

# Economic Outlook for 2021

## United States and Colorado



cber.co  
Colorado-based Business and Economic Research  
Prepared  
January 15, 2021

# Overview

## Review of 2020

The preparation of the 2021 forecast began with a review of the accuracy of the 2020 forecast.

It did not account for the impact of C-19, the C-19 variants, policies associated with C-19, and the discovery of a vaccine. It also did not foresee the effect of the ideological divide in our country. In fairness, economists are not able to forecast pandemics, natural disasters, and sociopolitical upheaval.

In 2020, all economists faced two challenges. 1) Leaders did not understand the virus. They were required to make policy decisions with incomplete information. Many of these decisions produced volatility in the economy. 2) There was also a lack of data to measure the magnitude of the downturn and recovery. As a result, most forecasts were outdated within a matter of weeks.

A solution to these challenges was to provide combined monthly analyses and updated forecasts that were less detailed. This forecast will rely on less detail and updates throughout the year to account for the volatility.

## The 2021 Forecast Assumptions

The 2021 forecast uses a combination of traditional and new sources of data to evaluate the economy and to project trends. Its accuracy is contingent on the following assumptions:

- 1) The spread of C-19 and its variants will peak in Q1 2021. The vaccine will prevent C-19. Its administration will peak in Q2. The administration of vaccines will not result in an immediate recovery of the economy. In the upcoming months, they will prevent widespread lockdowns. Be patient!
- 2) The policies associated with C-19 created changes and damage to the workplace and the economy. The recovery has been uneven across geographic regions, industries, and occupations that will continue for an extended period. The slowdown in the labor market and economic activity that began in Q4 2020 will continue in Q1 2021. Hiring and consumption will rebound in Q2 and Q3. The pace of economic growth will return to pre-pandemic levels in 2022.
- 3) We can only hope that the political transition will not affect consumer and business confidence. Keep your fingers crossed!
- 4) There will still be uncertainty, angst, and volatility in 2021, but there are reasons to be optimistic. The U.S. and Colorado have made significant progress in the recovery. In the early stages, Colorado was a leader in the economic recovery, but that is no longer the case. There is light at the end of the tunnel! Stay healthy!
- 5) Benchmark revisions will show that 2020 employment will decline by 155,000 employees.

# The United States Economy



# Expectations for the U.S. Economy

There are reasons to be optimistic in 2021; however, there will be uncertainty, angst, and volatility. At best, economic growth in Q1 2021 will be stagnant. It will improve gradually throughout the spring. The rate of real GDP and employment growth will improve in Q3 and Q4.

## Short Term Expectations

Real GDP and industrial production will return to the 2019 level in Q4 2021 or 2022.

The number of business applications will increase at a pre-pandemic rate of growth in 2021.

The equities markets posted double-digit gains in 2021. Financial leaders expect continued growth.

The NAHB Index projects housing growth in 2021.

Despite a high number of small business closures, the NFIB index indicates small businesses have mixed emotions about the future.

Indices for the manufacturing and services industries are in expansionary territory.

## Mid to Long Term Expectations

The U.S. will return to the 2019 employment levels in 2022 or 2023.

Unemployment rates will decline gradually.

The Michigan Consumer Sentiment Survey suggests consumers are lukewarm to the recovery.

The rate of inflation will remain low in 2021.

Crude oil production and prices will remain relatively flat in 2021.

The second stimulus package in 2000 was “too little, too late.” As a result, assistance in 2021 will be more costly and less effective.

## Headwinds

The recovery from the pandemic will depend on the number of C-19 cases and its variant. It will rely on the effectiveness of the vaccines and appropriate C-19 policies.

Over the past two decades, an ideological divide has developed within the U.S. It interferes with the efficient functioning of our society, government, and economy. It has been caused, in part, by the Infodemic, or the spread of accurate and inaccurate information. Social media has played a role in the expansion of the Infodemic.

The federal government has incurred significant debt to address the C-19 recession. At some point, it will be necessary to address this level of debt.

# C-19 and Polarization

## United States

### Key Points

C-19 and the ideological divide will be headwinds in 2021.

Gallup polls show that polarization was prevalent during the Clinton and Bush presidential terms. It increased significantly during the Obama and Trump administrations.

The number of C-19 cases and deaths, its variant, and the policy associated with C-19 will be significant headwinds in 2021.

# Polarization – Largest Gaps in Presidential Approval

## Republican vs. Democratic

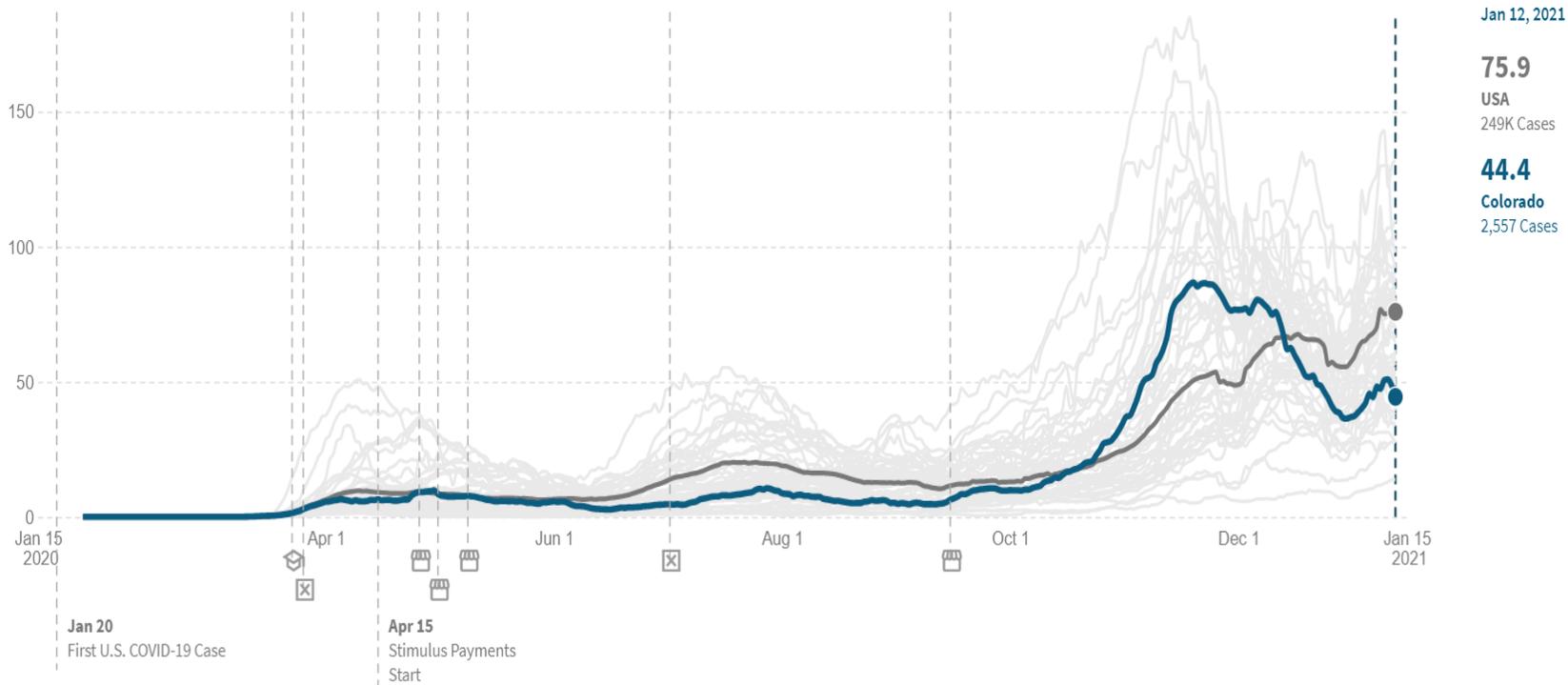
Gallup polls show there was polarization during the Clinton and Bush terms. It continued to get worse under the leadership of Obama and Trump. Over time, this polarization has had a negative impact on society, business and political decision making, and the performance of the economy.

Largest Gaps in Republican vs. Democratic Approval of the President				
President	Year in office and dates	% Approve, Republicans	% Approve, Democrats	Gap (pct. pts.)
Trump	3 (Jan '19-Jan '20)	89	7	82
Trump	2 (Jan '18-Jan '19)	87	8	79
Obama	8 (Jan '16-Jan '17)	12	89	77
Obama	4 (Jan '12-Jan '13)	10	86	76
G.W. Bush	4 (Jan '04-Jan '05)	91	15	76
Trump	1 (Jan '17-Jan '18)	83	8	75
Obama	7 (Jan '15-Jan '16)	10	83	73
G.W. Bush	5 (Jan '05-Jan '06)	86	14	72
Obama	5 (Jan '13-Jan '14)	11	82	71
Obama	6 (Jan '14-Jan '15)	9	79	70
G.W. Bush	6 (Jan '06-Jan '07)	79	9	70
Obama	2 (Jan '10-Jan '11)	13	81	68
Obama	3 (Jan '11-Jan '12)	12	80	68
G.W. Bush	7 (Jan '07-Jan '08)	73	7	66
Obama	1 (Jan '09-Jan '10)	23	88	65
Clinton	4 (Jan '96-Jan '97)	24	85	61

Source: Gallup, January 2019 and February 2020 (based on data for 1945-2020).  
 Colorado-based Business and Economic Research <https://cber.co>

# Daily Report C-19 Cases per 100,000 People

Colorado and U.S. - Opportunity Insights (OI) Project (tracktherecovery.org)



There were 44.4 C-19 cases per 100,000 in Colorado and 75.9 cases per 100,000 in the U.S, based on January 12 data from the OI project.

The Colorado rate is trending down while the U.S. rate is trending up. The light grey lines in the background represent other states.

States with the lowest rates (per 100,000 people) include Hawaii, 13.8, and Vermont, 25.2. States with the highest rates include Arizona, 130.0, and California, 110.0.

Source: [tracktherecovery.org](https://tracktherecovery.org), [cber.co](https://cber.co).

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

# Real Gross Domestic Product

## United States

### Key Points

The lull in real GDP growth during the second half of Q4 2020 will carry into the first two months of Q1 2021.

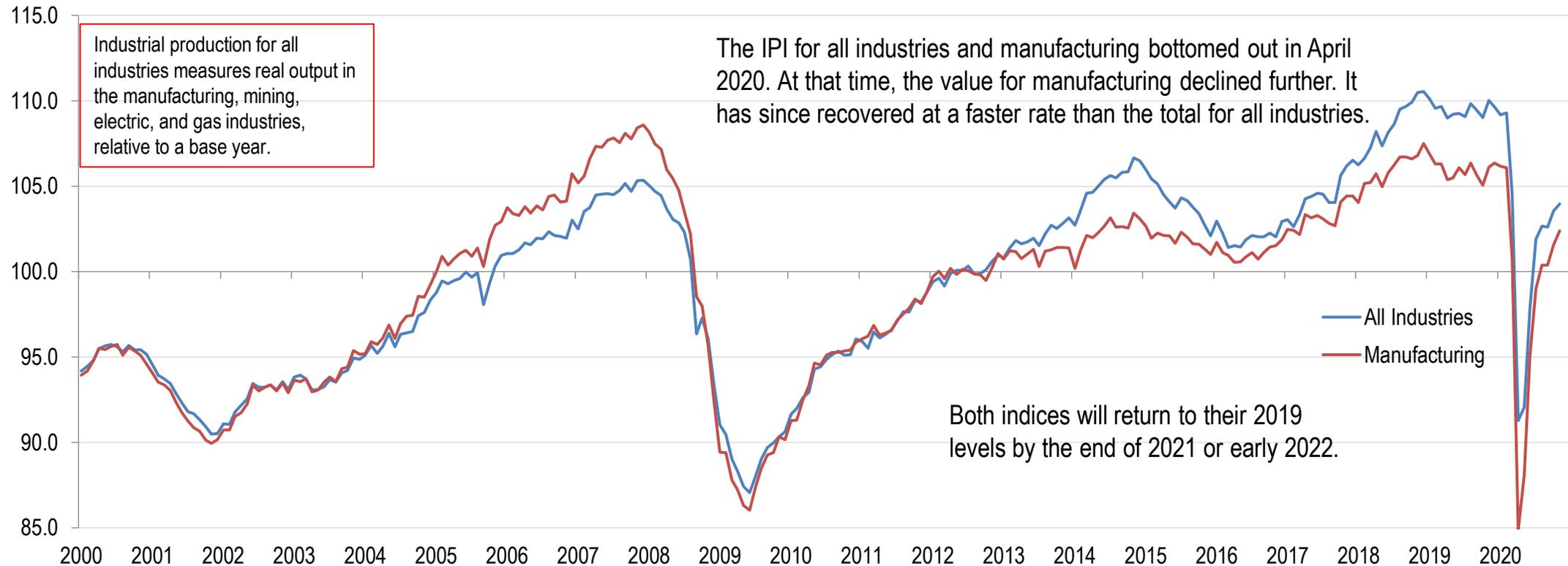
The value of real GDP will return to pre-COVID levels in Q2 or Q3 of 2021. It will take employment much longer to return to pre-COVID levels, 2023.

# Industrial Production Index

## All Industries and Manufacturing

**Industrial Production, All Industries and Manufacturing**

Index, 2012 = 100



Source: FRED, Federal Reserve, SA, cber.co.

# U.S. Real GDP Growth

## The Conference Board Forecast (January 13, 2021)

### Real GDP in 2021

The Conference Board January 13 forecast calls for real GDP growth of 3.5% in Q4 2020 and slower growth in Q1 2021. Real GDP growth for 2020 will be -3.5%, with personal consumption of -3.8%. The lull in growth in Q4 2020 will carry into 2021. Growth will gradually accelerate and become stronger during Q2 and the summer months. The value of real GDP will return to pre-pandemic levels in Q4 2021.

### Assumptions of the Forecast

1) New cases of C-19 will peak in Q1 2021, but widespread lockdowns will not occur. 2) The vaccine will prevent C-19. Its administration will peak in Q2. 3) The December stimulus package will be delivered in Q1. Additional federal assistance will arrive in Q2. 4) Labor markets and consumption will be weak in Q1, but they will rebound in Q2 and Q3. 5) The political transition will not affect consumer or business confidence.

Conference Board 2021 US Real GDP Growth Forecast

	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	2019	2020	2021
<b>Real GDP</b>	- 5.0%	- 31.4%	33.4%	3.5%	2.0%	3.6%	6.1%	4.6%	2.2%	- 3.5%	4.1%
<b>Personal Consumption</b>	- 6.9%	- 33.2%	41.0%	3.4%	3.6%	4.0%	7.1%	4.9%	2.4%	- 3.8%	5.2%
<b>Residential Investment</b>	19.0%	- 35.5%	63.0%	20.0%	7.0%	6.0%	5.0%	5.0%	-1.7%	5.2%	10.9%
<b>Real Capital Spending</b>	- 6.7%	- 27.2%	22.9%	6.6%	2.4%	3.7%	4.5%	4.8%	2.9%	- 4.4%	3.9%
<b>Exports</b>	- 9.5%	- 64.4%	59.6%	15.2%	3.0%	5.1%	7.1%	5.1%	-0.1%	- 13.3%	4.6%

Source: The Conference Board and cber.co.

