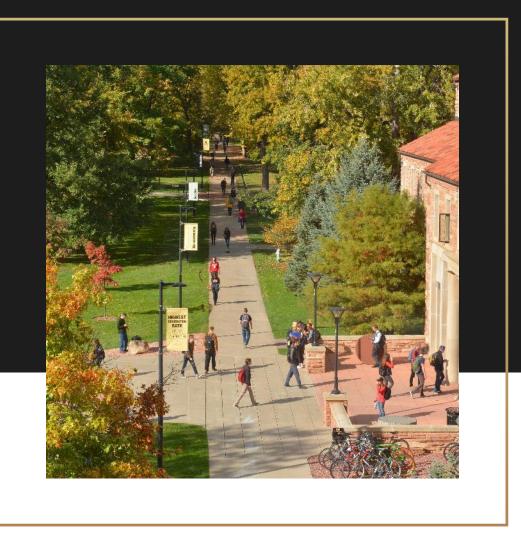
Denver Metro Managers C.C.C.M.A

2021 Colorado Economic Outlook



Richard Wobbekind

Senior Economist and Associate Dean for Business and Government Relations Business Research Division University of Colorado Boulder



FIFTY-SIXTH ANNUAL

COLORADO



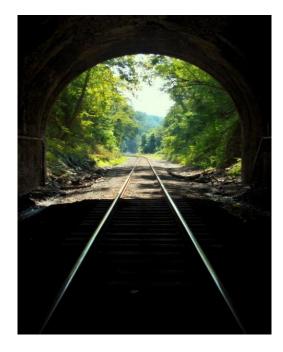
colorado.edu/business/brd





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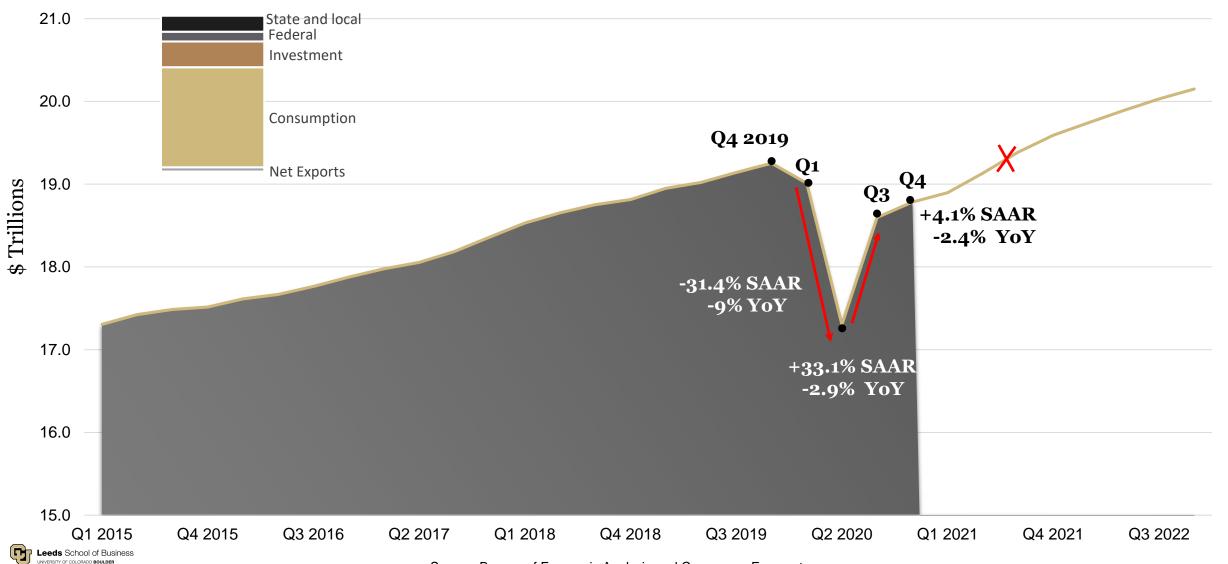
What is that Light at the End of the Tunnel?





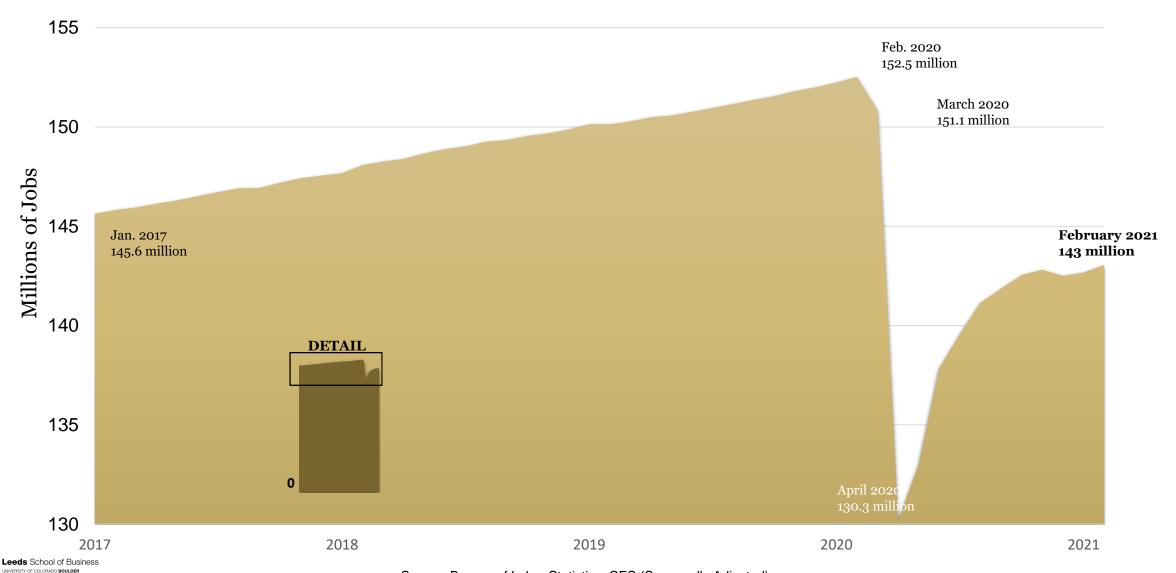


U.S. Real GDP



Source: Bureau of Economic Analysis and Consensus Forecasts.

U.S Nonfarm Employment

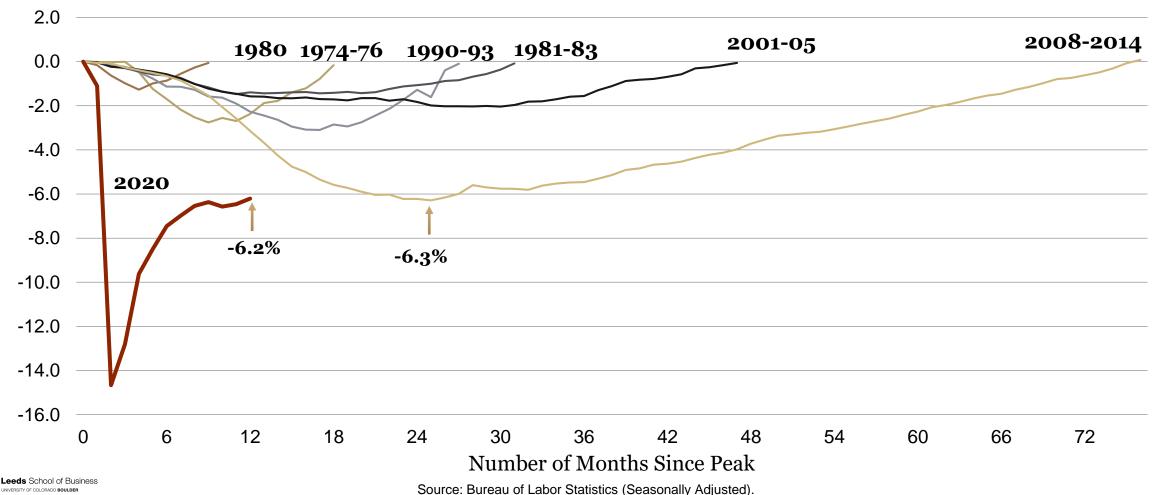


Source: Bureau of Labor Statistics, CES (Seasonally Adjusted).

National Employment

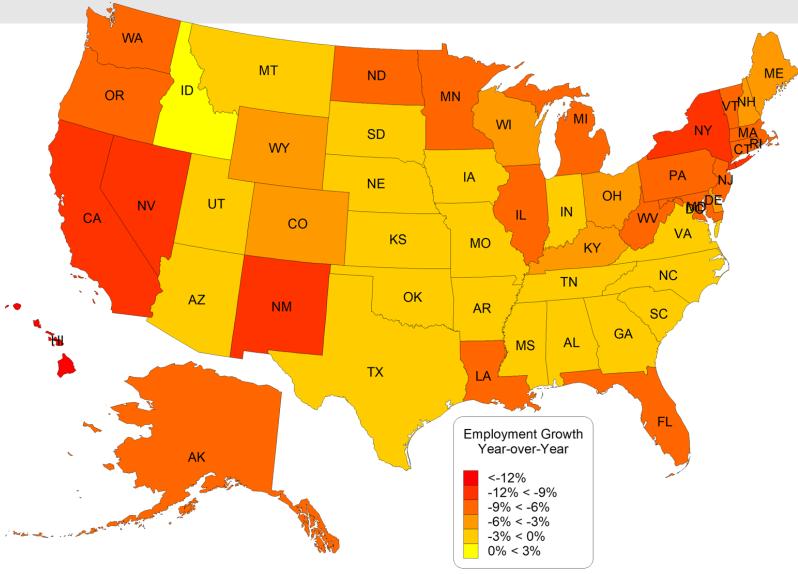
Months to Recovery

Percent



Employment Growth

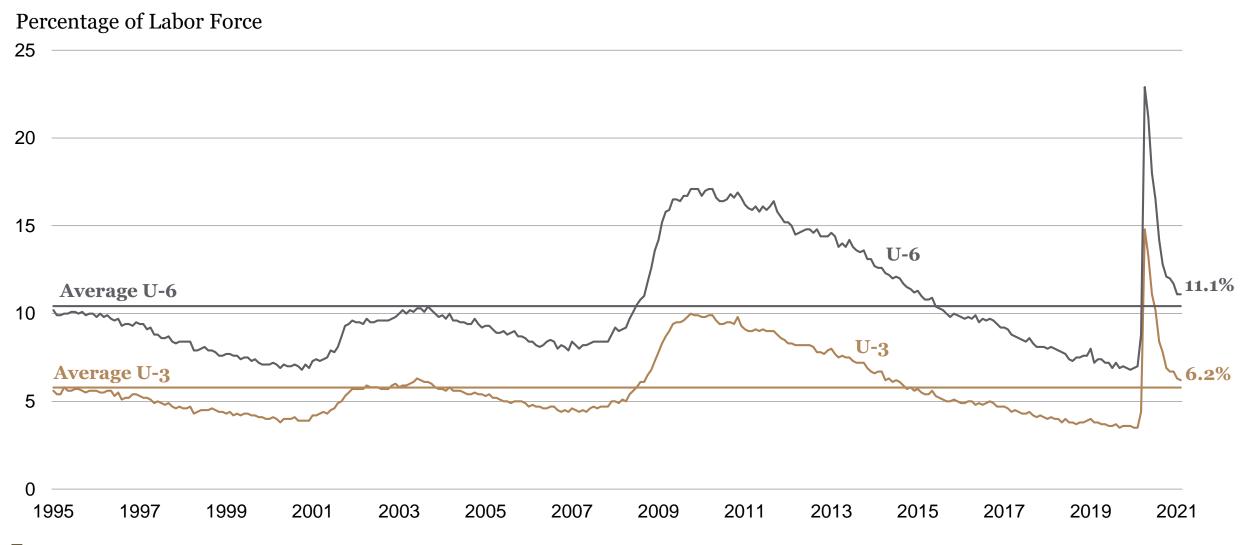
1-Year Growth, January 2021





Source: Bureau of Labor Statistics, Current Employment Statistics (Seasonally Adjusted).

Labor Underutilization

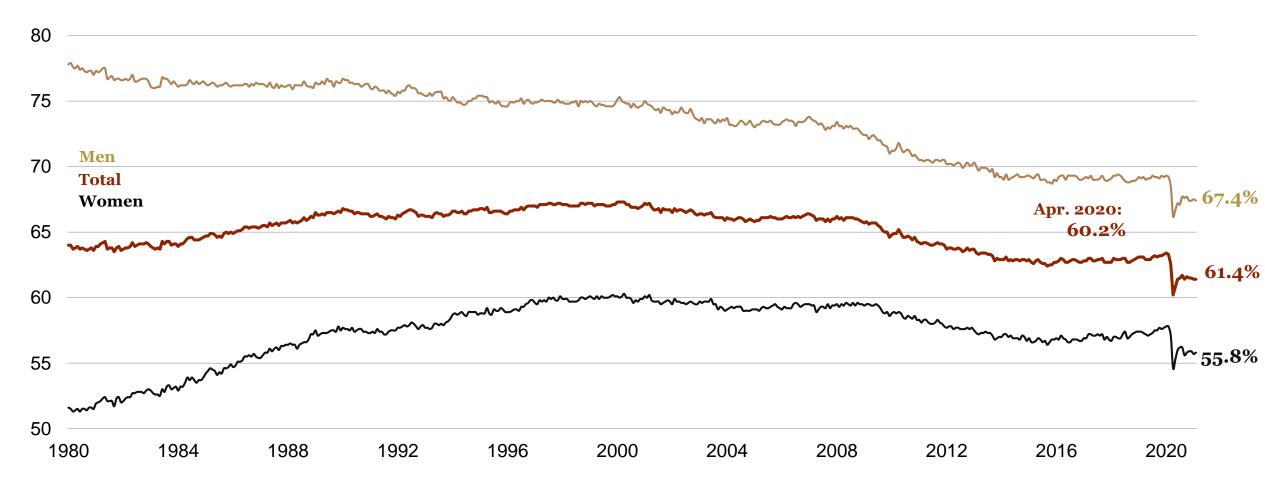


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Sources: Bureau of Labor Statistics (Seasonally Adjusted).

Labor Force Participation Rate

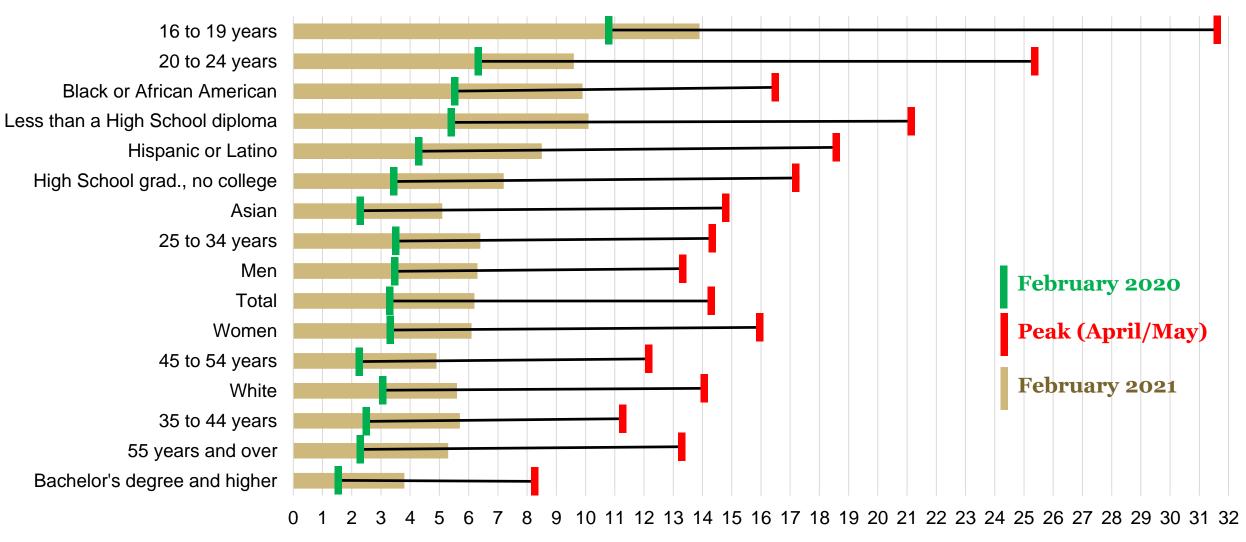
Percent of Population, 16 and Over



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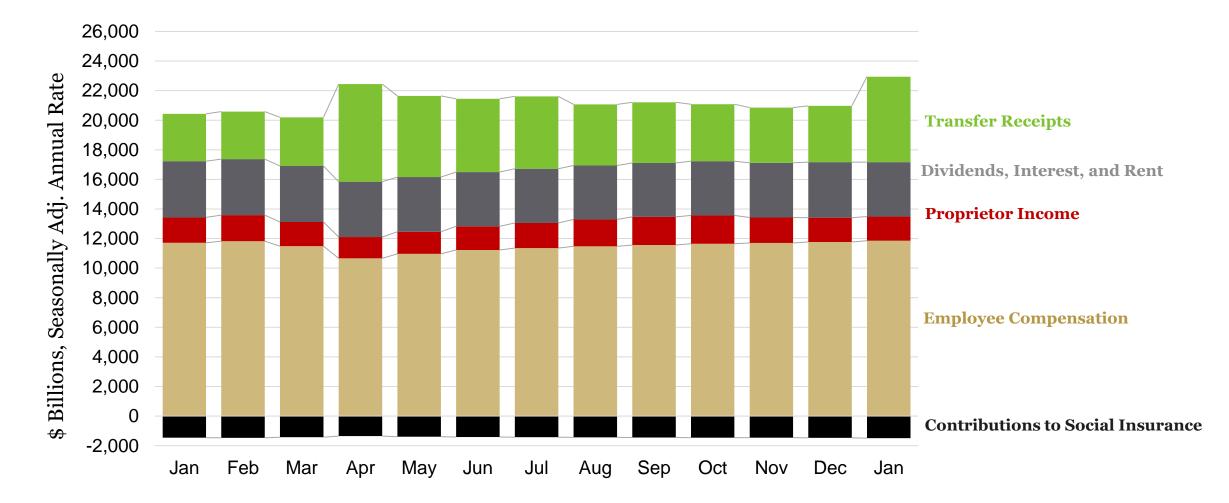
Sources: Bureau of Labor Statistics (Seasonally Adjusted).

