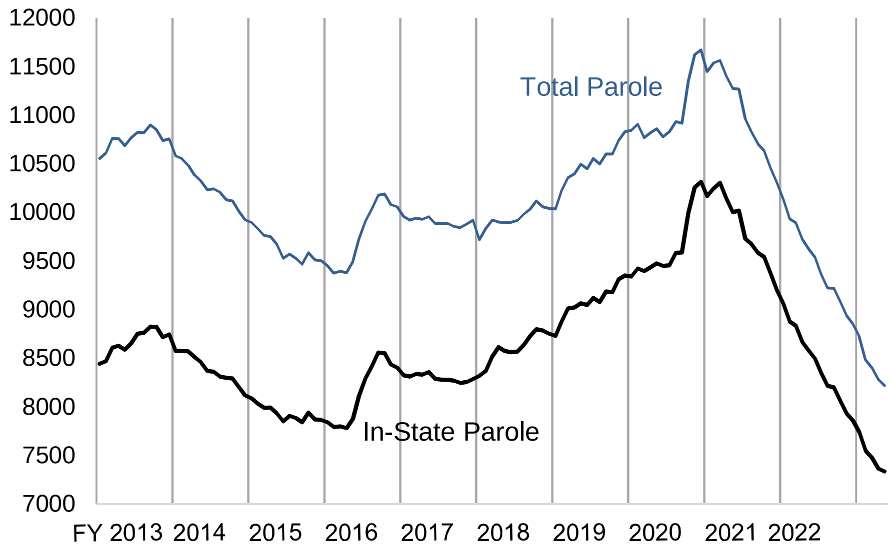
For these reasons, the prison and parole populations are intertwined. This forecast uses the assumptions already identified for the prison population as determinants of parole caseload. For example, an inmate who is granted parole is assumed to add to the parole population, and a parolee who is readmitted to DOC is assumed to subtract from the parole population.

Pre-pandemic trends. Over 2018 and 2019, the parole population steadily increased due to policy changes that accelerated releases to parole and limited the circumstances under which a parolee can be returned to prison. These included the creation of a file review system to replace parole application hearings for certain inmates; limiting parole revocations; and broadening the circumstances under which DOC could request that certain application hearings be conducted. Excluding absconders, the total parole population increased 5.4 percent in FY 2018-19 and 4.3 percent over the first nine months of FY 2019-20, before the initial COVID-19 outbreak in Colorado.

COVID-19 impacts and recovery. Pursuant to the executive orders as well as its preexisting authority, the Parole Board expedited releases in response to the pandemic outbreak. Releases surged in April and May 2020, bringing the parole population to an all-time high of 10,315 in-state parolees, excluding absconders, in June 2020. The parole population has continued to decline since. With fewer parole-eligible offenders deemed sufficiently low risk for release, monthly releases have fallen to an average of 431 per month between January and November 2022, compared with a pace of 821 per month in 2019. Figure 19 shows the parole population's steep decline.

The June 30, 2022, in-state parole population was 7,862, a decrease of 1,336 from the previous year, or 14.5 percent. In comparison, the December 2021 forecast anticipated a smaller decline of 10.7 percent, to 8,216 offenders. As a result, the June 30, 2022 in-state parole population was below last year's forecast by 354 offenders, or 4.5 percent. The domestic parole population has continued to decline during the first five months of FY 2022-23, by 527 offenders, or 6.7 percent.

Figure 19
Colorado Parole Caseload



Source: Colorado Department of Corrections. Omits absconders.

Parole caseload forecast. This forecast anticipates a continued decline in the parole caseload in FY 2022-23, followed by increases through the remainder of the forecast period. Table 25 presents the parole population forecast, which is discussed below.

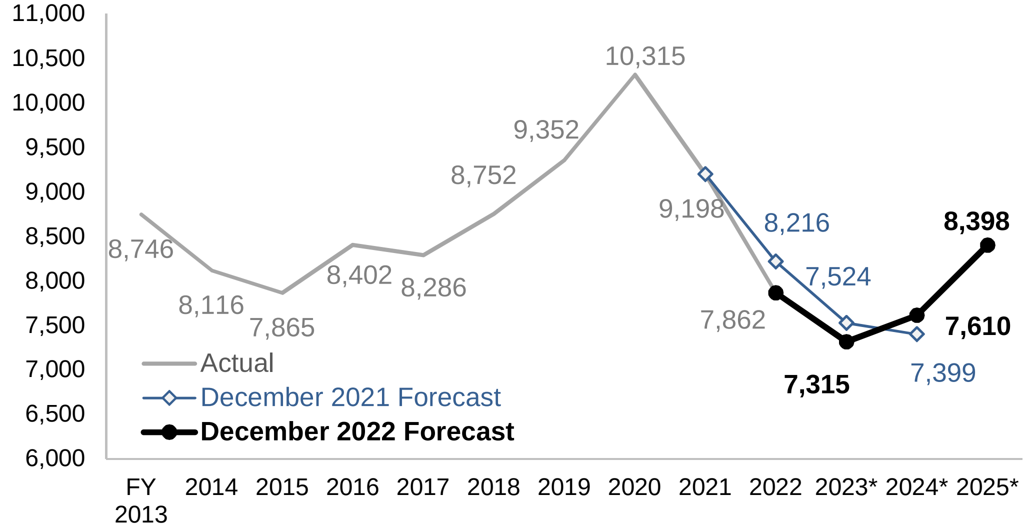
Table 25
Parole Population
As of June 30 each Fiscal Year

Fiscal Year	In-State Parole	Percent Change	Out-of-State Parole	Percent Change	Total	Percent Change
FY 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	10,315	10.3%	1,357	-8.3%	11,672	7.8%
FY 2020-21	9,198	-10.8%	1,106	-18.5%	10,304	-11.7%
FY 2021-22	7,862	-14.5%	992	-10.3%	8,854	-14.1%
FY 2022-23*	7,315	-7.0%	868	-12.5%	8,184	-7.6%
FY 2023-24*	7,610	4.0%	882	1.6%	8,492	3.8%
FY 2024-25*	8,398	10.4%	950	7.7%	9,348	10.1%

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

Adjustments to the parole caseload forecast. Figure 20 illustrates the in-state parole caseload forecasts published in December 2021 and December 2022. The June 2022 parole population fell short of last year's expectations by 354 offenders, or 4.5 percent. While the December 2021 forecast anticipated a decrease in parole caseload during FY 2021-22, it expected the decrease to be partially offset by the return of absconders to the supervised parole population, as well as rising prison releases. However, the number of absconders has remained elevated, beginning to decline in late 2021 more slowly than expected, and a sustained rise in releases has yet to materialize, resulting in a smaller supervised parole population than forecast. The forecast anticipates a continued decline in parole caseload during FY 2022-23, followed by increases through the remainder of the forecast period, as releases, already moderately outpacing parole discharges, begin to rise.

Figure 20
Adult In-State Parole Population as of June 30



Source: Colorado Department of Corrections and Legislative Council Staff.
*Actual values shown for FY 2012-13 through FY 2021-22. *Current forecast period.*

House Bill 19-1263 is expected to limit increases in the parole caseload. For offenses committed on and after March 1, 2020, the bill reclassified most felony drug possession charges as misdemeanors, which do not carry the possibility of a prison sentence. Even before HB 19-1263, defendants convicted of level 4 drug felonies for drug possession were often not sentenced to incarceration. For those that were, length of stay in DOC averaged between four and five months. However, these defendants spent about 10 months, on average, on parole. Therefore, the impact of reduced commitments for drug offenses under HB 19-1263 is expected to impact the parole population by more than twice as much as the prison population, since offenders who are not incarcerated as a result of the bill would have spent more than twice as long on parole as in prison.

The population of **absconders**, who are omitted from parole caseload for the purposes of this forecast, increased significantly at the outset of the pandemic, and has declined slightly, but remains elevated, averaging 1,205 offenders per month in FY 2022-23 through November, compared with an average of 764 offenders per month in FY 2019-20. **House Bill 20-1019** may be playing a role in the continued elevation in the population of absconders along with staff turnover and shortages in policing and parole. This forecast assumes that the absconding population will continue to decline slowly, but remain above pre-pandemic levels, through the forecast period, limiting growth in the parole caseload.

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.

Colorado's population. All other things being equal, a larger state 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 3.0 percent through the forecast period, which may put mild upward pressure on the inmate population.

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

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. Because the Parole Board has appeared 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 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 and capacity to accept offenders from DOC may be a determinant of an offender's possibility of release to parole.

Legislation. Legislation enacted by the General Assembly may influence the state prison population and parole caseload. During the 2019, 2020, 2021, and 2022 legislative sessions, the General Assembly enacted bills that may impact the state prison population and/or parole caseload in the future. These are described below.

- **House Bill 19-1263** reclassifies several existing drug felonies as drug misdemeanors, reduces the fine penalties and jail terms for drug misdemeanors, and makes several other changes to sentencing for drug offenses. The bill is expected to substantially reduce felony filings for drug offenses, and to reduce the prison and parole population. Impacts on the prison population will be less significant than the impact on felony filings, because offenders previously convicted for low-level drug felonies often did not receive prison sentences, and because those who were sentenced to DOC remained incarcerated for an average of four to five months. Impacts on parole caseload will be more significant than the impact on the prison population, because offenders previously sentenced for these crimes generally spent more time on parole than in prison.

- **House Bill 20-1019** creates a new crime of an unauthorized absence for an inmate on an intensive supervision program, in a community corrections program, or participating in a work release program. These categories of offenders are removed from the offenses of escape and attempted escape, which carry a charge of a class 2 or 3 felony for escape or a class 4 or 6 felony for attempted escape. Unauthorized absence carries a reduced charge in most cases, to a class 3 misdemeanor, which does not require prison time, or in some cases a class 3 or 6 felony. The bill also allows for a wider range of circumstances under which inmates may be awarded earned time. These provisions of the bill are expected to reduce the prison population and increase the parole population.

- **Senate Bill 21-146** modifies the eligibility criteria for parole for senior and special needs inmates and requires the DOC and the Parole Board to develop policies and procedures to improve the special needs parole process. To the extent that the bill results in increased releases of inmates to special needs parole, these provisions of the bill are expected to minimally reduce the prison population and increase the parole population.

- **Senate Bill 21-271** reclassifies the offense level for several felony offenses. The bill is expected to have offsetting impacts on the prison population so that the overall impact is expected to be minimal while reducing felony case filings.

- **House Bill 22-1257** makes modifications to sentencing reform provisions enacted through Senate Bill 21-271, primarily by adding back additional felony offenses to the convictions that prohibit a person from possessing a firearm. The bill also makes modifications to probation practices. The bill is expected to have a minimal offsetting impacts on the prison and parole populations.

- **House Bill 22-1326** makes it a felony to possess more than one gram of a substance containing fentanyl, and decreases the amount of fentanyl required to charge individuals for distribution. The bill is expected to minimally increase the prison and parole populations.

Risks to the Forecast

The state's criminal justice system remains in a time of transition following the dramatic reset in DOC populations that occurred in the immediate wake of the pandemic. Risks to the forecast remain elevated as the shape, or even existence of a "new normal" remains clouded.

At the time of the December 2021 forecast, a key source of uncertainty stemmed from the difficulty in differentiating between the lasting effects of permanent policy changes and the temporary effects of the pandemic on the trajectory of the prison population. That risk has abated somewhat, as the pattern of longer term legislative impacts is emerging more clearly in recent trends, while adjustments in response to temporary disruptions are ongoing and continue and pose a key risk to the prison population forecast. Small shifts in the timing and extent of these adjustments can contribute to substantial deviations in the prison and parole populations above or below those forecast. Another key risk that has emerged over the last year is the staffing shortages and turnover affecting operations throughout the criminal justice system, the impacts of which are expected to dissipate in the forecast period, but which may drive longer term changes in practices across the criminal justice system.

Among all 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 a panoply of decision-makers, including would-be offenders, law enforcement officials, 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. The possibility of consequential behavioral change in the management of a rapidly evolving policy area compounds forecast risks.

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 (CDHS). The three major populations administered by the DYS are youths committed to custody, previously committed youths serving a period of parole, and youths in DYS detention.

Summary

The DYS-administered commitment population is expected to continue to decline through FY 2024-25, albeit at a slower rate than in recent years. The DYS-administered parole population is expected to increase slightly before declining through the forecast period. The detention population is expected to rise from its current low during FY 2022-23, before declining again through FY 2024-25. Expectations for the commitment and detention populations have been revised to reflect more significant declines than those anticipated previously, while the parole population has been revised upward. 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 276 youths in FY 2021-22 to 207 youths in FY 2024-25.

- The average daily **parole population** will correspondingly decrease, from 110 youths in FY 2021-22 to 93 youths in FY 2024-25.

- The DYS **detention population** will increase from an average daily population of 159 youths in FY 2021-22, to 178 youths in FY 2022-23, before declining to 156 youths in FY 2024-25.

Juvenile Offender Sentencing Options

Juvenile offenders not prosecuted as adults are managed through the juvenile courts. If a court determines that a youth committed a crime, the individual is adjudicated as a juvenile offender. Upon being adjudicated, the court may sentence a youth to any one or a combination of the following sentences described below.

Commitment. Depending on age and offense history, a youth may be committed to the custody of the DYS for a determinate period between one to 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 youth to a detention facility if the youth 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 typically do not exceed 45 days, and most youths remain in detention for less than a month. Juvenile offenders awaiting adjudication with lengthy trials or being prosecuted as adults and awaiting trial in adult court may also be part of the detention population. In these cases, the average length of stay in detention is generally much longer, exceeding 200 days.

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

Probation or alternative legal custody. The court may order that a youth 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 youth 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 case filings increased consistently during the 1990s, peaking in 1998. Since then, filings have fallen, but had stabilized since FY 2016-17, prior to the COVID-19 pandemic. The decrease in case filings correlated with the rising availability of pre-trial diversion programs. 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 adjudicated youths affect the size of the detention, commitment, and parole populations. These include the creation of diversionary programs as alternatives to incarceration, mandated caps on sentence placements, and changes to parole terms. Senate Bill 21-071, which reduces the detention bed cap from 327 to 215 beds, is expected to prevent an increase back to pre-COVID-19 detention levels. There was no legislative action during the 2022 session that is expected to significantly impact the forecast for juvenile corrections populations. House Bill 22-1131 created a task force to examine the minimum age of prosecution for juvenile offenders and make recommendations.

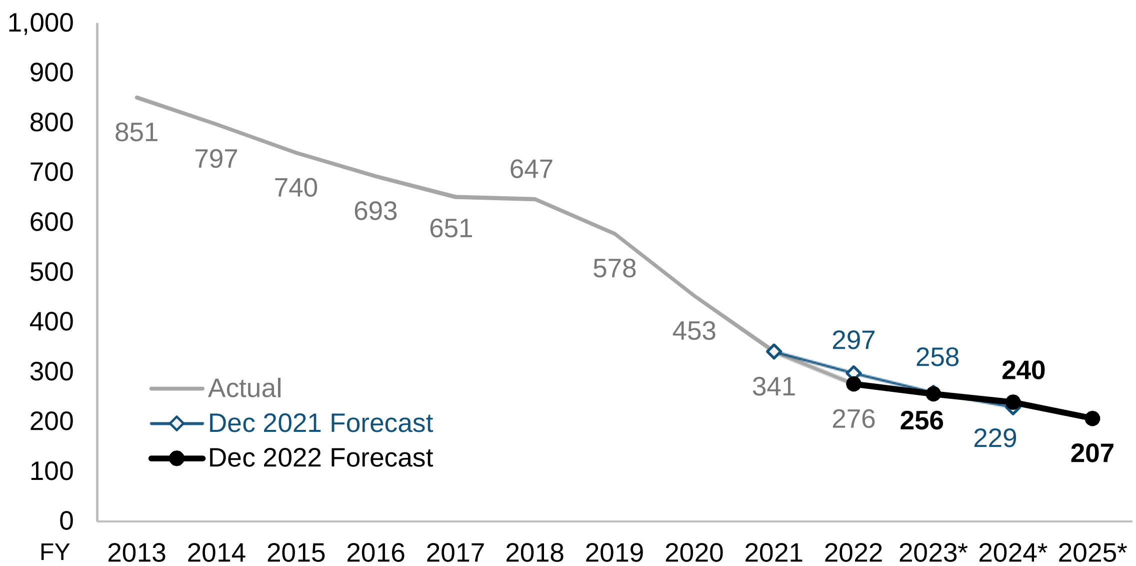
COVID-19 pandemic and recovery. The COVID-19 pandemic and efforts to contain it impacted the size of the detention, commitment, and parole populations of juvenile offenders. In accordance with executive orders in effect from April 2020 until June 2021, DYS reduced the number of committed and detained youth in order to comply with social distancing requirements. In addition, policing behavior shifted toward fewer arrests of juvenile offenders, while court operations and commitments slowed. Reflecting lowered the reduced commitment population, parole initially swelled, then began a precipitous decline in late 2020.

While the immediate impacts of pandemic-related public health measures have dissipated, pandemic-related disruptions continue to impact the juvenile justice system. Juvenile crime, policing behavior, and court operations continue to shift in unpredictable ways, with staffing shortages throughout the system posing a significant impediment to current operations.

Division of Youth Services Sentencing Placements and Population Forecast

Commitment. The commitment population consists of youths adjudicated for a crime and committed to DYS custody. In FY 2021-22, the average daily commitment population was 276 youths, representing a 19.0 percent decline from the prior year. In FY 2021-22, the average daily commitment population was below the December 2021 forecast by 21 youths. The decline in the commitment population is expected to moderate and to approach pre-pandemic trends, dropping by 7.2 percent in FY 2023-24, by 6.4 percent in FY 2024-25, and by 13.7 percent in FY 2024-25, to 207 youths by the end of the forecast period, reflecting the continued impacts of long-term shifts toward diversion programs, alternative sentencing and a decrease in commitments to the DYS. With a flattening downward trend, expectations for the commitment population have been revised downward for FY 2022-23 and upward for FY 2023-24, relative to the December 2021 forecast, as shown in Figure 21.

Figure 21
Comparison of DYS Average Daily Commitment Population Forecasts

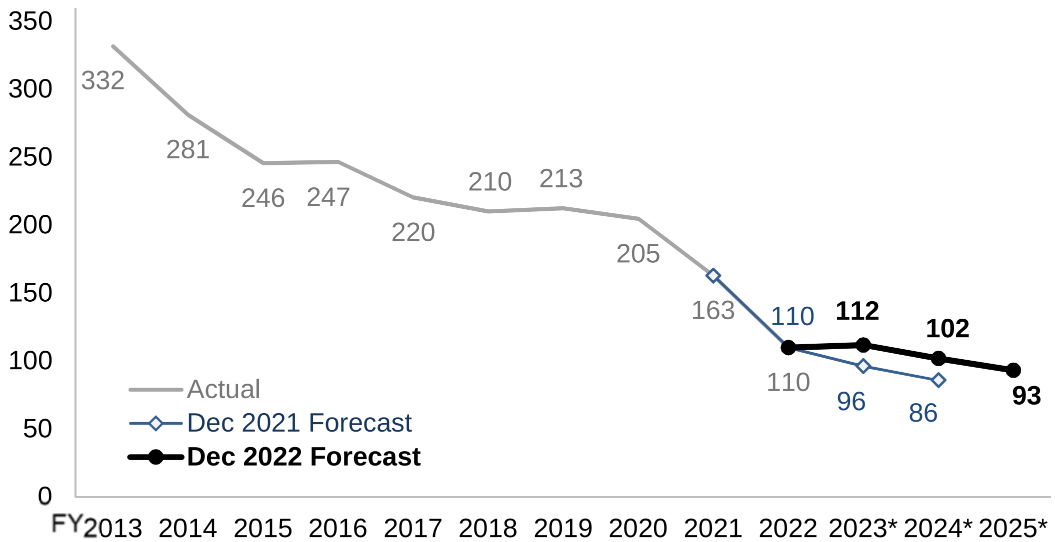


Source: Colorado Department of Human Services Division of Youth Services and Legislative Council Staff.
**Forecast.*

Parole. Youths who have served their commitment sentence are usually granted release to community parole upon approval of the Juvenile Parole Board. All youths serve a parole period of at least six months, although the board may extend the parole period for certain offenders.

The juvenile parole population averaged 110 youths in FY 2021-22, a decline of 32.5 percent from FY 2020-21, and was exactly as anticipated in last year's forecast, as shown in Figure 22. As with the commitment population, the precipitous decline of the parole population shows signs of leveling off, and is expected to return toward pre-pandemic trends, with the average daily population reaching 112 youths in FY 2022-23, an increase of 1.7 percent from FY 2021-22. The parole population is expected to resume a more moderate decline for the remainder of the forecast period, reaching 93 youths in FY 2024-25 as the releases from commitment facilities continue to drop off. Expectations have been revised upward relative to last year's forecast.

Figure 22
Comparison of DYS Average Daily Parole Population Forecasts

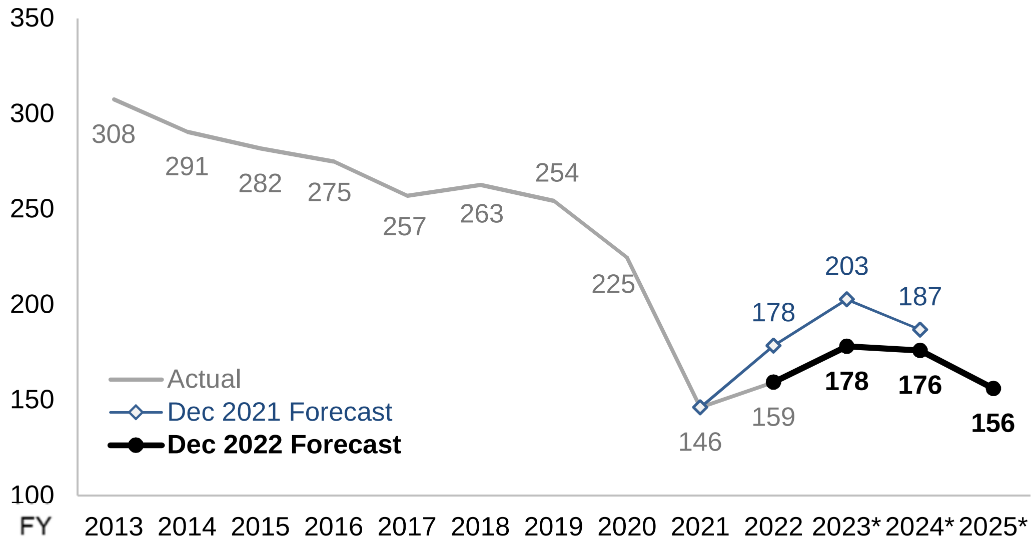


Source: Colorado Department of Human Services Division of Youth Services and Legislative Council Staff.
**Forecast*

Detention. The DYS manages eight secure facilities housing detained youth. Under Senate Bill 21-071, the detention population cap is 215 youths, though the detention average daily 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 most detained youth, and has risen from a low of 132 youths reached in April 2021, to a post-pandemic high of 182 youths in October 2022.

Figure 23 presents expectations for the youth detention population. The detention population averaged 159 youths in FY 2022-23, a 9 percent increase over FY 2020-21, up 146 youths in FY 2020-21, and the first annual increase since FY 2017-18. The FY 2022-23 population was below the December 2021 forecast by 19 youths. The population is expected to increase to 178 youths in FY 2022-23 before declining again to 176 youths in FY 2023-24 and 156 youths in FY 2024-25. Even with actual and forecast increases, expectations for the detention population have been revised downward from those in the December 2021 forecast.

Figure 23
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

The most significant risk to the forecast is the unpredictable recovery from pandemic-related shifts in juvenile crime, policing, and management of the youth offender population. Even as pandemic-related public health measures are no longer a direct factor, disruptions continue to impact the path of transition. The extent to which law enforcement and the courts may possibly change their approach to commitment or detention of youths as a result of pandemic-related experiences remains unclear. Significant staff turnover and shortages influence the pace and outcome of operations. The extent to which these issues will persist and impact the juvenile commitment, detention, and parole populations likewise remains unclear. This forecast assumes that the commitment and parole populations will return to their long-run pre-pandemic paths, intensified by pandemic-related distortions. Attitudinal or operational changes that may increase or decrease the future numbers of youths placed in DYS custody are not accounted for here and may result in smaller or larger populations than those forecast.

Economic Outlook

The past year brought challenges that jeopardized the post-pandemic economic recovery. To this point, the U.S. and Colorado economies have demonstrated resilience, and a path for continued economic expansion remains. This forecast anticipates continued slow growth in Colorado and the nation through 2023, and a return to a more moderate pace of expansion in 2024. Different areas of the economy are exhibiting different degrees of strength and weakness. Labor markets continue to be a bright spot with low levels of unemployment, plentiful job openings, and rising wages. Household incomes have held up even after the end of pandemic-era government supports, sustaining rates of consumer spending and retail trade that have just outpaced inflation. High inflation remains present, but recent data suggest that most price pressures are receding. On the other hand, rising interest rates are taking their toll on the housing market and stifling financial opportunities for business investment.

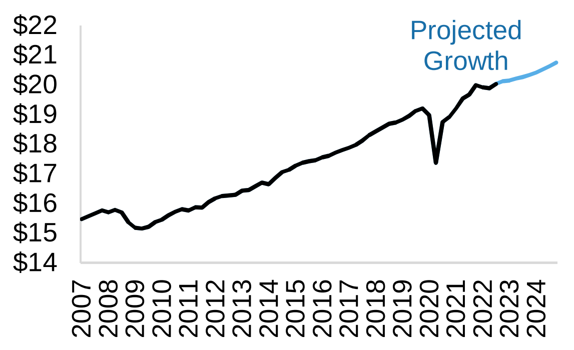
Over the latter half of the year, the primary risk to the economic expansion has been the Federal Reserve's aggressive steps to rein in inflation by raising interest rates and reducing the money supply. The intent of this monetary policy "tightening" is to suppress economy-wide demand, dampening prices and slowing inflation. The Fed's approach risks both underreacting, in which case it would fail to contain inflation, and overreacting, in which case it would depress demand so severely as to trigger a downturn. To this point, inflation and labor market data suggest that the doctors at the Fed have prescribed the correct dosage. But this aggressive intervention will have lasting consequences. Real estate values will continue falling, with minimal affordability benefits for would-be homebuyers because of rising mortgage costs. Reducing demand likewise drains consumer and business confidence, which could worsen further as the pace of growth slows. And the economy remains fragile: any number of unforeseen outside shocks could push the economy into a recession.

Tables 26 and 27 on pages 118 and 119 present histories and expectations for key indicators for the U.S. and Colorado economies, respectively.

Gross Domestic Product

After contracting in the first two quarters of 2022, real U.S. gross domestic product (GDP), the most commonly cited indicator of total economic activity in the U.S, improved in the third quarter of the year. The war in Ukraine, elevated crude oil prices, inflation, and tighter monetary policy continue to hamper economic growth in the United States and abroad. Despite these headwinds, U.S. GDP grew at an annualized pace of 2.9 percent in the third quarter of this year. Higher consumer and government spending offset declining investment in business and residential real estate.

