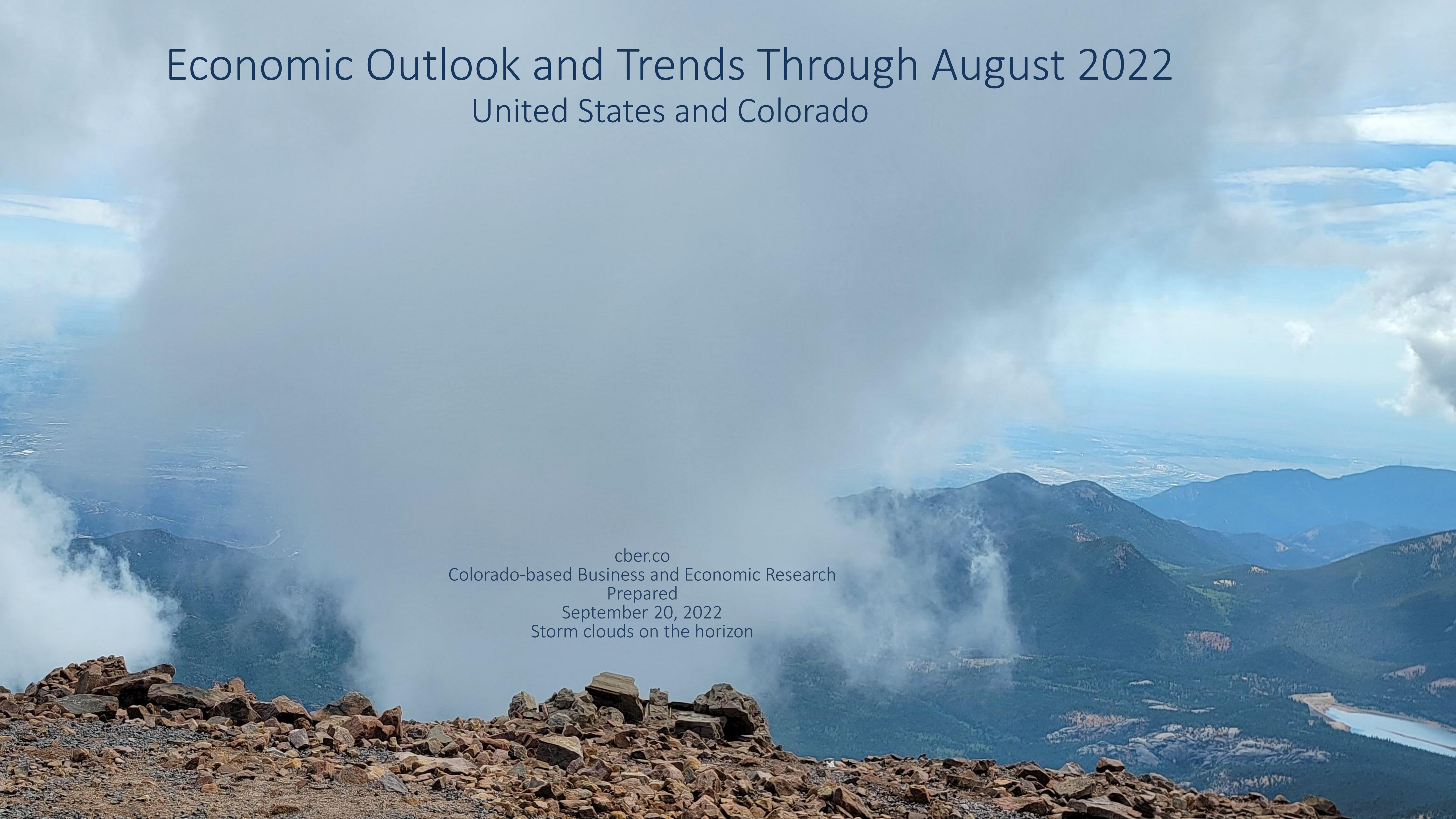
Economic Outlook and Trends Through August 2022

United States and Colorado



cber.co
Colorado-based Business and Economic Research
Prepared
September 20, 2022
Storm clouds on the horizon

Economic Outlook and Trends

Purpose and Summary

The purpose of this chartbook is to review the performance of the Colorado and U.S. economies for the first eight months of 2022. As the year has progressed, the number and magnitude of the headwinds have increased.

The economy will slip into a shallow recession by the end of 2022 or early 2023. In addition to the near-term slowdown, there will be weak economic activity and job growth in 2023.

Stay tuned!

The effect of the momentum and headwinds will be discussed in the following areas.

- U.S. Real GDP
- U.S. and Colorado Employment
- Momentum vs. Headwinds
- Headwinds
- Summary of Colorado Economic and Employment Outlook and Trends

Highlights – Momentum vs. Headwinds

The economy will likely slip into a shallow recession or period of weak economic activity and job growth in late 2022 or early 2023. The discussion is no longer about whether there will be a recession. The concern is now about its depth and duration.

Deteriorating Momentum
In August, the signs of deterioration in the broad-based growth of the labor market were more evident.

The rate hikes by the Fed have caused the housing, construction, and financial markets to slow – and in some regions, these industries entered a recession in the first half of the year.

The low industry and occupational unemployment rates illustrate how difficult it is for some companies to find workers.

Consumers have reduced their level of personal savings. In addition, they have increased their credit card consumption.

Retail employment is flat or weak in some regions.

Headwinds
Inflation and rising interest rates are at the top of the long list of headwinds that have upset the apple cart and become a political football.

The Federal Reserve has the unenviable task of containing inflation, along with the ill effects of supply chain disruptions, COVID-19 variants, labor shortages, low unemployment rates, policies related to the Eastern European conflict, misguided energy policy, and overspending by Congress (poor fiscal policy). On top of that, there are the political sideshows associated with the mid-term elections.

Economic Outlook and Trends

U.S. Real Gross Domestic Product

The Conference Board U.S. Economic Forecast projects real GDP growth will slip to 1.4% in 2022, down from 5.7% in 2021. Real disposable income, consumer spending, and construction spending (residential and nonresidential) will be noticeably less in 2022 and 2023.

The only metrics that will increase are government spending and the unemployment rate.

As a result, the recession will hit in Q4 or next year.

Inflation will decrease in 2023 but remain above the Fed’s targeted rate for an extended period.

U.S. Real GDP Growth

The Conference Board Forecast (September 14, 2022)

Real GDP and Economic Growth

The latest Conference Board forecast points to real GDP growth of 1.4% for 2022. Personal consumption has deteriorated as the year has progressed and will be 2.2% this year. Residential and nonresidential investments will experience similar declines caused by the Fed rate hikes. The U.S. will enter a broad-based recession by the end of 2022 or early next year.

Other Economic Factors

The labor market reflected strong but decelerating job growth in the first eight months of 2022. The decline in employment will continue into 2003. The U.S. unemployment rate will increase slightly to 3.7% in 2022 and 3.8% in 2023. PCE Inflation peaked in late Q2. It will be 5.8% in 2022 and 3.0% in 2023. Elevated inflation will continue longer than desired.

Conference Board US Real GDP Growth Forecast

	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	2021	2022	2023
Real GDP (YoY)	6.3%	6.7%	2.3%	6.9%	-1.6%	-0.6%	0.3%	-0.5%	5.7%	1.4%	0.3%
Real Disposable Income	54.7%	-29.1%	-4.1%	-4.5%	-7.8%	-0.5%	-0.5%	-1.0%	2.2%	-5.7%	-0.3%
Real Personal Consumption	11.4%	12.0%	2.0%	2.5%	1.8%	1.5%	1.0%	-0.6%	7.9%	2.2%	0.1%
Residential Investment	13.3%	-11.7%	-7.7%	2.1%	0.5%	-16.2%	-10.0%	-5.0%	9.2%	-6.0%	-4.9%
Nonresidential Investment	12.9%	9.2%	1.6%	2.9%	10.0%	0.0%	-0.2%	--1.1%	7.4%	3.6%	-0.5%
Total Gov't. Spending	4.2%	-2.0%	0.9%	-2.6%	-2.9%	-1.8%	1.0%	2.5%	0.5%	-1.3%	2.8%
Exports	-2.9%	7.6%	-5.3%	22.4%	-4.8%	17.6%	4.0%	2.0%	4.5%	6.2%	2.5%
Unemployment Rate	6.2%	5.9%	5.1%	4.2%	3.8%	3.6%	3.6%	3.6%	5.4%	3.7%	3.8%
PCE Inflation (%Y/Y)	1.8%	3.9%	4.3%	5.5%	6.3%	6.5%	6.3%	4.2%	3.9%	5.8%	3.0%
Core PCE Inflation (%Y/Y)	1.7%	3.4%	3.6%	4.6%	5.2%	4.8%	4.6%	4.4%	3.3%	4.8%	2.9%

Source: The Conference Board and cber.co.

Source: The Conference Board, https://www.conference-board.org/publications/Economic-Forecast-US, cber.co.

Economic Outlook and Trends

U.S. and Colorado Employment

Through the first eight months of 2022, the U.S. and Colorado labor markets have exceeded growth expectations.

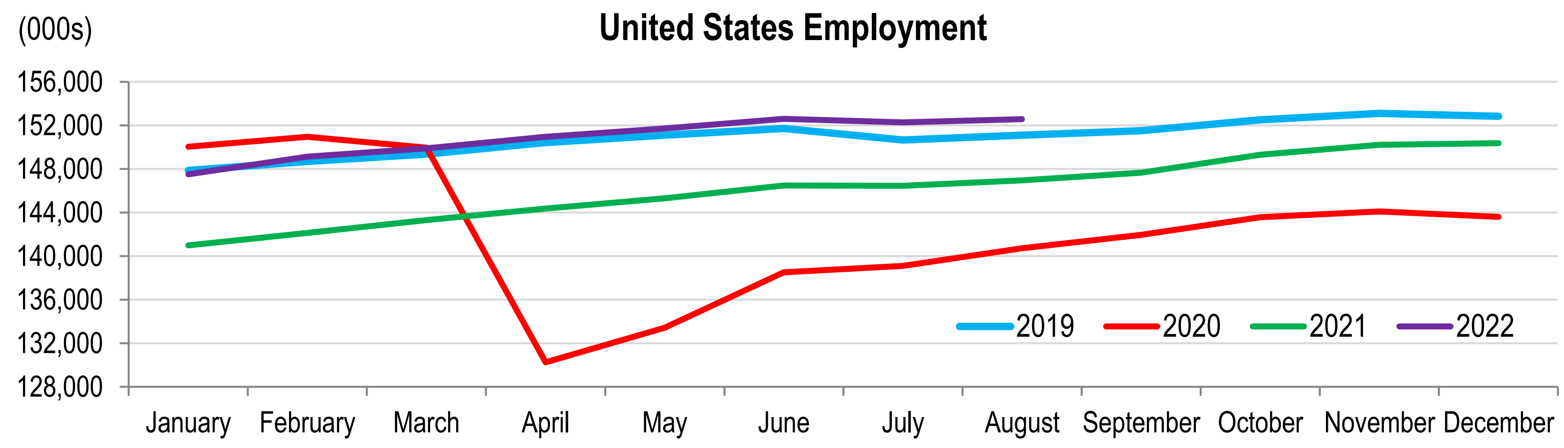
As the unemployment rates have declined, there have been improvements in the employment-to-population ratios. The number of job openings has stayed near record levels all year.

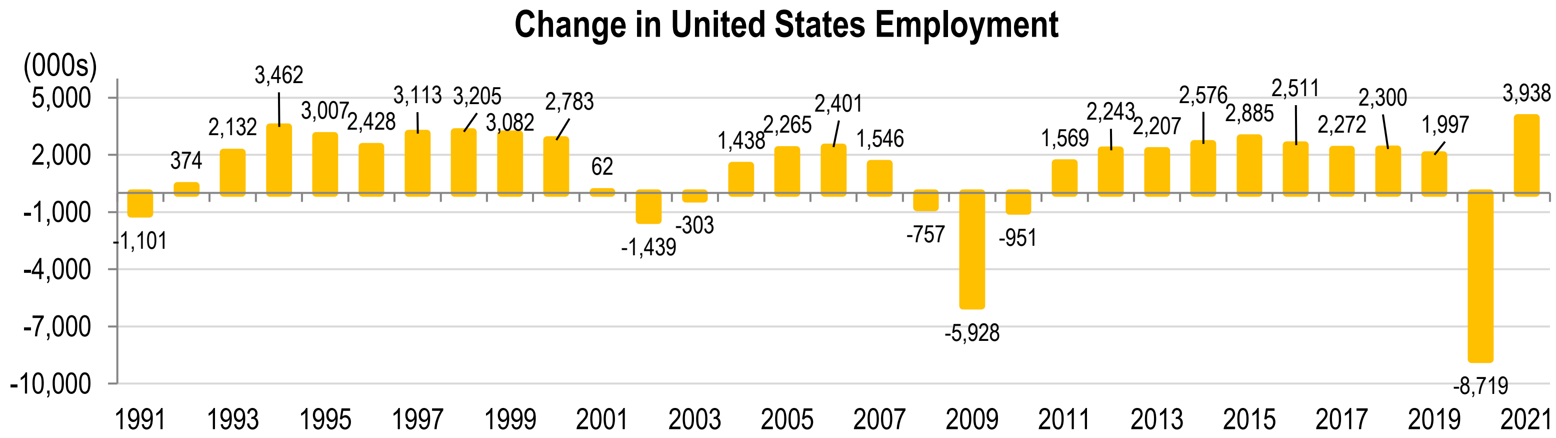
There are not enough workers to fill available jobs. In some industries, some companies have solved the problem by automating them.

Unlike past recessions, Colorado is not among the top-performing states for its job creation in 2022. Even though it is not in the upper tier, many good things are happening in the state economy (despite the projected downturn).

Employment and Change in Employment

United States





Source: Bureau of Labor Statistics, NSA cber.co.

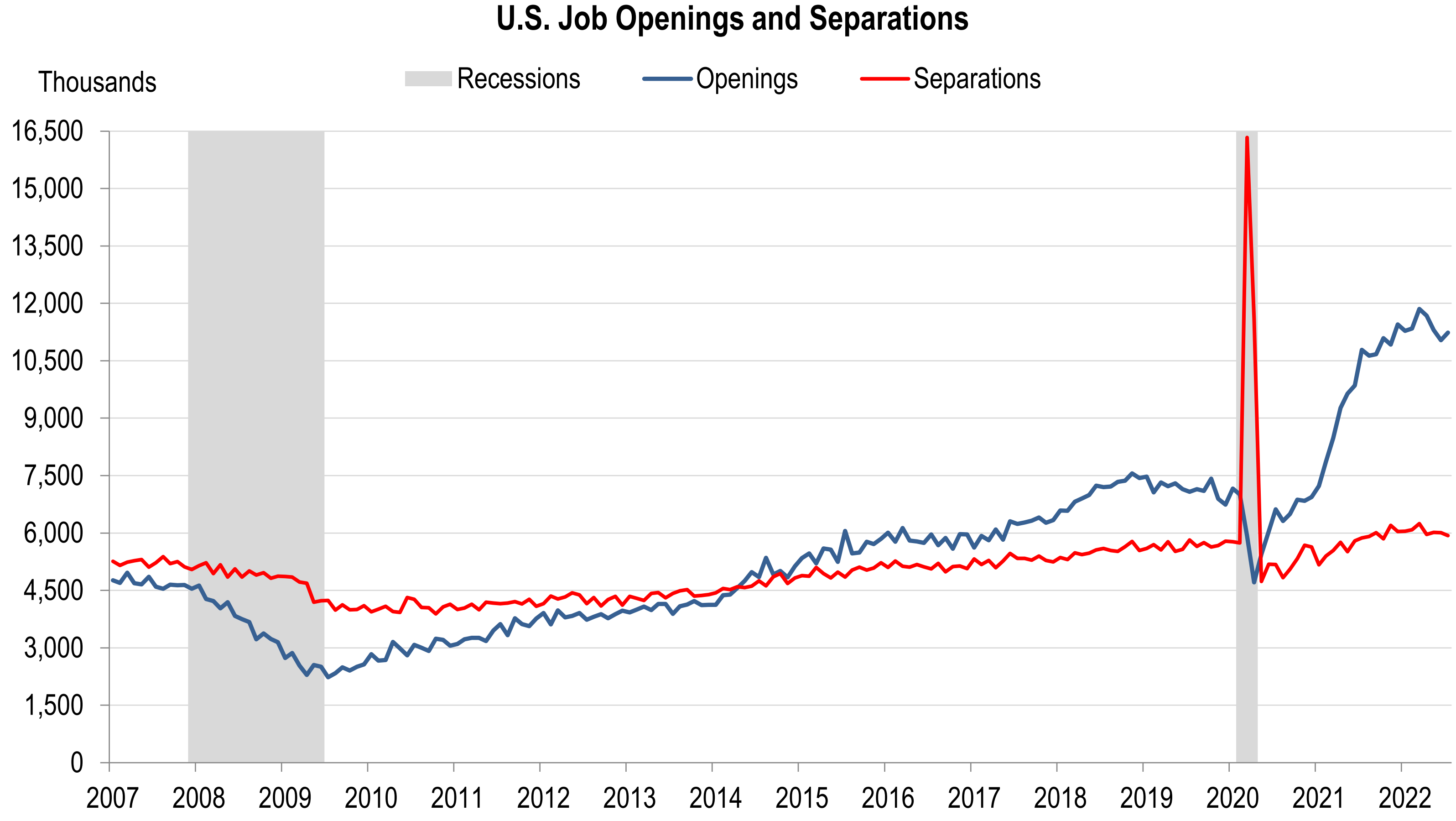
Average annual U.S. employment (NSA) through the first eight months of 2022 (purple) is about 5.6 million more than the same period in 2021 (green). By comparison, average U.S. employment through eight months of 2022 is about 722,000 more than the same period in 2019 (blue).

