Review of Colorado and United States Economy

Based on August Employment Data

cber.co
Colorado-based Business and Economic Research
Prepared
September 22, 2020

Overview

The U.S. and Colorado economies have transitioned from the lockdown to the reopening to the recovery and to the sustained recovery phase.

The recovery is uneven across industries and regions because of the difference in leadership, policies, management of C-19, business mix, and business and regulatory environments.

The U.S. sentiment indices and economic indicators are pointing to continued improvement in the economy. Colorado is ranked in the upper half of all states for employment recovery.

The recovery is slower than desired, but faster than anticipated. U.S. employment for August was 92.7% of December 2019. Colorado employment for August was 94.2% of December.

Professional and technical services (PST), private education, federal government, and manufacturing are projected to add jobs in 2020. Tourism has been devastated by the lack of confidence in traveling and the extractive industries have been punished by state regulations and reduced global demand. Other services and administrative services continue to struggle.

GDP and Labor Data

- Real GDP Forecast -- United States
- Initial and Continued Unemployment Claims – United States and Colorado
- Unemployment Rate, Unemployment by United States and Colorado, Unemployment by State, Labor Force Participation Rate, and JOLTS
- Change in Employment During the Reopening by Sector, State, and Wage Category – United States and Colorado
- Colorado Revised Employment Forecast
- Recovery of Major Colorado Sectors

Other Metrics

- Major Sentiment Indices – United States
- Production and Income – United States
- Other Industry Metrics – United States and Colorado
- Other Key Metrics – United States and Colorado

Summary – United States and Colorado

Real Gross Domestic Product Forecast

United States

Key Points

There was a severe decline in real GDP in Q2 2020 followed by a strong rate of growth in Q3. Weak growth is projected for Q4.

Annual real GDP rate for 2020 will be -3.8% and personal consumption will be -4.8%.

Annual real GDP rate for 2021 will be 3.2% with personal consumption of 3.2%.

U.S. Real GDP Growth

The Conference Board Forecast

2020

The Conference Board September 9 base scenario forecast shows a decline in real GDP of 31.7% in Q2 2020 followed by a projected increase of about 32.9% in Q3. The forecast for personal consumption is similar. The forecast for Q3 was upgraded slightly and a slower rate of growth is expected in Q4. Real GDP growth for 2020 will be -3.8% with personal consumption of -4.8%. The September forecast is more optimistic than the August forecast.

2021

The U.S. will see positive annual real GDP growth in 2021 if it avoids major C-19 lockdowns, and sees a successful reopening of the education system, and increased confidence in air travel. Real GDP growth will be 3.2% and personal consumption will be 2.6%. At this point, the damage from the high unemployment rate is a major concern for Q4 2020 and early 2021.

Conference Board 2020 US Real GDP Growth Forecast (September 9, 2020)

	Q1 2020	Q2 2020	Q3 2020	Q4 2020	2018	2019	2020	2021
Real GDP	- 5.0%	- 31.7%	32.9%	1.3%	2.9%	2.2%	- 3.8%	3.2%
Personal Consumption	- 6.9%	- 34.1%	33.2%	2.4%	3.0%	2.4%	- 4.8%	2.6%
Residential Investment	19.0%	- 37.9%	33.0%	10.0%	-1.5%	-1.7%	1.2%%	0.7%
Real Capital Spending	- 6.7%.	- 26.0%	6.8%	4.7%	6.4%	2.9%	-5.9%	-0.7%
Exports	- 9.5%	- 63.2%	19.0%	5.0%	3.0%	-0.1%	- 16.3%	-0.1%

Source: The Conference Board and cber.co.

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

Unemployment Initial and Continued Claims

United States and Colorado

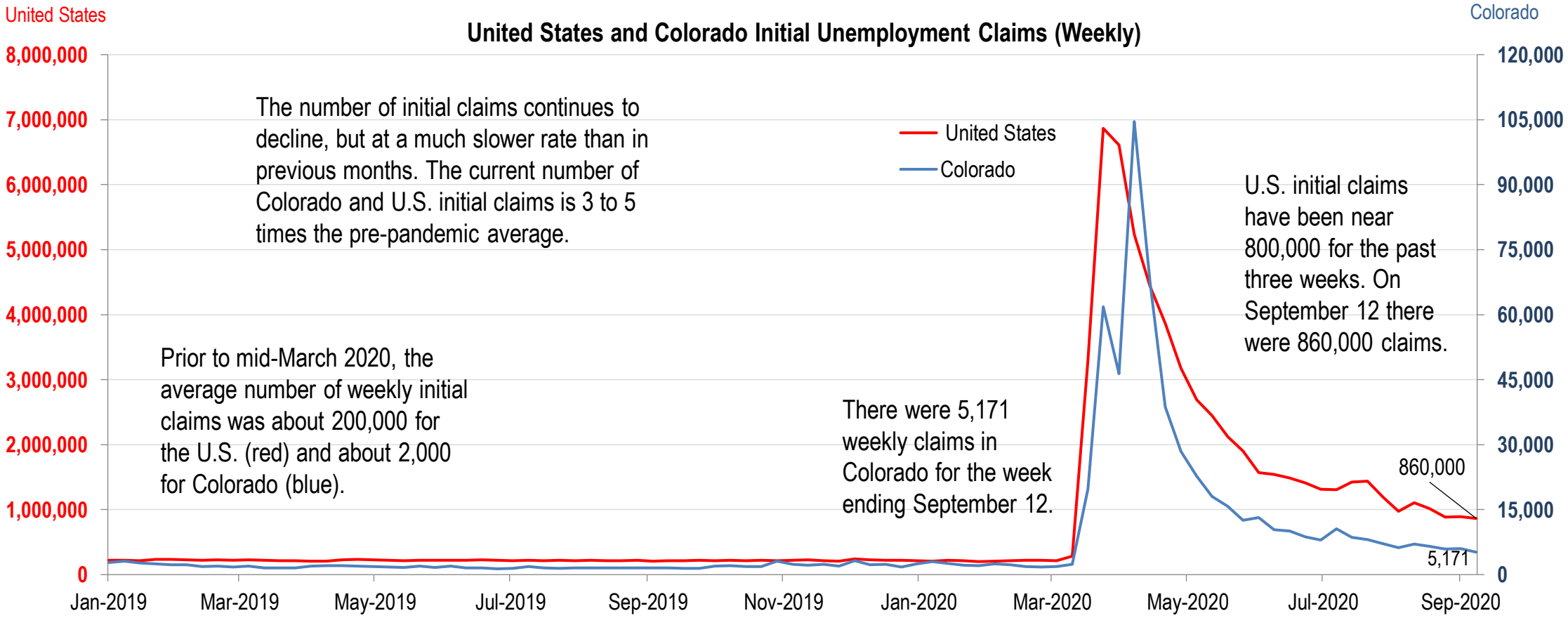
Key Points

After rising quickly in March and April, the number of initial and continued claims declined as the economy transitioned from the lockdown phase to recovery to sustained growth.

The number of initial claims has declined at a faster rate than the continued claims.

Initial Unemployment Claims (Weekly)

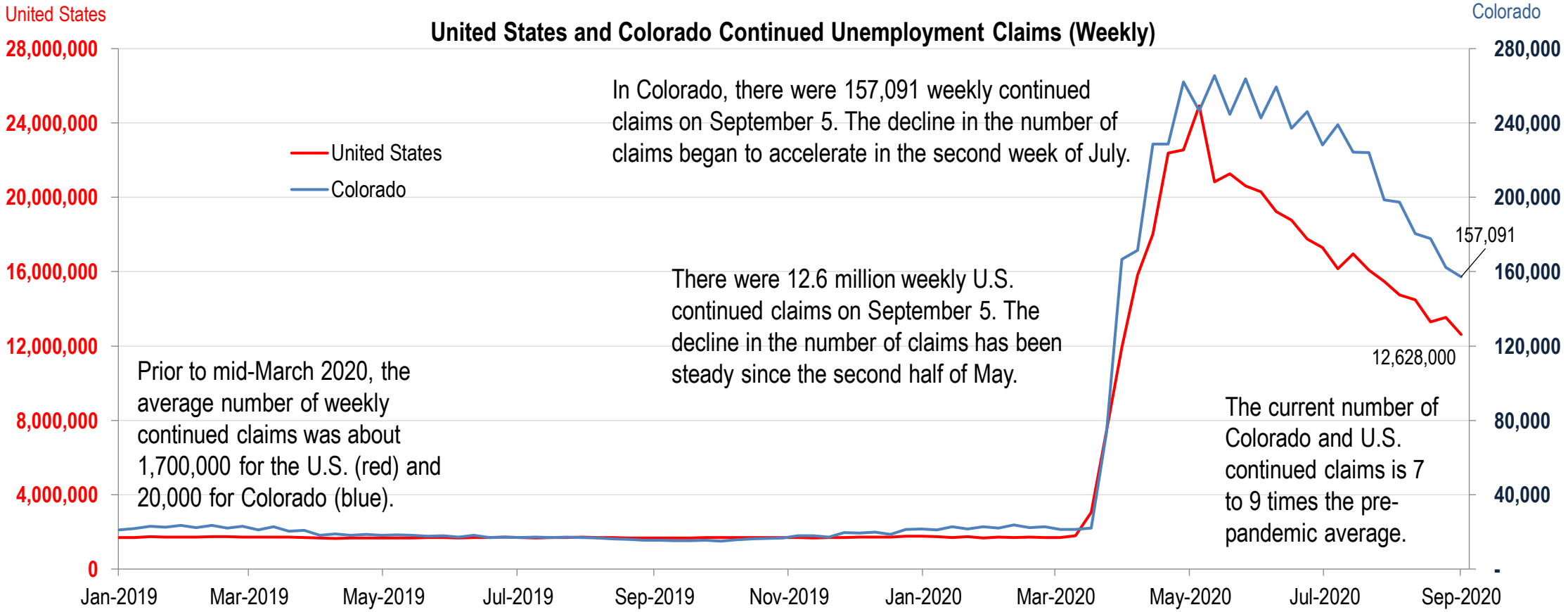
United States And Colorado 2019 to Current