# Employment, Claims, Unemployment, and Share of Work From Home

## United States and Colorado

### Key Points

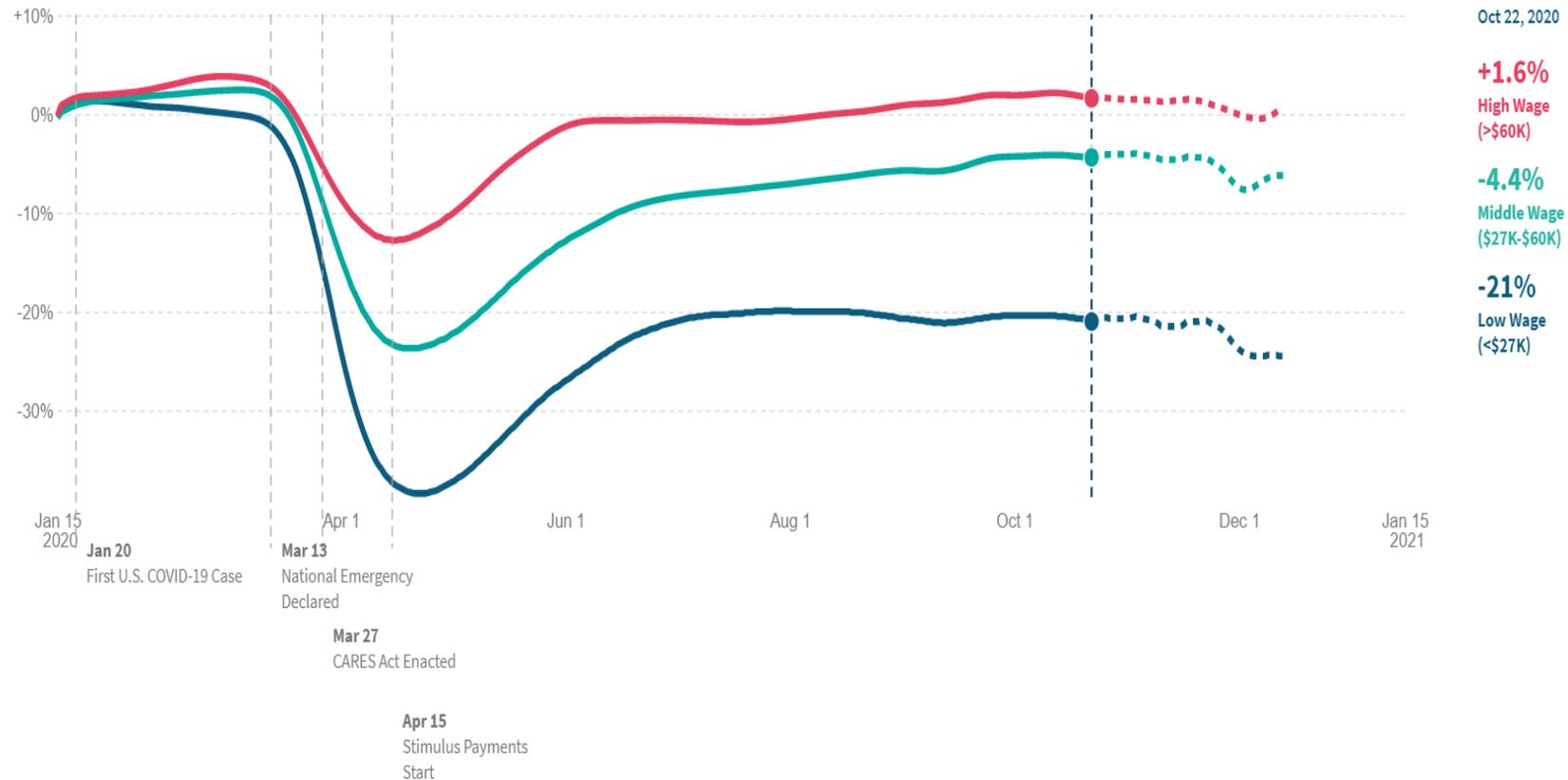
The C-19 recession has had a more significant negative impact on middle and low wage earners than high wage earners.

Initial and continuing claims are declining at a slower rate. In December, the U.S. unemployment rate remained at 6.7%. The Colorado rate stalled at 6.4% for three months (September, October, November). In 2021, the Colorado unemployment rate will be 6.0%, slightly lower than the U.S., 6.4%.

The recovery is different across the U.S., as seen by the wide range of state unemployment rates. The range varies from 3.1% for Nebraska to 10.2% for New Jersey.

# Percent Change in U.S. Employment by Wage Earners

Opportunity Insights (OI) Project (tracktherecovery.org)



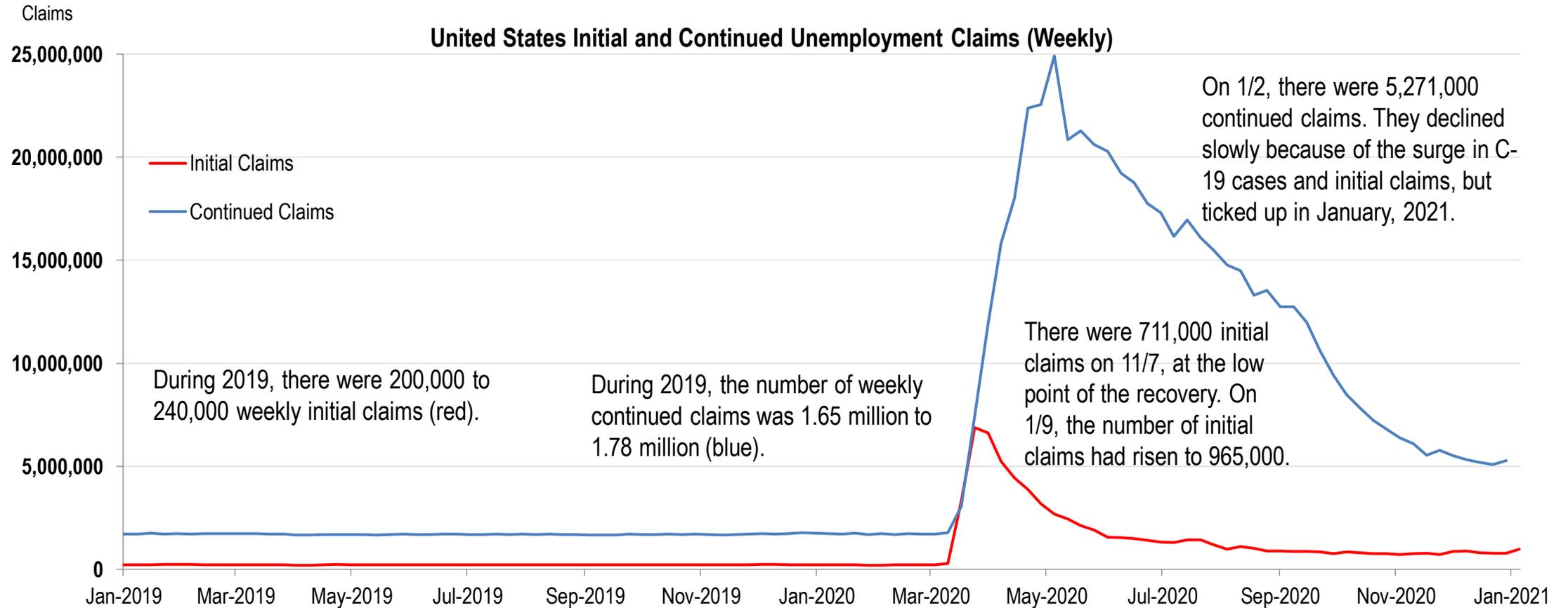
Research from the OI project shows that as of October 22, NSA employment rates for high wage earners increased by 1.2% compared to January 2020. Rates for middle wage workers had changed by -4.4% and low wage workers had changed by -21.0%. The overall rate of change for the U.S. was -6.5% for this period. The projections (dotted lines) also show further deterioration through mid-December.

Source: [tracktherecovery.org](https://tracktherecovery.org), [cber.co](https://cber.co).

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

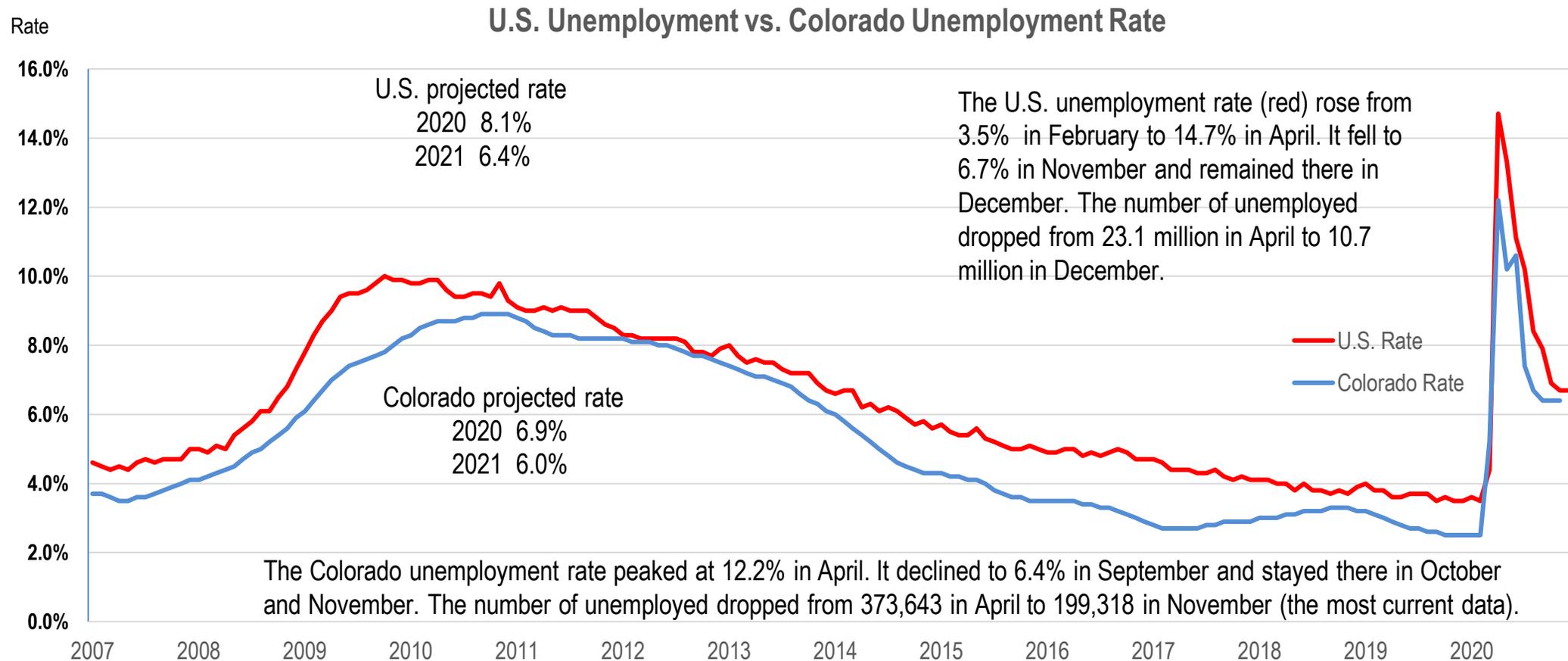
# United States Unemployment Claims (Weekly)

Initial and Continued 2019 to Current



Source: FRED, Department of Labor, cber.co. Note: Does not include Pandemic Unemployment Assistance (PUA).

# U.S. and Colorado Unemployment Rate



Source: Bureau of Labor Statistics and cber.co.

# Unemployment Rates by States

November 2020

Unemployment Rate < 5.1%			Unemployment Rate Between 5.1% and 6.6%		
Rank	State	November	Rank	State	November
1	Nebraska	3.1%	18	Delaware	5.1%
2	Vermont	3.1%	19	Wyoming	5.1%
3	South Dakota	3.5%	20	Tennessee	5.3%
4	Iowa	3.6%	21	Kansas	5.6%
5	New Hampshire	3.8%	22	Kentucky	5.6%
6	Utah	4.3%	23	Georgia	5.7%
7	Alabama	4.4%	24	Ohio	5.7%
8	Minnesota	4.4%	25	Oklahoma	5.9%
9	Missouri	4.4%	26	Oregon	6.0%
10	South Carolina	4.4%	27	Washington	6.0%
11	North Dakota	4.5%	28	Arkansas	6.2%
12	Idaho	4.8%	29	North Carolina	6.2%
13	Montana	4.9%	30	West Virginia	6.2%
14	Virginia	4.9%	31	Colorado	6.4%
15	Indiana	5.0%	32	Florida	6.4%
16	Maine	5.0%	33	Mississippi	6.4%
17	Wisconsin	5.0%	34	Pennsylvania	6.6%

In November, the U.S. unemployment rate dropped to 6.7%. Thirty-four states had unemployment rates lower than 6.7% (green).

Seventeen states had an unemployment rate of 5.0% or less. Only three states had unemployment rates in double digits.

About 18% of the U.S. labor force is in the 17 states, with unemployment rates less than 5.0% (column 1).

About 34% of the U.S. labor force is in the 17 states, with unemployment rates between 5.1% and 6.6% (column 2).

About 48% of the U.S. labor force is in the 16 states and D.C., with unemployment rates greater than 6.6% (column 3).

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 resides in these 10 states.

Unemployment Rate is > 6.6%		
Rank	State	November
35	Massachusetts	6.7%
36	Maryland	6.8%
37	Illinois	6.9%
38	Michigan	6.9%
39	Rhode Island	7.3%
40	District of Columbia	7.5%
41	New Mexico	7.5%
42	Arizona	7.8%
43	Alaska	8.1%
44	Texas	8.1%
45	California	8.2%
46	Connecticut	8.2%
47	Louisiana	8.3%
48	New York	8.4%
49	Hawaii	10.1%
50	Nevada	10.1%
51	New Jersey	10.2%

Source: Bureau of Labor Statistics, cber.co.

