

Economic Outlook and Trends 2022

United States and Colorado

cber.co
Colorado-based Business and Economic Research
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Economic Outlook and Trends 2022

Momentum and Headwinds

The theme of the 2022 outlook is momentum and economic headwinds. From a forecasting standpoint, it is a challenge to understand the magnitude of both, and the factors that determine when they will change. Currently, the momentum is stronger than the headwinds (67% vs. 33%), but the headwinds are deterring growth. As a result, the 2022 forecast is as difficult to prepare as the forecast and updates for 2020 and 2021. A static forecast does not make sense because there are so many variables and so much volatility. To be more relevant, the 2022 cber.co forecast will not be static. It will be revised throughout 2022, beginning with the March benchmark employment revisions.

Momentum

- There is strong but erratic growth in the labor market with wage increases in lower-paying occupations
- Increased wealth effect – equity markets and real estate
- Demand for goods and services is high and economic growth is a result of strong consumer spending

Headwinds

- Government spending → inflation and debt → rate hikes
- Labor shortages and employee turnover
- Political polarization, public policy, and 2022 election
- Policy related to COVID-19 and variants

Overview

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

- Assumptions for 2021 and 2022 forecast
- Population
- Real GDP
- Labor and wages
- Momentum
- Headwinds
- Momentum and headwinds (Mixed)
- Summary of Colorado forecast

Economic Outlook and Trends

The preparation of an economic forecast begins with a review of the accuracy of the assumptions for prior forecasts. Will they continue? Will they evolve or come to an end? Why were some assumptions wrong? Should other factors be considered?

For the past two years, the impact of COVID-related policies created new and different variables and volatility to consider when preparing a forecast. The pandemic policies included extensive spending for various assistance programs. Some policies were politically motivated and divisive. Industries have evolved at an accelerated rate and remote working is more prevalent. There is a greater presence of technology and automation society and the economy – for better or worse.

Momentum vs. Headwinds – Many Moving Pieces

Accuracy of 2021 Forecast Assumptions → Expectations for 2022

2021 Assumptions – Looking in the Rear-View Mirror

Got it right

- Acceleration of changes in retail and other industries
- Acceleration of automation, technology, and apps
- Acceleration of remote and hybrid working
- COVID-19 was a political football



2022 Assumptions – The Crystal Ball

Will continue in 2022

- Retail and other industries will continue to evolve
- Automation and technology will become more prevalent
- Remote working is accepted and constantly evolving
- (Election year) COVID-19 will continue to be a political football

Partially correct

- Effect of “Go big or go home” federal assistance/stimulus
- Wealth effect from equity markets and house prices
- Strong consumer spending – savings, low credit card balances
- Dominance of technology and social media companies



Uncertainty in 2022

- Will large federal assistance programs be continued (BBB/Green)?
- How much will the equity markets and housing prices change?
- At what level will consumers spending continue?
- Will efforts be made to regulate technology and social media?

Got it wrong

- At first, Jay Powell’s efforts to manage inflation made sense
- Labor shortages caused by people not returning to work



Certainty in 2022

- The Fed will manage rate hikes better than they manage inflation
- Labor shortages will get worse with lower unemployment rates

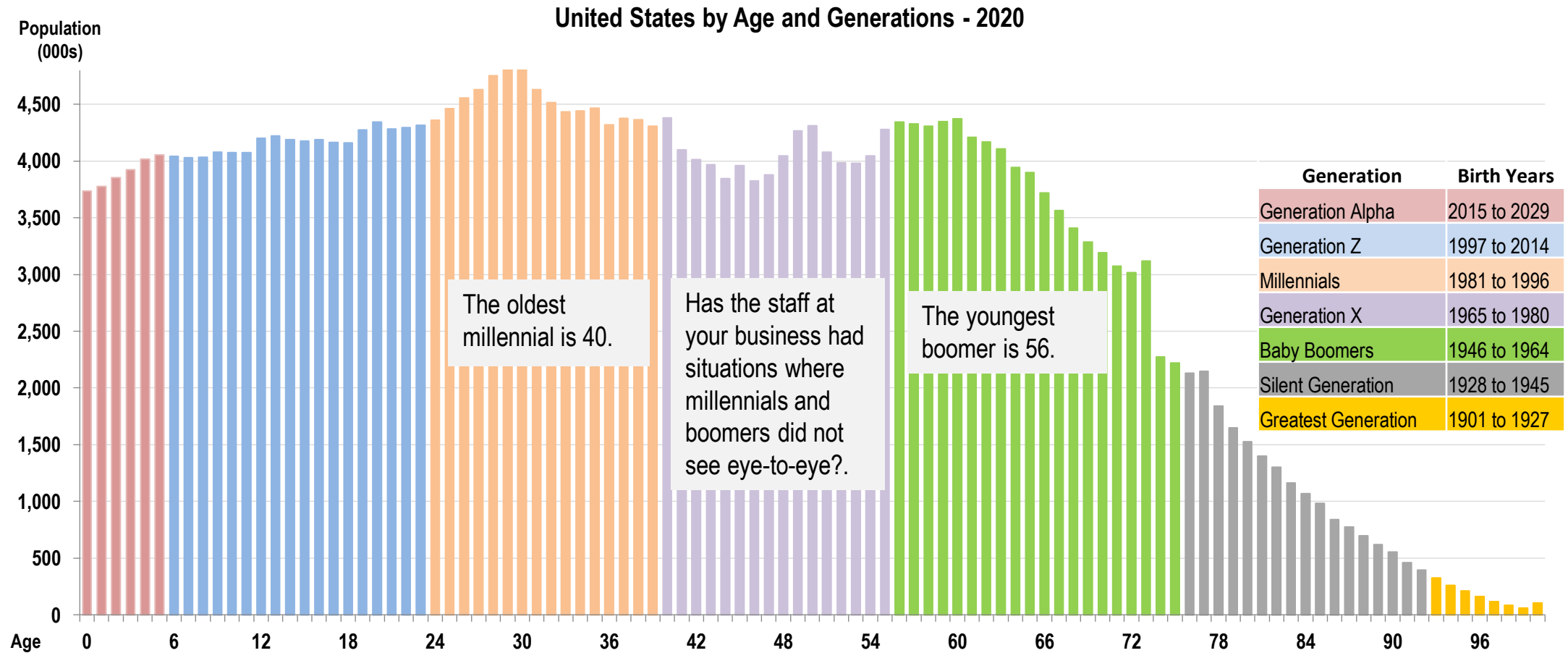
Economic Outlook and Trends

Population – U.S. and Colorado

Between 2010 and 2020, the U.S. population increased by 22.7 million, or 7.4%, to 331.4 million. The population under 18 years DECREASED by 1.4% to 73.1 million because of declining fertility rates in all races. The 18-and-over population increased by 10.1% to 258.3 million in 2020. As the population has aged, the culture of our workforce and country have changed. The oldest millennial is 40, and the youngest baby boomer is 56. Millennials and boomers sometimes do not see eye-to-eye.

The Colorado population will increase by 716,685 by 2030. The largest absolute growth will occur in Northern Colorado (Greeley-Weld) and the Arapahoe-Douglas County region. The city of Denver is no longer the population center of the state.

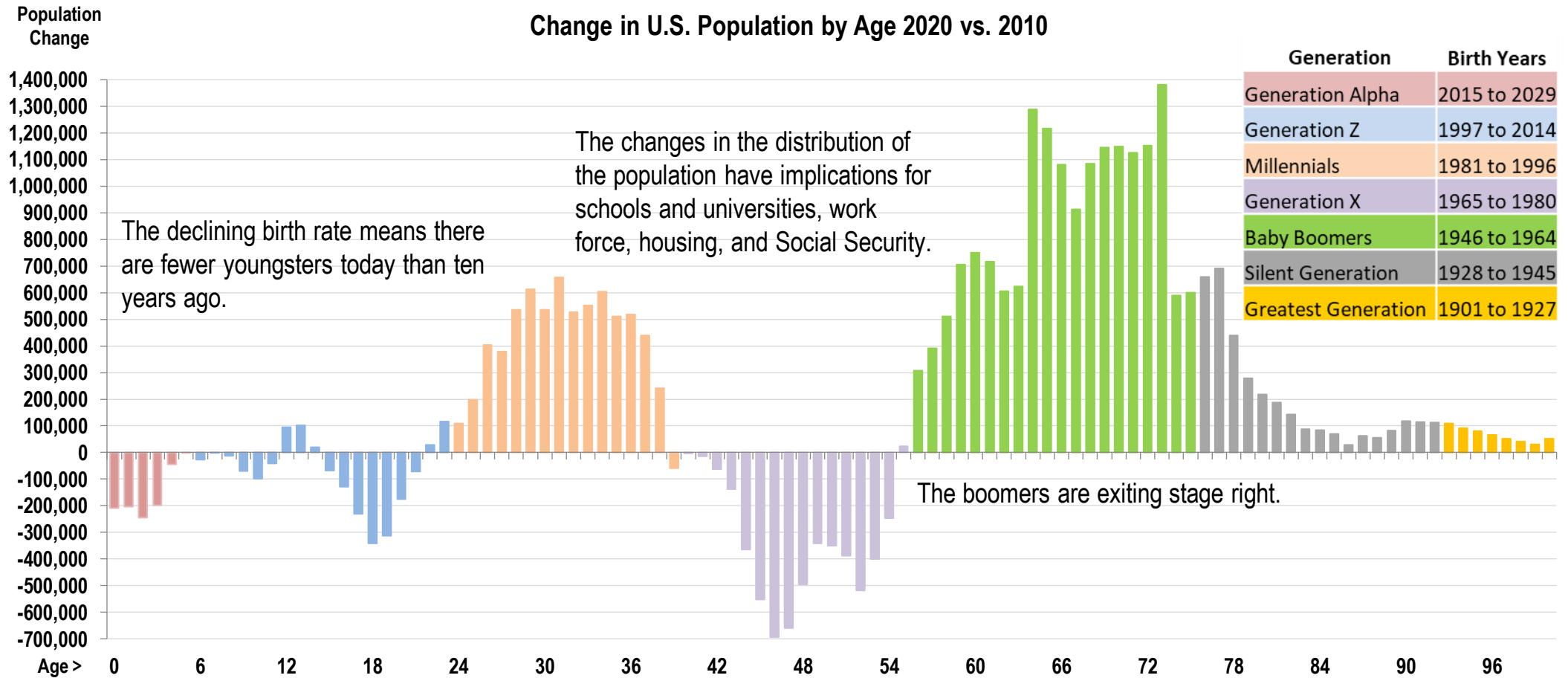
United States by Age and Generations - 2020



Source: U.S. Census Bureau.

Change in Population by Age

2020 vs 2010



Source: U.S. Census Bureau.

Front Range County Population (2000-2030) The Base of Power is Changing

As the population increases, the base of power is changing. Moving forward, partnerships are essential in the growth of Colorado.

The following changes will occur over the next decade:

- The population share in the major Front Range counties will increase from 81.1% to 84.1%.
- The population share in Boulder, Jefferson, Denver, Arapahoe, and Pueblo counties will increase at a decelerating rate.
- The El Paso County population surpassed Denver County in 2020. The combined population of Larimer and Weld (Northern Colorado) will become greater than Denver by 2030.
- Adams County has gained prominence because of its population growth. It is also the focal point of the 8th Congressional district.
- Douglas County will add 57,067 people between now and 2030. A case could be made that a future congressional district should be centered around Southeast Denver.

Source: State Demography Office, cber.co.

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Change in Colorado Population – Ten Front Range Counties
The Base of Power is Changing

	2000	2010	2020	2030	2030-2020	CAGR	% State 2000	% State 2030
BoCo/BroCo/JeffCo								
Boulder	276,254	295,605	330,860	354,742	23,882	0.70%	6.4%	5.5%
Broomfield	38,545	56,107	74,470	94,152	19,682	2.37%	0.9%	1.4%
Jefferson	526,716	535,651	582,782	611,909	29,127	0.49%	12.1%	9.4%
Total	841,515	887,363	988,112	1,060,804	72,692	0.71%	19.4%	16.3%
Denver								
Denver	556,740	604,879	717,632	802,307	84,675	1.12%	12.8%	12.3%
Adams								
Adams	351,734	443,711	520,070	604,681	84,611	1.52%	8.1%	9.3%
Douglas/Arapahoe								
Arapahoe	490,722	574,819	655,044	725,287	70,243	1.02%	11.3%	11.2%
Douglas	180,511	287,124	360,037	417,104	57,067	1.48%	4.2%	6.4%
Total	671,233	861,943	1,015,081	1,142,390	127,309	1.19%	15.5%	17.6%
Northern Colorado								
Larimer	253,087	300,532	359,701	412,984	53,283	1.39%	5.8%	6.4%
Weld	183,074	254,230	331,184	429,763	98,579	2.64%	4.2%	6.6%
Total	436,161	554,762	690,885	842,747	151,862	2.01%	10.1%	13.0%
Southern Colorado								
El Paso	519,803	627,232	731,641	832,460	100,819	1.30%	12.0%	12.8%
Pueblo	141,854	159,496	168,434	179,833	11,399	0.66%	3.3%	2.8%
Total	661,657	786,728	900,075	1,012,294	112,219	1.18%	15.2%	15.6%
Total Ten County	3,519,040	4,139,386	4,831,855	5,465,223	633,368	1.24%	81.1%	84.1%
State	4,338,801	5,050,332	5,782,915	6,499,600	716,685	1.18%	100.0%	100.0%

Economic Outlook and Trends

U.S. Real Gross Domestic Product

The Conference Board U.S. Economic Forecast projects real GDP growth of 3.5% in 2022, down from 5.6% in 2021. Personal consumption will continue to drive economic growth. It will increase by 3.4% in 2022, down from 8.0% growth in 2021.