This year there has been broad-based employment growth, a low unemployment rate, and a severe shortage of workers. Wage growth has been solid in many occupations and industries but less than the inflation rate.

Job growth will increase slower in Q4 of 2022 and remain weak into 2023.

Job Openings and Separations

United States



Source: BLS, SA, cber.co.

Openings

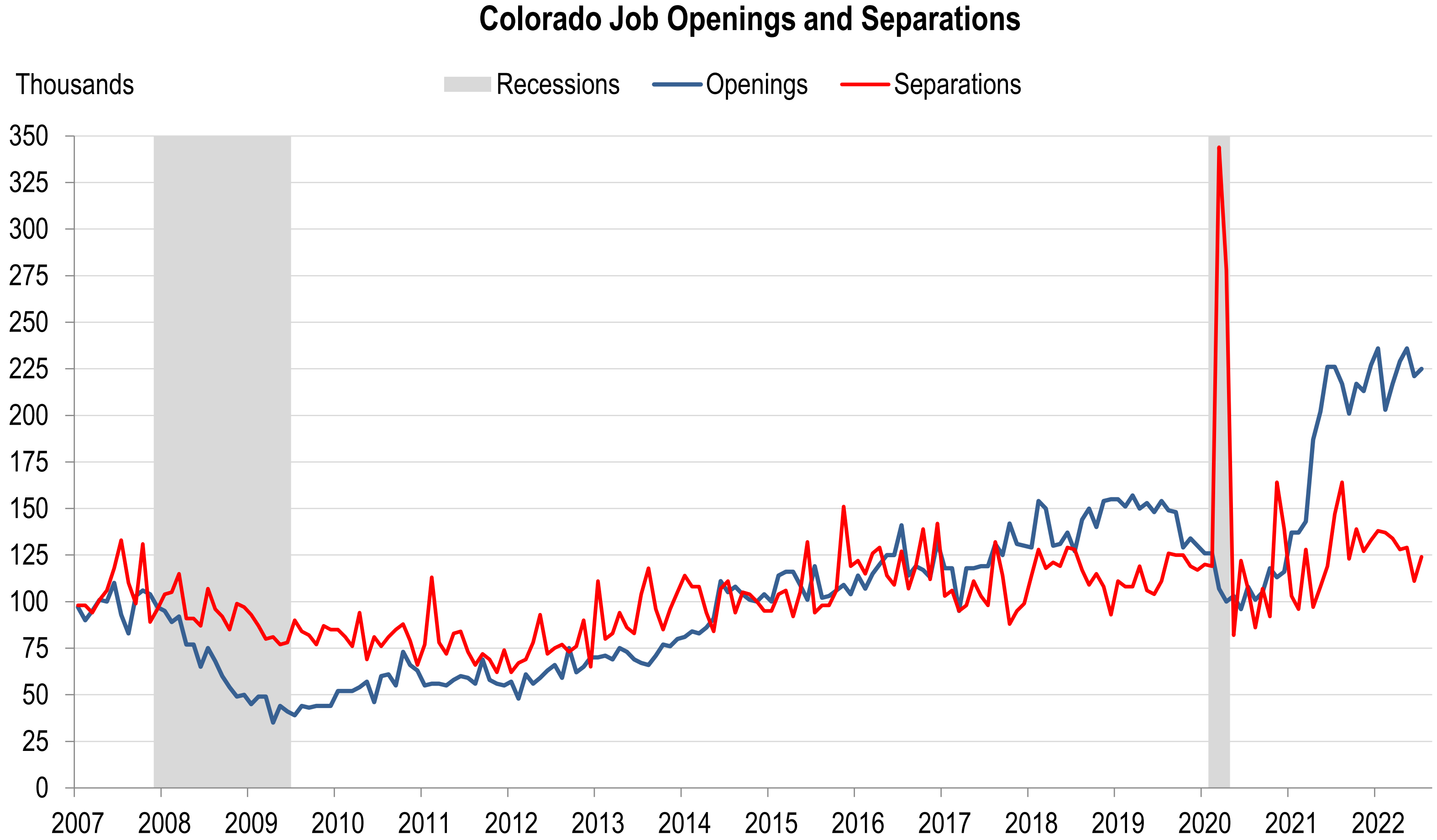
The number of U.S. job openings (blue) bottomed out in 2009. After the Great Financial Crisis, openings steadily increased over the next decade and leveled out in 2019. COVID-19 lockdown policies caused the decline in 2020. In July 2021, there were 10.7 million job openings. They have since been at or above that level. In July 2022, there were 11.2 million openings.

Separations

The July 2022 data reflected about 5.9 million separations (red). The average level for 2018 and 2019 was 5.6 million. Boomers retired, and other workers used the strong labor market to switch companies, increase their compensation, or improve their work environment. In July 2022, about 80% of the separations were quits.

Job Openings and Separations

Colorado



Source: BLS, SA, cber.co.

Openings

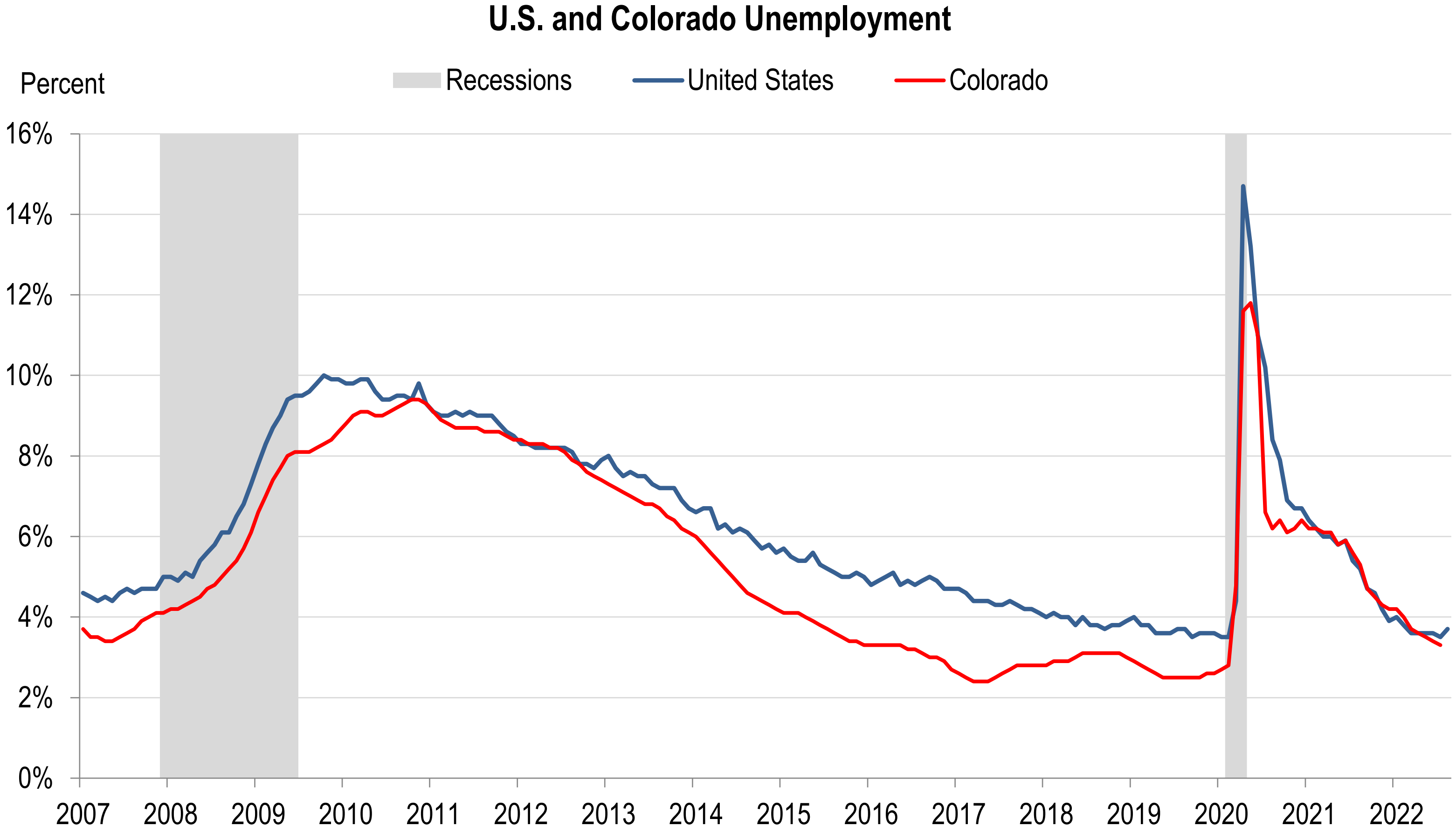
The number of Colorado job openings (blue) bottomed out in 2010 at about 35,000. After the Great Financial Crisis, openings steadily increased over the next decade. They peaked in the summer of 2019, then declined in March 2020 because of COVID-19 lockdown policies. They bottomed out in June 2020 at 96,000. In July 2022, there were 225,000 job openings.

Separations

The July 2022 data reflected 124,000 separations (red). The average level for 2018 and 2019 was 115,800. Since September 2021, at least 70% of the separations have been quits.

Unemployment Rate

United States and Colorado



Source: BLS, SA, cber.co.

Unemployment Rate

The Colorado and U.S. unemployment rates were similar in 2021 and 2022. The August unemployment rate was 3.4% for Colorado and 3.7% for the U.S. There will continue to be a shortage of workers despite the low unemployment rate and projected recession.

Annual Unemployment Rate

Year	United States	Colorado
2016	4.9%	3.1%
2017	4.4%	2.6%
2018	3.9%	3.0%
2019	3.7%	2.6%
2020	8.1%	6.9%
2021	5.4%	5.2%
2022	3.7%	3.6%

Unemployment Rates by States

August 2022

Unemployment Rate <2.9%

Rank	State	Rate
1	Minnesota	1.9%
2	New Hampshire	2.0%
3	Utah	2.0%
4	Nebraska	2.1%
5	Vermont	2.1%
6	North Dakota	2.3%
7	South Dakota	2.3%
8	Kansas	2.5%
9	Missouri	2.5%
10	Alabama	2.6%
11	Iowa	2.6%
12	Virginia	2.6%
13	Florida	2.7%
14	Idaho	2.7%
15	Georgia	2.8%
16	Indiana	2.8%
17	Montana	2.8%
18	Rhode Island	2.8%

Unemployment Rate Between 2.9% and 3.7%

Rank	State	Rate
19	Maine	3.1%
20	Oklahoma	3.1%
21	South Carolina	3.1%
22	Wisconsin	3.1%
23	Wyoming	3.1%
24	Arkansas	3.4%
25	Colorado	3.4%
26	Tennessee	3.4%
27	Arizona	3.5%
28	Louisiana	3.5%
29	North Carolina	3.5%
30	Massachusetts	3.6%
31	Mississippi	3.6%
32	Oregon	3.7%
33	Washington	3.7%

In August 2022, the U.S. unemployment rate was 3.7%.

Thirty-three states had unemployment rates lower than 3.7% (green).

Colorado was tied, with two other states, as the 24th best state with a 3.4% unemployment rate.

The states with the largest labor forces are CA, TX, FL, NY, PA, IL, OH, GA, NC, and MI. About 53% of the U.S. labor force works in these ten states. The biggest states often have higher unemployment rates.

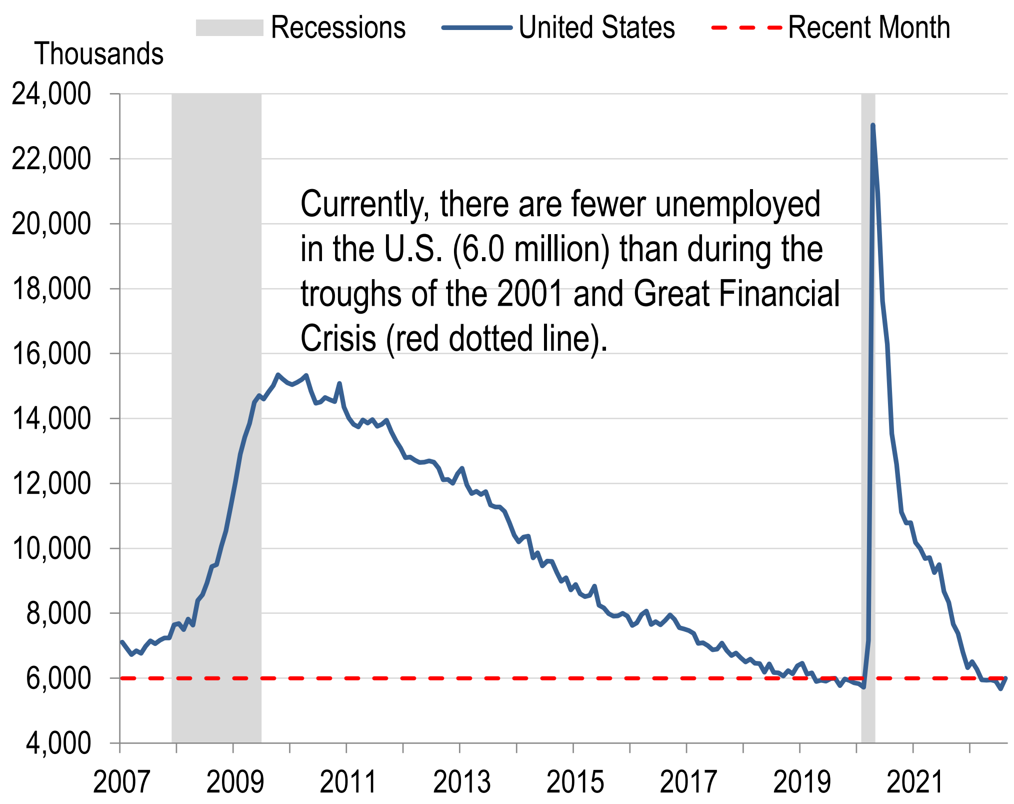
Unemployment Rate is 3.8% or Greater

Rank	State	Rate
34	Kentucky	3.8%
35	West Virginia	3.9%
36	New Jersey	4.0%
37	Ohio	4.0%
38	California	4.1%
39	Connecticut	4.1%
40	Hawaii	4.1%
41	Michigan	4.1%
42	Texas	4.1%
43	Pennsylvania	4.2%
44	Maryland	4.3%
45	Nevada	4.4%
46	New Mexico	4.4%
47	Delaware	4.5%
48	Illinois	4.5%
49	Alaska	4.6%
50	New York	4.7%
51	District of Columbia	5.1%

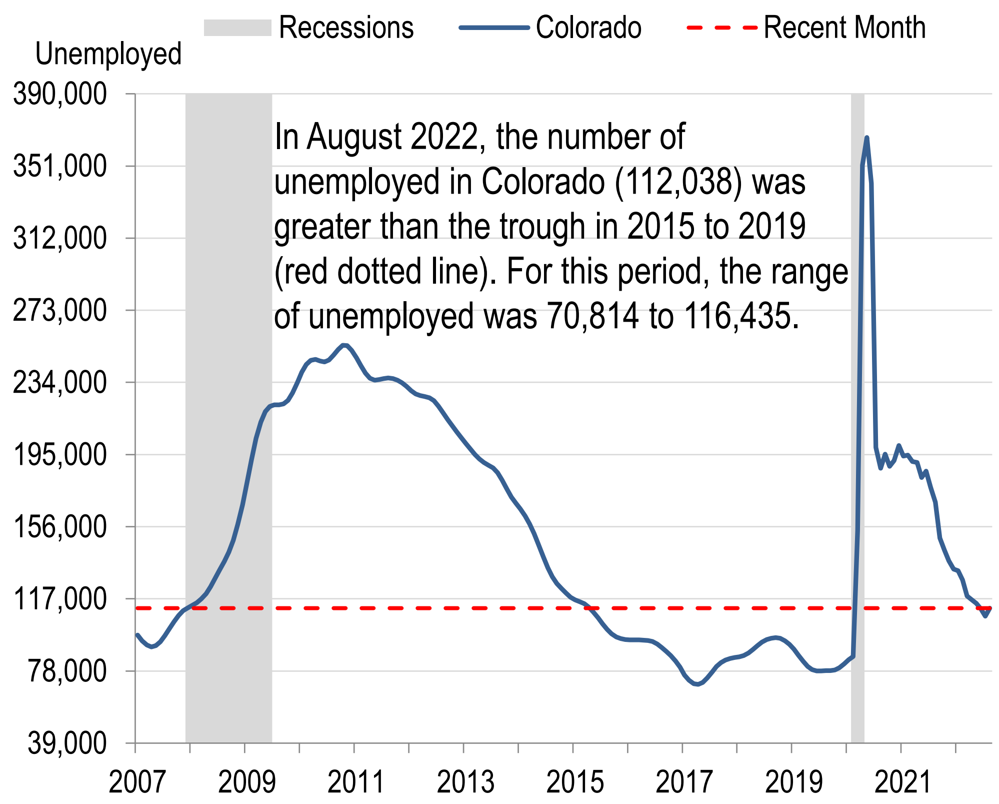
Source: Bureau of Labor Statistics, cber.co.