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

# Share of Jobs That Can be Done at Home

## United States

Share of Jobs that can be Done at Home		
Sector (NAICS)	Unweighted	Weighted by Wage
Educational Services	83%	71%
Professional, Scientific, and Technical	80%	86%
Management of Companies	79%	86%
Finance and Insurance	76%	86%
Information	72%	80%
Wholesale Trade	52%	67%
Real Estate and Rental and Leasing	42%	54%
Federal, State, and Local Government	41%	47%
Utilities	37%	41%
Other Services	31%	43%
Administrative Services	31%	43%
Arts, Entertainment, and Recreation	30%	36%
Extractive Industries	25%	37%
Health Care	25%	24%
Manufacturing	22%	36%
Transportation and Warehousing	19%	25%
Construction	19%	22%
Retail Trade	14%	22%
Agriculture	8%	13%
Accommodation and Food	4%	7%

Source: Dingel and Neiman and cber.co.

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

### Which Jobs Can be Done at Home?

The impact of the lockdowns last spring varied by industries, occupations, geographic regions, and policy.

On June 19, 2000, Jonathan Dingel and Brent Neiman from the University of Chicago published the paper, “How Many Jobs Can be Done at Home?” The authors identified SOC occupations for work from home (WFH) jobs.

Next, they assigned SOC occupations to NAICS codes (table on the left). The right-hand column in the table includes jobs weighted by occupation wages. The unweighted values for these jobs are in the middle column.

The industries with high percentages of WFH occupations are educational services, PST, finance, and information. The industries that have low percentages of WFH occupations are the hospitality industry, retail, transportation. The table does not categorize jobs based on whether they were “essential.”

# Business Applications and Small Businesses Not Open

United States

## Key Points

U.S. business and high propensity applications for 2020 increased at a faster rate than in 2019. Both categories had their highest growth rate in Q3 and Q4.

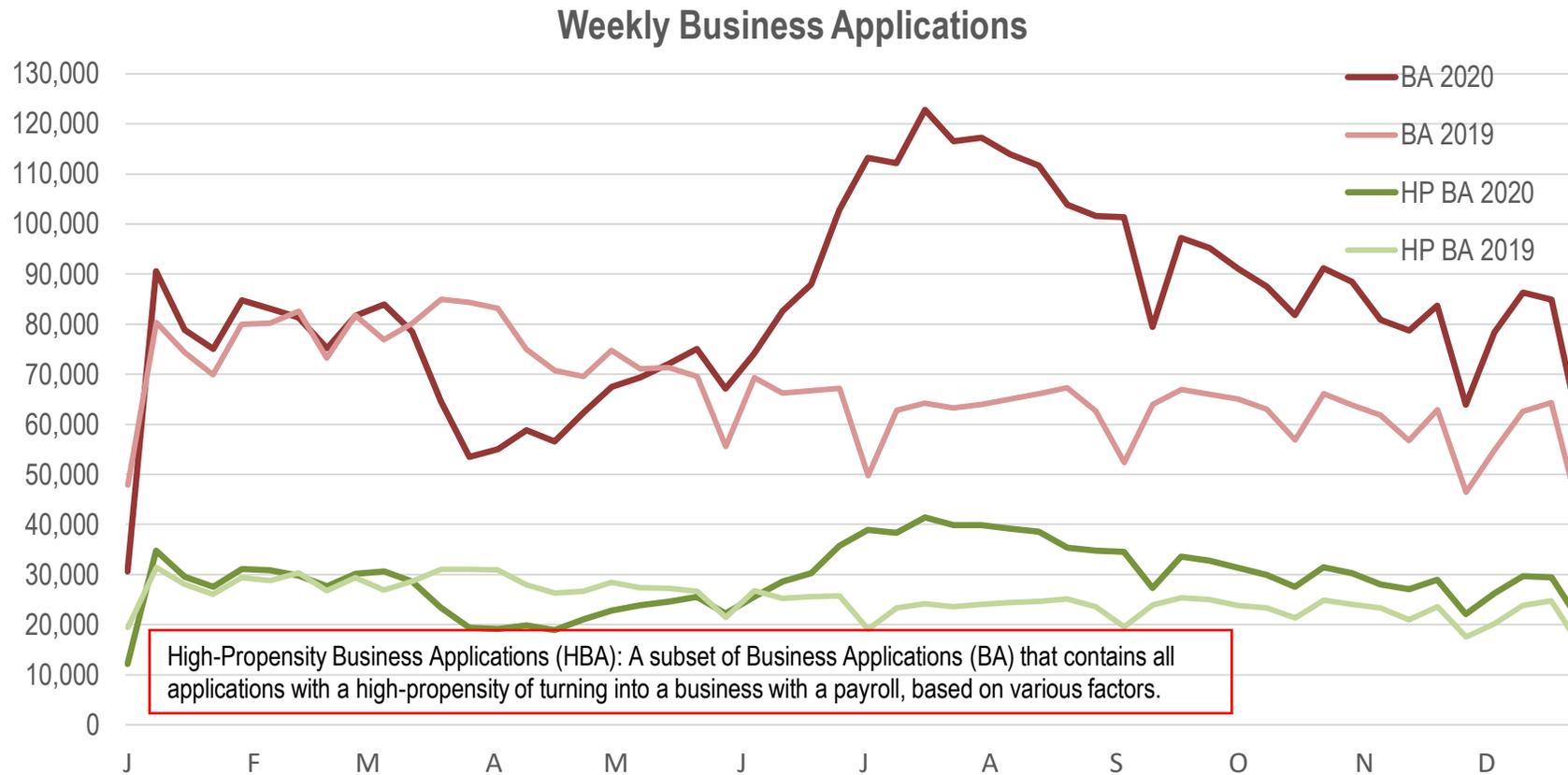
The percentage of small businesses that are not open in Colorado was similar to the U.S.

U.S. applications increased at a greater rate than Colorado applications.

In 2021, the number of business and high propensity applications will be moderately greater than in 2020.

# U.S. Weekly Business Applications

## Total and High Propensity 2019 vs 2020



### Business Applications

There were 4.3 million business applications (burgundy) in 2020, a 24.3% increase over 2019. The total number of applications in Q3 and Q4 was 54.4% greater than the same period in 2019.

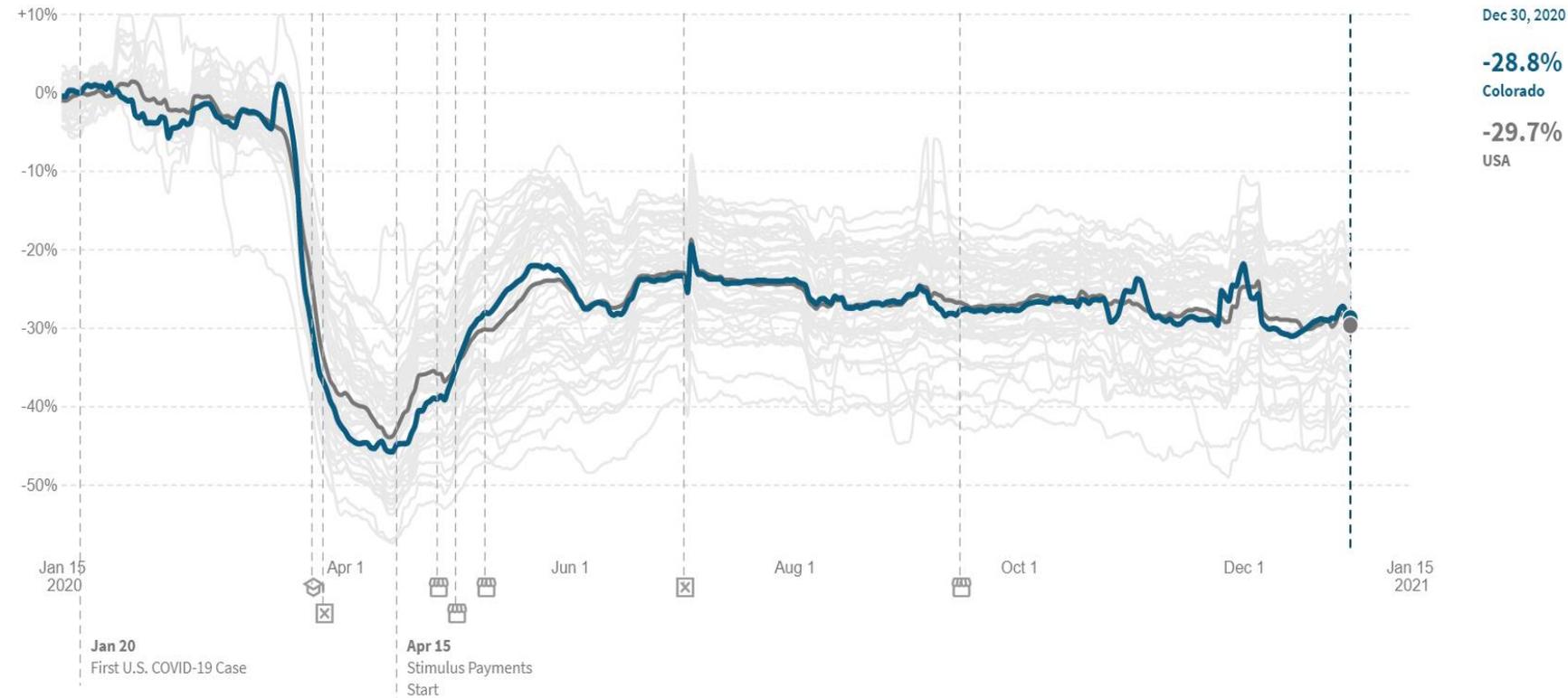
### High Propensity Business Applications

There were 1.3 million high propensity applications (green) in 2020, a 15.6% increase over 2019. The total number of high propensity applications in Q3 and Q4 was 41.2% greater than the same period in 2019.

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

# Change in Percentage of Small Businesses Open

Opportunity Insights (OI) Project (tracktherecovery.org)



Research from the OI project shows that as of December 30, the change in the percentage of small businesses that are not open is similar for Colorado and the U.S., -28.8 vs. -29.7%. Colorado and the U.S. have had similar rates of change since January 2020.

The areas with the highest percentages of small businesses not open are Washington D.C., -43.4%, and Vermont, -43.4%. Nebraska, -17.4%, and Utah, -18.4% have the most favorable percentage of small businesses that are not open.

Source: [tracktherecovery.org](https://tracktherecovery.org), [cber.co](https://cber.co).

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

# Housing and Major Indices

NAHB, Consumer Sentiment Index, NFIB Small Business Optimism Index, and Manufacturing and Services PMI Indices

## Key Points

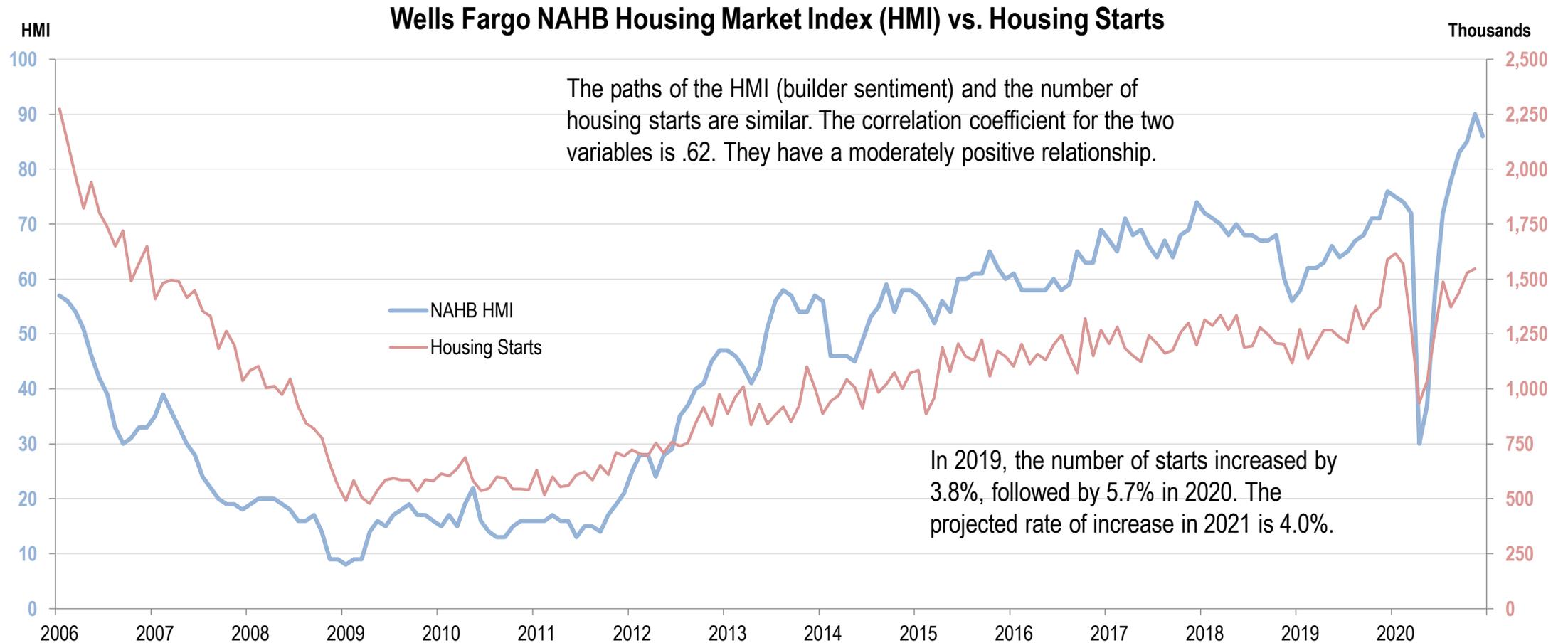
The housing market was strong in 2020. Growth will continue at a modest pace in 2021.

The Michigan Consumer Sentiment Index posted a partisan rebound in December because of the election results. In January it declined slightly. The rise in cases and discord in D.C. offset the impact of the vaccine.

The Small Business Optimism Index slipped in November and December.

The indices for manufacturing and services are in expansionary territory.