The national forecast calls for residential growth to be flat in 2022. The story in Colorado will be different. Demand will exceed supply, in part because of the loss of 1,100 homes in the Marshall Fire. The forecast calls for solid growth in government spending, as expected. That level of investment in the country is excessive, given the level of inflation. Companies are having difficulty finding workers. They will face a greater challenge as the unemployment rate falls to 3.1%. Finally, inflation will remain above the Fed's target range and deter economic growth.

U.S. Economic Growth

The Conference Board Forecast (January 12, 2022)

Real GDP and Economic Growth in 2022

The latest Conference Board forecast shows real GDP growth of 5.6% in 2021, with a growth rate of 8.0% for personal consumption. Real GDP will increase at a rate of 3.5% in 2022. The U.S. unemployment rate will drop from 5.4% in 2021 to 3.1% in 2022. Inflation expectations have increased for 2022. The Federal Reserve will raise interest rates to combat inflation.

Other Economic Factors

The economy has momentum coming into 2022; however, Q1 economic growth will be reduced because of COVID-19 (Omicron). The forecast includes the infrastructure package; however, it does not include the proposed BBB (social and climate) change legislation. If passed, the BBB legislation would add growth in the first half of 2022.

Conference Board US Real GDP Growth Forecast

	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	2020	2021	2022
Real GDP	- 5.1%	- 31.2%	33.8%	4.5%	6.3%	6.7%	2.3%	6.0%	- 3.4%	5.6%	3.5 %
Personal Consumption	- 6.9%	- 33.4%	41.4%	3.4%	11.4%	12.0%	2.0%	4.7%	- 3.8%	8.0%	3.4%
Residential Investment	20.3%	- 30.8%	60.0%	34.4%	13.3%	-11.7%	-7.7%	0.5%	6.8%	9.1%	-0.2%
Nonresidential Investment	- 8.1%	-30.3%	18.7%	12.5%	12.9%	9.2%	1.6%	3.3%	-5.3%	7.4%	4.5%
Total Gov't. Spending	3.7%	3.9%	-2.1%	-0.5%	4.2%	-2.0%	0.9%	2.0%	2.5%	0.8%	2.3%
Exports	-16.3%	- 59.9%	54.5%	22.5%	-2.9%	7.6%	-5.3%	13.2%	- 13.6%	4.0%	4.7%
Unemployment Rate	3.8%	13.1%	8.8%	6.8%	6.2%	5.9%	5.1%	4.2%	8.1%	5.4%	3.1%
PCE Inflation (%Y/Y)	1.7%	0.6%	1.2%	1.2%	1.8%	3.9%	5.5%	4.7%	1.2%	3.9%	3.6%
Core PCE Inflation (%Y/Y)	1.8%	1.0%	1.5%	1.4%	1.7%	3.4%	3.6%	4.5%	1.4%	3.3%	3.6%

Source: The Conference Board and cber.co.

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

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Economic Outlook and Trends

Labor and Wages

Total employment for Colorado and the U.S. will return to pre-pandemic levels in 2022, although some sectors will recover in 2023 or later. Recovery has occurred at different rates because of technology, policy, and industry-specific issues. Leisure and hospitality and professional and technical services will be the leaders in job growth. On the other hand, job growth in Denver County and Weld County will lag other large metro counties. The labor market will continue to favor workers into 2023. For the past year, employees in all occupations have received significant wage hikes. This trend will continue as long as organizations struggle to find workers. Finally, the various headwinds (COVID-19 variants, inflation, rate hikes, automation, and technology) will continue to deter employment growth.

Employment

Data and Benchmarking

There are many subtleties involved in conducting employment analysis. The Current Employment Survey (CES) is the headline data series. It is published as not-seasonally-adjusted (NSA) and seasonally-adjusted (SA). Changes in monthly data are measured by comparing over-the-month data (OTM) or year-over-year (YOY or OTY) data. In addition, the accuracy of employment data is improved through a benchmarking process.

SA vs NSA and OTM vs YOY

CES data is based on a survey of approximately 144,000 businesses and government agencies representing approximately 697,000 worksites throughout the United States. Monthly estimates are calculated for employment, hours, and earnings for the U.S., states, and major metropolitan areas. Preliminary state estimates are typically released on the third Friday after the conclusion of the prior month. The reference period for the CES survey is the pay period which includes the 12th of the month.

Seasonal fluctuations can be addressed by comparing data on a YOY basis. The downside is this method uses data that is 12 months old. If data is seasonally adjusted, OTM calculations more effectively identify changes in the business cycle. Many economists prefer the SA data with OTM analysis for monthly comparisons. Annual totals are usually calculated using YOY NSA data.

Source: Dallas Federal Reserve, Bureau of Labor Statistics, cber.co.

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The Benchmark Process

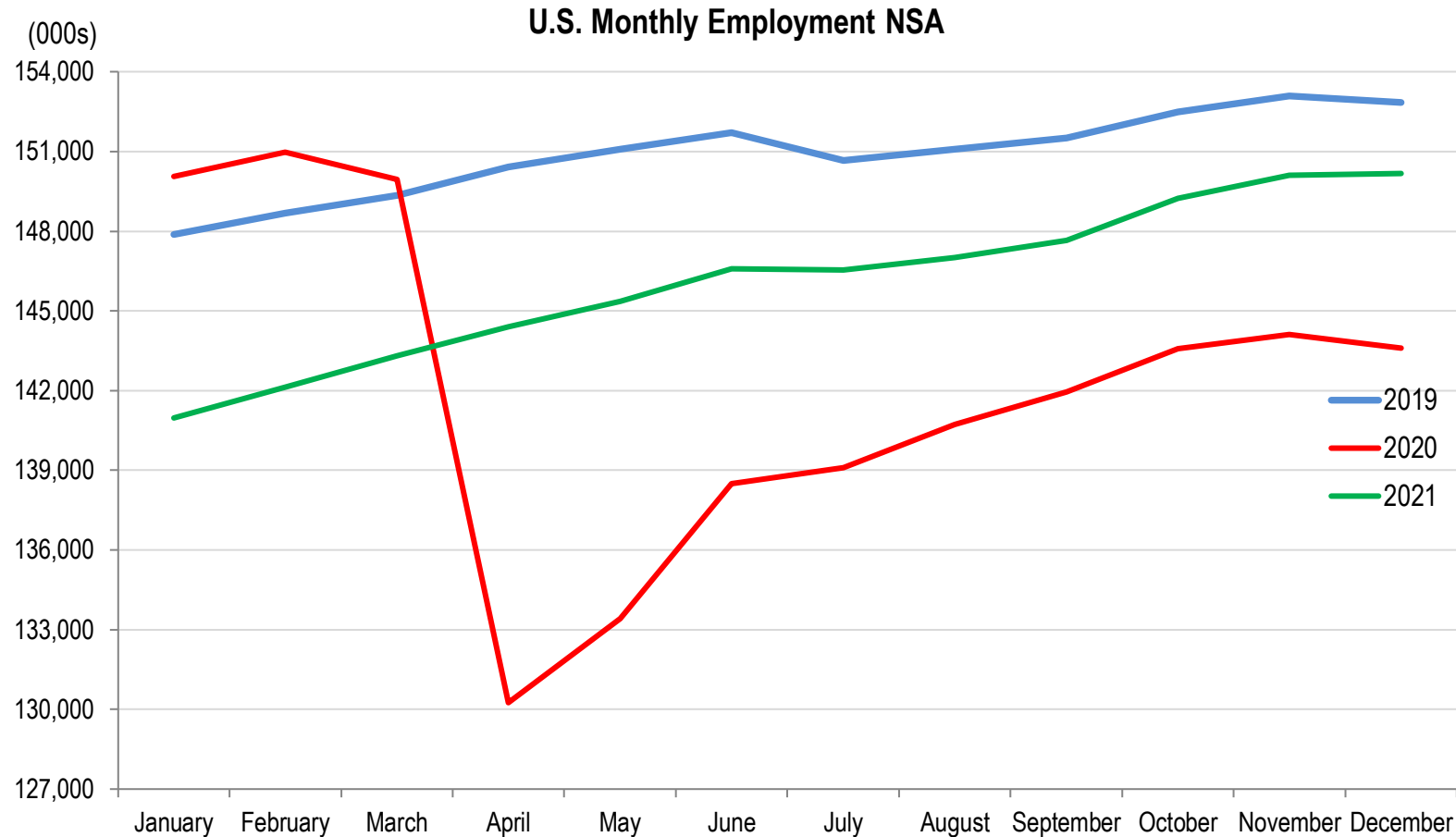
The CES program benchmarks its employee series to improve its accuracy by replacing estimates with full population counts that are not subject to the sampling or modeling errors inherent in the original CES monthly projections.

The full population counts are less timely than the sample-based estimates but usually provide a reasonable estimate of establishment employment. The major source of benchmark data for the CES survey is the Quarterly Census of Employment and Wages (QCEW) program. It collects employment and wage data from states' unemployment insurance (UI) tax records. The benchmark process occurs during the first two months of the year and the results are published in March. Most likely there will be a significant revision to data for 2021 and minor updates for the 2020 data.

When the benchmark revisions are published, cber.co will re-calibrate its 2022 forecast.

Employment

United States



Annual U.S. Employment 2018-2022

U.S. employment will increase by 4.1 million in 2021 (green) and 4.0 million in 2022.

Year	Employment	Change
2018	148,908.0	2,300.0
2019	150,905.0	1,997.0
2020	142,185.0	(8,720.0)
2021	146,300.0	4,115.0
2022	150,300.0	4,000.0

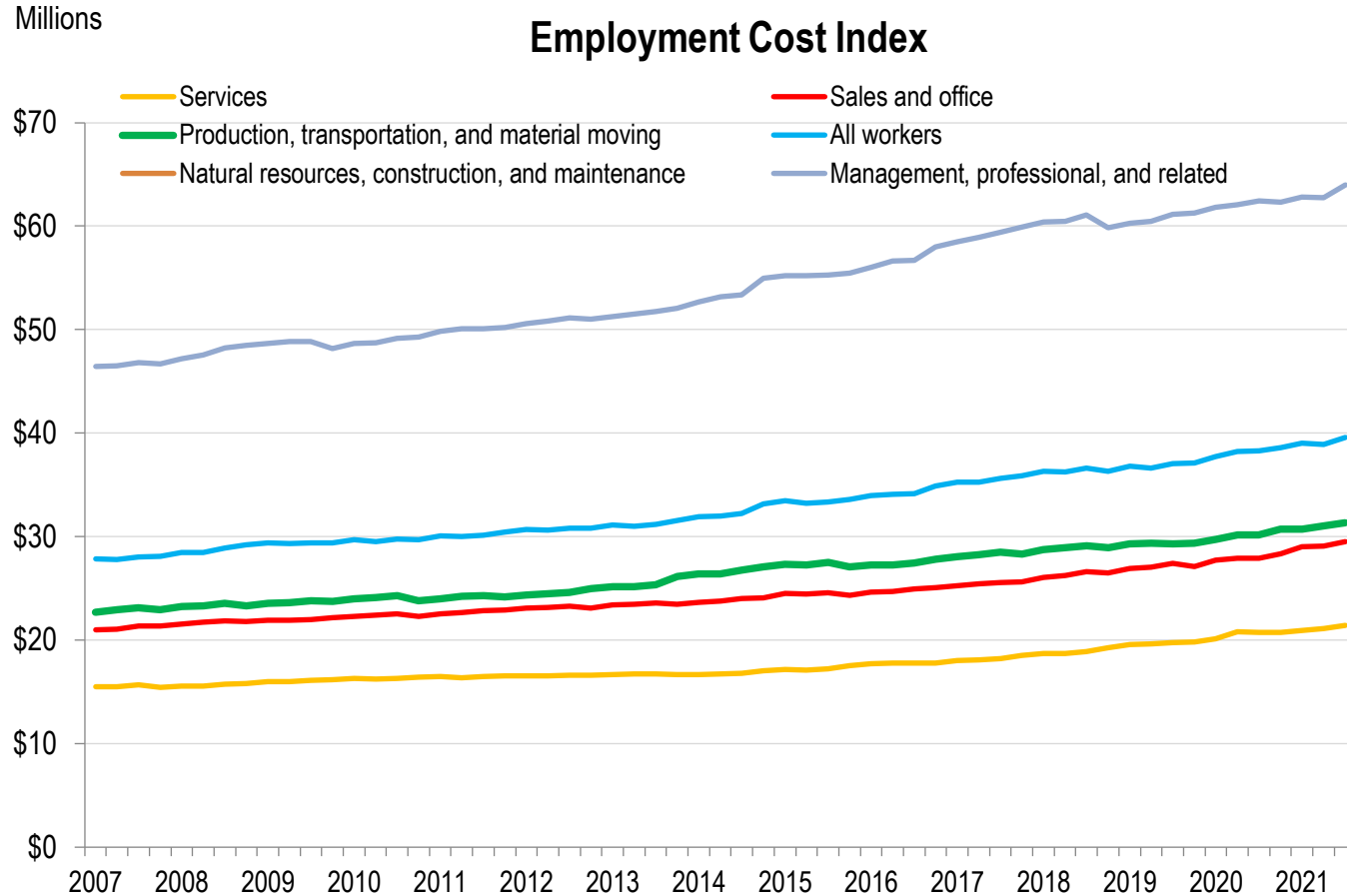
The large states and the core of major cities will play a major role in the 2022 recovery. In Q1 job gains will be slowed by the spread of Omicron. Growth will be strongest in Q2 and Q3. As the year progresses, it will be more difficult for organizations to meet their staffing needs as the number of available workers decreases.