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

Continued Unemployment Claims (Weekly)

United States and Colorado 2019 to Current



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

Unemployment Rate, Labor Force Participation Rate, Unemployment Rate by State, and Job Openings

United States and Colorado

Key Points

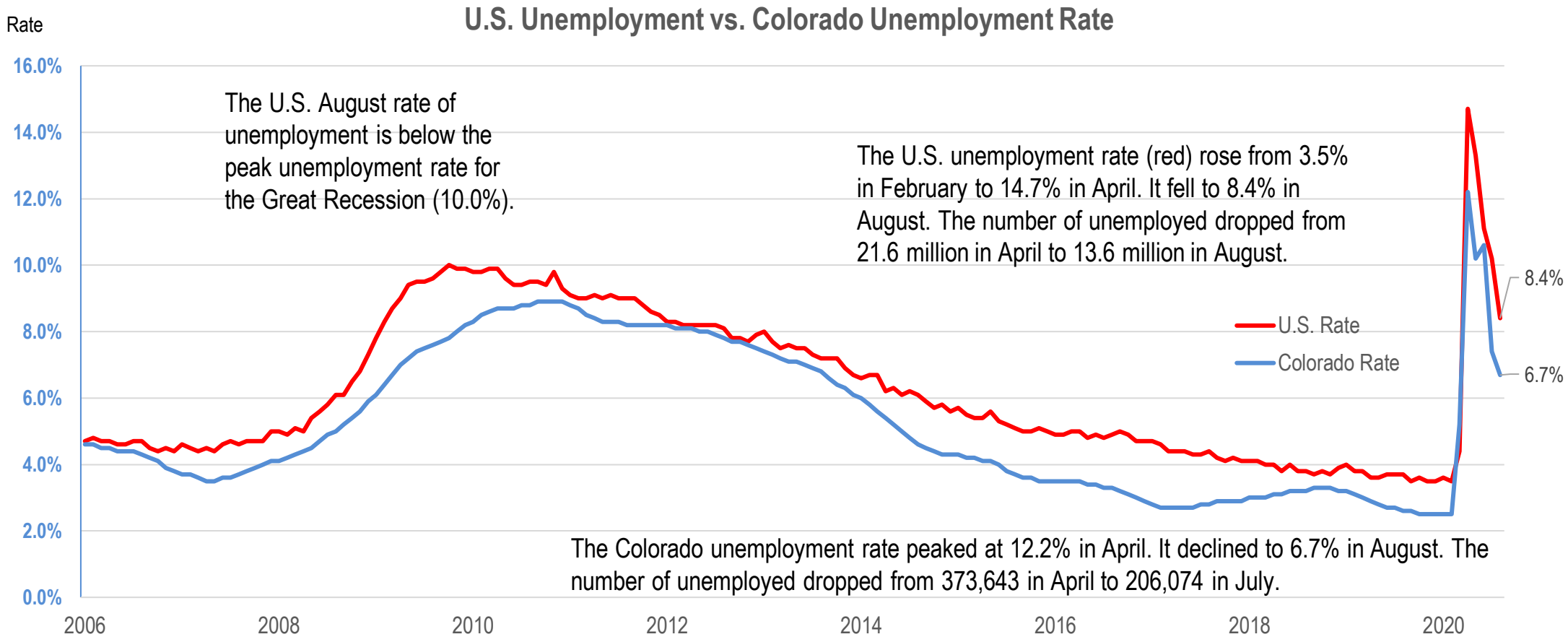
In August, the U.S. unemployment rate continued to drop. The rate declined in 41 states, was greater in 2 states, and was stable in 7 states and D.C.

Forty states and the District of Columbia currently have single digit unemployment rates.

The U.S. and Colorado labor force participation rates have increased but remain well below the total for February.

The number of unemployed far exceeds the number of job openings, but the number of job openings has been increasing.

U.S. and Colorado Unemployment Rate



Source: Bureau of Labor Statistics and cber.co.

Unemployment Rates by States

August 2020

Unemployment Rate < 6.5%

Rank	State	August
1	Nebraska	4.0%
2	Utah	4.1%
3	Idaho	4.2%
4	South Dakota	4.8%
5	Vermont	4.8%
6	North Dakota	5.0%
7	Alabama	5.6%
8	Georgia	5.6%
9	Montana	5.6%
10	Oklahoma	5.7%
11	Arizona	5.9%
12	Iowa	6.0%
13	Virginia	6.1%
14	Wisconsin	6.2%
15	South Carolina	6.3%
16	Indiana	6.4%

Unemployment Rate Between 6.4% and 8.5%

Rank	State	August
17	New Hampshire	6.5%
18	North Carolina	6.5%
19	Wyoming	6.6%
20	Colorado	6.7%
21	Texas	6.8%
22	Kansas	6.9%
23	Maine	6.9%
24	Maryland	6.9%
25	Missouri	7.0%
26	Alaska	7.4%
27	Arkansas	7.4%
28	Florida	7.4%
29	Minnesota	7.4%
30	Kentucky	7.6%
31	Louisiana	7.6%
32	Oregon	7.7%
33	Mississippi	7.9%
34	Connecticut	8.1%

In August, the U.S. unemployment rate dropped to 8.4%. Thirty-four states had unemployment rates less than 8.5% (green).

Six states had an unemployment rate of 5.0% or less.

About 20% of the U.S. labor force is located in the 16 states with unemployment rates less than 6.5% (column 1).

About 35% of the U.S. labor force is located in the 18 states with unemployment rates between 6.4% and 8.5% (column 2).

About 45% of the U.S. labor force is located in the 16 states and DC with unemployment rates greater than 8.4% (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 works in these 10 states.

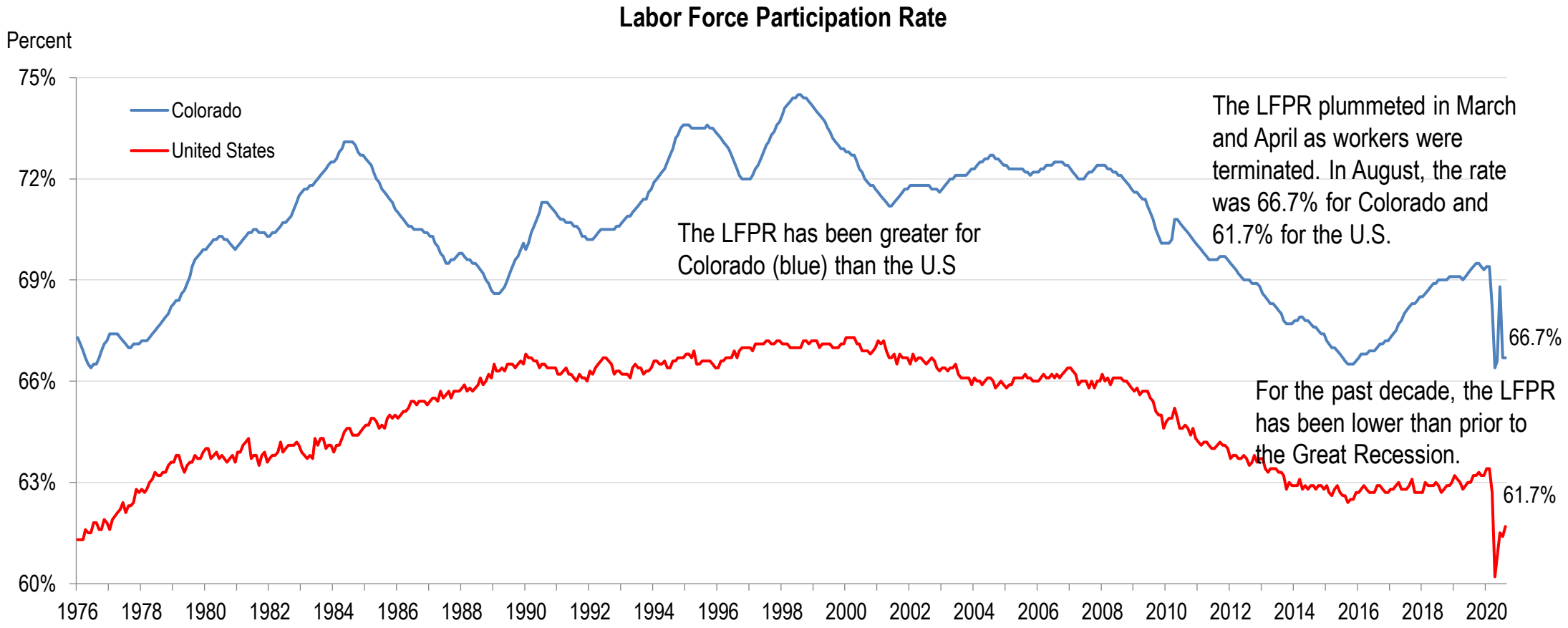
Unemployment Rate is 8.5% or Greater

Rank	State	August
35	District of Columbia	8.5%
36	Tennessee	8.5%
37	Washington	8.5%
38	Michigan	8.7%
39	Delaware	8.9%
40	Ohio	8.9%
41	West Virginia	8.9%
42	Pennsylvania	10.3%
43	New Jersey	10.9%
44	Illinois	11.0%
45	Massachusetts	11.3%
46	New Mexico	11.3%
47	California	11.4%
48	Hawaii	12.5%
49	New York	12.5%
50	Rhode Island	12.8%
51	Nevada	13.2%

Source: Bureau of Labor Statistics, cber.co.