National Unemployment Rate



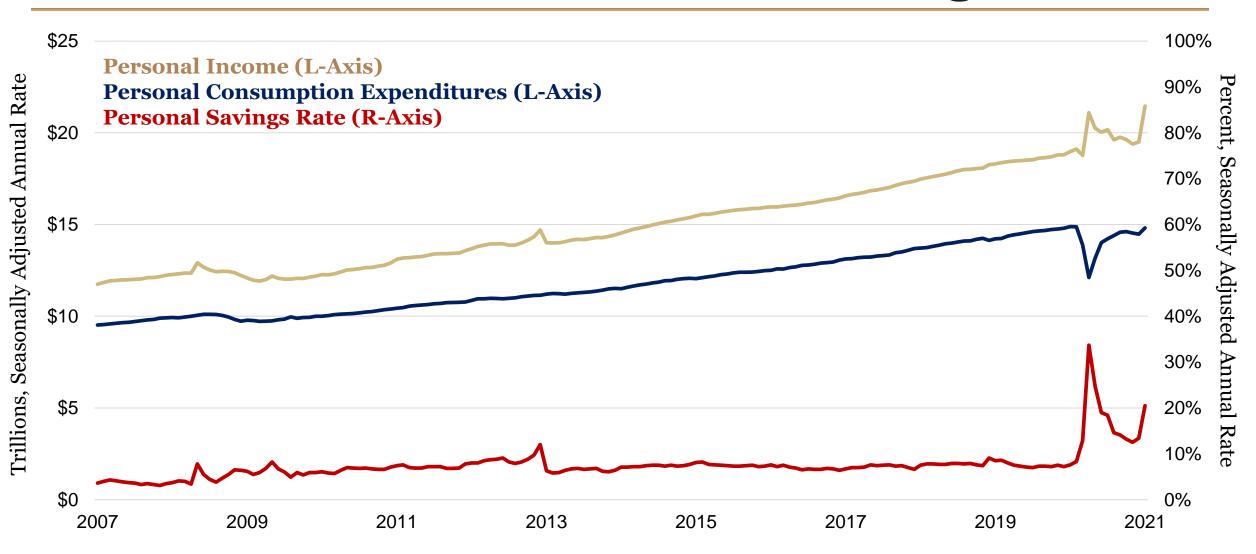


Personal Income



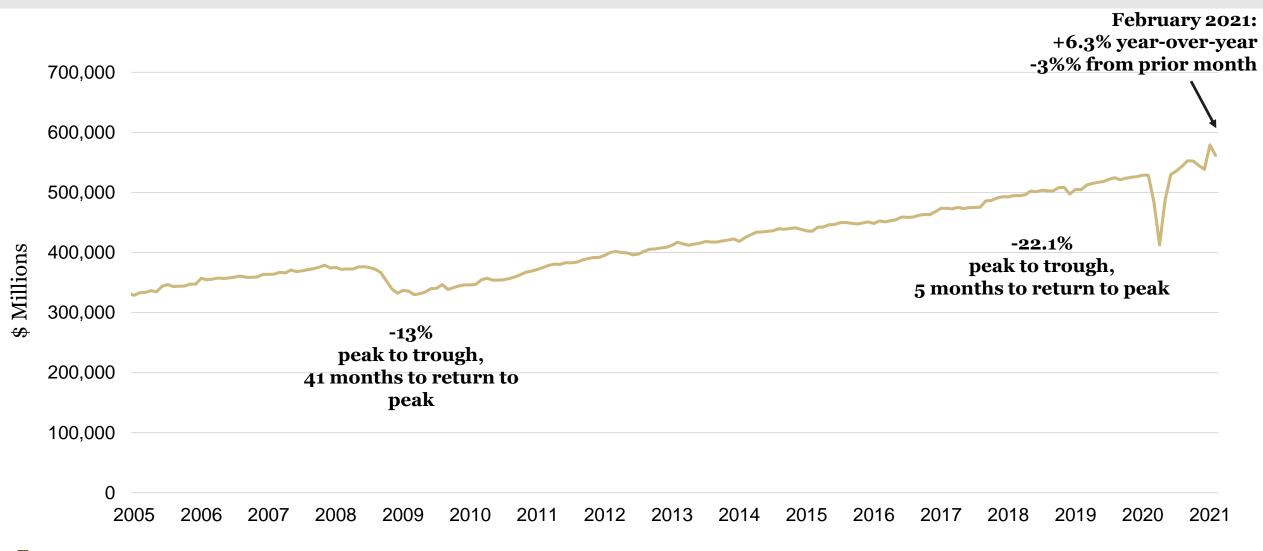


Personal Income and Savings

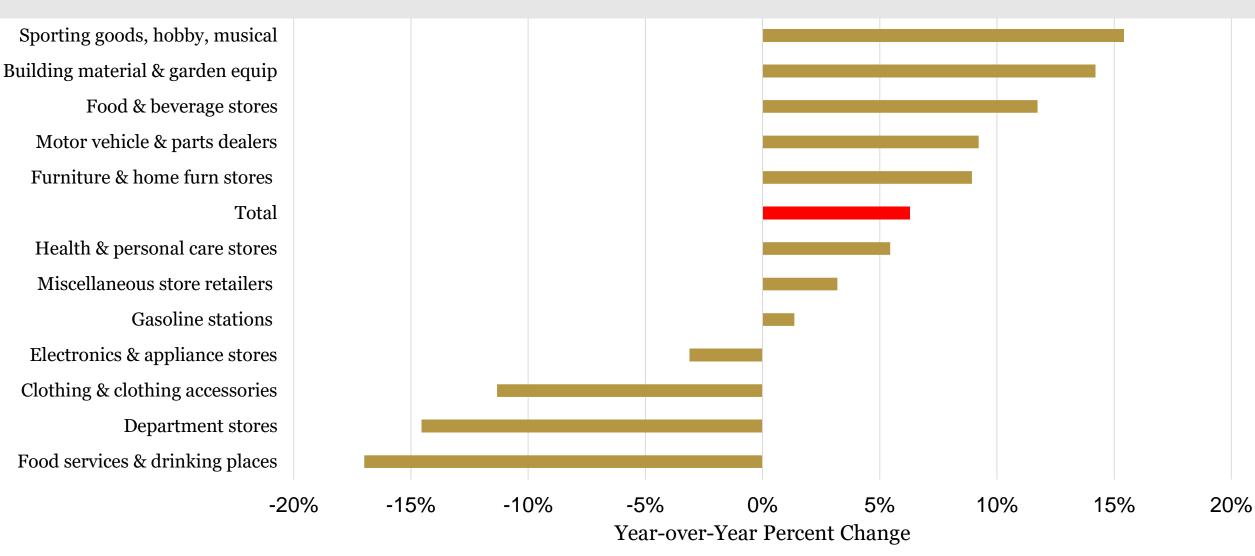


Sources: Bureau of Economic Analysis, Federal Reserve.

National Retail and Food Services Sales



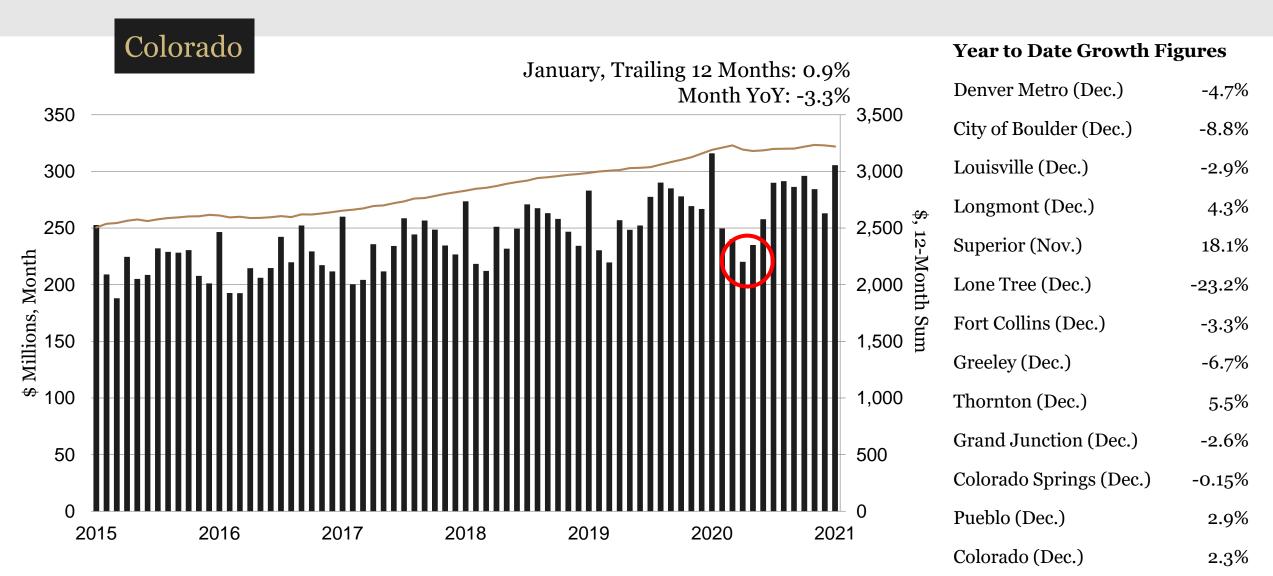
National Retail Sales, February YoY



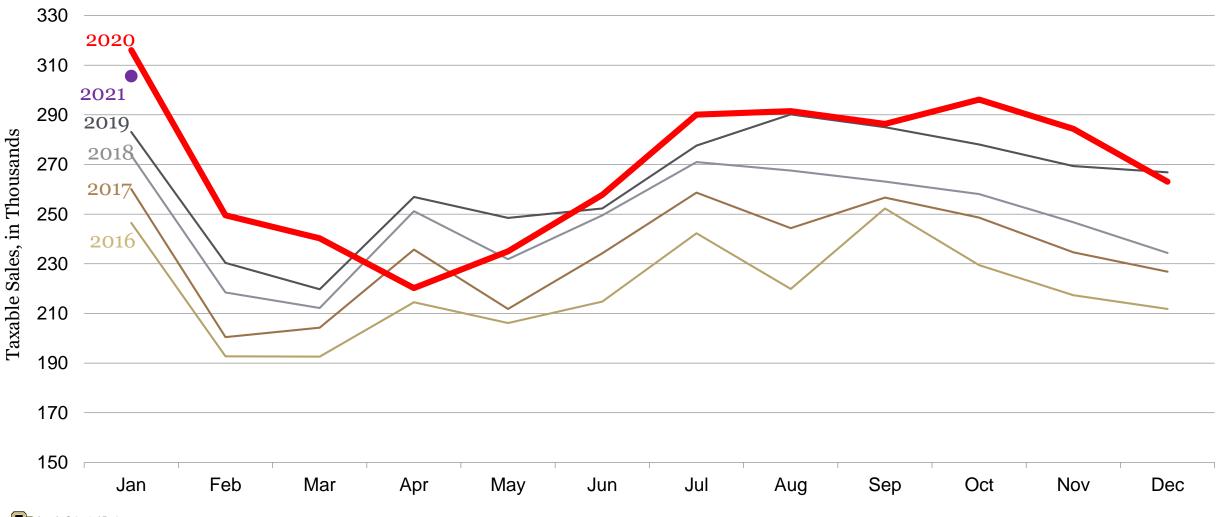
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Source: U.S. Census Bureau, Monthly Retail Trade (Advance Estimate), September 2020.

Sales Tax Collections



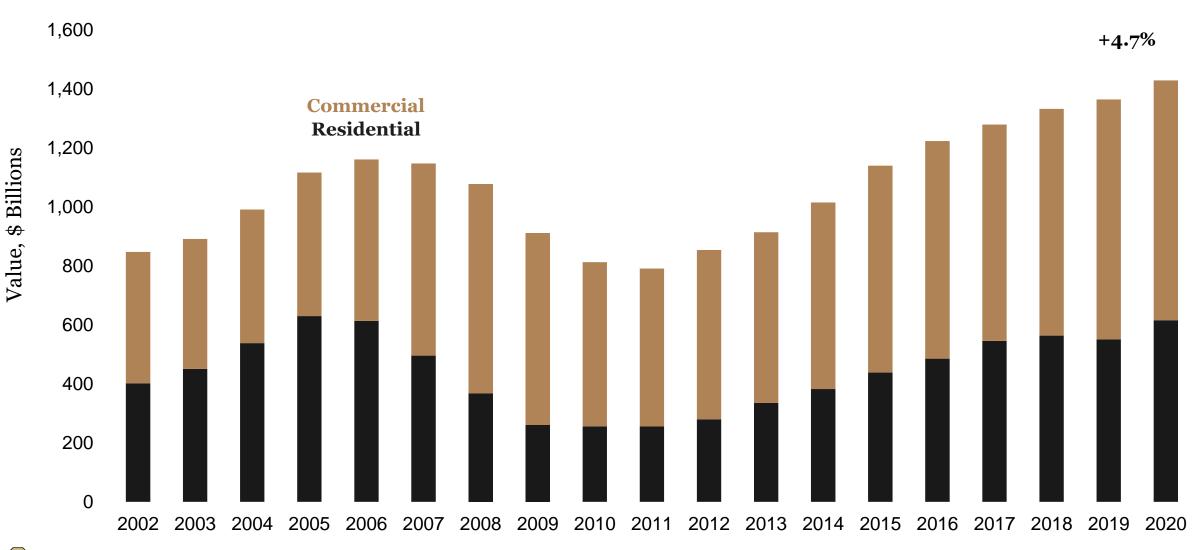
Colorado Sales Taxes



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Source: Colorado Department of Revenue.

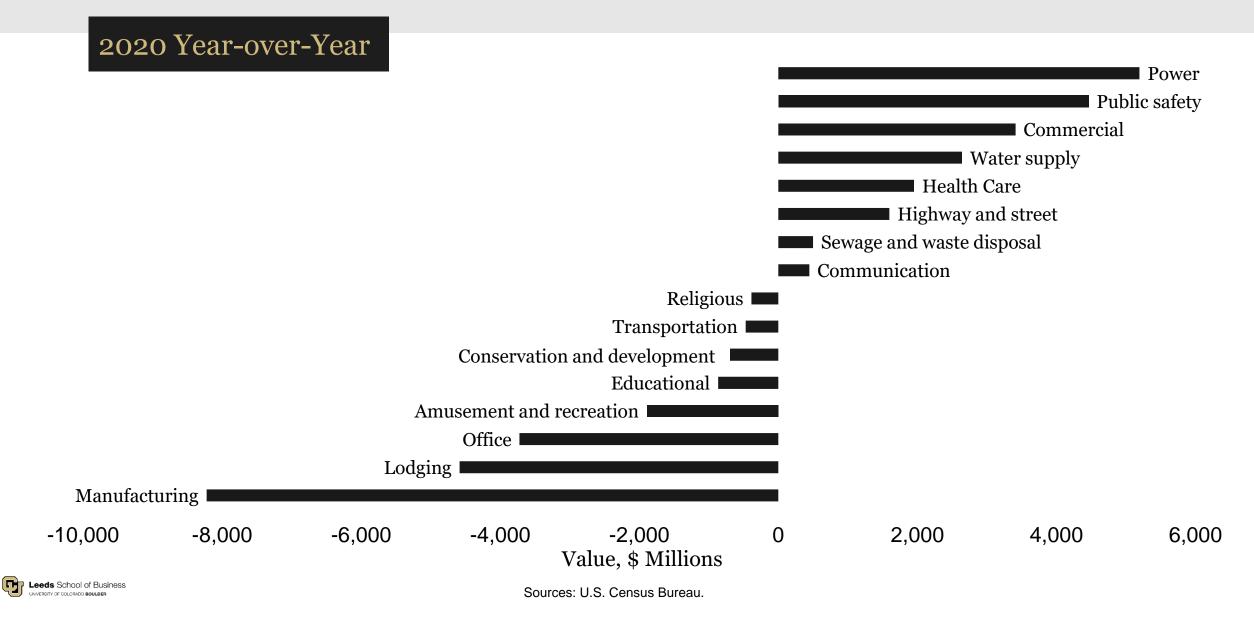
National Value of Construction



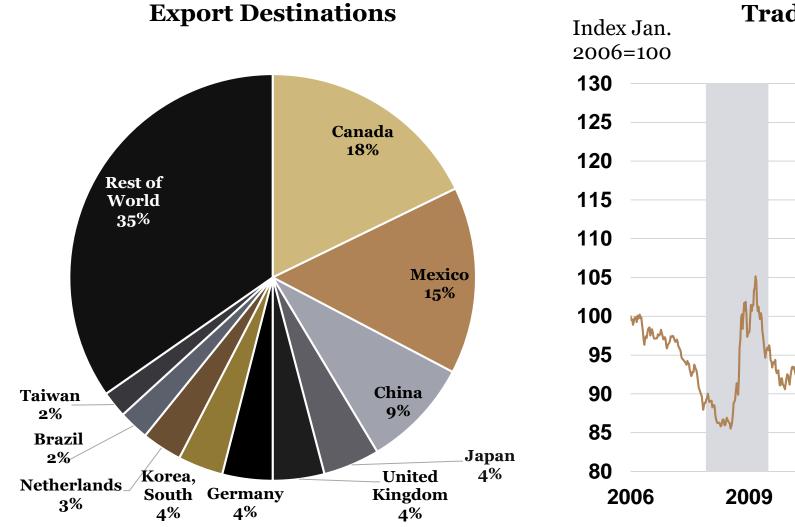
Leeds School of Business

Sources: U.S. Census Bureau.

Change in National Nonresidential Value of Construction



International Trade



Trade Weighted U.S. Dollar, 2006-2021

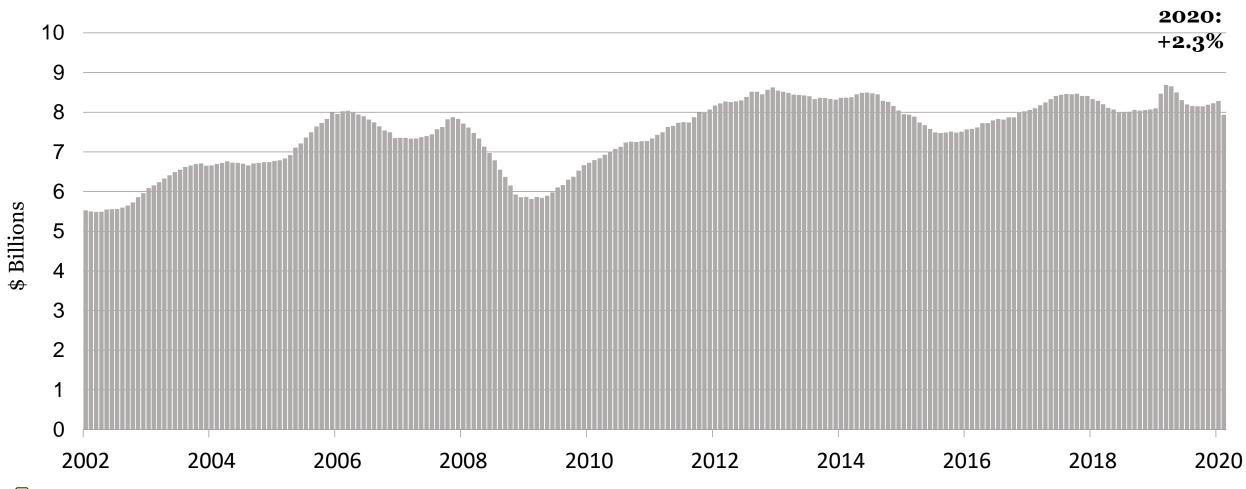


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Sources: World Institute for Strategic Economic Research, Board of Governors of the Federal Reserve System, Broad Dollar Index, Census, and National Bureau of Economic Research. Data through December 2020.