# Wells Fargo NAHB HMI vs. Housing Starts

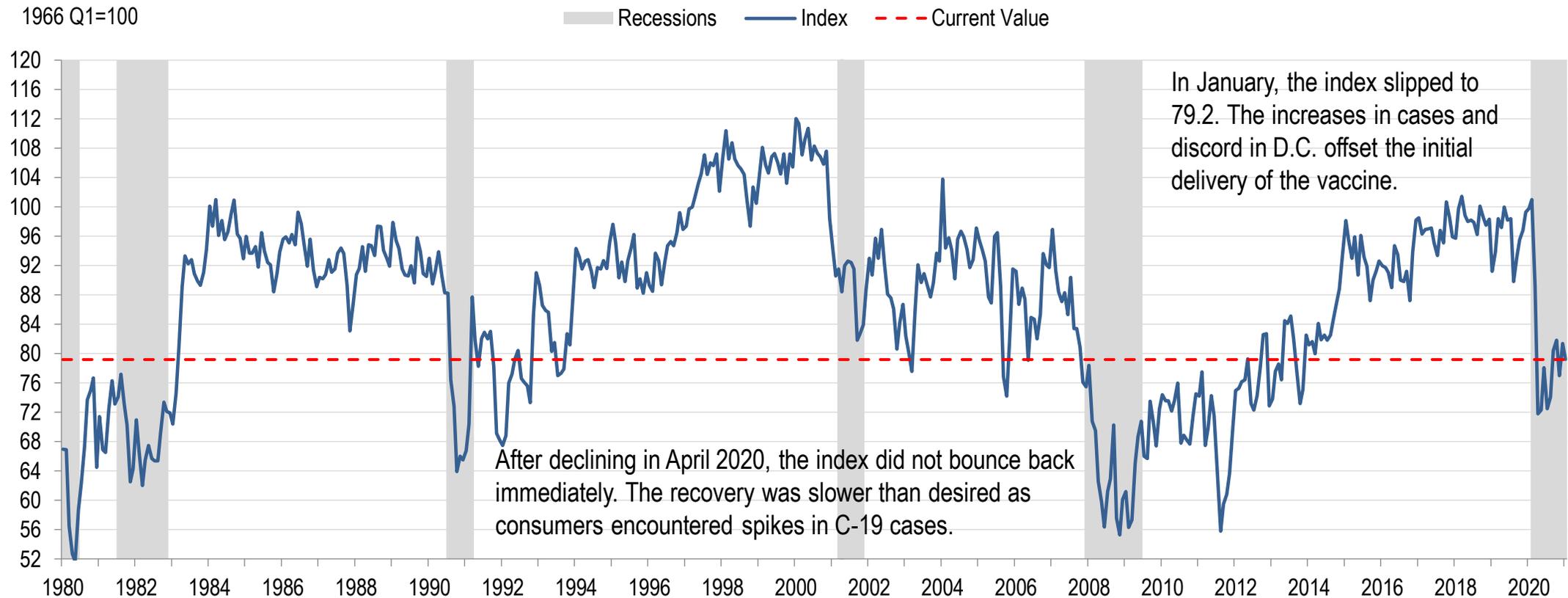


Source: NAHB, cber.co.

# Consumer Sentiment Index

University of Michigan

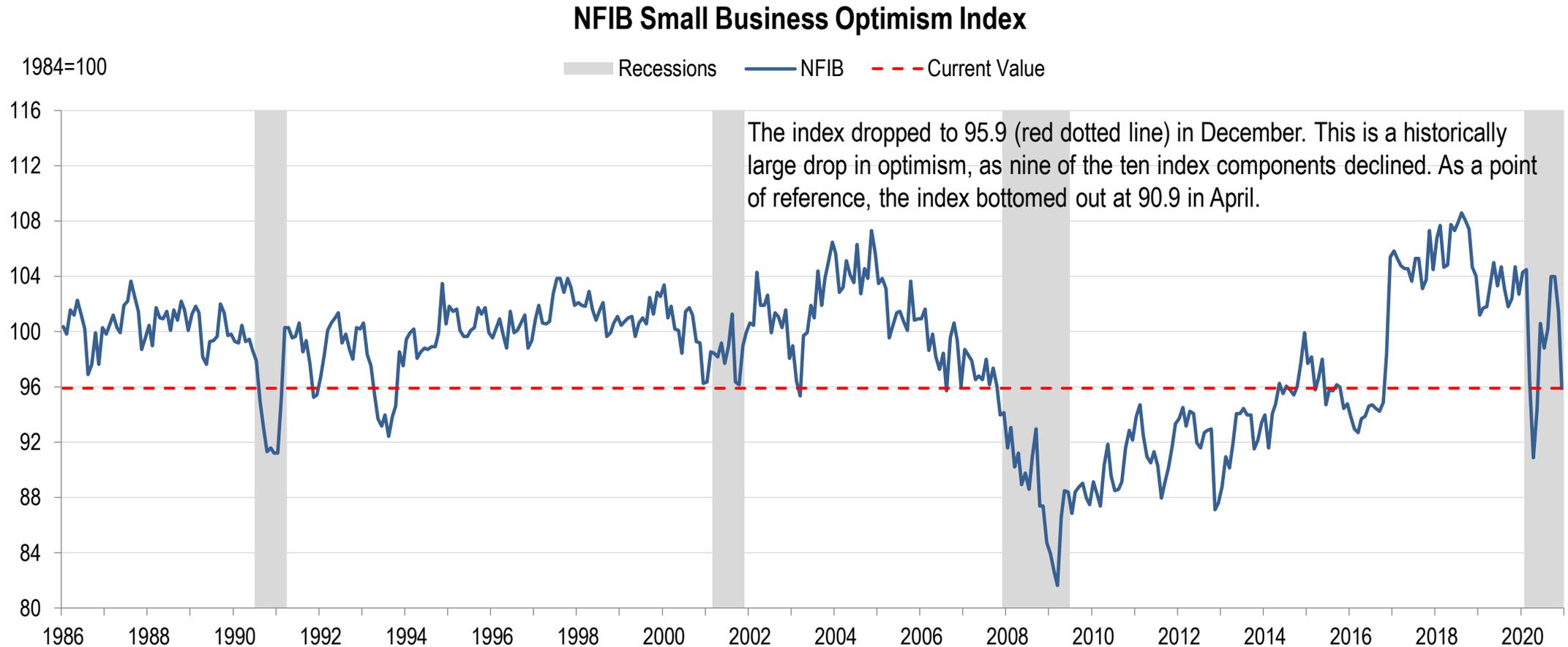
## Michigan Consumer Sentiment Index



Source: University of Michigan, cber.co.

# NFIB Small Business Optimism Index

## United States

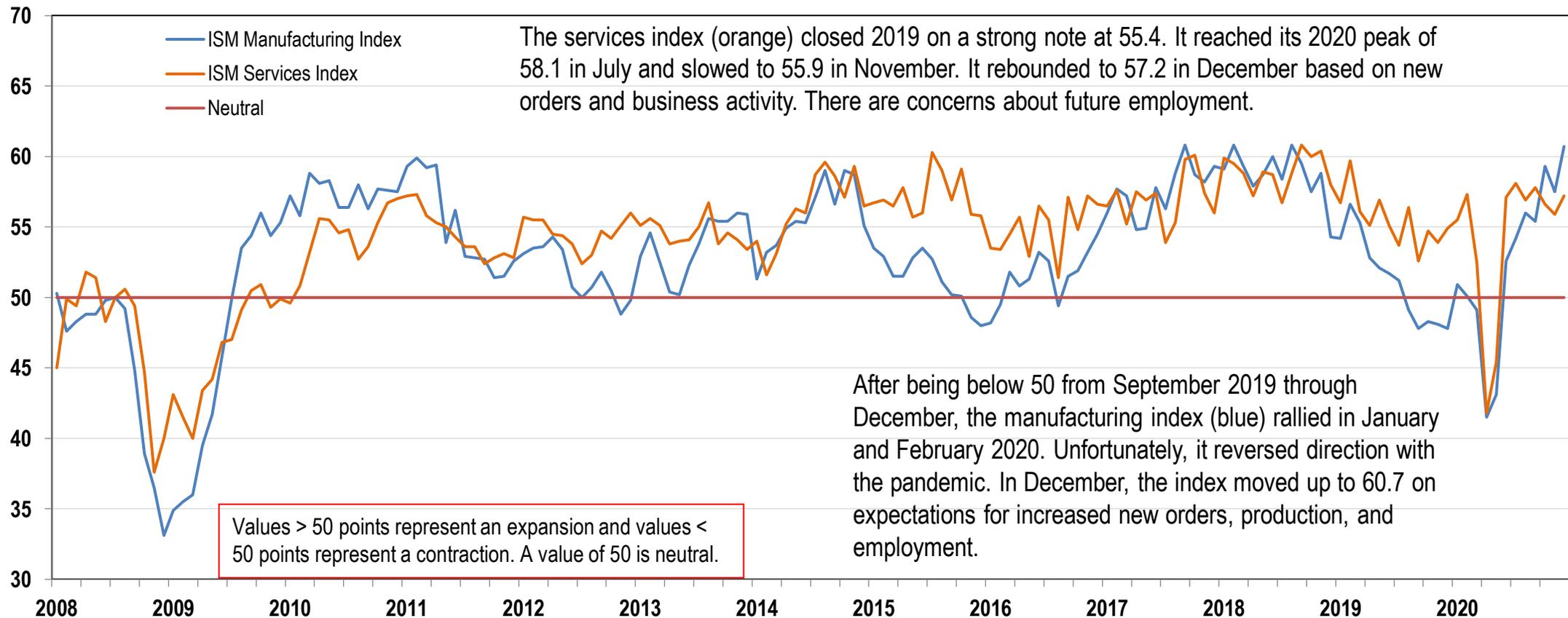


Source: NFIB, cber.co.

# ISM PMI Composite Indices

## Manufacturing vs. Services

### ISM Manufacturing PMI vs. Services PMI Composite Indices



Source: Institute of Supply Management, [cber.co](https://cber.co)

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

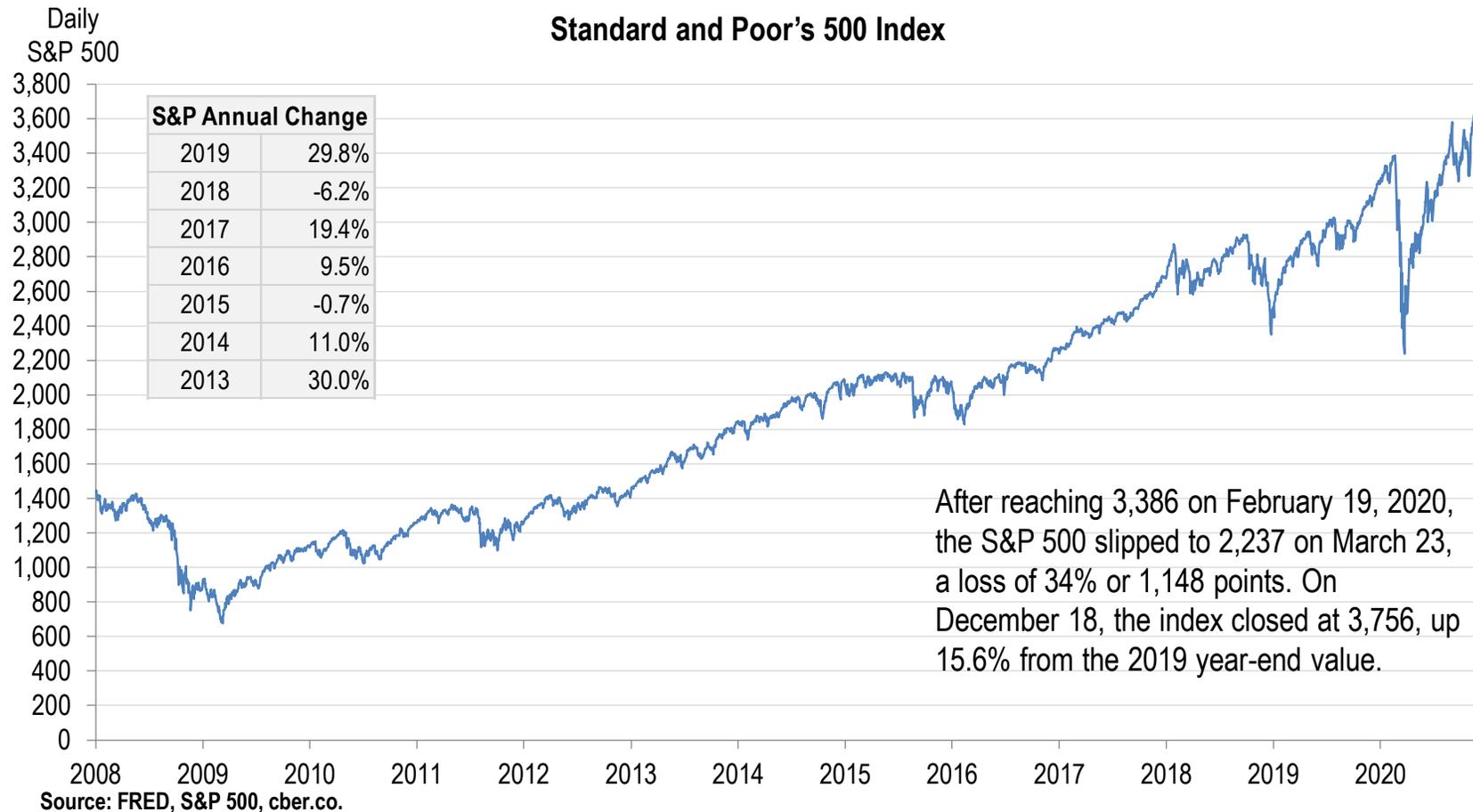
# S&P 500 Index and WTI Crude Oil Prices

## Key Points

The S&P Index posted double-digit gains in 2020. Growth will continue in 2021.

In 2020 the price for a barrel of oil declined because of lower demand. Oil was in the \$40 range through the second half of the year and approached \$50 near the end of 2020. It will be \$49 in 2021.