Labor Force Participation Rate (LFPR)

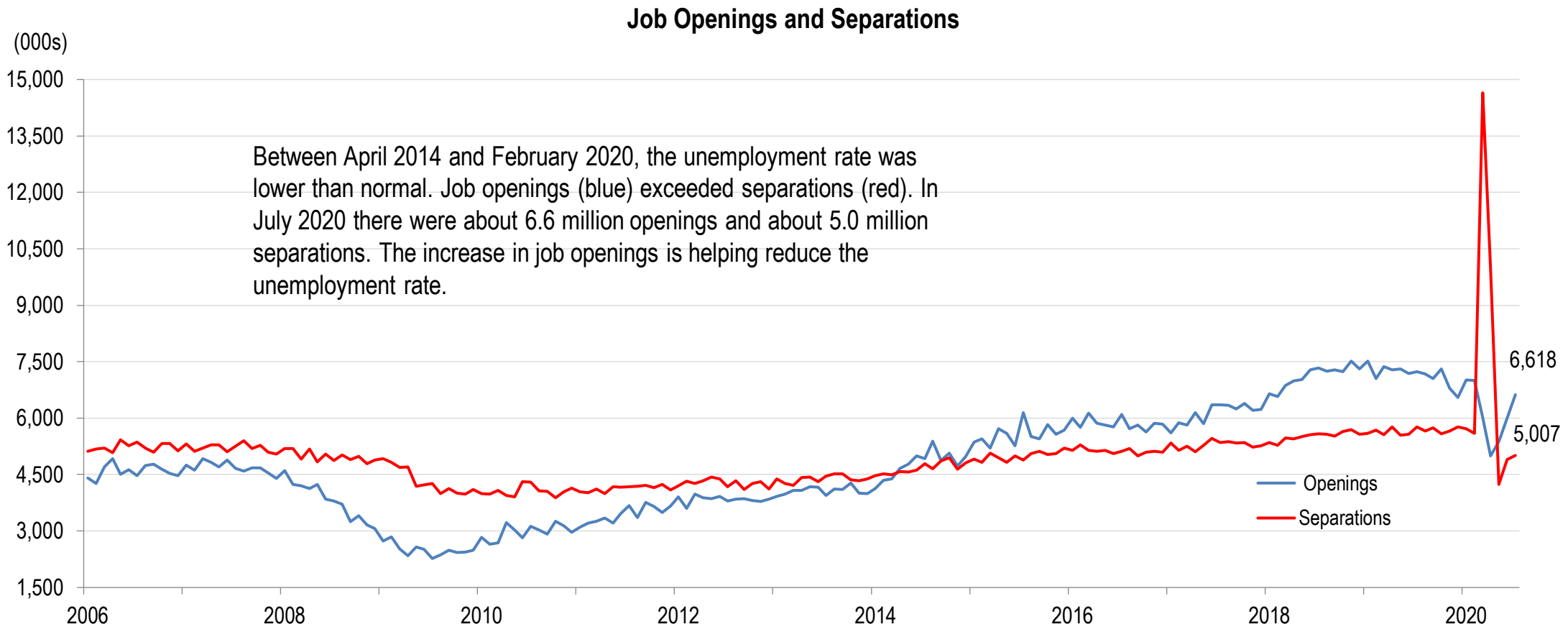
United States and Colorado



Source: FRED, BLS, cber.co.

Job Openings and Separations (JOLTS)

United States



Source: BLS, JOLTS cber.co.

Change in Employment During the Reopening by Sector, State, and Wage Category

United States and Colorado

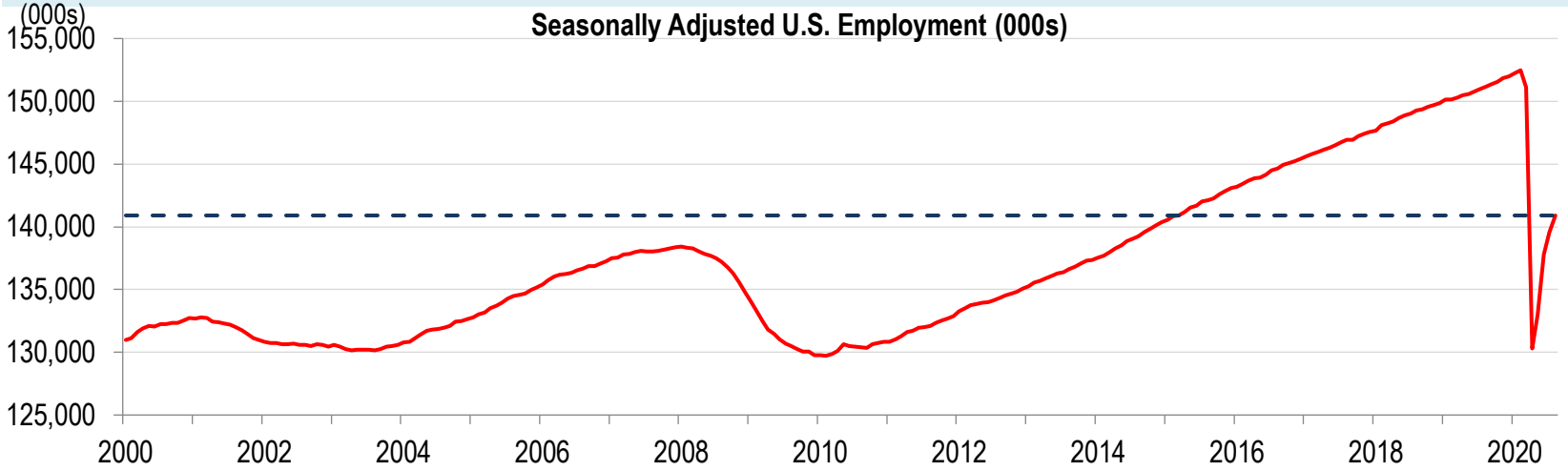
Key Points

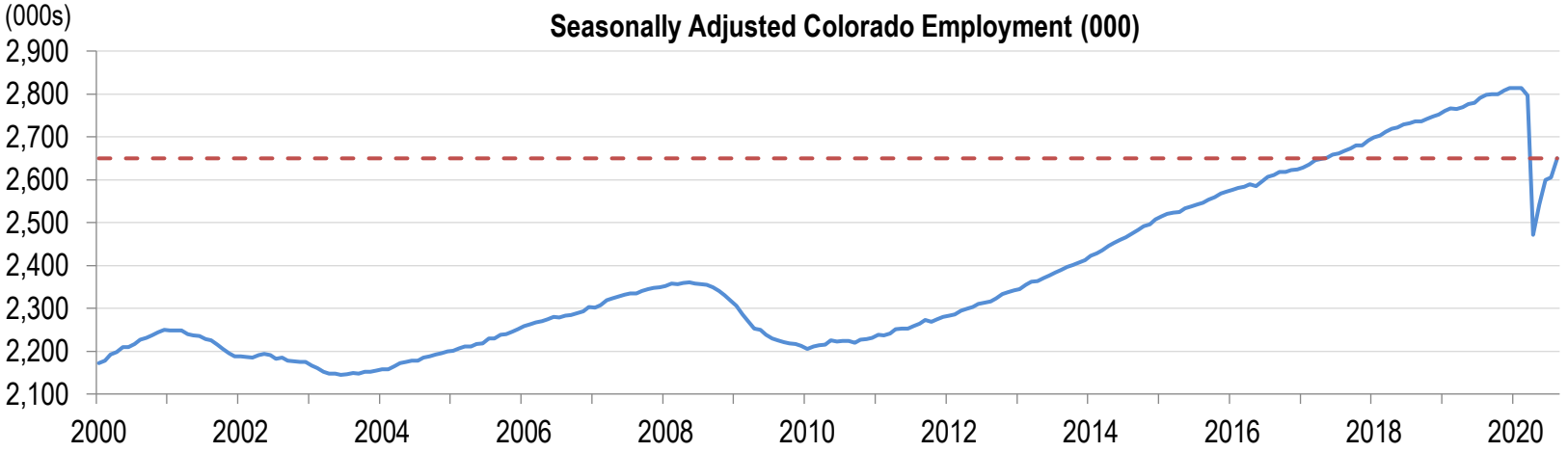
The recovery in U.S. and Colorado wage and salary employment is continuing at a faster rate in Colorado than the U.S. The return to December 2019 pre-pandemic employment level will occur in Q2 2021 at the earliest.

Employment is increasing unevenly across all NAICS sectors and states. Sectors with higher wages lost fewer jobs and are closer to recovery than sectors with lower wages.

Seasonally Adjusted Wage and Salary Employment

United States vs. Colorado





Source: Bureau of Labor Statistics and cber.co.