Figure 24
U.S. Real Gross Domestic Product
Trillions of Dollars



Source: U.S. Bureau of Economic Analysis and Legislative Council Staff December 2022 forecast. Data reflect seasonally adjusted annual rates.

- With inflation weighing on growth, real U.S. GDP will end 2022 having increased by 2.0 percent. As the pace of expansion slows, real economic output is projected to increase at rates of 1.2 percent in 2023 and 1.7 percent in 2024.

Consumer spending continues to increase but is constrained by rising prices. Consumer spending makes up more than two-thirds of total economic activity. It drives the business cycle, having accounted for a majority of the decline in GDP during the pandemic-induced recession and most of the recovery to date. Consumer spending increased at an annualized rate of 1.7 percent in the third quarter of 2022, after growing by 2.0 percent in the second quarter.

Consumers continue to shift their spending away from goods and back to services. During the height of the pandemic, consumers purchased electronics, appliances, furniture, and food at grocery stores, while service-related businesses, such as restaurants, entertainment, and hotels and tourism suffered. Since late 2021, spending habits have shifted as consumption patterns return to their pre-pandemic balance between goods and services. Inflation-adjusted consumer spending on services increased 2.7 percent in the third quarter of 2022, while spending on goods was relatively flat.

Declining business investment continues to impede U.S. economic growth. Following a 14.1 percent drop during the second quarter of 2022, business investment declined again in the third quarter, falling by 9.1 percent. The decline in residential investment accounted for most of the contraction. Residential outlays have steadily declined since the second quarter of 2021, as rising mortgage rates and borrowing costs have dampened demand for new and existing housing units. The third quarter decline in residential investment (-26.8 percent) was the largest since the second quarter of 2020.

Nonresidential expenditures improved in the third quarter of 2022, increasing 5.1 percent from the previous quarter, led by investment in equipment and intellectual property products (computer equipment and software).

U.S. trade balance narrows. Net exports, a measure of the country's total trade calculated as the difference between total exports and total imports, improved in the third quarter of 2022. Export growth increased by 15.3 percent, while imports declined by 9.1 percent. The significant increase in exports is mainly attributable to the war in Ukraine and high energy prices. Many U.S. suppliers, specifically natural gas and fertilizer producers, have stepped up in providing key commodities to Europe. According to the Energy Information Association, during the first four months of 2022 (the latest data available), the U.S. exported 74 percent of its natural gas to Europe, compared with an annual average of 34 percent last year. Though net exports are expected to continue to aid U.S economic growth, a stronger U.S dollar and weakening global demand are expected to raise headwinds for exports in the next year.

Government spending helped to boost the economy in the third quarter. Government expenditures increased by an annualized rate 3.0 percent in the third quarter of 2022, after declining in the five previous quarters as various pandemic-era stimulus programs ended.

Colorado's economic growth in perspective. Prior to the pandemic-induced recession, Colorado had enjoyed more than a decade of strong economic growth, outpacing most other states in the nation across economic indicators, including employment, personal income, and GDP growth. Coming off a period of very strong increases, growth rates for the state may trend closer to the nationwide average.

Labor Markets

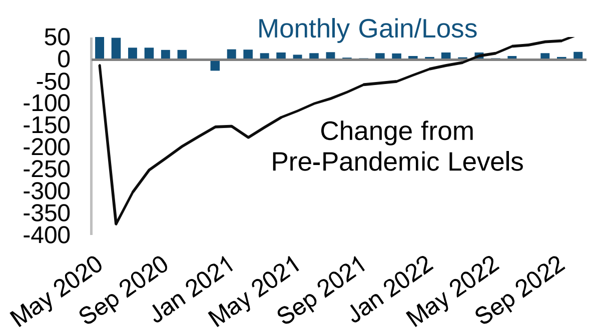
The labor market in Colorado remains strong, with overall employment well exceeding pre-pandemic levels. While Colorado continues to outpace the nation on most labor market measures, there are some indications of softening as tightening monetary policy cools labor demand and slows the pace of the Great Resignation. Elevated job openings continue to indicate that there is room to reign in inflationary pressures without decreasing employment levels, although pathways to a soft landing are increasingly narrow, with elevated downside risks as confidence erodes and uncertainty mounts. Employment levels in Colorado reached pre-pandemic levels in February 2022, and will reach pre-COVID trend levels in late 2023 as employment growth slows.

- After increasing by 2.8 percent in 2021, U.S. nonfarm employment is expected to increase by 4.1 percent in 2022 and 2.4 percent in 2023. The U.S. unemployment rate is expected to decline from 5.4 percent in 2021 to 3.7 percent in 2022 before rising to 4.0 percent in 2023.

- In Colorado, after growing by 3.5 percent in 2021, nonfarm employment is expected to outpace national trends by growing 4.3 percent in 2022 before slowing to 1.8 percent in 2023. The Colorado unemployment rate is expected to decline from 5.4 percent in 2021 to 3.6 percent in 2022 before rising again, to 3.9 percent in 2023.

Colorado's employment recovery remains strong amid early signs of cooling. The employment recovery in Colorado accelerated into the fall, as employers added 17,700 jobs in October, the largest month-over-month gain since February 2021. The state has gained 455,700 jobs since losing 374,500 between February and April 2020, for a recovery rate of 121.7 percent, compared with the rate of 103.7 percent nationally through October. After slowing during the summer, the employment recovery picked up over the fall, averaging 12,700 jobs gained per month between August and October, compared to average monthly job gains of 8,000 from January to July 2022 (Figure 25).

Figure 25
Change in Colorado Nonfarm Employment
Thousands of Jobs



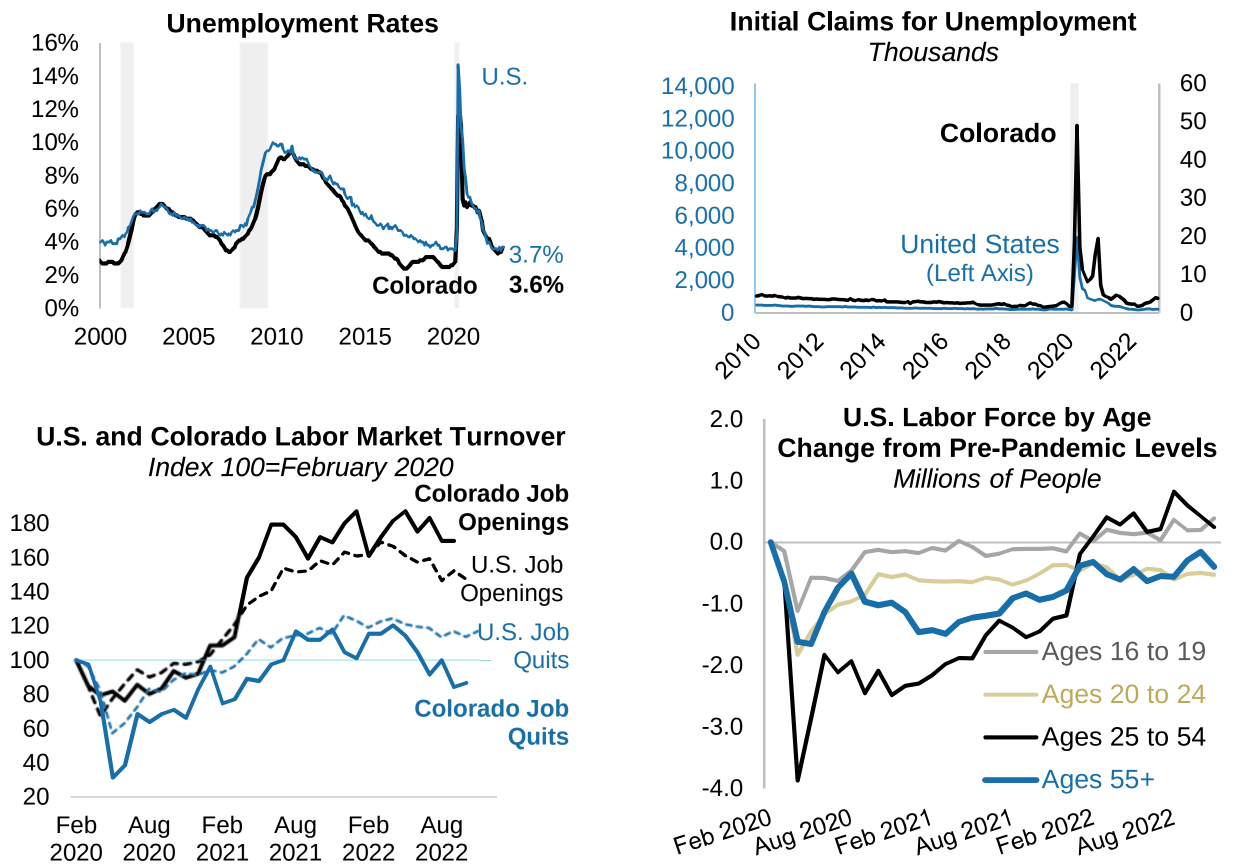
Source: U.S. Bureau of Labor Statistics. Data are seasonally adjusted and through October 2022.

Year-over-year, statewide job growth was 4.2 percent in October 2022, still well above its long-term trend, with the largest job gains in professional and business services, up by 7.7 percent (35,300 jobs) since October 2021, and leisure and hospitality, up by 5.2 percent (17,100 jobs) since October 2021. While employment in the former sector ended October 2022 over February 2020 levels by 48,000 jobs, the employment in the latter remains below February 2020 levels by 700 jobs. It is important to note that state employment data are subject to frequent revision, and nonfarm employment is expected to be revised up for the first and second quarters of 2022 with the release of re-benchmarked estimates in March 2023.

Colorado's unemployment rate ticked up by 0.2 percentage points in October, to 3.6 percent, slightly below the national rate of 3.7 percent (Figure 26, top left), but a sign of possible labor market cooling. This is reflected in a recent uptick in initial unemployment claims, which are often viewed as a leading labor market indicator and are available at a higher frequency than other labor market data.

(Figure 26, top right). Ranked lowest to highest, Colorado has the nation's 28th lowest unemployment rate, equal to Arkansas and Maine. At 2.1 percent, Minnesota and Utah have the lowest rate, while Illinois and Nevada have displaced New Mexico as the states with the highest rate (4.6 percent).

Figure 26
Selected U.S. and Colorado Labor Market Indicators



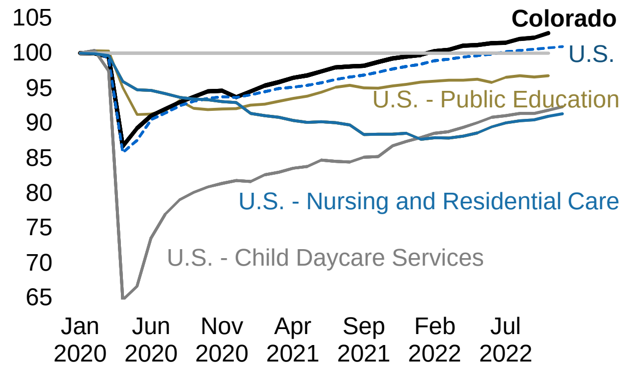
Source: U.S. Bureau of Labor Statistics. Data are seasonally adjusted. Initial claims for unemployment are monthly averages of weekly claims through November 19, 2022. U.S. job openings are through October 2022; Colorado job openings are through September 2022. All other Colorado data are through October 2022. All other U.S. data are through November 2022.

Job openings and quits indicate rebalancing while older workers return to the labor force. Both job openings and job quits have fallen from recent peaks (Figure 26, bottom left). Job openings, a measure of labor demand, fell to 214,000 in August and September. Openings remain historically high and well above the pre-pandemic average of 147,000 per month. There were 2 job openings per unemployed person in Colorado from March through September 2022. Job quits have fallen below pre-pandemic levels in Colorado, a sign that the Great Resignation is abating and workers feel less confident in finding a new job. Moderating job quits may reduce nominal wage pressure, as the pay of job-switchers has grown roughly twice as quickly as that of job-stayers. Colorado's labor force participation rate in October held steady for the second month in a row at 69.4 percent, well ahead of the 62.2 percent nationwide, and the second highest among the 50 states behind Nebraska (69.8 percent).

The U.S. prime age labor force participation rate remains above pre-pandemic levels, but has flagged in recent months, while the participation rate for older workers, whose incomes are likely to be more vulnerable to inflationary erosion and financial market instability, has increased, nearing pre-pandemic rates in October before moderating. Participation rates for 20-to-24-year-olds remain notably suppressed, indicating some long-term scarring impacts of pandemic disruptions during the transition from school into the workforce, combined with early impacts of a cooling labor market on the vulnerable group of out-of-school young adults (Figure 26, bottom right).

Gaps in jobs recovery remain for certain industries. Employment is still slow to normalize in some sectors, with notable gaps remaining in lower-wage caregiving sectors reliant on in-person work. U.S. employment in child care, nursing and residential care, and public education, for example, all remain below pre-pandemic levels through November 2022 (Figure 27).

Figure 27
Nonfarm Employment
Change from Pre-Pandemic Levels
Index 100 = February 2020

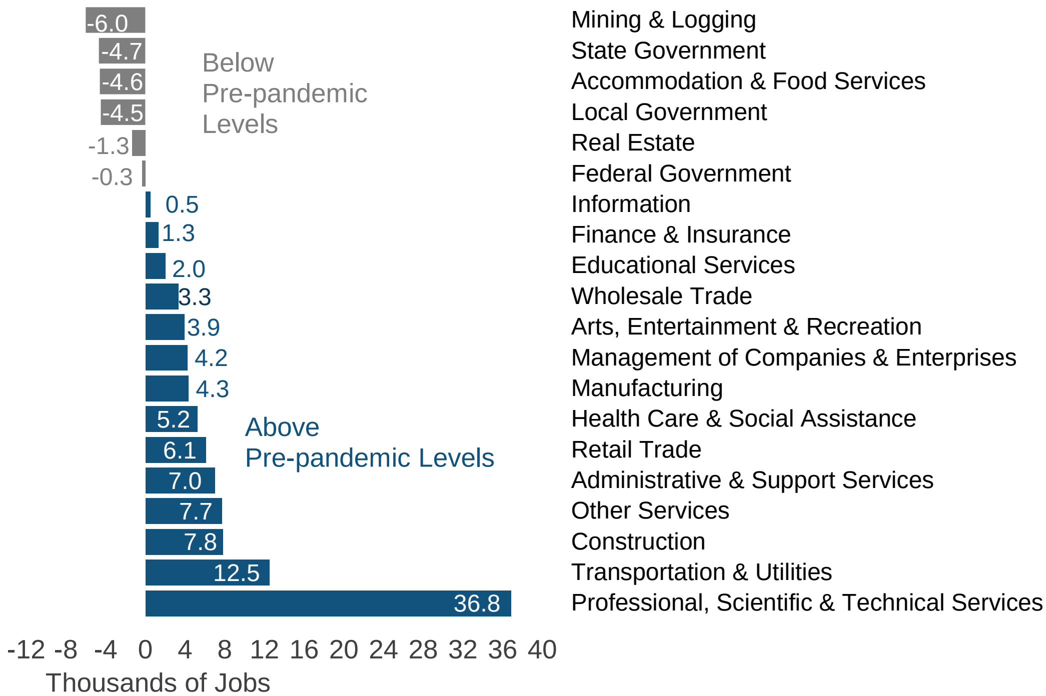


Source: U.S. Bureau of Labor Statistics. Data are seasonally adjusted and through November.

By October, nearly all Colorado private industry sectors had regained the total number of jobs lost between February 2020 and April 2020 (Figure 28).

Accommodation and food services was still down 4,600 of the 138,300 lost, while the mining and logging sector has continued to shed jobs since the pandemic's onset, and is down 6,000 jobs lost since February 2020. Reflecting recent monetary policy actions to raise interest rates, the real estate sector has fallen back into the loss category in recent months, and is now down 1,300 jobs since February 2020. State and local government employment continues to fall short of pre-pandemic levels. Employment recovery in high-wage industries continues to outperform that of medium- and low-wage industries. Sectors with the fastest recovery rates include transportation and utilities; professional, scientific, and technical services; finance and insurance; and management of companies and enterprises.

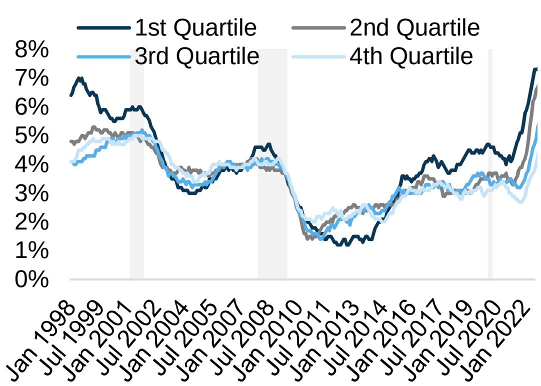
Figure 28
Change from Pre-Pandemic Levels in Colorado Employment by Industry
Change from February 2020 to October 2022



Source: U.S. Bureau of Labor Statistics with Legislative Council Staff calculations. Data are seasonally adjusted.

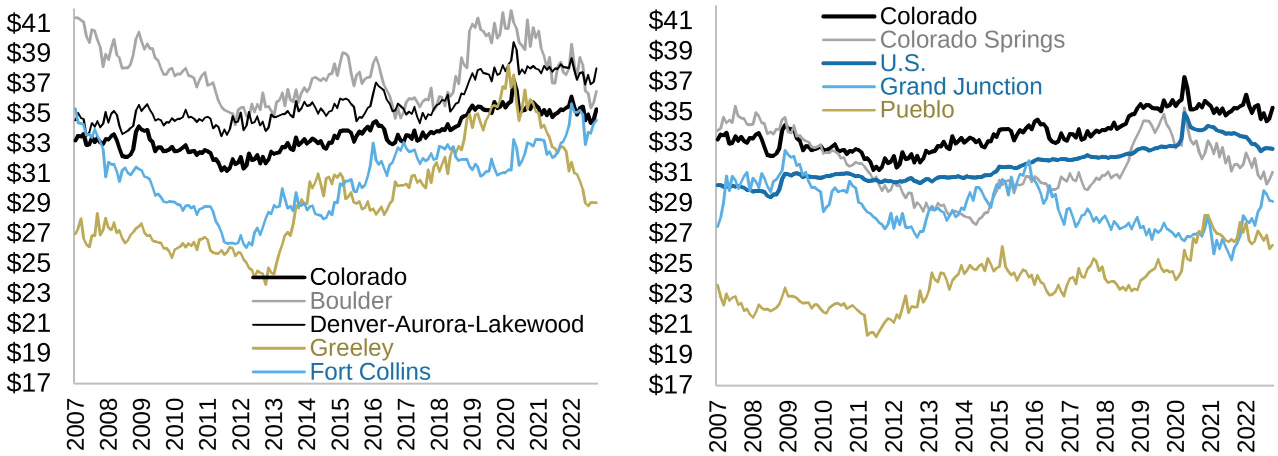
Nominal wages continue to rise nationally, led by lowest-wage workers. According to the Atlanta Federal Reserve Wage Tracker, nominal wage growth (not adjusted for inflation) was 6.0 percent in October, compared to a three-year average of 3.6 percent from 2019 to 2021. Wage growth varied across industries, ranging from a high of 6.9 percent in both leisure and hospitality and trade and transportation to a low of 5.1 percent in public administration, reflecting greater wage flexibility in the private sector. Wages for earners in the lowest (first) quartile were up by 7.4 percent in October 2022, compared with those in the highest (fourth) wage quartile, up by 4.5 percent (Figure 29).

Figure 29
Nominal Hourly Wage Growth
Twelve-Month Moving Average



Source: Atlanta Fed Wage Growth Tracker. Data are through October 2022.

Figure 30
Real Average Hourly Wages by Region
Constant 2020 Dollars



Source: U.S. Bureau of Labor Statistics. Data are adjusted for inflation using the U.S. city average CPI-U inflation index. Data are not seasonally adjusted and are through October 2022.

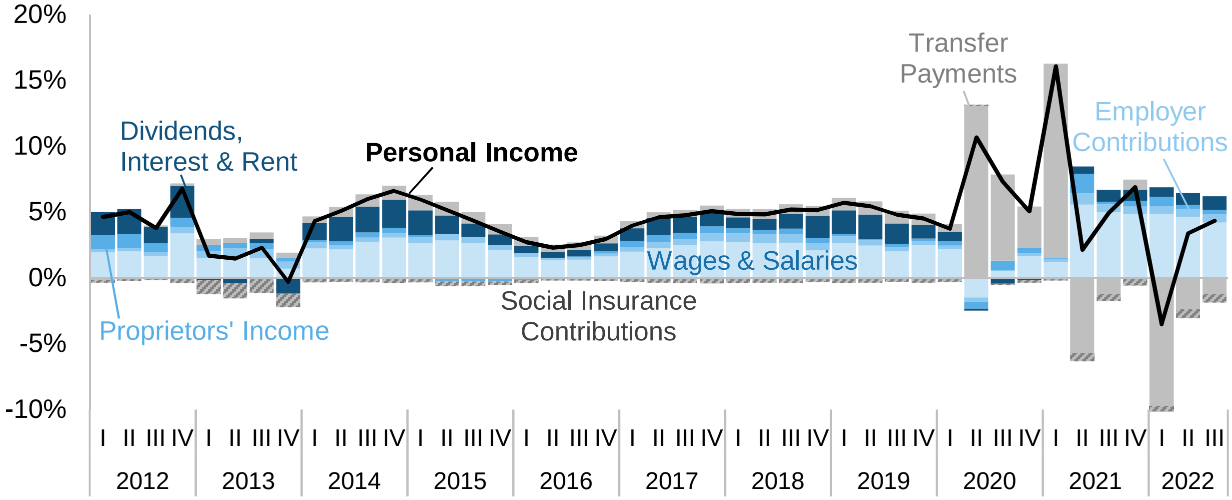
Real wages remain flat statewide, with varying regional trends. While nominal wages continue to rise at a strong pace, compensation for many workers is not keeping up with inflation, eroding workers' purchasing power. Statewide, nominal hourly wages are up by 7.9 percent through October, but real wages are up by just 0.1 percent. By region, real wage growth in Colorado varies, with only the Grand Junction and Fort Collins metropolitan areas showing year-over-year real wage increases. Notably, despite strong recent gains in real wages in Grand Junction, 10.3 percent year-over-year in October, the level of real wages remains below that achieved in 2016.

Personal Income

Personal income measures revenue to households from most sources, including wage and salary income, business ownership, investments, and government support. Personal income signals household contributions to income tax revenue, and foreshadows current and future consumer spending and contributions to sales tax receipts. A history of contributions to year-over-year growth in U.S. nominal personal income is shown in Figure 31.

Total U.S. personal income was 4.3 percent higher in the third quarter of 2022 than a year prior, despite falling contributions from government transfer payments as COVID-related aid programs expired. Over the first year of the COVID-19 pandemic, income from wages and salaries, typically the largest share of personal income, fell slightly due to a drop-off in employment from layoffs and virus constraints. Personal income was bolstered however – and grew significantly, on net – because of extraordinary federal government supports. As government transfers have rolled off, transfer payments have fallen, bringing down overall growth. Conversely, wages and salaries are growing at an impressive rate, more than making up for the decline in transfer payments. Wage and salary income is up 8.5 percent compared to last year due to employment gains and surging nominal wage growth; total nonfarm employment has increased by 3.6 percent compared to last year while average hourly wages have increased by 4.7 percent. Proprietors' income, employer contributions to employee retirement and savings accounts, and dividends, interest, and rent have also contributed to positive gains in total personal income.

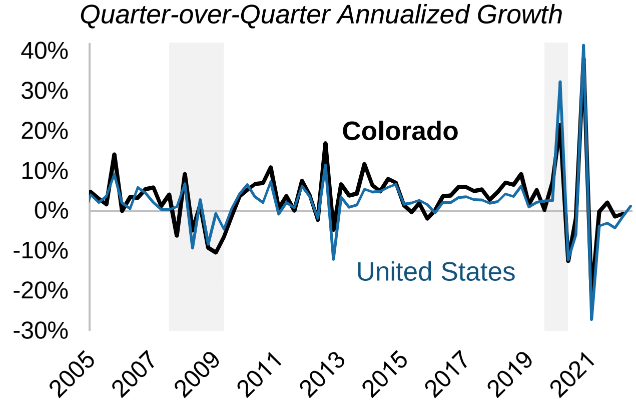
Figure 31
U.S. Nominal Personal Income and Its Contributions
Contributions to Percent Change, Year-over-Year



Source: U.S. Bureau of Economic Analysis with Legislative Council Staff calculations. Data shown at seasonally adjusted annualized rates.

Despite strong growth in nominal wage and salary earnings, households must now contend with rapidly rising prices for most goods and services. While most sources of income are expected to grow at rates consistent with a healthy expansion, inflationary pressures are expected to leave many households with reduced purchasing power. As shown in Figure 32, U.S. personal income adjusted for inflation showed positive growth in the third quarter after falling for the prior five quarters. Real personal income in Colorado showed positive growth for most of 2021 despite rising inflation. The trajectory of personal income in Colorado was less negative than the U.S. as a whole throughout 2022. With a tight labor market and inflation expected to slow through the forecast period, real personal income is expected to begin to grow again in earnest in both the U.S. and Colorado.

Figure 32
Real Personal Income
Quarter-over-Quarter Annualized Growth



Source: U.S. Bureau of Economic Analysis. Data are seasonally adjusted and adjusted for inflation using the national PCE price index.

Consumer Activity

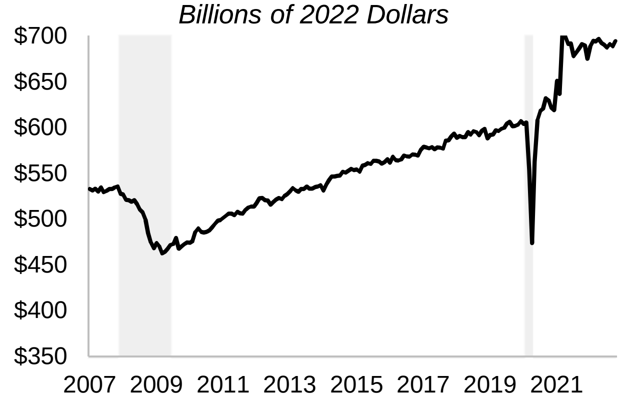
Consumer spending is the main driver of the U.S. economy. Over the course of 2022, consumer spending outpaced inflation, offsetting declines in other measures of economic activity. As the year draws to a close, spending activity has begun to slow as consumers adjust to lower household savings, higher interest rates, tightening credit conditions, and weighty inflationary pressures. Consumer activity is expected to slow over the next year before rising through the remainder of the forecast period. Downside risks remain present as household financial situations worsen and consumer sentiment remains low.