# Standard and Poor's 500 Index

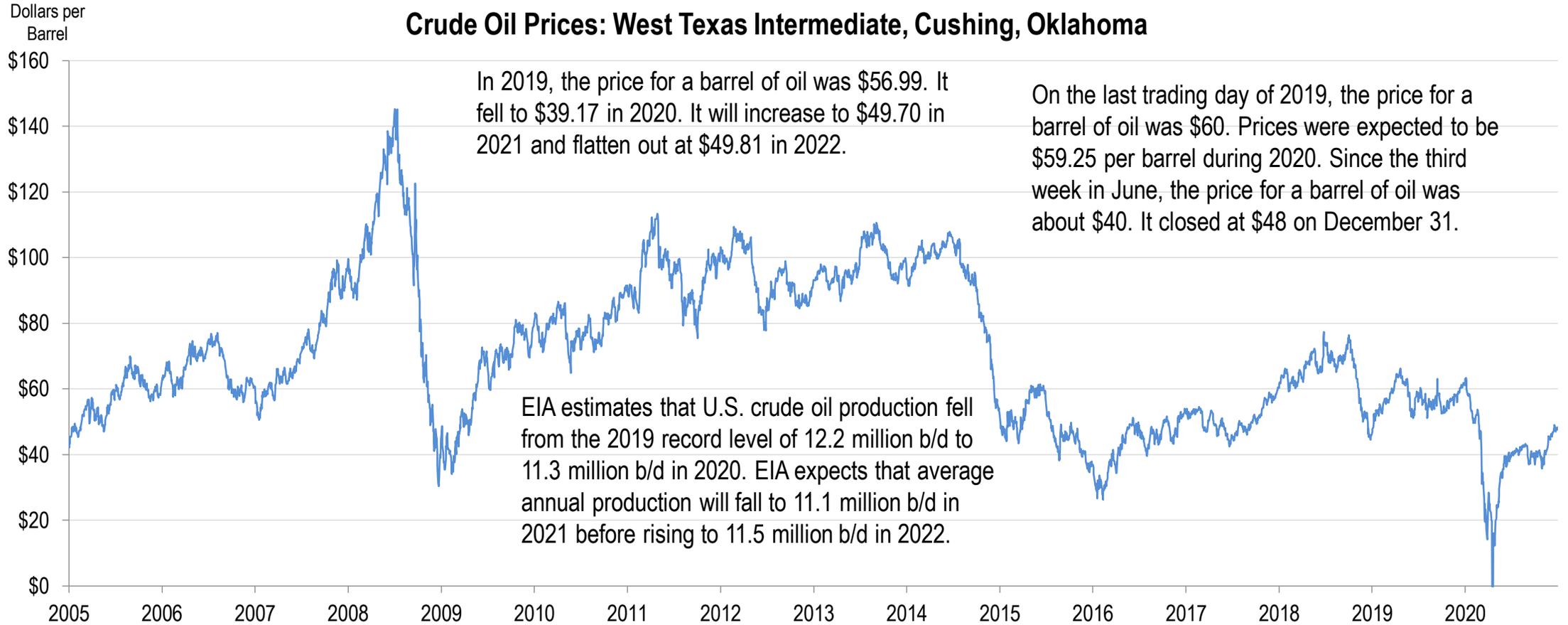


## Various Thoughts About the Equity Markets in 2021

- Resilience
- Watch the P/E ratio
- Uncertainty
- Stimulus
- Change in tax policy
- New opportunities to invest
- Caution
- Biden economic policies
- Be aware of increased regulations
- Opportunities with recovery stocks
- The gap between Wall Street and Main Street is increasing
- Equity markets will increase at a rate significantly less than 2020

# Crude Oil Prices

## West Texas Intermediate



Source: FRED, EIA, cber.co.

# Summary

## U.S. Forecast

# Summary - U.S. Forecast

The value of real GDP slowed in Q4 2020. A slower rate of growth will continue in Q1 2021. Economic growth will resume in Q2. The value of real GDP will return to its pre-pandemic level in the second half of 2021.

A similar pattern will occur in the labor market. Job losses are likely to occur in Q1. By mid-year, job growth will return. Total employment will return to its 2019 level in 2023. The uptick in unemployment claims will cause the unemployment rate to remain higher than usual. As more people are vaccinated, the economy will open further, and more people will return to work.

Source: FRED, BEA, BLS, Census Bureau, EIA, cber.co.

	U.S. Forecast			
	2019	2020	2021	2022
<b>Real GDP Value (trillions)</b>	\$19.09	\$18.42	\$19.18	\$19.85
<b>% Change Real GDP</b>	2.2%	-3.5%	4.1%	3.5%
<b>% Change in Personal Consumption</b>	2.4%	-3.8%	5.2%	3.5%
<b>CES Employment (millions)</b>	150.9	142.2	146.7	149.7
<b>Annual Change (millions)</b>	2.03	-8.82	4.50	3.00
<b>% Change</b>	1.3%	-5.8%	3.2%	2.0%
<b>Unemployment Rate</b>	3.7%	8.1%	6.4%	5.3%
<b>Retail Sales (billions)</b>	\$5.462	\$5.582	\$5.833	\$6.037
<b>% Change</b>	3.5%	2.2%	4.5%	3.5%
<b>Light Vehicle Sales (millions)</b>	17.0	14.5	15.7	16.5
<b>Consumer Price Index</b>	1.8%	1.2%	1.9%	2.1%
<b>Housing Starts (millions) SAAR</b>	1.29	1.38	1.43	1.46
<b>WTI Price of Oil (price per barrel)</b>	\$56.99	\$39.17	\$49.70	\$49.81
<b>Crude Oil Production (million b/d)</b>	12.2	11.3	11.1	11.5

Personal consumption will become positive in 2021. Pent-up demand and stimulus support will drive retail sales higher in 2021. Both will return to pre-pandemic levels in 2022.

Light vehicle sales will gradually improve and return to 17 million units in 2023.

Inflation will remain near the Federal Reserve's target of 2.0%.

The number of housing starts will increase in 2021 as interest rates remain low.

Crude oil production and prices will remain flat in 2021. They will post slight increases in 2022.

# The Colorado Economy



# Expectations for the Colorado Economy

There are reasons to be optimistic in 2021; however, there will be uncertainty, angst, and volatility. At best, economic growth in Q1 2021 will be stagnant. It will improve gradually throughout the spring. The rate of economic and employment growth in Q3 and Q4 will depend on the headwinds. Colorado will not be a leader in the recovery of the U.S. economy.

## Short Term Expectations

Real GDP (Colorado) will return to the 2019 level in Q4 2021 or 2022.

Business applications will increase at a slower rate in 2021.

Housing construction had a solid year in 2020. That growth will continue into 2021.

Some smaller communities appear to have recovered more quickly than some larger urban communities.

Inflation in Colorado will be higher than the U.S. rate. It will remain slightly above 2.0%.

## Mid to Long Term Expectations

High unemployment claims in Colorado point to an extended recovery. Unemployment rates will decline gradually. Colorado will return to the 2019 employment levels in 2022 or 2023.

The declining fertility rate will be problematic.

There is a shortage of construction and healthcare workers.

The state's efforts to improve air quality have merit. In the future, fossil fuels and renewable energy are part of the solution. State leaders must realize the limitations of both as they move forward to meet the energy needs of the state.

## Headwinds

The spread of C-19 and the effectiveness of the C-19 vaccines will drive C-19 policies. They will help determine the speed of the recovery.

The ideological divide that plagues the U.S. is evident in Colorado.

There are concerns about the lack of accessible and affordable housing in metro areas.

The number of airport passengers will not return to 2019 levels until 2023 or 2024.

The pandemic has exposed concerns about the funding and the quality of higher education.

# Population and Real GDP

## Colorado

### Key Points

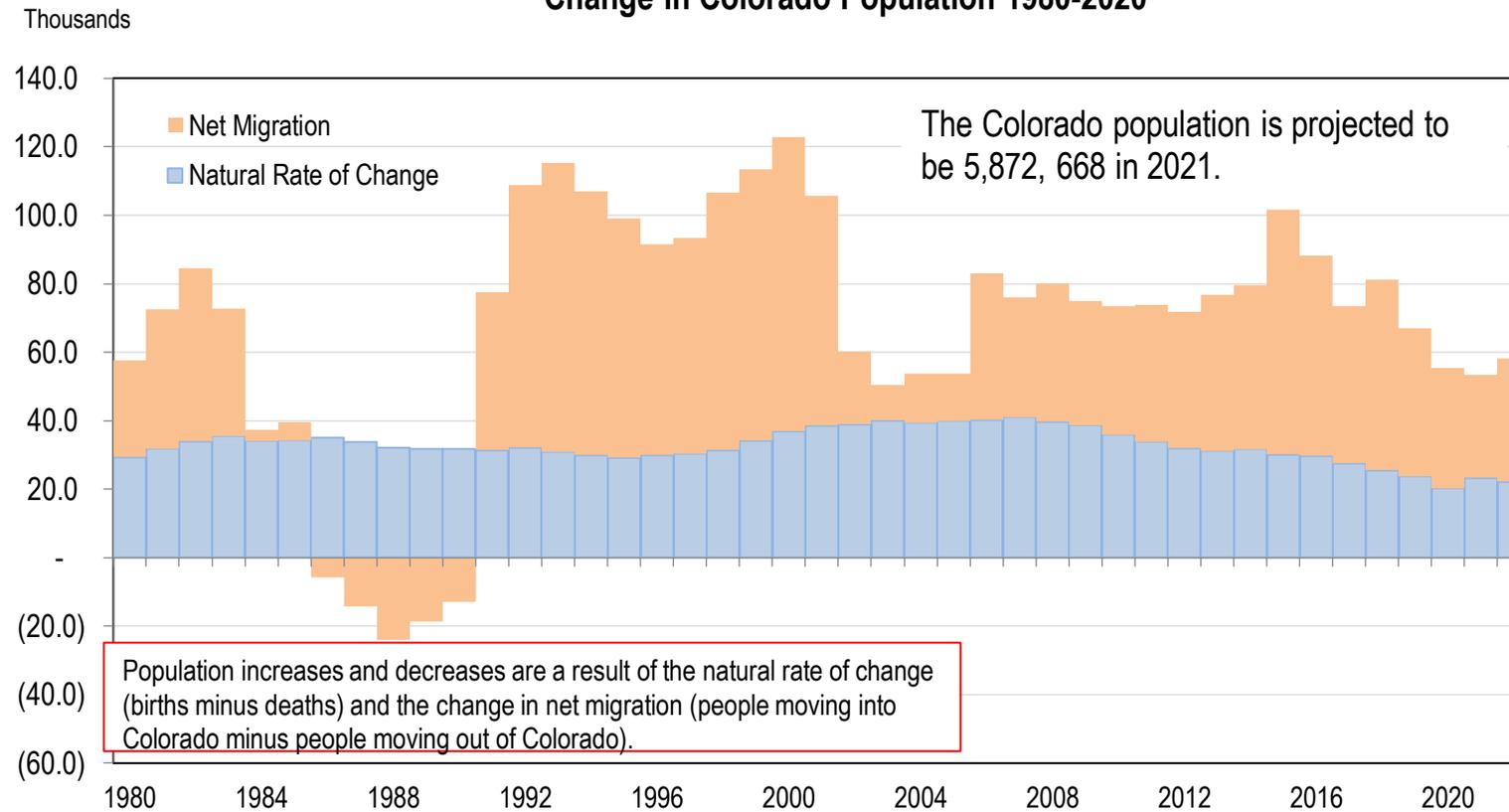
The Colorado population is increasing at a decreasing rate. The impact of C-19 on births, deaths, and net migration will have direct and indirect implications on demographics and public policy.

Real GDP will be comparatively weak in Q4 2020 and Q1 2021. It will improve as C-19 cases are reduced and be strong during the summer months. Growth will continue at pre-pandemic levels in 2022. The Colorado real GDP will increase at a similar rate to the U.S. in 2021 and 2022.

# Colorado Population

## Components of Change

**Change in Colorado Population 1980-2020**



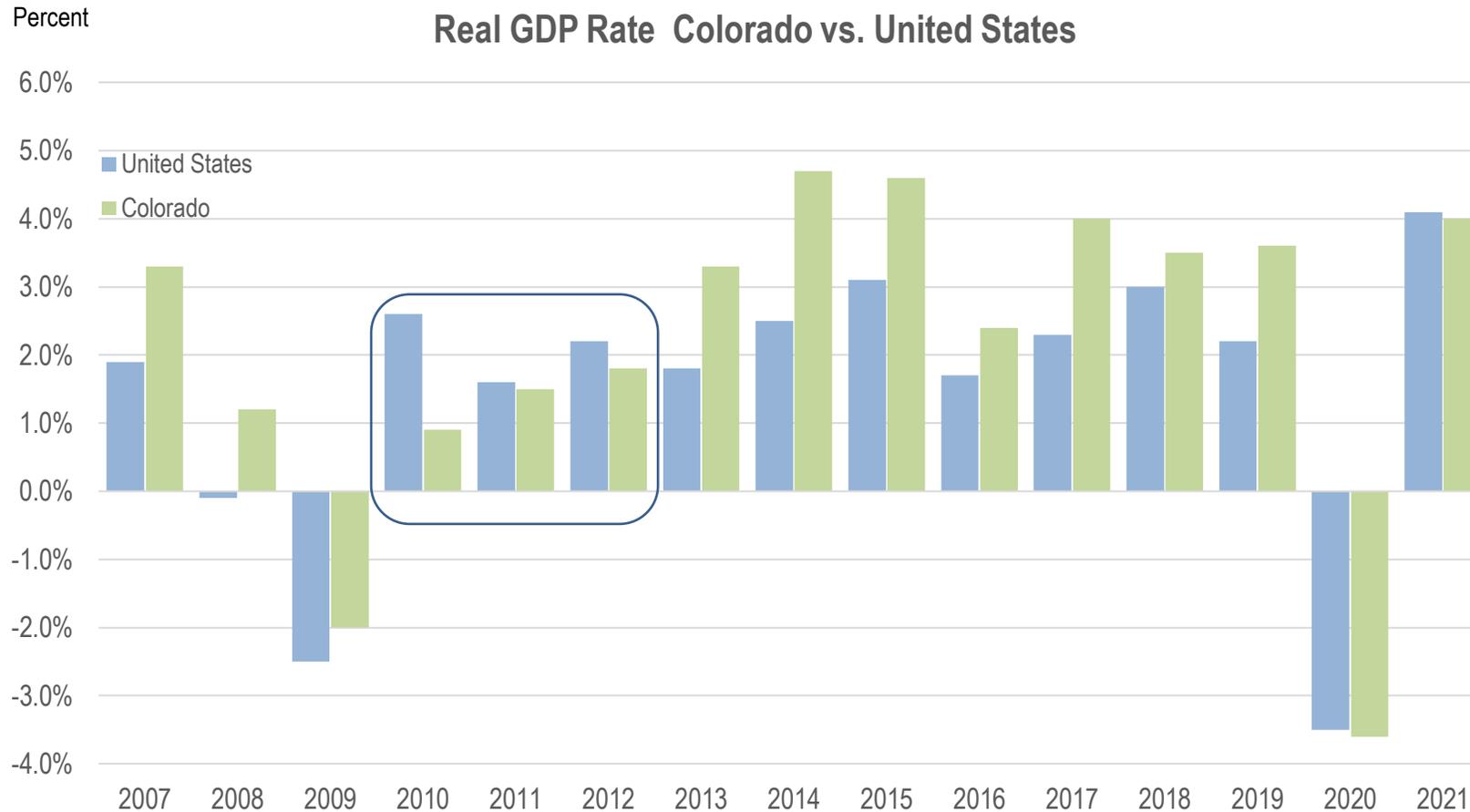
The Colorado population is increasing at a decreasing rate because of a higher death rate, lower fertility rate, and lower net migration. The lower fertility rate will cause school enrollments to increase at a declining rate in the near-term.

The pandemic has had a short-term impact on the components of change - higher deaths, fewer births, and altered migration.

The state population increased by 55,400 in 2020. It will increase by 53,300 in 2021 and 58,200 in 2020.

# Real Gross Domestic Product

## Colorado vs. United States (Annual)



Between 2007 and 2019, The Colorado GDP (green) increased at a higher rate than the U.S. (blue) in 10 of the 13 years. The three years following the Great Recession (highlighted by the blue box) were when the U.S. rate was higher than Colorado.