United States

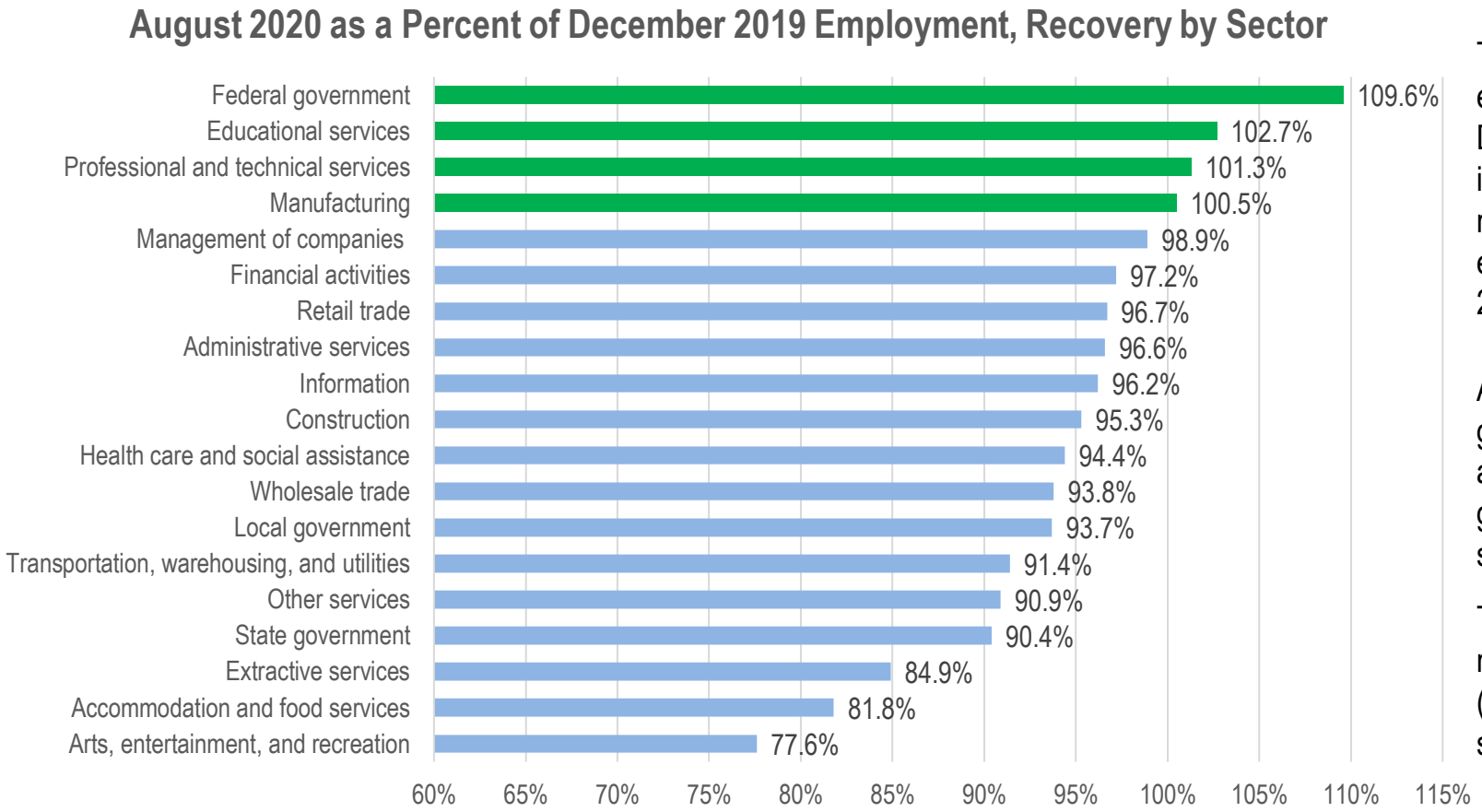
U.S. seasonally adjusted wage and salary employment for August was 140.91 million (blue dotted line). August employment is 92.7% of the December 2019 total; there were 11.1 million fewer jobs in July. As a point of reference, U.S. employment in April (the trough) was 85.7% of December 2019 employment (152.0 million).

Colorado

Colorado seasonally adjusted wage and salary employment for August was 2.65 million (red dotted line). August employment is 94.2% of the December 2019 total; there were 163,900 fewer jobs in August. By comparison, Colorado employment in April (the trough) was 87.8% of December 2019 employment (2.81 million).

Percentage Colorado Employment Recovery by Sector

August 2020 as Percent of December 2019



August/December Recovery

This chart shows August 2020 sector employment as a percentage of December 2019 sector employment to illustrate the difference in the rate of recovery for each sector. August employment is 94.2% of December 2019.

Key Take-aways

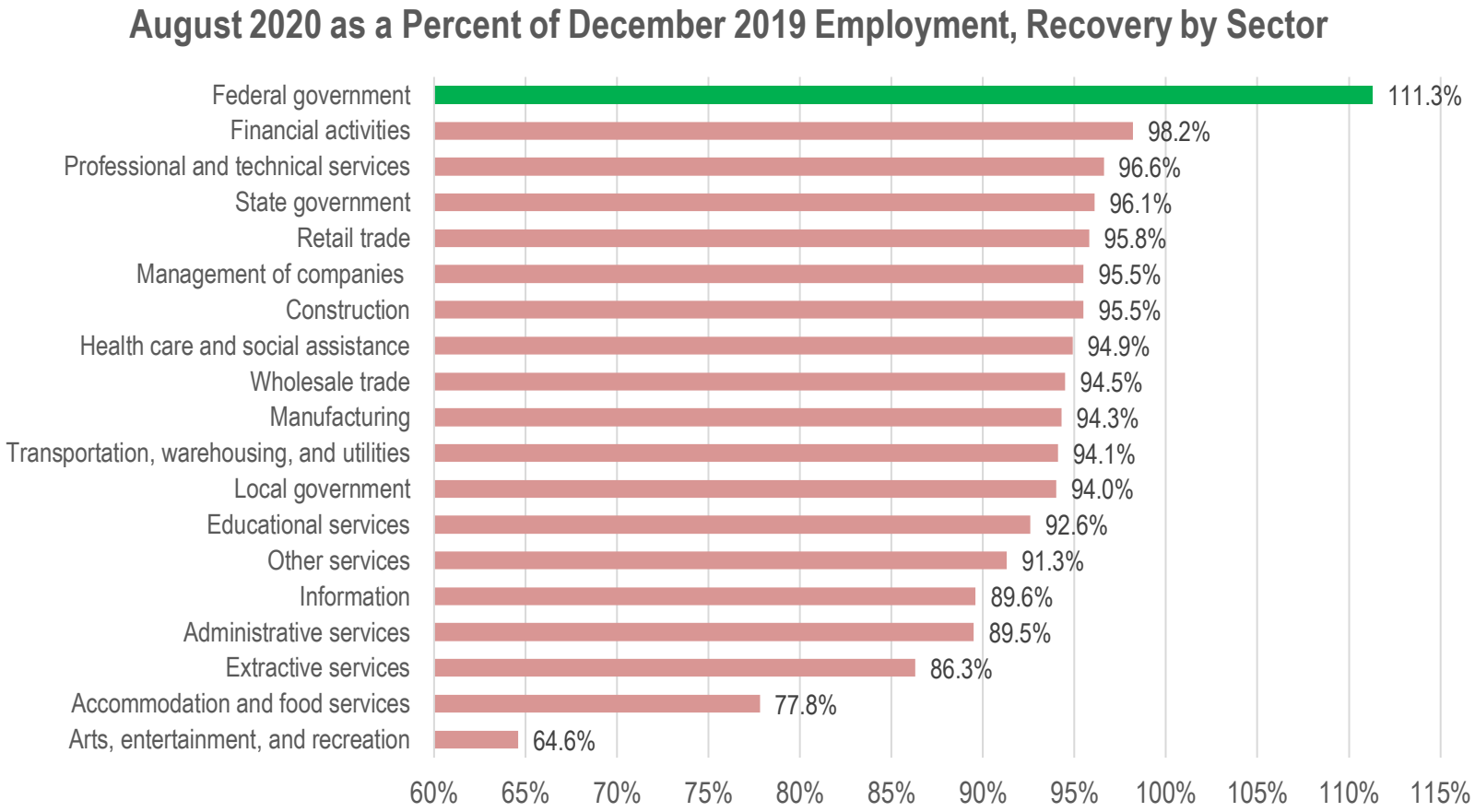
August employment for the federal government, private education, PST, and manufacturing sectors are all greater than December 2019. These sectors are the green bars.

The sectors that are a drag on the recovery are leisure and hospitality (AFS and AER), extractive industries, state government, and other services.

Source: Bureau of Labor Statistics and cber.co.

Percentage U.S. Employment Recovery by Sector

August 2020 as Percent of December 2019



August/December Recovery

This chart shows August 2020 sector employment as a percentage of December 2019 sector employment to illustrate the difference in the sector rate of recovery. Overall August employment is 92.7% of December.

Key Take-aways

August employment for the federal government is greater than December 2019. Other top sectors include financial activities, PST, and state government

The sectors that are a drag on the recovery are leisure and hospitality (AFS and AER), extractive industries, administrative services, information, and other services.

Source: Bureau of Labor Statistics and cber.co.

Percentage Employment Recovery by State

August 2020 as Percent of December 2019

August vs. December % Change Greater Than or Equal to 92.3%

Rank	State	Aug,/December
1	Idaho	98.6%
2	Mississippi	97.4%
3	Utah	97.2%
4	Indiana	96.6%
5	Arizona	96.2%
6	Arkansas	95.8%
7	Nebraska	95.8%
8	Alabama	95.6%
9	Kansas	95.6%
10	Georgia	95.5%
11	Missouri	95.5%
12	Oklahoma	95.1%
13	Tennessee	95.0%
14	South Dakota	94.9%
15	Montana	94.7%
16	South Carolina	94.7%
17	West Virginia	94.7%

Rank	State	Aug./December
18	Texas	94.4%
19	Florida	94.4%
20	Kentucky	94.2%
21	Virginia	94.2%
22	Colorado	94.2%
23	Iowa	94.2%
24	Louisiana	93.5%
25	Wyoming	93.5%
26	Washington	93.3%
27	Illinois	93.1%
28	Maryland	93.1%
29	District of Columbia	93.0%
30	Minnesota	92.9%
31	North Dakota	92.8%
32	North Carolina	92.8%
33	Connecticut	92.5%

Recovery Varies Across the U.S.
August employment for the 17 states in the first column was greater than 94.4% of the December total. The employment in these healthier states accounts for about 21% of August employment. Several of these states may return to their level of December 2019 employment by the end of 2020.