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

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Employer Costs for Employee Compensation

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



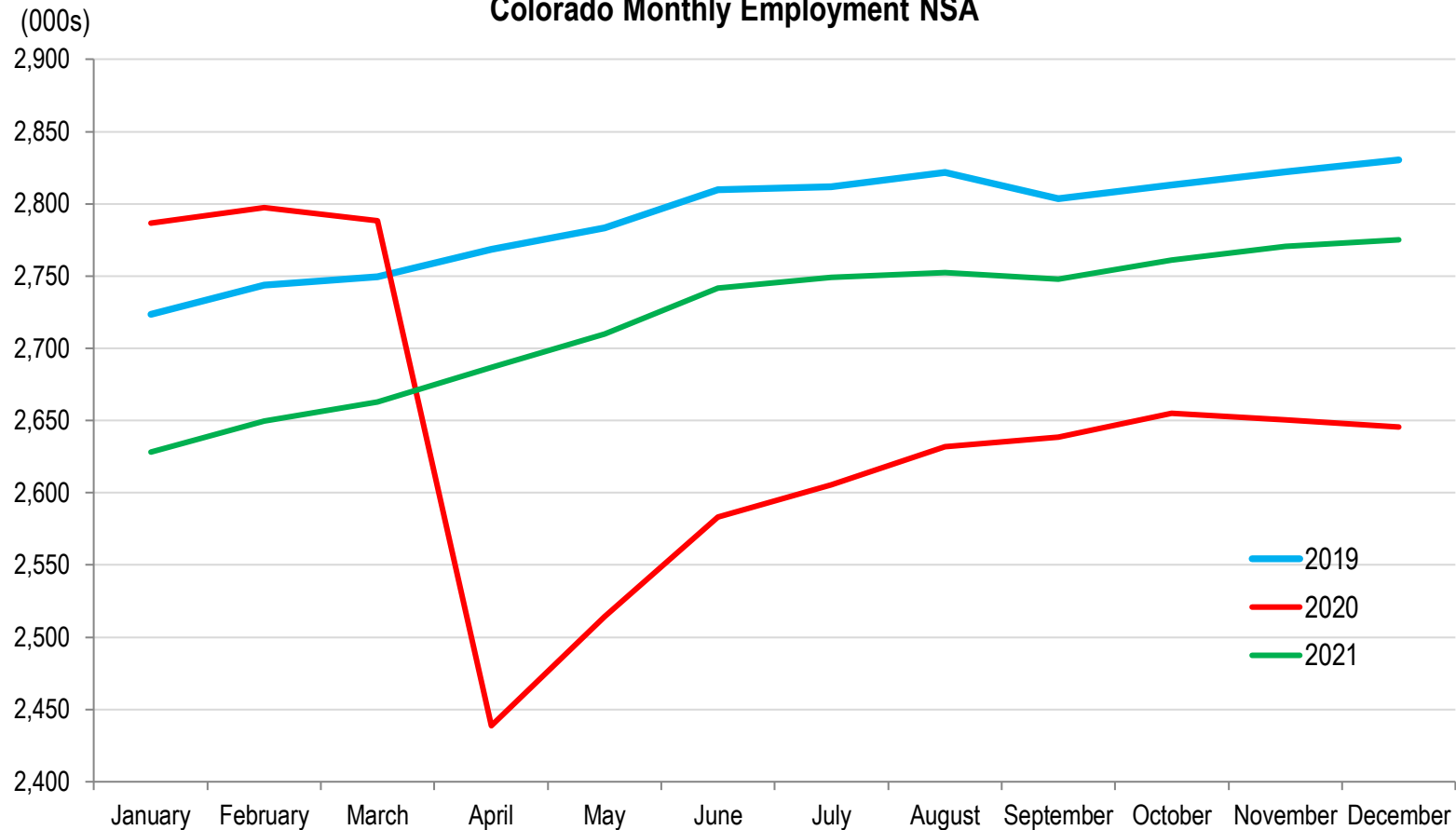
Change in Compensation Q3 2021 vs. Q3 2020

Over the past year, compensation has increased across all major SOC occupation categories. The overall rate of change is 3.4%. The rate of change is highest for sales and office and lowest for management and professional. These rates are lower than the rate of increase in inflation.

Year over Year Change in Compensation				
Color	Occupation	Q3 2021 Wages	YOY Change	YOY%
Orange	Mgmt. and Prof.	\$63.96	\$1.51	2.42%
Blue	Nat. Res., Const., Maint.	\$39.97	\$2.10	5.5%
Green	All Workers	\$39.55	\$1.29	3.4%
Red	Prod., Transp., Mat. Moving	\$31.31	\$1.13	3.7%
Purple	Sales and Office	\$29.50	\$1.60	5.7%
Yellow	Services	\$21.39	\$0.70	3.1%

Employment Colorado

Colorado Monthly Employment NSA



Annual Colorado Employment 2018-2022

Colorado will add 93,000 jobs in 2021 followed by 84,000 in 2022.

Year	Employment	Change	% Change
2018	2,727.3	67.0	2.5%
2019	2,790.1	62.8	2.3%
2020	2,642.0	-148.1	-5.3%
2021	2,735.0	93.0	3.5%
2022	2,819.0	84.0	3.1%

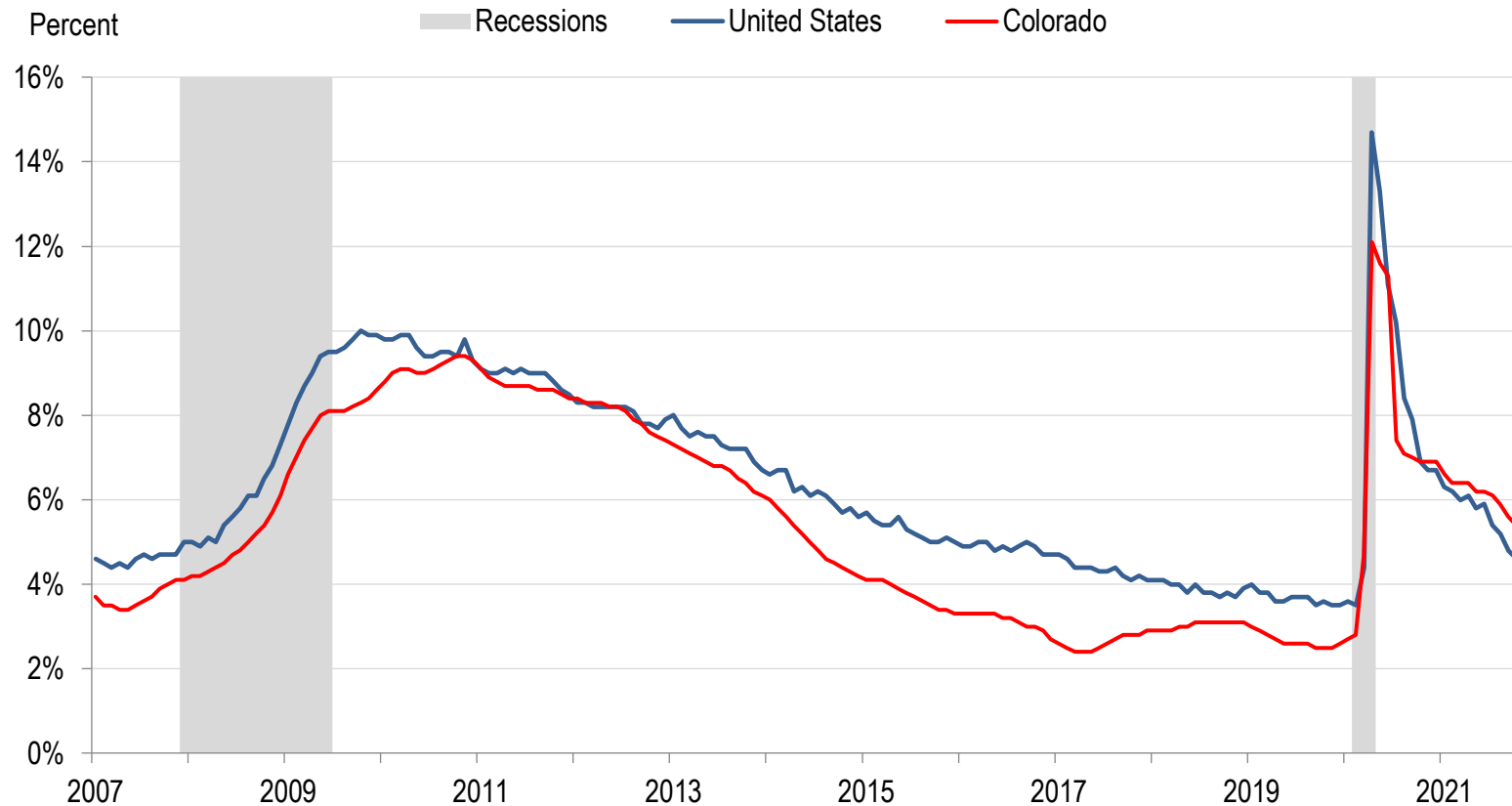
Employment gains will be broad-based and will be led by the continued recovery of the accommodations and food services, health care, and state and local government sectors. The professional, scientific, and technical services sector will continue to see strong growth. Metro job growth will lag in Denver County and Weld County.

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

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U.S. and Colorado Unemployment Rate

U.S. and Colorado Unemployment



Annual Unemployment Rate

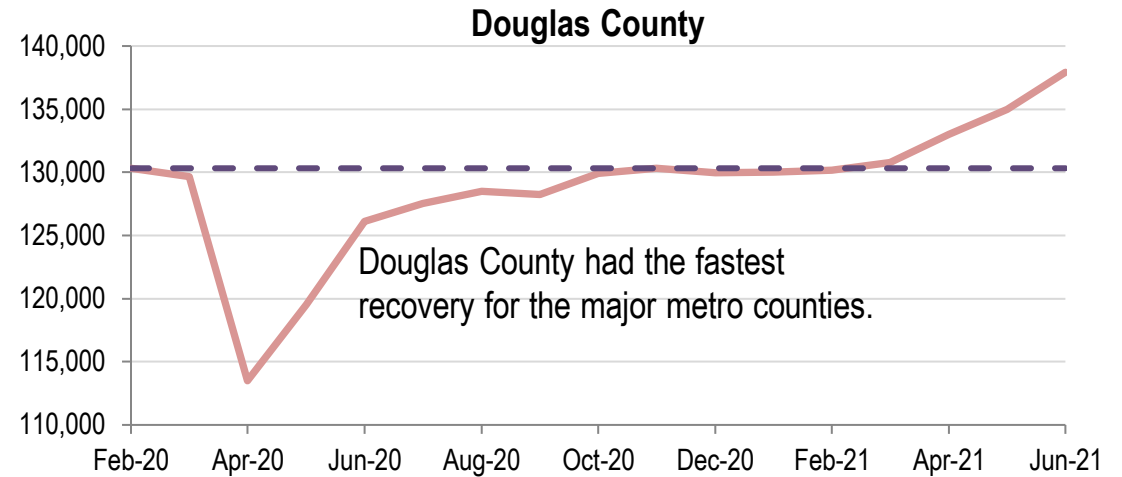
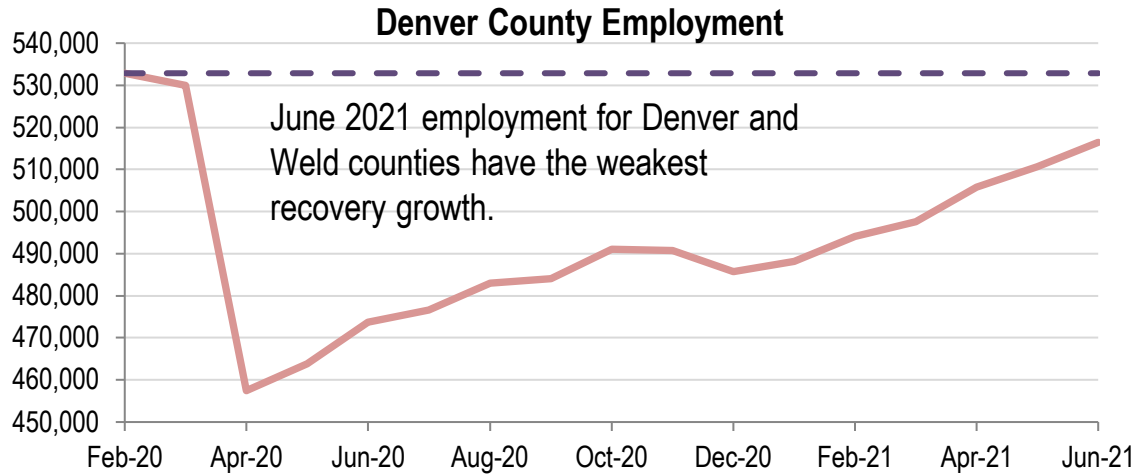
The U.S. and Colorado unemployment rates will continue to decline through 2022. Since July 2020, the monthly U.S. rate has been lower than the Colorado rate, which is atypical. That trend will continue in 2022. Organizations will continue to struggle to find workers.