Colorado Exports

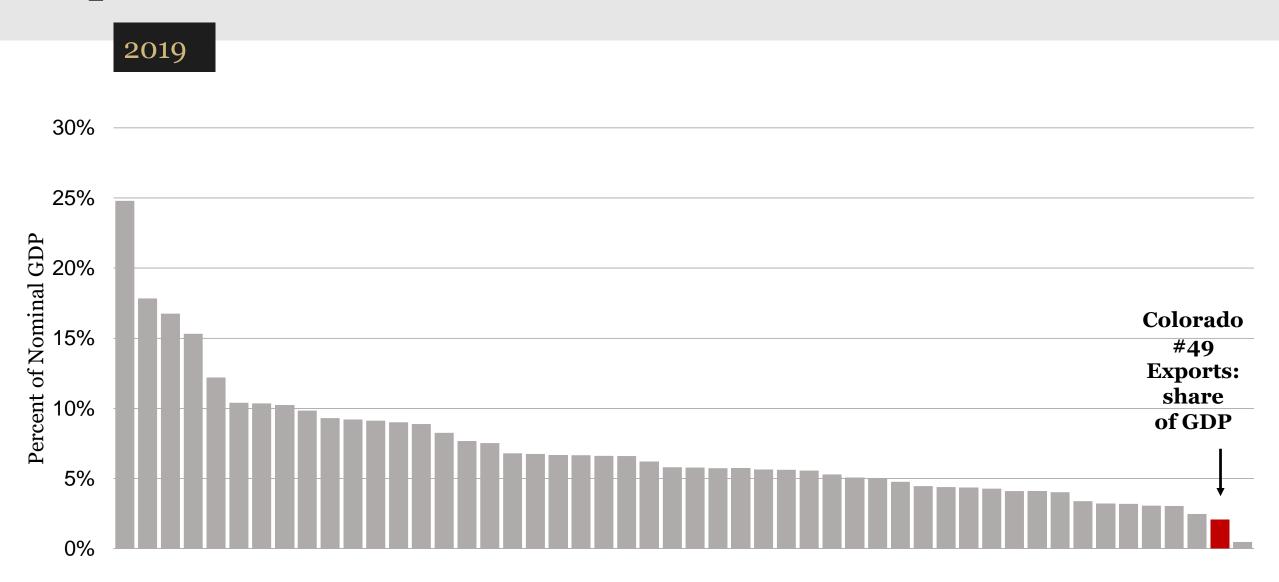
2002-2021



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Source: U.S. Census Bureau, USA Trade Online.

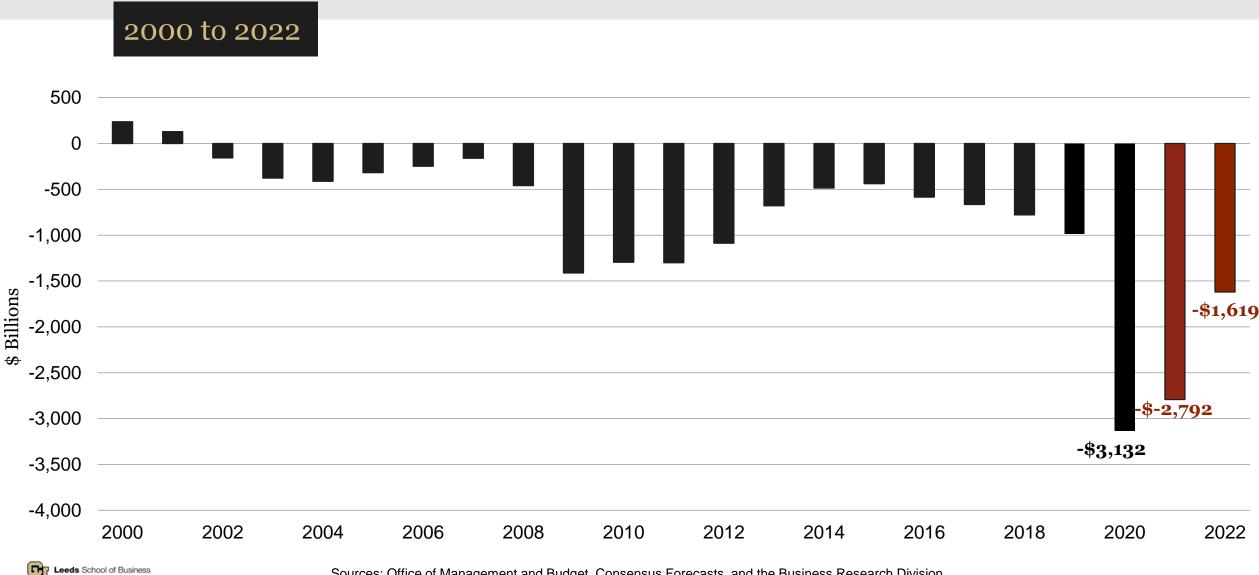
Exports Per \$ GDP



Source: U.S. Census Bureau, USA Trade Online; Bureau of Economic Analysis.

Federal Budget Balance

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Sources: Office of Management and Budget, Consensus Forecasts, and the Business Research Division.

Money and Prices



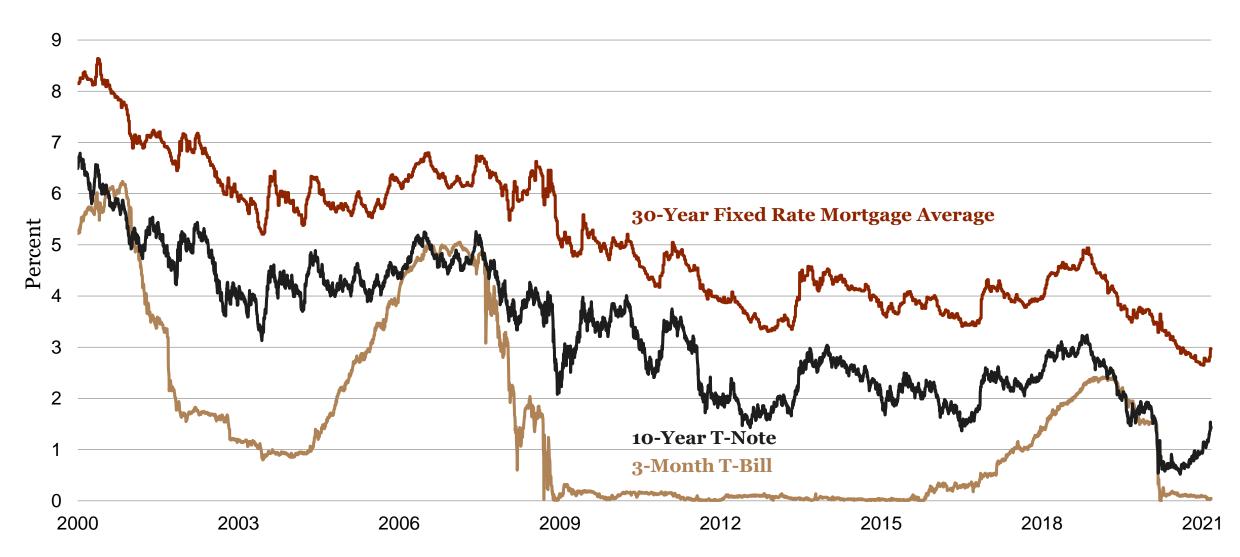
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	20	007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
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Source: Board of Governors of the Federal Reserve System.

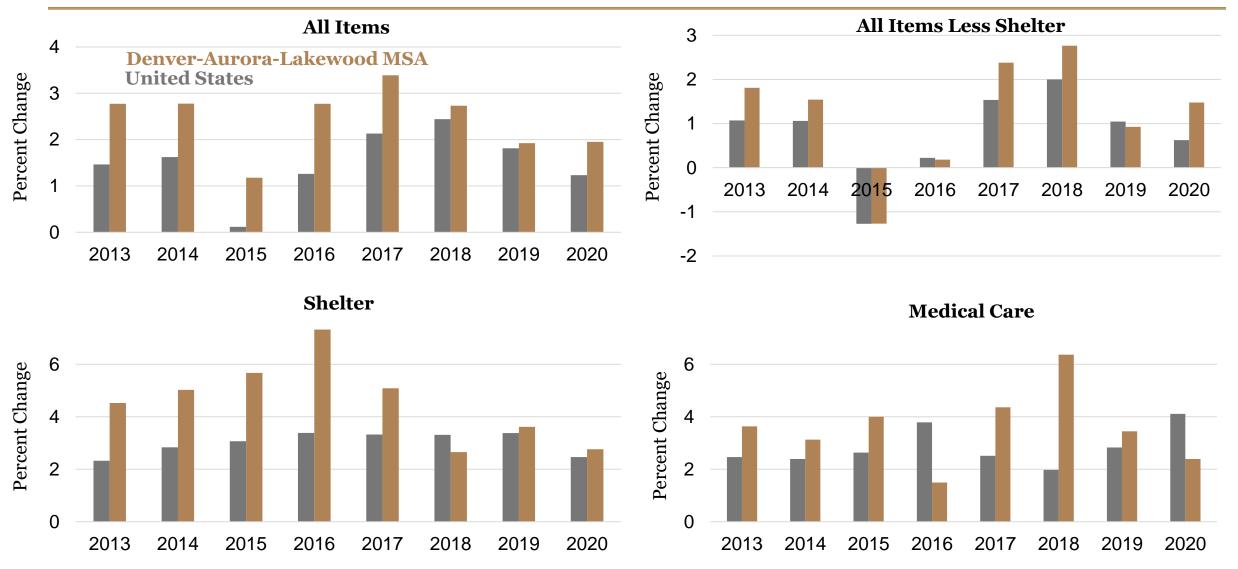
Interest Rates



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Sources: Federal Reserve and Freddie Mac.

Inflation



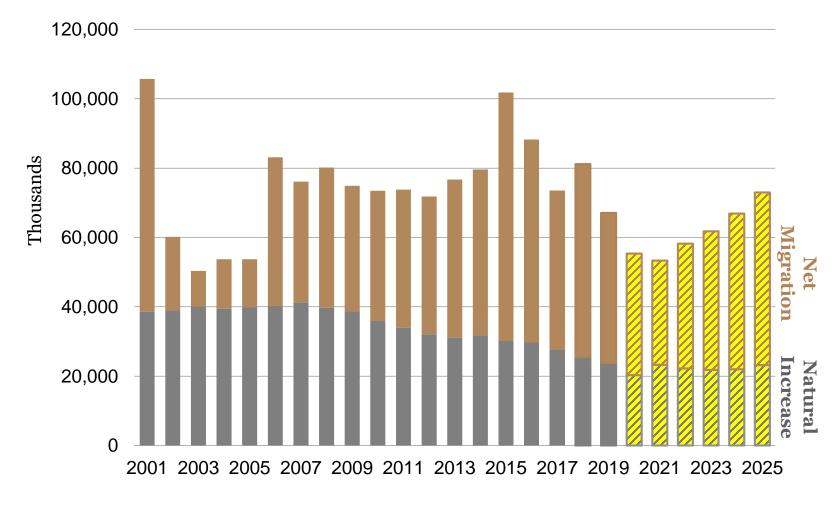


Source: Bureau of Labor Statistics (Not Seasonally Adjusted).

Colorado Population, Employment, and the Economy



Colorado Change in Population



Colorado's population changes

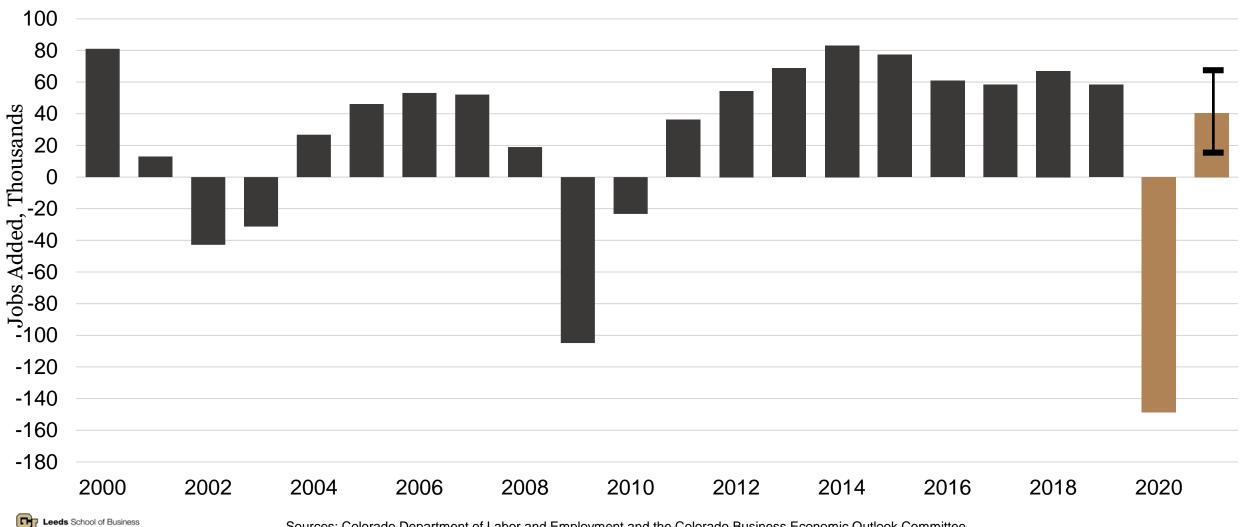
- 67k in 2019
- 55k in 2020
- 53k in 2021

COVID impact on migration

- To the State
- Within the State

Temporary or permanent?

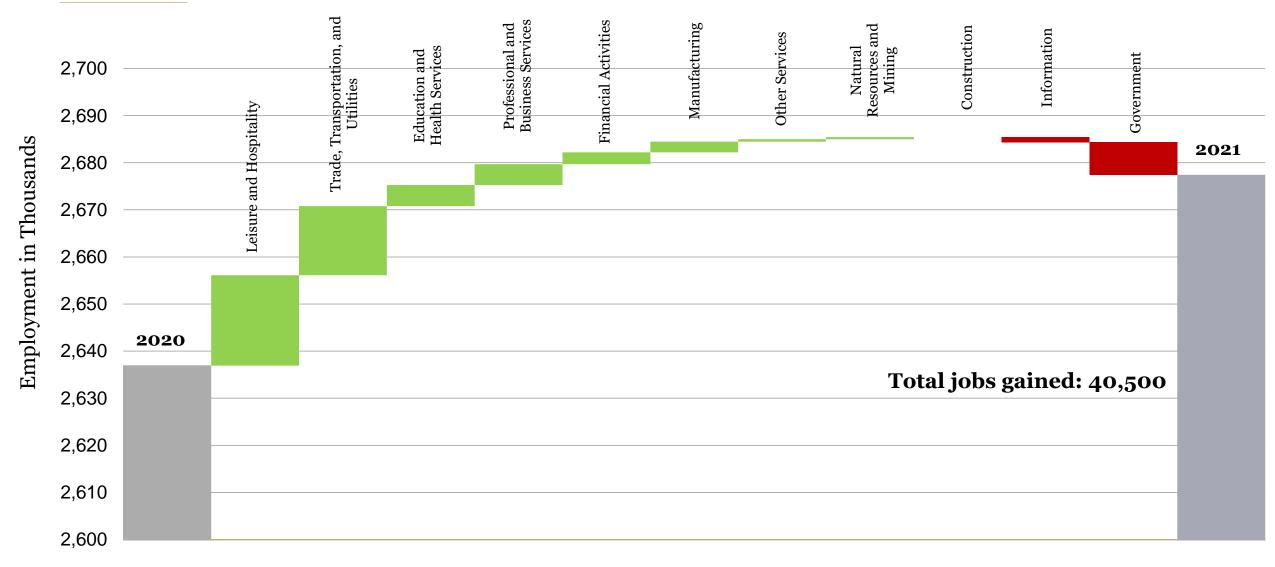
Colorado Employment Growth



Sources: Colorado Department of Labor and Employment and the Colorado Business Economic Outlook Committee.

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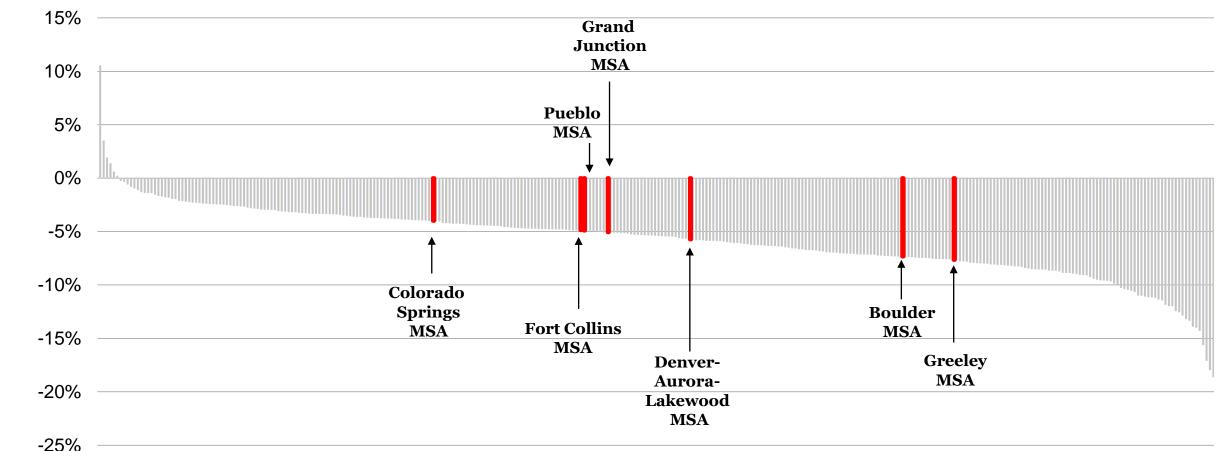
Colorado Employment Change – 2021 Forecast



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Employment by MSA

1-Year Change, January 2021



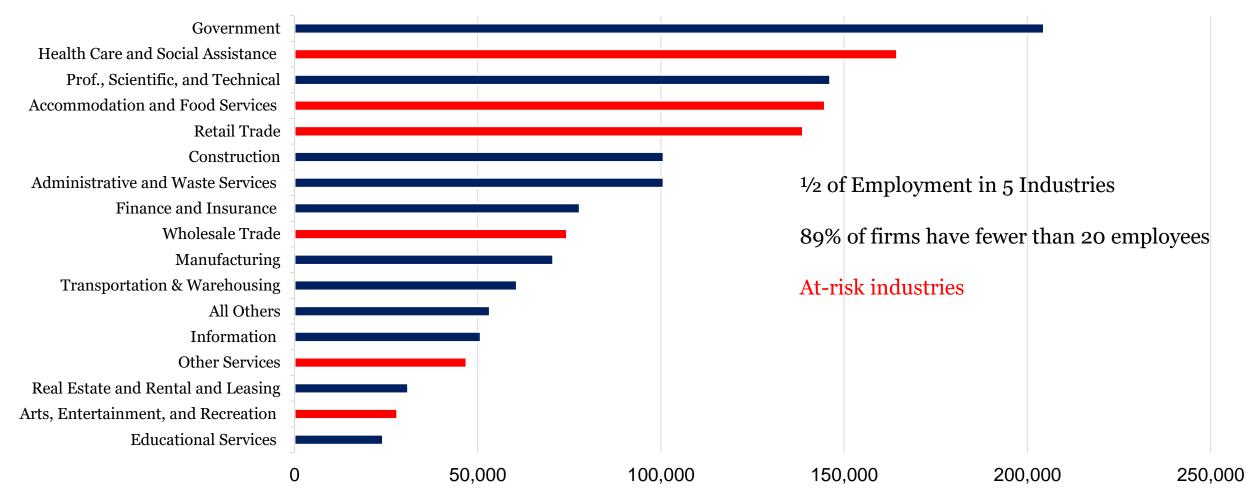
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Percent Change

Source: Bureau of Labor Statistics, Current Employment Statistics (Seasonally Adjusted).