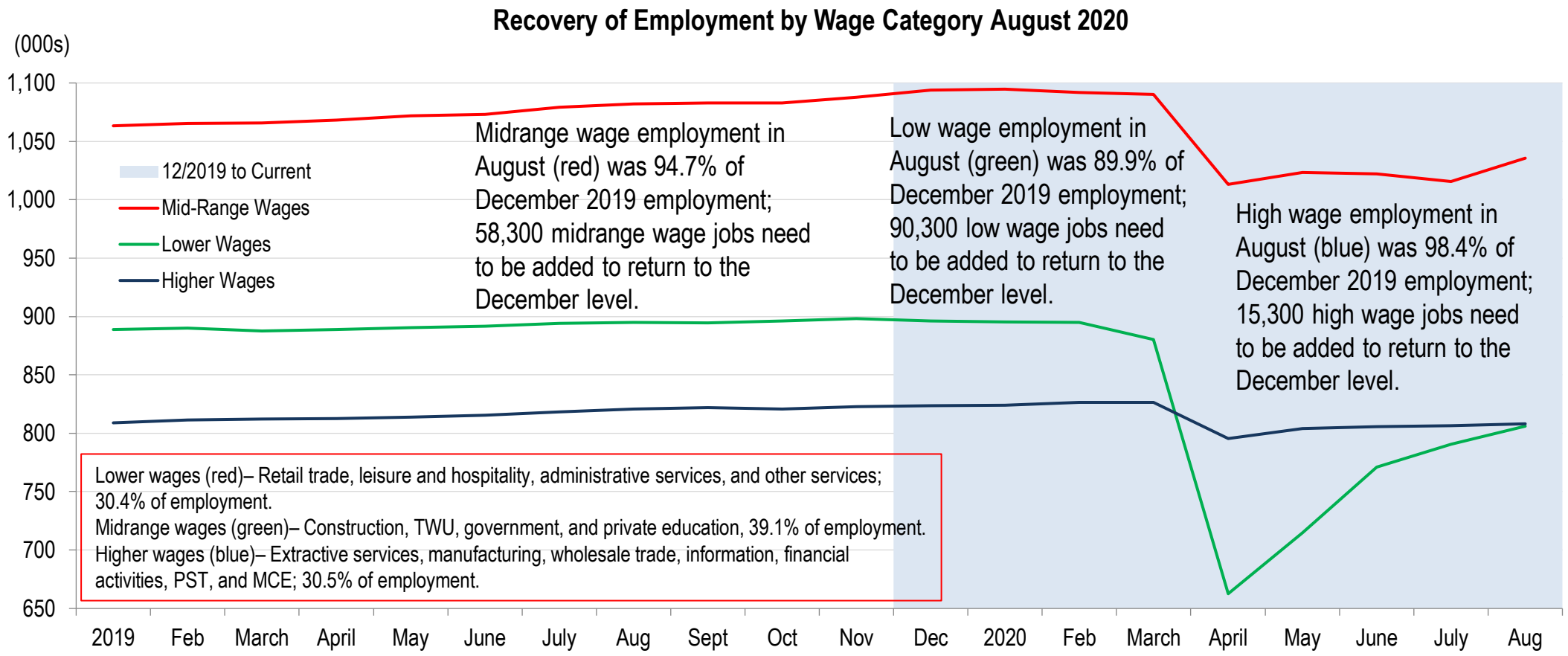
The 15 states and D.C. (second column) account for about 38% of August employment. The 18 states in the third column account for about 38% of August employment.

August vs. December % Change Less than 92.3%

Rank	State	Aug./ December
34	Wisconsin	92.2%
35	Oregon	92.2%
36	Rhode Island	92.2%
37	Ohio	92.0%
38	New Hampshire	92.0%
39	New Mexico	91.9%
40	Pennsylvania	91.7%
41	Delaware	91.6%
42	Maine	91.2%
43	Nevada	90.5%
44	California	90.4%
45	New Jersey	90.4%
46	Alaska	90.0%
47	Michigan	89.8%
48	Vermont	89.5%
49	Massachusetts	89.1%
50	New York	87.6%
51	Hawaii	83.0%

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

Recovery of Employment by Wage Category
Low, Midrange, and High Wages



Source: BLS, cber.co.

Colorado Revised Employment Forecast for 2020

Best Case, Modest Growth, and Worst Case

Key Points

The January 2020 cber.co forecast called for Colorado to add 50,000 jobs in 2020. This forecast was revised with three recovery scenarios.

Best case recovery – average annual employment will decrease by 79,900 in 2020. An average of 21,000 jobs will be added per month until recovery occurs.

Modest growth scenario – average annual employment will decrease by 95,900 in 2020. An average of 17,000 jobs will be added per month until recovery occurs.

Worst case scenario – average annual employment will decrease by 115,900 in 2020. An average of 12,000 jobs will be added per month until recovery occurs.

2020 Colorado Employment Forecast Revision

Background, Assumptions, and Scenarios

Short-term Growth Sectors
Professional, scientific, and technical; manufacturing; information; management of companies (headquarters); financial activities; construction; and warehousing.

Background for Forecast Revision
In early January, the cber.co 2020 Colorado economic forecast projected Colorado employment would increase by 50,000. All bets were off when the C-19 pandemic and subsequent lockdown was put in place.

In March, it was thought the state employment might decline by 350,000 in 2020. Six weeks later, informal projections lowered the amount of decline to 250,000. On June 19, the Governor's Office of State Planning and Budgeting (OSPB) forecasted Colorado's employment would decline by 152,900 in 2020. This forecast called for an increase in employment of 47,300 in 2021. The OSPB September update is more optimistic about 2020.

There have been a lot of moving pieces that have made it difficult to understand changes in the economy. This revision to the cber.co Colorado employment forecast provides three scenarios for employment growth for 2020 to account for the current level of uncertainty.

Lagging Sectors
Leisure and hospitality, retail, state and local government, transportation, extractive industries (oil and gas), wholesale trade, other services, and administrative services.

2020 Colorado Employment Forecast Revision

Background, Assumptions, and Scenarios

Best Case Recovery Scenario

This scenario projects average monthly employment increase by 21,000 each month until the December 2019 level is met.

C-19 flareups are expected and will be managed on a targeted basis. There will be a limited return of spectator sports and arts activities. There will be good snow for the winter ski season. In addition, K-12 and higher education will operate with limited problems related to C-19. In addition, progress will be made with a vaccine and the presidential election and its outcome will not impact the country's economic vitality.

2020 and Recovery

The change in 2020 employment will be -79,900 and employment will return to the December 2019 level in Q2 2021.

Modest Recovery Scenario

This scenario projects average monthly employment will increase by 17,000 each month until the December 2019 level is met.

C-19 flareups will occur and may result in targeted lockdowns. Spectator sports and arts activities will return with some problems. There will be challenges with the winter ski season. In addition, the return to school for K-12 and higher education will not go as well as anticipated. Finally, the presidential election and its outcome will be a mild disruption to the management of C-19 and the country's economic vitality.

2020 and Recovery

The change in 2020 employment will be -95,900 and employment will return to the December 2019 level in Q2 2021.

Worst Case Growth Recovery Scenario

This scenario projects average monthly employment will increase by 12,000 each month until the December 2019 level is met.

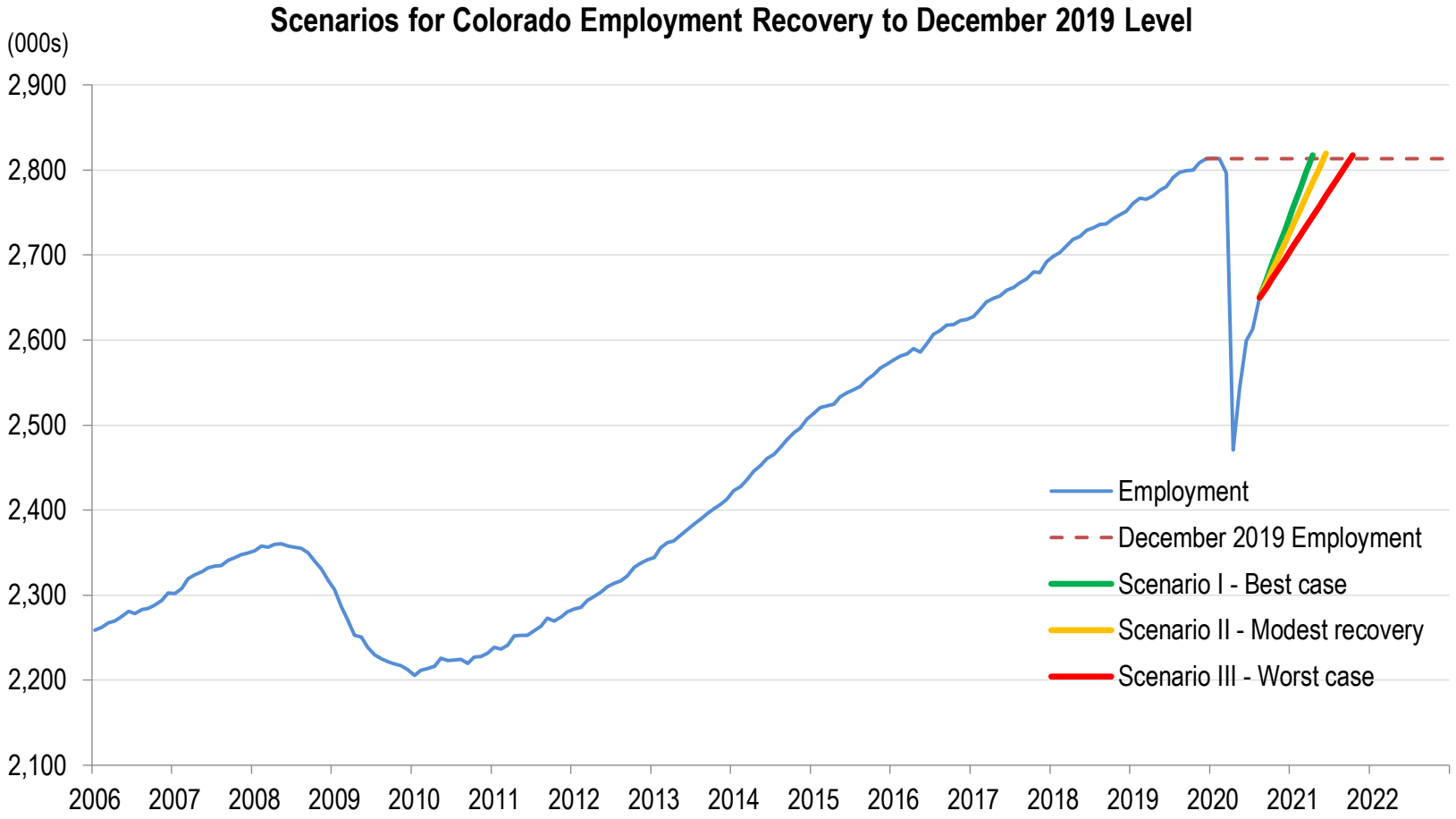
C-19 flareups will result in lockdowns. College and professional sports will be held, but with problems. Air travel will not increase significantly, In addition, the return to school for K-12 and higher education will be worse than anticipated. Finally, the presidential election and its outcome will significantly disrupt the management of C-19 and the country's economic vitality. There will be no C-19 medical breakthroughs.