Number of Unemployed
United States and Colorado

U.S. Number of Unemployed (Thousands)



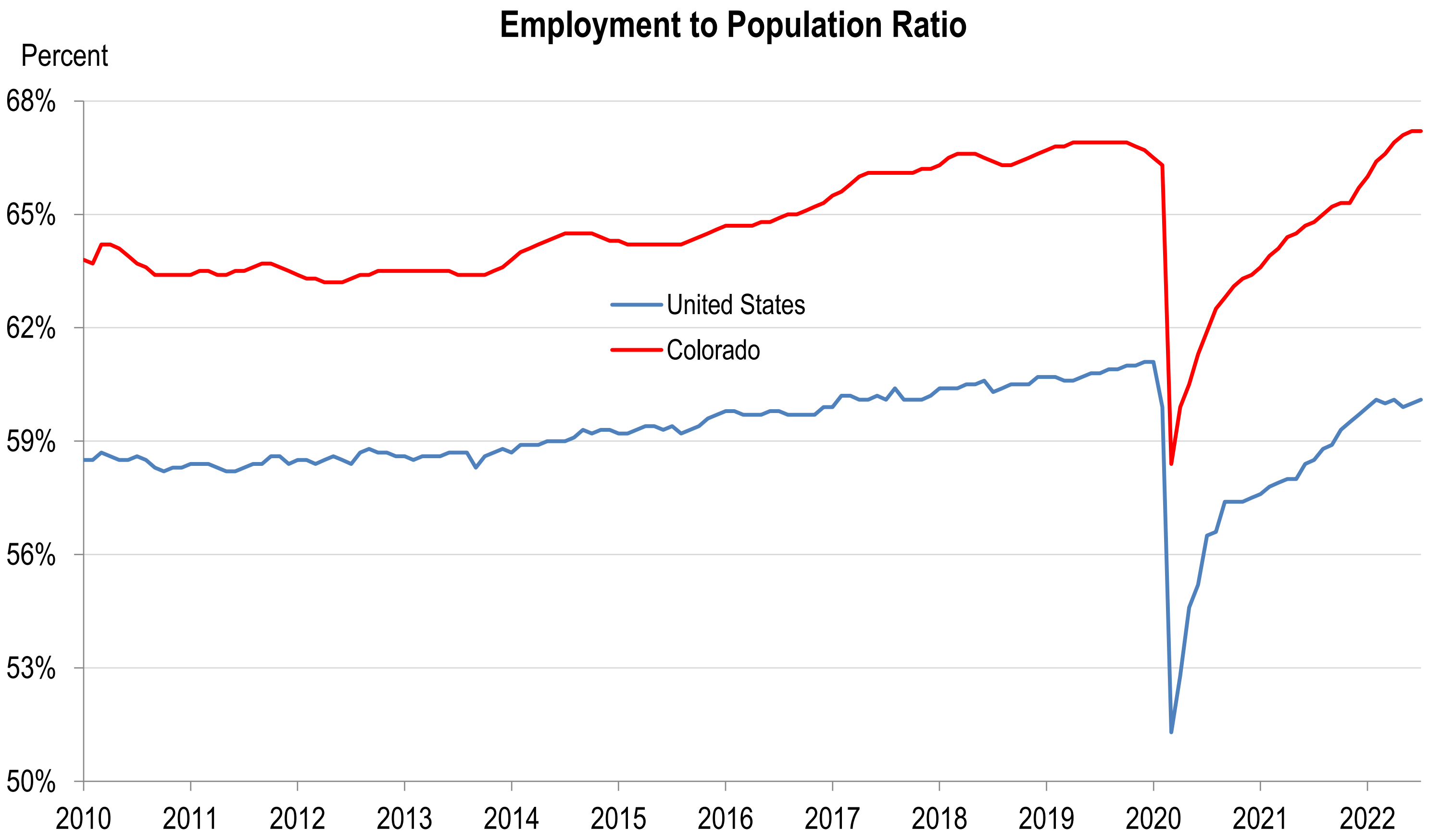
Colorado Number of Unemployed (Thousands)



Source: BLS, cber.co.

Employment-to-Population Ratio

United States to Colorado



Source: FRED, BLS, cber.co.

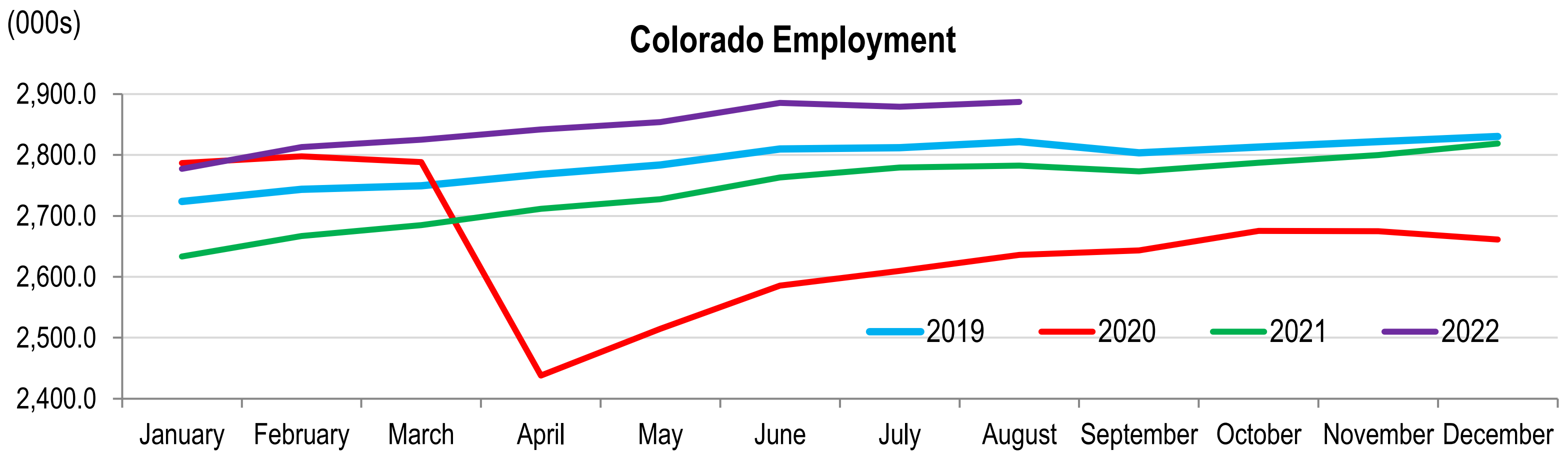
Between 2010 and 2019, the employment-to-population ratios for Colorado and the U.S. gradually increased.

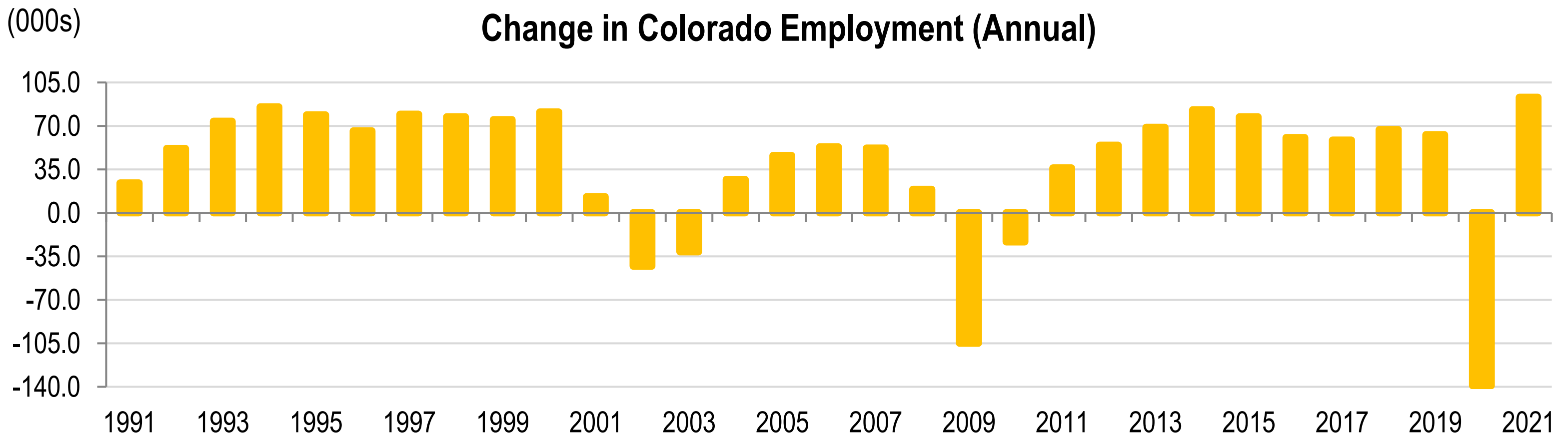
Between May and November 2019, the Colorado ratio peaked at 66.9%. In March 2020, it fell to 58.4% because of COVID-19 lockdown policies. It rebounded and reached 67.2% in August 2022.

In January and February of 2020, the U.S. ratio was 61.1%. In March 2020, it plummeted to 51.3% because of COVID-19 lockdown policies. It rebounded and was 60.1% in August 2022. The U.S. ratio is 1.0 percentage points below the pre-pandemic peak in 2020 (61.1%).

Employment and Change in Colorado Employment

Colorado





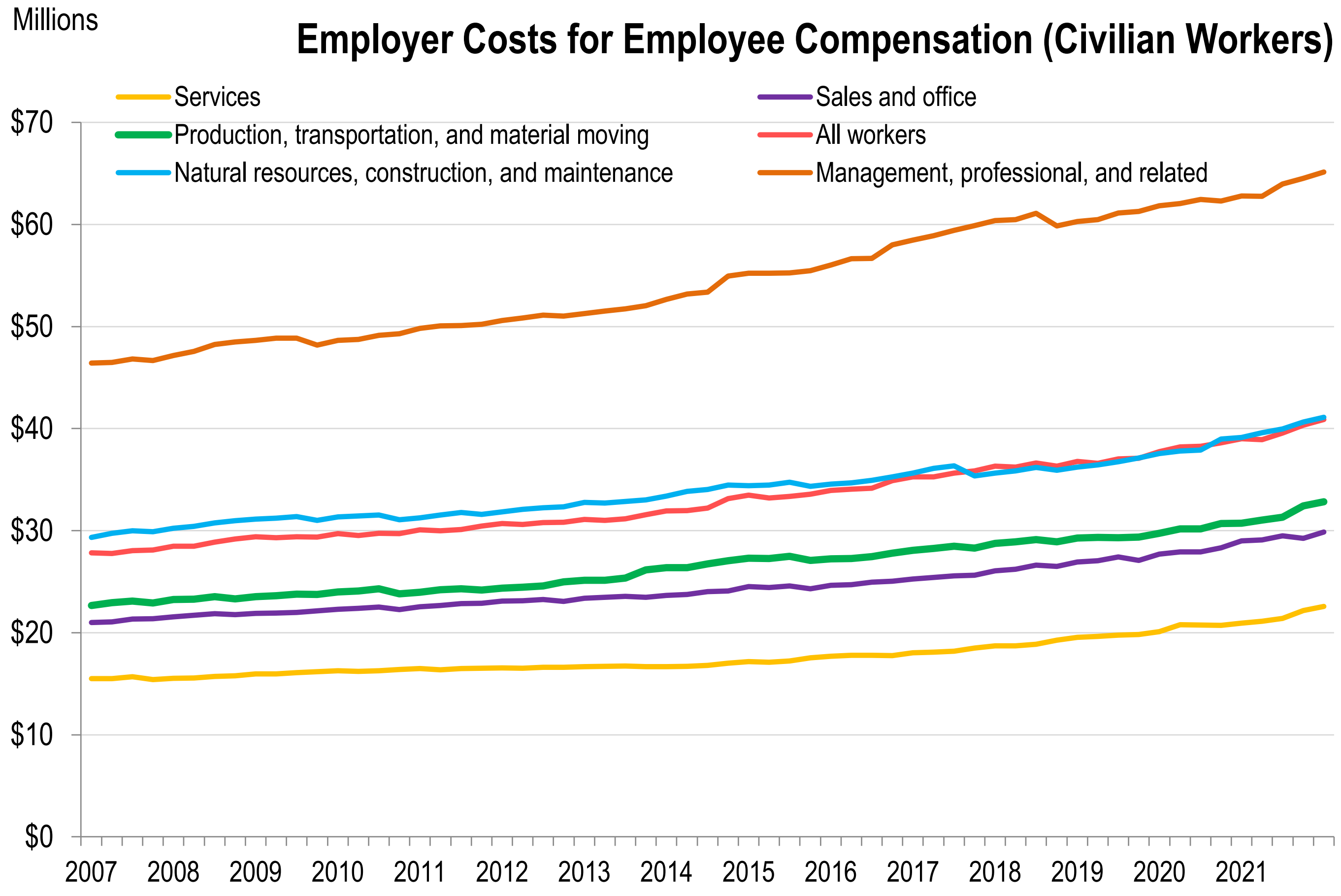
Source: Bureau of Labor Statistics, NSA, cber.co.

Average annual Colorado employment (NSA), based on the first eight months of 2022 (purple), is about 126,700 greater than the same period in 2021 (green). The annualized level of employment for the first eight months of 2022 (purple) is about 68,800 more than in 2019 (blue).

The following sectors are below their February 2020 (pre-pandemic) levels: Local Government (-11,200), Food and Accommodations (-5,900), State Government (-5,400), Extractive Industries (-6,100), and Federal Government (-500).

Employer Costs for Employee Compensation

Quarterly Cost of Compensation (Cost per Hours Worked) by Occupation



Change in Compensation Q1 2022 vs. Q1 2021

Over the past year, compensation has increased across all occupations. Frequently, the occupations with the lowest hourly rate have had the largest rate of increases. The wage increases, in this table, are lower than the increase in inflation.