Real U.S. consumer spending continues to grow as demand for services resurges. In the third quarter of 2022, real (inflation-adjusted) personal consumption expenditures rose at an annualized 1.7 percent, down from 2.0 percent in the second quarter. Spending on services continued to grow at a robust pace as consumers increasingly returned to pre-pandemic activities. Transportation services, a sector that has struggled during this recovery, jumped by an annualized 5.3 percent in the third quarter and contributed to robust growth posted in health care, food services, and accommodations. Services spending is expected to contribute to economic activity through the forecast period.

Increased spending on services continued to offset declines in real spending on durable and nondurable goods in the third quarter. In the third quarter, spending contracted significantly for motor vehicles and parts, food and beverages, and gasoline. For motor vehicles and parts, spending contracted 12.1 percent in the third quarter, which followed a 10.3 percent decline in the second quarter. For the nondurable goods categories, spending on food and beverages fell 3.2 percent, and spending on gas and energy fell by 2.8 percent. Weaker spending on durable and nondurable goods is expected in the near-term as consumers transition back towards spending on services.

Real U.S. retail trade growth sputtering and expected to decline over the next year. Combined with food and drinking services, real U.S. retail sales were up just 0.5 percent year-over-year and remained below the March 2021 peak level (Figure 33). Despite a boost from resurgent food and drinking services, weak sales for sporting goods and hobbies, electronics and appliance stores, and department stores have weighed on overall sales activity. Inflationary pressures over the past year continue to outpace spending in many retail categories, including motor vehicles and parts, furniture and home furnishings, electronics and appliances, food and beverages, health and personal care, clothing and accessories, sporting goods and hobbies, and general merchandise stores. Retailers in these categories may be increasingly limited in their ability to pass price increases onto consumers as real earnings for many workers continue to decline. Over the forecast period, higher interest rates and overall slowing economic activity are expected to hurt real sales in 2023, before rising modestly through the rest of the forecast period. Encouragingly, unit sales of motor vehicles rose from May to October, despite remaining well below their pre-recession peak (Figure 34).

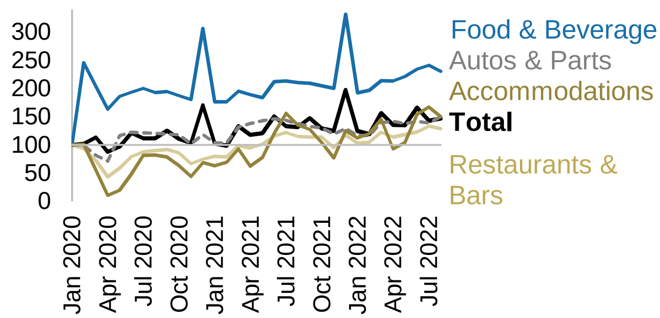
Figure 33
Real U.S. Retail and Food Service Sales
Billions of 2022 Dollars



Source: U.S. Census Bureau. Adjusted for inflation using the CPI-U index for all U.S. urban areas. Seasonally adjusted data through October 2022.

Colorado retail sales surge on gasoline prices and food services, slower real gains for other stores. By August, retail sales in Colorado were up nearly 14.0 percent year-to-date and more than 47 percent above January 2020 levels (Figure 34). Like the nation, high prices for gasoline and diesel have significantly contributed to Colorado's nominal growth in retail sales over the past year. In August, sales at gasoline stations were up 34 percent year-to-date. Consumers have also returned in force to restaurants and bars where sales have surged 17.4 percent year-to-date. However, excluding these sectors, sales were up just 8.1 percent year-to-date, just keeping pace with inflation over the same period and indicating slower real sales gains. Since the latest data release, energy prices have eased and are expected to contribute to slower retail sales growth to end the year. Over the forecast period, sales are expected to slow as borrowing costs rise, impacts of pandemic-related stimulus fade, and goods purchases slow.

Figure 34
Colorado Retail Sales
Index January 2020 = 100



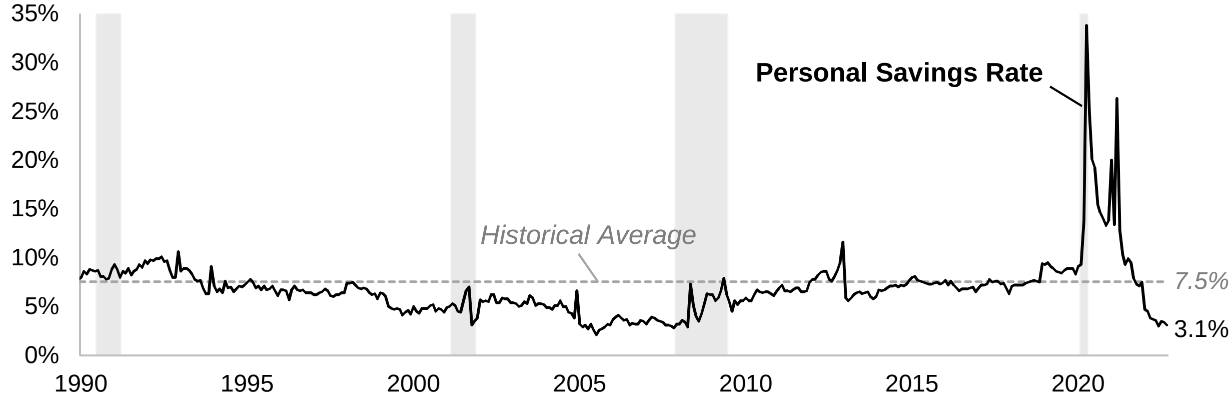
Source: Colorado Department of Revenue. Data are not seasonally adjusted and are through August 2022.

Year-ahead spending expectations for the nation's households fall from recent highs. According to the New York Fed's Survey of Consumer Expectations, year-ahead household spending expectations in the U.S. continued to trend down through October from a series high in May, but remained well above pre-pandemic levels. Spending growth expectations have trended lower with year-ahead inflation expectations over the same time. Perceptions about household financial situations continued to deteriorate as more respondents anticipated they would be worse off over the next year, along with tighter anticipated credit, lower increases in home values, and fewer expecting stock market gains.

Household Finance and Debt

Indicators of household finances are weakening as prices rise and incomes fail to keep up. Household balance sheets have been bolstered by a variety of sources since 2020, including government transfer payments during the COVID-19 pandemic, diminished opportunities for spending on services during the pandemic, and exceptionally strong nominal wage and salary growth over the past year. Cumulatively, these factors resulted in a spike in household savings well above the historical average savings rate (Figure 35). However, the buildup of savings from 2020 and 2021 was spent away in 2022 as household savings dropped precipitously.

Figure 35
U.S. Personal Savings Rate*

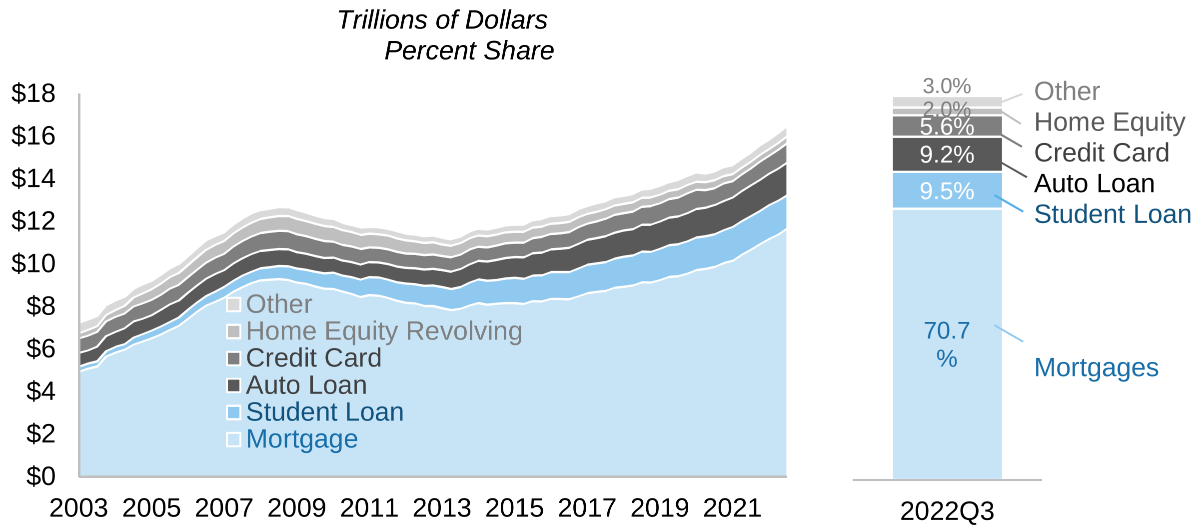


Source: U.S. Bureau of Economic Analysis. Data are shown as seasonally adjusted annual rates.
**The personal savings rate is calculated as the ratio of personal saving as a percentage of disposable personal income.*

The savings rate reached the lowest rate since 2007 in June 2022 at 3.0 percent, and was 3.1 percent as of September. Despite strong growth in nominal personal income and wages, high inflation is eroding the purchasing power of household incomes, causing households to spend a higher percentage of their incomes for the same level of consumption. Some households may still have excess savings, but most lower income households have spent down their excess savings, according to checking account balances.

In nominal terms, the total amount of household debt has also accelerated over the past year. However, most of this change is driven by rising mortgage debt amid surging interest rates. On the other hand, high credit card debt indicates that households are straining to have enough cash on hand to cover their expenses. Credit card debt is on the rise, up 15.0 percent from a year ago, but it is still roughly equal to nominal levels in 2019. This signals that households have less cash on hand than a year ago, when savings levels were exceptionally high, but the level of borrowing is still consistent with a growing economy. Additionally, debt payments as a percent of disposable income are rising quickly, but remain well below pre-pandemic levels – another signal that the current level of borrowing is not yet a concern.

Figure 36
U.S. Household Debt Composition

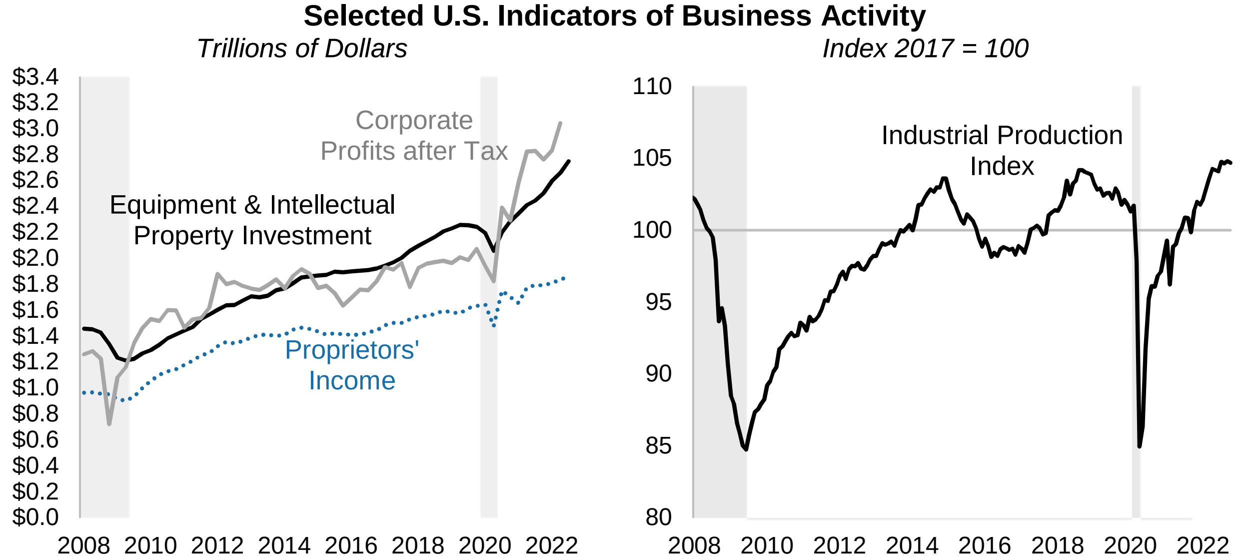


Source: Federal Reserve Bank of New York / Equifax.

Business Activity

After surging above pre-pandemic levels in 2021, growth in business activity has begun to slow with some bright spots and some dark spots on the horizon. On the upside, supply chain disruptions, labor shortages, and high input prices appear to be easing. Alternatively, waning demand may become a bigger concern for businesses as inflation reduces the purchasing power and excess savings of many households. Additionally, rising interest rates will increase costs for corporate investment and expansion.

Figure 37
Selected U.S. Indicators of Business Activity



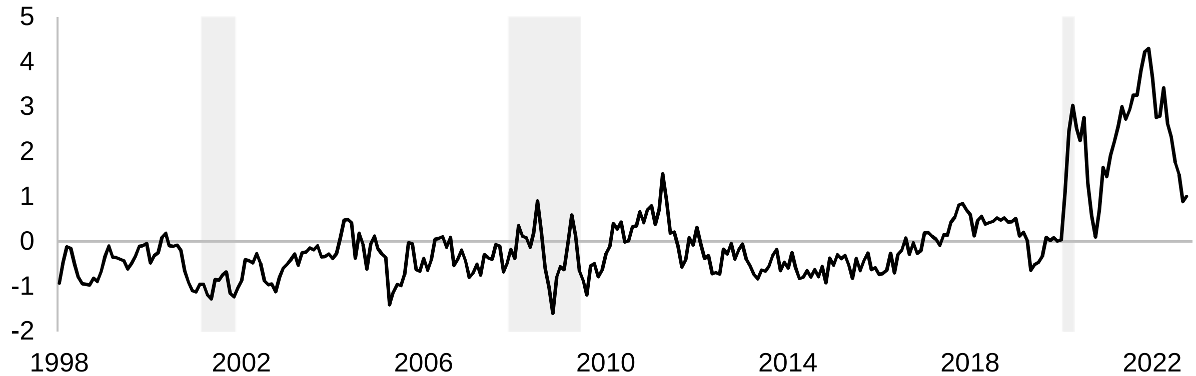
Source: U.S. Bureau of Economic Analysis. Data are not adjusted for inflation. Data through 2022Q3.

Source: Federal Reserve Board of Governors. Data through October 2022.

Despite headwinds, business income and profits and industrial production continued to expand in 2022. Business incomes, including corporate profits and nonfarm proprietors' incomes, showed positive growth, setting record highs (Figure 37, left). Corporate profits fell by 1.1 percent in the third quarter of 2022 compared to the preceding quarter, but remained up 4.4 percent from one year before. Even as interest rates rose, nominal business investment in nonresidential intellectual property and equipment grew at a healthy pace, up 12.3 percent from the year prior. Industrial production also continued to grow. The industrial production index in the right panel of Figure 37 measures real output from manufacturing, mining, and utilities. Total industrial production was up 3.3 percent in October 2022 compared to October 2021, indicating that production is still growing at a healthy pace. However, slowing consumer demand poses a risk to industrial production in 2023.

Disruptions to global supply chains remain elevated, but are well below the peaks seen in 2021. Over the past two years, supply-chain disruptions stalled deliveries and increased prices across the globe as a result of labor shortages and restrictions from the COVID-19 pandemic. The Federal Reserve Bank of New York's index of global supply chain pressures measures the impact of global transportation costs, delivery times, and backlogs (Figure 38). Based on this measure, supply chain pressure has fallen dramatically since its peak in December 2021. This decline is broad-based across most subcomponents of the index. As virus concerns wane and demand for labor comes more in line with supply, supply chain pressure is expected to continue to ease over the forecast period.

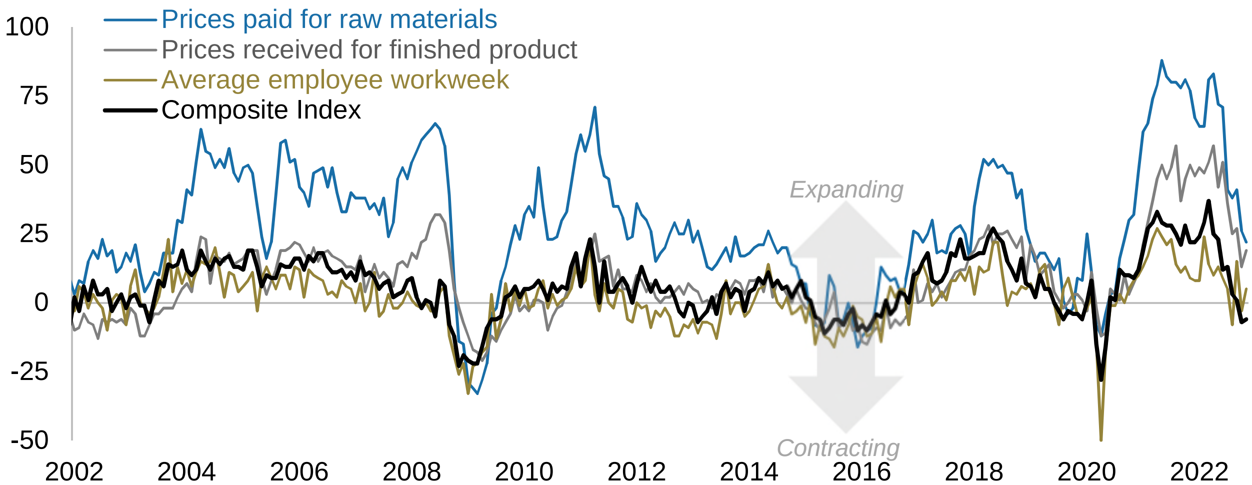
Figure 38
Global Supply Chain Pressure Index
Standard Deviations from Average Value



Source: Federal Reserve Bank of New York. Data through October 2022

Despite strong growth in national business activity and slowing supply chain pressures, business activity in the Tenth Federal Reserve district (which includes Colorado and several surrounding states) has started to contract. The Manufacturing Index shown in Figure 39 represents the share of survey respondents reporting increases or decreases in various indicators of manufacturing activity compared to the month prior. In October 2022, the composite index had a value below zero, indicating that activity in this sector is contracting (Figure 39).

Figure 39
Tenth District Manufacturing Index
Diffusion Index, Change from a month ago



Source: Federal Reserve Bank of Kansas City. Data are seasonally adjusted. A value above zero indicates expansion; below zero indicates contraction in activity.

Many subcomponents of the index were negative, including production, volume of shipments, and volume of new orders, meaning that more respondents were seeing declines in these areas than were seeing increases. The majority of survey respondents indicated prices of raw inputs are still increasing, but the number of respondents reporting increases has declined sharply since April, further evidence that supply chain issues are easing. Additionally, fewer firms reported backlogs of orders. The diffusion index for average employee workweek was negative and the number of employees was positive, indicating that labor shortages may be less of a burden as businesses have been able to hire additional workers.

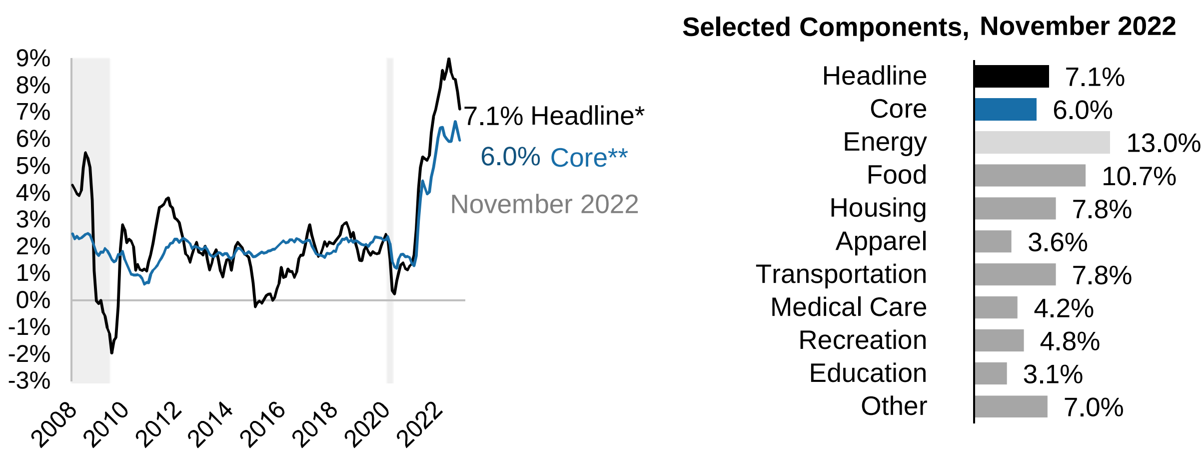
Monetary Policy and Inflation

Headline inflation falling in the United States, while core inflation remains level. Following a historic rise in prices over the past year, data suggest consumers may be in for a reprieve overall. As measured by the U.S. city average consumer price index (CPI-U), the average change in the price of goods and services faced by consumers remained at rates not seen since the early 1980s, with average prices in November 7.1 percent higher than they were in November 2021 (Figure 40). However, price increases moderated considerably over the latter half of the year after inflation peaked in the spring of 2022, and they remain on a downward trajectory heading into 2023.

After driving much of the rapid increase over the past year, energy and transportation costs have slowed significantly and even declined in recent months, helping to ease headline inflation. Month-over-month, energy prices decreased in July, August, September, and November, more-than-offsetting a modest increase in October. Used vehicle prices, which surged following the pandemic recession, have declined in every month between July and November. However, prices are still significantly higher than in November 2021, with energy prices up 13.0 percent and transportation prices up 7.8 percent (Figure 40, right).

Much of the recent decline in energy prices has been offset by broad-based inflation across the rest of the basket of goods and services used to calculate the consumer price index. Between October and November, food prices increased 0.5 percent (10.7 percent year-over-year) and housing prices increased by 0.6 percent (7.8 percent year-over-year). Additionally, certain energy prices have begun to spike again as winter nears. Home heating oil surged in October 2022, increasing by nearly 20.0 percent compared to September 2022, and is 65.7 percent more expensive than last year. Energy prices are highly volatile, and another rally in prices could result in inflation rising again.

Figure 40
U.S. City Average Consumer Price Index (CPI-U) Inflation
Percent Change in Prices, Year-over-Year



*Source: U.S. Bureau of Labor Statistics. *Headline inflation includes all products and services. **Core inflation excludes food and energy prices.*

What's driving inflation? The main drivers of inflation have shifted over time, with certain factors being more prominent at different periods. However, throughout 2022, the following factors had the largest impact on price inflation.

- **Higher demand for goods.** As the economy recovered from pandemic lows, consumer activity rebounded, driven primarily by spending on goods as spending on services recovered more slowly. Unprecedented federal fiscal stimulus and low interest rates supported significant consumer activity and borrowing.

- **Supply chain disruptions.** Global supply chains have been challenged by pandemic-related shutdowns, slowdowns at manufacturing plants, and port closures across the globe. Some of the largest inflationary impacts to date have been concentrated in the transportation sector, reflecting vehicle production disruptions and semiconductor chip shortages.

- **Geopolitical tensions.** The invasion of Ukraine has spurred additional inflationary pressures. The conflict further disrupted supply chains, and international sanctions placed on Russia have constrained the supply of certain goods. Most notably, the prices of oil, gas, and agricultural commodities, such as wheat and sunflower oil, spiked in the wake of the invasion.

How long will inflationary pressures last? As discussed above, some inflationary pressures have started to wane. Additionally, demand pressure may abate as consumers shift their consumption activity in response to growing prices and higher interest rates, and as the global economy slows. However, other sources of inflationary pressure are expected to remain as rising costs ripple through the economy. The war in Ukraine continues to pose risks to the inflation outlook, with damage to infrastructure in the area and the impact of sanctions on the global economy likely to outlast the on-the-ground conflict.

- Headline prices for U.S. urban consumers are expected to rise by 8.1 percent in 2022 and 4.6 percent in 2023. Headline inflation in the Denver-Aurora-Lakewood combined statistical area is also expected at 8.1 percent in 2022, and at a slightly higher 4.9 percent in 2023.

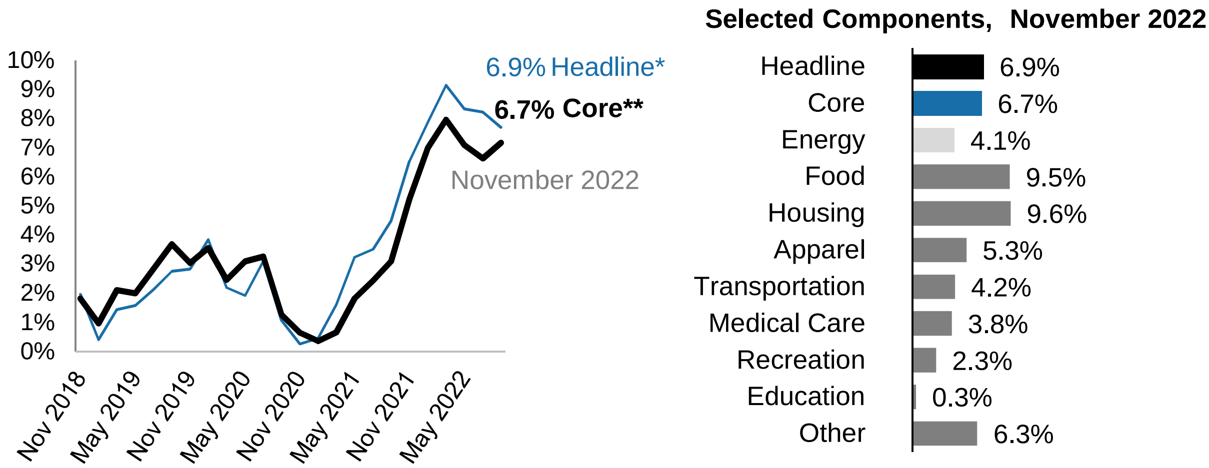
Additional monetary policy tightening expected into 2023. In response to accelerating inflation, the Federal Reserve began aggressively tightening monetary policy beginning in early 2022. Starting from zero, the Federal Reserve increased its benchmark interest rate, the federal funds rate, by a combined 4.25 percentage points across seven hikes in 2022. The federal funds rate is now at its highest level since before the Great Recession. In conjunction with rate hikes, the Fed reversed its management of the money supply, first by tapering asset purchases and then by beginning to allow a portion of its traditional portfolio of U.S. treasuries to run off.

This forecast expects the Federal Reserve to continue incrementally tightening monetary policy at a slowing pace through the first half of 2023. As a result, short- and longer-term interest rates are expected to continue to rise through at least the first half of the year, raising the cost of borrowing, stifling demand, and, in turn, helping to ease inflationary pressures. There is significant uncertainty regarding the degree to which these changes will ease price pressures, and whether the Federal Reserve can engineer a soft landing amid supply chain disruptions and shifting geopolitical tensions. Rapid tightening in monetary policy raises new demand-side risks as access to credit for would-be borrowers, including homebuyers, becomes scarce. Inflation is expected to remain well above the Federal Reserve's target of 2.0 percent through 2023 and into 2024.

Core and headline inflation diverge in Colorado as rental prices continue rising. After beginning to rise sharply in early 2021, headline inflation appears to have peaked in Colorado. Figure 41 shows the recent path of inflation as measured by the Denver-Aurora-Lakewood consumer price index (left) and inflation among select components (right). In March 2022, year-over-year headline inflation reached 9.1 percent and core inflation reached 8.0 percent. By November, year-over-year headline inflation declined to 6.9 percent, and core inflation registered 6.7 percent. Headline inflation includes prices for all consumer goods and services, while core inflation omits the especially volatile food and energy components.