2020 and Recovery

The change in 2020 employment will be -115,900 and employment will return to the December 2019 level in Q4 2021.

Scenarios for Wage and Salary Employment Recovery

Colorado



Three Scenarios for Recovery
There are three scenarios of average monthly employment for the recovery of Colorado wage and salary employment to the December 2019 level.

Scenario I (Green) An average of 21,000 jobs will be added per month. Recovery will be Q2 2021.

Scenario II (Gold) An average of 17,000 jobs will be added per month. Recovery will be Q2 2021.

Scenario III (Red) An average of 12,000 jobs will be added per month. Recovery will be Q4 2021.

Source: Bureau of Labor Statistics, SA, and cber.co.

Recovery of Major Sectors Colorado

Recovered, Early Recovery, Midterm Recovery, and Last to Recover

Key Points

This section includes charts that show employment levels for the following sectors from 2006 to current.
Recovered: Federal government, private education, PST, and manufacturing.

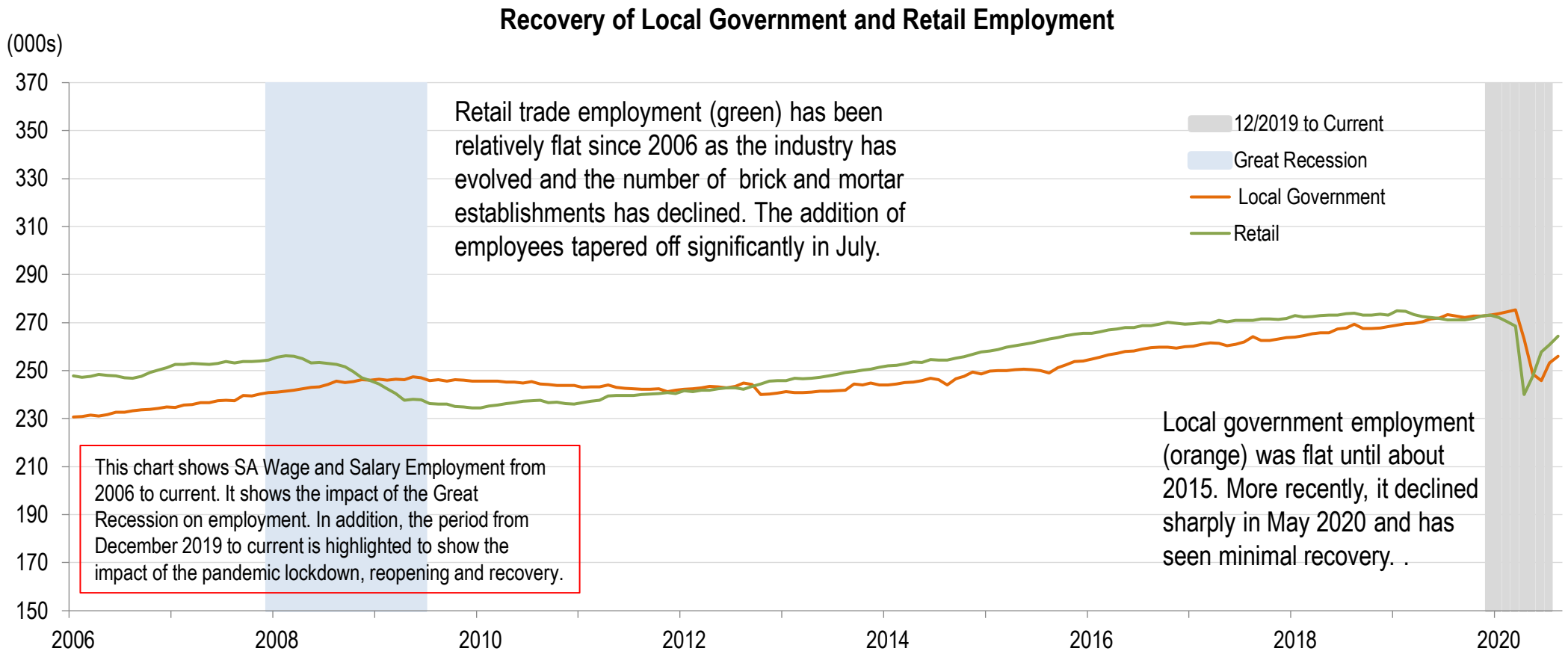
Early recovery: MCE, financial activities, retail trade, administrative services, and information.

Midterm recovery: Construction, health care, wholesale trade, local government, TWU, and other services.

Last to recover: Extractive industries and leisure and hospitality (AFS and AER).

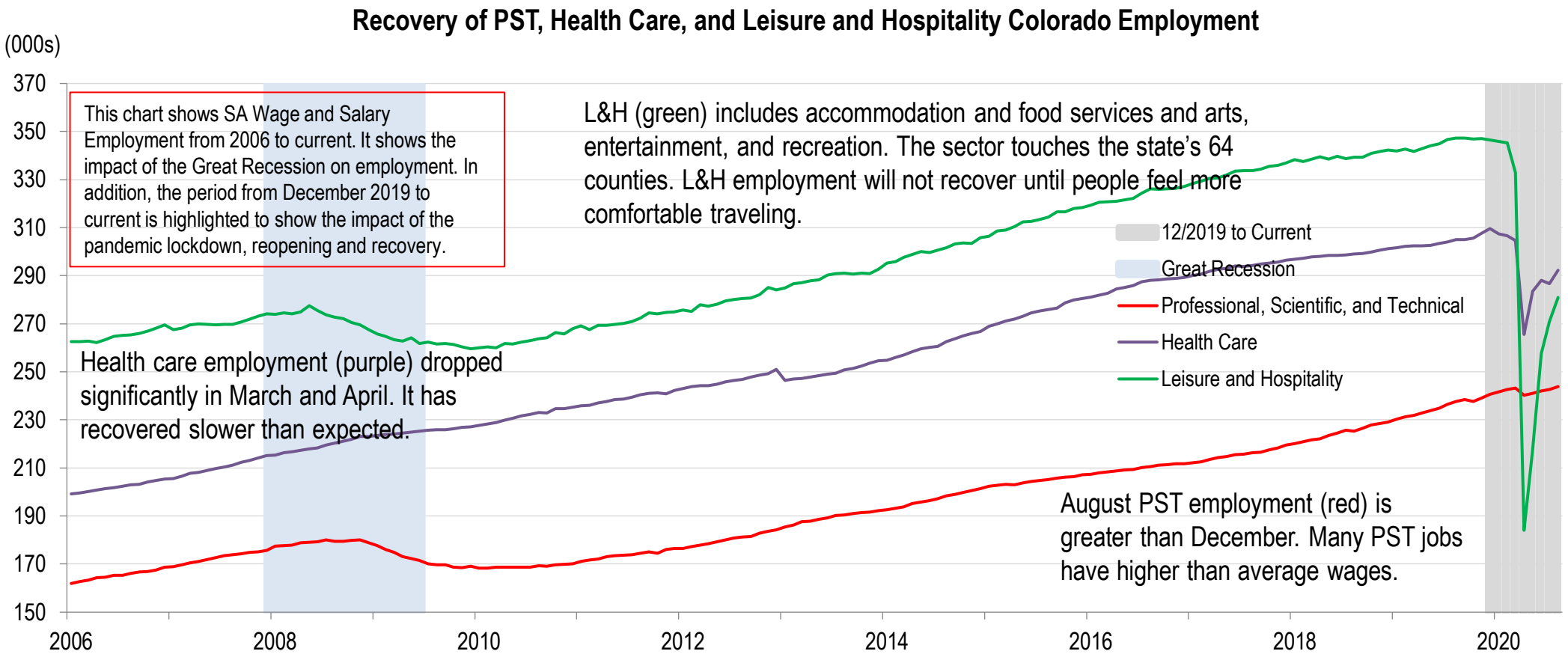
Recovery of Local Government and Retail Employment

Colorado (Large Sectors)



Source: BLS, cber.co.