Denver Metro Area Employment

Total Employment ~1,518,000

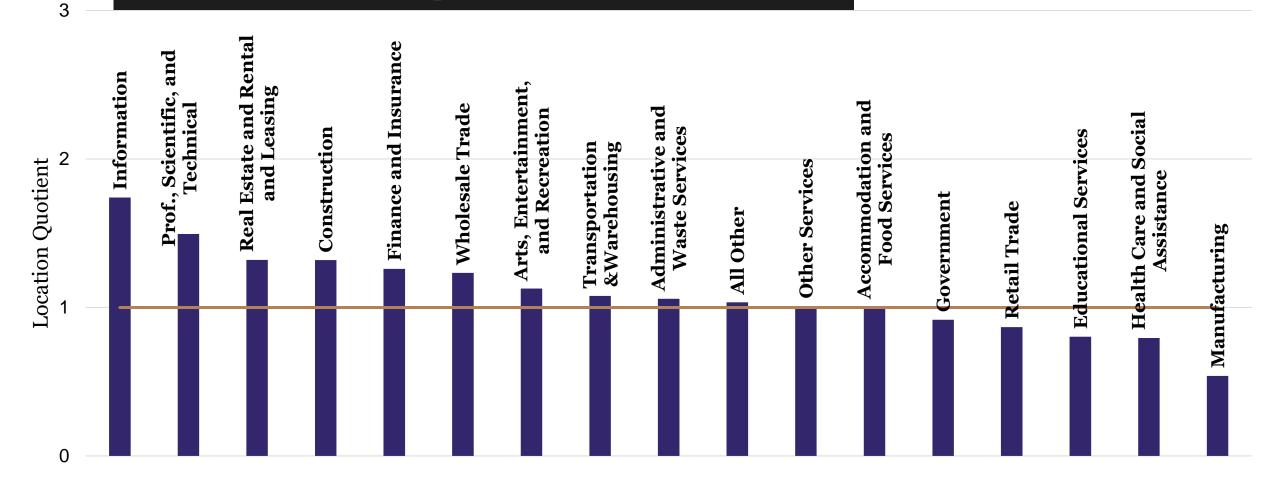




Source: Colorado Department of Labor and Employment, QCEW, 2019.

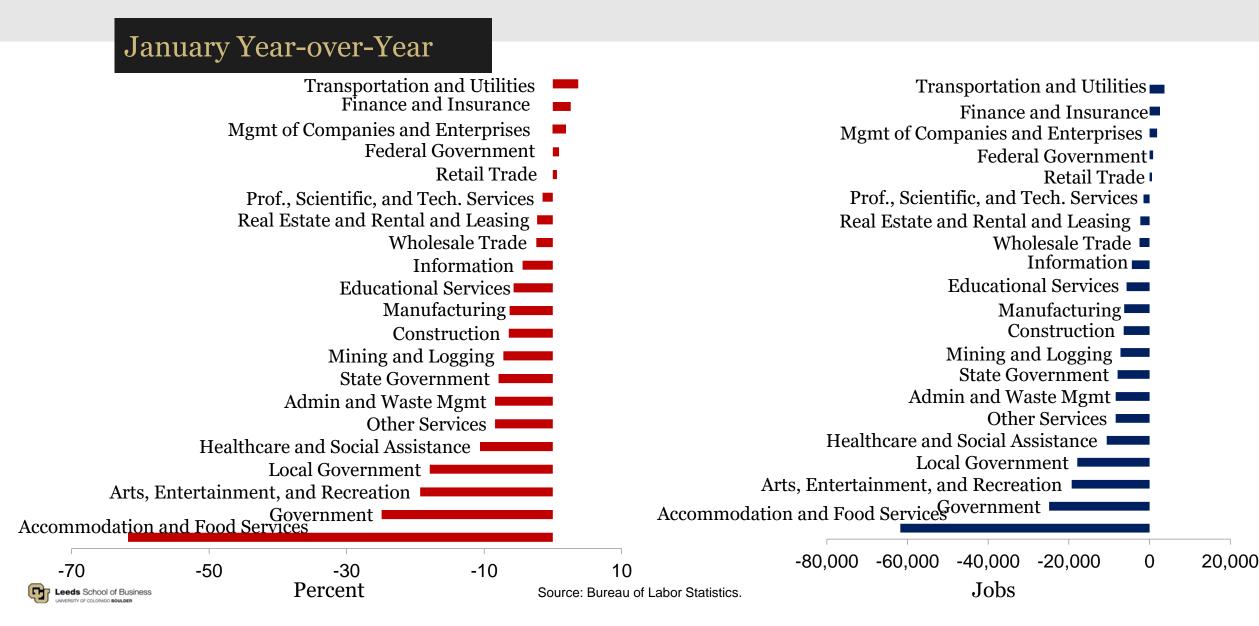
Industry Location Quotients



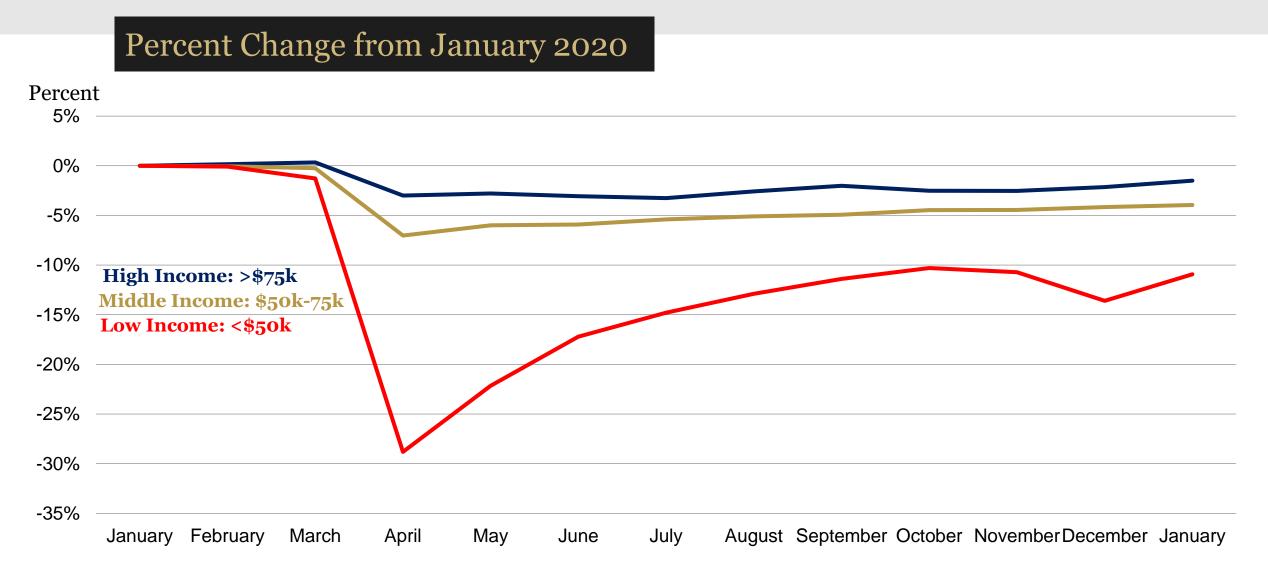




Colorado Employment Change



Colorado Employment by Industry Wage Group



Source: Bureau of Labor Statistics CES (Seasonally Adjusted).

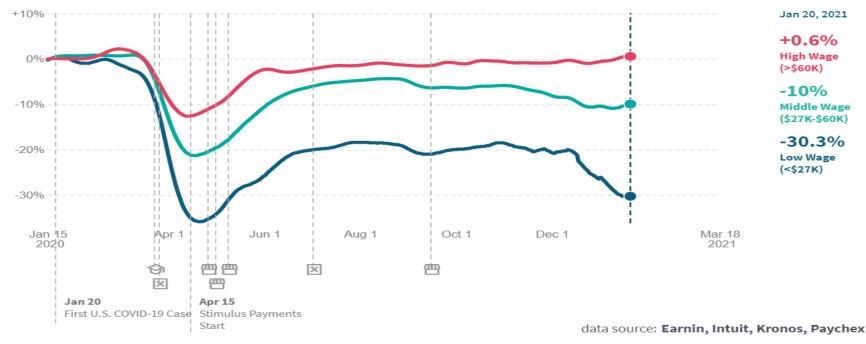
Note: Wage terciles are determined by calculating the average annual wage for each industry as of Q1 2020 and grouping each industry's total employment.

Colorado Percent Change in Employment

Percent Change from January 2020

Percent Change in Employment*

In **Colorado**, as of **January 20 2021**, employment rates among workers in the bottom wage quartile **decreased** by **30.3%** compared to January 2020 (not seasonally adjusted).

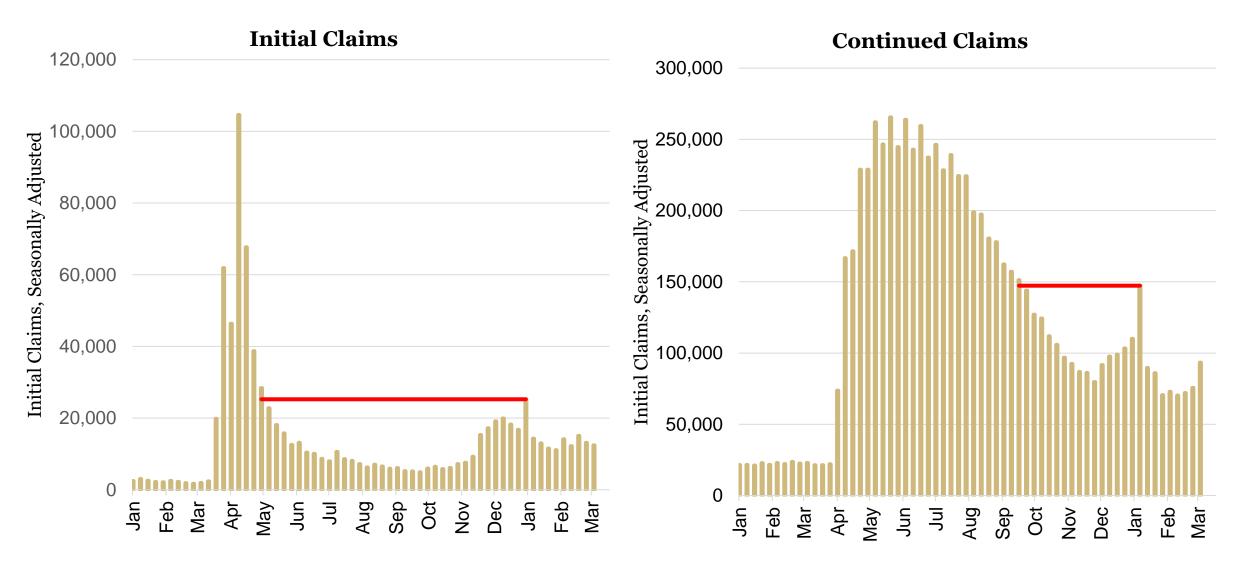


*Change in employment rates (not seasonally adjusted), indexed to January 4-31, 2020. This series is based on payroll data from Paychex and Intuit, worker-level data on employment and earnings from Earnin, and timesheet data from Kronos. The dotted line is a prediction of employment rates based on Kronos and Paychex data.

last updated: March 15, 2021 next update expected: March 19, 2021



Jobless Claims Colorado



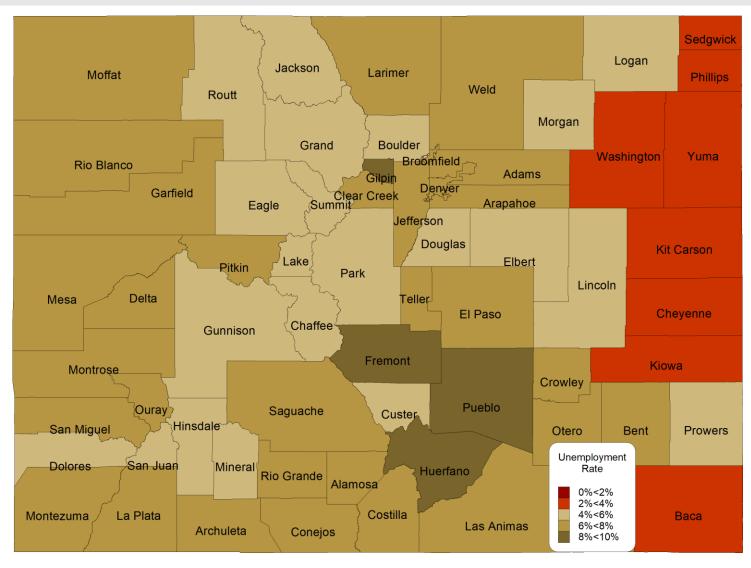


Sources: United States Department of Labor Employment & Training Administration,

Unemployment Insurance Weekly Claims, Seasonally Adjusted. Note: Excludes PUA claims.

Unemployment Rate by County

January 2021



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Source: Bureau of Labor Statistics (Not Seasonally Adjusted),

Colorado Wages

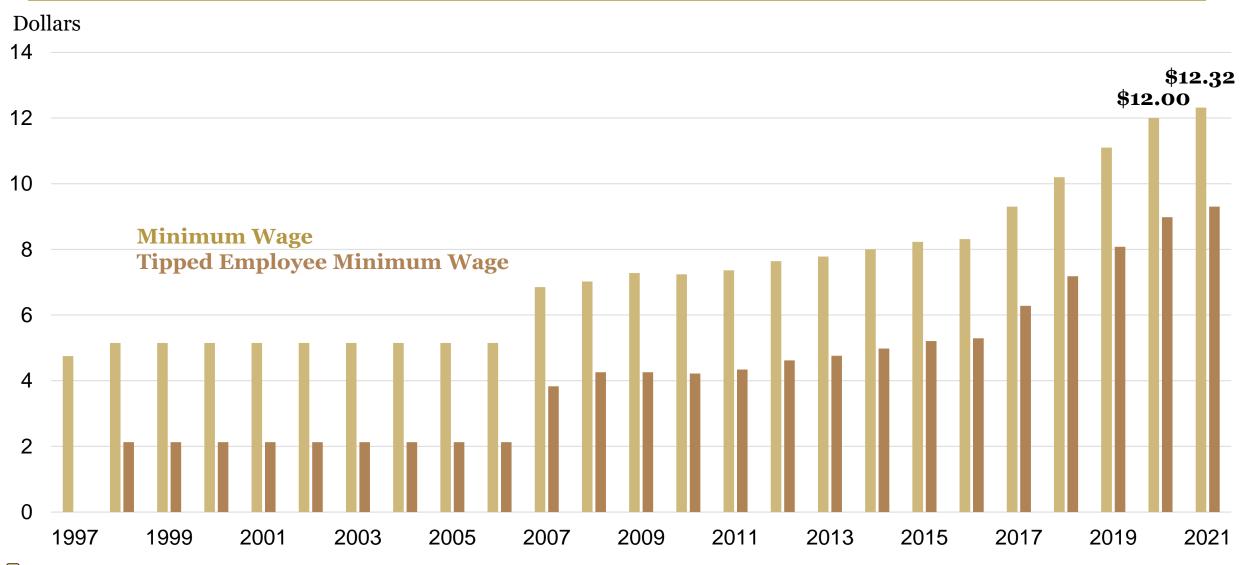
2020 Q3 (4Q Rolling Average)

Sector	Total Employment (Thousands)	YoY Employment Growth	Average Wages	YoY Wage Growth
Above Average Total	1,116	-0.7%	\$91,540	0.6%
Management of companies and enterprises	42	-0.8%	\$150,902	2.0%
Information	76	-1.1%	\$117,574	4.0%
Utilities	8	0.2%	\$112,371	0.5%
Finance and insurance	113	0.0%	\$108,419	1.9%
Professional and technical services	239	0.1%	\$103,233	-1.1%
Natural Resources and Mining	44	-5.5%	\$92,602	-0.7%
Wholesale trade	109	-1.0%	\$92,513	0.6%
Federal Government	54	1.4%	\$86,117	-1.6%
Manufacturing	148	-0.8%	\$75,159	0.5%
State Government	108	-0.3%	\$69,272	1.1%
Construction	176	-1.2%	\$66,657	0.9%
All Industries	2,638	-1.6%	\$64,645	1.4%
Real estate and rental and leasing	53	-1.9%	\$63,457	1.1%
Transportation and warehousing	86	0.5%	\$58,419	-0.9%
Health care and social assistance	299	-0.7%	\$54,163	1.2%
Local Government	261	-1.4%	\$52,982	1.6%
Administrative and waste services	153	-3.1%	\$47,157	1.4%
Educational services	35	-2.9%	\$46,140	3.1%
Other services, except public administration	79	-2.8%	\$44,471	1.8%
Arts, entertainment, and recreation	48	-8.2%	\$40,124	1.6%
Retail trade	263	-0.7%	\$35,749	2.0%
Accommodation and food services	243	-6.1%	\$25,239	0.4%
Below Average Total	1,520	-2.3%	\$44,872	1.7%

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Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

Colorado Minimum Wage





Source: Colorado Department of Labor and Employment.