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%	7.3%
2021	5.4%	6.0%
2022	3.1%	4.0%

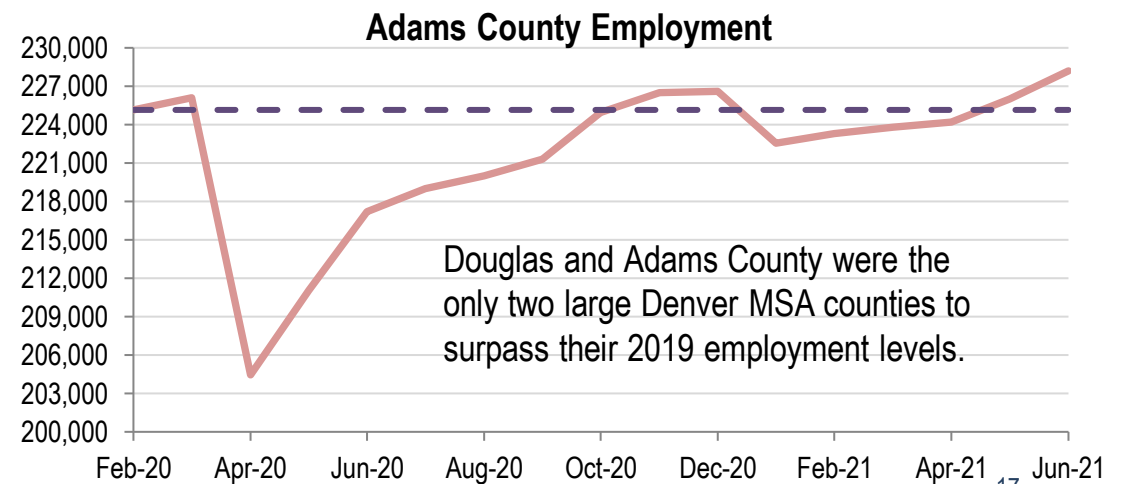
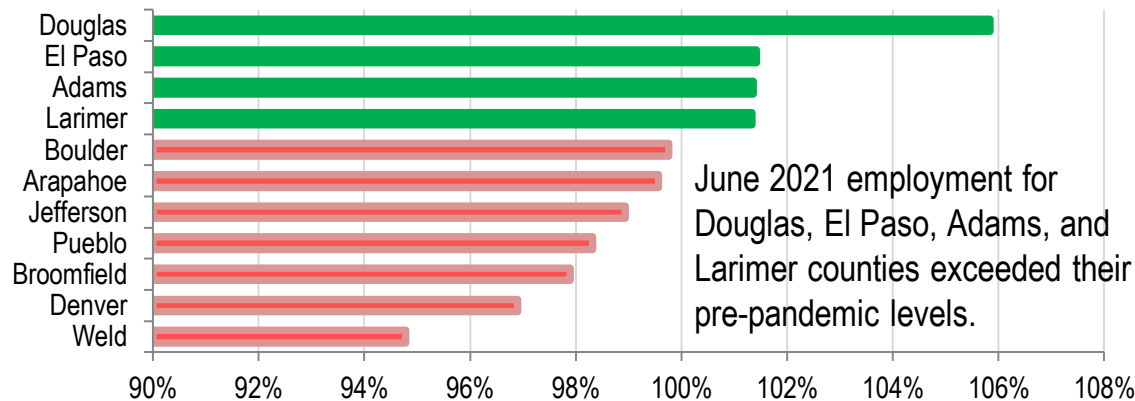
Source: BLS, cber.co.

Metro County Employment (Quarterly)

Recovery June 2021 Employment as % of February 2020



June 2021 Employment as % of February 2020



Source: Bureau of Labor Statistics, cber.co.

Colorado-based Business and Economic Research <https://cber.co>

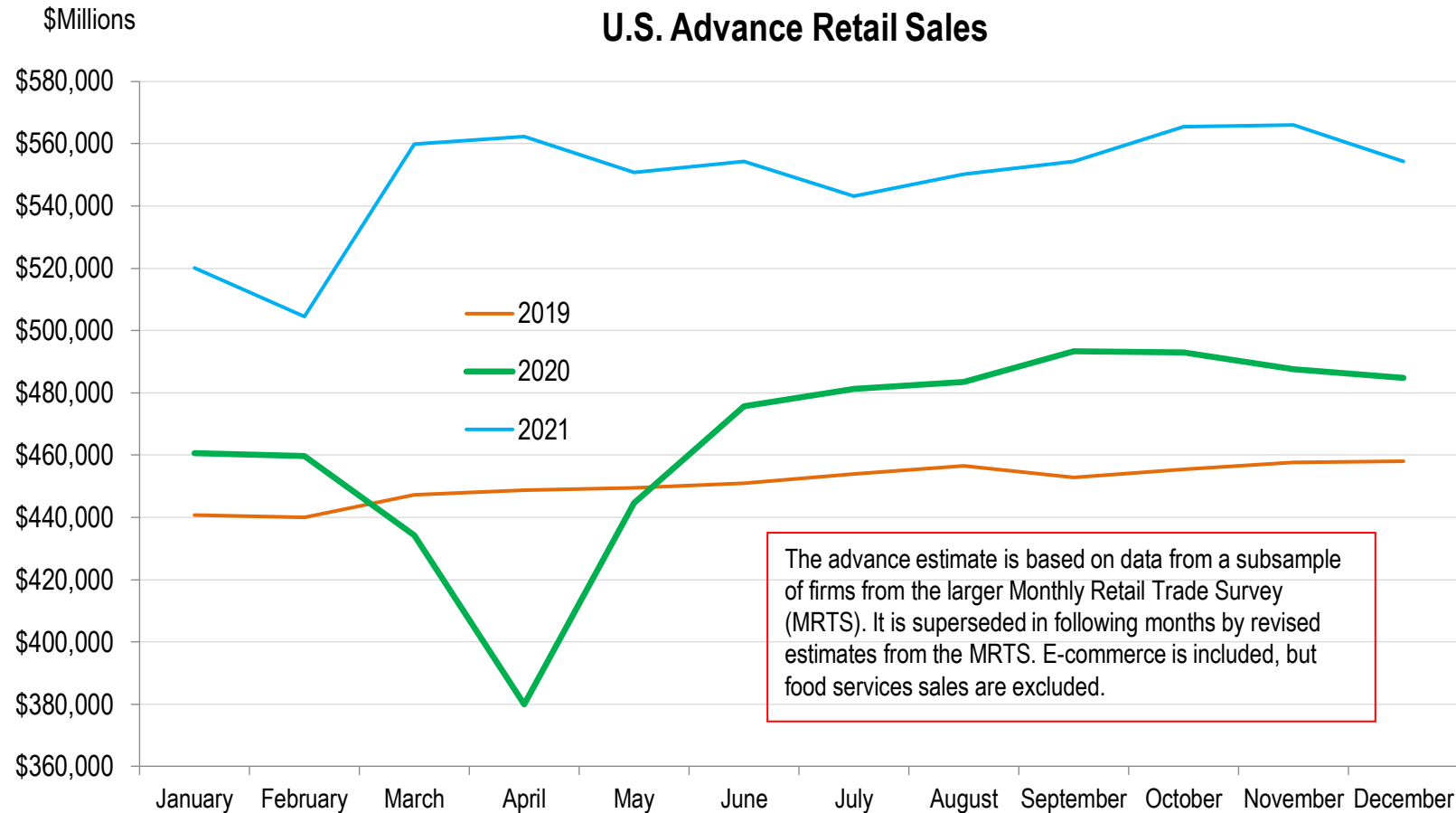
Economic Outlook and Trends

Momentum

During the pandemic, credit card balances declined, COVID-19 policies restricted travel, personal savings increased, the wealth effect increased, and families received federal assistance. In addition, higher paid occupations recovered quicker than lower paid occupations. These factors created momentum in 2021 that will drive the economy in 2022. In 2021, Colorado and the U.S. experienced record retail spending. As travel restrictions eased, DIA passenger traffic increased. In Colorado, the demand for housing exceeded the supply, prior to the pandemic. Housing price appreciation in Denver and across the country topped 20% in late 2021. Also, the number of Colorado single and multi-family permits increased. Given the current demand and the damage from the Marshall Fire, there will be solid residential construction activity in 2022.

U.S. Advance Retail Sales

Monthly



Source: U.S. Census Bureau, cber.co. Note: Not adjusted for inflation.
 Colorado-based Business and Economic Research <https://cber.co>

U.S. Retail Sales in 2022

U.S. Advance retail sales for 2021 (turquoise) were about 18.1% greater than 2000 (green). The higher rate of consumption in 2021 is a result of federal assistance programs, pent-up demand, the wealth effect, and increased savings.

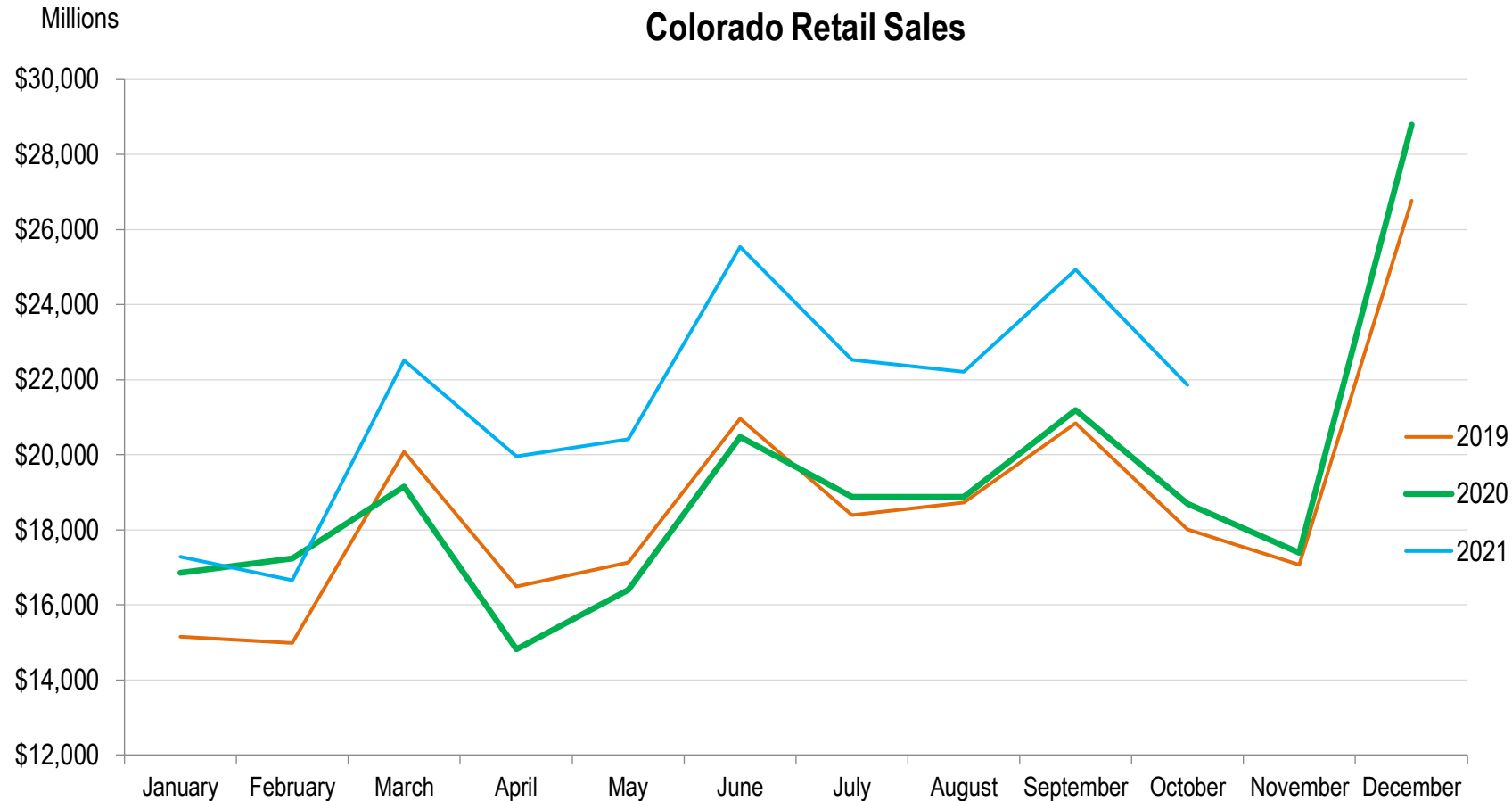
Annual Retail Sales (Trillions)

2017	\$5.05	4.4%
2018	\$5.26	4.2%
2019	\$5.41	3.0%
2020	\$5.58	3.1%
2021	\$6.59	18.1%
2022	\$6.98	6.0%

Given the headwinds in 2021, consumers still found ways to power the economy with their spending. In 2022, retail sales will increase at a slower rate. The business model for retailers will continue to evolve to meet the needs of the in-store and online customers.

Colorado Retail Sales

Monthly



Colorado Retail Sales 2022

Through the first ten months of 2021 (turquoise), retail sales were 17.1% greater than the same period in 2000 (green). The annual sales for 2021 will be 17.0% greater than 2020. The higher rate of consumption in 2021 is a result of the wealth effect, and increased savings. Sales will be solid in 2022, but they will increase at a slower rate.