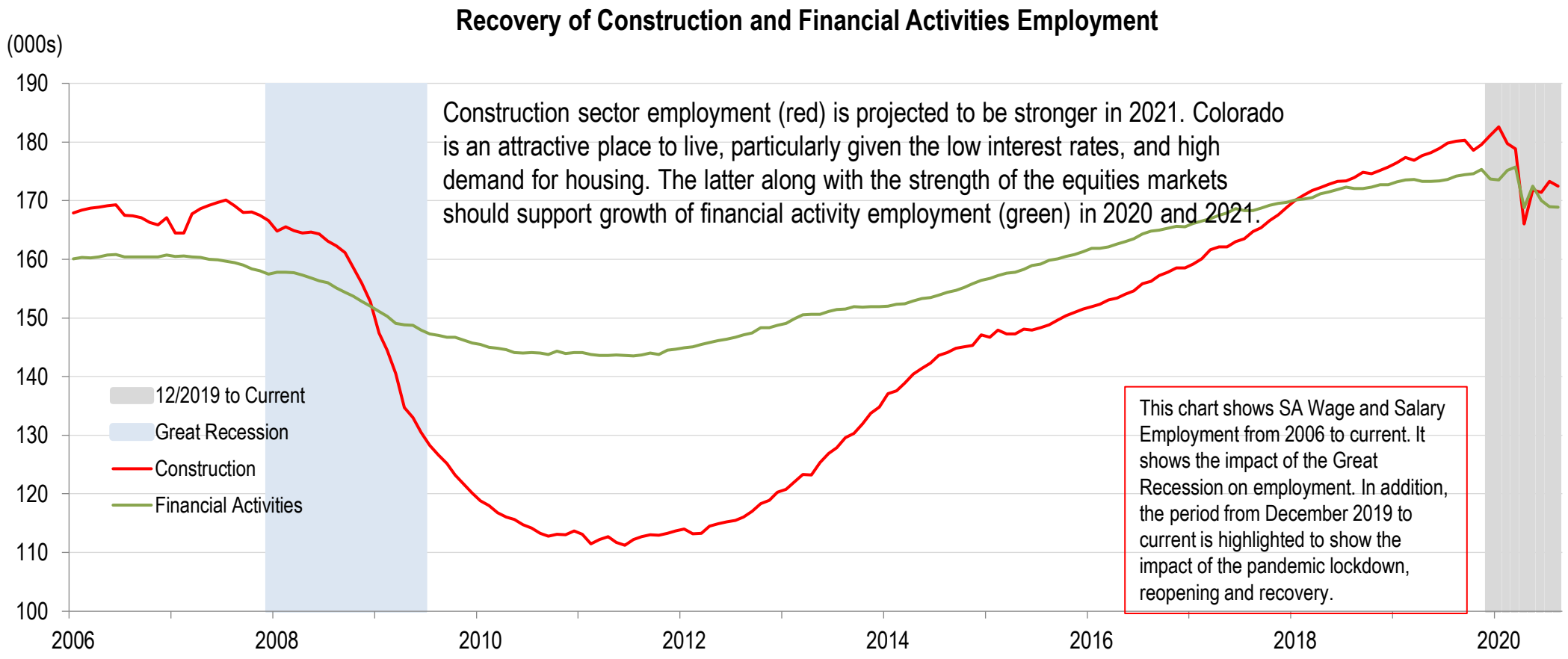
Recovery of PST, Health Care, and Leisure and Hospitality Employment
Colorado (Large Sectors)



Source: BLS, cber.co.

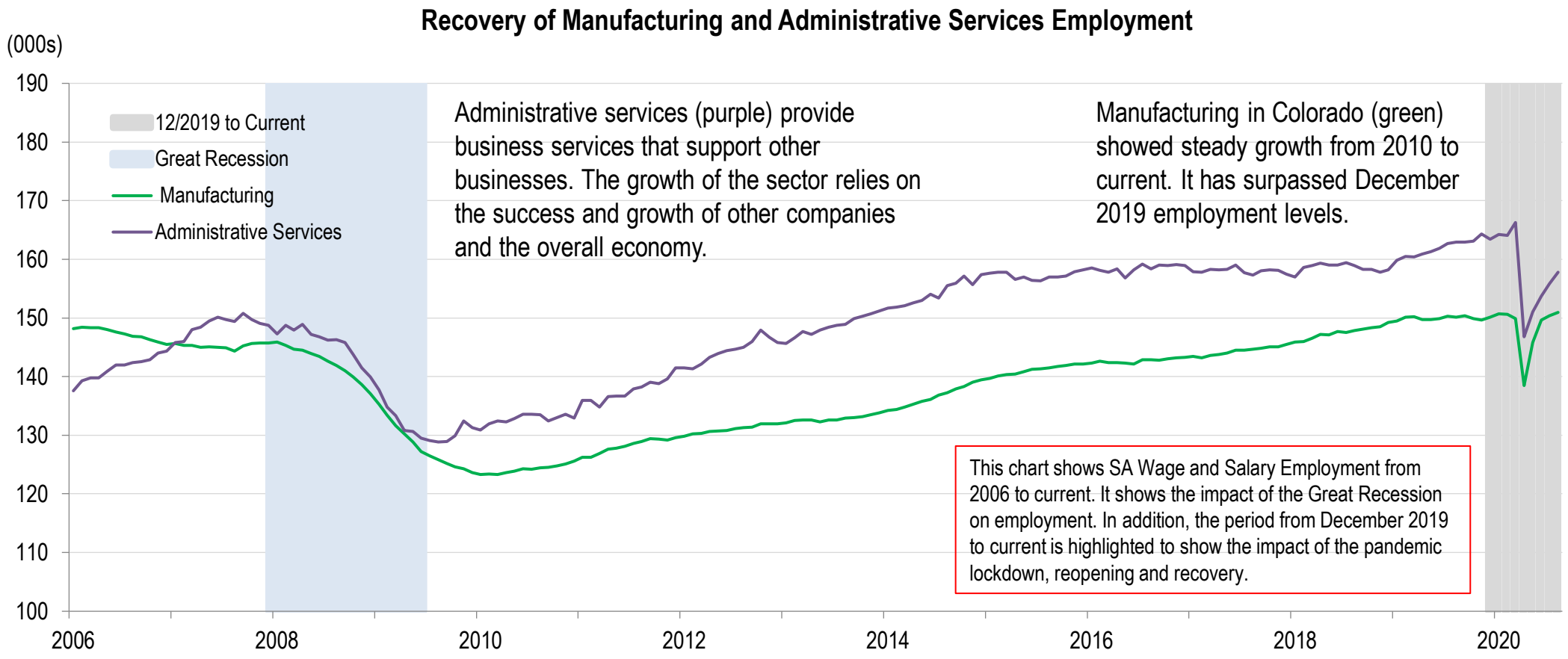
Recovery of Construction and Financial Activities Employment

Colorado (Medium/Large Sectors)



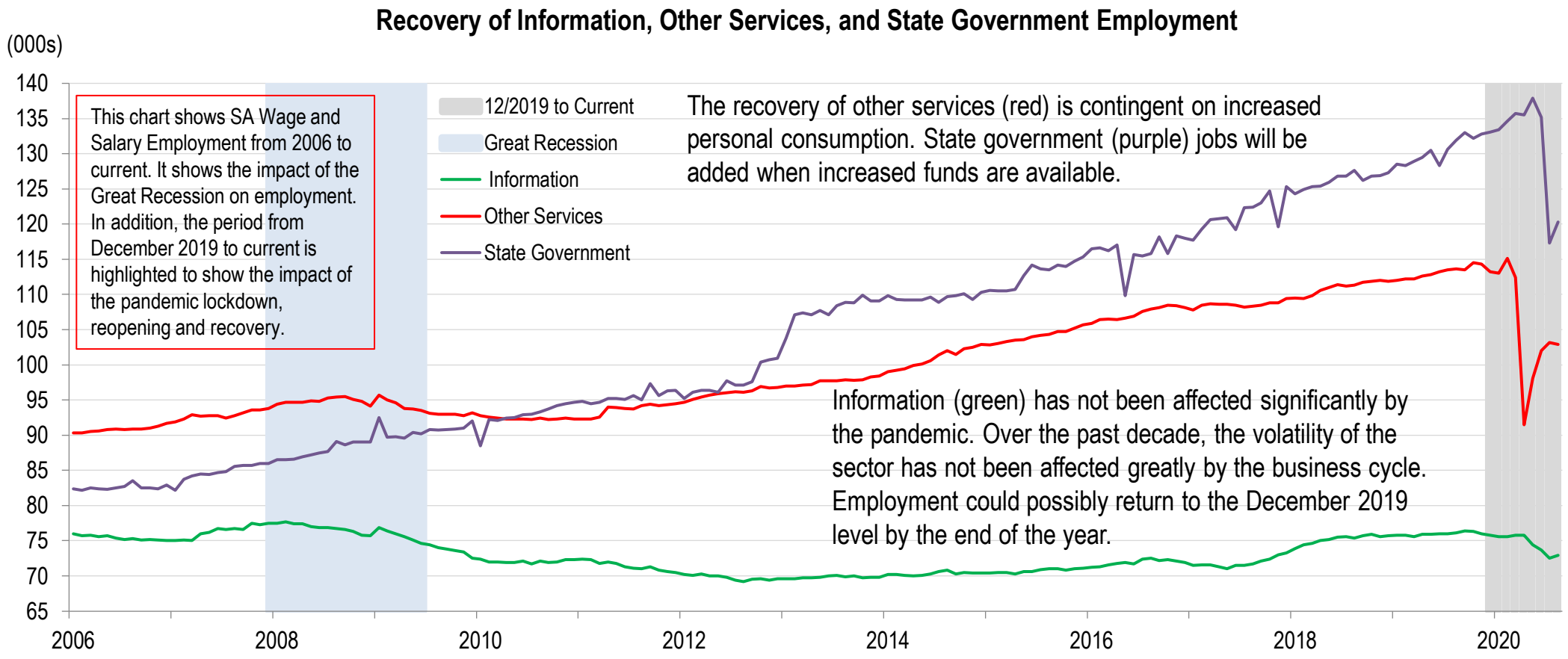
Source: BLS, cber.co.