Agriculture

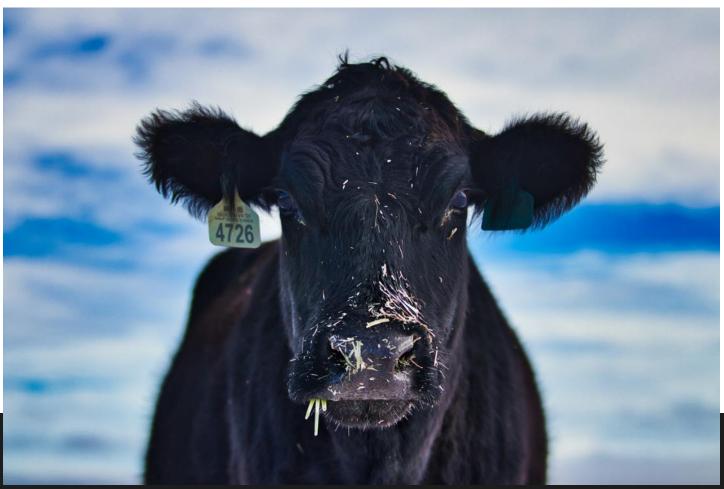
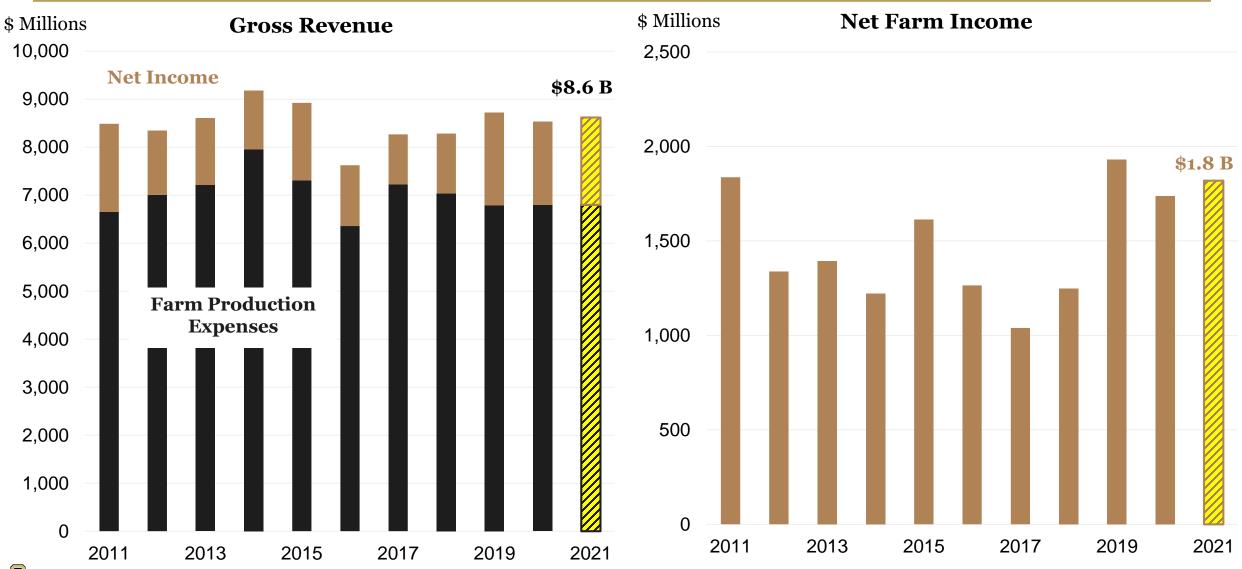


Photo courtesy of Michael McCaffrey.



Gross Farm Revenue and Net Income



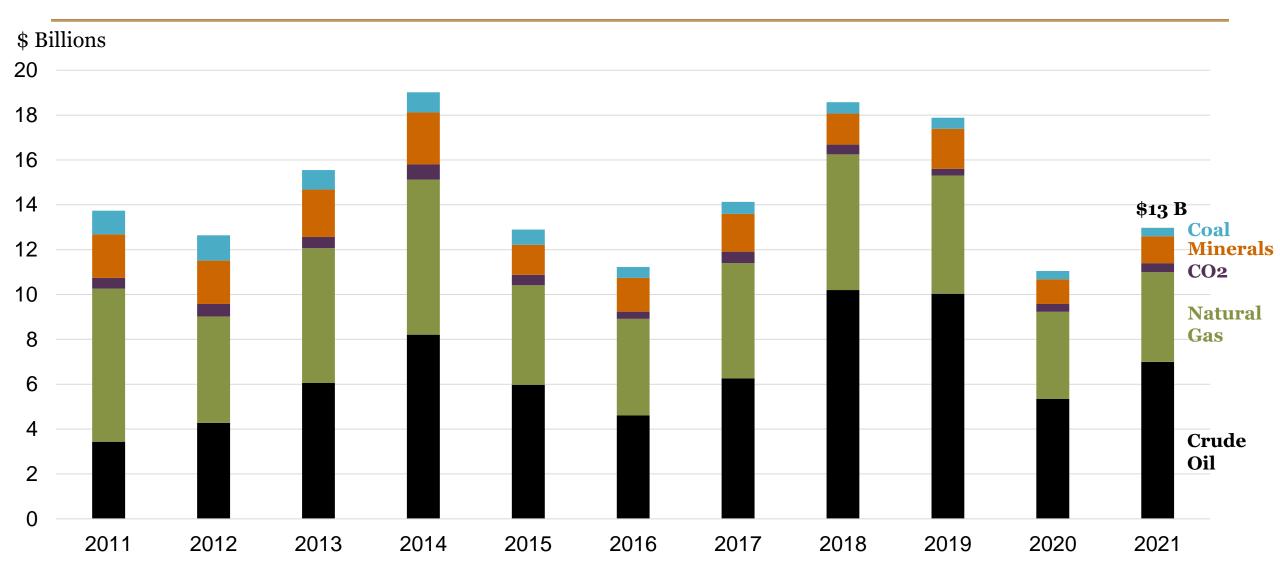
Source: Colorado Business Economic Outlook Committee.

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Natural Resources and Mining



Value of Natural Resources Production





Sources: Colorado Geological Survey Mineral and Minerals Fuel Activity Reports, Colorado Oil and Gas Conservation Commission, Department of Minerals and Geology, and Colorado Business Economic Outlook Committee.

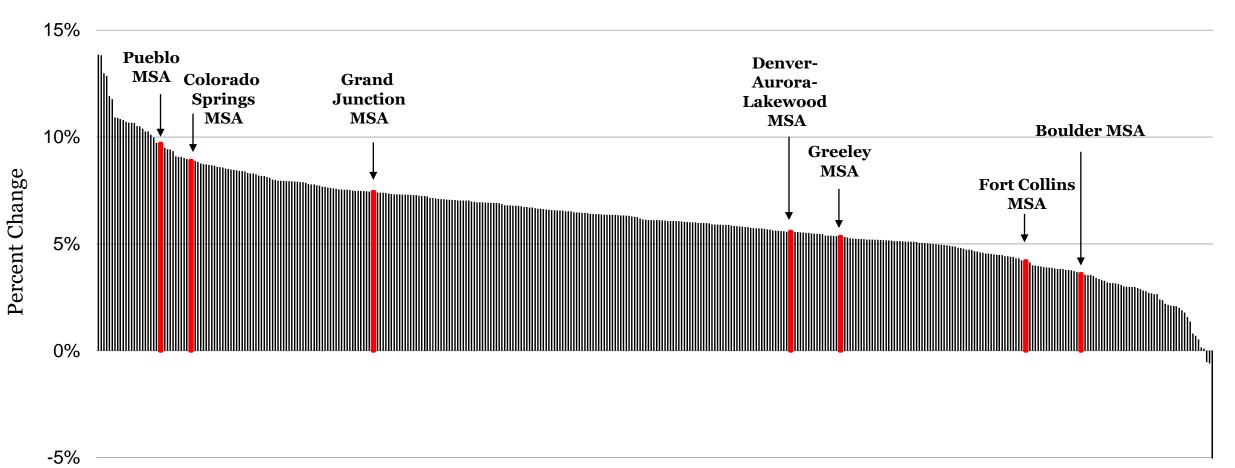


Construction



FHFA Home Price Index by MSA

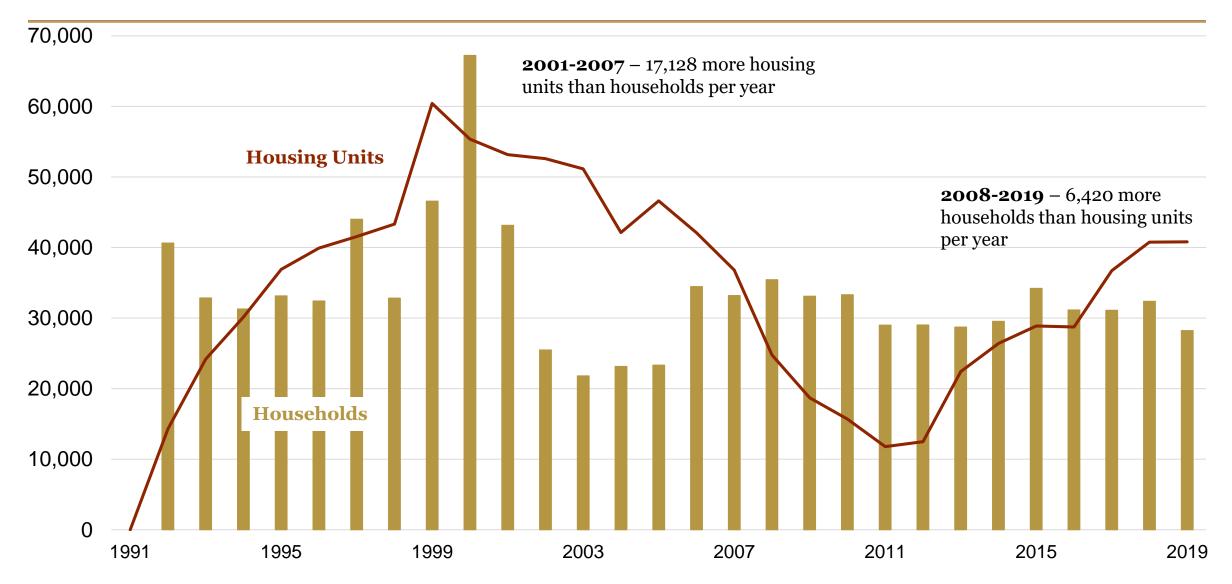
1-Year Home Price Change, Q4 2020



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Source: Federal Housing Finance Agency, All Transactions Index (Not Seasonally Adjusted).

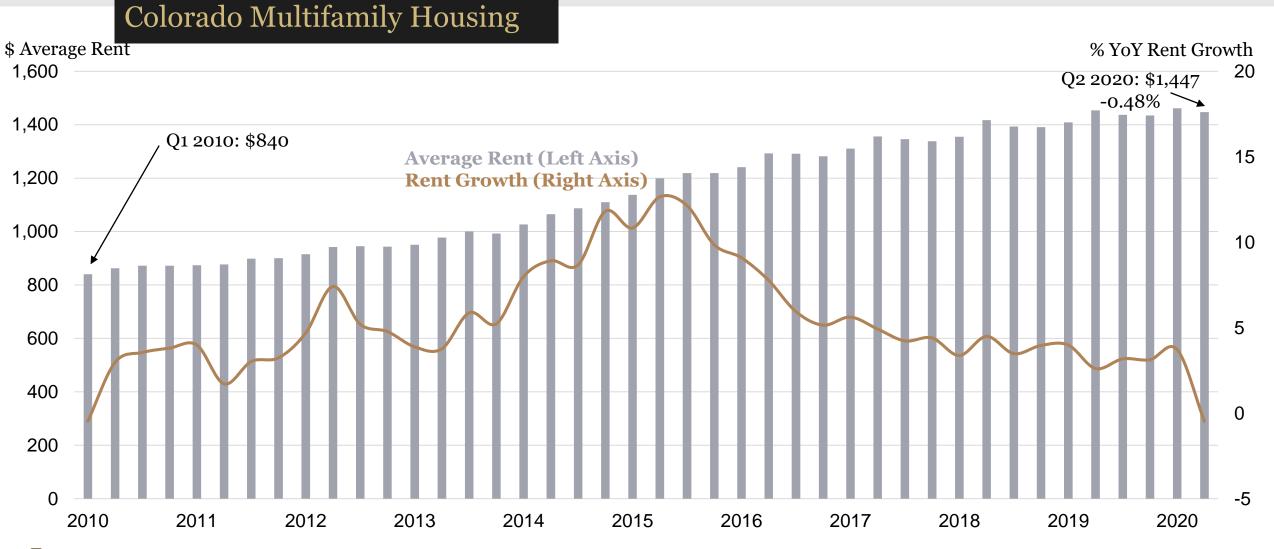
Colorado New Housing Units and Households





Source: Colorado Department of Local Affairs, State Demography Office.

Average Rent

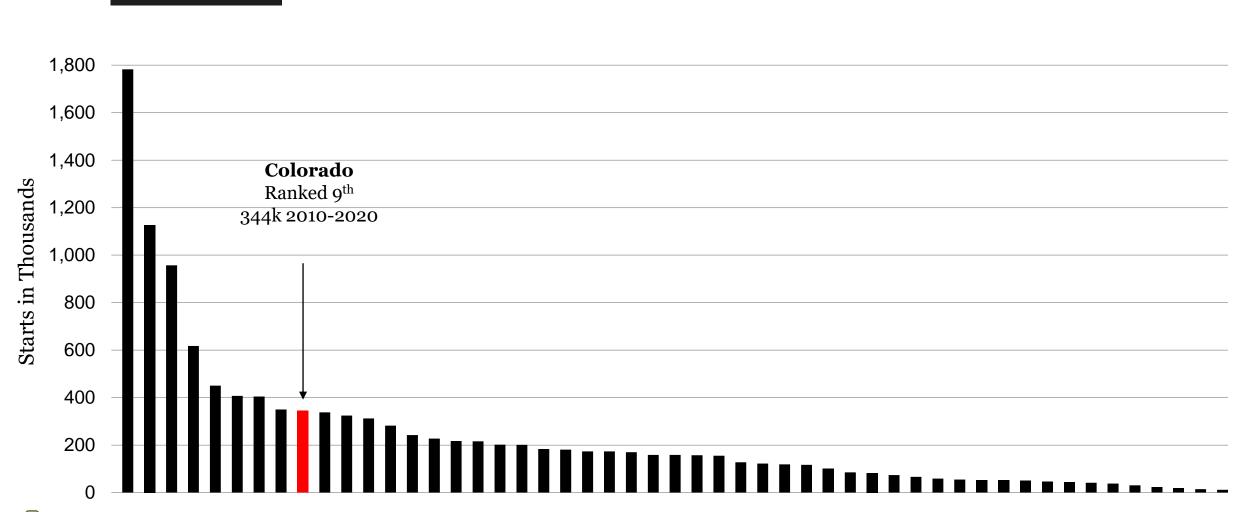


Leeds School of Business

Source: Colorado Department of Local Affairs (DOLA), Statewide Multifamily Housing Vacancy and Rent Survey.

Residential Building Permits

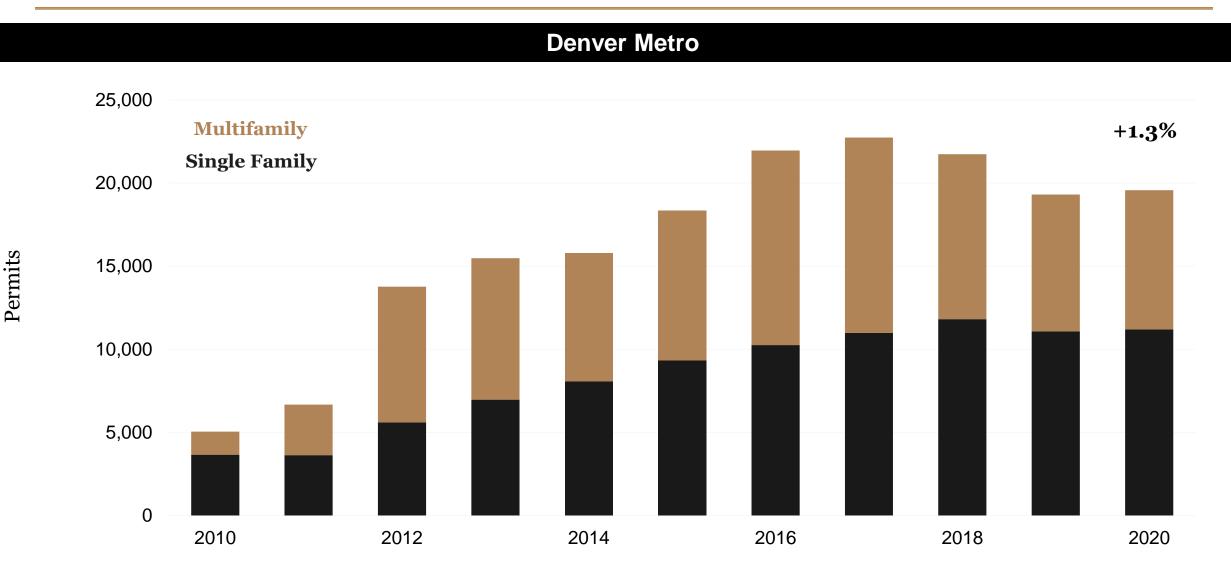
2010-2020



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Source: U.S. Census Bureau.