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	\$267.7	17.0%
2022	\$289.1	8.0%

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

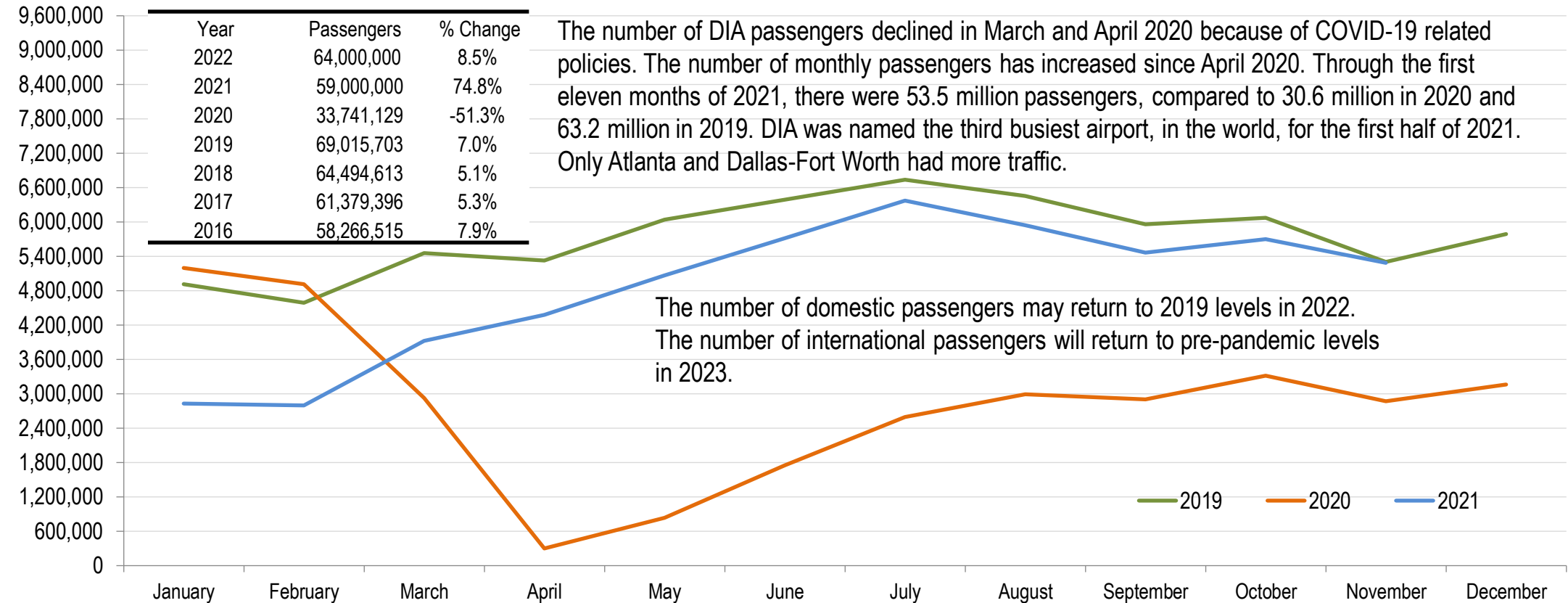
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Denver International Airport Passengers

Monthly

DIA Passengers

Passengers

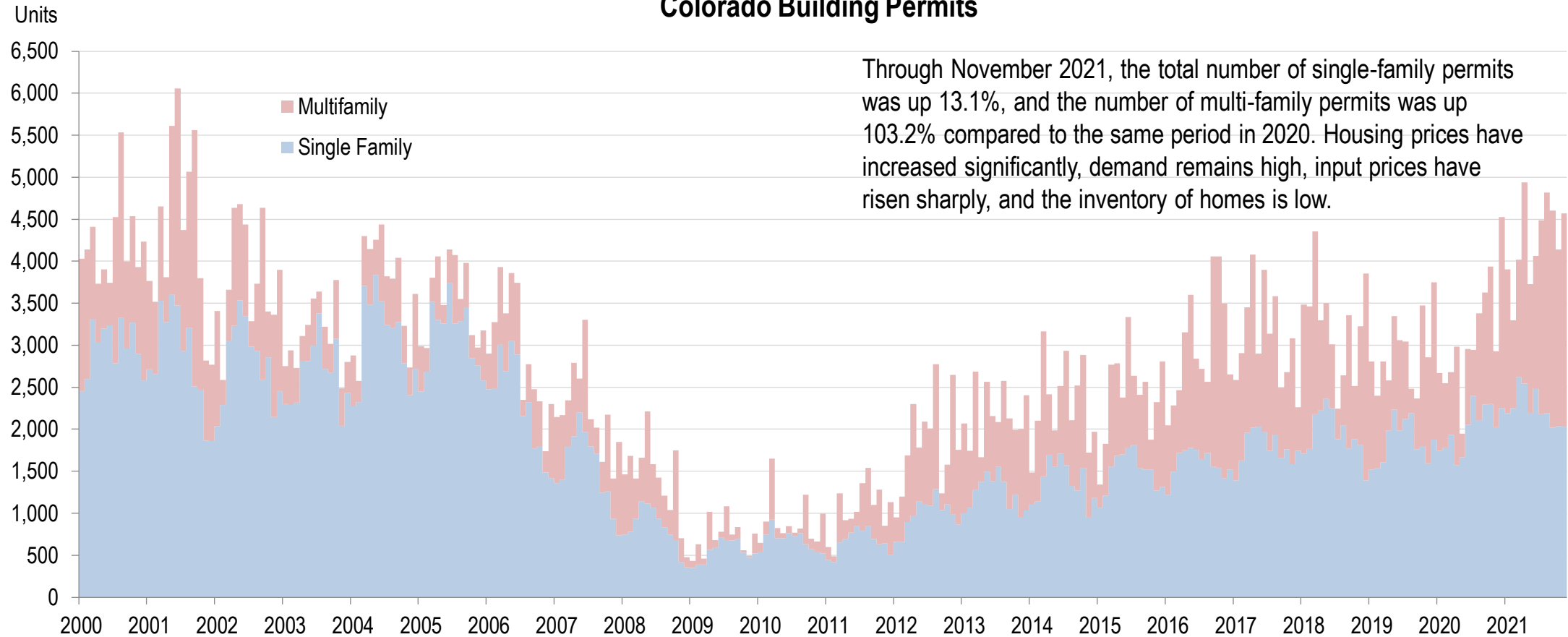


Source: flydenver.com, cber.co.

Colorado Residential Building Permits

Units

Colorado Building Permits

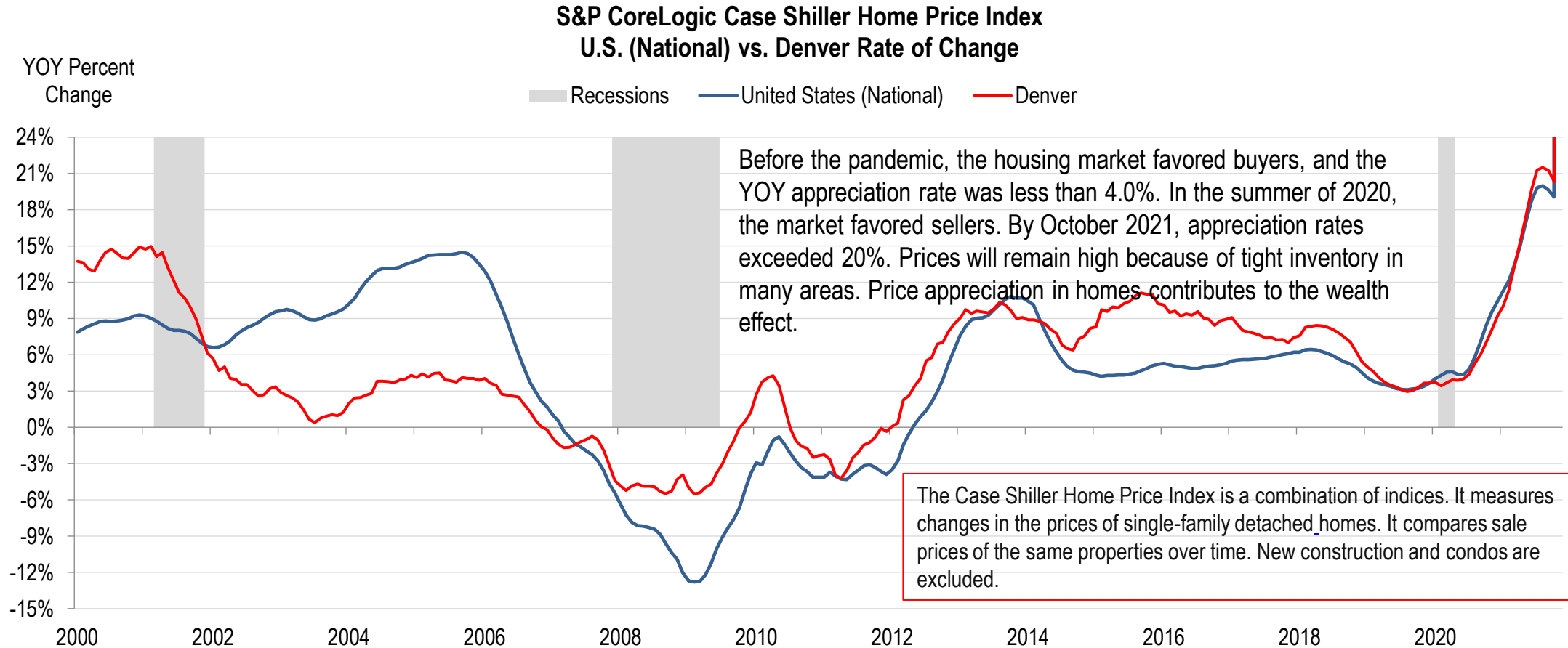


Source: TAMU Real Estate Center, U.S. Census Bureau, cber.co.

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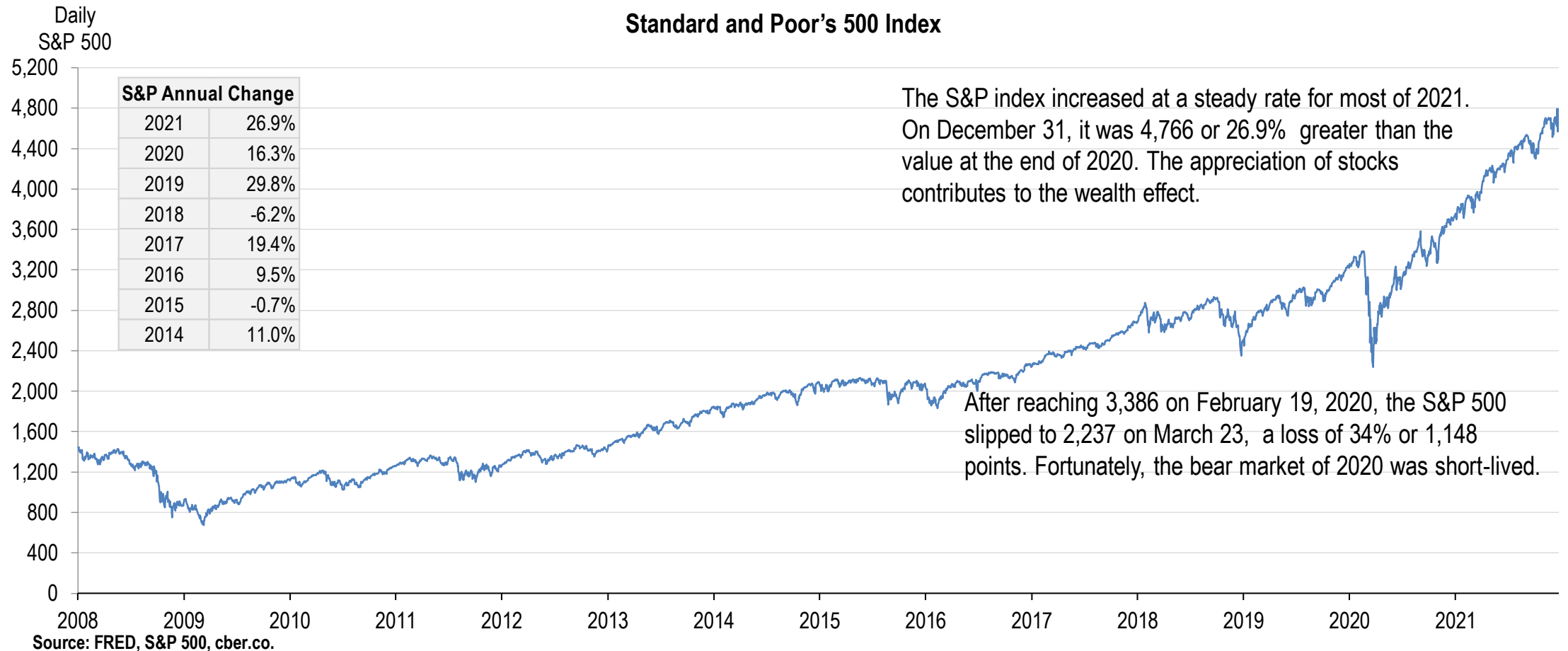
Case Shiller Home Price Index