Year over Year Change in Compensation

Color	Occupation	Wages	YOY Change	YOY%
Orange	Mgmt. and Prof.	$65.15	$2.35	3.7%
Blue	Nat. Res., Const., Maint.	$41.10	$1.97	5.0%
Red	**All Workers**	**$40.90**	**$1.89**	**4.8%**
Green	Prod., Transp., Mat. Moving	$32.84	$2.12	6.9%
Purple	Sales and Office	$29.85	$0.86	3.0%
Yellow	Services	$22.56	$1.62	7.7%

Source:Bureau of Labor Statistics, cber.co. Note: Not adjusted for inflation.

Change in Employment

Colorado Sectors with 2022 Growth that is Less than the State Rate (2.4%)

Change in Employment Sectors with Growth Less Than the State Rate			
Sector	August 2022 (000s)	8/22 vs 12/21 (000s)	% Change
Administrative Services	163.2	3.6	2.3%
Information	79.2	1.5	1.9%
Food and Accommodation (F&A)	282.8	5.0	1.8%
Wholesale Trade	113.9	2.0	1.8%
State Government	126.9	0.8	0.6%
Retail Trade	275.3	1.5	0.5%
Local Government	264.8	0.9	0.3%
Financial Activities	176.9	-3.1	-1.7%
Federal Government	52.8	-1.1	-2.0%
Total	1,535.8	11.1	0.7%

Total employment for the state increased by 2.4% between December 2021 and August 22. These sectors/sub-sectors had a growth rate that is less than that amount.

They increased by an average of 0.7%.

The combined employment of these sectors accounted for 53% of Colorado employment and 16% of total job growth during this period.

Sectors add jobs at different rates for different reasons. For example, the government is not a growth industry, financial services are volatile, there are always shortages for healthcare positions, and the retail sector is evolving and somewhat volatile.

Source: BLS, SA, cber.co.

Change in Employment

Colorado Sectors with 2022 Growth That is Greater Than the State Rate (2.4%) Summary

Change in Employment Sectors with a Growth Rate Greater Than the State Rate			
Sector	August 2022 (000s)	8/22 vs 12/21 (000s)	% Change
Arts, Entertainment, Recreation (AER)	65.9	12.4	23.2%
Professional, Scientific, and Technical Services	276.8	13.9	5.3%
Transportation, Warehousing, and Utilities	111.6	5.5	5.2%
Management of Corporations and Enterprises	46.8	2.2	4.9%
Construction	185.7	6.8	3.8%
Education (Private)	46.5	1.7	3.8%
Extractive Industries	20.4	0.6	3.0%
Other Services (Personal)	119.7	3.0	2.6%
Manufacturing	154.9	3.7	2.4%
Healthcare	310.9	7.3	2.4%
Total	1,339.2	57.1	4.5%

Summary Change in Employment (000s)			
	August 2022	8/22 vs 12/21	% Change
Greater than State Rate	1,339.2	57.1	4.5%
Less than State Rate	1,535.8	11.1	0.7%
Total	2,875.0	68.2	2.4%

Source: BLS, SA, cber.co.

Total employment for the state increased by 2.4% between December 2021 and August 2022.

These sectors/sub-sectors had a growth rate greater than that amount. They increased by an average of 4.5%.

The combined employment of these sectors accounted for 47% of Colorado employment and 84% of total job growth during the first eight months.

Sectors such as AER, administrative services, and extractive industries recently added jobs lost during the pandemic. On the other hand, PST and MCE are consistently strong performers. Construction and manufacturing employment is typically more volatile than other sectors.

Economic Outlook and Trends

Momentum and Headwinds

As 2022 progressed, the economic momentum decreased, and headwinds increased.

The ISM indices showed marginal optimism for manufacturers and service providers.

The rate of retail sales growth will taper off in Q4.

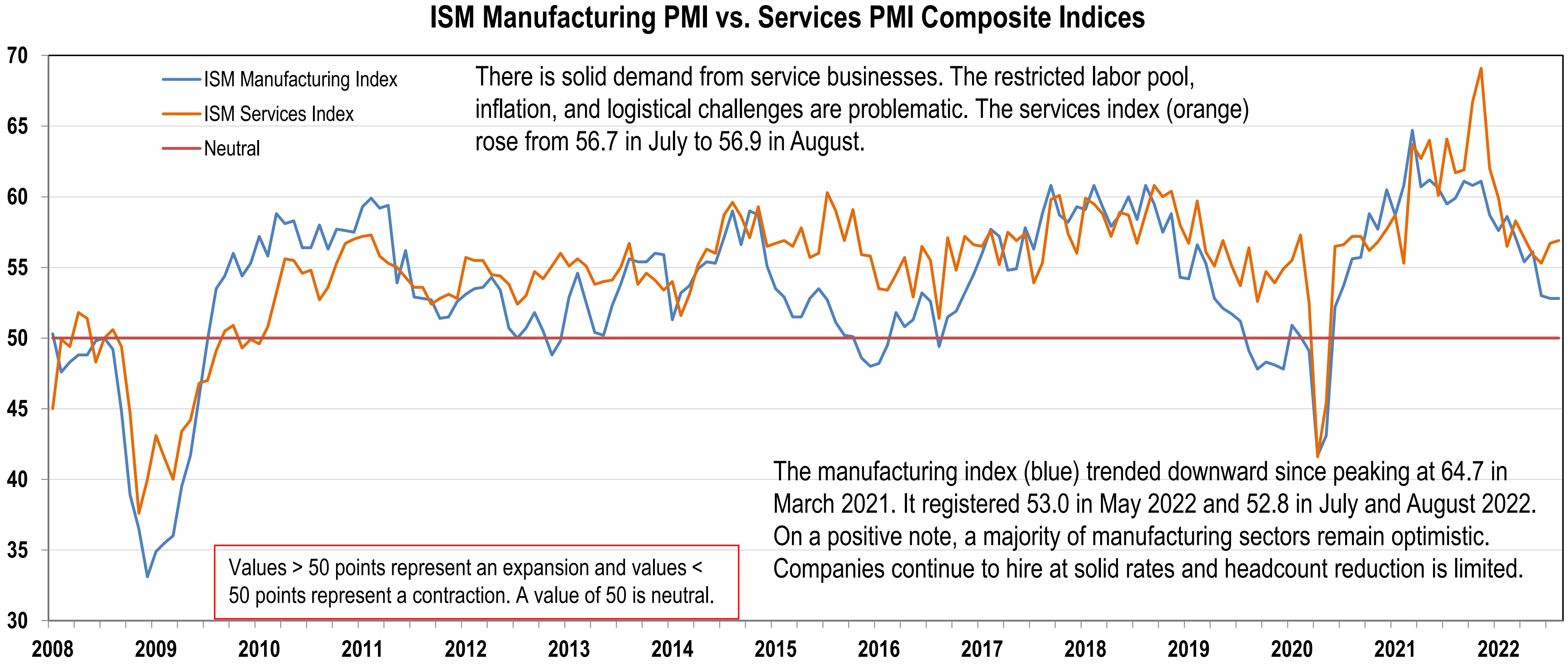
Colorado tourism has had an excellent year, with increased passenger traffic at DIA.

Despite severe restrictions, Colorado oil production has stabilized.

Construction has slowed because interest rates have increased. Houses are often on the market longer. Housing prices have stabilized or decreased, and there are fewer sales. Boulder County is an exception. There is construction activity because of the homes destroyed in the Marshall Fire.

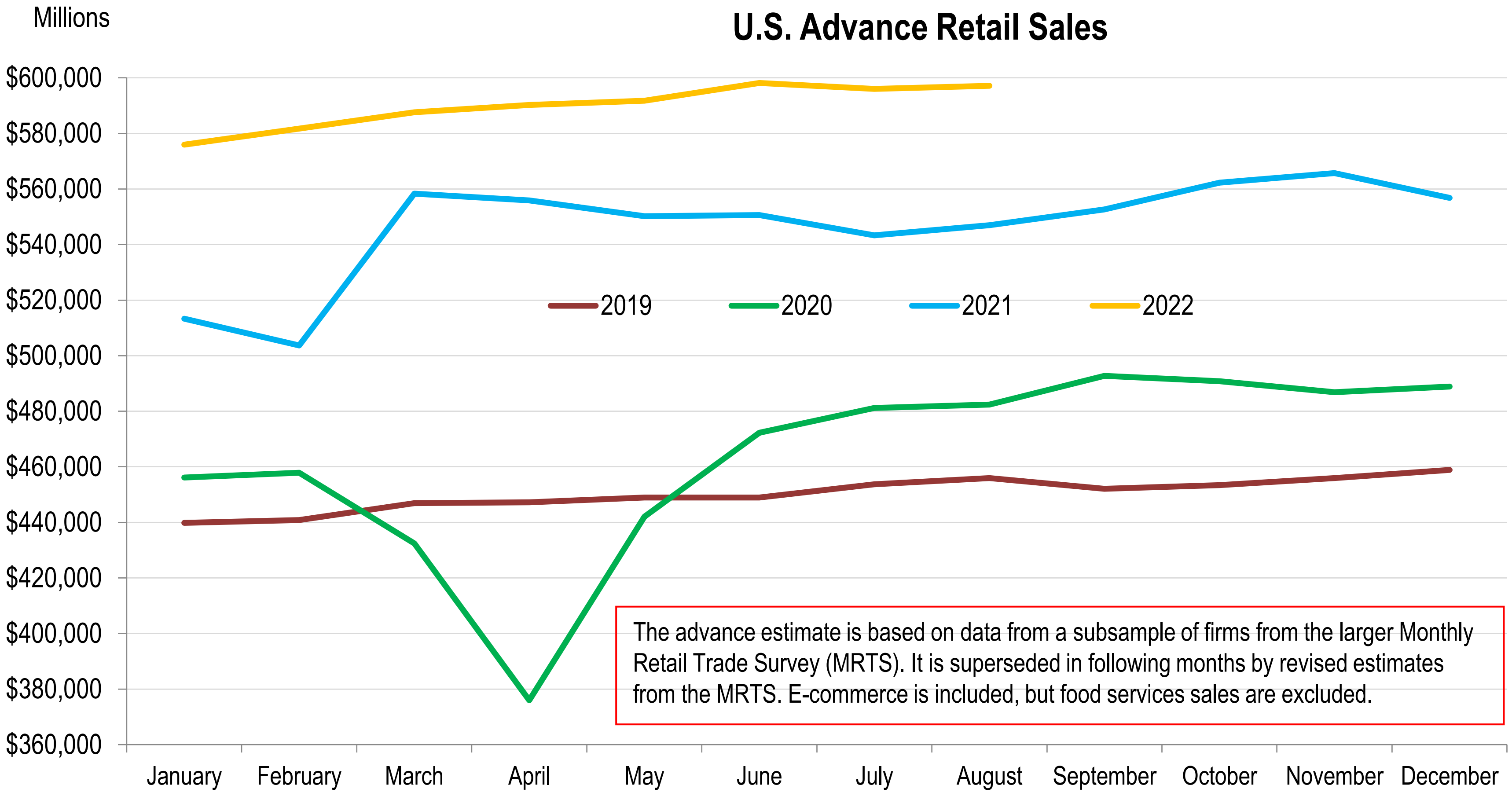
ISM PMI Composite Indices

Manufacturing vs. Services



Source: Institute of Supply Management, cber.co

U.S. Advance Retail Sales
Monthly



Sales through the first eight months of 2022 (yellow) were 9.2% greater than the same period in 2021 (blue). The rate of growth will decrease as the year progresses. The National Retail Federation projected that 2022 sales would be 6.0% to 8.0% greater than the 2021 value. That appears to be a reasonable projection.

Annual Retail Sales (Trillions)

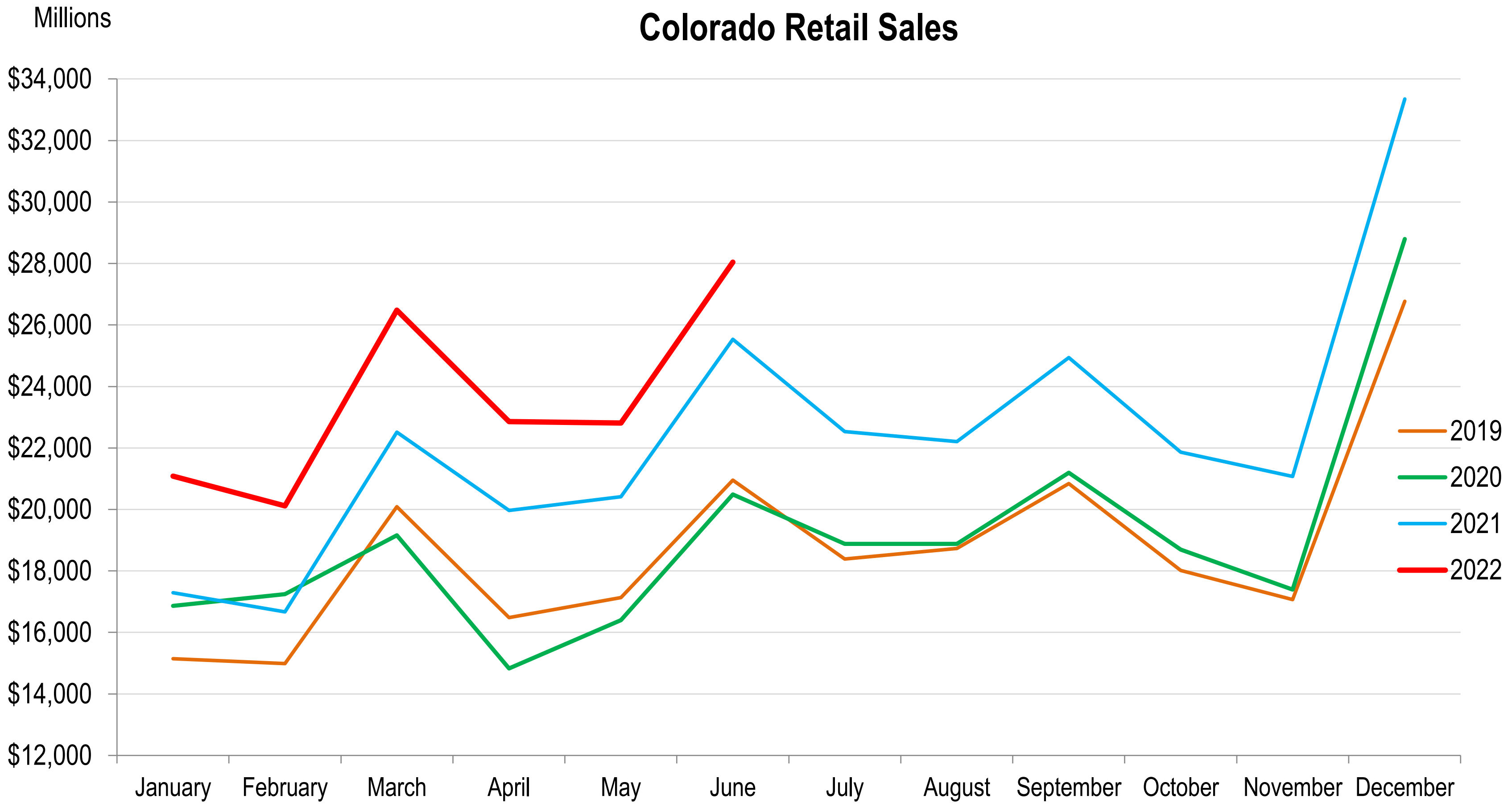
2017	$5.05	4.4%
2018	$5.26	4.2%
2019	$5.40	2.7%
2020	$5.56	2.9%
2021	$6.56	18.0%

Source: Census, cber.co

Source: U.S. Census Bureau, cber.co. Note: Not adjusted for inflation.