The Colorado real GDP rate has been higher for two reasons. The difference in the percentage change of growth occurs, in part, because the mix of Colorado industries is different from the U.S. It also happens for mathematical reasons. Colorado has a smaller economy than the U.S.

The rate of change for real GDP will be similar for Colorado and the U.S. in 2020 and 2021.

Source: BEA, cber.co.

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

# Colorado Employment, Claims, Unemployment, and Employment Recovery

Colorado

## Key Points

Colorado's employment is increasing at a slower rate than the U.S. The recovery for table high, mid, and low wage workers is slower in Colorado than the U.S.

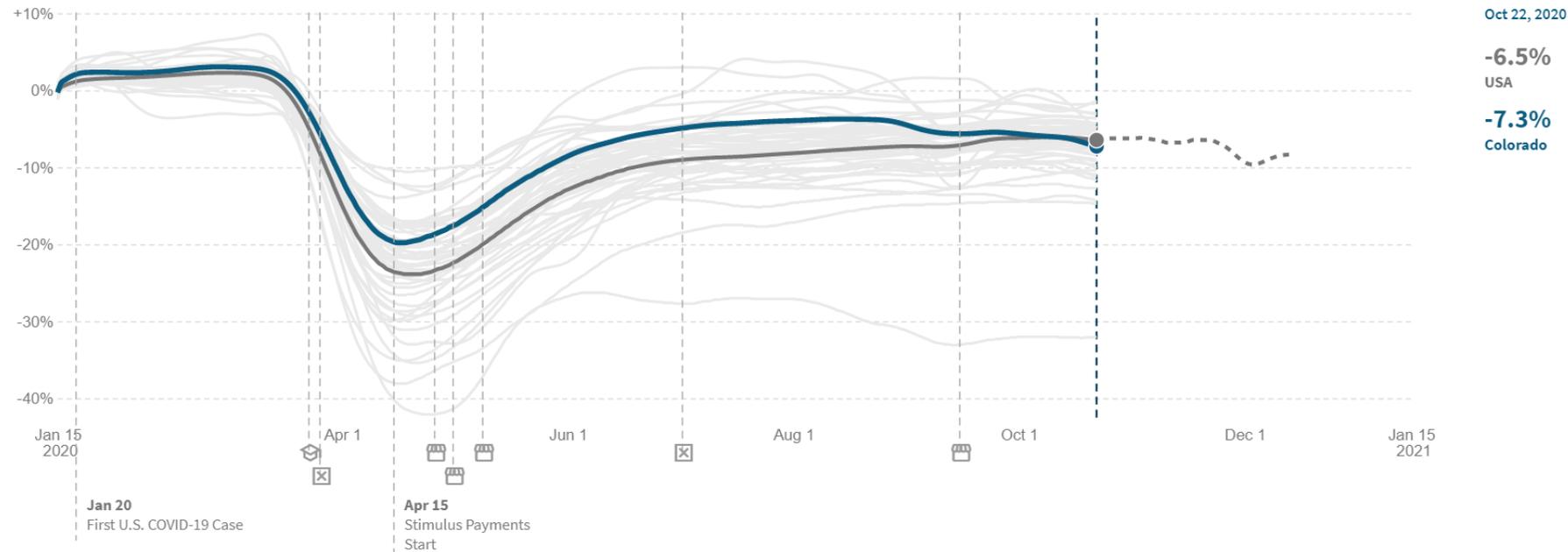
Colorado's initial and continued unemployment claims are on the rise.

Denver, Arapahoe, and Adams County have the highest unemployment rates in the Denver MSA.

The leisure and hospitality, state and local government, and transportation sectors are a drag on the Colorado economy.

# Percent Change in Employment by Wage Category

Opportunity Insights (OI) Project (tracktherecovery.org)



Research from the OI project shows that as of October 22, NSA employment for Colorado changed by -7.3%, compared to -6.5% for the U.S.

During the early months of the recession, Colorado outperformed the U.S. That changed in late summer. The dotted line shows deterioration of employment through December 12.

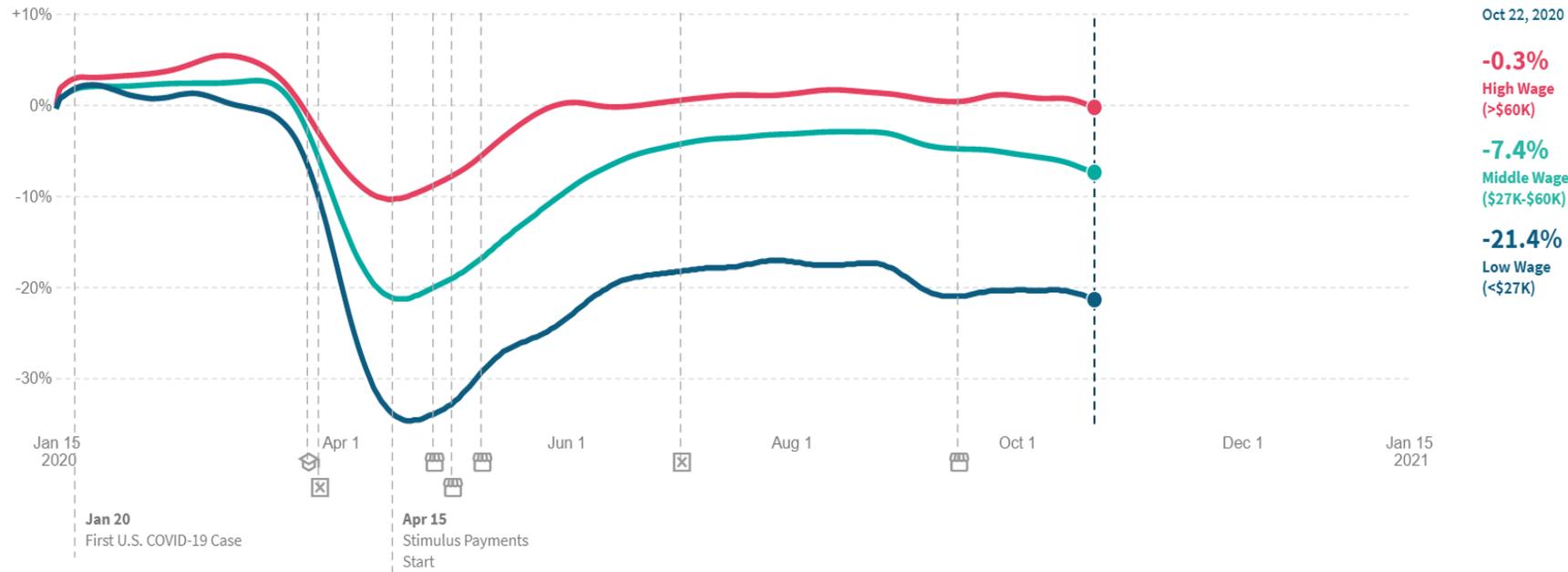
The grey lines show all states. The top-performing state, South Dakota, changed by -1.2%. On the other hand, Hawaii changed by -32.0%.

Source: [tracktherecovery.org](https://tracktherecovery.org), [cber.co](https://cber.co).

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

# Percent Change in Employment by Colorado Wage Earners

Opportunity Insights (OI) Project (tracktherecovery.org)



Research from the OI project shows that as of October 22, NSA employment rates for high wage earners changed by -0.3% compared to January 2020.

The rates for middle wage workers changed by -7.4% and low wage workers changed by -21.4%.

The overall rate of change for Colorado was -7.3% for this period. The rates of change for all 3 Colorado wage groups were more unfavorable than the U.S. rates.

Source: tracktherecovery.org, cber.co.

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

# Percent Change in Employment by County

Opportunity Insights (OI) Project ([tracktherecovery.org](https://tracktherecovery.org))

## Percent Change in Employment by County, State, United States

Area	November Labor Force	Change in Employment October 22, 2020
U.S.		-6.5%
Colorado	3,135,430	-7.3%
Denver	429,690	-8.6%
Arapahoe	374,316	-3.5%
El Paso	346,675	-6.8%
Jefferson	341,005	-1.7%
Adams	279,865	-7.4%
Larimer	202,898	-12.1%
Douglas	195,414	-6.1%
Boulder	192,190	-13.4%
Weld	170,016	-4.2%
Mesa	78,770	6.7%
Pueblo	77,967	2.4%
Broomfield	40,620	2.7%

As of October 22, the Opportunity Insights Project has identified the percentage changes in employment for the U.S., Colorado, and the largest counties in the state's 7 MSAs.

The November labor force in these 12 counties is 2,729,426, or 87.1%, of the state's total.

Except for Mesa County, they are all located on the Front Range. Four counties have a more unfavorable rate than the state average: Denver, Adams, Larimer, and Boulder (highlighted in red). The combined size of the labor force in these counties is about 1.1 million, or about 35% of the total labor force.

The following factors impact the rate of change in employment for these four counties. As a result, they will be the last MSA counties to recover.

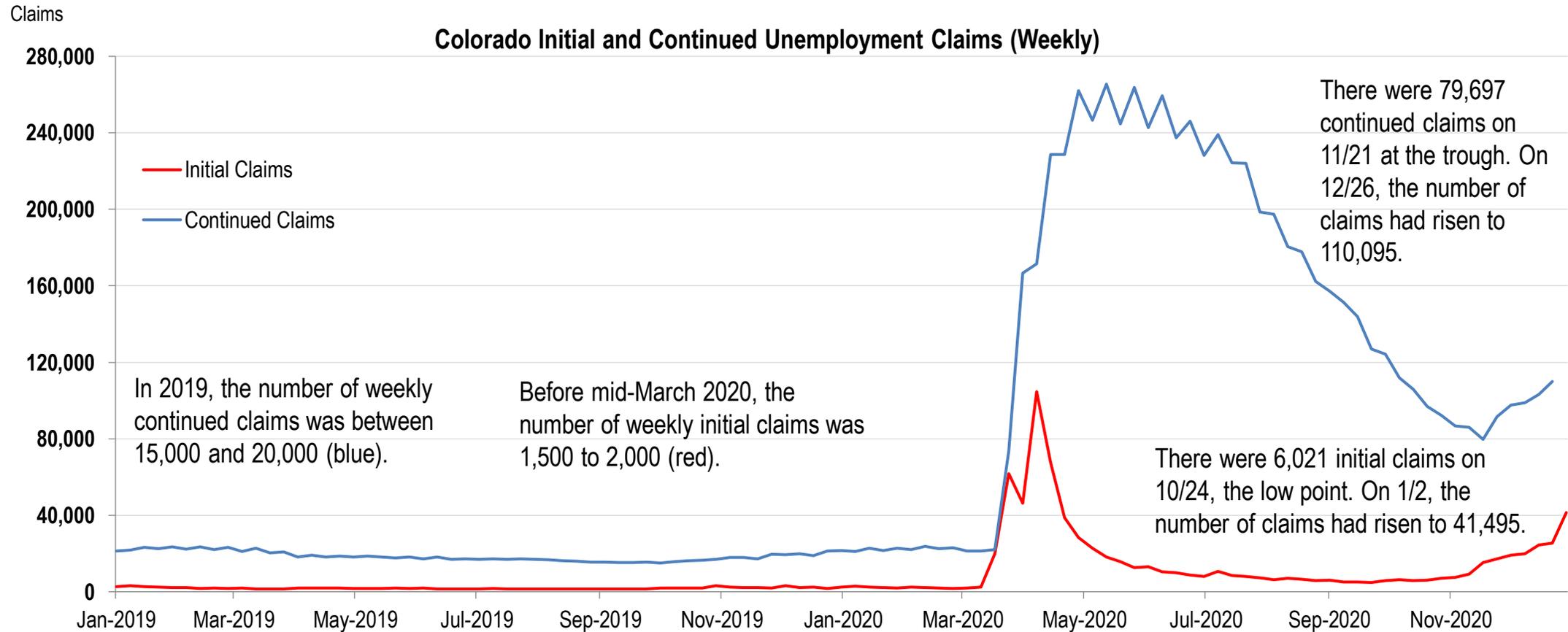
Denver County is the hub of the Denver MSA. It includes numerous hotels, entertainment facilities, retail operations, and restaurants. Over the summer, the appeal of Denver was diminished by homelessness and riots.

Adams County has a unique mix of industries and demographics. It surrounds DIA and is the home to many airport employees who were affected by pandemic layoffs.

Fort Collins and Boulder are college towns and centers of innovation. The C-19 policies restricted the economic impact of innovation and higher education on these communities.

# Colorado Unemployment Claims (Weekly)

Initial and Continued 2019 to Current



Source: FRED, Department of Labor, cber.co. Note: Does not include Pandemic Unemployment Assistance (PUA).

# Colorado Unemployment by Major MSA Counties

In November, the seasonally adjusted Colorado unemployment rate was 6.4%, and the non-seasonally adjusted rate was 6.2%. The BLS only calculates NSA county rates. The household survey determines the unemployment rate because it is calculated based on where a person lives. In contrast, the employment survey is calculated based on where a person works.

## Colorado

- The Colorado unemployment rate for November was 6.2%.
- The Colorado MSA rate was 6.2% (17 counties). The non-MSA rate was 6.0% (47 counties)
- The range of rates was 8.9%. Kiowa and Baca were 2.3%. San Miguel was 11.2%.
- There were 21 counties with rates higher than the state average. Forty-three counties had rates less than the state average.
- The rates for the small MSA counties were 8.3% for Pueblo and 6.0% for Mesa.
- The rates for mid-sized MSA counties were 6.4% for Weld, 6.0% for El Paso, 5.2% for Larimer and 5.1% for Boulder.
- The rate for the ten counties in the Denver MSA was 6.4%.

## Denver MSA (Top Six Counties)

The following table shows the six largest counties in the Denver MSA (highlighted in orange). The list also includes the state's four largest counties outside the Denver MSA. Three of the top five largest counties have unemployment rates greater than 6.8% - Denver, Arapahoe, and Adams.

County	Labor Force	Rate
Denver	429,690	7.1%
Arapahoe	374,316	6.8%
El Paso	346,675	6.0%
Jefferson	341,005	5.8%
Adams	279,865	7.0%
Larimer	202,898	5.2%
Douglas	195,414	4.6%
Boulder	192,190	5.1%
Weld	170,016	6.4%
Broomfield	40,620	5.3%

# Composition of Shortfall and Time to Recovery

About 8% of employees work in sectors that will return to their 2019 level by mid-2021. About 25% are in industries that are vulnerable and will take longer to recover. Finally, two-thirds work in sectors that will take the longest to recover.