As seen in Figure 41, the path of headline and core inflation diverged over the fall months. Since March, headline inflation has fallen consistently. The changing trend is due almost exclusively to falling gasoline prices, which decreased by 13.8 percent between March and November. However, because core inflation excludes energy and food prices, the decline in gasoline prices has not offset the broader price pressures seen amongst other consumer goods and services. The rise in core inflation is largely due to rising housing costs, up 9.6 percent between November 2021 and November 2022, with rent increases outpacing the owners' equivalent rent component used to approximate housing costs for homeowners. The future path of shelter prices is uncertain. Rising interest rates generally increase demand and prices for rental properties while reducing new residential building starts, but falling home values will likely depress owners' equivalent rents in the near future.

Figure 41
Denver-Aurora-Lakewood Consumer Price Index (CPI-U) Inflation
Percent Change in Prices, Year-over-Year



*Source: U.S. Bureau of Labor Statistics. *Headline inflation includes all products and services. **Core inflation excludes food and energy prices.*

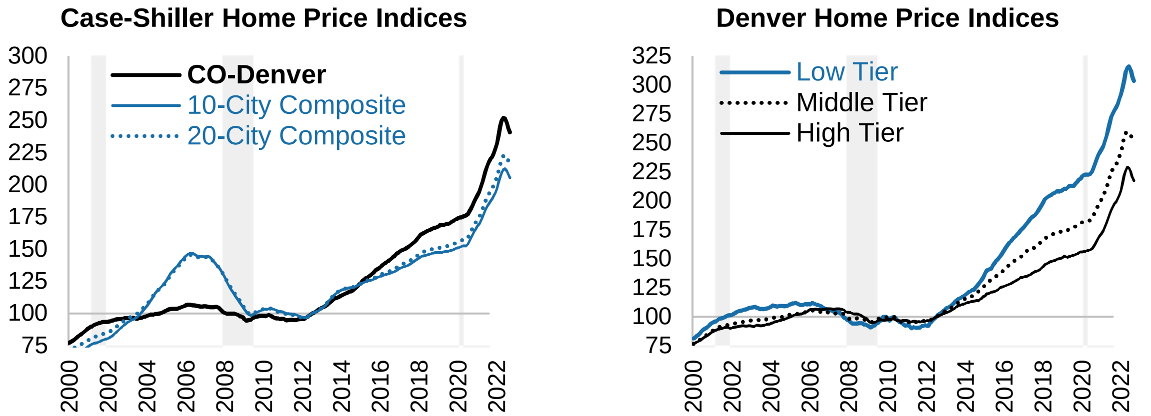
Real Estate and Construction Activity

Rising interest rates are causing a housing market shakeup. Housing prices around the country skyrocketed through early 2022 on high household savings and low interest rates, both of which inverted over the course of the year. As competition for national housing stock increased, supply was limited by rising construction costs and supply chain disruptions that were exacerbated by several years of home starts lagging household growth. The impacts of those supply and demand mismatches on the housing market were extreme. Prices in the Case-Shiller U.S. composite indices increased by about 18 percent over the year ending in June 2022 (Figure 42, left). Prices in Denver surged even more than their national counterparts, up 19.3 percent over the same period, and increases were fairly consistent across homes priced at different levels (Figure 42, right).

The market entered a downturn over the summer as rising mortgage rates limited buying power for prospective purchasers. Through September, the Case-Shiller national composite indices both show prices down by more than 3 percent from their June peak, and prices in the Denver Metro area are down 4.5 percent from their May peak. Prices are expected to continue to fall in early 2023 as interest rates rise and the market adjusts toward a new, lower equilibrium.

The effect of interest rate increases on homebuyer purchasing power is severe. In early December, the average interest rate for a new 30-year mortgage stood at 6.3 percent, up from 3.1 percent in early December 2021. For perspective, an interest rate increase of this magnitude raises the monthly payment for principal and interest on a 30-year, fixed-rate, $440,000 mortgage by $845. Put another way: a purchaser who was able to afford a $550,000 home with a 20 percent down payment ($110,000) in December 2021 would have had $1,878 per month to commit to principal and interest. For the same down payment and monthly payment, that purchaser can afford a $413,500 home in December 2022 – a decrease of nearly 25 percent.

Figure 42
Selected Home Price Indicators
Index 100 = July 2012



Source: S&P Dow Jones Indices LLC. Data are seasonally adjusted and are through September 2022.

High home prices coupled with rising borrowing costs are expected to squeeze many would-be homebuyers, especially first-time buyers, out of a wide array of markets across the United States. In Colorado, housing affordability is deteriorating even in previously affordable communities, and high housing costs are expected to constrain net migration in the state.

Homebuilders are responding with decreased activity. In October, sales of new single family houses in the U.S. were down 5.8 percent from the same month last year. In addition, the number of new housing permits issued has been on a declining trend since March. In Colorado, homebuilders had pulled almost 21,500 single family permits through October 2022, down 27.0 percent from the same period one year earlier. However, demand for multifamily homebuilding through 2022 remains strong. Through October 2022, the number of permits pulled to construct multifamily units was up 20.5 percent from the same period one year ago. Low apartment vacancy rates and rising rents continue to drive demand for multifamily permits.

Builders continue to face considerable headwinds in responding to low inventory, including construction supply chain disruptions and a shortage of skilled labor. Home losses from the Marshall Fire in late December 2021, as well as losses from natural disasters in other states, are expected to compound these pressures on home construction costs and exacerbate the existing backlog of pandemic-related delays in homebuilding. However, the cooling construction market looks to be providing a little relief regarding building materials. In September, the prices of building materials decreased 0.3 percent, the third consecutive month of decreases. Prices for softwood lumber and steel mill products declined in September. However, ready-mix concrete prices increased 1.4 percent in September.

- Residential construction activity in Colorado is expected to begin to fall from its elevated level, with the number of permits issued contracting by 13.3 percent in 2022, and by 2.3 percent in 2023.

Nonresidential construction activity remains mixed as headwinds linger. U.S. nonresidential construction spending, not adjusted for inflation, was up 3.8 percent through September compared to the same period last year. Colorado's nonresidential construction growth will surpass the nation's this year – largely due to groundbreaking for a $400 million Pepsi manufacturing plant near Denver International Airport, the state's largest manufacturing project in at least the past ten years. According to Associated Builders and Contractors, many contractors continue to report that they are operating at capacity even as construction activity underwhelms, suggesting that the nonresidential construction market continues to be hindered by supply chain disruptions and worker shortages. Contractors have been able to pass along these higher costs to project owners for now, but continued monetary policy tightening and deteriorating confidence in the economy could begin to impact profit margins, suppressing appetites for additional investment. There is a growing risk of project postponements as costs continue to increase.

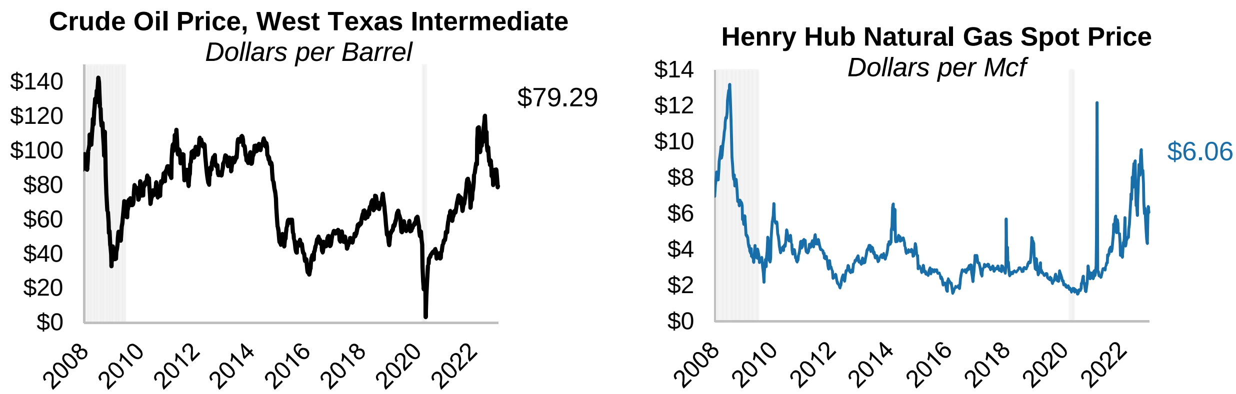
Investors in nonresidential real estate anticipate a bumpy road ahead. Demand for hotels and other lodging is not expected to return to 2019 levels until beyond the current forecast period. Likewise, the shift toward remote work has dampened the outlook for office space. Low demand is expected to suppress construction activity in these areas, suppressing headline figures despite growth opportunities in other areas, including warehouses and industrial space. Public sector investment is expected to remain elevated into 2024 as funds disseminated through the 2021 Infrastructure Investment and Jobs Act are spent.

- The value of nonresidential construction starts in Colorado is expected to slow from early-year highs, growing by 14.6 percent in 2022 before declining by 0.9 percent in 2023.

Energy Markets

Energy prices remain elevated but are expected to continue falling. Both the COVID-19 pandemic and the war in Ukraine sent shockwaves through energy markets, resulting in sharp price increases and production decreases. Fortunately, global production of liquid fuels was finally able to outpace consumption beginning in the second quarter of 2022, and oil prices have fallen 34 percent since their peak in June (Figure 43, left). With supply finally surpassing demand, energy prices are expected to moderate and/or decline through much of 2023. After peaking at around $120 per barrel in early June 2022, the price of a barrel of West Texas Intermediate crude is expected to average about $89 per barrel in 2023, according to the Energy Information Administration. Natural gas prices have also fallen from their peak price of $9.6 per million BTU in August 2022 (Figure 43, right), and are expected to average $5.46 per million BTU in 2023. Gasoline prices are expected to moderate as well, averaging $3.75 per gallon in 2023 after peaking at $4.93 per gallon in June 2022.

Figure 43
U.S. Energy Prices

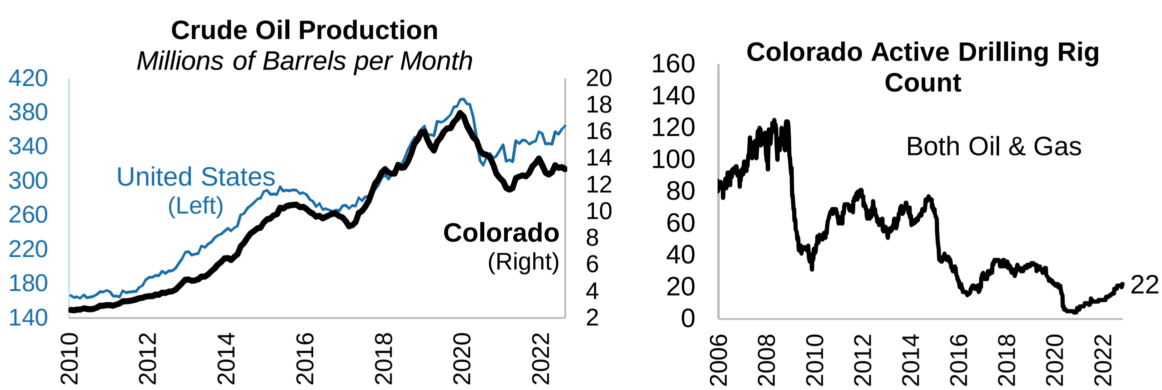


Source: U.S. Energy Information Administration. Weekly average prices. Data are not seasonally adjusted and are through the week of December 2, 2022.

Recovery of oil and gas production in Colorado lags behind the nation. Oil and gas production in both the U.S. and Colorado declined at the onset of the recession in early 2020 (Figure 44, left). Nationally, natural gas production fell by nearly 10 percent shortly after the recession began, while oil production fell by about 25 percent. Natural gas production reached pre-pandemic levels in November 2021, while oil production remained about 8 percent below pre-pandemic levels as of August 2022 for the United States overall.

Colorado suffered a larger pull-back in production and has recovered more slowly than the United States overall. Oil production shrank by over 32.0 percent following the recession and remained about 8 percent below pre-recession levels as of August 2022 (Figure 44, left). Natural gas production has yet to rebound in Colorado, and has been generally in decline since the end of 2019. As of August 2022, natural gas production was about 16 percent below the pre-recession peak. Further, a total of 22 oil and gas rigs were actively operating in Colorado as of October 2022, compared to the average of 30 active rigs throughout 2019 (Figure 44, right).

Figure 44
Select Energy Market Indicators



Source: U.S. Energy Information Administration. Data are shown as a three-month moving average and are not seasonally adjusted. Data are through August 2022.

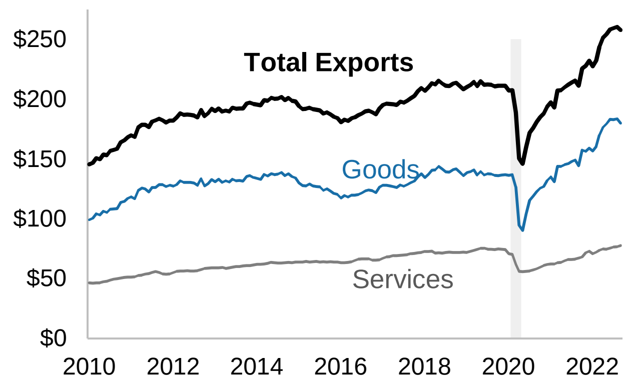
Source: Baker Hughes. Data are not seasonally adjusted. Data are through October 2022.

Global Economy and International Trade

Inflationary concerns, central bank tightening, the war in Ukraine, and slow growth in China are weighing on the global economic outlook. Risks of an economic downturn remain elevated worldwide.

The International Monetary Fund downgrades 2023 outlook and notes persistent risks. The International Monetary Fund (IMF) projects global economic output will end 2022 having grown by 3.2 percent, unchanged from its July forecast. However, the IMF revised down its expectations for global growth in 2023 by 0.2 percentage points to 2.7 percent. The IMF expects more than a third of the global economy will contract by the end of 2023. The IMF also notes that its outlook for 2023 is well below the average 3.6 percent growth rate recorded from 2000 to 2021.

Figure 45
U.S. Monthly Exports
Billions of Dollars



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

Risks to the outlook are weighted to the downside according to the organization's latest report, with inflation, the war in Ukraine, and slowing Chinese growth presenting persistent risks since the last outlook. For inflation, central banks around the world have implemented rapid and coinciding monetary tightening. Tighter monetary policy has been accompanied by a drawdown in fiscal support after the pandemic. The IMF notes that an uncoordinated approach to tightening could push countries into worse-than-expected economic conditions and destabilize financial markets.

The war in Ukraine continues to present risks to global food and energy supplies. Notably, natural gas prices have surged, putting unsettling pressure on European households. Lastly, China's ongoing, strict response to COVID outbreaks continues to pose a risk to both domestic and international economic growth. Additionally, China's real estate market continues to sputter amid new regulations aimed to rein in speculation, risking downstream effects elsewhere in its economy.

In its October report, the IMF updated expectations for several economic indicators. For inflation, the IMF anticipates that global price growth has peaked. The IMF estimates global prices will have increased 8.8 percent in 2022, before decelerating to 6.5 percent inflation in 2023 and 4.1 percent in 2024. Price pressures should be mitigated somewhat by a fall in oil prices, down 12.9 percent in 2023 according to the report. Due to the current monetary environment and anticipated global slowdown, the organization projects the value of the dollar will remain high. Positively, the organization expects world trade volumes to continue to grow 2.5 percent through 2023, despite a downgrade to the outlook.

U.S. trade volume expanded in 2022, but falling energy prices pose a constraint. As energy prices softened in the third quarter of 2022, trade decelerated somewhat and ended the quarter up 22.5 percent year-to-date, according to data from WiserTrade. Through September, trade with Canada and Mexico contributed nearly 60 percent of the nation's trade volume growth. Export growth had outpaced import growth, about 21 percent to 19 percent, respectively. The rapid rise in oil and gas prices over the past year and resurging global demand contributed to a rapid rise in the nation's export volumes. In September year-to-date, oil and gas products comprised the top three U.S. exports. Exports of energy have also contributed to growing trade with Europe. Exports of petroleum gas to the Netherlands had nearly tripled through September 2022, and similar exports to France were up sixfold. The surge in energy demand has boosted U.S. exports at a time when the strong dollar and slowing global economy would typically depress export activity overall.

Other top export commodities through the third quarter of 2022 include aircraft, motor vehicles, and electronic products. Excluding energy exports, other U.S. industries reliant on export activity may struggle with the general economic slowdown globally and the dollar's continued strength in the year ahead.

Colorado exports, led by high-tech products and beef, increasing with inflation. Like the nation, Colorado's growing trade volumes decelerated somewhat in the third quarter. Colorado's exports rose about 15 percent year-to-date and imports were up about 30 percent. Specifically, the value of crude oil imports eased considerably in the third quarter following the sharp increase over the first half of the year when energy prices spiked. Colorado's crude oil imports were up 61 percent year-to-date in September, slower than the 73 percent pace recorded in June.

Canada remains Colorado's largest trade partner. Exports to Canada were up 11 percent year-to-date, and imports were up by 39 percent, largely due to crude oil imports. Other large trading partners in 2022 were Switzerland, Malaysia, and Taiwan. Through September, the Colorado's strongest exports included beef (up 47 percent), aircraft (up 102 percent), and gold (up 70 percent). Various chemical products and aluminum cans were also large contributors. The largest contributors to imports included crude oil (up 61 percent), electronic integrated circuits (up 67 percent), and phones (up 42 percent).

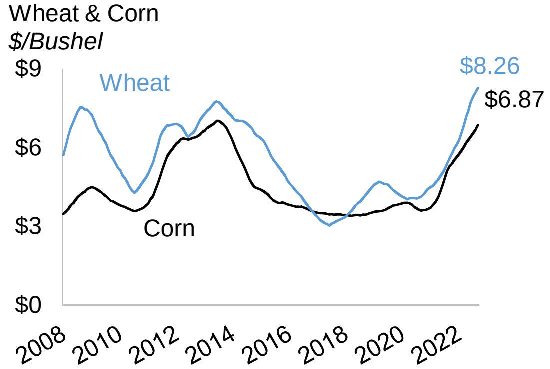
Agriculture

The outlook for the U.S. agricultural economy generally remains strong despite recent declines in some agriculture commodity prices. While producers face headwinds from volatile crop prices, higher interest and other expenses, and drought, prices of key crops and livestock remain at multi-year highs. Measures of financial stress remain historically low in the Federal Reserve's Tenth District, which includes Colorado, with balance sheets bolstered by a surge in agricultural real estate values over the past two years.[2]

[2] The Tenth District includes western Missouri, Nebraska, Kansas, Oklahoma, Wyoming, Colorado and northern New Mexico. Data for Colorado are generally combined along with that of Wyoming and northern New Mexico into the category "mountain states" due to limited survey responses.

Wheat prices ease, remain at multiyear highs. According to a nationwide index of agricultural prices, commodity prices fell modestly in the second and third quarters but remained 8 percent higher than at the beginning of 2022. The November extension of the agreement with Russia establishing a Black Sea export corridor for Ukrainian grain shipments is expected to continue to ease wheat supplies and prices. In September, grain prices remained well above historical averages, with Colorado wheat coming off a record high of $10.30 per bushel in June, to $8.65 per bushel in September. Corn prices continued to rise, to $8.12 per bushel, pushing up moving average prices for both grains. (Figure 46).

Figure 46
Prices Received for Colorado Grain Crops

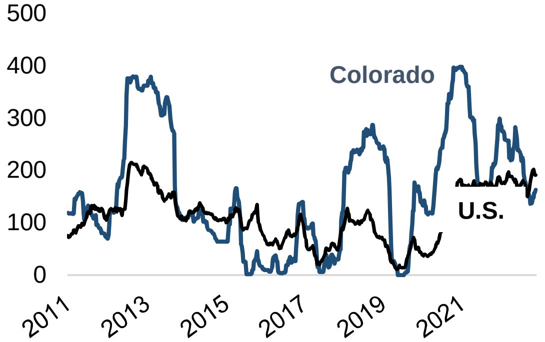


Source: National Agricultural Statistics Service. Data shown as twelve-month moving averages. Data through September 2022.

Farm finances remain strong amidst rising uncertainty. The last two years have seen generally improving farm balance sheets, with many existing operations receiving support from rising farm real estate values, which are up by 12.4 percent nationwide and by 9.9 percent in Colorado in 2022. While some production costs for energy and fertilizers have eased in recent months, feed costs have increased notably, particularly in drought-affected areas like Colorado's eastern plains. Interest expenses also rose sharply in the third quarter, while gains in farm real estate values slowed. Producers and lenders report growing concerns and uncertainty about 2023 with a larger share of producers reporting substantial impacts from drought.

Food price inflation remains elevated, but slowing in recent months. Food price inflation remains elevated, at 10.9 percent year-over-year in October 2022, well above the 20-year historical average of 2.4 percent, but shows signs of slowing in recent months. Food at home prices are up 12.4 percent, compared with food away from home, up 8.6 percent. The ongoing outbreak of highly pathogenic avian influenza continues to impact the poultry industry, with 85 percent of the egg-laying flock lost in Colorado alone, and 52.5 million birds impacted across 46 states nationwide, driving a 43 percent increase in egg prices. Ongoing economy-wide supply-chain issues and energy, transportation, and labor costs have contributed to inflation across food categories, but recent declines in agricultural commodity and energy prices alongside rising interest rates are expected to ease price pressures as the year ends. According to the USDA food price outlook, food price inflation is expected to slow in 2023, to between 4.0 and 5.0 percent, less than half the current rate but still high relative to historical averages.

Figure 47
Drought Severity and Coverage Index, Colorado



Source: U.S. Drought Monitor. Data through November 22, 2022.

Drought conditions ease on the Western Slope, worsen in the eastern plains. According to the U.S. Drought Monitor, the area of Colorado experiencing severe, extreme, or exceptional drought stood at 25.2 percent in late November 2022. The recent uptick reflects deteriorating conditions on the eastern plains, even as conditions along the Western Slope and elsewhere continue to improve. The area of no drought has expanded to 16.3 percent of the state, up from 13.8 percent three months ago and 0.0 percent one year ago. As indicated by the drought severity and coverage index, Colorado's drought conditions are substantially improved in 2022, but remain worse than in most years since 2013 (Figure 47).

Summary

The past year brought challenges that jeopardized the post-pandemic recovery for the U.S. and Colorado economies. Russia's invasion of Ukraine roiled global energy markets and further snarled frail supply chains, raising inflationary temperatures worldwide. Around the country, rising input prices ignited a wage-price spiral, propping up wages that still struggled to match surging household expenses. The Federal Reserve raised interest rates aggressively to rein in inflation, while also signaling that a monetary policy overstep could topple the teetering U.S. economy. The interest rate hikes popped inflated home values, sending the housing market into a downturn during the second half of the year. All the while, though, unemployment rates stayed healthy, job openings remained plentiful, and most other sources of household income were able to offset falling government transfer contributions as COVID-era stimulus programs expired. Households were able to sustain just enough consumer spending to keep the economic expansion afloat.

As the year draws to a close, data show that the Fed's approach to inflation management is working for now. Inflation eventually responded to interest rate hikes, with headline prices cooling over the last two quarters of the year. But even in the best case scenario, the Fed's aggressive intervention will have lasting consequences. Home prices are likely to continue falling as interest rates creep up, with minimal affordability benefits for would-be homebuyers because of rising mortgage costs. Suppressing inflation by motivating pullbacks of consumer and business capital has drained consumer and business confidence as the pace of expansion slows considerably. And the economy remains fragile; any number of unforeseen outside shocks could push the economy into a recession.

Risks to the Forecast

Several factors could result in either stronger or weaker economic activity than forecast. Risks to the forecast remain elevated and skewed to the downside with tighter monetary policy expected to suppress demand, an in-progress housing market correction, the war in Ukraine, and ongoing pandemic-related uncertainty.

Downside risks. Inflationary pressures appear to have moderated; however, an unexpected shock, and any resultant monetary policy response, continue to pose risks to the economic outlook. The war in Ukraine continues to pose a sizable risk to price stability, particularly in energy and food markets. Countries in the Euro area remain highly vulnerable to disruptions in Russian energy imports, and many countries rely on Ukrainian wheat and other commodities. Further, tight labor markets and high commodity prices may spark a wage-price spiral that could result in even stronger and more durable inflation than forecast. In this instance, more aggressive monetary policy tightening is likely, which could strangle economic growth. Anticipation of monetary policy missteps elevates the risk of financial market instability, dampening economic activity.

The pandemic's trajectory remains a risk to economic activity. Overseas lockdowns and additional business closures could exacerbate supply chain disruptions, and elevated health concerns could dampen in-person service industry activity. Home prices are declining, consistent with a market correction, but a more severe collapse in prices would erase significant household wealth and wreck consumer confidence. Finally, unusual weather patterns, and related natural disasters such as wildfires, have become more frequent and pose geographically specific threats to impacted areas. They also pose potential systemic threats to real estate, insurance, and finance industries depending on their severity.

Upside risks. Energy prices have moderated since the last forecast, and a sustained drop over the next year would ease inflationary concerns and reduce risks of more aggressive monetary policy responses. Further, a resolution to the war in Ukraine and accompanying drop in commodity prices pose an upside risk to the forecast, especially with more energy stability for European markets. Sooner-than-expected easing in supply chain disruptions or faster-than-expected resolution of labor market imbalances could enable a stronger economic recovery than expected. Over the longer term, pandemic-related shifts toward remote work, technological change, and simpler, more localized supply chains could result in stronger productivity gains and economic growth.