Colorado Retail Sales

Monthly



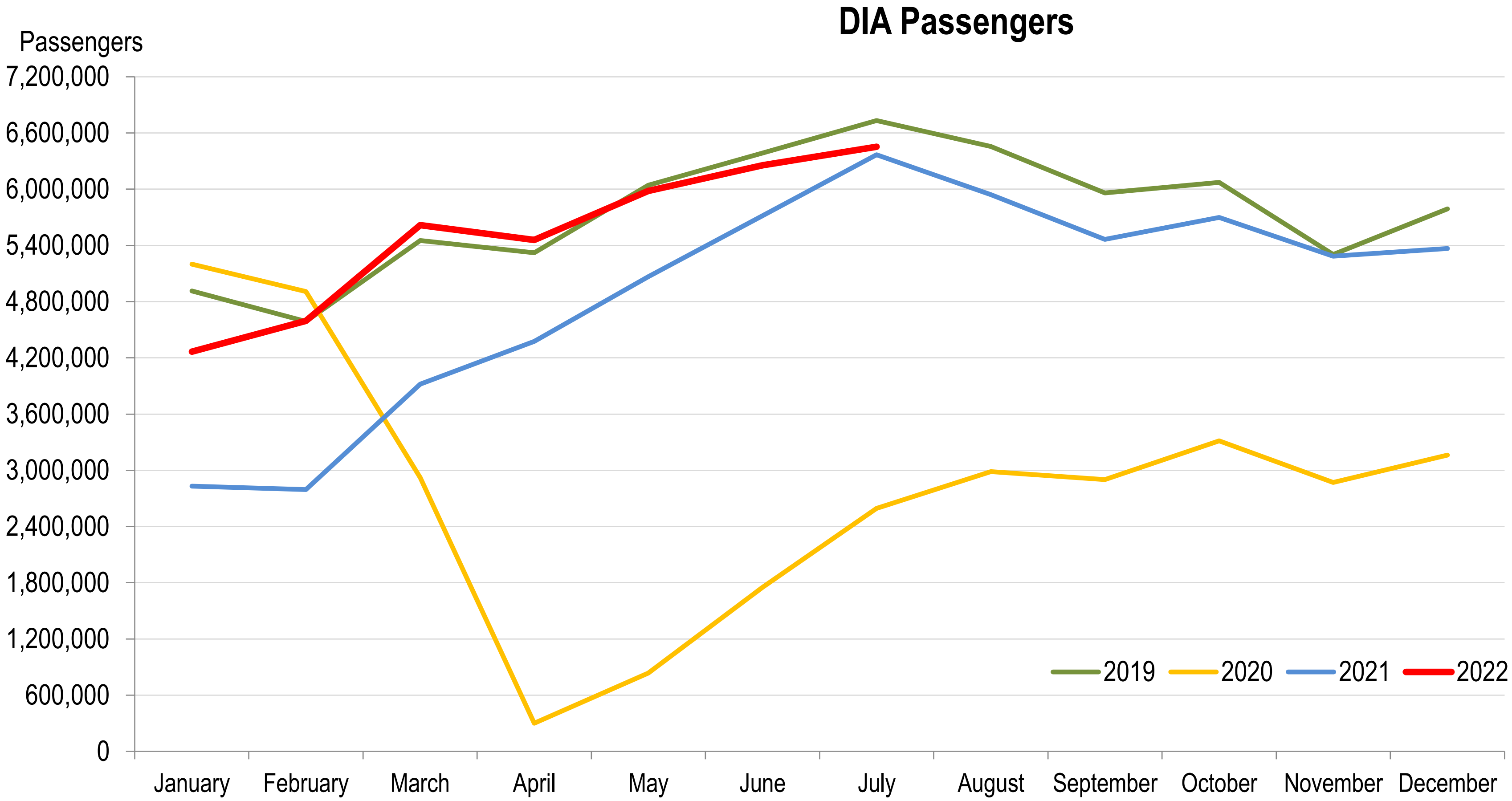
Colorado Retail Sales

Average retail sales for the first six months of 2022 (red) were 15.5% greater than the same period in 2021 (turquoise). Sales for 2022 have increased at a decelerating rate starting in February.

Annual Retail Sales (Billions)		
2017	$194.6	5.4%
2018	$206.2	5.9%
2019	$224.6	9.0%
2020	$228.8	3.9%
2021	$268.3	17.3%
2022f	$295.2	10.0%

Source: Colorado Department of Revenue, https://cdor.colorado.gov/retail-sales-reports, cber.co. Note: Not adjusted for inflation.

Denver International Airport Passengers
Monthly



Source: flydenver.com, cber.co.

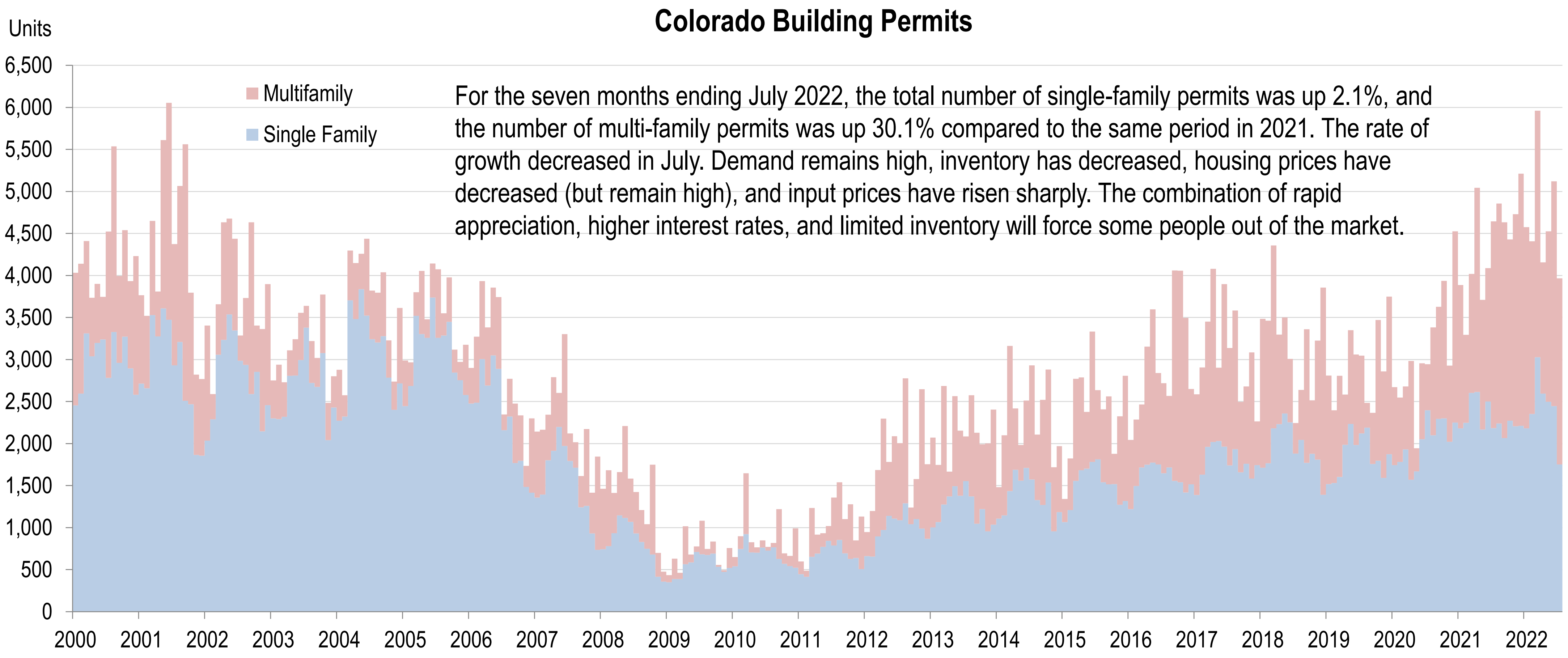
The number of DIA passengers during the first seven months of 2022 (red) is slightly below the YTD total for 2019 (green) but significantly above the YTD total for 2021 (blue).

There were 38.6 million DIA passengers during the first seven months of 2022.

Year	Passengers	% Change
2022	64,000,000	8.8%
2021	58,828,552	74.4%
2020	33,741,129	-51.3%
2019	69,015,703	7.0%
2018	64,494,613	5.1%
2017	61,379,396	5.3%
2016	58,266,515	7.9%

Colorado Residential Building Permits

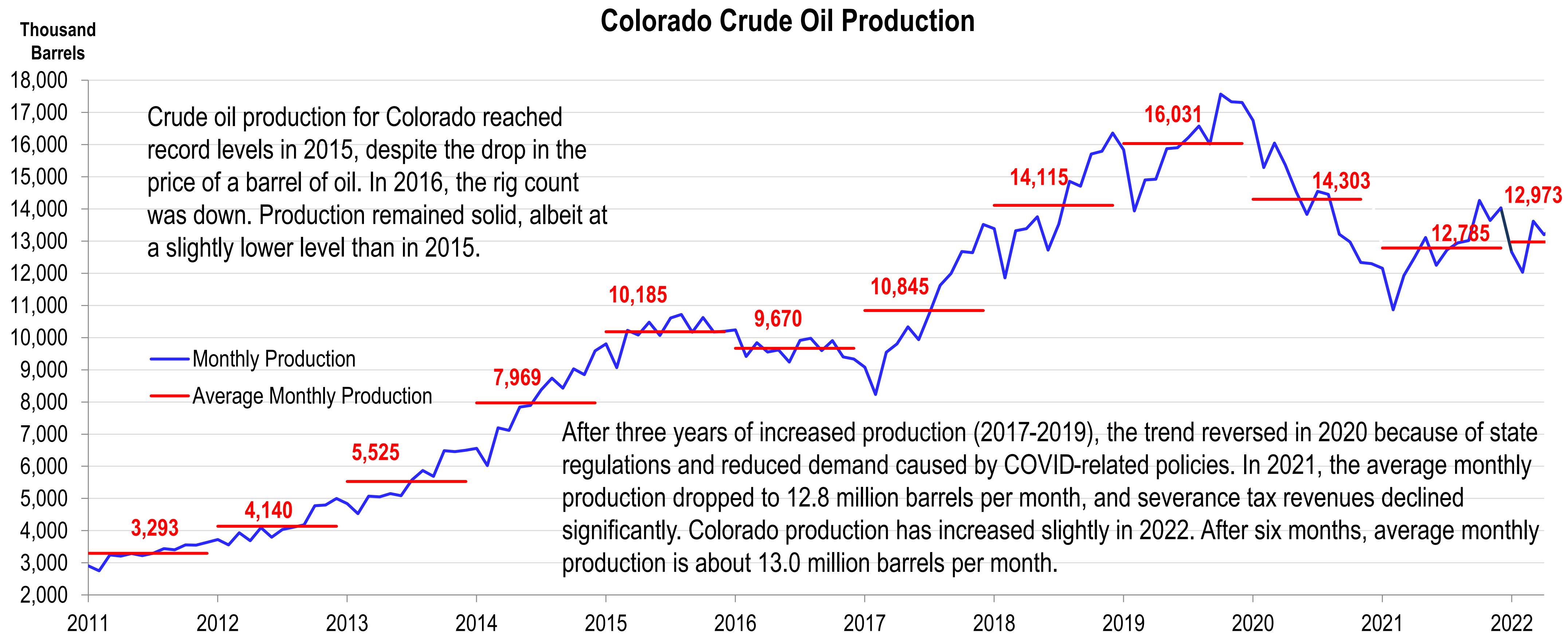
Units



Source: TAMU Real Estate Center, U.S. Census Bureau, cber.co.

Colorado Field Production of Crude Oil

2011 to 2022 (Thousand Barrels)



Source: EIA, cber.co.

Economic Outlook and Trends

Headwinds

Inflation is at the top of a long list of headwinds: energy issues, higher wages, increased input costs, labor shortages, supply chain disruptions, housing issues, and policies related to the conflict in Eastern Europe.

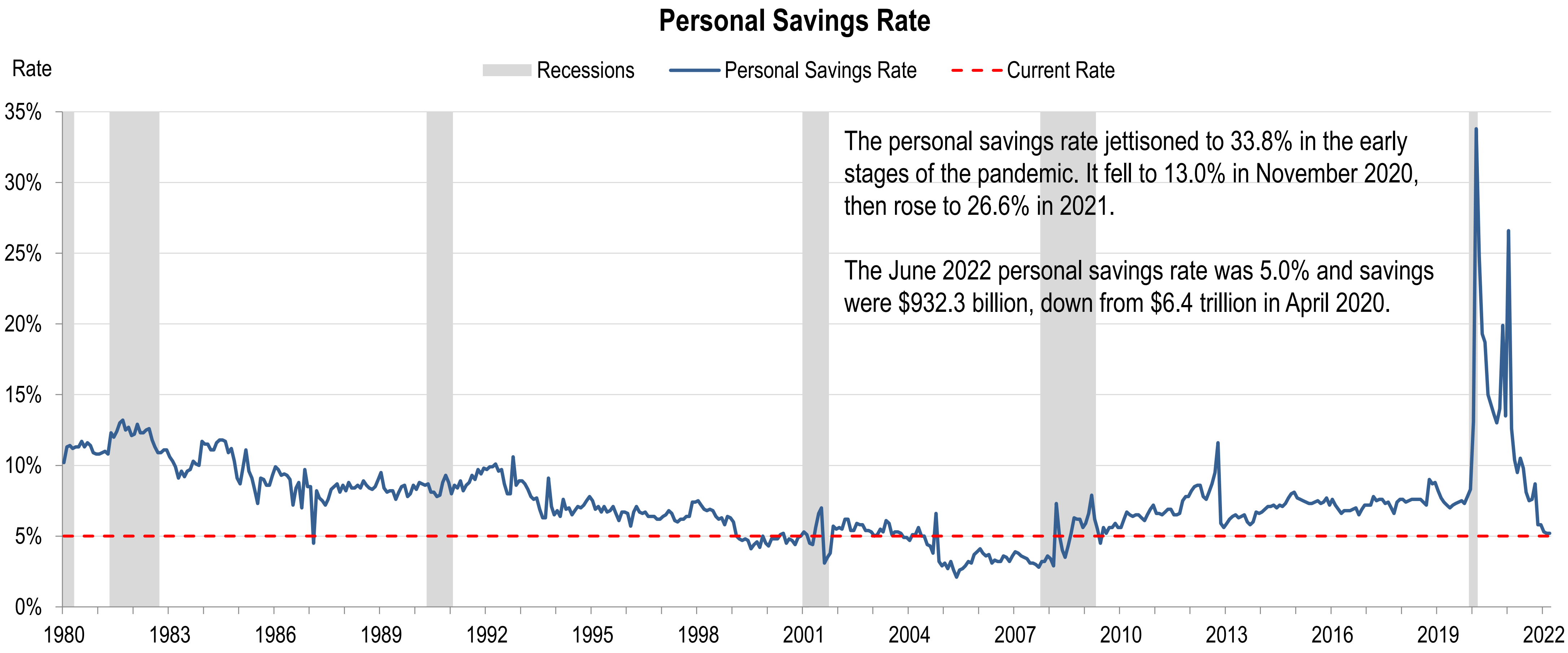
As a result of these headwinds, job growth is no longer broad-based, and a recession is on the horizon. As the economy slows, companies in many industries will experience labor shortages in select occupations.

In some instances, companies are addressing this challenge through automation.

Workers will receive wage increases. Sadly, they will be less than the rate of inflation. In addition, consumers will adapt their purchasing patterns to account for higher prices and increase credit card consumption. In addition, they will have reduced funds from their personal savings that will be available for consumption.

U.S. Personal Savings Rage

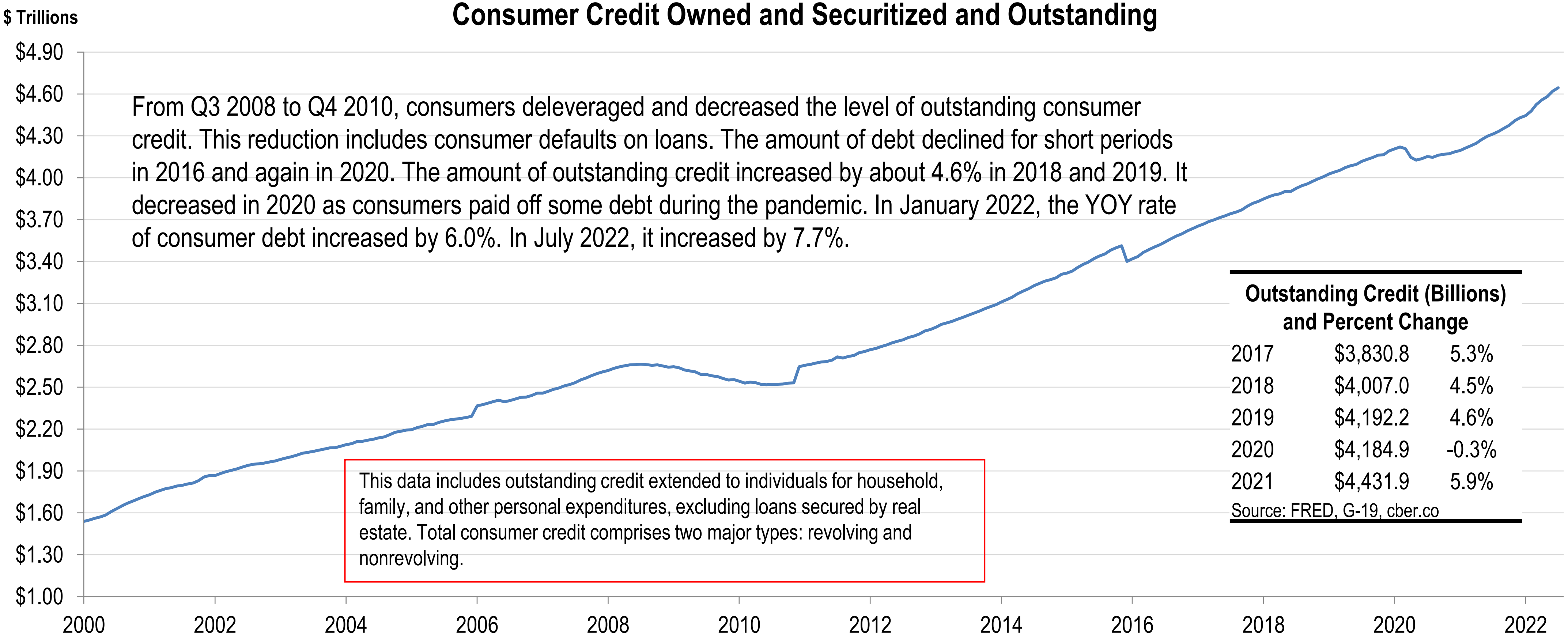
Percentage of Disposable Personal Income



Source: BEA, FRED, cber.co.