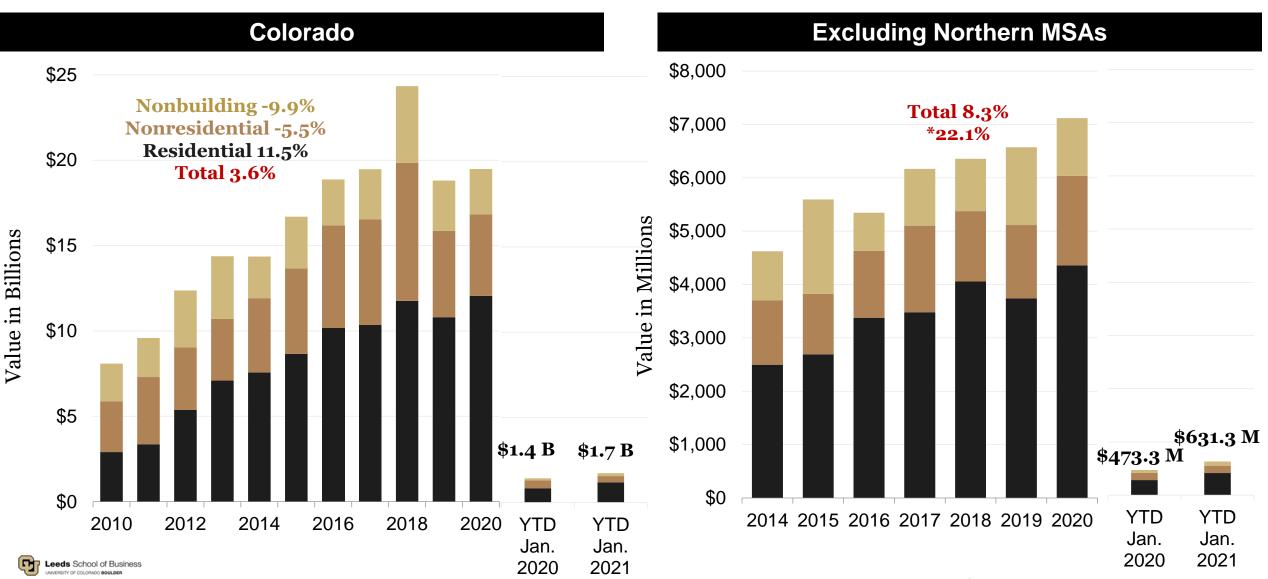
Residential Building Permits





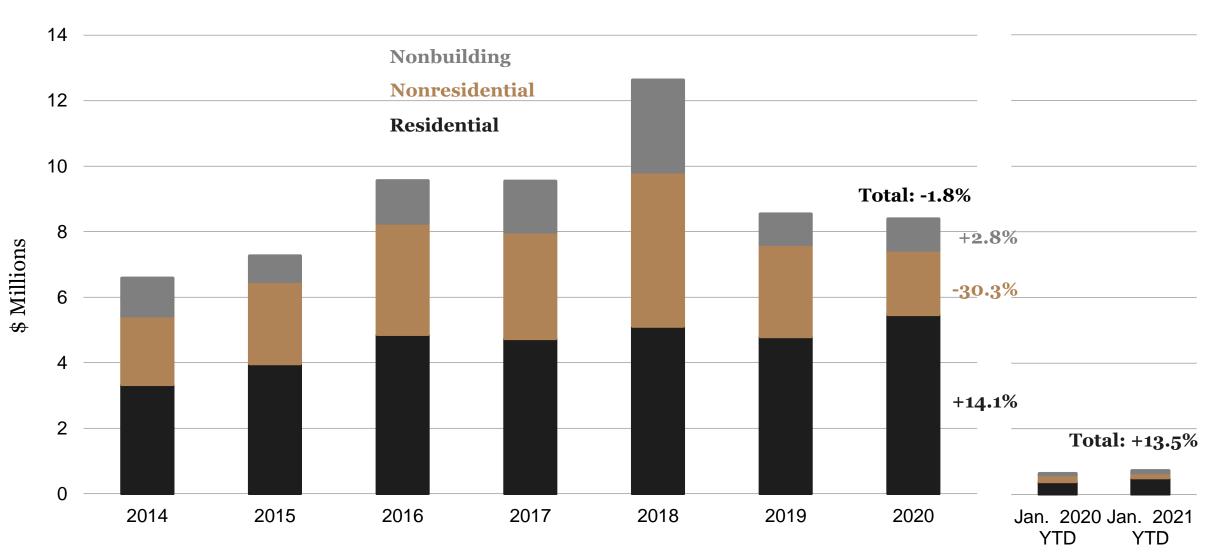
Sources: U.S. Census Bureau and the Colorado Business Economic Outlook Committee.

Colorado Value of Construction



Source: McGraw-Hill Construction Dodge Research and Analytics. Northern MSAs include Denver, Boulder, Fort Collins, and Greeley. *Excluding one \$743M project in Cheyenne County.

Denver Metro Value of Construction





Sources: McGraw-Hill Construction Dodge Research and Analytics.

Tourism

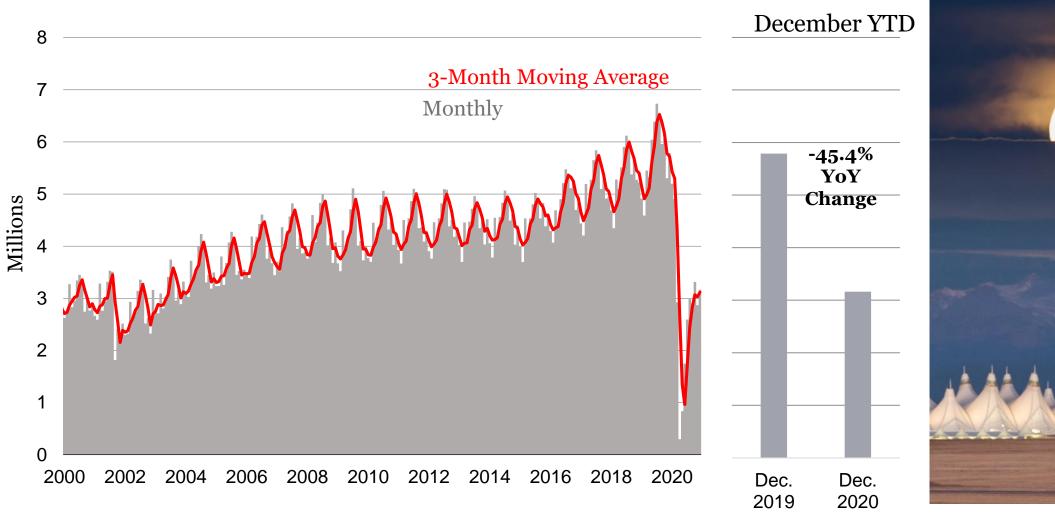




Photo courtesy of Dustin Doskocil/CPW.

DIA Enplanements and Deplanements

2000-2020

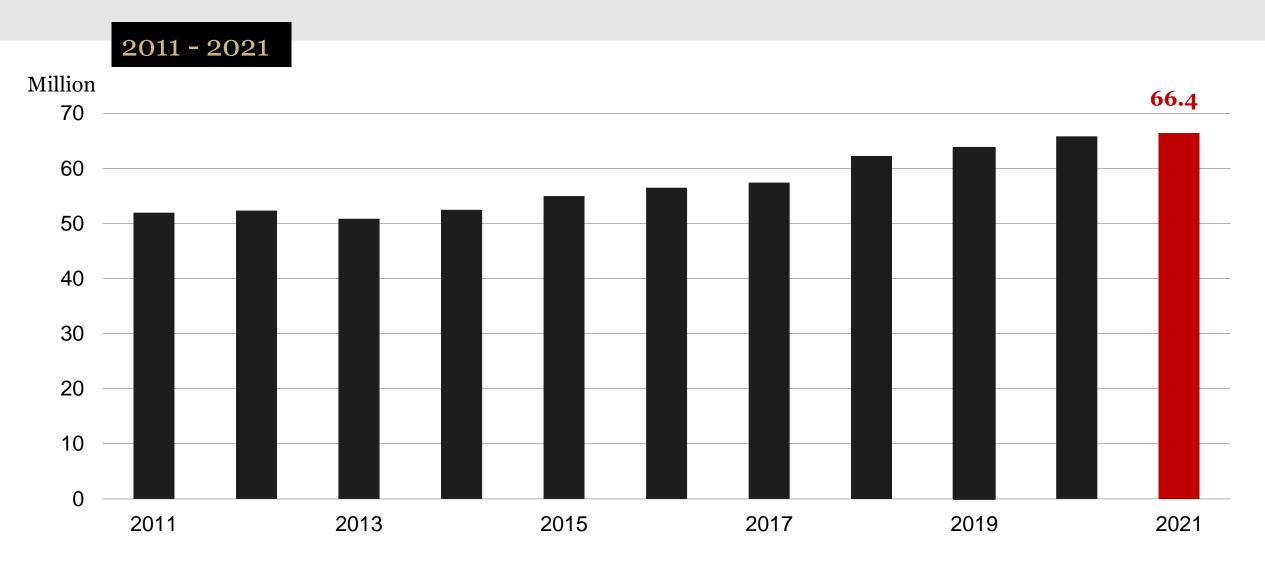






Sources: Denver International Airport and Colorado Business Economic Outlook Committee. Photo courtesy of Denver International Airport.

Colorado Public Lands Visits

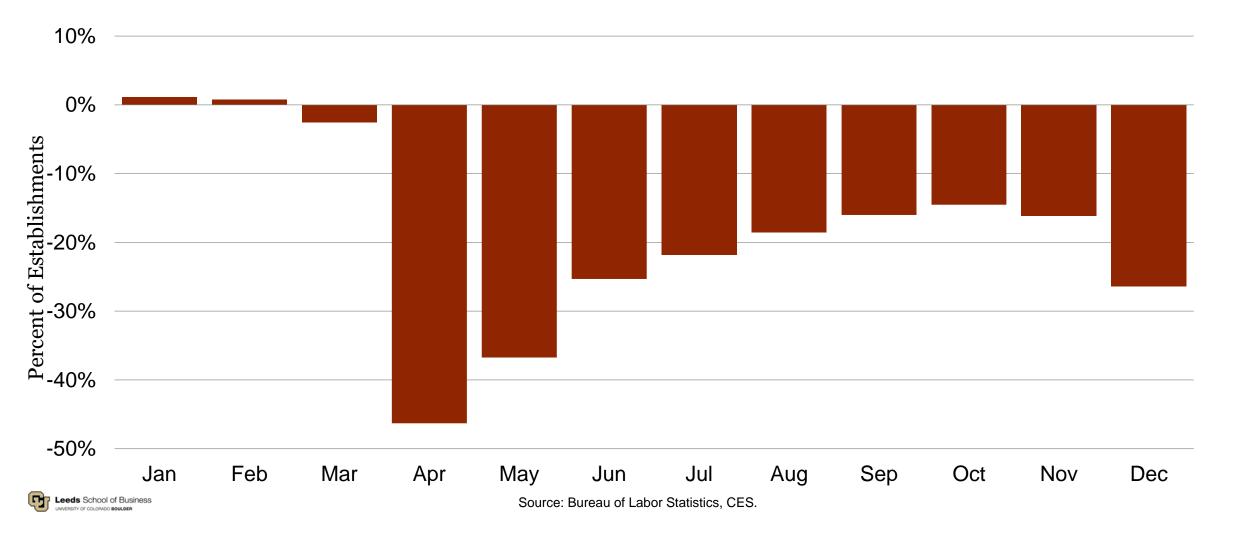




Sources: National Park Service and Colorado Business Economic Outlook Committee. Photo courtesy of Dustin Doskocil/CPW.

Leisure & Hospitality Employment

Year-Over-Year Percent Change in Leisure & Hospitality Employment

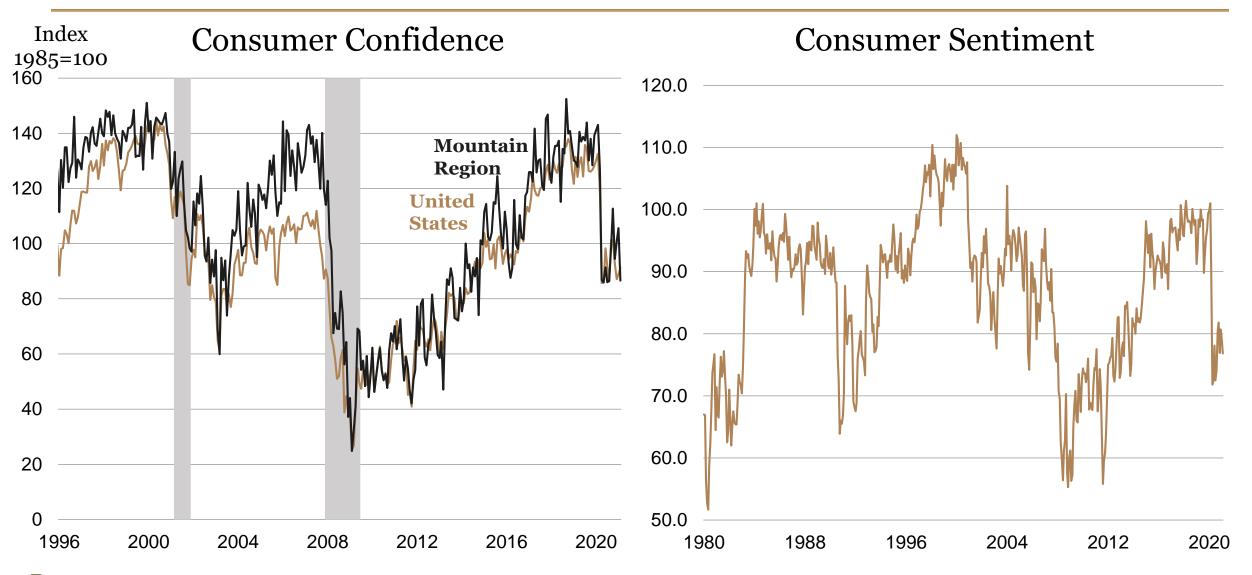


Indicators



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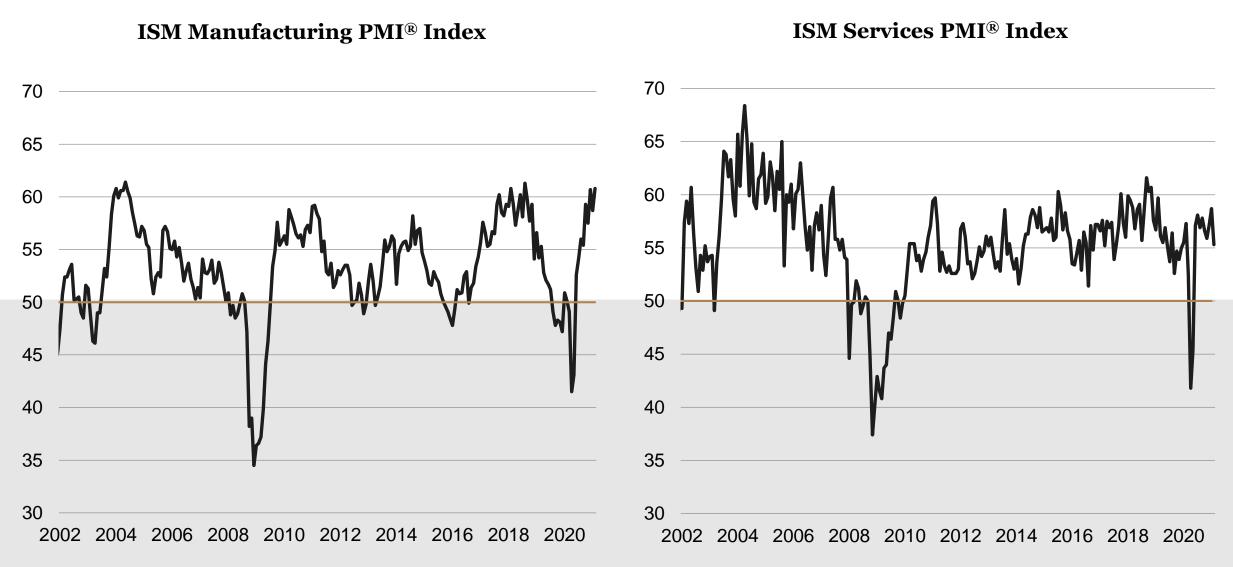
Index of Consumer Confidence



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Sources: The Conference Board, National Bureau of Economic Research, University of Michigan.

ISM Indices



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Source: Institute for Supply Management® (ISM).

Colorado Rank Among Other States

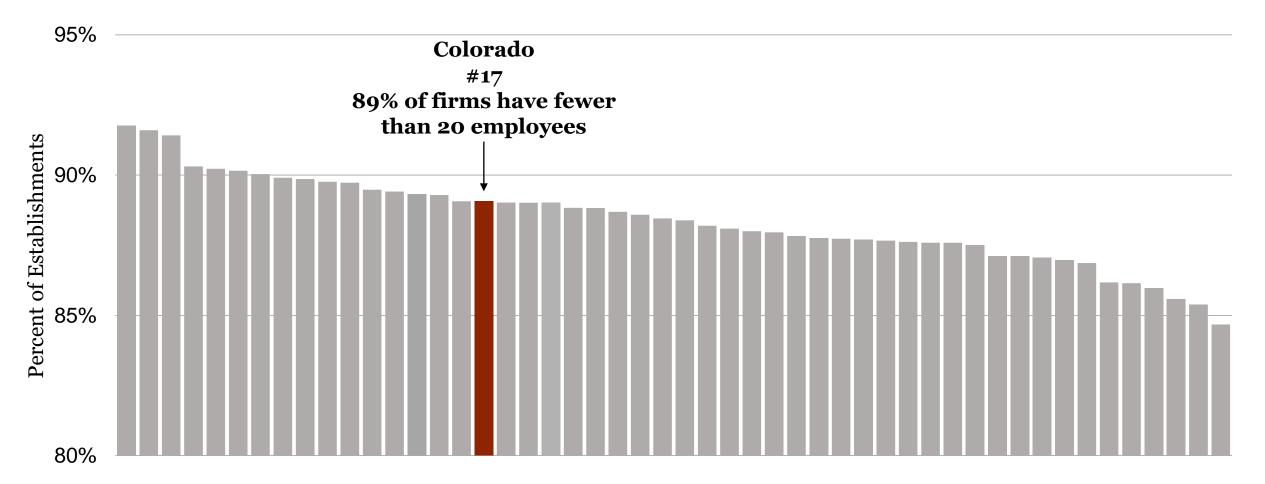
1-Year	3-Year	5-Year	10-Year	,
5	4	6	5	
26	14	11	6	
8	7	7	3	
48	17	11	3	
48	35	24	6	
12	11	14	22	
21	6	8	8	
8	9	12	12	
47	14	3	31	
5	5	2	3	
4	6	7	12	
27	17	6	4	
	5 26 8 48 48 12 21 8 47 5 4	$ \begin{bmatrix} 5 & 4 \\ 26 & 14 \\ 8 & 7 \\ 48 & 17 \\ 48 & 35 \\ 12 & 11 \\ 21 & 6 \\ 8 & 9 \\ 47 & 14 \\ 5 & 5 \\ 4 & 6 \end{bmatrix} $	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$



Data Sources: Bureau of Economic Analysis (2020), Bureau of Labor Statistics (12/20), U.S. Census Bureau (2019), Bureau of Labor Statistics (2020), Federal Housing Finance Agency All Transactions Index (Q4 2020), BRD calculations. *Unemployment rate for the last month.