Table 26
National Economic Indicators

						Legislative Council Staff Forecast		
Calendar Years	2017	2018	2019	2020	2021	2022	2023	2024
Real GDP (*Billions*) [1]	$18,079.1	$18,606.8	$19,032.7	$18,384.7	$19,427.3	$19,815.8	$20,053.6	$20,394.5
Percent Change	2.3%	2.9%	2.3%	-3.4%	5.7%	2.0%	1.2%	1.7%
Nonfarm Employment (*Millions*) [2]	146.6	148.9	150.9	142.1	146.1	152.1	155.7	158.7
Percent Change	1.6%	1.6%	1.3%	-5.8%	2.8%	4.1%	2.4%	1.9%
Unemployment Rate [2]	4.4%	3.9%	3.7%	8.1%	5.4%	3.7%	4.0%	4.3%
Personal Income (*Billions*) [1]	$16,850.2	$17,706.0	$18,424.4	$19,627.6	$21,092.8	$21,535.7	$22,892.5	$24,105.8
Percent Change	4.7%	5.1%	4.1%	6.5%	7.5%	2.1%	6.3%	5.3%
Wage and Salary Income (*Billions*) [1]	$8,474.7	$8,900.5	$9,323.5	$9,444.1	$10,343.8	$11,223.0	$11,918.9	$12,586.3
Percent Change	4.7%	5.0%	4.8%	1.3%	9.5%	8.5%	6.2%	5.6%
Inflation [2]	2.1%	2.4%	1.8%	1.2%	4.7%	8.1%	4.6%	3.0%

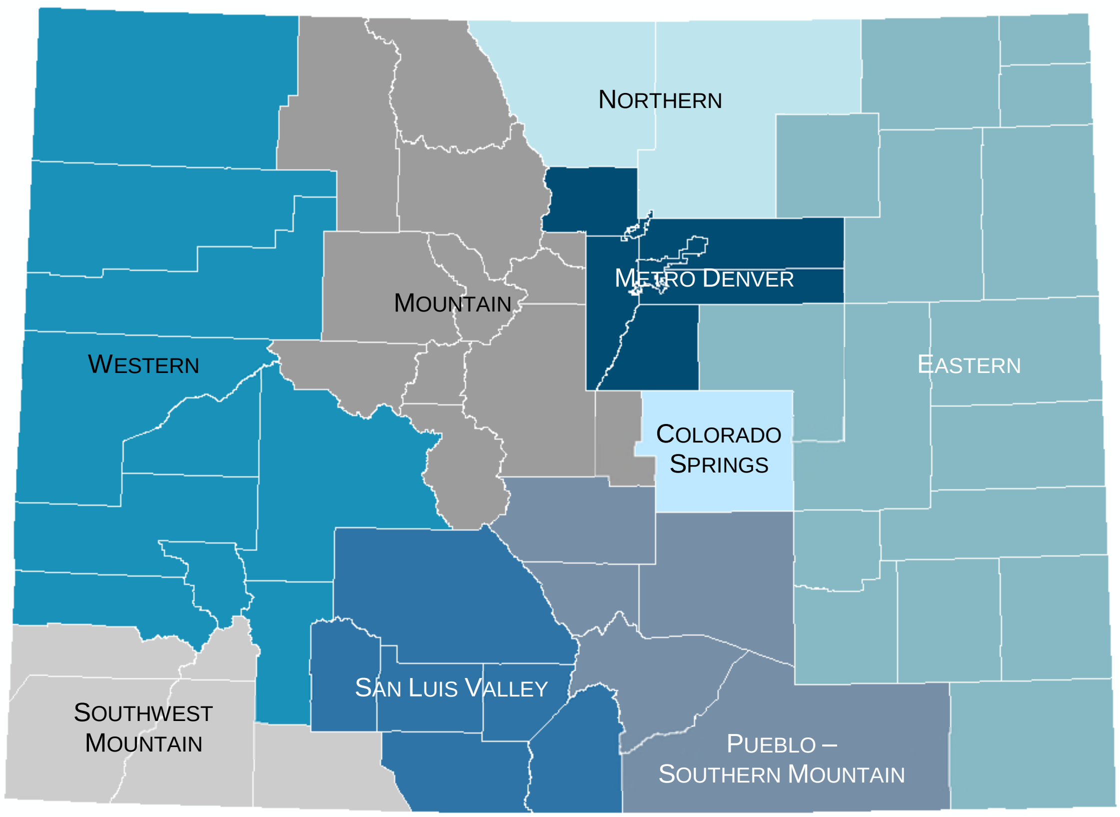
Sources
[1]U.S. Bureau of Economic Analysis. Real gross domestic product (GDP) is adjusted for inflation and shown in 2012 dollars. Personal income and wages and salaries not adjusted for inflation.
[2]U.S. Bureau of Labor Statistics. Inflation shown as the year-over-year change in the consumer price index for all urban areas (CPI-U).

Table 27
Colorado Economic Indicators

Calendar Years	2017	2018	2019	2020	2021	Legislative Council Staff Forecast 2022	2023	2024
Population (*Thousands, as of July 1*) [1]	5,617.4	5,697.2	5,758.5	5,773.7	5,812.1	5,857.5	5,913.1	5,973.8
Percent Change	1.3%	1.4%	1.1%	0.3%	0.7%	0.8%	0.9%	1.0%
Nonfarm Employment (*Thousands*) [2]	2,660.0	2,726.9	2,790.0	2,651.3	2,745.3	2,866.1	2,917.7	2,952.7
Percent Change	2.2%	2.5%	2.3%	-5.0%	3.5%	4.4%	1.8%	1.2%
Unemployment Rate [2]	2.6%	3.0%	2.6%	6.9%	5.4%	3.6%	3.9%	4.1%
Personal Income (*Millions*) [3]	$309,658	$331,955	$350,390	$370,392	402,230	$427,168	$454,507	$476,323
Percent Change	6.9%	7.2%	5.6%	5.7%	8.6%	6.2%	6.4%	4.8%
Wage and Salary Income (*Millions*) [3]	$160,963	$170,904	$182,944	$187,128	206,306	$229,825	$244,764	$257,491
Percent Change	6.5%	6.2%	7.0%	2.3%	10.2%	11.4%	6.5%	5.2%
Housing Permits (*Thousands*) [1]	40.7	42.6	38.6	40.5	56.5	49.0	47.9	48.6
Percent Change	4.4%	4.8%	-9.4%	4.8%	39.7%	-13.3%	-2.3%	1.6%
Nonresidential Construction (*Millions*) [4]	$6,154.9	$8,146.4	$5,166.7	$5,462.3	$5,602.9	$6,420.9	$6,363.1	$6,503.1
Percent Change	2.8%	32.4%	-36.6%	5.7%	2.6%	14.6%	-0.9%	2.2%
Denver-Aurora-Lakewood Inflation [5]	3.4%	2.7%	1.9%	2.0%	3.5%	8.1%	4.9%	2.7%

Sources
[1]U.S. Census Bureau. 2020 population numbers reflect the 2020 Census, while other numbers reflect the July 1 estimates. Residential housing permits are the number of new single- and multifamily housing units permitted for building.
[2]U.S. Bureau of Labor Statistics.
[3]U.S. Bureau of Economic Analysis. Personal income and wages and salaries not adjusted for inflation.
[4]F.W. Dodge.
[5]U.S. Bureau of Labor Statistics. Inflation shown as the year-over-year change in the consumer price index.
Note: Legislative Council Staff has discontinued the Colorado retail trade forecast due to data limitations.

Colorado Economic Regions



A Note on Data Revisions

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

Like the employment data, residential housing permits and agriculture data are also based on surveys. These data are revised periodically. Nonresidential construction data in the current year reflects reported construction activity. These data are revised the following year to reflect actual construction activity. Retail trade sales data are no longer reported due to data limitations.

Metro Denver Region

Of the nine economic regions identified in this forecast, Colorado's diverse seven-county metro Denver region holds the largest share of the state's population, representing more than 60 percent of the state's workers. The region's economy is also very diverse with major industry sectors such as aerospace, health care, professional and business services, and financial services. Major labor market indicators remain healthy through the first three quarters of the year as employers in the region continue to add employees to their payrolls at a strong pace. Nonresidential construction continues to improve in 2022 despite facing significant headwinds facing the industry. However, the region, specifically Denver and Boulder, continue to struggle with housing affordability, causing potential homeowners to look for homes outside these counties, and in turn slowing the region's residential construction activity. Economic indicators for the region are summarized in Table 28.

Table 28
Metro Denver Region Economic Indicators
Adams, Arapahoe, Broomfield, Boulder, Denver, Douglas, and Jefferson Counties

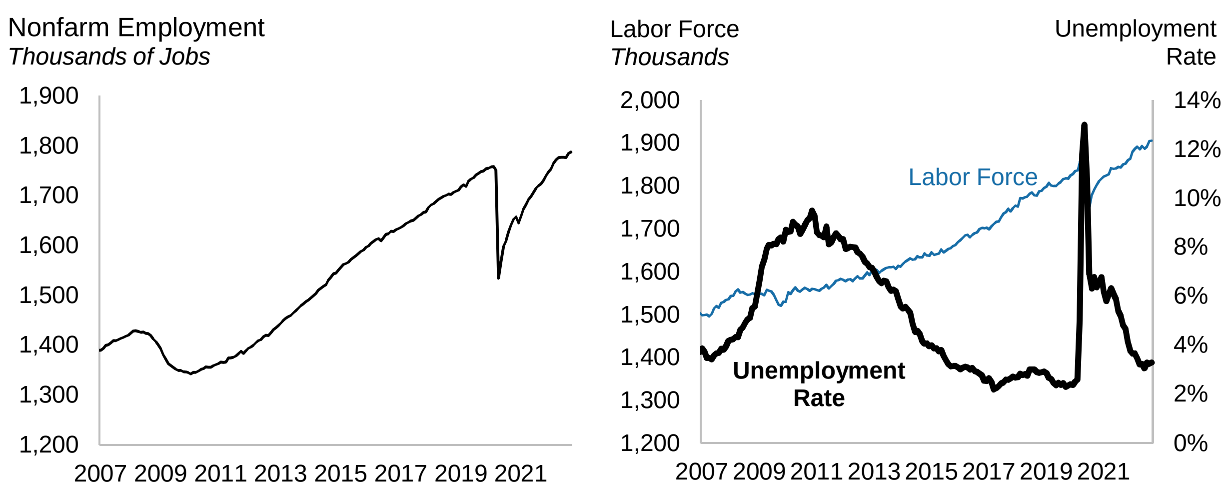
	2018	2019	2020	2021	YTD 2022
Employment Growth[1]					
Denver-Aurora-Lakewood MSA	2.6%	2.3%	-5.0%	3.5%	4.5%
Boulder MSA	2.9%	2.3%	-5.6%	3.5%	4.9%
Unemployment Rate[2]	2.9%	2.5%	7.1%	5.4%	3.3%
Housing Permit Growth[3]					
Denver-Aurora-Lakewood Single Family	7.9%	-6.1%	1.5%	16.3%	-13.5%
Boulder Single Family	15.7%	-9.5%	-6.2%	-34.4%	2.7%
Nonresidential Construction Growth[4]					
Value of Projects	46.8%	-37.3%	-10.5%	3.4%	18.5%
Square Footage of Projects	-10.7%	-8.4%	-6.9%	29.7%	18.5%
Level (*Thousands*)	17,193	15,744	14,664	19,022	17,908
Number of Projects	-18.3%	-11.7%	-0.3%	14.7%	15.0%
Level	771	681	679	779	689
Housing Market[5]					
Average Sale Price – Single Family	8.2%	2.7%	8.0%	19.9%	12.0%
Level (Thousands)	$535	$549	$597	$712	$797
Inventory – Single Family	7.2%	11.2%	-38.2%	-46.4%	85.4%
Home Sales – Single Family	-5.2%	5.3%	7.8%	1.9%	-17.6%
Retail Sales Growth[6]	4.9%	8.9%	0.1%	17.4%	13.6%

MSA = Metropolitan statistical area.
[1]U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through September 2022.
[2]U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through September 2022.
[3]U.S. Census Bureau. Growth in the number of residential building permits. Data through September 2022.
[4]F.W. Dodge. Data through September 2022.
[5]Colorado Association of Realtors. Data through October 2022.
[6]Colorado Department of Revenue. Data through August 2022.

Labor market. The metro Denver region's labor market continues to add jobs at a steady pace. Through September, the Denver-Aurora-Lakewood metropolitan statistical area added just over 54,000 new jobs, up 4.5 percent from the same period one year ago, while the Boulder metropolitan statistical area added 9,800 new jobs, or 4.9 percent. After a slight dip in December 2020, the region has been steadily adding jobs with employment counts exceeding pre-pandemic levels in January 2022 (Figure 48, left). Job growth has been seen across most major industries, especially in the professional and business services and leisure and hospitality sectors.

After spiking to average 7.1 percent in 2020, the region's average unemployment rate dropped to 5.4 percent in 2021. The unemployment rate has steadily continued to tick down, averaging 3.3 percent through September 2022, although it still remains higher than the pre-pandemic low of 2.5 percent (Figure 48, right). The number of workers in the labor force (those employed and those seeking employment) exceeded pre-pandemic levels in 2021 and continues to rise, a healthy sign of area labor market improvements. The metro Denver region's diverse economy supports multiple industries, promoting a faster recovery than most other regions in the state and nation.

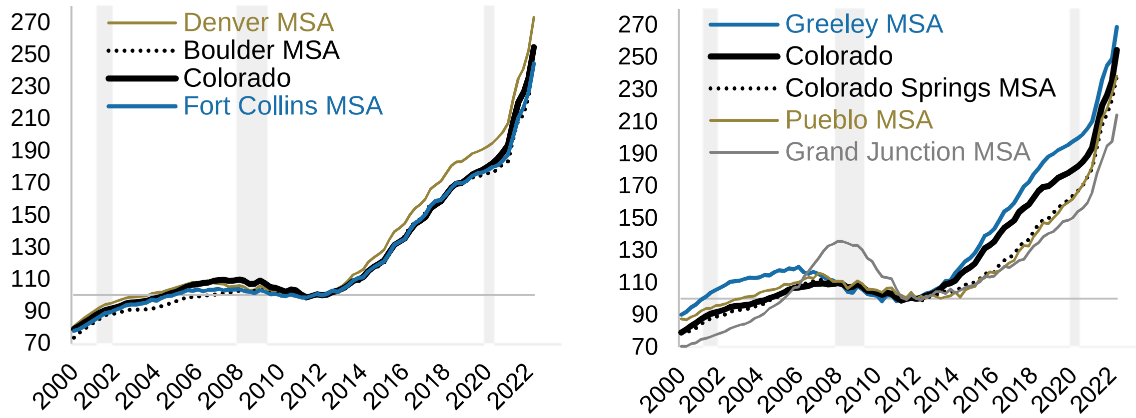
Figure 48
Metro Denver Region Labor Market Activity



Source: U.S. Bureau of Labor Statistics. Data are seasonally adjusted and shown through September 2022.

Housing market. After rapid home price appreciation through 2021 and into early 2022, the metro Denver region's housing market is showing signs of slowing down. According to data from the Federal Housing Finance Agency, in the second quarter of the year, home prices were up 22.8 percent over year-ago levels in the Denver-Aurora-Lakewood metropolitan statistical area, and up 24.0 percent in Boulder, slightly outpacing national rates of appreciation of 20.9 percent (Figure 49). However, recent increases in mortgage rates and inflation has made purchasing a home more expensive for many buyers and has begun to cool the market. The number of single family homes available in the region was up 85.4 percent in September from the same month one year prior, and home sales were down 17.6 percent. Despite these headwinds, housing remains expensive. The average single family sale price settled at about $770,000 in October, up nearly $50,000 from October 2021 despite falling by about $35,000 from its April peak.

Figure 49
FHFA All-Transaction Home Price Indices
Index 100 = 2012Q1 (Recessionary Trough in Grey Bars)

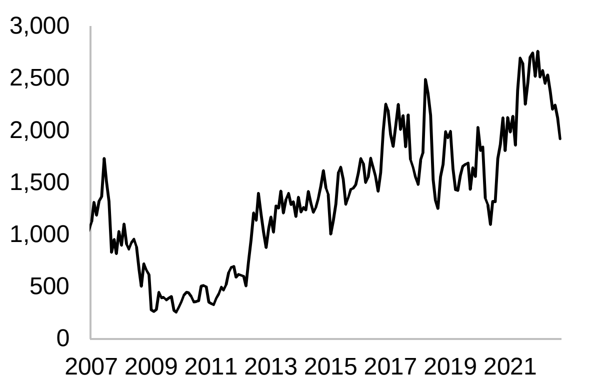


Source: Federal Housing Finance Agency (FHFA). Data are seasonally adjusted and through 2022Q2.

Residential construction. After robust growth in 2021, residential construction activity in the Denver-Aurora-Lakewood metropolitan statistical area has cooled. The number of single family permits pulled by homebuilders through September was down 13.5 percent over year-ago levels (Figure 50, left). In the Boulder metropolitan statistical area, the number of new single family permits has slightly rebounded through the first three quarters of this year after falling 34.4 percent in 2021. The lack of affordability continues to hamper new residential construction in the metro Denver region. Homebuyers are being pushed out to the suburban and exurban areas of the region that offer relatively more affordable options. Douglas, Arapahoe, and Adams counties and are seeing the highest levels of construction activity. In addition, remote work options are motivating many homebuyers to seek larger homes over crowded urban areas.

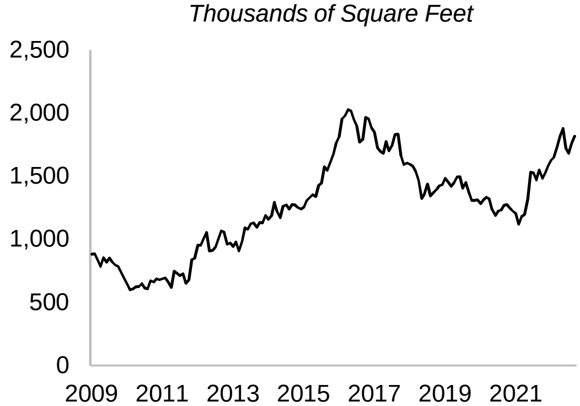
Figure 50
Metro Denver Region Construction Activity

Residential Building Permits
Number of Housing Units



Source: U.S. Census Bureau. Data shown as three-month moving averages. Data are not seasonally adjusted and are through September 2022.

Nonresidential Building Permits
Thousands of Square Feet



Source: F.W. Dodge. Data shown as twelve-month moving averages. Data are not seasonally adjusted and are through September 2022.

Nonresidential construction. Nonresidential building activity in the metro Denver region has been steadily improving since early 2021 (Figure 50, right). Though momentum has slowed in recent months, the number of new projects remains at elevated levels and is up year-to-date. Through September, the number of new nonresidential building permits in the metro Denver region was up 15.0 percent from year-ago levels. These projects are expected to add nearly 18 million square feet to the region's nonresidential inventory, an 18.5 percent increase from last year. However, the nonresidential construction market still faces several headwinds. The shift toward remote work and the continued business impacts of the pandemic are expected to put downward pressure on demand for commercial real estate in the region, slowing nonresidential construction activity in the years ahead. Future nonresidential building is expected to shift from office space and brick-and-mortar retail establishments to favor development that supports e-commerce, such as warehousing space. In addition, rising costs and shortages of both labor and construction materials, combined with rising interest rates, will continue to impede the construction industry.

Retail sales. After robust growth in 2021, consumer spending, as measured by retail sales, continued to grow at strong rate in the metro Denver region. Through August, retail sales are up 13.6 percent compared to the same period last year. The recovery continues to be aided by consumers returning to physical stores. While retail sales in the region have improved, many companies continue to struggle with supply and labor shortages.

Northern Region

Larimer and Weld counties comprise the diverse economies of the northern region. Following the recession, the labor market in the northern region began to heal quickly, but as the broader economic recovery has continued, the region has lagged behind the rest of the state. The northern region's housing market has seen strong price appreciation in recent years. During 2022, residential construction has slowed significantly in the Fort Collins-Loveland area while it has accelerated in the Greeley area. After suffering a significant disruption to nonresidential construction following the recession, activity has rebounded strongly in 2022. Economic indicators for the region are summarized in Table 29.

Table 29
Northern Region Economic Indicators
Weld and Larimer Counties

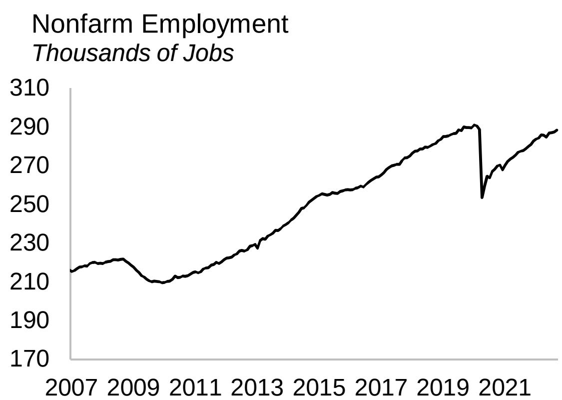
	2018	2019	2020	2021	YTD 2022
Employment Growth[1]					
Fort Collins-Loveland MSA	2.6%	2.2%	-4.7%	3.5%	4.4%
Greeley MSA	4.7%	3.6%	-7.1%	-0.4%	3.3%
Unemployment Rate[2]	2.7%	2.3%	6.4%	5.1%	3.2%
State Cattle and Calf Inventory Growth[3]	2.6%	8.0%	1.9%	4.0%	0.5%
Natural Gas Production Growth[4]	17.1%	22.0%	8.3%	-2.8%	-2.7%
Oil Production Growth[4]	29.5%	10.7%	-11.9%	-10.3%	0.3%
Housing Permit Growth[5]					
Fort Collins-Loveland MSA Total	8.4%	-18.2%	-0.3%	13.3%	-15.5%
Fort Collins-Loveland MSA Single Family	-14.1%	-4.9%	34.7%	-0.1%	-29.9%
Greeley MSA Total	25.0%	-2.2%	9.1%	15.5%	19.1%
Greeley MSA Single Family	32.1%	-8.4%	28.1%	3.8%	0.8%
Nonresidential Construction Growth[6]					
Value of Projects	64.9%	-71.6%	84.2%	-29.4%	103.7%
Square Footage of Projects	-27.6%	-16.2%	6.8%	4.9%	224.3%
Level (*Thousands*)	2,892	2,424	2,589	2,715	5,856
Number of Projects	13.4%	-17.1%	-10.9%	-6.7%	17.2%
Level	322	267	238	222	198
Housing Market[7]					
Average Sale Price - Single Family	7.4%	3.2%	6.9%	16.8%	13.9%
Level (Thousands)	$412	$426	$457	$532	$600
Inventory - Single Family	6.3%	14.5%	-21.7%	-44.3%	43.9%
Home Sales - Single Family	0.8%	2.7%	9.8%	2.3%	-16.9%

MSA = Metropolitan statistical area.
[1]U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through September 2022.
[2]U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through September 2022.
[3]National Agricultural Statistics Service. Cattle and calves on feed through October 2022.
[4]Colorado Oil and Gas Conservation Commission. Data through August 2022.
[5]U.S. Census Bureau. Growth in the number of residential building permits. Data through September 2022.
[6]F.W. Dodge. Data through September 2022.
[7] Colorado Association of Realtors. Data through October 2022.

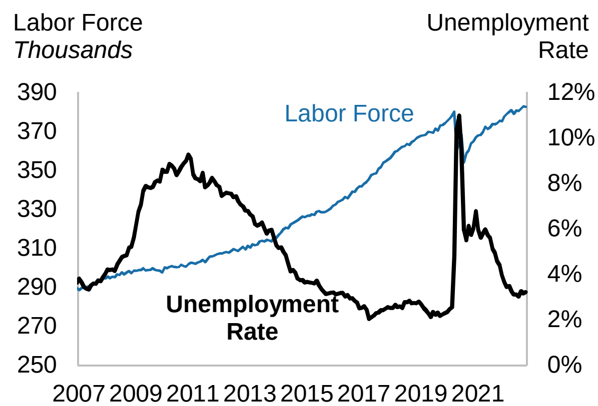
Labor market. The northern region's labor market saw some of the fastest job growth and lowest unemployment rates in the state leading up to 2020 (Figure 51). Following the recession, the region's labor market was quick to improve but has since struggled to keep up with the rest of the state as the recovery has continued. Year-to-date job growth registered 3.9 percent as of September 2022, compared to 4.5 percent for the state overall. Further, while Colorado as a whole has exceeded pre-recession employment levels by about 62,500 jobs, employment in the northern region remains 2,600 jobs below pre-recession levels. The region is experiencing a relatively low unemployment rate compared to the state, however. Regional unemployment registered 3.2 percent in September 2022 compared with the statewide rate of 3.4 percent.

The northern region's labor market, especially in Weld County, is dependent on the oil and gas industry, where employment levels remain about 5,400 jobs below pre-recession levels. Employment is not expected to fully recover until pandemic conditions improve and energy markets return to pre-crisis levels.

Figure 51
Northern Region Labor Market Activity



Source: U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through September 2022.



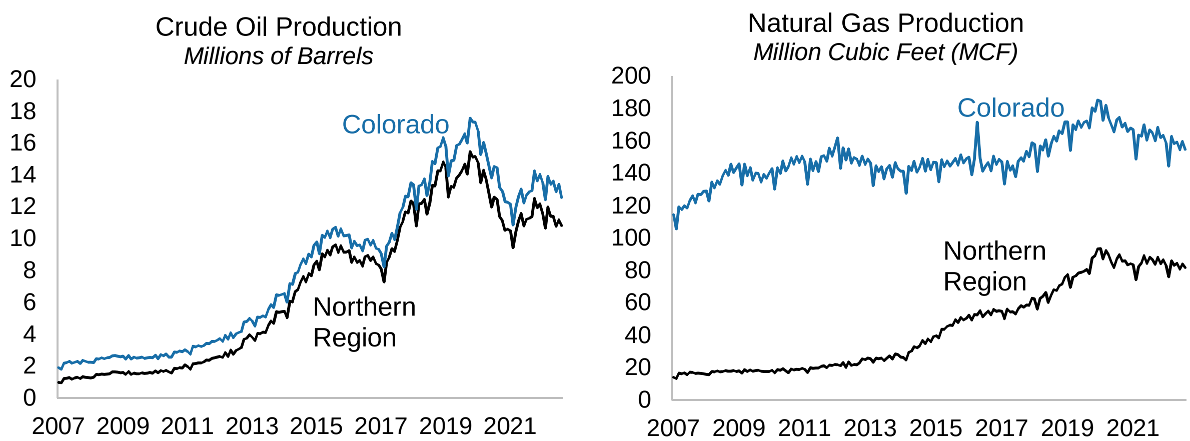
Source: U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through September 2022. Includes Legislative Council Staff adjustments prior to 2010.

Agriculture. The northern region produces about a quarter of Colorado's agricultural value due to the heavy concentration of the livestock industry in Weld County. The region's agricultural sector suffered in 2020 with supply chain disruptions, COVID-19 outbreaks, and severe drought. As the negative effects of COVID-19 have begun to abate and pasture conditions have modestly improved, cattle and calf inventories have rebounded, growing 4.0 percent in 2021, and 0.5 percent year-to-date as of October 2022.

Energy sector. Weld County's economic activity, largely driven by oil and gas, faced headwinds as a result of the recession. With the sharp rebound in energy prices, oil and gas industry profits and associated tax revenue have shot upwards. Employment and production levels, however, have not experienced the same rapid growth, with both remaining below pre-recession levels.

Oil and gas production throughout the state declined significantly as a result of the collapse in demand and significant declines in prices (Figure 52). Oil production in the northern region fell by 11.9 percent in 2020 and another 10.3 percent in 2021. The decline in oil production appears to have stalled in 2022, with year-to-date production growing by 0.3 percent, as of August 2022. Natural gas production did not suffer as badly as oil production but continues to fall, shrinking by 2.8 percent in 2021 and by an additional 2.7 percent as of August 2022. Above-normal prices during 2022 and increased demand for oil and gas were expected to spur additional production in the region, however this increase had not yet materialized as of early autumn.