U.S. Consumer Credit Outstanding

Consumer Credit Owned and Securitized and Outstanding



From Q3 2008 to Q4 2010, consumers deleveraged and decreased the level of outstanding consumer credit. This reduction includes consumer defaults on loans. The amount of debt declined for short periods in 2016 and again in 2020. The amount of outstanding credit increased by about 4.6% in 2018 and 2019. It decreased in 2020 as consumers paid off some debt during the pandemic. In January 2022, the YOY rate of consumer debt increased by 6.0%. In July 2022, it increased by 7.7%.

This data includes outstanding credit extended to individuals for household, family, and other personal expenditures, excluding loans secured by real estate. Total consumer credit comprises two major types: revolving and nonrevolving.

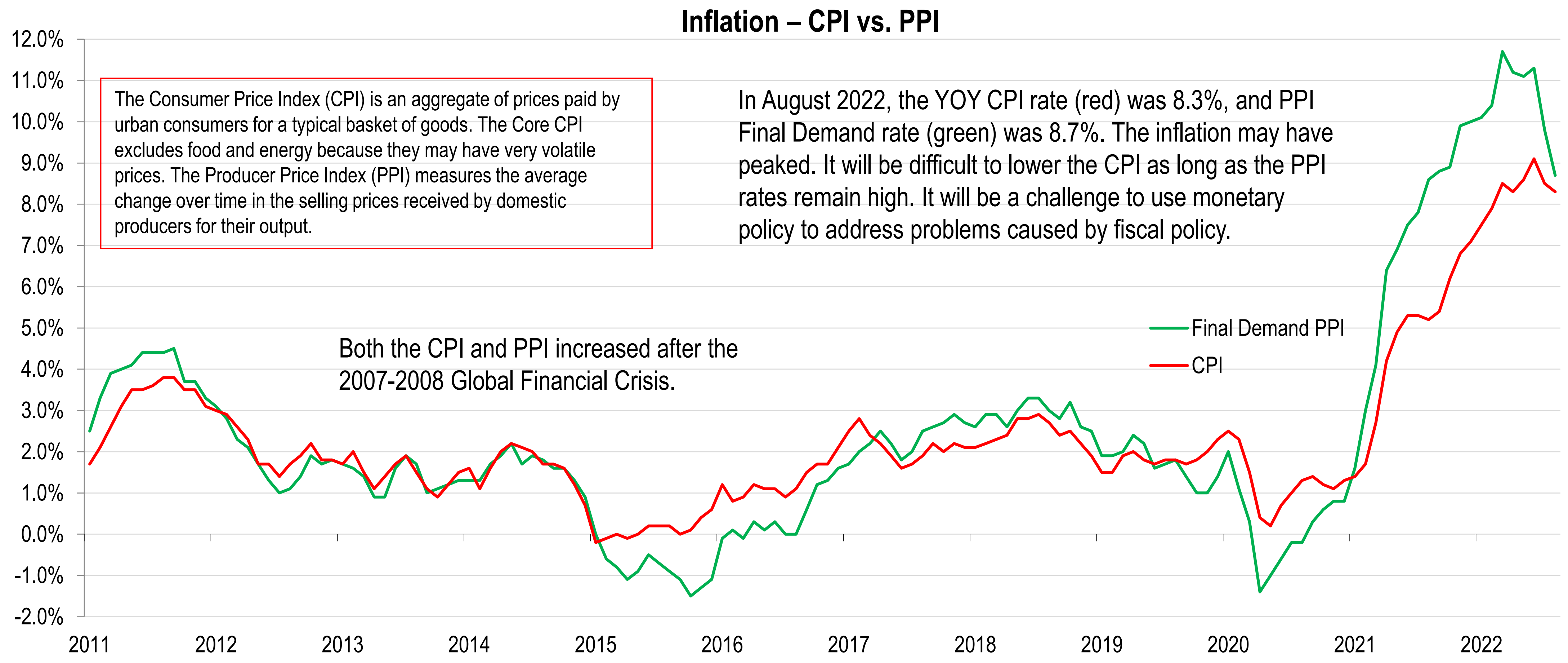
Outstanding Credit (Billions) and Percent Change

2017	$3,830.8	5.3%
2018	$4,007.0	4.5%
2019	$4,192.2	4.6%
2020	$4,184.9	-0.3%
2021	$4,431.9	5.9%

Source: FRED, G-19, cber.co

Source: FRED, Federal Reserve, G.19, SA.

U.S. Inflation
CPI vs. Producer Price Index (Final Demand)



Source: Bureau of Labor Statistics, PPI Commodity Data, Final Demand SA; CPI All Items City Average SA, cber.co.

Inflation
Denver-Aurora-Lakewood

Last fall, some of the country's top economists said inflation would be transitory. The word "transitory" became the rallying cry for those who disagreed with the country's handling of inflation and related policies. The CPI for the first half of 2022 was 8.3% for the U.S. and 8.6% for Colorado. Mid-year CPI rates for select categories are listed below.

The August YOY CPI rate was 8.3% for the U.S. and the July rate was 8.2% for Colorado. At the mid-point of the year, most areas that were important to Coloradans were well above the Fed's target rate.

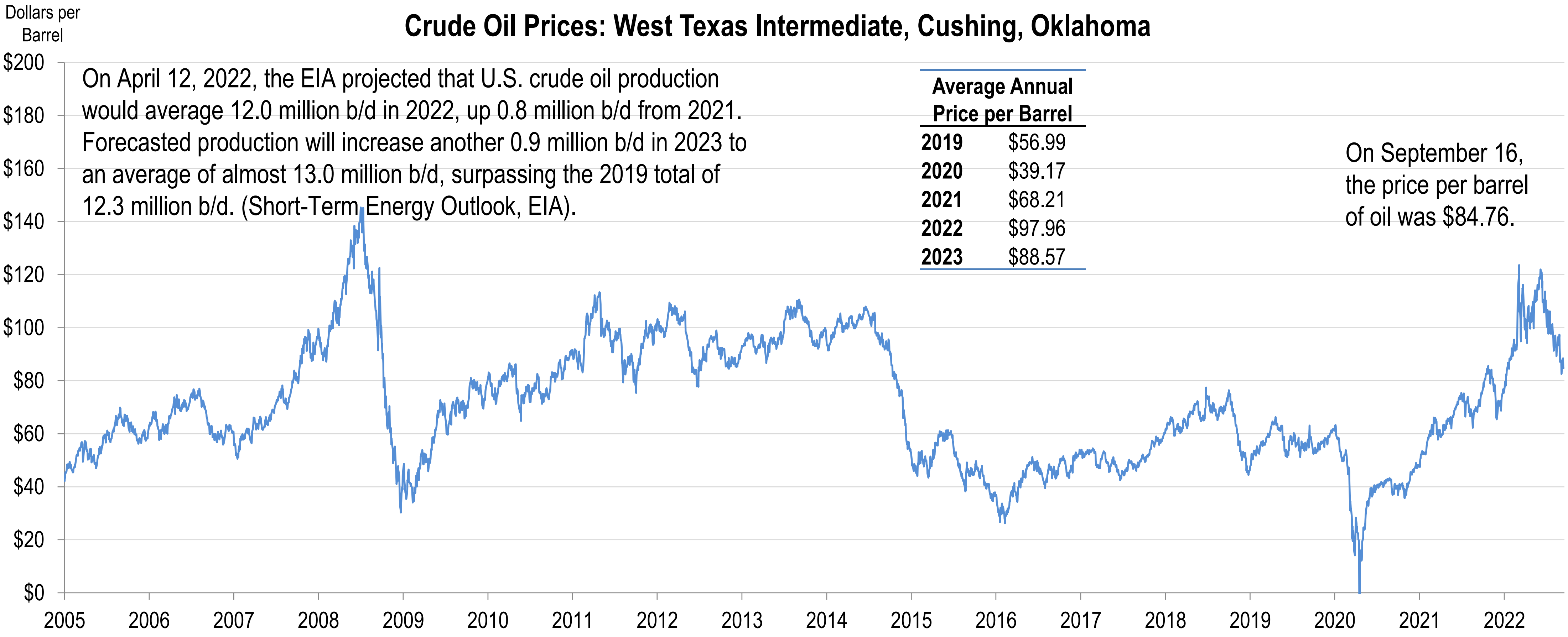
Consumer Purchasing Index for Denver-Aurora-Lakewood and the U.S. – First Half of 2022

	Denver	U.S.			Denver	U.S.
Alcoholic Beverages	4.2%	3.6%		Housing	6.9%	6.5%
Apparel	4.2%	5.7%		Meats, Poultry, Fish, Eggs	14.5%	13.2%
Dairy	6.4%	8.3%		Medical	10.1%	3.2%
Food and Beverage	8.8%	8.6%		Motor Fuel	38.4%	47.2%
Food at Home	9.0%	10.2%		Non-Alcoholic Beverage	7.5%	8.9%
Food Away From Home	9.5%	7.1%		Recreation	6.1%	4.6%
Fruits and Vegetables	5.1%	7.6%		School Fees/Childcare	-0.3%	2.4%
Household Energy	12.4%	16.8%		Transportation	19.3%	20.6%
Household Furnishings	6.3%	9.5%		Used Vehicles	28.6%	25.8%

Source: BLS, cber.co.

Crude Oil Prices

West Texas Intermediate

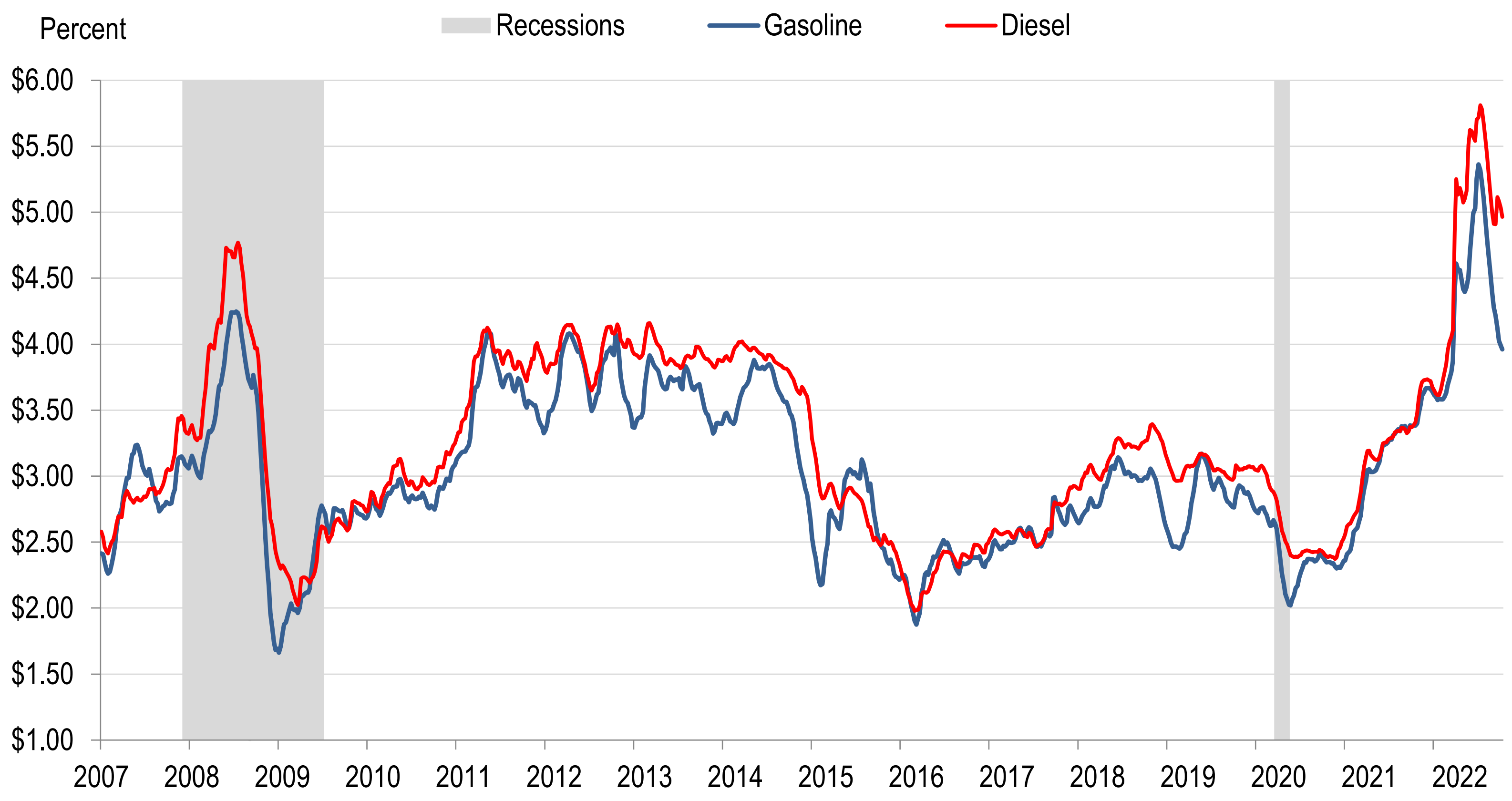


Average Annual Price per Barrel	
2019	$56.99
2020	$39.17
2021	$68.21
2022	$97.96
2023	$88.57

Source: EIA, cber.co, https://www.eia.gov/outlooks/steo/#:~:text=U.S.%20crude%20oil%20production%20in,b%2Fd%20set%20in%202019.