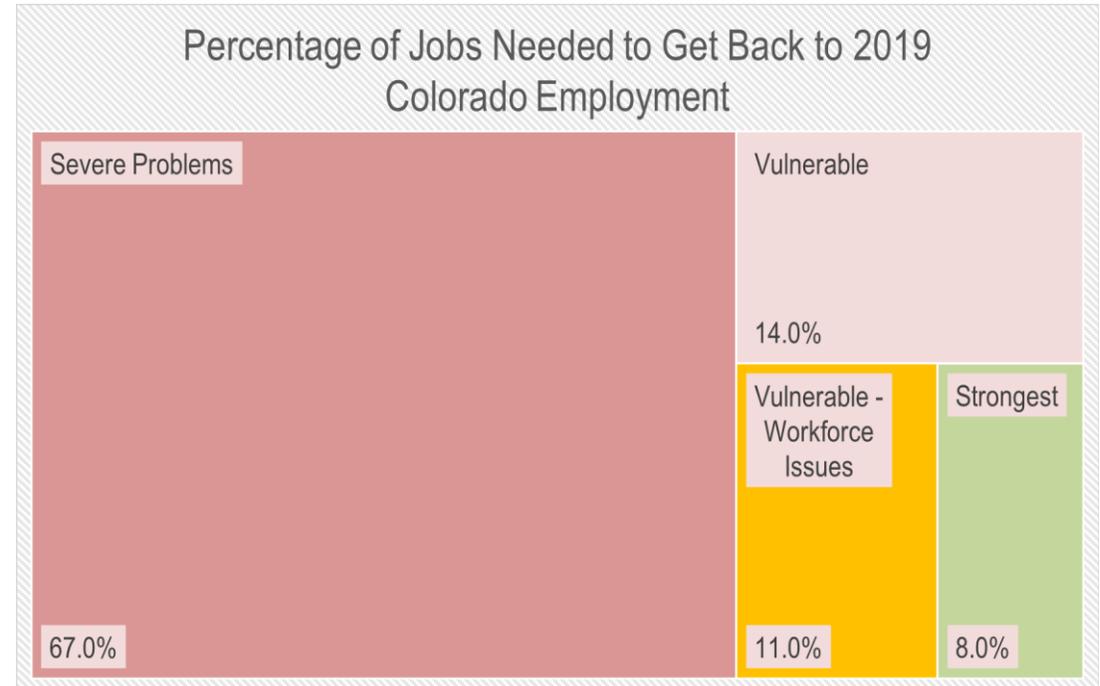
The March 2021 benchmark process will report that employment for 2020 declined by 155,000 jobs.

The spread of C-19 will dictate the length of the recovery. The economy will continue to recover unevenly across industries, occupations, and geographic regions. The slowdown in the labor market and economic activity that began in Q4 2020 will continue in Q1 2021. Hiring and consumption will rebound in Q2 and Q3. The number of employees will return to the 2019 level in 2023. Employment will increase by 45,000 jobs in 2021, and 58,000 jobs in 2022.

The U.S. and Colorado have made significant progress in the recovery. In the early stages, Colorado was a leader in the U.S. economic recovery, but that is no longer the case.

Source: BLS, cber.co.

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



**Least Vulnerable (Strongest)** - PST, financial, manufacturing, wholesale trade , warehousing, utilities, federal government, management of companies, private education  
**Vulnerable** – Administrative services, other services, information, extractive industries, retail  
**Workforce Issues** - Healthcare and construction  
**Severe Problems** - Leisure and hospitality, state and local government, transportation

# Business Applications and Small Business Revenue

Colorado

## Key Points

Compared to 2019, Colorado business applications and high propensity applications increased at a faster rate in 2020. The number of applications increased at a higher rate in Q3 and Q4.

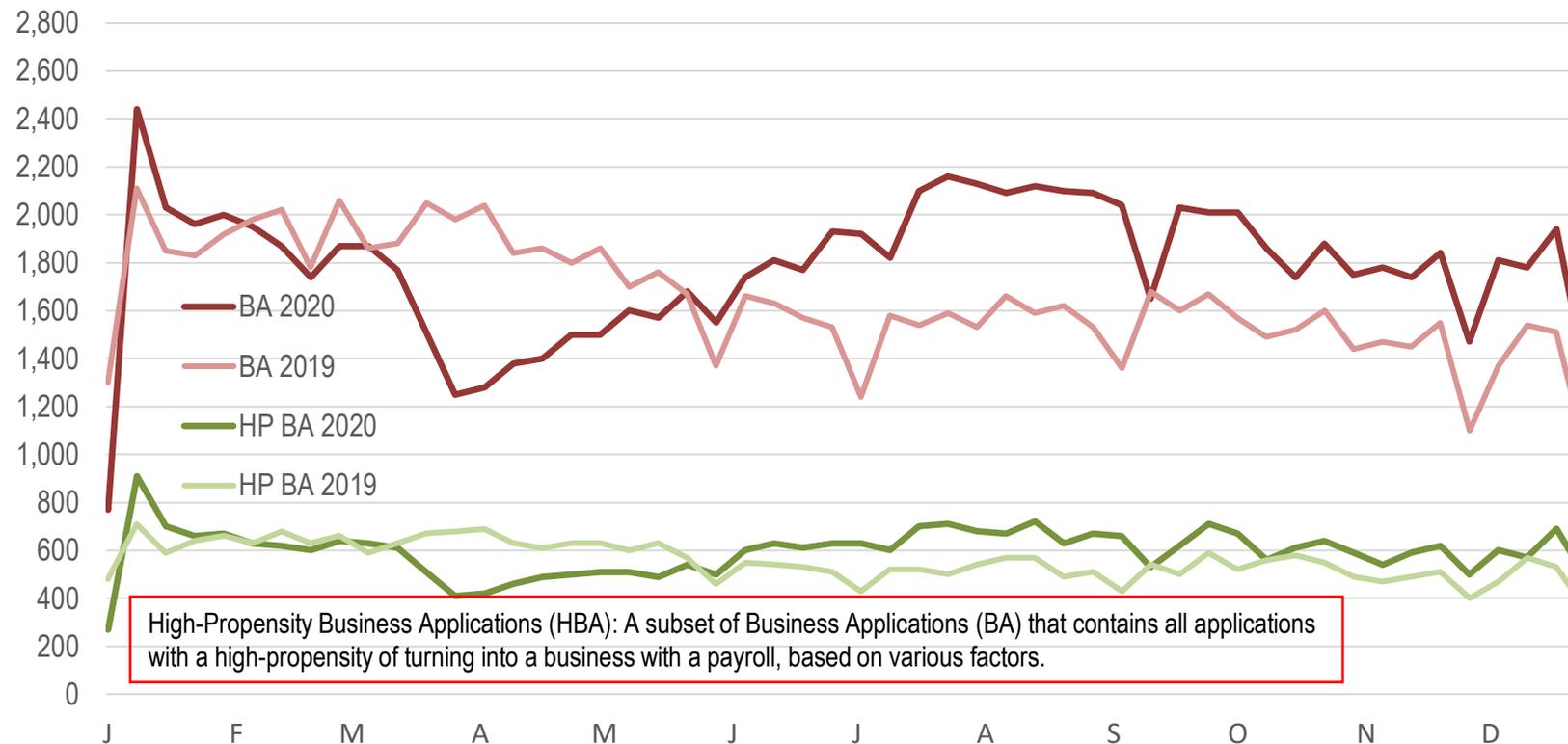
U.S. applications increased at a greater rate than Colorado applications.

Colorado small business revenue decreased at a faster rate than the U.S. rate.

# Colorado Weekly Business Applications

## Total and High Propensity 2019 vs 2020

### Weekly Business Applications



### Business Applications

There were 92,490 business applications (burgundy) in 2020, an 8.4% increase over 2019. The total number of applications in Q3 and Q4 was 26.7% greater than the same period in 2019.

### High Propensity Business Applications

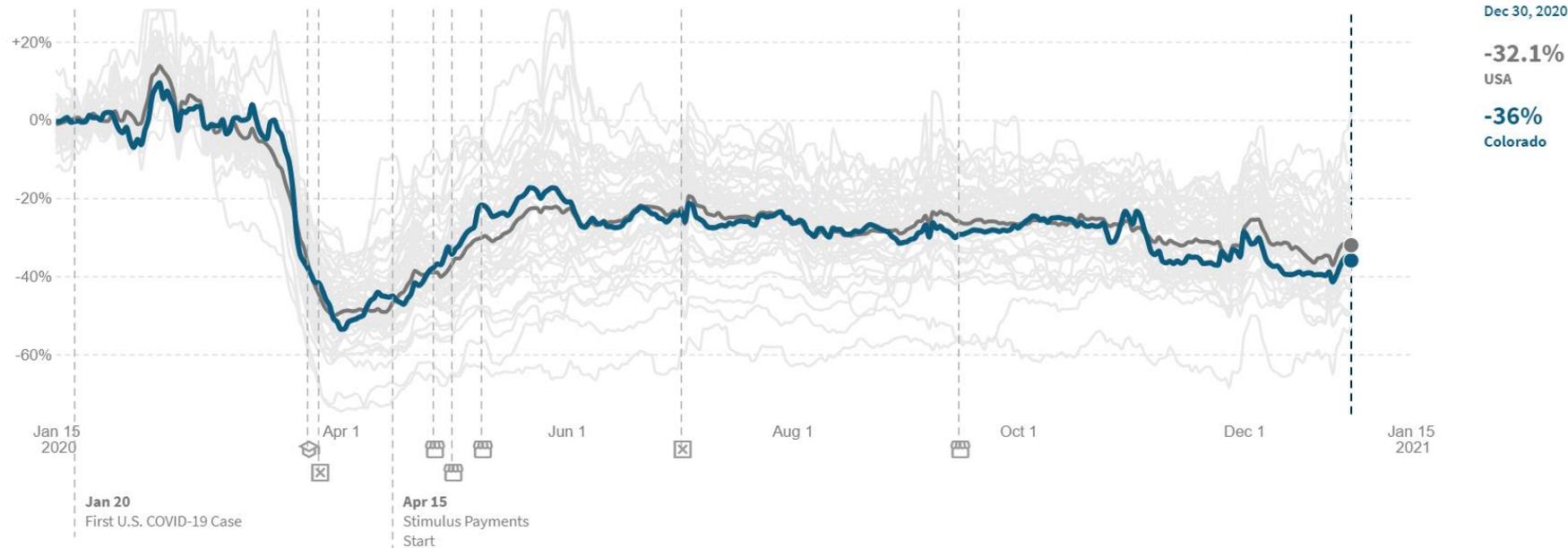
There were 30,950 million high propensity applications (green) in 2020, a 6.6% increase over 2019. The total number of high propensity applications in Q3 and Q4 was 22.2% greater than the same period in 2019.

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

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

# Percent Change in Small Business Revenue

Opportunity Insights (OI) Project (tracktherecovery.org)



Research from the OI project shows that as of December 30, the change in the percentage of small business revenue was -36.0% in Colorado and -32.1% for the U.S. The percentage change compared the December 30 value with January 2020.

The worst percentages of change were for Washington D.C., -54.5%, and Vermont at -49.8%. At the other end of the spectrum, South Dakota changed by 2.0%. The grey lines represent all states.

Source: [tracktherecovery.org](https://tracktherecovery.org), [cber.co](https://cber.co).

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

# Select Industry Data

Retail Sales, Consumer Spending, Building Permits, DIA Passengers, and Oil Production

## Key Points

Retail sales through the first ten months of 2020 are up slightly compared to 2019.

Colorado's consumer spending lags the nation.

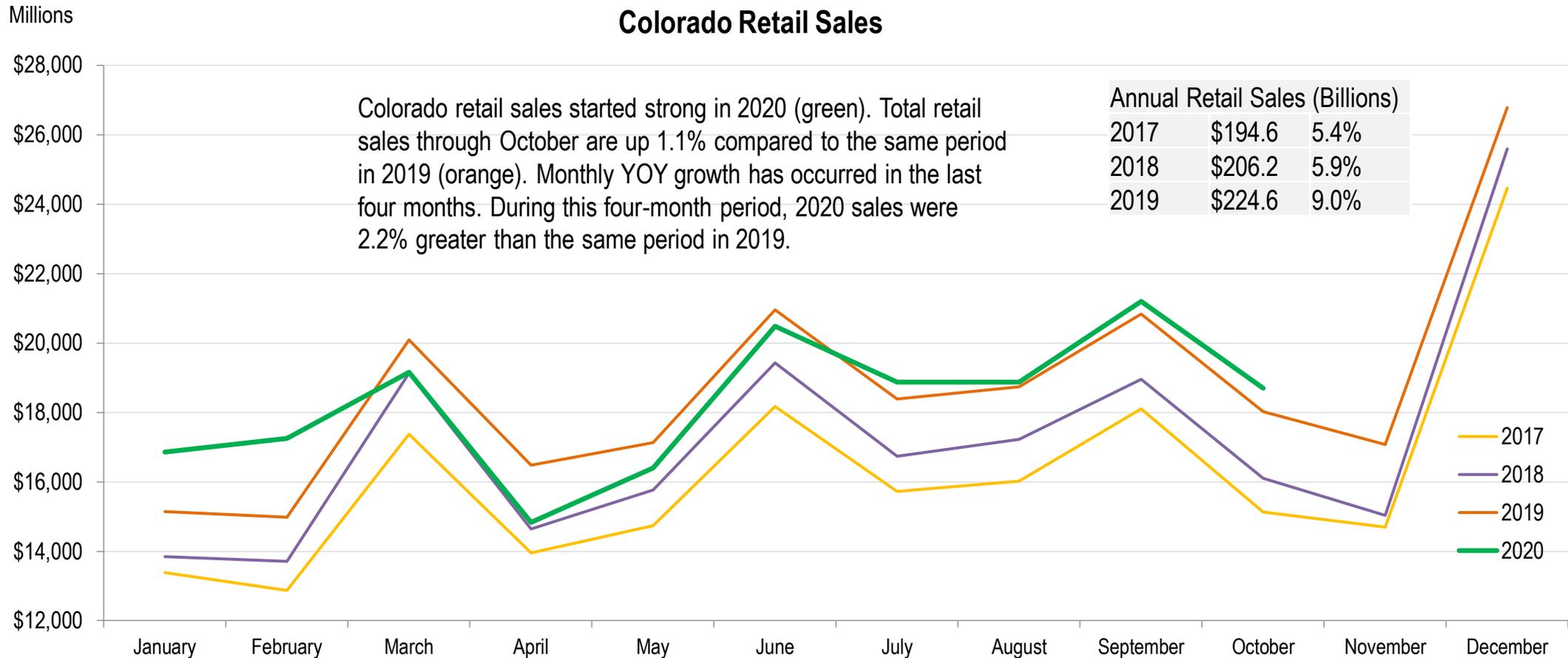
The total number of permits issued for single-family and multifamily housing in 2020 is up slightly compared to 2019.

In 2019, there were about twice as many passengers at DIA as in 2020.

The production of oil has declined because of state regulations and reduced global demand.