Figure 52
Colorado Energy Production



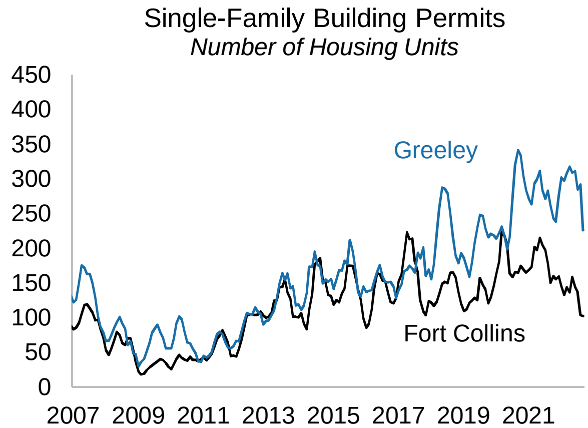
Source: Colorado Oil and Gas Conservation Commission. Monthly data through August 2022.

Housing. Household behavior during and after the pandemic-induced recession spurred incredibly fast home price appreciation across the region, just as it did across the state and country. The average single family home sale price in the region jumped 13.9 percent year-to-date in 2022 to $600,000, following a 16.8 percent jump in 2021. Home price appreciation has already stalled and is expected to cool further in the near term as a result of rising interest rates. Sizable differences remain with respect to the two counties that make up the northern region; the average single family home sale price in October 2022 was about $521,400 in Weld County, versus $674,400 in Larimer County.

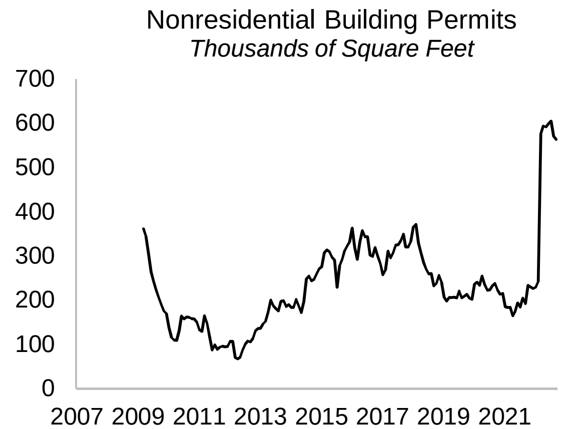
Residential housing construction activity was strong across the northern region in 2021, with 13.3 percent growth in the Fort Collins area and 15.5 percent in the Greeley area. However, through September 2022, total permits for residential construction declined by 15.5 percent in the Fort Collins area while growing by 19.1 percent in the Greeley area. Affordability concerns and more available land has likely attracted more construction activity to the Greeley area.

Nonresidential construction. The effects of the pandemic-induced recession materialized for nonresidential construction in 2021 for the northern region, with the value of new projects declining by 29.4 percent, the number of projects declining by 6.7 percent (Figure 53, right). Through September 2022, however, nonresidential construction has picked up significantly, with the value of projects increasing by 103.7 percent over the same period in 2021, the square footage of projects increasing by 224.3 percent, and the total number of projects increasing by 17.2 percent. Construction or additions to a number of schools in the northern region have boosted nonresidential construction significantly in 2022.

Figure 53
Northern Region Construction Activity

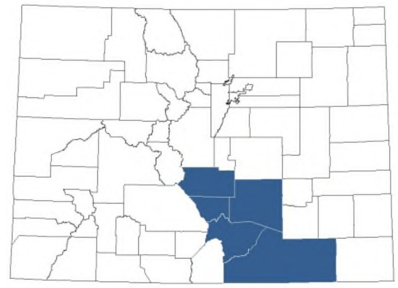


Source: U.S. Census Bureau. Data shown as three-month moving averages. Data are not seasonally adjusted and are through September 2022.



Source: F.W. Dodge. Data shown as twelve-month moving averages. Data are not seasonally adjusted and are through September 2022.

Pueblo – Southern Mountains Region



The Pueblo – Southern Mountains region encompasses five counties along the eastern slope of the Sangre de Cristo Mountains, and includes the City of Pueblo. The region was hit hard by the pandemic-induced recession and took longer to recover than other areas of the state. Economic data over the past three months indicate some loosening in labor market conditions and a more balanced housing market after surging prices in 2021. Indicators for the regional economy are presented in Table 30 and discussed below.

Table 30
Pueblo Region Economic Indicators
Custer, Fremont, Huerfano, Las Animas, and Pueblo Counties

	2018	2019	2020	2021	YTD 2022
Employment Growth					
Pueblo Region[1]	0.5%	1.0%	-2.6%	2.4%	4.8%
Pueblo MSA[2]	0.5%	1.2%	-2.7%	1.2%	4.2%
Unemployment Rate[1]	4.5%	3.9%	7.7%	7.6%	5.3%
Housing Permit Growth[3]					
Pueblo MSA Total	30.2%	3.8%	18.4%	24.0%	-13.1%
Pueblo MSA Single Family	36.2%	3.0%	19.4%	24.0%	-13.1%
Nonresidential Construction Growth[4]					
Value of Projects	222.9%	45.2%	26.2%	175.3%	-76.2%
Square Footage of Projects	145.1%	-19.7%	37.7%	278.3%	-81.6%
Level (*Thousands*)	397	318	438	1,658	289
Number of Projects	50.0%	23.3%	86.5%	2.9%	-20.0%
Level	30	37	69	71	40
Housing Market[5]					
Average Sale Price – Single Family	9.6%	9.5%	16.2%	24.1%	6.3%
Level (*Thousands*)	$206	$226	$265	$326	$341
Inventory – Single Family	-1.2%	-8.9%	-23.9%	-27.0%	64.2%
Home Sales – Single Family	-3.8%	0.3%	14.1%	7.3%	0.5%
Retail Sales Growth[6]	8.4%	8.5%	4.2%	13.4%	18.4%

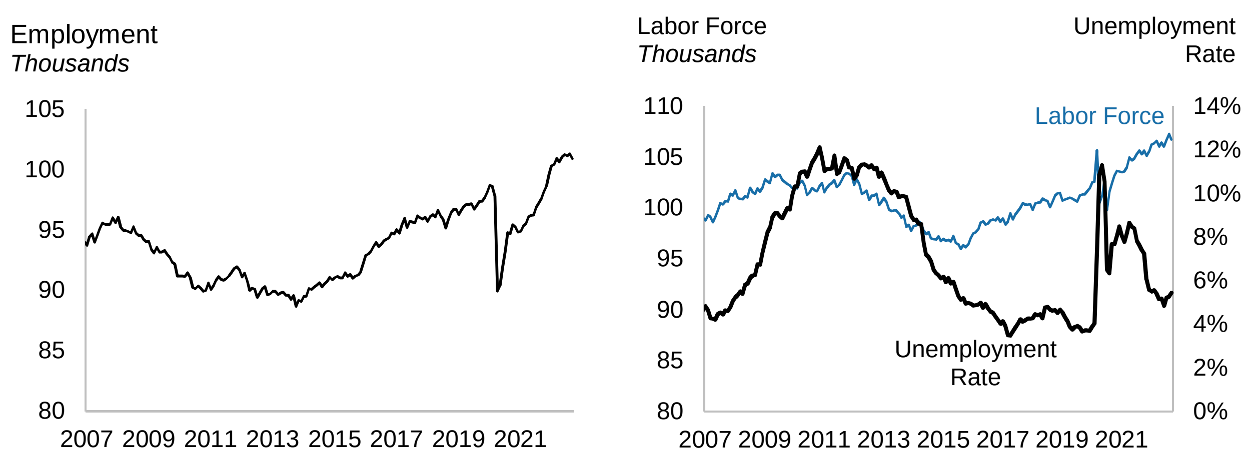
MSA = Metropolitan statistical area. NA = not available.
[1]U.S. Bureau of Labor Statistics, LAUS (household survey). Data through September 2022.
[2]U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through September 2022.
[3]U.S. Census Bureau. Growth in the number of residential building permits. Data through September 2022.
[4]F.W. Dodge. Data through September 2022.
[5]Colorado Association of Realtors. Data through October 2022.
[6]Colorado Department of Revenue. Data through August 2022.

Labor market. Labor market conditions have shown healthy growth through most of 2022, but data through September suggest signs of slowing. Employment in the region was severely impacted by the pandemic-induced recession, but surpassed the pre-recession peak in December 2021, and was 2.3 percent higher than pre-pandemic levels as of September 2022 (Figure 54, left). The health care and social assistance sector makes up the largest share of employment in this region, and nationally has been slower to recover from the pandemic-induced recession than employment as a whole.

The regional unemployment rate remains significantly higher in the Pueblo region than in any other region of the state (Figure 54, right). The seasonally adjusted unemployment rate was 5.4 percent in September 2022, exceeding the state's unemployment rate by 2.0 percentage points. The unemployment rate was falling steadily through June 2022, but ticked up by 0.6 percentage points over the past three months. Since June, the size of the labor force has continued to grow at a healthy rate, implying that the increase in the unemployment rate is partially due to people moving from non-employment into the labor force.

The regional labor force population continues to grow – an encouraging sign after a period of decline in the early 2010s. Labor force growth is concentrated in Pueblo County where the labor force has increased by 1,637 people between September 2021 and September 2022. The State Demography Office estimates that Las Animas County's population tends to have more negative growth than surrounding counties, and projects that populations in Custer, Fremont, and Huerfano counties will begin to decrease in 2022. The region has an older population and little in-migration, relative to the state as a whole, contributing to this decline.

Figure 54
Pueblo Region Labor Market Trends



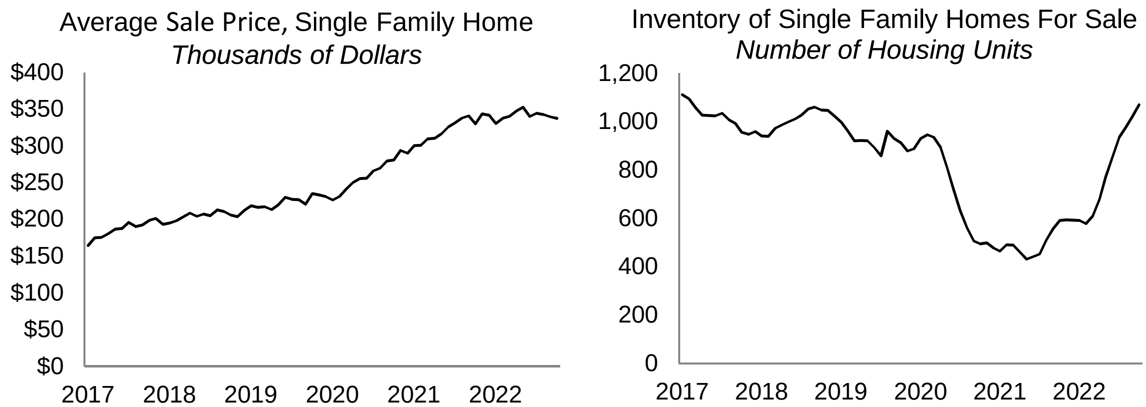
Source: U.S. Bureau of Labor Statistics; LAUS (household survey) for LCS Pueblo – Southern Mountains Region. Data are seasonally adjusted and are through September 2022.

Housing market. The housing market in the Pueblo region boomed in 2020 and 2021, but has shown signs of slowing over the past five months. Single-family home prices in the Pueblo region rose by over 55 percent between January 2020 and May 2022 due to high demand, but have since dropped slightly, by 4.3 percent (Figure 55, left). Despite the recent dip, single-family home prices are still higher than they were one year ago, and are well above pre-pandemic levels. The recent slowing can be attributed to rising interest rates tempering demand which has been seen across the country. Home prices are expected to moderate during the forecast period as interest rates rise, inventories rebound, and population declines in some counties.

As demand for housing surged in 2020 and early 2021 with historically low interest rates, single-family housing inventory in the region was cut by more than half while housing supply struggled to keep up

(Figure 55, right). Since bottoming out, inventory has rebounded sharply throughout 2022, now exceeding the level of inventory seen in 2019 and still growing quickly. Homes are sitting on the market longer and fewer sales are taking place compared with one year ago, contributing to rising inventory. Lower home prices and rising inventory signal that supply is coming more in line with demand after nearly two years of an unbalanced housing market in the region.

Figure 55
Pueblo – Southern Mountains Residential Construction and Inventory



Source: Colorado Association of Realtors. Data are seasonally adjusted through October 2022.

Nonresidential construction. Nonresidential construction activity peaked in 2021, when builders added $415.8 million in new structures, headlined by a new long rail mill for the EVRAZ Pueblo steel mill. EVRAZ also announced that the steel mill, one of Pueblo's largest employers, is being offered for sale, but the sale is not impacting construction of the long rail mill. Nonresidential construction activity has since slowed in 2022, and is roughly back in line with its pre-pandemic level. Private firms face headwinds from inflation in construction material costs and rising interest rates going forward. Public sector construction is expected to rise as funds distributed through the 2021 Infrastructure Investment and Jobs Act are distributed and spent.

Colorado Springs Region

The Colorado Springs region encompasses El Paso County and is home to the state's second-largest city. The regional economy recovered quickly from the pandemic-induced recession, with nonfarm employment levels surpassing pre-pandemic highs earlier than any other region, but employment growth has slowed in 2022. The tight housing market shows signs of loosening as inventories rebound and the volume of home sales declines. Indicators for the Colorado Springs regional economy are presented in Table 31.

Table 31
Colorado Springs Region Economic Indicators
El Paso County

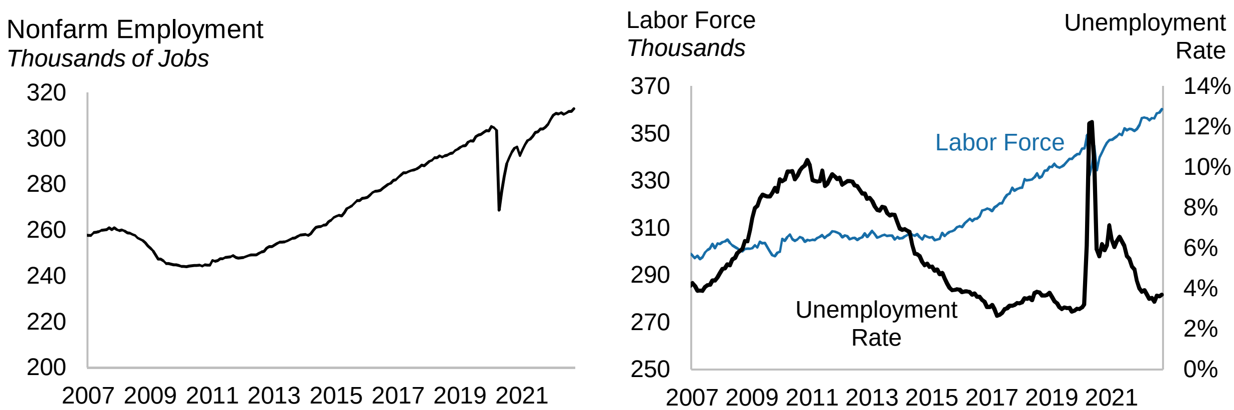
	2018	2019	2020	2021	YTD 2022
Employment Growth[1]					
Colorado Springs MSA	2.2%	2.5%	-2.7%	3.5%	3.5%
Unemployment Rate[2]	3.6%	3.1%	7.0%	5.6%	3.7%
Housing Permit Growth[3]					
Total	15.4%	-3.8%	25.7%	34.7%	15.3%
Single Family	9.6%	-4.1%	24.4%	0.7%	-21.0%
Nonresidential Construction Growth[4]					
Value of Projects	20.9%	0.5%	47.1%	2.0%	-58.8%
Square Footage of Projects	9.3%	5.3%	124.5%	-46.7%	-48.6%
Level (Thousands)	2,841	2,992	6,719	3,584	1,485
Number of Projects	-1.3%	-31.1%	16.3%	-27.1%	23.5%
Level	543	374	435	317	284
Housing Market[5]					
Average Sale Price – Single Family	9.9%	5.8%	13.2%	18.2%	12.2%
Level (Thousands)	$346	$366	$417	$492	$546
Inventory – Single Family	3.0%	-9.8%	-34.7%	-30.0%	107.7%
Home Sales – Single Family	-5.3%	1.9%	6.2%	4.0%	-13.4%
Retail Sales Growth[6]	9.2%	6.5%	8.6%	18.3%	10.9%

MSA = Metropolitan statistical area.
[1]U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through September 2022.
[2]U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through September 2022.
[3]U.S. Census Bureau. Growth in the number of residential building permits. Data through September 2022.
[4]F.W. Dodge. Data through September 2022.
[5]Colorado Association of Realtors. Data through October 2022.
[6]Colorado Department of Revenue. Data through August 2022.

Labor market. The labor market in Colorado Springs remains tight with an unemployment rate of 3.7 percent in September, despite slowing gains in employment and labor force participation over most of 2022. Employment in Colorado Springs rebounded more quickly from the pandemic-induced recession than other regions, as the region's economy relies less on the sectors that were most severely affected—such as oil and gas, leisure and hospitality, and tourism. Key employers, such as those in national defense, experienced fewer pandemic-induced disruptions, while the addition of an Amazon fulfillment center in the summer of 2021 brought more jobs to the region. Colorado Springs employers added jobs at a faster rate than those in other regions in 2021, but employment growth has stagnated since, growing by only 0.9 percent since January 2022 (Figure 56, left). Low unemployment rates may constrain employment growth due to a lack of available labor, a problem which should be eased over time by a quickly growing population.

El Paso County is the state's most populous county, and its population growth has outpaced that of the state as a whole every year since 2016. Projections from the State Demography Office indicate that its population will continue to grow more quickly than Denver's and the state's over the next five years. The growing population contributed to a larger labor force (Figure 56, right), which has bolstered employment growth in recent years and may help ease labor shortage issues going forward.

Figure 56
Colorado Springs Labor Market Activity



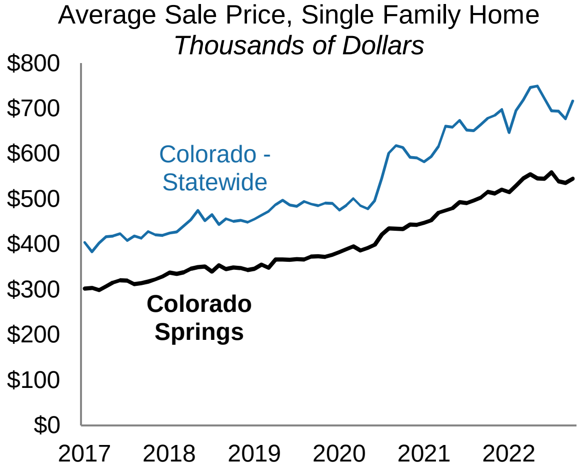
Source: U.S. Bureau of Labor Statistics; CES data (left) and LAUS data (right). Data are seasonally adjusted through September 2022. LAUS data include Legislative Council Staff adjustments prior to 2010.

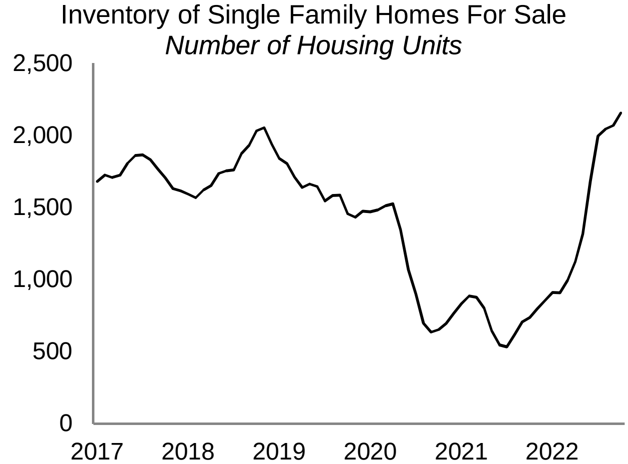
Housing market. Demand has outpaced supply of housing in Colorado Springs over the past two years, but there are signs that the market is moving closer to equilibrium. Home prices in Colorado Springs tend to be lower than the state as a whole, but prices are quickly increasing as the population continues to grow. As of October 2022, however, there are signs that demand for housing is coming more in line with supply. According to Colorado Association of Realtors, average home prices in El Paso County increased by 5.5 percent between October 2022 and October 2021, which is significantly slower than the 18.2 percent growth seen the year prior (Figure 57, left). Additionally, homes are staying on the market longer, as the average time a single family home is on the market before sale is 32 days, up from 14 days at the same time last year.

The supply of homes available to buyers plummeted in 2020 and 2021 as demand rose steeply, but has rebounded in 2022. Inventory of single family homes has now surpassed pre-pandemic levels; in October 2022, inventory was nearly three times what it was a year prior (Figure 57, right). The rebound in inventories is driven by a lower volume of home sales combined with growth in homebuilding.

Residential homebuilding continues to be strong. Permits issued to homebuilders increased by roughly 26 percent in 2020 and 35 percent last year, and are again on pace to post gains, up 15.3 percent through September 2022 compared with the same period in 2021. Most of this building growth comes from multifamily housing, as single family permits are down 21 percent year-to-date after posting solid gains the prior two years. Residential homebuilding is expected to continue to rise due to population growth, but will be tampered by higher interest rates.

Figure 57
Colorado Springs Residential Construction and Inventory

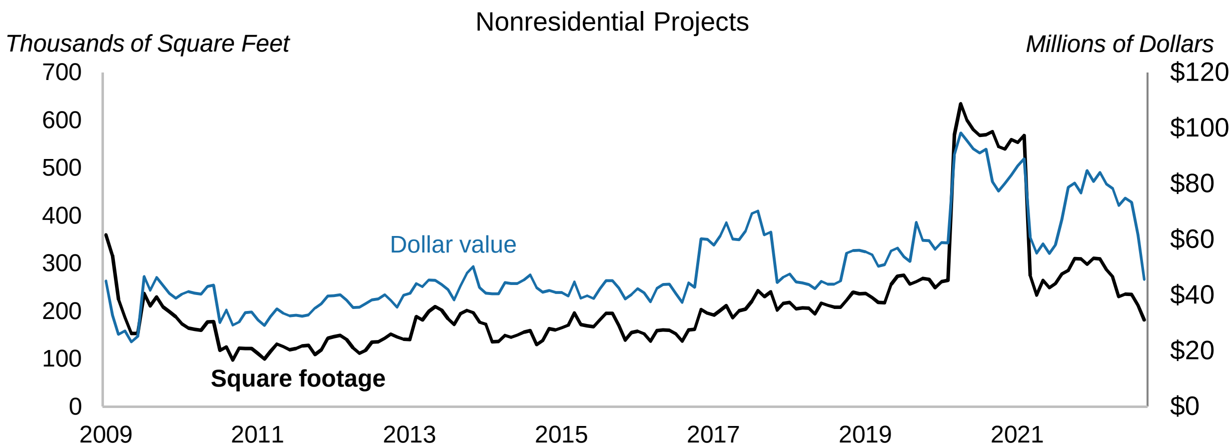




Source: Colorado Association of Realtors. Data are seasonally adjusted through October 2022.

Nonresidential construction. Nonresidential construction activity declined sharply in September, with 2022 activity falling below peak 2021 levels. Nonresidential construction saw an unprecedented surge in activity in 2021 due to Amazon's new 3.7 million square foot fulfillment center. Firms are expected to face headwinds from inflation in construction materials, labor constraints, and rising interest rates over the coming year. Public sector construction is expected to rise as funds distributed through the 2021 Infrastructure Investment and Jobs Act are distributed and spent.

Figure 58
Colorado Springs Nonresidential Construction



Source: F.W. Dodge. Data shown as 12-month moving averages. Data through September 2022.

San Luis Valley Region

Among the nine economic regions identified in this forecast, the San Luis Valley has the state's smallest and most ethnically diverse population and its lowest household incomes. The economy of the region's six counties is largely agricultural. The region's labor and housing markets show signs of cooling amidst tightening monetary policy. While an active monsoon season lifted the region from drought, rising input costs and unpredictable weather remain key concerns for the region's agricultural producers. Economic indicators for the region are summarized in Table 32.

Table 32
San Luis Valley Region Economic Indicators
Alamosa, Conejos, Costilla, Mineral, Rio Grande, and Saguache Counties

	2018	2019	2020	2021	YTD 2022
Employment Growth[1]	2.9%	1.0%	-4.5%	3.3%	4.7%
Unemployment Rate[1]	4.1%	3.6%	6.4%	5.7%	3.9%
Barley[2]					
Acres Harvested	53,000	52,000	47,000	47,000	NA
Crop Value ($/Acre)	$660	$672	$709	$548	NA
Potatoes[2]					
Acres Harvested	55,000	51,000	53,800	52,400	NA
Crop Value ($/Acre)	$3,942	$4,709	$4,494	$4,674	NA
Housing Permit Growth[3]	16.3%	-11.1%	13.9%	28.6%	-23.9%
Housing Market[4]					
Average Sale Price – Single Family	11.9%	8.1%	18.7%	30.5%	6.9%
Level (Thousands)	$203	$226	$270	$343	$355
Inventory – Single Family	-9.5%	-28.7%	-25.3%	-44.0%	13.8%
Home Sales – Single Family	0.6%	-15.9%	27.8%	7.1%	-26.3%
Retail Sales Growth[5]	10.1%	5.0%	8.8%	17.1%	7.5%
National Park Recreation Visits[6]	-9.0%	19.1%	-12.5%	30.6%	-18.7%

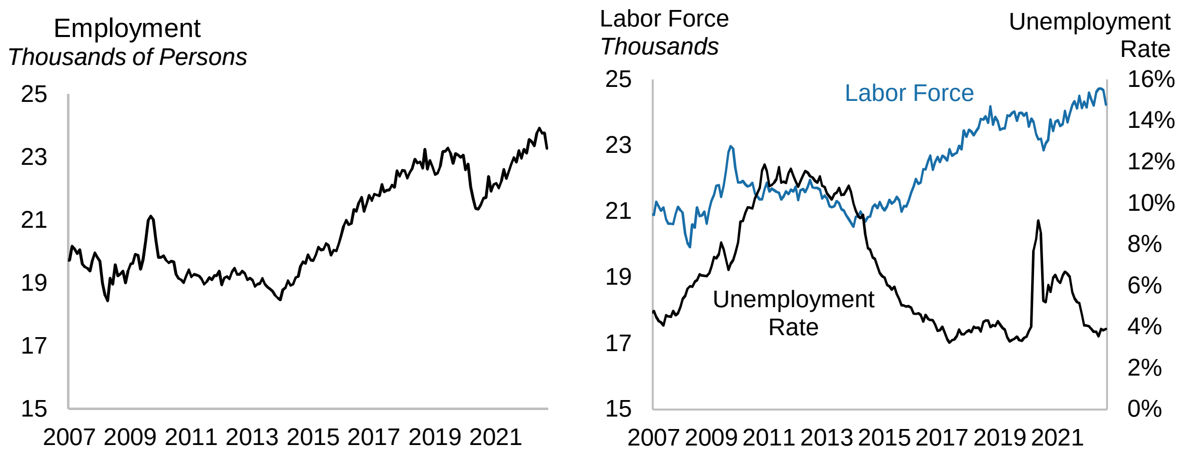
NA = Not available.
[1]U.S. Bureau of Labor Statistics, LAUS (household survey). Data through September 2022.
[2]National Agricultural Statistics Service, statewide data. Data through September 2022.
[3]F.W. Dodge. Data through September 2022.
[4]Colorado Association of Realtors. Data through October 2022.
[5]Colorado Department of Revenue. Data through August 2022.
[6]National Park Service. Data through September 2022. Recreation visits for Great Sand Dunes National Park and Preserve.