Weekly Gasoline (Regular All Formulations) and Diesel Prices
United States

U.S. Gasoline Regular (All Formulations) and Diesel Prices



Gas and Diesel Prices

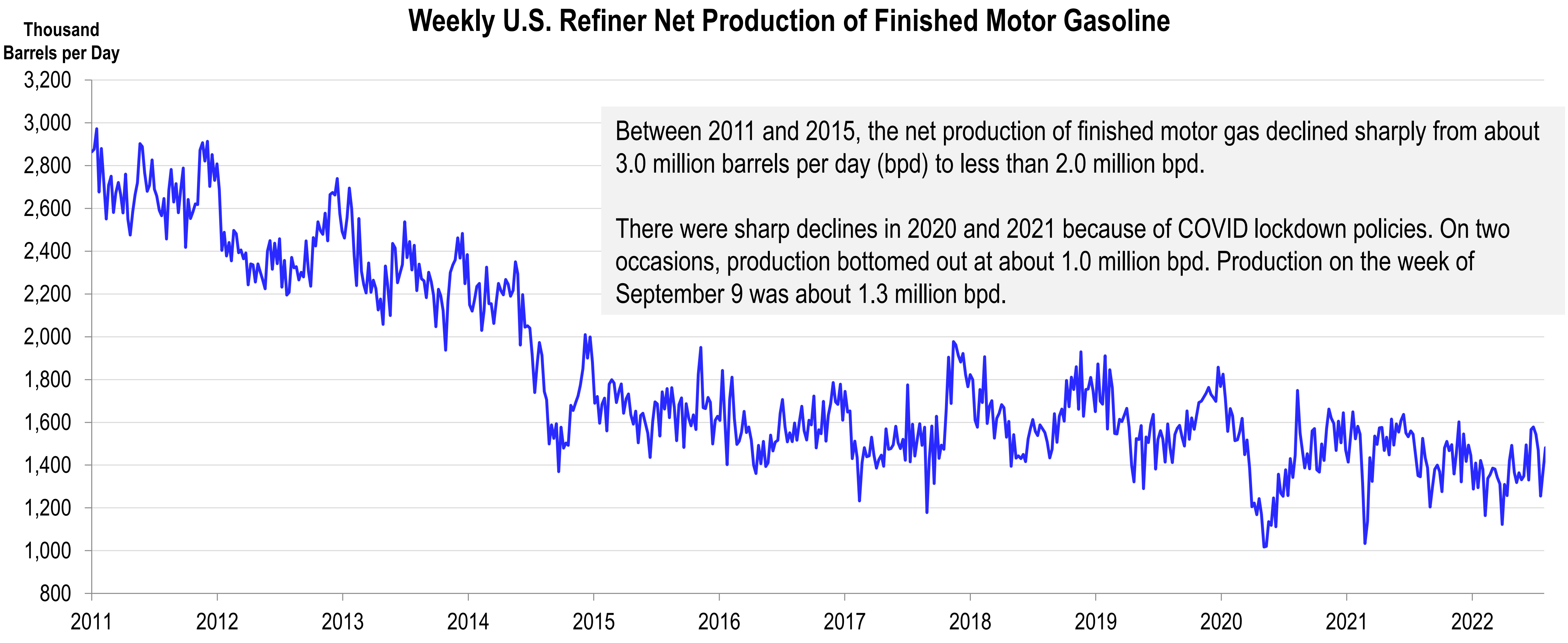
On February 21, 2021, the price for a gallon of gasoline was $2.82, and a gallon of diesel was $2.93.This was a year before the Eastern European conflict escalated (2/24/2022). On September 16, 2022, a gallon of gasoline was $3.96, down from $5.51. A gallon of diesel was $4.96 down from $5.78.

Average Annual

Year	Diesel	Gasoline
2015	$2.71	$2.43
2016	$2.30	$2.14
2017	$2.65	$2.42
2018	$3.18	$2.72
2019	$3.06	$2.60
2020	$2.55	$2.17
2021	$3.29	$3.01

Source: FRED, EIA, https://www.eia.gov/dnav/pet/pet_pri_gnd_a_epd2d_pte_dpgal_w.htm, cber.co.

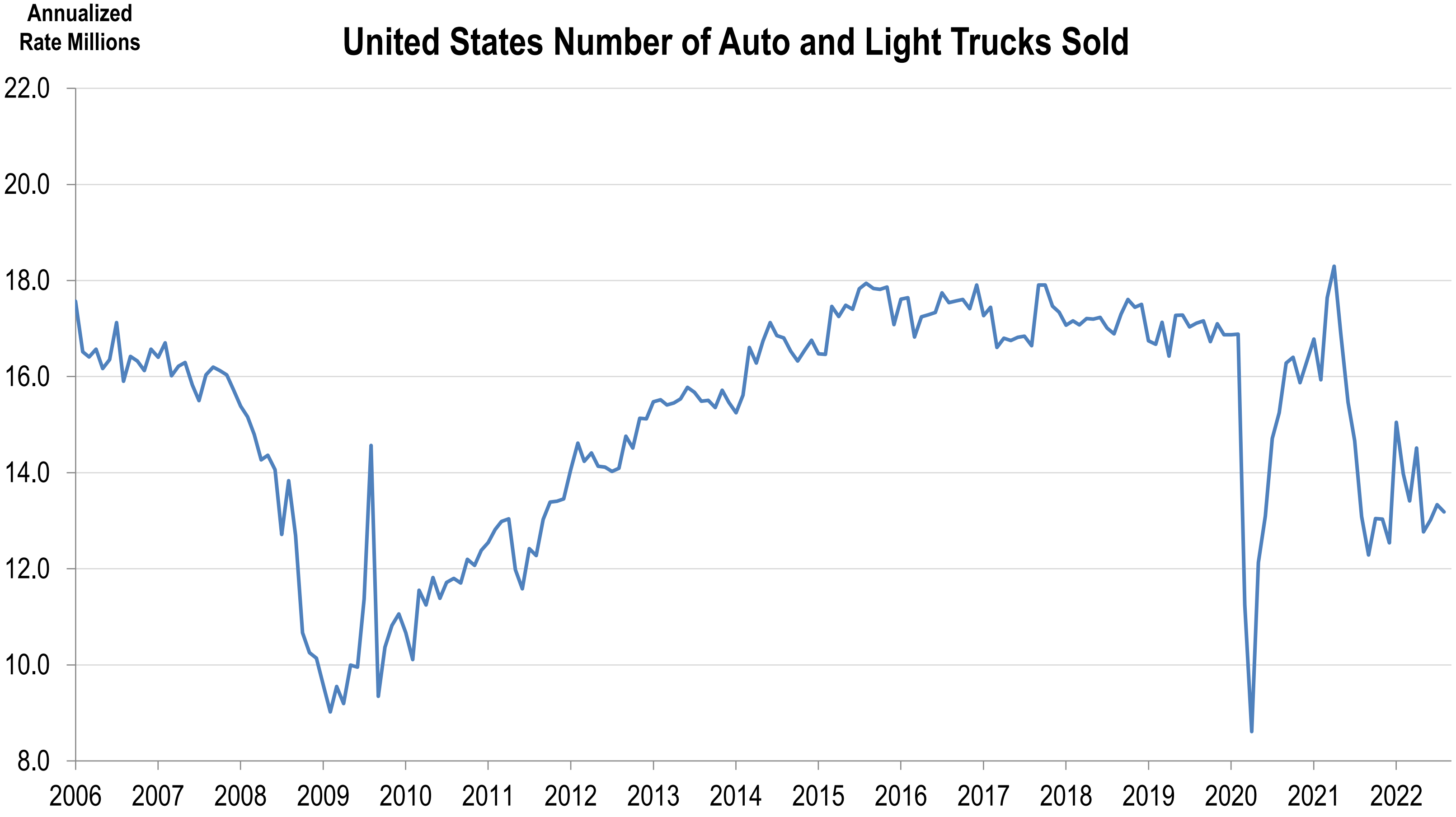
Weekly U.S. Refiner Net Production of Finished Motor Gasoline
(Thousand Barrels per Day)



Source: EIA, cber.co.

U.S. Auto and Light Truck (ALT) Sales

Monthly (Seasonally Adjusted Annualized Rate in Millions)



Source: FRED, BEA, Seasonally Adjusted Annualized Rates (SAAR), cber.co.

In April 2020, SAAR sales plummeted to 8.6 million units (The February 2009 total was 9.0 million). There was a sharp rebound, and sales peaked at 18.3 million in April 2021.

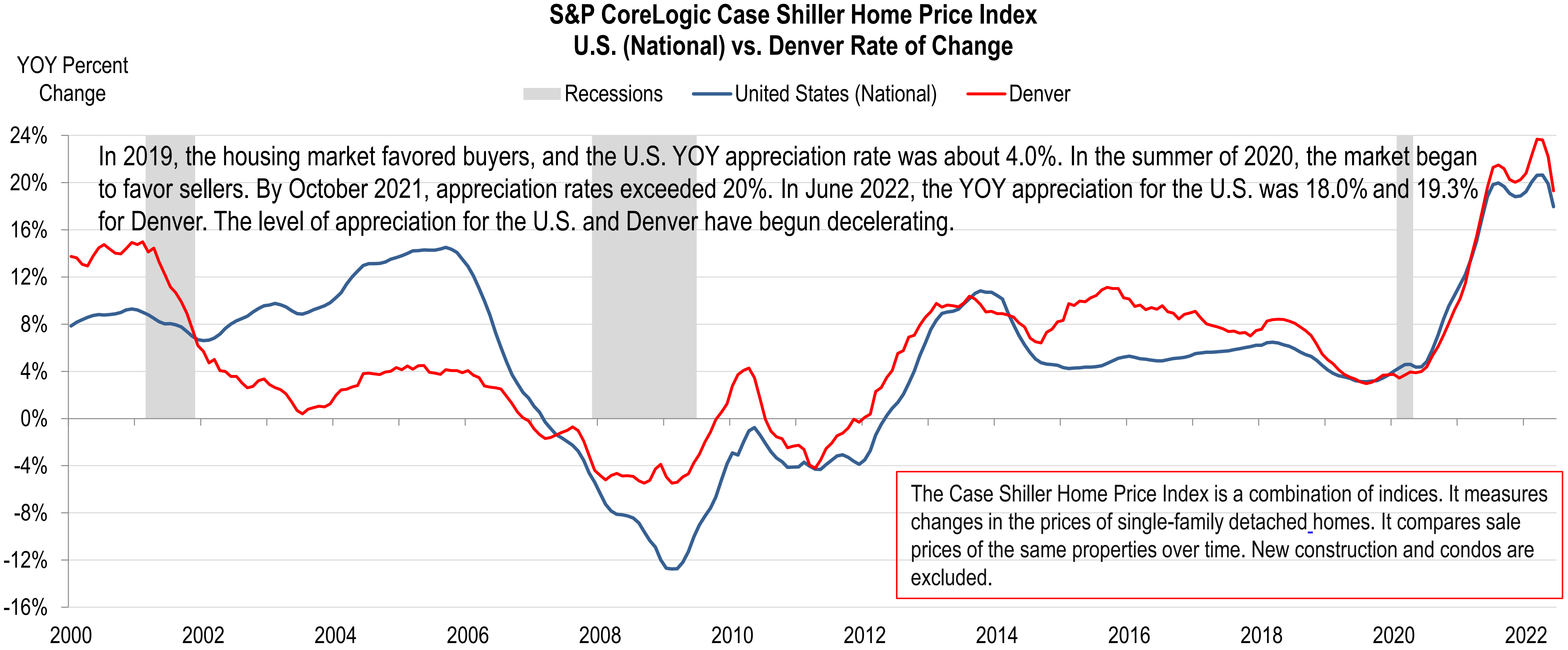
ALT Unit Sales

Year	Units Sold (Millions)
2015	17.4
2016	17.5
2017	17.2
2018	17.2
2019	17.0
2020	14.5
2021	15.0
2022 (f)	16.5

In 2021, the industry did not meet the demand for new cars because of supply chain disruptions. Sales in August 2022 were below expectations at 13.1 million annualized.

Case Shiller Home Price Index

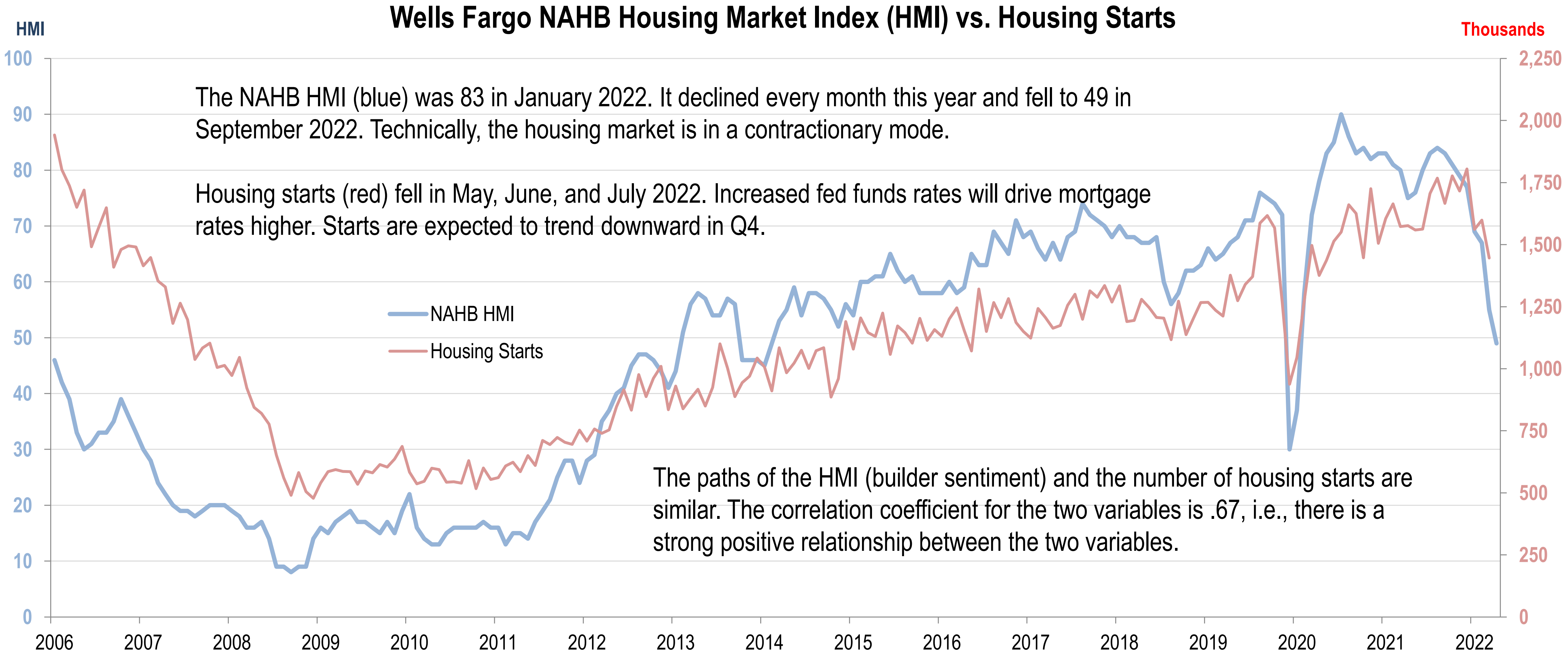
YOY National vs. Denver Rate of Change



Source: S&P Case Shiller, cber.co.

Wells Fargo NAHB HMI vs. Housing Starts

United States



Source: NAHB, cber.co.

NAHB Comments

The following NAHB press release was posted on their website on September 19, 2022. It describes the NAHB staff's perception of builder confidence, builder sentiment, and the industry performance based on feedback from homebuilders.

"Builder Sentiment has declined every month in 2022, and the housing recession shows no signs of abating."

In another sign that the slowdown in the housing market continues, builder sentiment fell for the ninth straight month in September as the combination of elevated interest rates, persistent building-material supply chain disruptions, and high home prices continue to take a toll on affordability.

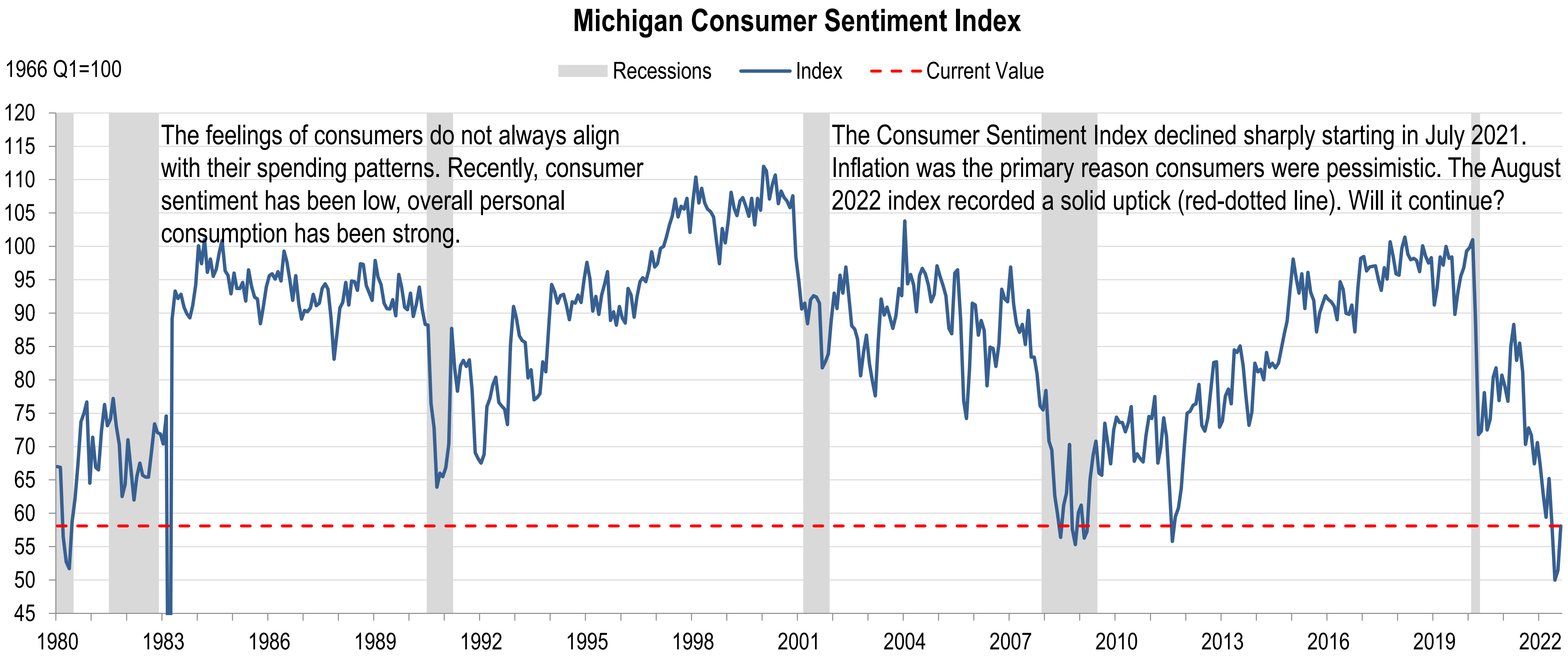
Builder confidence in the market for newly-built single-family homes fell three points in September to 46, the lowest level since May 2014, except for the spring of 2020, according to the National Association of Home Builders (NAHB)/Wells Fargo Housing Market Index (HMI) released today.