# Colorado Retail Sales

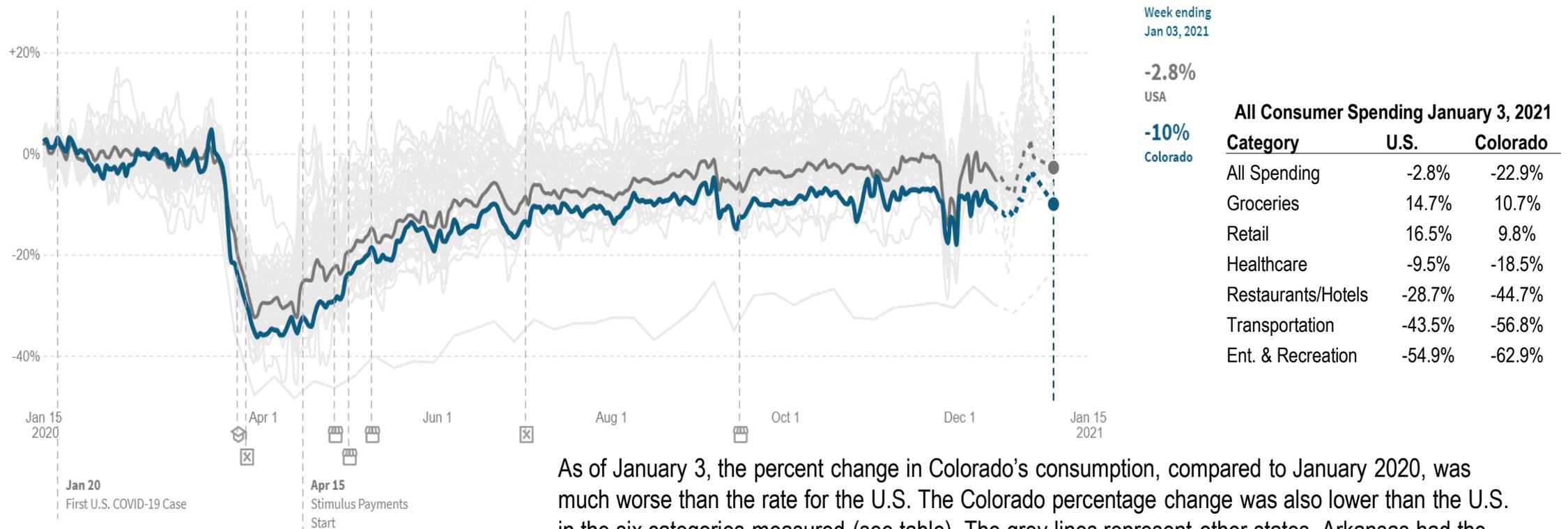
## Monthly



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

# Percent Change in Consumer Spending

U.S. vs. Colorado

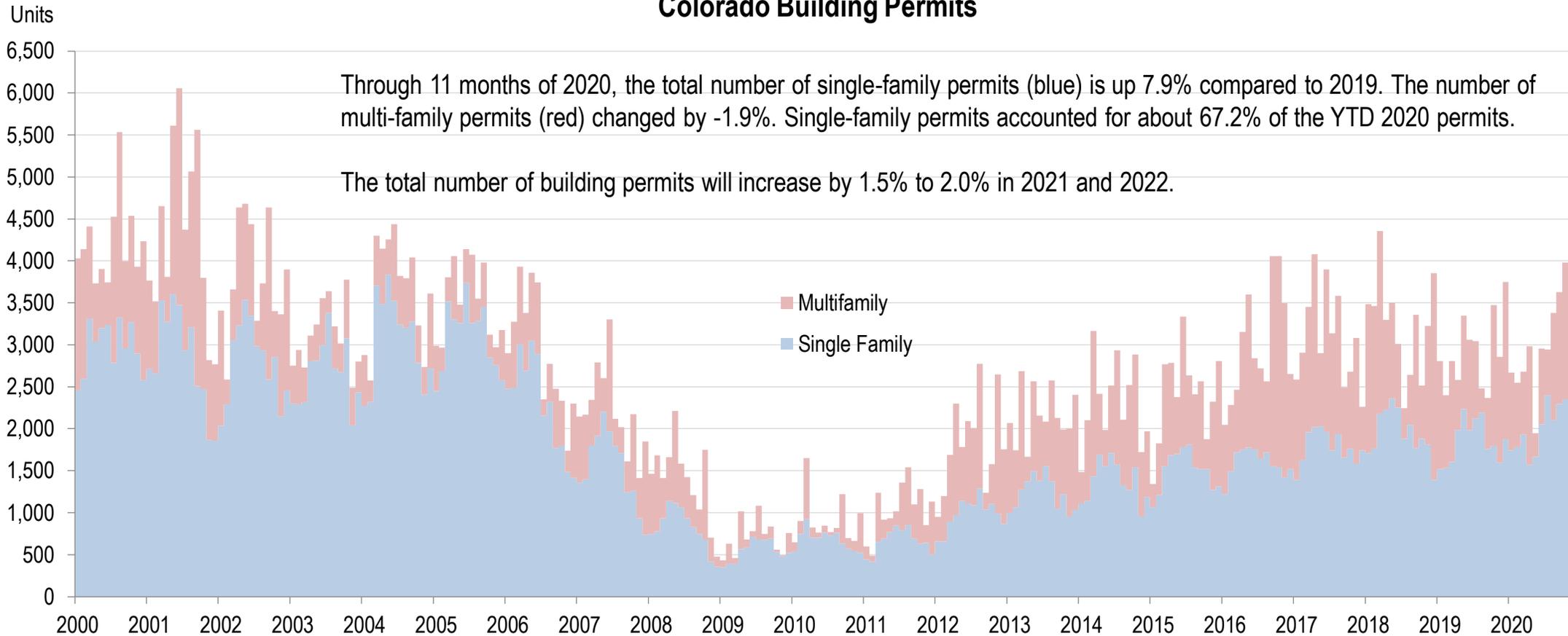


As of January 3, the percent change in Colorado's consumption, compared to January 2020, was much worse than the rate for the U.S. The Colorado percentage change was also lower than the U.S. in the six categories measured (see table). The grey lines represent other states. Arkansas had the most favorable rate of change, +10.6%. The District of Columbia had the worst rate, -22.9%.

# Colorado Residential Building Permits

Units

## Colorado Building Permits



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

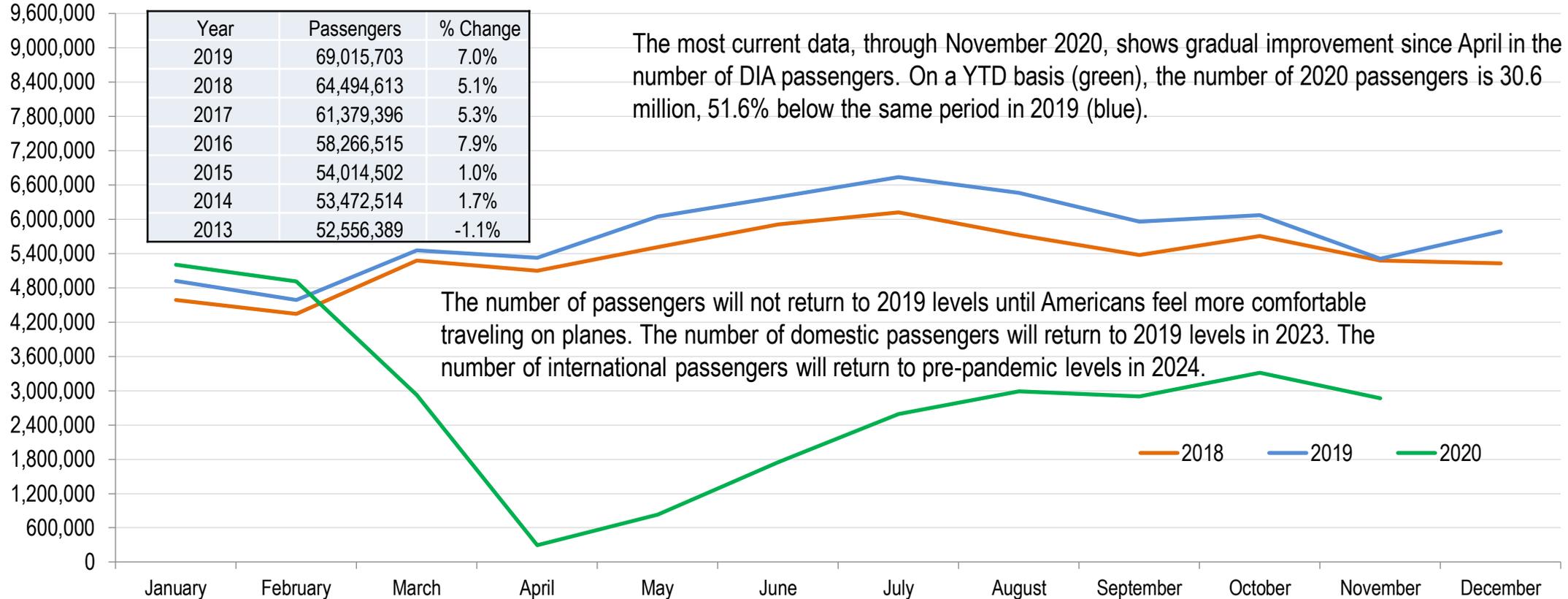
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# Denver International Airport Passengers

## Monthly

### DIA Passengers

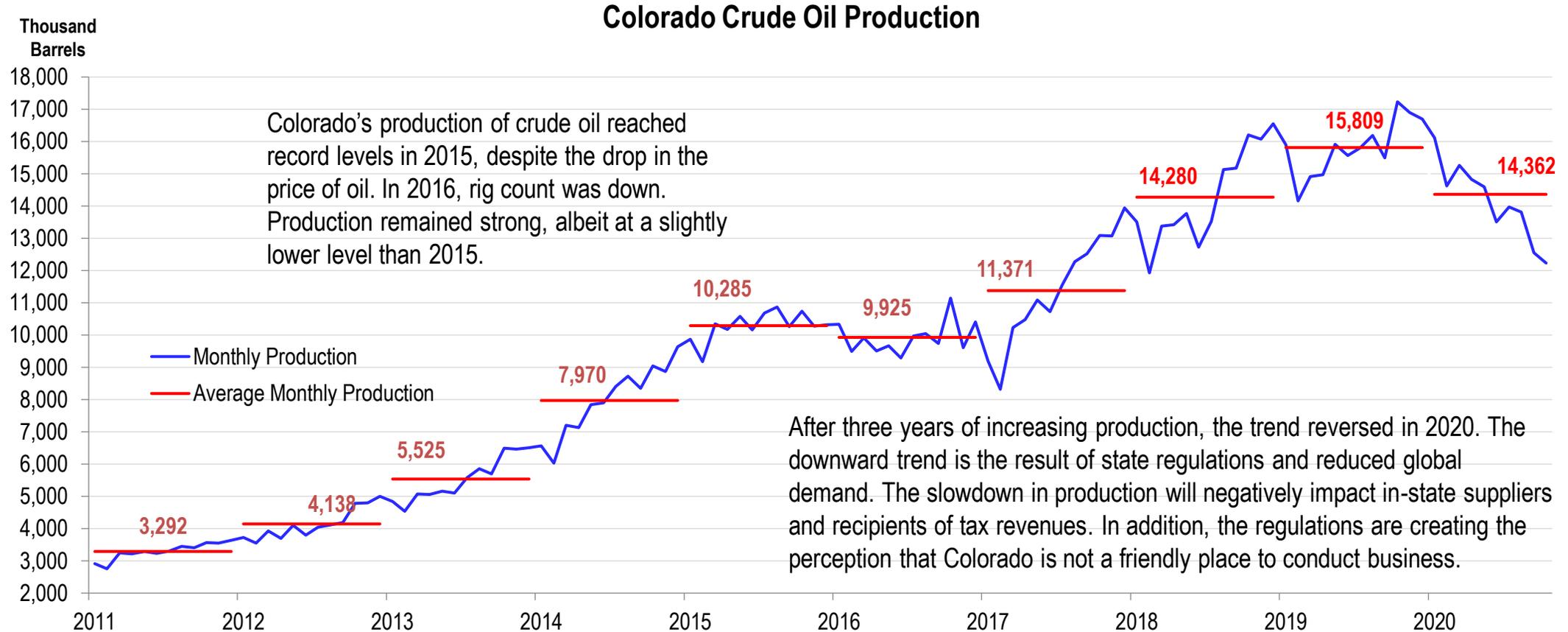
Passengers



Source: Fly-Denver.com, cber.co.

# Colorado Field Production of Crude Oil

## 2011 to 2020 (Thousand Barrels)



Source: EIA, cber.co.

# Summary

# Summary of Colorado Forecast

Colorado's real GDP growth rate for 2021 will be slightly higher than the U.S. rate. It will return to its pre-pandemic value in late 2021. Colorado employment posted declines in Q4 2020. The negative trend will continue in Q1 2021. Employment will return to its 2019 level in 2022. Colorado's unemployment rate will be greater than most states because unemployment claims will remain high. Retail sales will rebound in 2021 as a result of pent-up demand. Sales will level off at pre-pandemic levels in 2022. In 2021 and 2022, inflation will be slightly higher than the U.S. rate.

Colorado Economic Forecast				
	2019	2020	2021	2022
<b>Real GDP Value (billions)</b>	\$356.28	\$343.45	\$357.19	\$369.34
<b>% Change Real GDP</b>	3.9%	-3.6%	4.0%	3.4%
<b>CES Employment (thousands)</b>	2,785.6	2,630.6	2,675.6	2,733.6
<b>Annual Change (thousands)</b>	58.3	(155.0)	45.0	58.0
<b>% Change</b>	2.1%	-5.6%	1.7%	2.2%
<b>Unemployment Rate</b>	2.80%	6.90%	6.00%	5.10%
<b>Retail Sales (billions)</b>	\$224.6	\$227.0	\$243.0	\$252.0
<b>% Change</b>	9.0%	1.1%	7.0%	3.7%
<b>Consumer Price Index</b>	1.9%	2.0%	2.1%	2.2%
<b>DIA Passengers (millions)</b>	69.0	33.0	52.0	61.0
<b>Single Family Permits</b>	24,756	26,489	26,900	27,350
<b>Multi-family Permits</b>	13,877	13,738	13,950	14,200
<b>Oil Production (thousands) barrels</b>	189,707	172,000	170,000	175,000

The number of passengers through DIA in 2020 was about half of the 2019 total. Domestic flights will return to their 2019 level in 2023. International flights will return to their pre-pandemic level in 2024. There was an increase in the number of building permits issued in 2020. There will be more permits in 2021 as the population increases. Also, there is a need for affordable housing in the metro areas. State regulations and reduced demand caused a decline in oil production in 2020. The production of oil will be flat in 2021 and 2022.

cber.co  
Economic Outlook for 2021  
Colorado and 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.