Agricultural industry. With over 70 varieties grown in the region, the San Luis Valley is the second biggest potato-producing area in the United States after Idaho. Other principal crops include hay, lettuce, wheat, and barley, a key input for Coors beer, with hemp and quinoa acreages on the rise. Drought conditions reduced last year's potato shipments by about 100 million pounds, from the average of 1.6 billion pounds shipped annually. Fluctuating weather conditions throughout the growing season are expected to impact the 2022-23 marketing year as well, and U.S. potato prices were up sharply in the third quarter. Higher input costs and labor shortages have plagued the Valley's producers, while higher freight costs have conversely boosted domestic demand as purchasers substitute away from Idaho potatoes to more local supply chains. After years of negotiations, a recently completed trade agreement with Mexico is expected to boost international demand, with San Luis Valley producers well-positioned geographically to take advantage of the newly opened market.

The region is a high desert, typically receiving less than eight inches of precipitation annually. Irrigation for crops relies on groundwater, reservoirs, and rivers fed by winter snowpack, which has been depleted by the impacts of climate change. Weather and access to water remain key concerns for San Luis Valley agricultural producers. Thanks to an active monsoon season that brought much-needed additional precipitation to the region, drought conditions have entirely receded from the region, with some abnormally dry conditions remaining along the western and southeastern edges, according to the U.S. Drought Monitor. The precipitation has not, however, restored reservoirs and mitigated groundwater concerns, and areas of the valley are at risk of well shutoffs to meet the Rio Grande Water Conservation District's water sustainability goals. Recent state legislation provides funding to help bolster efforts to recover the aquifers in the Rio Grande Basin.

Labor market. As the state's least populous region, the San Luis Valley accounts for less than 1 percent of statewide employment. In addition to natural resources and mining (which includes agriculture), key sectors include education and health services; trade, transportation, and utilities; and public administration. As elsewhere in the state and nation, labor markets show early signs of slowing, with a decline in both the labor force and employment in September (Figure 59). Although both are still up year-to-date, by 2.3 percent and 4.7 percent, respectively, compared to the same period last year. The unemployment rate ticked up slightly in September (Figure 59, right), bringing the average for the year to 3.9 percent, the second highest among the state's nine regions, but well below the Pueblo-Southern Mountains region's 5.3 percent.

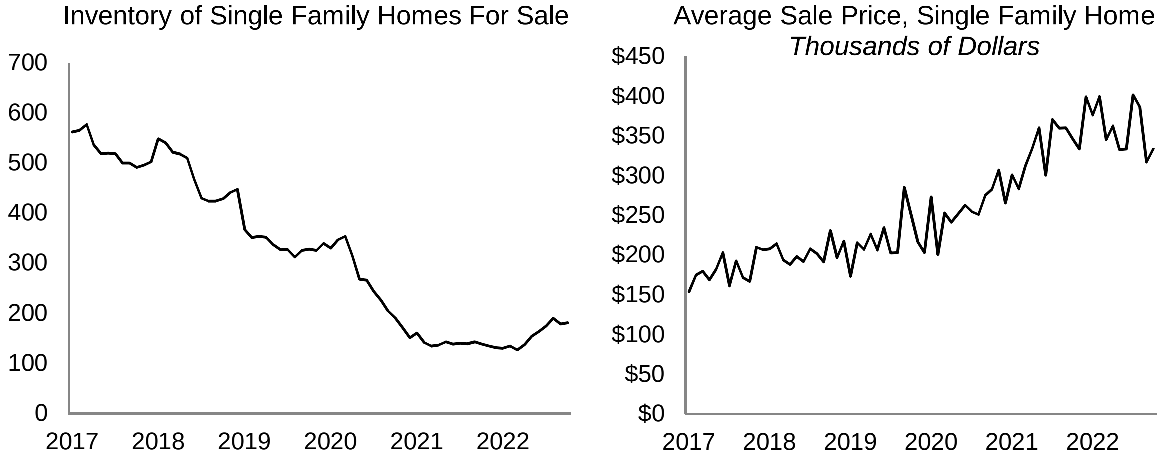
Figure 59
San Luis Valley Labor Market Activity



U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through September 2022. Includes Legislative Council Staff adjustments prior to 2010.

Housing and population. With 20 percent of its population aged 65 and over, compared with the statewide share of 16 percent, the San Luis Valley economy faces labor force challenges, as well as shifting demands for housing, health care and other services associated with an aging population.

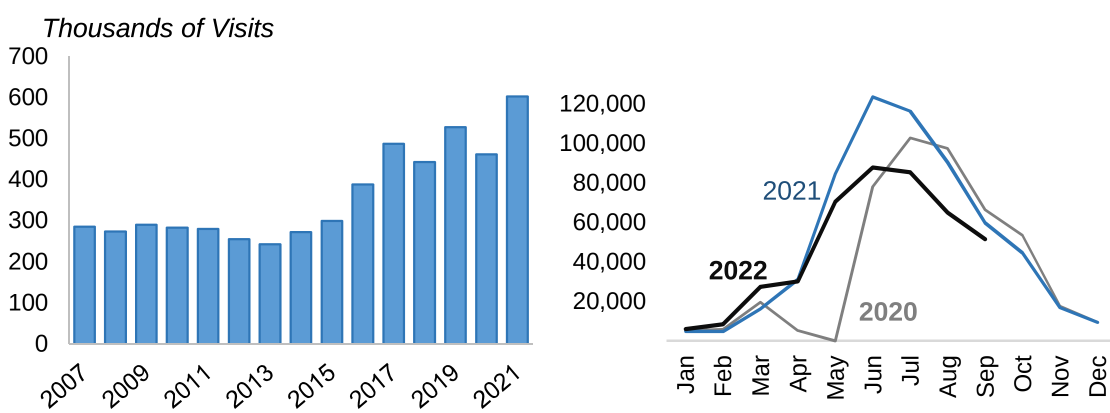
Figure 60
San Luis Valley Housing Market Activity



Source: Colorado Association of Realtors. Data are seasonally adjusted and through October 2022.

After increasing by 28.6 percent in 2021, housing permits issued in the San Luis Valley are down by 23.9 percent through September 2022, compared with the same period in 2021. As in the state's other regions, housing markets in the region were hot in 2021, with declining inventory pushing up housing prices (Figure 60). Housing markets have cooled in recent months as interest rate hikes tamp down demand against rising housing inventory. Single family home prices are up 6.9 percent through October 2022, compared with the same period last year, according to the Colorado Association of Realtors. At $355,000, the average price of a single-family home sold in the area in 2022 remains well below the statewide average price of $709,000.

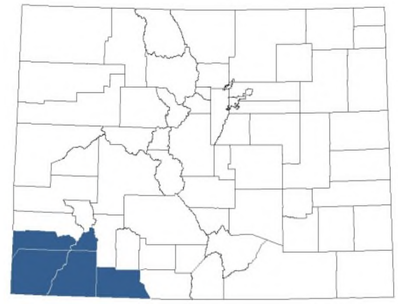
Figure 61
Visits to Great Sand Dunes National Park and Preserve



Source: National Park Service. Data through September 2022.

Tourism. Visits to the Great Sand Dunes National Park and Preserve were up 30.6 percent in 2021 following pandemic-related park closures and dampened tourist activity in early 2020 (Figure 61, left). Through September 2022, park visits have moderated, and are down 18.7 percent compared with the same period in 2021 (Figure 61, right).

Southwest Mountain Region



The southwest mountain region comprises five counties in the southwest corner of the state. The area's diverse economy receives significant contributions from agriculture, tourism, and natural gas extraction, as well as typical regional services like health care and social assistance. Like many areas of the state with a heavy reliance on tourism, the COVID-19 pandemic significantly impacted regional economic activity. The regional economy continues to expand, although recent data indicate a slowing labor market. The region has been challenged by ongoing drought conditions, a slowing residential real estate market, slower home building activity, and slower summer travel season. Economic indicators for the region are summarized in Table 33.

Table 33
Southwest Mountain Region Economic Indicators
Archuleta, Dolores, La Plata, Montezuma, and San Juan Counties

	2018	2019	2020	2021	YTD 2022
Employment Growth[1]	1.7%	-0.3%	-5.1%	5.3%	4.4%
Unemployment Rate[1]	3.2%	2.8%	6.9%	5.2%	3.3%
Housing Permit Growth[2]	24.1%	-33.9%	12.4%	18.4%	-21.4%
Housing Market[3]					
Average Sale Price - Single Family	7.1%	7.3%	16.0%	25.4%	19.5%
Level (Thousands)	$416	$452	$541	$656	$751
Inventory - Single Family	-3.7%	-10.4%	-29.3%	-47.5%	8.9%
Home Sales - Single Family	-0.3%	-13.5%	31.3%	-1.2%	-19.8%
Retail Sales Growth[4]	2.6%	5.6%	10.3%	20.1%	4.7%
National Park Recreation Visits[5]	-7.6%	-2.1%	-48.1%	87.2%	-10.9%

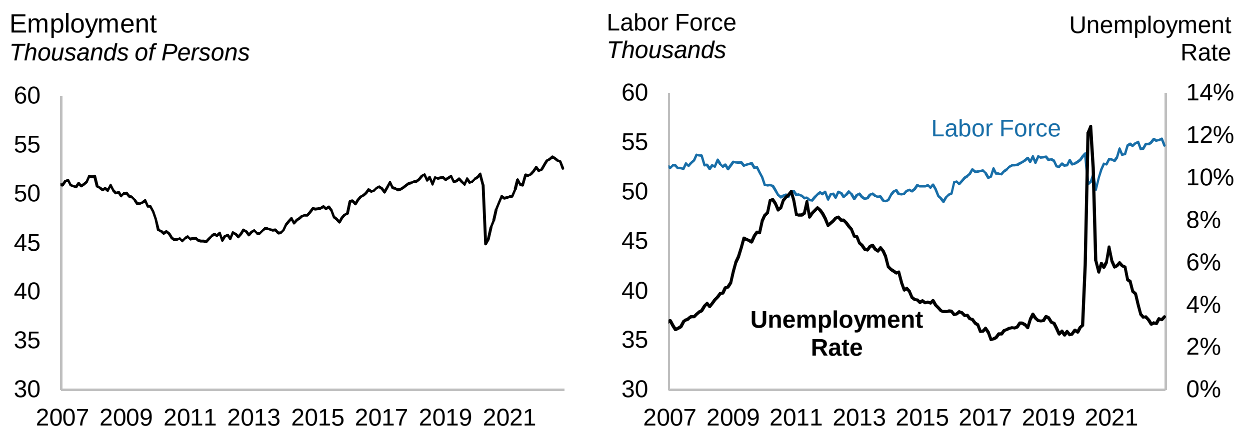
[1]U.S. Bureau of Labor Statistics, LAUS (household survey). Data through September 2022.
[2]F.W. Dodge. Permits for residential units. Data through September 2022.
[3]Colorado Association of Realtors. Seasonally adjusted. Data through October 2022.
[4]Colorado Department of Revenue. Seasonally adjusted. Data through August 2022.
[5]National Park Service. Recreation visits for Mesa Verde National Park and Hovenweep National Monument. Data through September 2022.

Labor market. The labor market in the Southwest Mountain region weakened somewhat in the third quarter of 2022 as the unemployment rate ticked up and employment fell over the quarter. Data indicate the unemployment rate ticked up to 3.4 percent in September after falling as low as 3.1 percent early in the summer. Year-to-date, the unemployment rate averaged 3.3 percent through September and remains near its pre-pandemic low (Table 33). However, the rising unemployment rate was accompanied by falling employment in the third quarter. Data indicate that household employment in the region fell for four consecutive months between May and September 2022. The regional economy was likely impacted by the high energy prices posted over the summer months that impacted travel. The region's labor force also declined slightly from the second to third quarter, falling 0.1 percent. Despite slowing, household employment remained about 2.0 percent above pre-pandemic levels.

At the industry level, employment growth during the recovery has been aided by resurgent growth in professional and business services, trade and transportation, and leisure and hospitality. Each sector comprises a significant share of regional employment. Data through the second quarter of 2022 indicate that each of these sectors had exceeded pre-recession employment and contributed overall to the regional recovery. However, for the region's largest counties, employment in several sectors continued to lag pre-recession levels through the first half of the year. This included natural resources, construction, manufacturing, and education and health services. Government employment for the region is still recovering as well, and communities continue to report difficulty filling vacant positions for temporary workers, permanent staff, and public schools.

Slower employment growth is expected to continue into 2023 amid higher interest rates and slowing economic conditions that will constrain consumer demand. Travel activity could be dampened after the nation's households have largely drawn down savings accumulated during the pandemic and higher interest rates impacted consumers' wealth. Meanwhile, communities in the region still contend with the high cost of housing for many essential workers that could further limit employment gains.

Figure 62
Southwest Mountain Region Labor Market Activity



Source: U.S. Bureau of Labor Statistics; LAUS. Data are seasonally adjusted and are through September 2022.

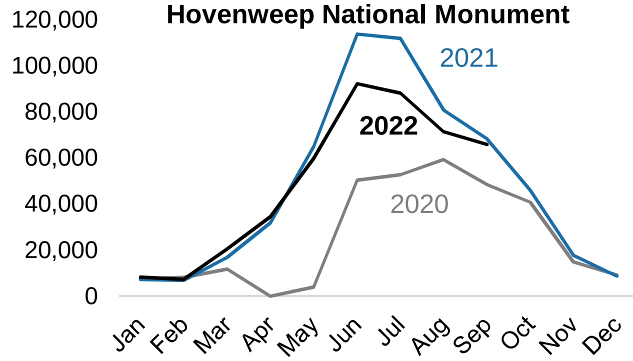
Retail sales. Emerging from the recession, the region's retail sales increased more than 20.0 percent in 2021, faster than the 17.3 percent pace recorded statewide. However, growth slowed significantly from the end of 2021 to August 2022. In August, retail sales were up just 4.7 percent year-to-date. Although sales increased steadily over the summer, sales have likely been outpaced by inflationary pressures for the year, resulting in real declines. Prices in the Denver-Aurora-Lakewood area, the closest indicator of inflation in the region, were up 7.7 percent year-over-year in September, indicating a decline in real regional sales. Although the holiday season will help boost sales to end the year, slow but steady sales growth is expected in 2023 following the post-pandemic surge and slower economic growth.

Housing. Like national and statewide trends, the housing market in the region recorded robust construction activity emerging from the recession, which further accelerated through the first half of 2021. The number of residential construction permits issued to builders began to slow through the latter half of the year, but remained up 18.4 percent at year end. Permit activity slowed further in 2022, with data indicating issuances were down 21.4 percent through the first nine months of the year. Construction has likely been impacted by rising interest rates that have reduced demand from potential buyers and affected project financing.

Through October 2022, single family home sales were down 19.8 percent year-to-date (Table 33). The slower market has contributed to rising inventory levels in the past few months, which rose by 8.9 percent year-to-date in October. In October, the average price of a single family home was up 19.2 percent year-to-date, a slight moderation compared with the 25.4 percent rate of growth recorded in 2021. Amid slower sales and rising inventory, price growth is expected to moderate further over the latter half of the year, but it should be noted that sales of high-end homes can sway price data in the short term.

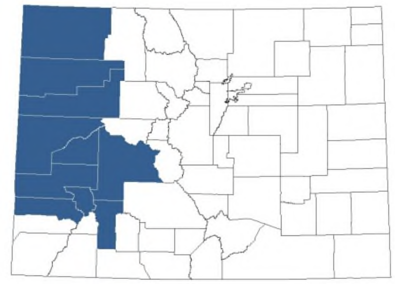
Tourism. Figure 63 compares monthly visits to Mesa Verde National Park and nearby Hovenweep National Monument from 2020 to 2022. Visits in 2022 significantly lagged year-ago levels to start the summer months, despite tracking closely with 2021 levels through the first four months of the year. As of September, visits were down nearly 11 percent year-to-date. Both locations were likely impacted by high gas and energy prices over the summer that reduced visitor traffic. Passenger traffic at the Durango-La Plata County airport continued to lag pre-recession 2019 levels as travel activity dipped over the summer months. Pushed down further due to runway maintenance in September, passengers were down about 7.3 percent year-to-date in October compared with the same months in 2019. Smaller regional airports have struggled with fewer flight offerings as airlines have dealt with staff shortages. Travel may have also been impacted by high ticket prices.

Figure 63
Visits to Mesa Verde National Park and Hovenweep National Monument



Source: National Park Service. *Data through September 2022.

Western Region



The ten-county western region has a diverse economy. Key industries in the more northern counties of Garfield, Mesa, Moffat, and Rio Blanco include energy and agriculture, while the counties of Delta, Gunnison, Hinsdale, Montrose, Ouray, and San Miguel are more reliant on tourism, mining, and retiree-related spending. Following the pandemic-induced recession, the western region's labor market recovered faster than the state overall, but stalled over the course of 2022. Additionally, after a strong rebound in 2021, the construction and tourism industries have also slowed in the area. Economic indicators for the region are summarized in Table 34.

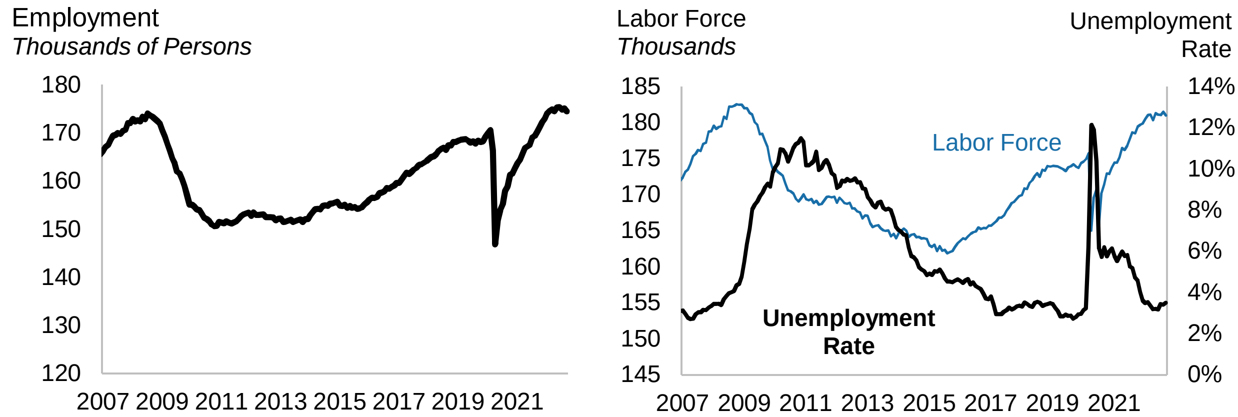
Table 34
Western Region Economic Indicators
Delta, Garfield, Gunnison, Hinsdale, Mesa, Moffat, Montrose, Ouray, Rio Blanco, and San Miguel Counties

	2018	2019	2020	2021	YTD 2022
Employment Growth[1]					
Western Region	2.7%	1.2%	-5.1%	5.4%	4.6%
Grand Junction MSA	2.5%	1.4%	-5.0%	4.5%	3.8%
Unemployment Rate[2]	3.4%	3.0%	6.9%	5.2%	3.4%
Natural Gas Production Growth[3]	5.2%	-0.9%	-7.7%	-9.1%	-7.3%
Housing Permit Growth[4]	15.5%	-11.7%	31.5%	20.8%	-5.7%
Nonresidential Construction Growth[4]					
Value of Projects	2.8%	64.7%	-66.9%	225.3%	5.5%
Square Footage of Projects	27.4%	7.0%	-26.4%	53.1%	27.3%
Level (*Thousands*)	608	651	479	733	680
Number of Projects	18.0%	20.3%	22.5%	29.9%	14.5%
Level	59	71	87	113	95
Housing Market[5]					
Average Sale Price - Single Family	0.8%	3.3%	18.7%	26.1%	6.0%
Level (*Thousands*)	$334	$347	$421	$519	$538
Inventory - Single Family	-9.2%	-12.3%	-26.9%	-42.4%	18.8%
Home Sales - Single Family	3.3%	-7.2%	12.4%	1.6%	-17.5%
National Park Recreation Visits[6]	-5.8%	2.3%	-0.1%	12.7%	-10.5%

MSA = Metropolitan statistical area.
[1]U.S. Bureau of Labor Statistics, CES (establishment survey). Seasonally adjusted. Data through September 2022.
[2]U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data through September 2022.
[3]Colorado Oil and Gas Conservation Commission. Data through August 2022.
[4]F.W. Dodge. Data through September 2022.
[5]Colorado Association of Realtors. Data through October 2022.
[6]National Park Service. Recreation visits for Black Canyon of the Gunnison National Park, Colorado National Monument, Dinosaur National Monument, and Curecanti National Recreation Area. Data through August 2022.

Labor market. Employment levels in the western region rebounded quickly following the pandemic-induced recession, exceeding pre-recession levels by late 2021, several months ahead of the state overall. However, the western region has seen the slowest employment growth in the state over the past year, as other regions have caught up to its fast initial recovery. Employment in the region increased only 2.0 percent over the past year compared to 4.1 percent for the state overall. As seen in Figure 64, employment levels have been nearly flat since the beginning of 2022 and the unemployment rate ticked upwards over the summer. As of September 2022, the unemployment rate in the western region registered 3.5 percent, just above the statewide rate of 3.4 percent.

Figure 64
Western Region Labor Market Activity



Source: U.S. Bureau of Labor Statistics; CES (left) and LAUS (right). Data prior to 2010 adjusted by Legislative Council Staff. Data are seasonally adjusted and are through September 2022.

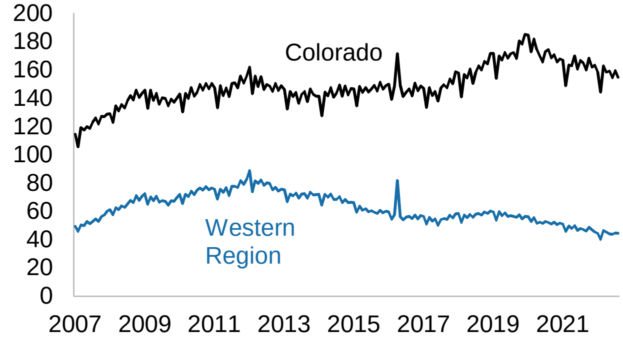
Construction. The residential construction industry surged in 2020 and 2021, spurred by a shift in demand toward more rural areas and larger houses as a result of the pandemic. As of September 2022, however, the number of housing permits issued to builders has decreased by 5.7 percent over the same period in 2021. The recent rise in interest rates is likely stifling new home construction as higher rates reduce demand from home buyers and increases costs for home builders. The western region saw intense home-price appreciation, similar to the rest of the state, with the average sale price for a single family home increasing by nearly 19 percent in 2020 and by 26 percent in 2021. As of September 2022, home prices are up another 6 percent over the same period in 2021.

Nonresidential construction suffered a slowdown in 2020, but bounced back with strong growth in 2021. This growth was largely driven by significant investments in the Riverfront at Dos Rios development in Grand Junction, the new library building in Gunnison County, the expansion of the Gunnison-Crested Butte Airport, and an 80-megawatt solar project in the Delta-Montrose area. As of September 2022, nonresidential construction activity has slowed but remains relatively strong, with a 5.5 percent increase in the value of projects, a 27.3 percent increase in square footage, and a 14.5 percent increase in the number of projects underway compared to the same period in 2021. Given the strength of the industry in 2021, even a modest increase over those levels would indicate continued strength in the nonresidential construction sector.

Energy sector. The region is home to the Piceance Basin, a sizable natural gas resource in the state. Natural gas production in the region has generally been in decline since 2012. After declining by 9.1 percent in 2021, natural gas production shrank by an additional 7.3 percent in 2022 year-to-date through August (Figure 65). Natural gas prices have moderated since spiking in early 2021 but are expected to remain well above 2020 prices through 2023.

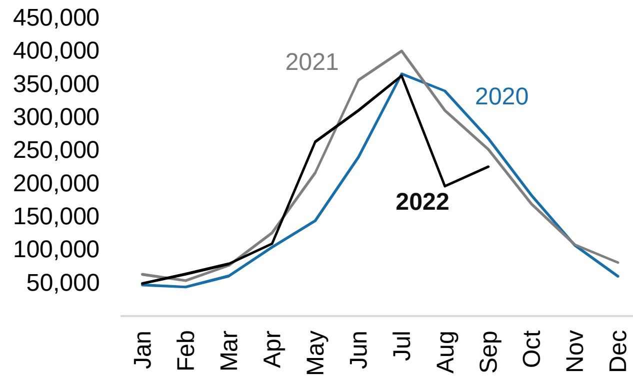
Tourism. Visits to national parks (Figure 66) in 2022 has fallen by 10.5 percent on a year-to-date basis compared to 2021. Much of this decline in visitation is attributable to ongoing roadwork on US 50, which has restricted travel to the Black Canyon of the Gunnison National Park and the Curecanti National Recreation Area.

Figure 65
Natural Gas Production
Billion Cubic Feet (BCF)



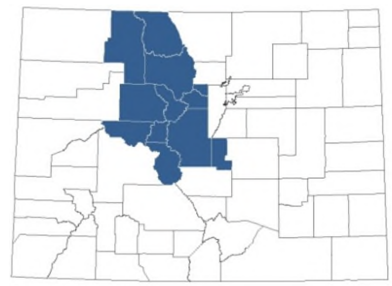
Source: Colorado Oil and Gas Conservation Commission. Data through August 2022.

Figure 66
Visits to Western Region National Parks



Source: National Park Service. Recreation visits for Black Canyon of the Gunnison National Park, Colorado National Monument, Dinosaur National Monument, and Curecanti National Recreation Area. Data through August 2022.

Mountain Region



The mountain region comprises twelve counties stretching from Poncha Pass north to the Wyoming border. The region is the state's most dependent on tourism, with a large share of workers employed in leisure and hospitality industries. The pandemic had severe impacts on the region; however, regional labor markets have recovered quickly with encouraging employment growth and a low unemployment rate. The region has benefited from the rapid nationwide economic recovery, increased travel activity, and strong retail sales, but has been challenged by rapidly rising home prices and sluggish construction activity. Economic activity in the region has begun to slow over the latter half of the year as economic challenges weigh on various markets. Economic indicators for the mountain region are presented in Table 35.