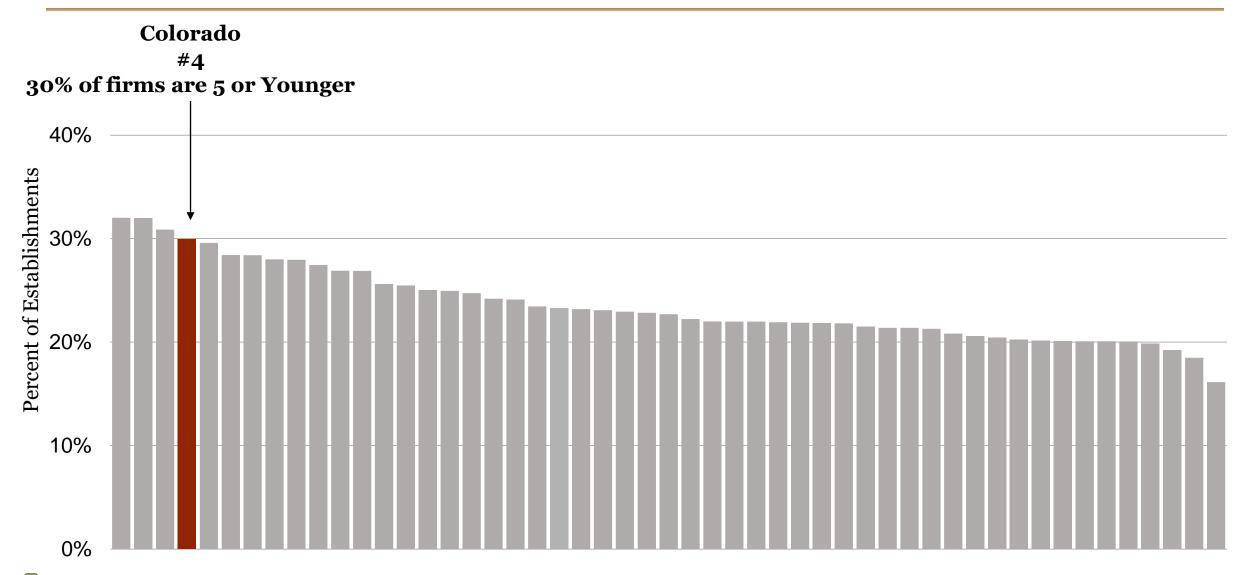
Percent of Small Business Establishments

Percent of Establishments with Less Than 20 Employees





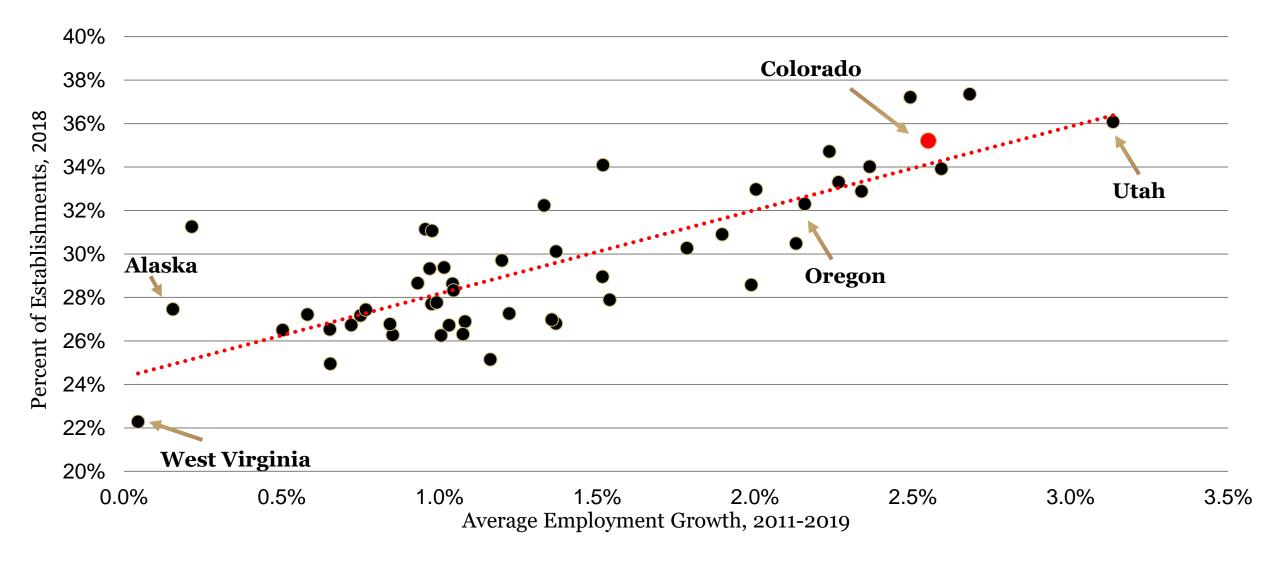
Young Establishments



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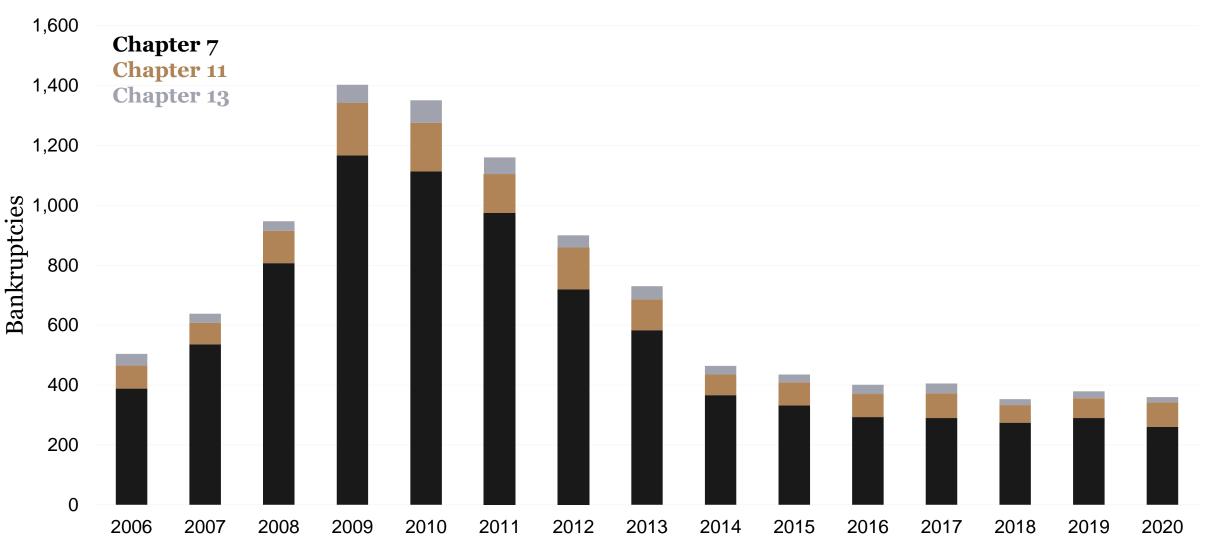
Source: Bureau of Labor Statistics, QCEW.

Young Businesses and Employment Growth



Sources: Census Bureau, Business Dynamics Statistics; Bureau of Labor Statistics, Current Employment Statistics.

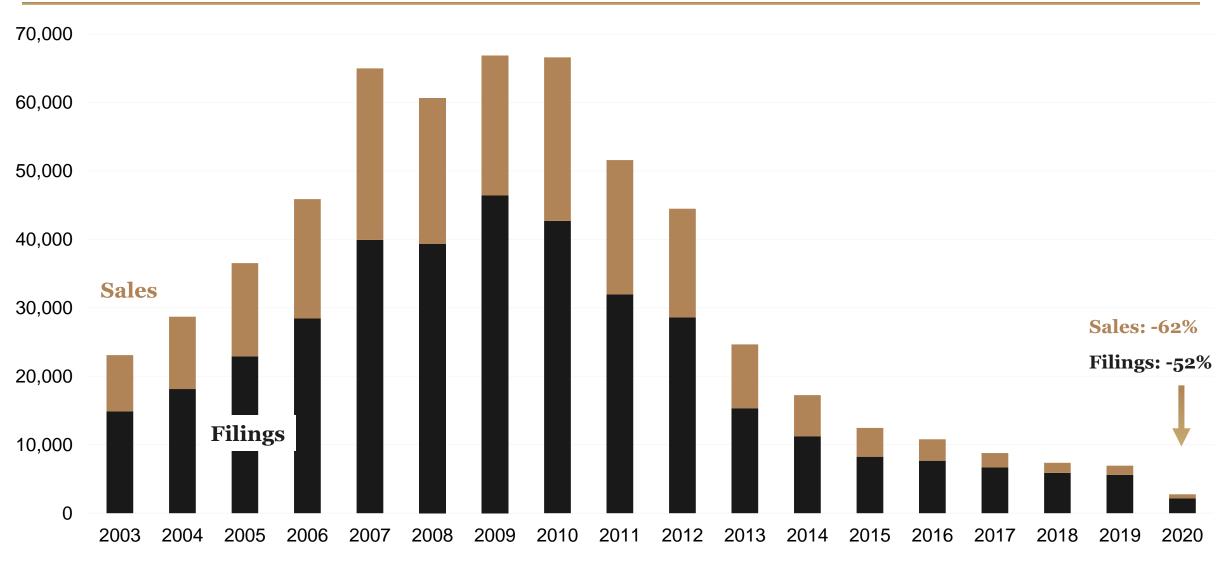
Colorado Bankruptcy Filings





Sources: U.S. Bankruptcy Courts.

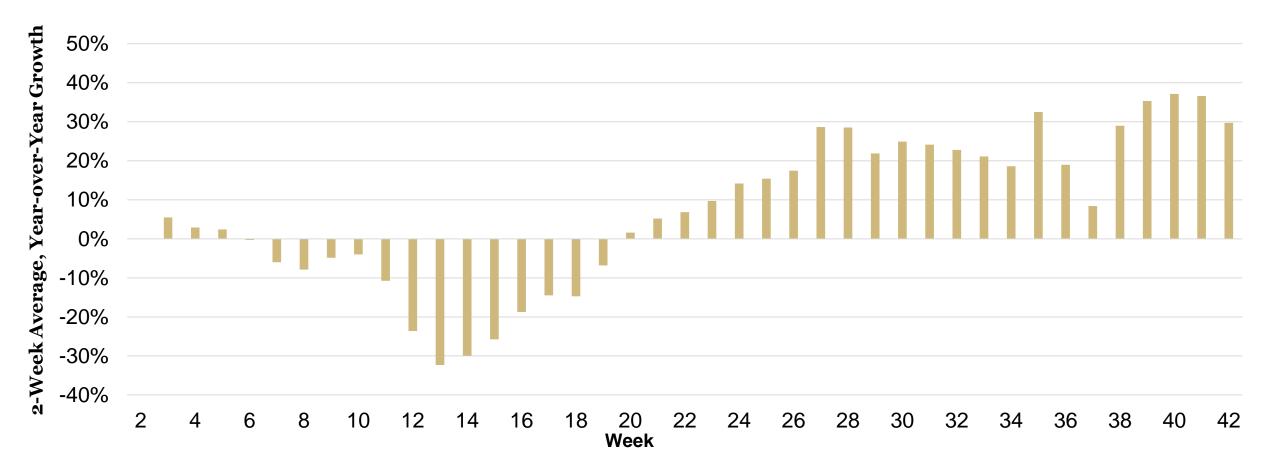
Colorado Foreclosures



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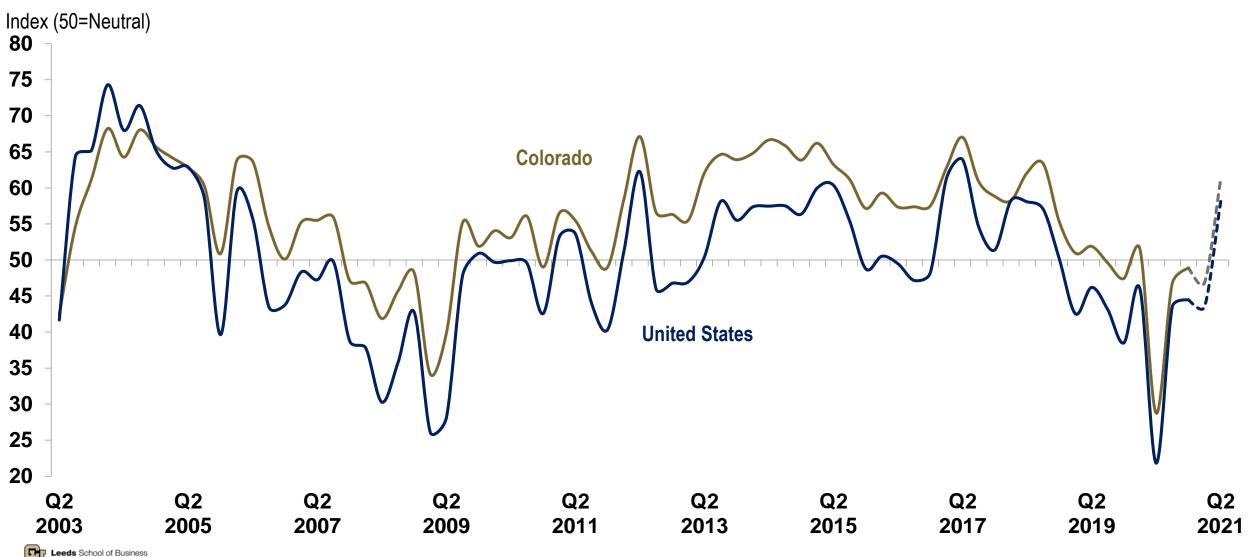
Source: Colorado Department of Local Affairs, Division of Housing.

New Entity Filings, Year-over-Year

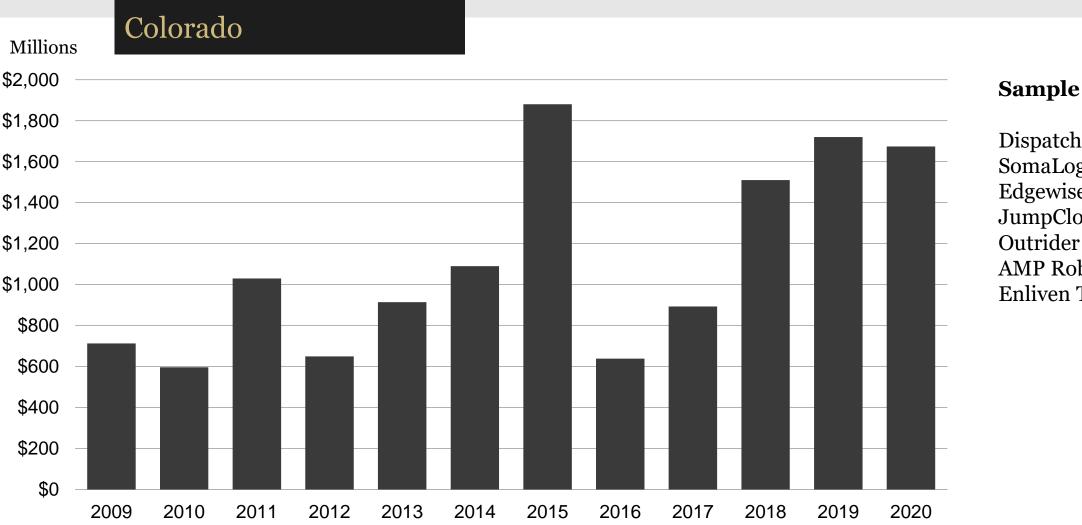




National and State Expectations



Venture Capital Investment



Sample 2019 Deals:

DispatchHealth SomaLogic Edgewise Therapeutics JumpCloud Outrider AMP Robotics Enliven Therapeutics

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Headwinds, Unknowns, and Tailwinds

COVID-19 Variant Tourism Events and Conventions Business Failures Political Unrest Racial Strife Human Behavior Real Estate/Construction Drought Fires Productivity Education Work from Home Gross Domestic Product Federal Stimulus 2/3 Vaccine Retail Sales Energy Biopharma Agriculture Technology



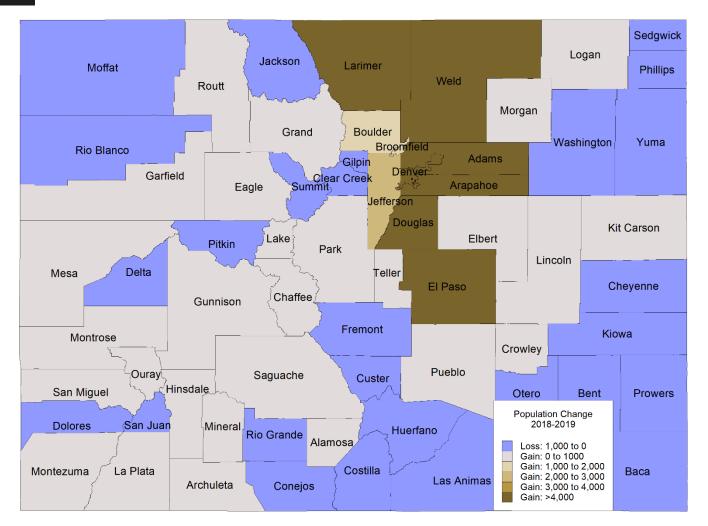






Population Change by County

2018-2019

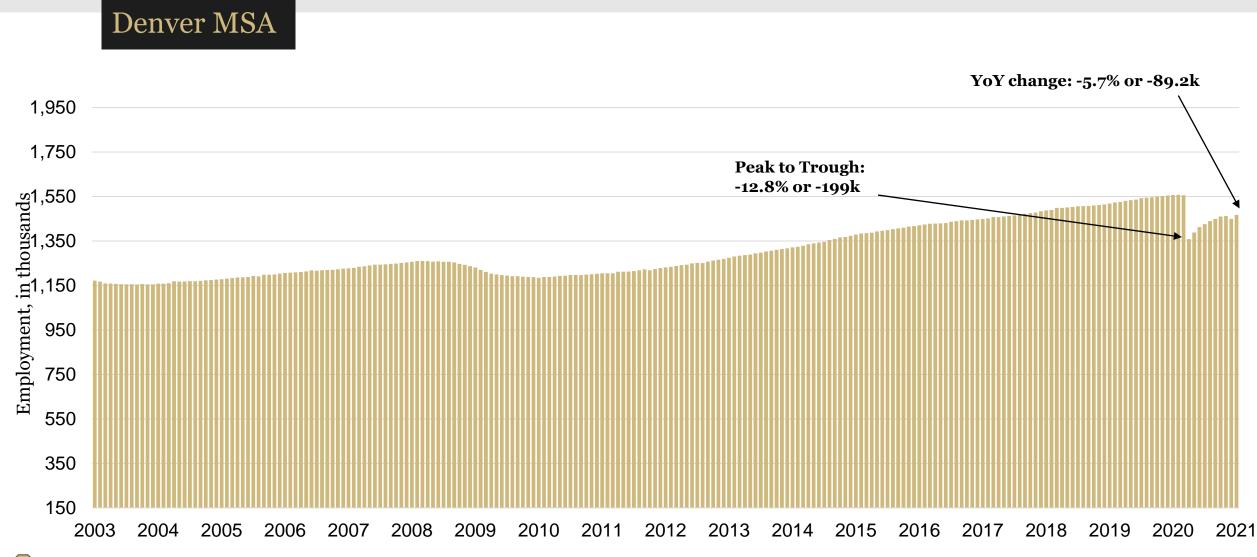


<u>2021 Forecast</u> Urban: 51.0k, 1.0% Rural: 2.3k, 0.3%



Source: Colorado Demography Office.