YOY National vs. Denver Rate of Change



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

Standard and Poor's 500 Index



Economic Outlook and Trends

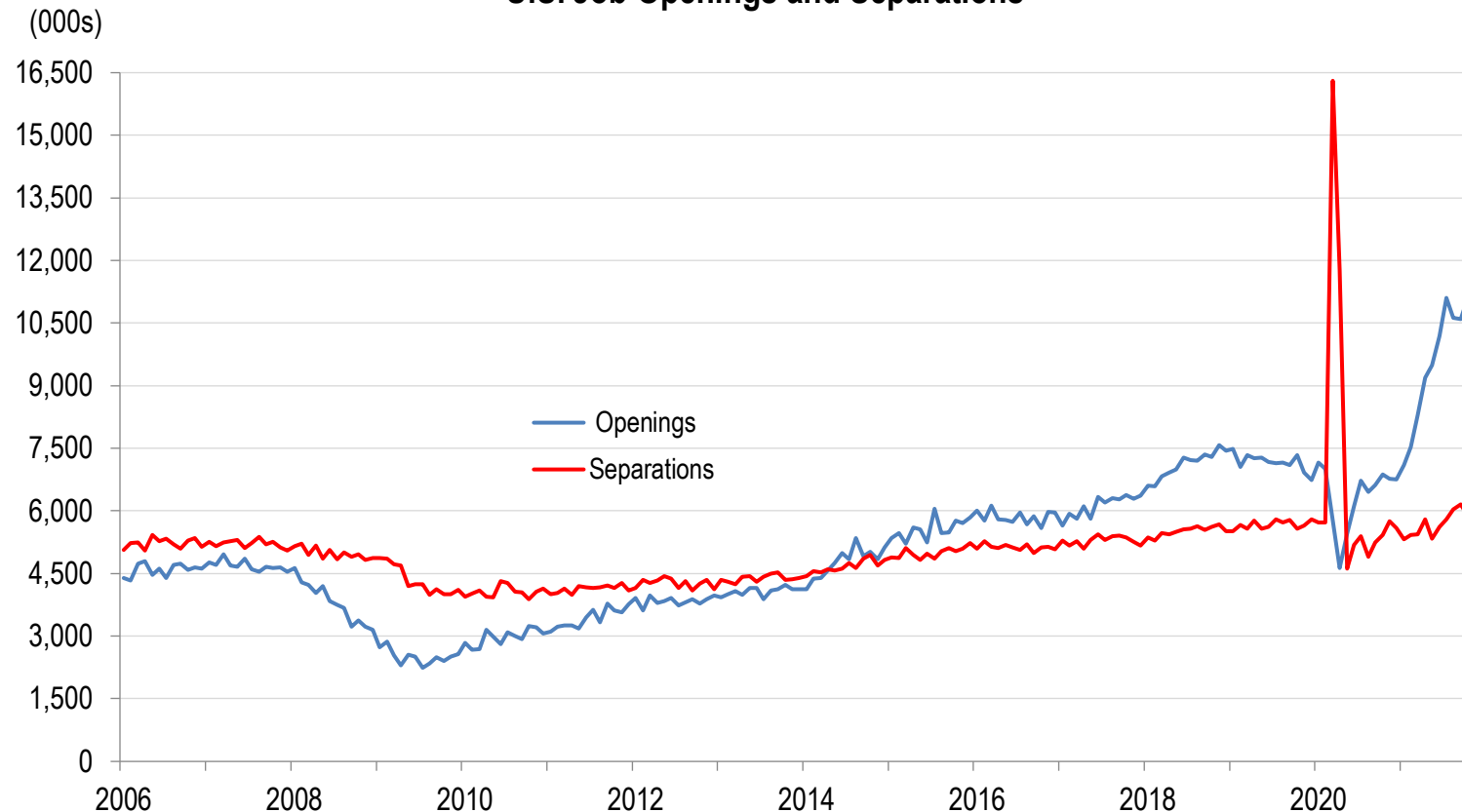
Headwinds

In 2022, the momentum will be greater than the headwinds, but the headwinds are deterring growth. In 2021, COVID-19 and its variants were at the top of the list of economic headwinds. The pandemic was one of many issues that were plagued with partisan conflict. Sadly, the politicization of COVID-19 and other issues will continue in 2022. The momentum from the labor market is driving the economy; however, there were a record number of job openings and quits. Many organizations struggled to find workers in 2021. That challenge will become worse as the unemployment rate declines in 2022. In 2021, the Consumer Price Index increased from 1.7% to 9.7%. Inflation will be a deterrent to economic growth in 2022. The Fed is talking about three interest rate hikes in 2022. Finally, supply chain disruptions affected industries ranging from tennis ball companies to auto manufacturers in 2021. The disruption of the supply chain may have less effect on the economy in 2022.

Job Openings and Separations

United States

U.S. Job Openings and Separations



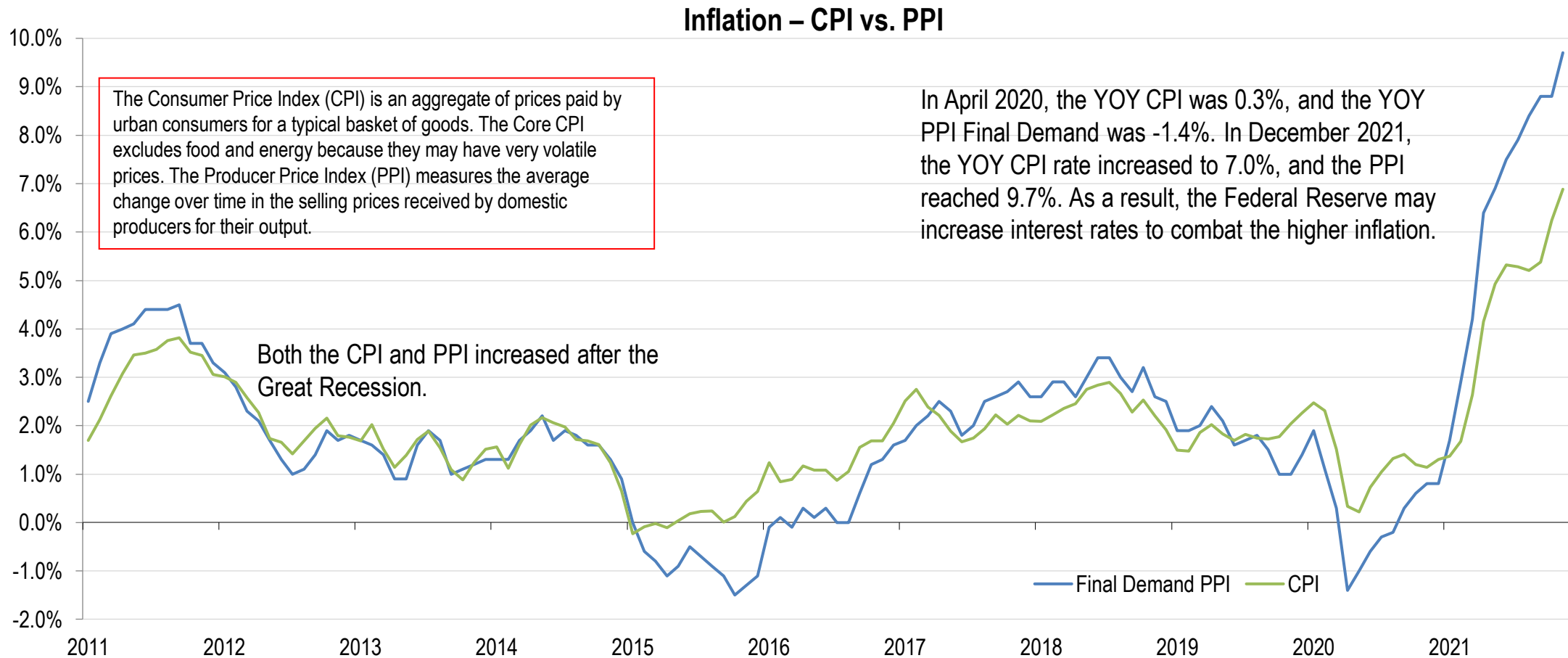
Source: JOLTS, BLS, cber.co.

The number of job openings (blue) bottomed out in 2009. As the economy improved from the Great Recession, openings steadily increased for the next ten years. The number of openings leveled out in 2019, followed by a sharp decline in 2020 caused by the COVID-19 lockdown policies. In late 2021, there were a record number of job openings (10-11 million).

Similarly, the number of separations has reached record levels. Boomers have retired and other workers are using the strong labor market as an opportunity to upgrade their working compensation and work environment by switching companies. This trend will continue in 2022.

U.S. Inflation

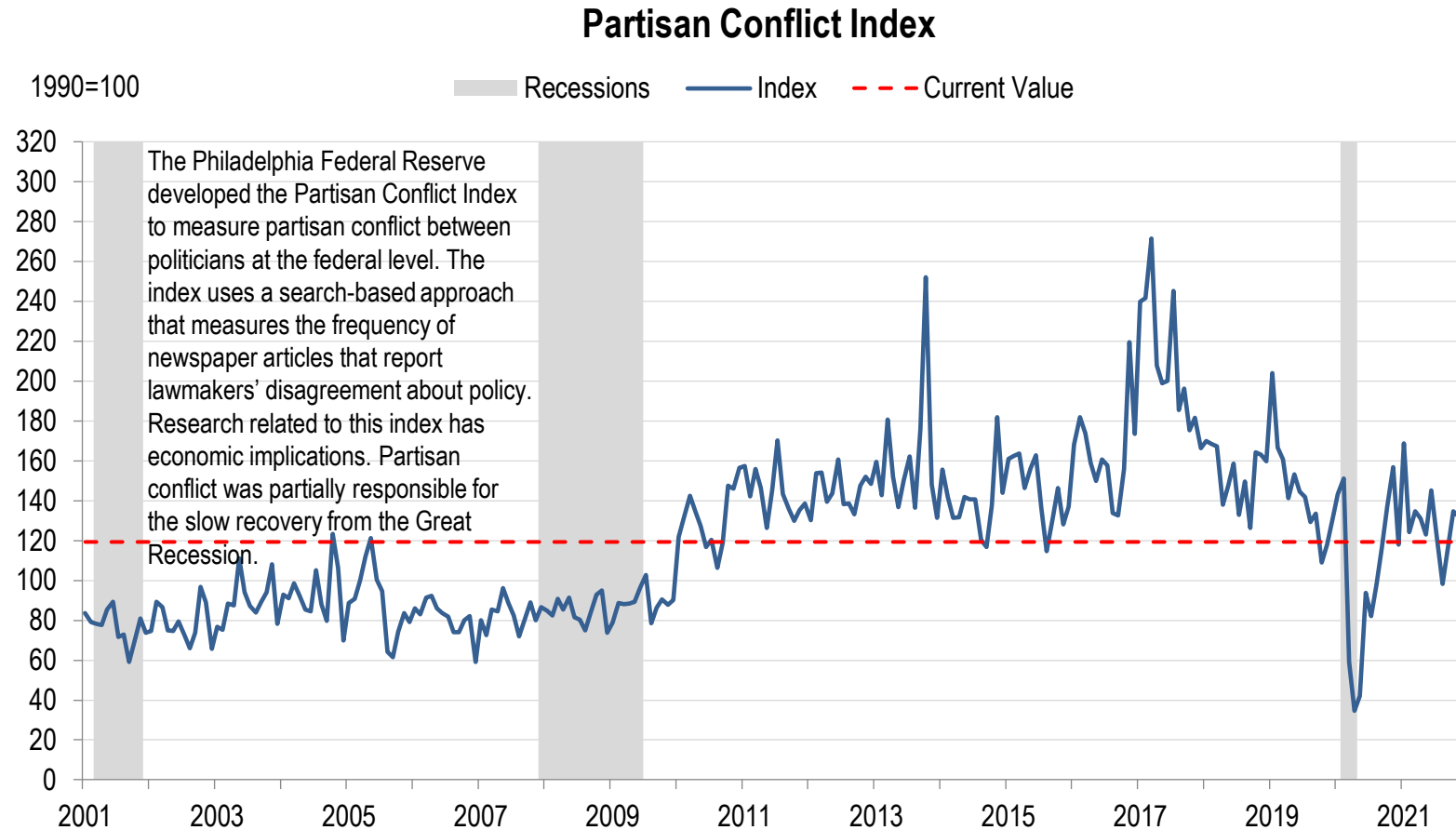
CPI vs. Producer Price Index (Final Demand)



Source: Bureau of Labor Statistics, PPI Commodity Data, Final Demand SA; CPI All Items City Average SA, cber.co.
 Colorado-based Business and Economic Research <https://cber.co>

Partisan Conflict Index

2001 to 2021



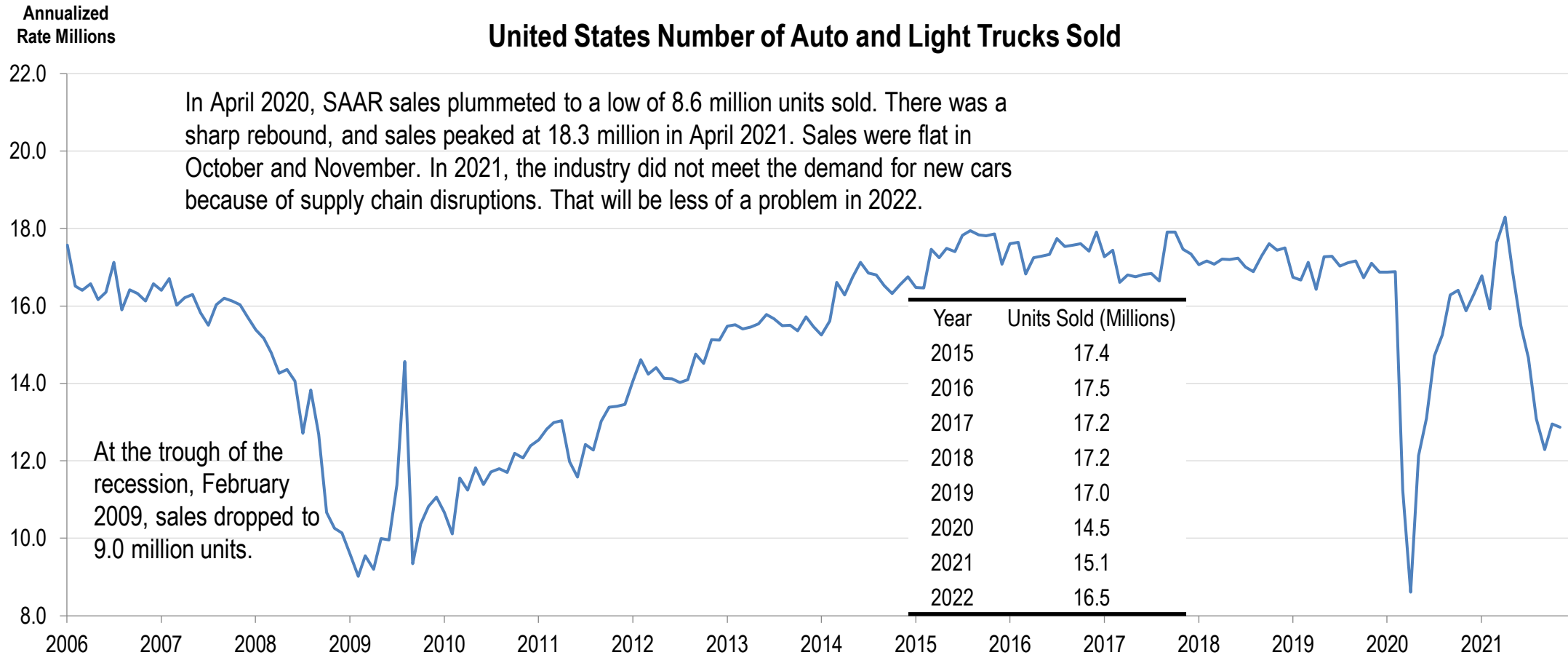
Source: Philadelphia Federal Reserve, cber.co.

The Index was started in 1981. Since then, most of the values between 1981 and 2009 were less than 125.

The index rose significantly in 2010, the second year of Obama's first term, with the federal shutdown of the government (blue line). The index remained elevated during Trump's tenure. It peaked in 2017 with the meltdown of both parties on social media and again in 2019 with the Robert Mueller Russian collusion report. The decline in March 2020 coincides with the pandemic, as the country "came together." Since Biden's election, the index has been similar to the Obama and Trump terms, although there has not been a major spike.