"Buyer traffic is weak in many markets as more consumers remain on the sidelines due to high mortgage rates and home prices that are putting a new home purchase out of financial reach for many households," said NAHB Chairman Jerry Konter, a home builder and developer from Savannah, Ga. "In another indicator of a weakening market, 24% of builders reported reducing home prices, up from 19% last month."

"Builder sentiment has declined every month in 2022, and the housing recession shows no signs of abating as builders continue to grapple with elevated construction costs and an aggressive monetary policy from the Federal Reserve that helped pushed mortgage rates above 6% last week, the highest level since 2008," said NAHB Chief Economist Robert Dietz. "In this soft market, more than half of the builders in our survey reported using incentives to bolster sales, including mortgage rate buydowns, free amenities, and price reductions."

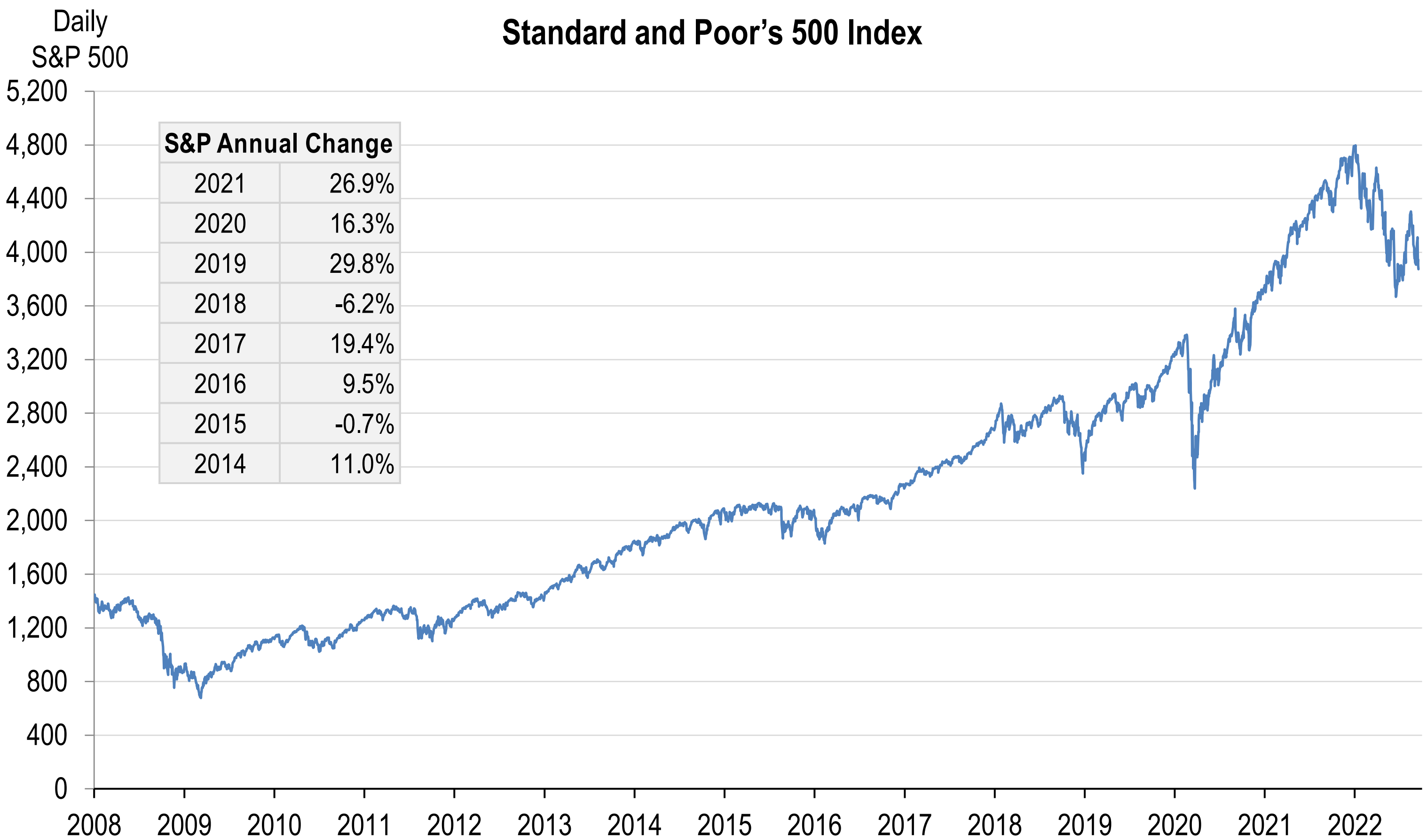
Consumer Sentiment Index

University of Michigan



Source: University of Michigan, cber.co.

Standard and Poor's 500 Index



S&P Annual Change	
2021	26.9%
2020	16.3%
2019	29.8%
2018	-6.2%
2017	19.4%
2016	9.5%
2015	-0.7%
2014	11.0%

Source: FRED, S&P 500, cber.co.

COVID 19 Policies Bear Market - 2020

After reaching 3,386 on February 19, 2020, the S&P 500 slipped to 2,237 on March 23, 2020, a loss of 34% or 1,148 points. On August 18, 2020, the S&P returned to 3,386. The bear market of 2020 was short-lived (149 days).

Year-End 2021

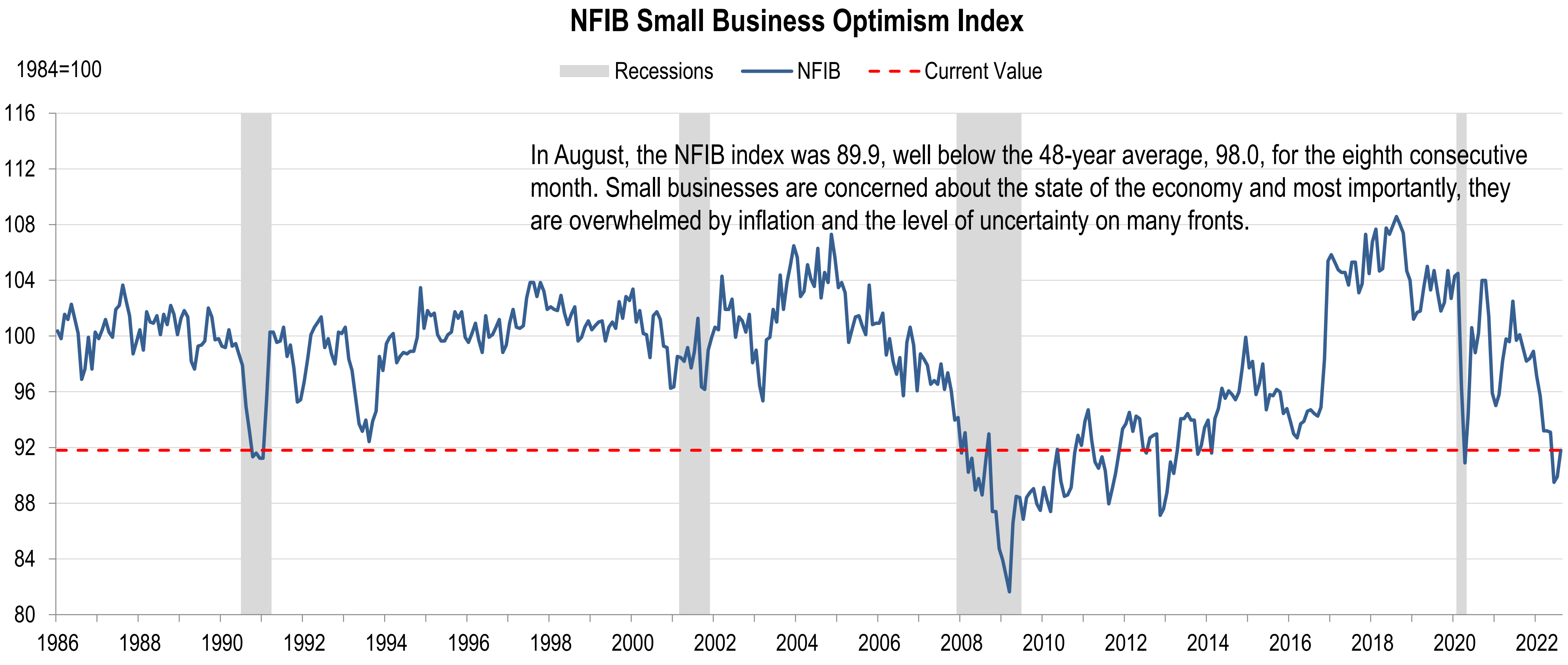
The S&P index increased at a steady rate for most of 2021. On December 31, it was 4,766 or 26.9% greater than the December 2020 closing value.

YTD Change - 2022 Bear Market

On July 16, 2022, the S&P 500 closed at 3,667, a change of -23.1%, or 1,099 points off the December 31, 2021, value. It has since rallied before declining again. The September 16 value was 3,873, 16.9% of the closing value for 2021.

NFIB Small Business Optimism Index

United States



Source: NFIB, cber.co.

NFIB Commentary

The following comments are from the NFIB August report, available on their website, https://www.nfib.com/. The NFIB staff provides matter-of-fact commentary on the state of the economy from a small business perspective.

"It will be a rough road ahead as we feel the brunt of new Fed policies designed to undo the damage done by policies that created our current inflation problems."

Inflation remains the #1 problem for small business owners. Gas is cheaper, but not much else. Congress passed the Inflation Reduction Act, but most analysts, regardless of political persuasion, think it won't have much impact on the inflation rate, if any. Looks like we'll have to rely on the Federal Reserve for some policy help, and we'll probably get a heavy dose of it. Expect the Fed to raise its policy rate by another 75 basis points in its next meeting, and additional hikes beyond. And it is curtailing its purchase of Treasury bonds which will also put upward pressure on market interest rates. Mortgage interest rates have already doubled and will rise further, slowing down housing purchases and construction.

Higher borrowing costs will not contribute to inflation, lots of businesses don't operate with bank (etc.) loans. To slow inflation, costs coming in the back door must fall and that includes more than the cost of loans. Utilities, fuel, labor, supplies, materials, rent, and inventory, all rising at near double-digit rates. Slowing the economy (the Fed's goal) will reduce demand, create excess capacity and inventories, and this will put downward pressure on selling prices, but input costs won't respond immediately, including labor costs which will be managed by cutting employment and hours, not wage cuts. Wages will stop rising, and be reduced in real terms as inflation persists, which it will for the rest of the year and into 2023.

The global economy looks set to have a more severe slowdown than the U.S., bad news for our exports already adversely affected by the strong dollar which makes our products more expensive to other countries. There is still too much stimulus coming from federal and state governments, but that will continue to slow down except for unemployment benefits when firms start laying off workers. It will be a rough road ahead as we feel the brunt of new Fed policies designed to undo the damage done by policies that created our current inflation problems.

Economic Outlook and Trends

Summary of Colorado
Employment and Economic Outlook and Trends

This year, Colorado will add about 98,000 jobs. The Government, Healthcare, Extractive Industries, and Leisure and Hospitality sectors have added jobs but have not returned to pre-pandemic levels. Tourism activities have fared well, and the number of passengers at DIA has been a strong point in the economy.

The low housing inventory bodes well for residential construction, although demand has softened because of increased interest rates and price appreciation. Retail sales will decelerate as consumer spending is affected by inflation and higher interest rates.

As usual, the PST sector will be a leader in job growth. During the second half of 2022, there will be a slowdown in the economy. Weak growth will continue in 2023. A short list of headwinds include inflation, higher interest rates, labor shortages, supply chain disruptions, and ineffective public policy.

Colorado Economic Forecast 2022

The Colorado real GDP growth rate for 2022 was revised downward to reflect slower growth in Q4.

The state labor market will remain strong through eight months, followed by a slowdown that continues into 2023.

Retail sales will remain strong in 2022. They will increase at a slower rate than in 2021. A portion of the 2022 growth reflects inflated prices.

Colorado businesses will face headwinds from increased inflation, supply chain disruptions, labor shortages, interest rate hikes, and ineffective public policy.

Colorado Economic Forecast

	2019	2020	2021	2022
Real GDP Value (billions)	$356.77	$346.01	$365.90	$375.41
% Change Real GDP	4.2%	-3.0%	5.8%	2.6%
CES Employment (thousands)	2,790.1	2,651.1	2,744.0	2,842.0
Annual Change (thousands)	62.8	-139.0	92.9	98.0
% Change	2.3%	-5.0%	3.5%	3.6%
Unemployment Rate	2.7%	7.3%	5.5%	3.6%
Retail Sales (billions)	$224.6	$228.8	$267.7	$292.9
% Change	9.0%	1.9%	17.0%	9.4%
Consumer Price Index	1.9%	2.0%	3.5%	7.6%
DIA Passengers (millions)	69.0	33.0	59.0	66.0
Single Family Permits	24,756	26,489	27,000	29,000
Multi-family Permits	13,877	13,738	24,000	26,000
Oil Production (thousands) barrels	189,707	172,000	142,000	146,000

The number of DIA passengers has increased rapidly in 2022. The year-end total will be less than the record total for 2019.

The demand (based on the number of building permits) will continue to exceed the supply because of in-migration and the Marshall Fire. The total number of building permits will be slightly more than in 2021. Higher input costs, rising prices, and interest rates will negatively impact construction, home sales, and financial services.

The production of crude oil declined in 2021 because of state regulations. Oil production will increase slightly in 2022.

cber.co
Economic Outlook and Trends Through August 2022
Colorado and the United States

This analysis is for informational purposes only. Any opinions or interpretations of data are those of the presenter. As such, they do not represent the viewpoints of any group or particular organization.
For further information contact Colorado-based Business and Economic Research (cber.co).

For additional information contact cber.co at cber@cber.co , gary@garyhorvath.com, or garyhorvath@hotmail.com.

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ABOUT THE AUTHOR

Gary Horvath has produced annual employment forecasts of the state economy for over 30 years. They have been supplemented by monthly economic updates and indices that track economic performance over the short term. In addition, he has directed three statewide analyses that included reviews of all 64 county economies.

Horvath was the principal investigator for a state and federally funded project to prepare a nanotechnology roadmap for Colorado. As well, he was a co-founder of the Colorado Photonics Industry Association, a trade group for Colorado’s Photonics cluster. Horvath has been an active board member of the group since its inception.

Horvath has also served on the Board of Directors for the Economic Development Council of Colorado, Northwest Denver Business Partnership, Adams County Economic Development, and Broomfield Economic Development Corporation. Horvath has also been the chair of the photonics/electronics committee in the Governor’s Office of Economic Development and International Trade early stage and proof of concept grant program, and he served on the 2021 Colorado Legislative Redistricting Commission.