Employment

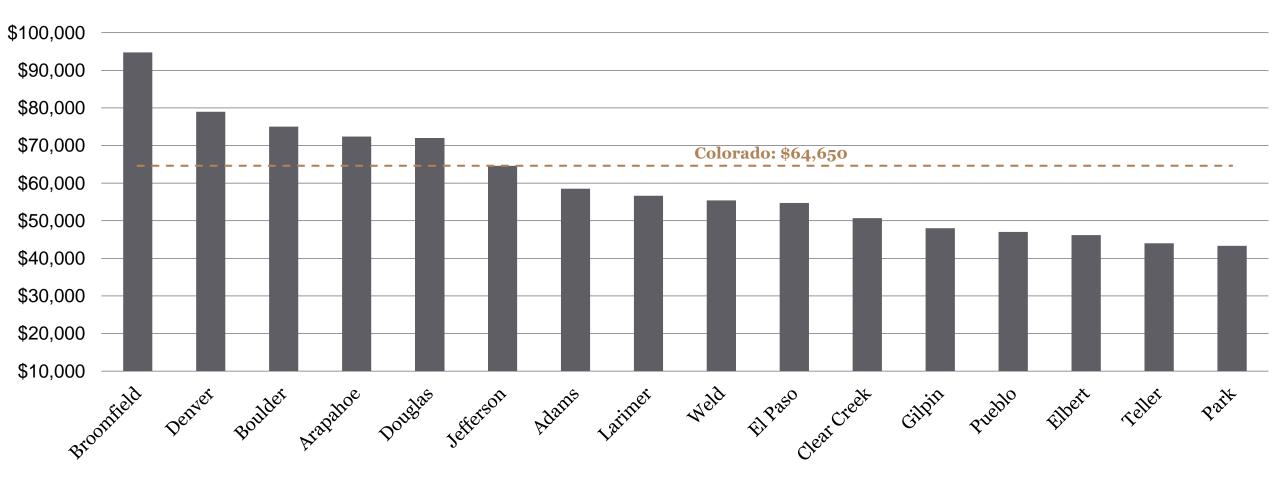


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Source: Bureau of Labor Statistics, CES (SA), December 2020.

Average Annual Wages

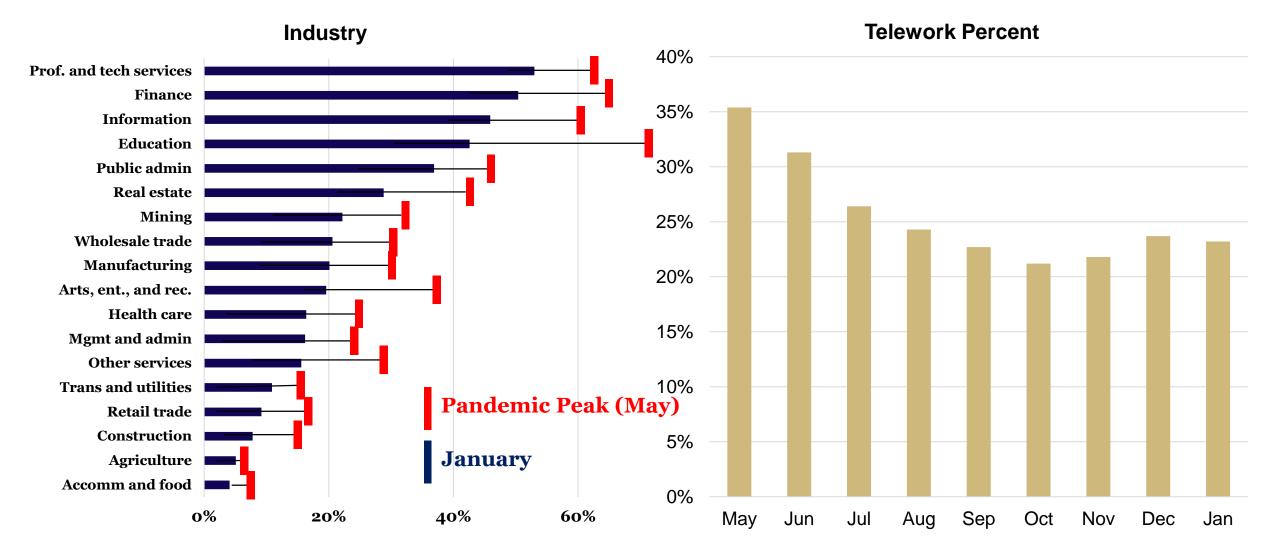
Front Range Counties





Source: Bureau of Labor Statistics, QCEW, as of Q3 2020.

Telework Due to Pandemic

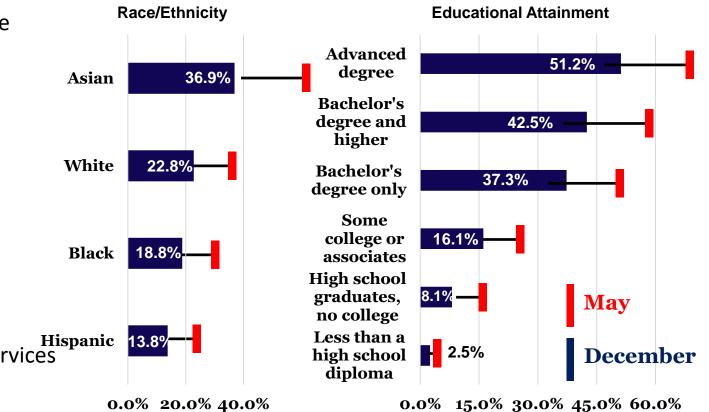


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Source: Bureau of Labor Statistics, Current Population Survey (CPS) Supplemental Data.

Telework Due to Pandemic

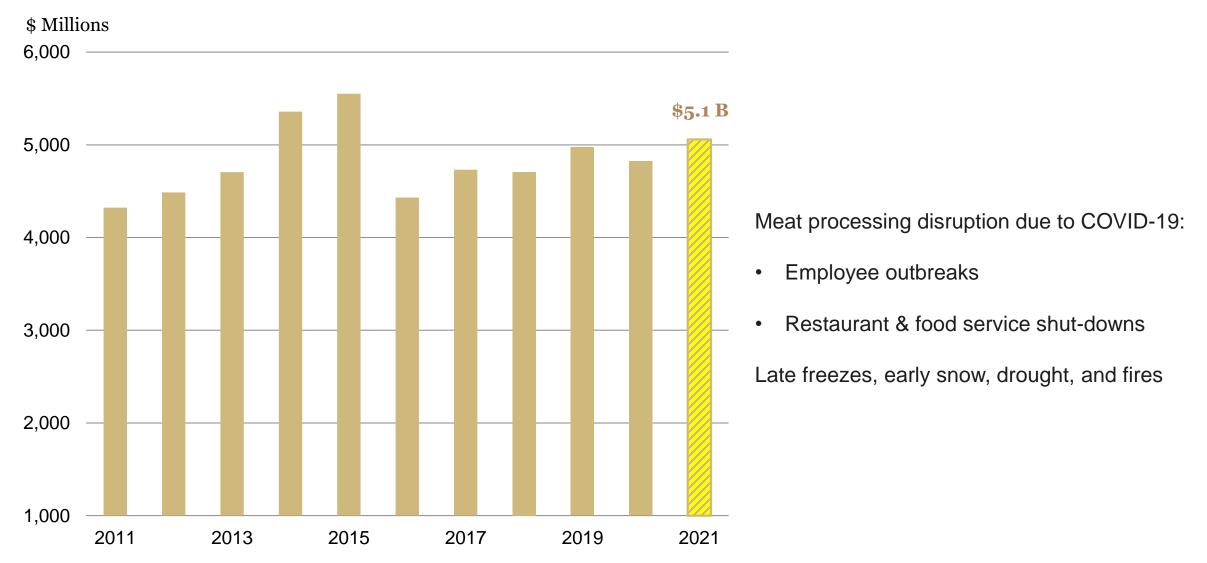
- 23.2% of workers teleworked or worked from home ٠ because of the pandemic
 - Down from 35.4% in May •
- Women
- Asian ٠
- Higher educational attainment •
- By industry, ٠
 - 43% of workers in educational services •
 - 50% in finance and insurance ٠
 - 53% in professional and technical services ٠
 - 4% of workers in accommodation and food services ٠
 - 5% in agriculture teleworked. ٠



Source: Bureau of Labor Statistics, Current Population Survey (CPS) Supplemental Data.



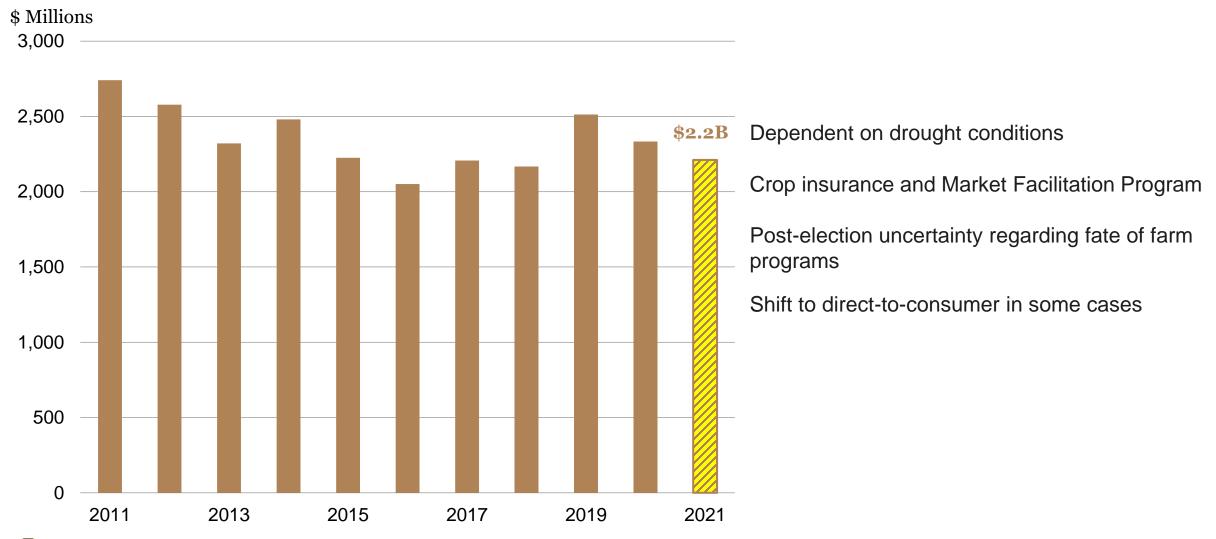
Livestock Cash Receipts



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Source: Colorado Business Economic Outlook Committee.

Crops Cash Receipts



Leeds School of Business

Source: Colorado Business Economic Outlook Committee.

Crude Oil Production

Largest Producers 200 Texas 180 North Dakota New Mexico 160 Oklahoma 140 Colorado Millions of Barrels 120 Alaska 100 California Wyoming 80 Utah 60 10. Louisiana 40 20

175 0 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021



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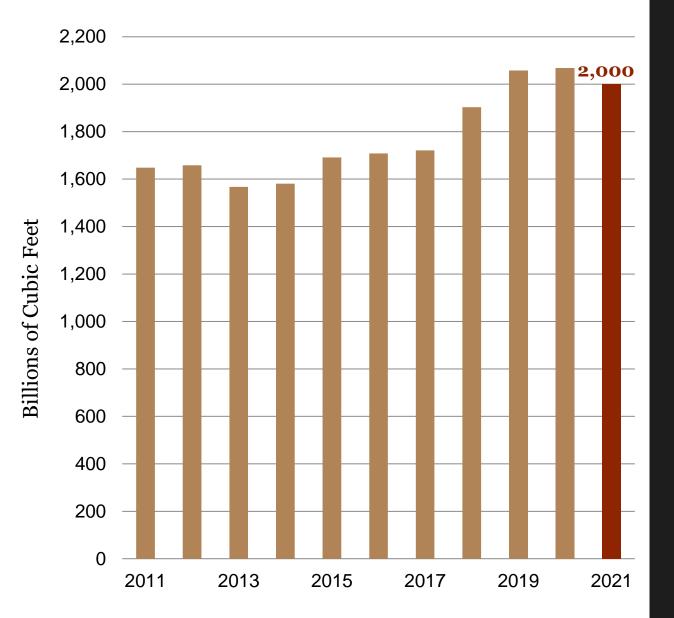
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Sources: Rankings from the Energy Information Administration. Production from the Colorado Oil and Gas Conservation Commission.



Natural Gas Production

7th largest natural gas producing state

Residential prices 5th lowest in the U.S.

More than 69% of Colorado households use natural gas for heat (compared to half of U.S. households)

Price increase expected due to rising demand for space heating, increasing exports, and decreasing production



Sources: Colorado Geological Survey Mineral and Mineral Fuel Activity Reports, Colorado Oil and Gas Conservation Commission, Department of Minerals and Geology, and Colorado Business Economic Outlook Committee.

Coal Production

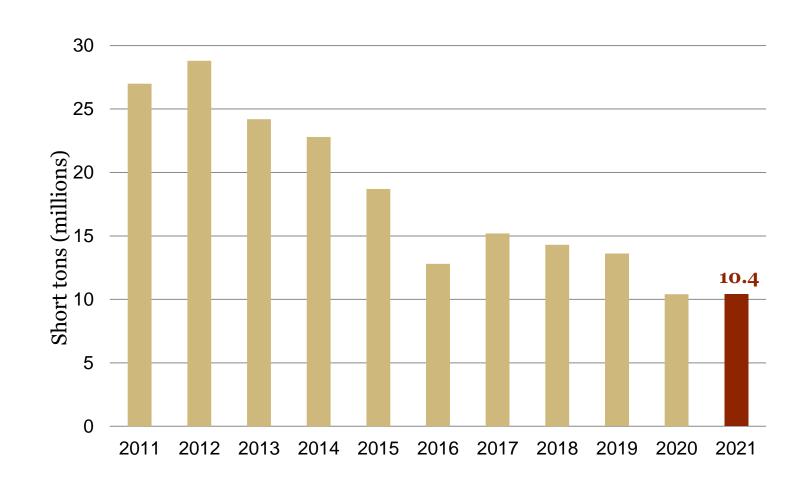
13th most productive coal state

45% of state's electricity production

Produced in five counties

- Gunnison
- Moffat
- Routt
- Rio Blanco
- La Plata

Government mandates for renewables limiting production



Sources: Colorado Geological Survey Mineral and Mineral Fuel Activity Reports, Colorado Oil and Gas Conservation Commission, Department of Minerals and Geology, and Colorado Business Economic Outlook Committee.

Renewables

Includes wind, solar, hydro, geothermal, and biomass

25% of net generation

Colorado ranks:

- 15th for wind megawatts installed
- 12th for solar capacity

Ambitious renewable energy portfolio standard

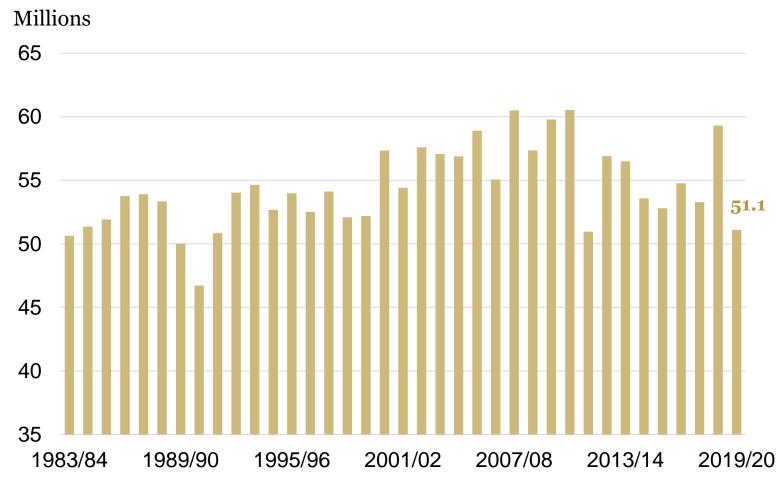




Photo courtesy of Xcel Energy.

National Snowsports Visits

1983/84 - 2019/20



U.S. visits down 13.8%

Lowest visitation since snowchallenged 2011/12 season

Suspended Colorado ski operations mid-March

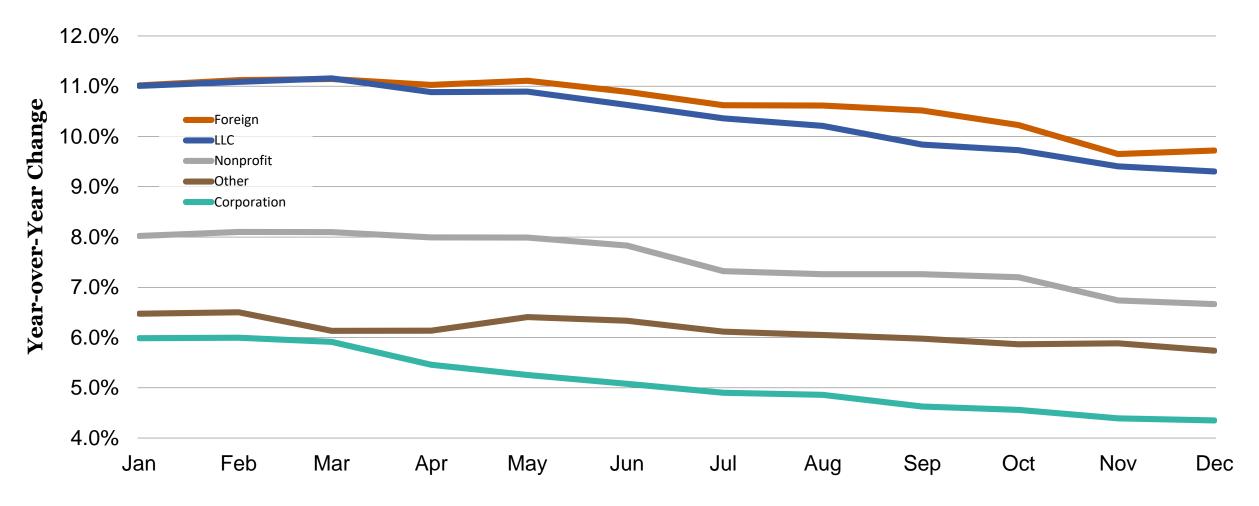
Guest caution mixed with pent-up demand



Denver Metro Commercial Real Estate in Q4 2020

- Industrial Space
 - Annual absorption activity grew 19.1% in 2020.
 - Direct vacancy to rose to 7.5%, an increase of 89 basis points year-over-year
- Retail Space
 - Net absorption totaled negative 946,000 sq ft, the lowest total in over 20 years
 - Direct vacancy rose 102 bps to 7.8%
- Office Space
 - Total vacancy grew 94 bps quarter-over-quarter to 15.9%, the highest level since 2011
 - 934,000 of negative net absorption in Q4 2020, totaling negative 1.1 million sq. ft. in 2020

Delinquent Entities





Sources: Colorado Secretary of State's Office.