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.

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Economic Outlook and Trends

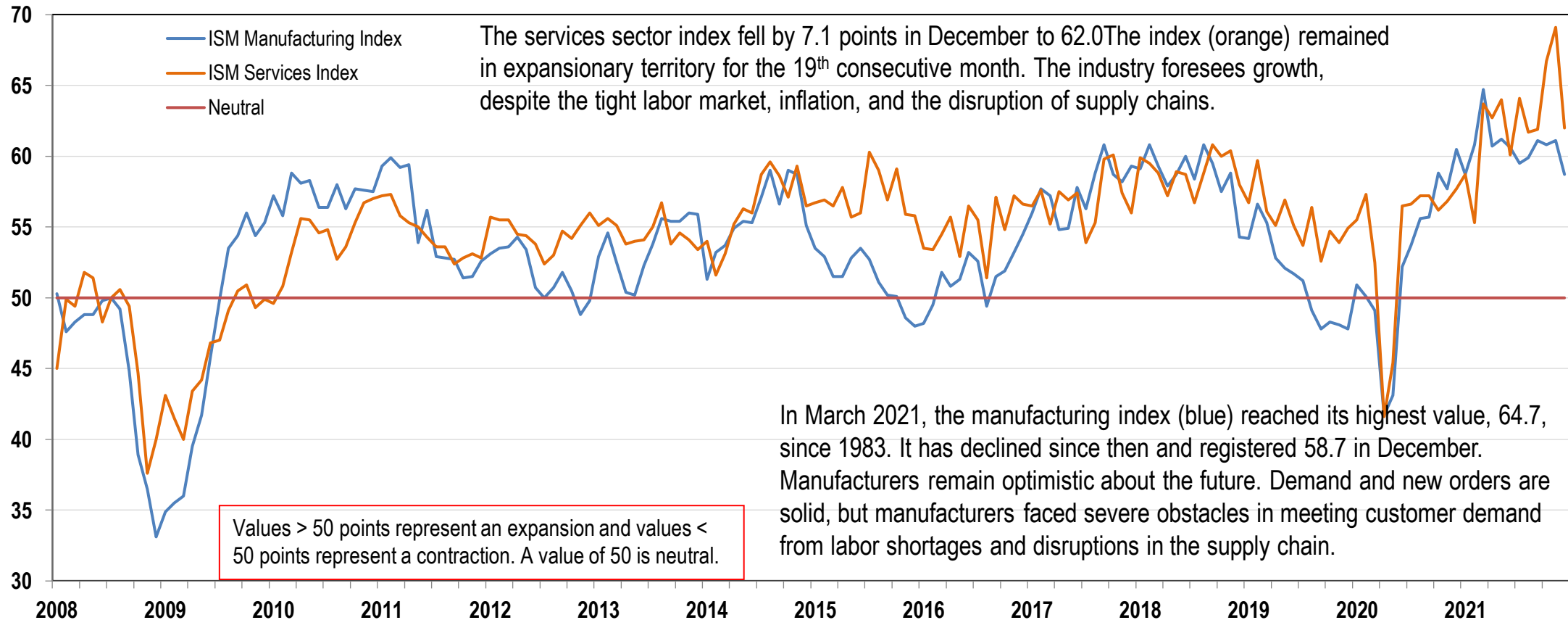
Mixed News - Momentum and Headwinds

There are also data sets that send mixed messages – they illustrate momentum and the struggles of headwinds. The ISM, NFIB, and NAHB indices are optimistic about the future, but their results reflect that headwinds are challenging small businesses, manufacturers, service providers, and construction companies. The Michigan Consumer Sentiment Index shows that consumers are concerned about headwinds; however, their concern is not reflected in their spending patterns. The number of Colorado and U.S. small business applications increased unexpectedly during the pandemic. Now that the economy has improved, there has been a decline in applications. Finally, EIA projects WTI oil prices will be about \$71 per barrel in 2022 and \$63 per barrel in 2023. EIA predicts U.S. crude production will top pre-pandemic levels in 2023 to hit an all-time high of 12.41 million b/d. U.S. output will increase by 640,000 b/d in 2022 to 11.8 million b/d. Production will increase slightly in 2022 for Colorado. The notice of increased production is mixed news for Coloradans.

ISM PMI Composite Indices

Manufacturing vs. Services

ISM Manufacturing PMI vs. Services PMI Composite Indices



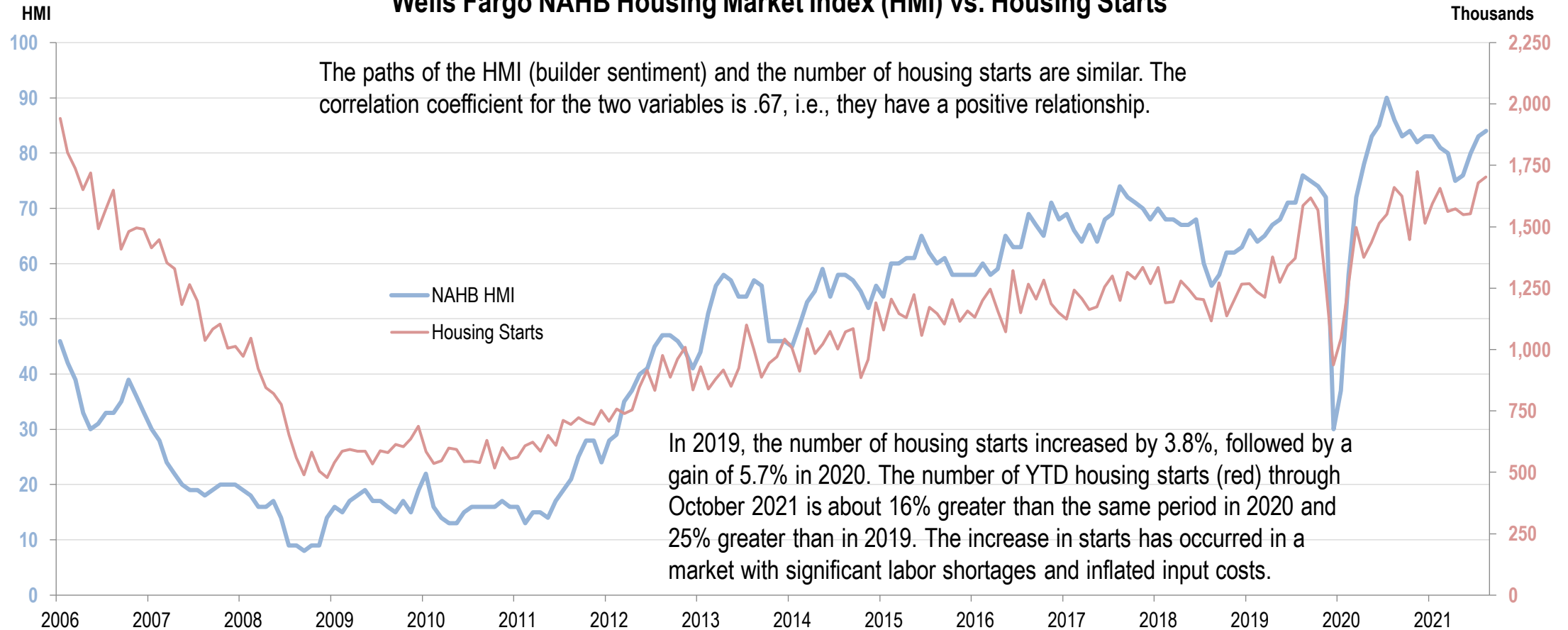
Source: Institute of Supply Management, cber.co

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Wells Fargo NAHB HMI vs. Housing Starts

United States

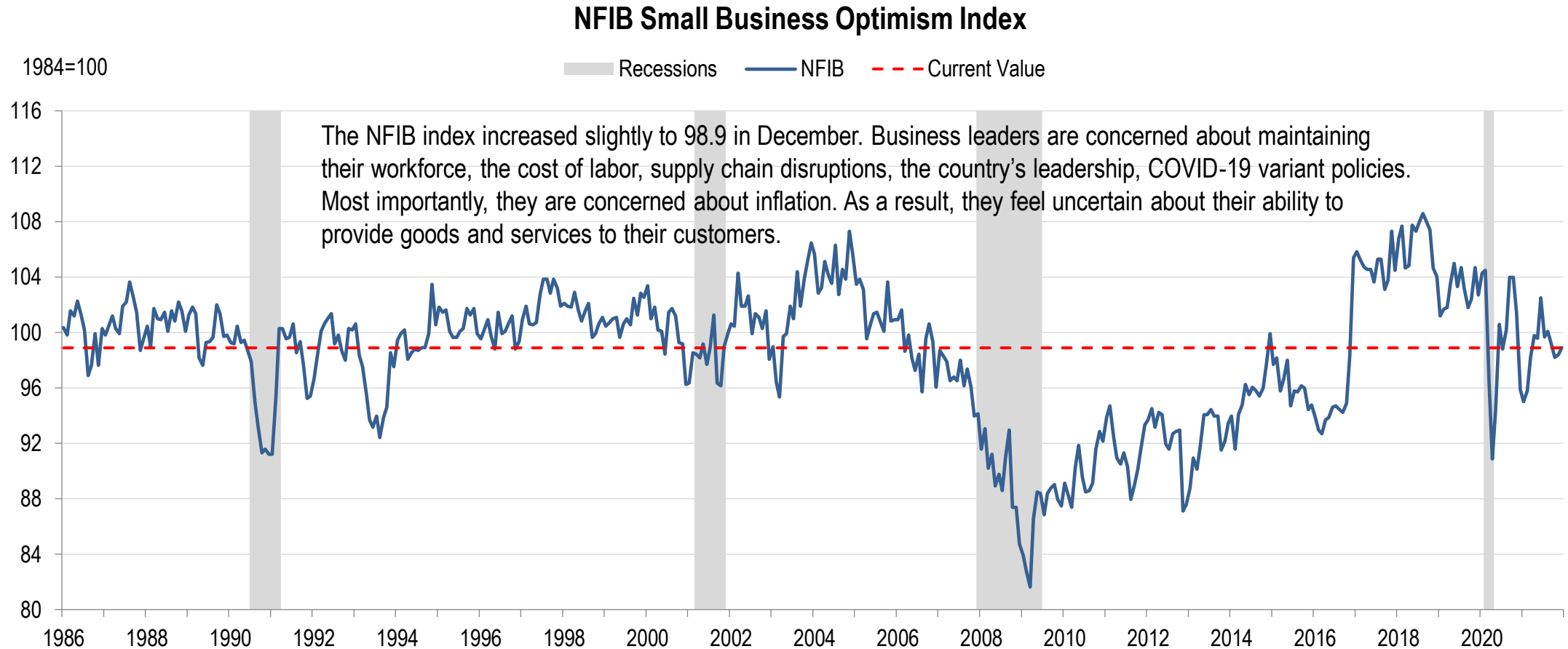
Wells Fargo NAHB Housing Market Index (HMI) vs. Housing Starts



Source: NAHB, cber.co.

NFIB Small Business Optimism Index

United States

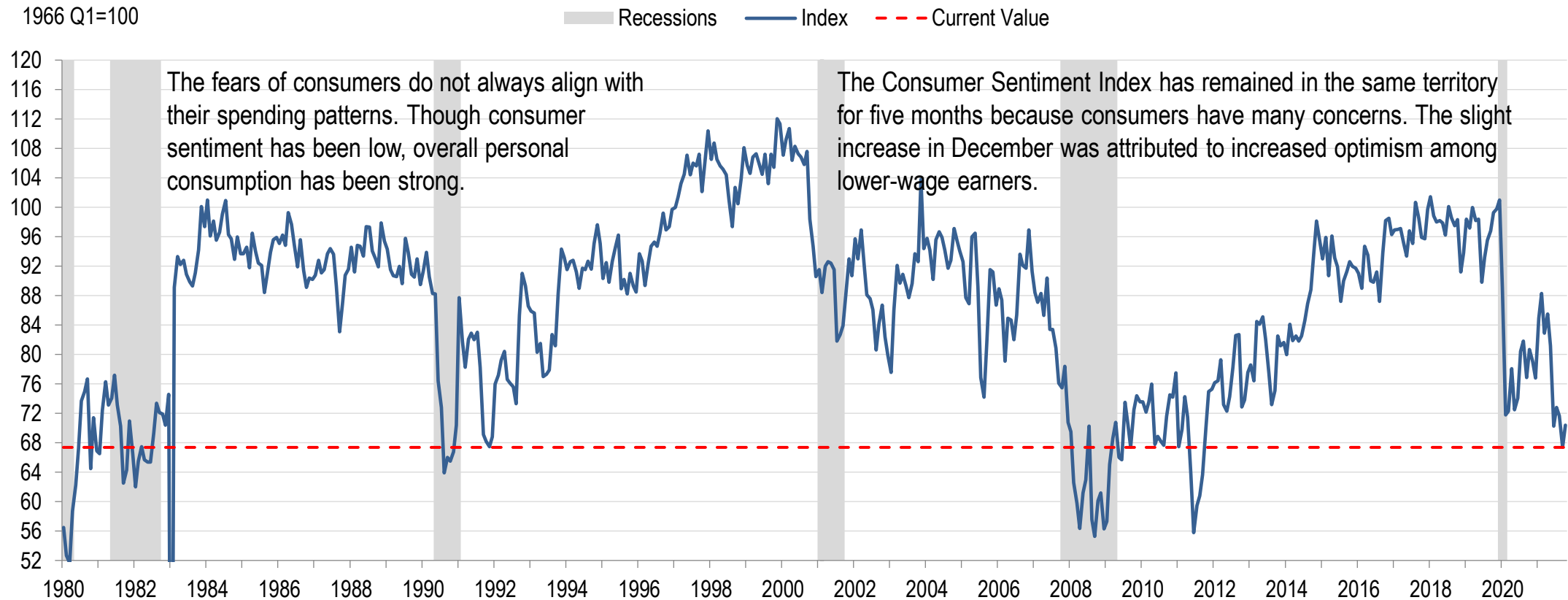


Source: NFIB, cber.co.