Table 35
Mountain Region Economic Indicators
Chaffee, Clear Creek, Eagle, Gilpin, Grand, Jackson, Lake, Park, Pitkin, Routt, Summit, and Teller Counties

	2018	2019	2020	2021	YTD 2022
Employment Growth[1]	2.9%	1.8%	-7.8%	7.3%	6.6%
Unemployment Rate[1]	2.6%	2.3%	8.0%	4.4%	2.8%
Housing Permit Growth[2]	68.0%	20.7%	-38.7%	30.7%	-1.3%
Nonresidential Construction Growth[2]					
Value of Projects	-78.0%	40.6%	84.5%	-55.0%	-11.9%
Square Footage of Projects	-65.1%	29.2%	20.9%	-20.8%	-14.7%
Level *(Thousands)*	708	915	1,106	876	579
Number of Projects	17.7%	-37.0%	69.6%	10.3%	7.7%
Level	73	46	78	86	70
Housing Market[3]					
Average Sale Price - Single Family	2.5%	12.6%	19.1%	33.1%	7.9%
Level *(Thousands)*	$842	$941	$1,261	$1,507	$1,552
Inventory - Single Family	-7.4%	5.1%	-30.7%	-43.2%	21.8%
Home Sales - Single Family	-3.0%	-1.6%	22.3%	1.3%	-23.2%
Retail Sales Growth[4]	7.3%	12.1%	3.8%	21.0%	19.2%

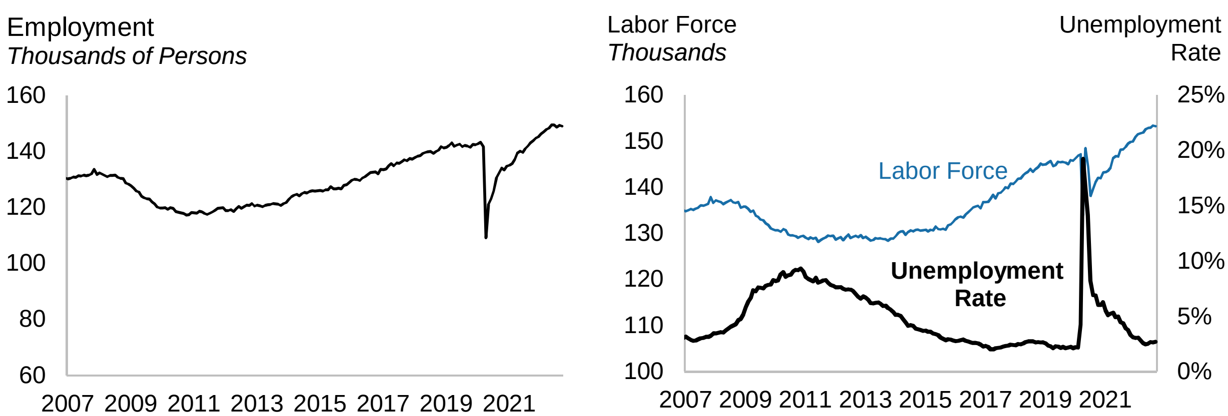
[1]U.S. Bureau of Labor Statistics, LAUS (household survey). Data through September 2022.
[2]F.W. Dodge. Data through September 2022.
[3]Colorado Association of Realtors. Data through October 2022.
[4]Colorado Department of Revenue. Data through August 2022.

Labor market. Labor market data indicate the pace of growth is slowing as the unemployment rate remained steady during the third quarter and employment growth for the region's households decelerated somewhat. Signaling a strong labor market, employment and participation in the labor force continued to trend well above pre-pandemic levels, likely aided during the recovery by more remote work after the pandemic. By the end of the third quarter, household employment was about 4.4 percent above pre-pandemic levels and the labor force was 4.7 percent higher. Year-to-date through September 2022, employment had increased 6.6 percent (Table 35), the fastest rate among Colorado's regions, however growth was minimal compared with the second quarter. Concurrently, labor force growth is also slowing and rose just 0.5 percent from the second quarter.

At an industry level, employers in most sectors have recovered all jobs lost during the pandemic. However, data from the Quarterly Census of Employment and Wages indicate employment during the 2021-22 ski season still lagged pre-recession levels, with employment during the first quarter of 2022 about 2.0 percent below the first quarter of 2020 as some businesses struggled to find workers, specifically for those in leisure and hospitality. The leisure and hospitality sector fared worse than employment in other industries, remaining nearly 8.0 percent below levels recorded in the first quarter of 2020. Resort areas and mountain communities have continued to implement measures to boost workers for the upcoming winter tourist season, including expanded recruiting efforts and workforce housing.

Looking ahead, employment is expected to continue to grow into 2023 as employers continue to add jobs and industries most impacted by the recession continue the recovery, however the pace of growth will remain slower than the rapid increase recorded over the first half of 2022. Employment growth is expected to be constrained by slowing economic conditions, slower growth in the labor force, and low levels of unemployment.

Figure 67
Mountain Region Labor Market Activity



Source: U.S. Bureau of Labor Statistics; LAUS. Data are seasonally adjusted and are through September 2022. Includes Legislative Council Staff adjustments prior to 2010.

Retail sales. Retail sales fell nearly 25 percent year-over-year in April 2020 at the height of the pandemic shutdowns. However, business activity quickly resumed as pandemic conditions eased over late 2020 and into 2021. The strong economic recovery and rapid price growth contributed to growing sales through the first eight months of 2022, with sales up more than 19 percent year-to-date through August. The year started off strong for ski resort communities that were aided by late season snow and resurgent skier traffic after crowd limitations were lifted. Although sales through the summer were up compared with 2021 levels, growth has slowed significantly over the second and third quarters. Year-over-year, sales were up about 9.0 percent in August, but have recorded minimal change since April. Communities further from the Front Range were impacted by higher gas prices during the summer that deterred would-be visitors. Visitor traffic may also have lagged as some communities focused less on marketing as areas struggled to keep up with demand following the pandemic.

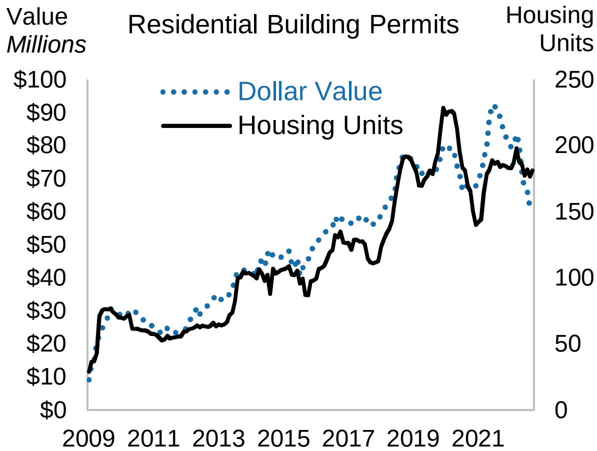
Similarly, real (inflation-adjusted) gains have slowed since the first quarter. Compared with the Denver-Aurora-Lakewood Consumer Price Index, the closest indicator of inflation for the region, sales outpaced changes in prices by about 25 percentage points in January 2022, but were only about 1.1 percent higher by July. Real sales growth is expected to hold steady through year end as sales keep pace with inflation. While an expected transition of consumer spending back to previous levels of spending on travel and related services will support some spending growth, slower economic activity is expected to weigh on potential increases.

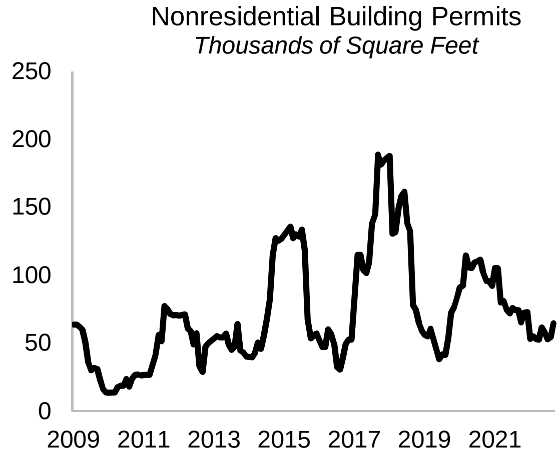
Housing. The residential housing market continued to slow in the mountain region after an initial post-pandemic surge in 2020. In 2021, data indicates single family home sales increased by just 1.3 percent as rapid price appreciation and low inventory dampened opportunities for many buyers. The market slowed further in 2022. Through October, sales were down by 23.2 percent year-to-date amid rising interest rates that impacted affordability and dampened demand. However, the market transition has also caused inventory levels to shift and prices are moderating. Despite remaining well below pre-pandemic levels—about 2,200 homes in July compared with a peak of more than 3,900 in August 2019—single family home inventory was up nearly 22 percent year-to-date. After growing by more than 33 percent in 2021, home prices are up just 7.9 percent year-to-date. Interest rates are expected to continue to rise into 2023, further weighing on sales and prices over the next year.

Construction. Following a solid rebound in 2021, rising interest rates and a slower housing market dampened residential construction activity in 2022. In September, permit issuances were down 1.3 percent year-to-date. Although, permit issuances have improved over the past few months, permits are expected to end the year down from 2021 levels on higher interest rates. Fortunately, downside pressures are expected to be partially offset by efforts to expand affordable housing in many mountain communities.

In September, nonresidential construction continued to track well below prior year levels, with the value of projects down nearly 12 percent year-to-date and square footage down nearly 15 percent. Nonresidential projects in the region have also trended smaller over the past two years as the number of projects continues to rise (Table 35). Nonresidential construction is on track to fall for the second consecutive year as businesses and investors navigate the high cost of labor and materials and increased cost of project financing. It should be noted that nonresidential construction in smaller markets is highly variable and can be heavily influenced by a few large projects. Rising interest rates and construction costs are expected to impact financing activity for new projects and will weigh on activity compared with the prior year.

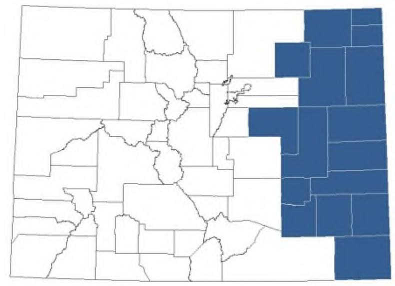
Figure 67
Mountain Region Construction Activity





Source: F.W. Dodge. Data shown as twelve-month moving averages. Data are not seasonally adjusted and are through September 2022.

Eastern Region



The eastern region includes 16 rural counties on Colorado's eastern plains. Agriculture is the primary industry in the region, with local businesses and government operations supporting local farming and ranching communities. While some production costs have moderated in recent months, rising feed costs and interest rates as well as drought conditions offset the boost from skyrocketing crop prices for the region's agricultural producers. The labor market recovery shows signs of stalling in recent months. In addition, six of the 16 counties has seen population growth during the pandemic, a reversal of pre-pandemic trends. Economic indicators for the region are presented in Table 36.

Table 36
Eastern Region Economic Indicators
Baca, Bent, Logan, Cheyenne, Crowley, Elbert, Kiowa, Kit Carson, Lincoln, Morgan, Otero, Phillips, Prowers, Sedgwick, Washington, and Yuma Counties

	2018	2019	2020	2021	YTD 2022
Employment Growth[1]	2.1%	0.8%	-3.9%	1.8%	3.0%
Unemployment Rate[1]	2.7%	2.3%	4.3%	4.2%	2.9%
Crop Price Changes[2]					
Wheat ($/Bushel)	34.6%	-7.0%	6.3%	37.7%	49.3%
Corn ($/Bushel)	2.8%	9.3%	-4.6%	53.8%	28.6%
Alfalfa Hay (Baled, $/Ton)	23.5%	14.3%	-6.6%	2.5%	-1.3%
Livestock[2]					
State Cattle and Calf Inventory Growth	2.6%	8.0%	1.9%	4.0%	0.5%
Milk Production	8.8%	5.5%	7.1%	2.3%	0.8%
Housing Permit Growth[3]	43.4%	0.2%	22.3%	21.7%	-5.7%
Housing Market[4]					
Average Sale Price – Single Family	6.7%	7.2%	6.3%	18.0%	10.3%
Level (Thousands)	$283	$303	$328	$382	$416
Inventory – Single Family	12.8%	3.5%	-22.6%	-28.9%	61.7%
Home Sales – Single Family	5.1%	0.6%	4.2%	9.9%	-0.8%
Retail Sales Growth[5]	9.4%	13.6%	3.3%	12.5%	17.1%

[1]U.S. Bureau of Labor Statistics, LAUS (household survey). Data through September 2022.
[2]National Agricultural Statistics Service statewide data. Data through September 2022.
[3]F.W. Dodge. Data through September 2022.
[4]Colorado Association of Realtors. Data through October 2022.
[5]Colorado Department of Revenue. Data through August 2022.

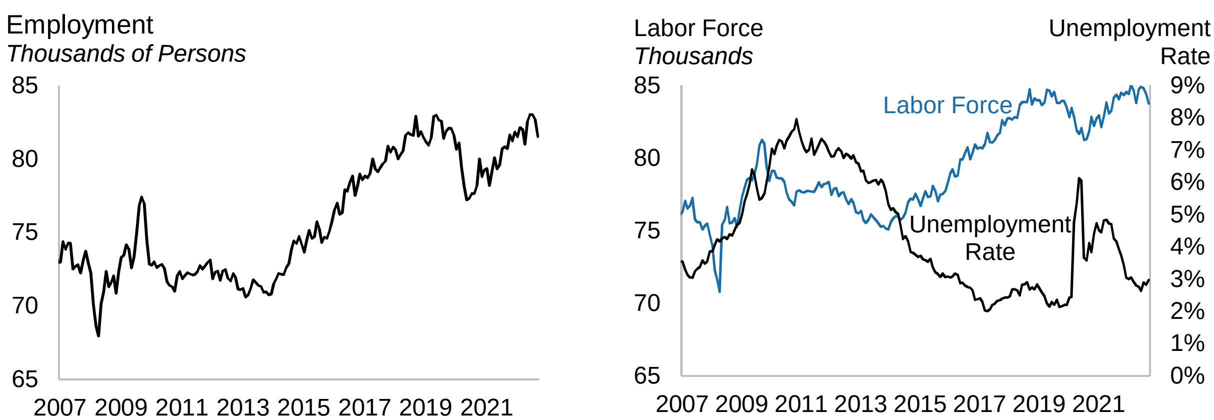
Agriculture and livestock. The eastern plains is the largest agricultural region in the state, and agriculture drives much of the region's economy. The continued economic recovery, supply chain disruptions, and rising costs for farmers, combined with adverse weather events, sent grain prices skyrocketing in 2021. Colorado corn and wheat prices reached multi-year highs in 2021, up 53.8 percent and 37.7 percent, respectively, from 2020. Compounded by geopolitical turmoil, these historic gains accompanied by volatility continued into 2022, with some signs in recent months that agricultural price pressures are abating. Colorado corn and wheat prices are still up by 28.6 percent and 49.3 percent, respectively, through September compared with the same period last year. The third quarter saw the easing of some production costs, including energy-related costs and some fertilizers, while farm loan interest rates and feed costs increased, the latter particularly in areas facing drought.

While the Rocky Mountains have seen improved drought conditions through the fall, conditions in the high plains, including Colorado's eastern plains, have substantially deteriorated, with almost all of the region in moderate to exceptional drought. Extreme and exceptional drought continues to be mostly confined to the northeastern corner of the state. Shrinking river flows and groundwater levels in the eastern plains are a key concern to the region's farmers, many of whom rely on irrigation for crops such as corn and wheat. A multi-state water compact governing the Republican River in northeastern Colorado will require the region's farmers to retire 25,000 irrigated acres of Colorado farmland in the coming years. Senate Bill 22-028 provides $30 million to bolster efforts to comply with the water compact, including providing funding to buy and retire wells and irrigated acreage.

Labor market. The eastern plains region accounts for about 2 percent of statewide employment. Relative to the state as a whole, the region employs a greater share of its population in farming, (9.2 percent compared with 1.7 percent statewide), manufacturing (8.8 percent compared with 5.5 percent statewide), and public administration (11.4 percent compared with 5.4 percent statewide).

While regional employment declined by only 5.7 percent during the pandemic recession (December 2019 to April 2020), and outperformed the state through the early recovery, employment has lagged in recent months. It has declined since July, but is still up 3.0 percent through September compared with the same period last year (Figure 68, left), the lowest growth rate among the state's nine regions, and compared with 5.4 percent growth statewide during the same period. A declining labor force partially offset declines in employment, leaving the unemployment rate at 2.9 percent, up slightly from its post-pandemic recession low of 2.6 percent (Figure 68, right), and below the statewide rate of 3.4 percent in September.

Figure 68
Eastern Region Labor Market Activity



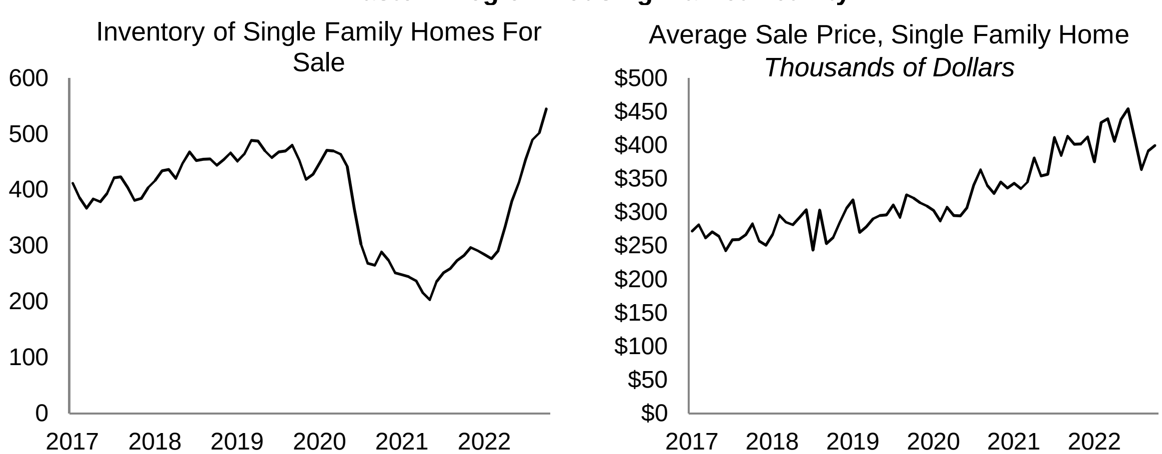
Source: U.S. Bureau of Labor Statistics, LAUS (household survey). Seasonally adjusted. Data are through September 2022. Includes Legislative Council Staff adjustments prior to 2010.

Housing and population. The eastern plains is the most sparsely populated of the state's regions, with its 16 counties accounting for 2.8 percent of the state's population in 2021. Recent estimates from the State Demography Office indicate significant shifts in regional population patterns during the pandemic. While the area saw its population decline by 169 people on net between 2019 and 2020, it grew by 625 people on net between 2020 and 2021, with Washington, Bent, and Baca counties shifting from population decline to growth, joining already growing Elbert, Lincoln and Crowley counties.

As elsewhere in the state and nation, counties across the eastern plains face housing shortages and affordability challenges. Counties bordering the front range metropolitan areas have experienced sustained population growth and rapid home price appreciation as people move from urban to suburban and exurban areas in search of more affordable housing. After increasing by more than 20 percent in both 2020 and 2021, housing permits in the region are down by 5.7 percent through September. Many rural counties in the eastern part of the region face housing affordability issues as well, associated with aging housing stock, labor and materials scarcity, and few housing starts combined with low incomes.

Housing inventory for sale is up by 61.7 percent through October 2022, compared with the same period in 2021, and has exceeded pre-pandemic levels (Figure 69, left). However, higher interest rates are slowing home sales, which are down 0.8 percent through October, and cooling home price appreciation (Figure 69, right). Regional trends are heavily influenced by the housing market in Elbert County, which accounts for almost one third of the inventory of single family homes for sale in the region, and where average home prices, at almost $762,000, are up 8.5 percent through October 2022, compared with the same period last year.

Figure 69
Eastern Region Housing Market Activity



Source: Colorado Association of Realtors. Data are seasonally adjusted and through October 2022.

Appendix: Historical Data

National Economic Indicators

Calendar Years	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
GDP ($ *Billions*)[1]	$14,474.2	$14,769.9	$14,478.1	$15,049.0	$15,599.7	$16,254.0	$16,843.2	$17,550.7	$18,206.0	$18,695.1	$19,479.6	$20,527.2	$21,372.6	$20,893.7	$22,996.1
Percent Change	4.8%	2.0%	-2.0%	3.9%	3.7%	4.2%	3.6%	4.2%	3.7%	2.7%	4.2%	5.4%	4.1%	-2.2%	10.1%
Real GDP ($ *Billions*)[1]	$15,623.9	$15,643.0	$15,236.3	$15,649.0	$15,891.5	$16,254.0	$16,553.3	$16,932.1	$17,390.3	$17,680.3	$18,079.1	$18,606.8	$19,032.7	$18,384.7	$19,427.3
Percent Change	2.0%	0.1%	-2.6%	2.7%	1.5%	2.3%	1.8%	2.3%	2.7%	1.7%	2.3%	2.9%	2.3%	-3.4%	5.7%
Unemployment Rate[2]	4.6%	5.8%	9.3%	9.6%	8.9%	8.1%	7.4%	6.2%	5.3%	4.9%	4.4%	3.9%	3.7%	8.1%	5.4%
Inflation[2]	2.9%	3.8%	-0.3%	1.6%	3.1%	2.1%	1.5%	1.6%	0.1%	1.3%	2.1%	2.4%	1.8%	1.2%	4.7%
10-Year Treasury Note[3]	4.6%	3.7%	3.3%	3.2%	2.8%	1.8%	2.4%	2.5%	2.1%	1.8%	2.3%	2.9%	2.1%	0.9%	1.5%
Personal Income ($ *Billions*)[1]	$12,021.4	$12,477.6	$12,080.4	$12,594.5	$13,339.3	$14,014.3	$14,193.7	$14,976.6	$15,685.2	$16,096.9	$16,850.2	$17,706.0	$18,424.4	$19,627.6	$21,092.8
Percent Change	5.6%	3.8%	-3.2%	4.3%	5.9%	5.1%	1.3%	5.5%	4.7%	2.6%	4.7%	5.1%	4.1%	6.5%	7.5%
Wage & Salaries ($ *Billions*)[1]	$6,396.4	$6,534.1	$6,249.1	$6,372.5	$6,626.2	$6,928.1	$7,114.0	$7,476.3	$7,859.5	$8,091.3	$8,474.7	$8,900.5	$9,323.5	$9,444.1	$10,343.8
Percent Change	5.6%	2.2%	-4.4%	2.0%	4.0%	4.6%	2.7%	5.1%	5.1%	2.9%	4.7%	5.0%	4.8%	1.3%	9.5%
Nonfarm Employment (*Millions*)[2]	138.0	137.2	131.3	130.3	131.9	134.2	136.4	138.9	141.8	144.3	146.6	148.9	150.9	142.1	146.1
Percent Change	1.1%	-0.5%	-4.3%	-0.7%	1.2%	1.7%	1.6%	1.9%	2.1%	1.8%	1.6%	1.6%	1.3%	-5.8%	2.8%

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	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Nonfarm Employment (*Thousands*)[1]	2,330.3	2,349.6	2,244.3	2,221.0	2,257.4	2,311.7	2,380.5	2,463.5	2,541.2	2,601.5	2,660.0	2,726.9	2,790.0	2,651.3	2,745.3
Percent Change	2.3%	0.8%	-4.5%	-1.0%	1.6%	2.4%	3.0%	3.5%	3.2%	2.4%	2.2%	2.5%	2.3%	-5.0%	3.5%
Unemployment Rate[1]	3.7%	4.9%	7.9%	9.2%	8.7%	8.0%	6.7%	5.0%	3.7%	3.1%	2.6%	3.0%	2.6%	6.9%	5.4%
Personal Income ($ *Millions*)[2]	$202,116	$210,029	$199,352	$205,866	$223,493	$236,759	$249,513	$271,410	$284,837	$289,673	$309,658	$331,955	$350,390	$370,392	$402,230
Percent Change	6.7%	3.9%	-5.1%	3.3%	8.6%	5.9%	5.4%	8.8%	4.9%	1.7%	6.9%	7.2%	5.6%	5.7%	8.6%
Per Capita Personal Income ($)[2]	$42,074	$42,953	$40,093	$40,790	$43,658	$45,630	$47,404	$50,797	$52,339	$52,390	$55,294	$58,471	$61,087	$64,034	$69,016
Percent Change	4.8%	2.1%	-6.7%	1.7%	7.0%	4.5%	3.9%	7.2%	3.0%	0.1%	5.5%	5.7%	4.5%	4.8%	7.8%
Wage & Salary Income ($ *Millions*)[2]	$112,526	$116,710	$112,228	$113,670	$118,414	$124,947	$129,521	$138,626	$146,578	$151,165	$160,963	$170,904	$182,944	$187,128	$206,306
Percent Change	6.5%	3.7%	-3.8%	1.3%	4.2%	5.5%	3.7%	7.0%	5.7%	3.1%	6.5%	6.2%	7.0%	2.3%	10.2%
Retail Trade Sales ($ *Millions*)[3]	$75,329	$74,760	$66,345	$70,738	$75,548	$80,073	$83,569	$90,653	$94,920	NA	NA	NA	NA	NA	NA
Percent Change	6.9%	-0.8%	-11.3%	6.6%	6.8%	6.0%	4.4%	8.5%	4.7%						
Housing Permits[4]	29,454	18,998	9,355	11,591	13,502	23,301	27,517	28,698	31,871	38,974	40,673	42,627	38,633	40,469	56,524
Percent Change	-23.2%	-35.5%	-50.8%	23.9%	16.5%	72.6%	18.1%	4.3%	11.1%	22.3%	4.4%	4.8%	-9.4%	4.8%	39.7%
Nonresidential Construction (*Millions*)[5]	$5,259	$4,114	$3,354	$3,147	$3,923	$3,695	$3,624	$4,351	$4,991	$5,988	$6,155	$8,146	$5,167	$5,462	$5,603
Percent Change	13.3%	-21.8%	-18.5%	-6.2%	24.7%	-5.8%	-1.9%	20.1%	14.7%	20.0%	2.8%	32.4%	-36.6%	5.7%	2.6%
Denver-Aurora-Lakewood Inflation[1]	2.2%	3.9%	-0.6%	1.9%	3.7%	1.9%	2.8%	2.8%	1.2%	2.8%	3.4%	2.7%	1.9%	2.0%	3.5%
Population (*Thousands, July 1*)[4]	4,803.9	4,889.7	4,972.2	5,029.2	5,121.9	5,193.7	5,270.8	5,352.6	5,454.3	5,543.8	5,617.4	5,697.2	5,758.5	5,773.7	5,812.1
Percent Change	1.8%	1.8%	1.7%	1.1%	1.8%	1.4%	1.5%	1.6%	1.9%	1.6%	1.3%	1.4%	1.1%	0.3%	0.7%

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