Consumer Sentiment Index

University of Michigan

Michigan Consumer Sentiment Index

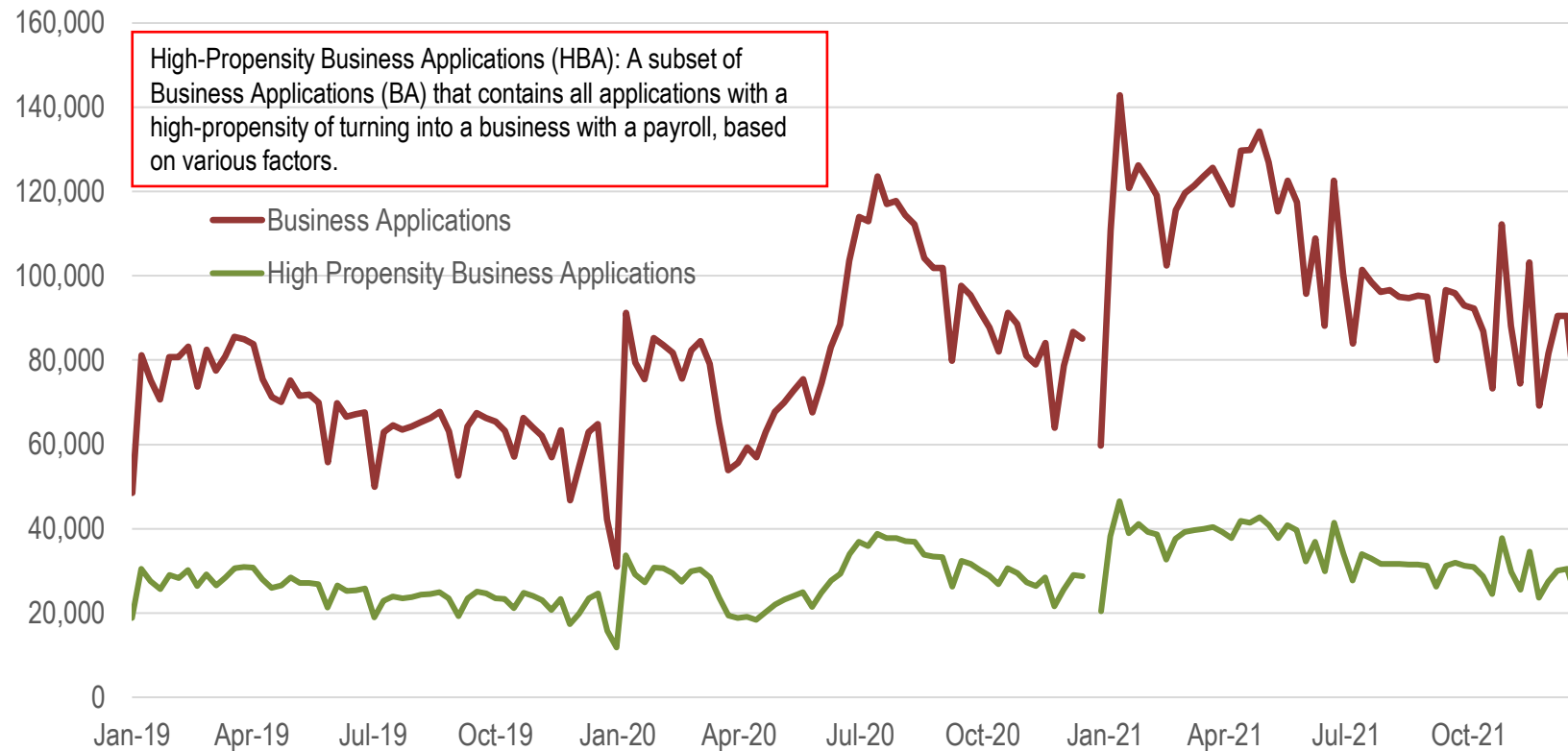


Source: University of Michigan, cber.co.

U.S. Weekly Business Applications

Total and High Propensity 2019 through 2021

Weekly Business Applications



Business Applications

There were 3.51 million business applications (burgundy) in 2019 and 4.36 million in 2020. In 2021, there were 5.37 million; however, the number of applications is trending downward.

High Propensity Business Applications

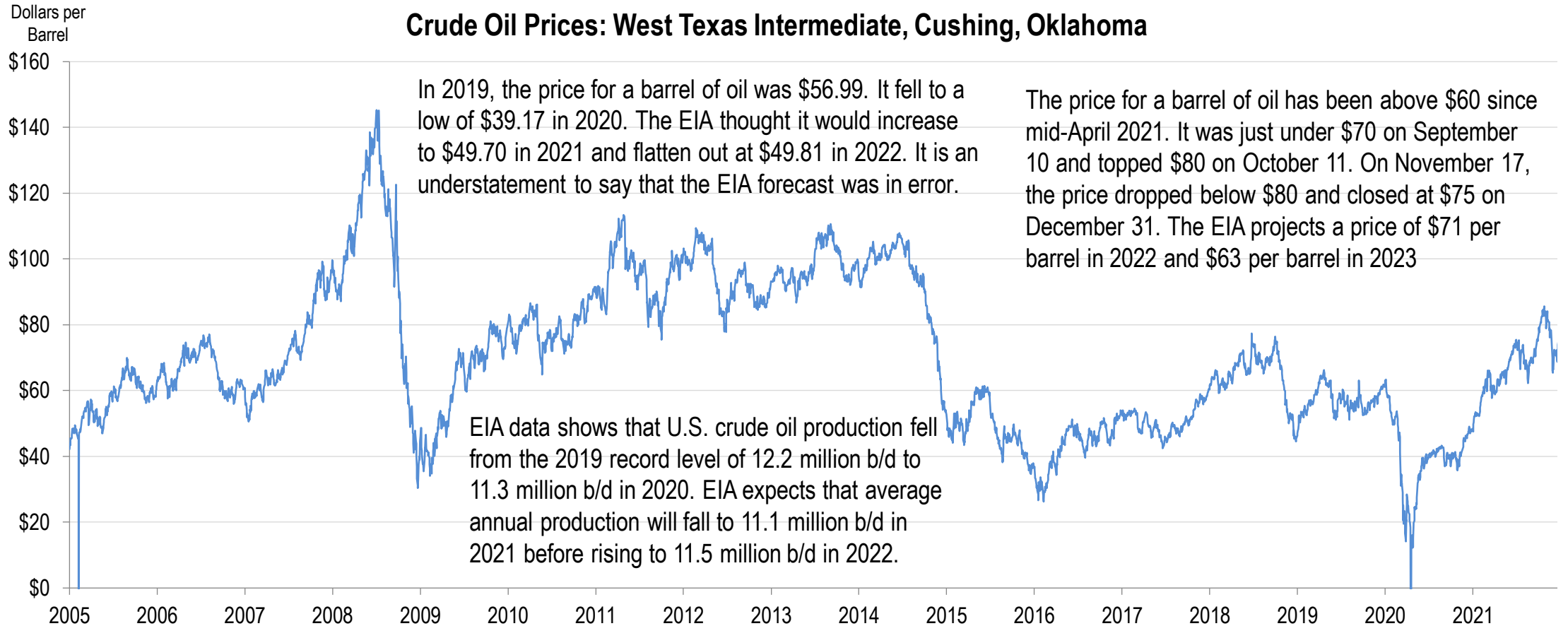
There were 1.29 million high propensity applications (green) in 2019 and 1.97 in 2020. In 2021, there were 1.77 million. The number of high propensity applications and the number of applications is trending downward. The spike in 2020 appears to be an anomaly.

Source: FRED, U.S. Census Bureau, NSA, cber.co.

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Crude Oil Prices

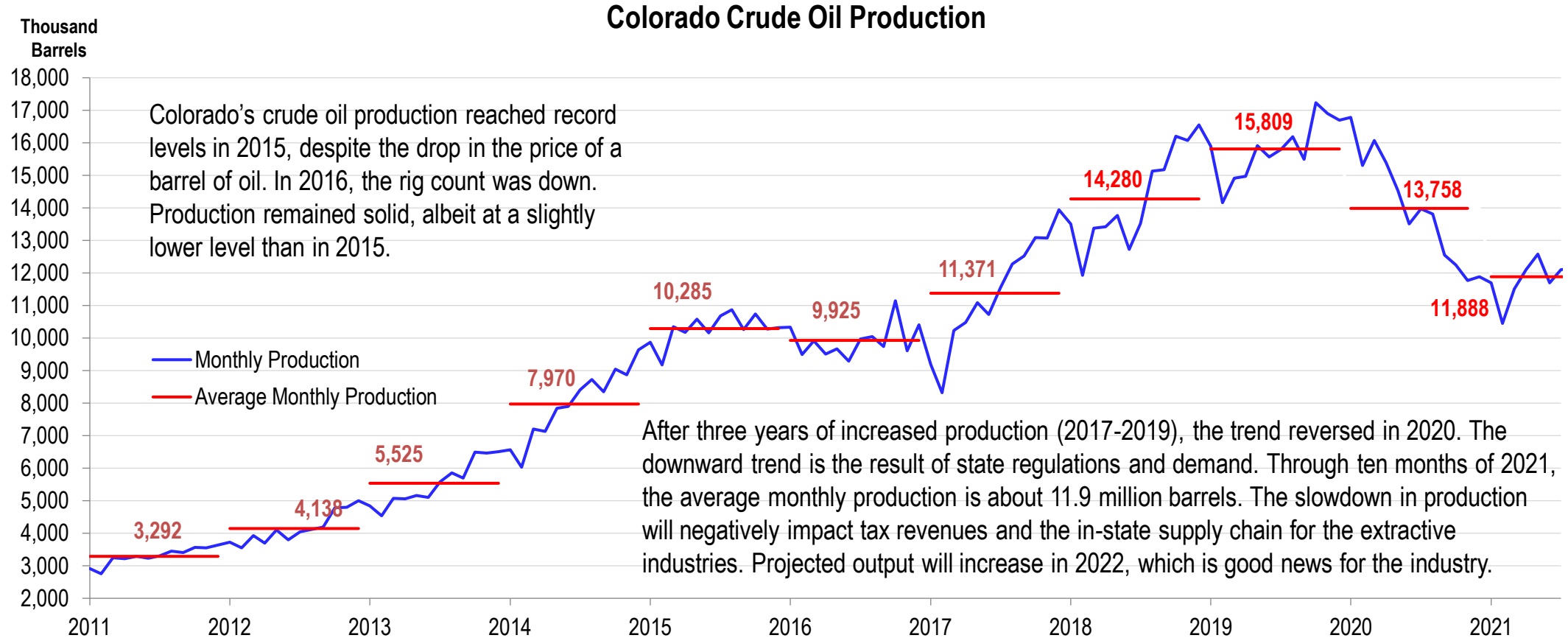
West Texas Intermediate



Source: EIA, cber.co.

Colorado Field Production of Crude Oil

2011 to 2021 (Thousand Barrels)



Source: EIA, cber.co.

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Economic Outlook and Trends

Summary of Colorado Forecast

There will be better than average employment and wage growth in Colorado as momentum from 2021 carries into 2022; however, the momentum will be slowed by headwinds. The largest employment gains will be in the accommodations and food services and professional and technical services sectors. The impact of the Marshall Fire and the low housing inventory bodes well for residential construction. The state will continue to benefit from the advanced technology industries, such as aerospace, bioscience, and photonics. Retailers will continue to evolve, but employment increases will be minimal. Over the next decade, Northern Colorado will lead population growth. Population and employment in Denver County will increase more slowly than in other metro counties. In part, remote and hybrid work have slowed the recovery for Denver County. Over the next decade, Colorado will add more than 700,000 people. This increase is a mixed blessing.

Summary of Colorado Forecast

Colorado's real GDP growth rate will be greater than the U.S. rate in 2021 and 2022.

Employment will return to its February 2020 level in the second half of 2022. The labor market expanded at a faster pace than expected in 2021. It will taper off in 2022.

Retail sales rebounded in 2021. Growth will be slower in 2022.

In 2021 and 2022, Colorado inflation will be greater than in recent years. The increased inflation will negatively impact economic growth in the months ahead. Typically, the Colorado CPI exceeds the national rate.

Colorado Economic Forecast

	2019	2020	2021	2022
Real GDP Value (billions)	\$356.77	\$346.01	\$366.04	\$383.29
% Change Real GDP	4.2%	-3.0%	5.5%	5.0%
CES Employment (thousands)	2,790.1	2,642.0	2,735.0	2,819.0
Annual Change (thousands)	62.8	(148.1)	93.0	84.0
% Change	2.3%	-5.3%	3.5%	3.1%
Unemployment Rate	2.7%	7.3%	5.5%	3.9%
Retail Sales (billions)	\$224.6	\$228.8	\$267.7	\$289.1
% Change	9.0%	1.9%	17.0%	8.0%
Consumer Price Index	1.9%	2.0%	5.0%	4.2%
DIA Passengers (millions)	69.0	33.0	59.0	64.0
Single Family Permits	24,756	26,489	27,000	28,000
Multi-family Permits	13,877	13,738	24,000	20,000
Oil Production (thousands) barrels	189,707	172,000	142,000	155,000

In 2021, DIA was one of the busiest airports in the country. The number of passengers was ten million less than the total for 2019. The number of passengers will increase by five million in 2022.

There was an increase in the number of building permits issued in 2021. The number of permits issued in 2021 as demand exceeds the supply and 1,100 homes were destroyed in the Marshall Fire.

The production of crude oil declined in 2011 because of state regulations. Oil production will increase slightly in 2022 as the economy returns to "normal."

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Economic Outlook and Trends 2022
Colorado and the United States

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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.