Recovery of Manufacturing and Administrative Services Employment
Colorado (Medium/Large Sectors)



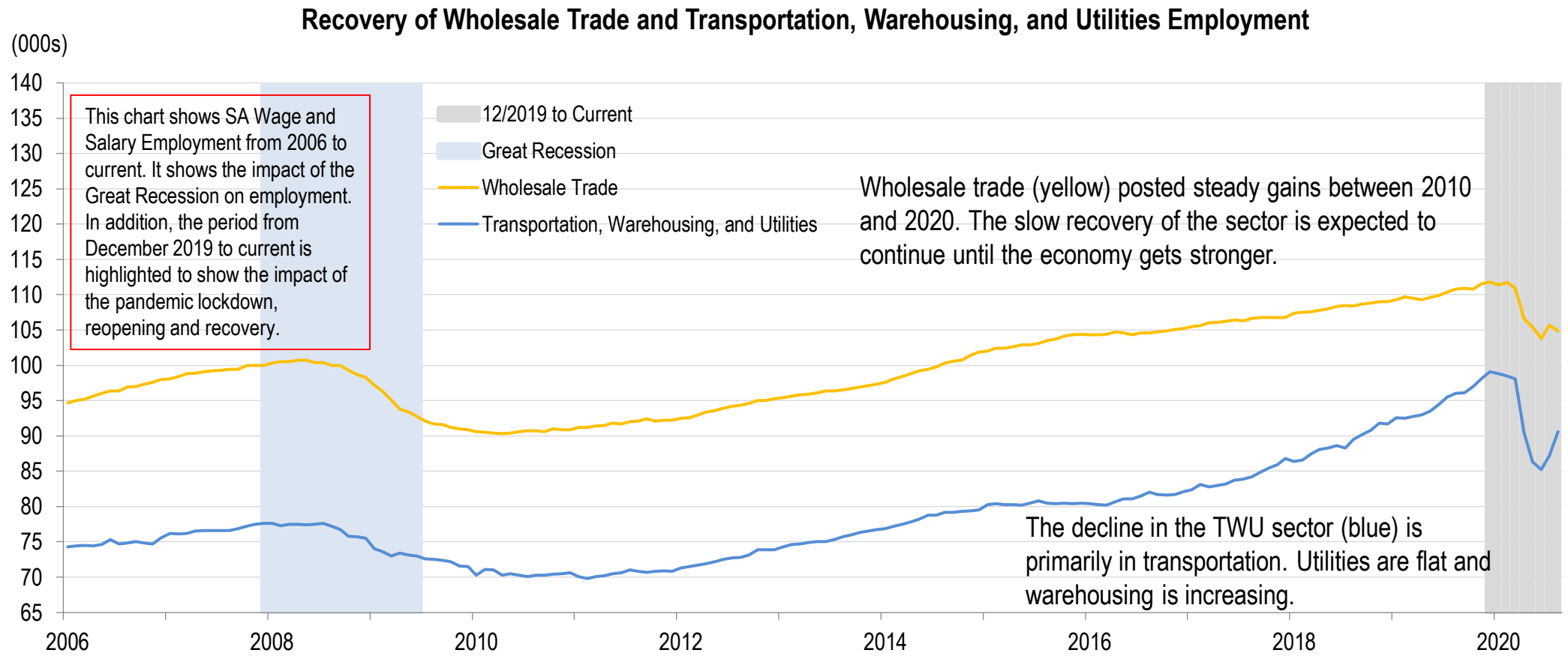
Source: BLS, cber.co.

Recovery of Information, Other Services, and State Government Employment Colorado (Medium Sectors)



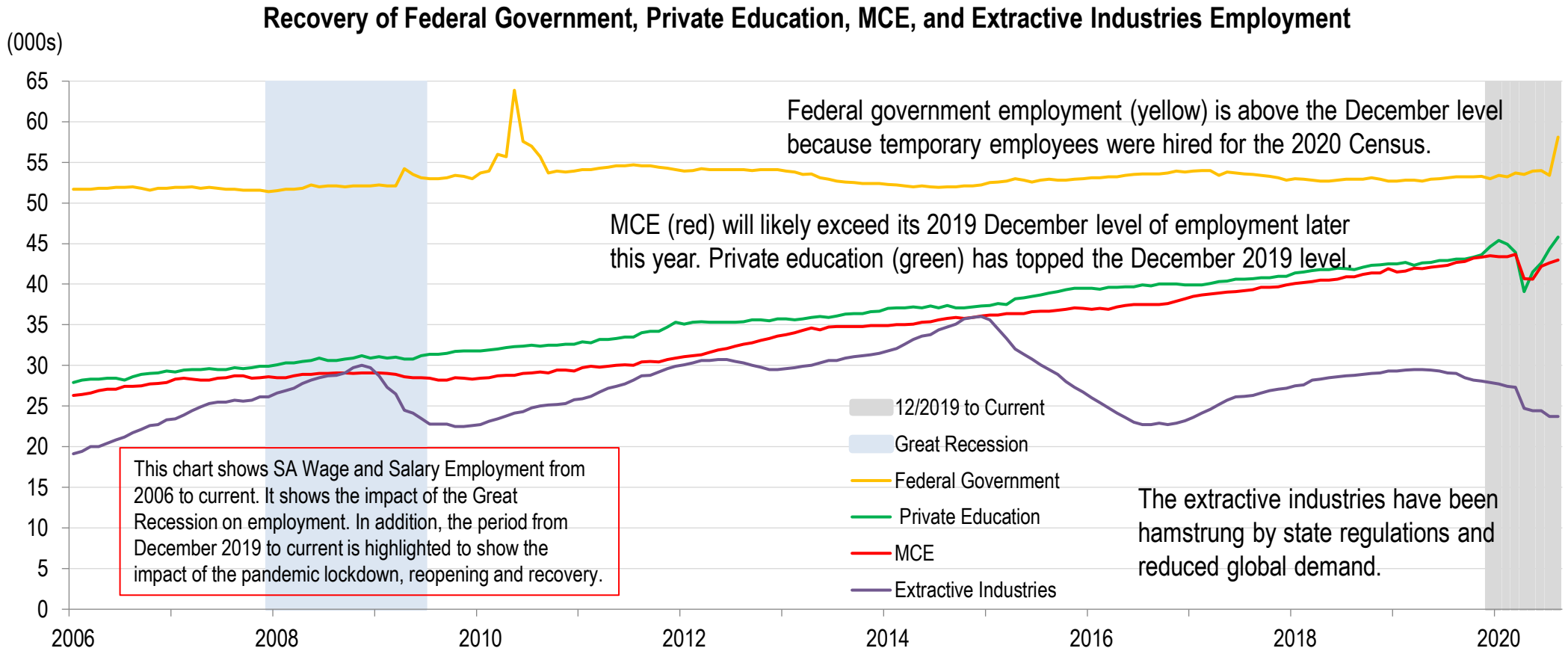
Source: BLS, cber.co.

Recovery of Wholesale Trade and TWU Employment
Colorado Medium Sectors



Source: BLS, cber.co.

Recovery of Federal Government, Private Education, Management of Corporations, and Extractive Industries Employment
Colorado (Small Sectors)



Source: BLS, cber.co.

Major Sentiment Indices

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

Key Points

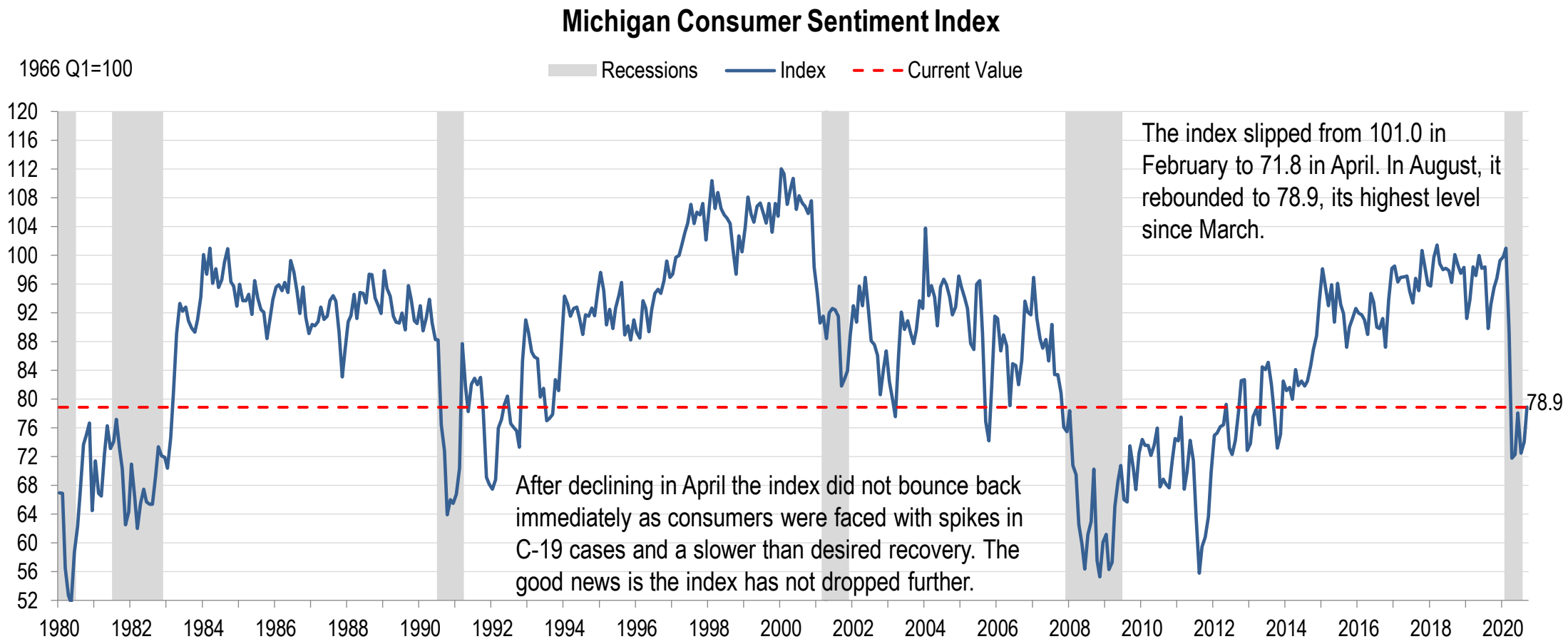
The Michigan Consumer Sentiment Index was flat in July and August but ticked upwards in September.

The Small Business Optimism Index decreased slightly in July on expectations of increased hiring. They remain cautiously optimistic.

Manufacturing and services purchasing managers are optimistic about the future and their industries are in expansionary territory.

Consumer Sentiment Index

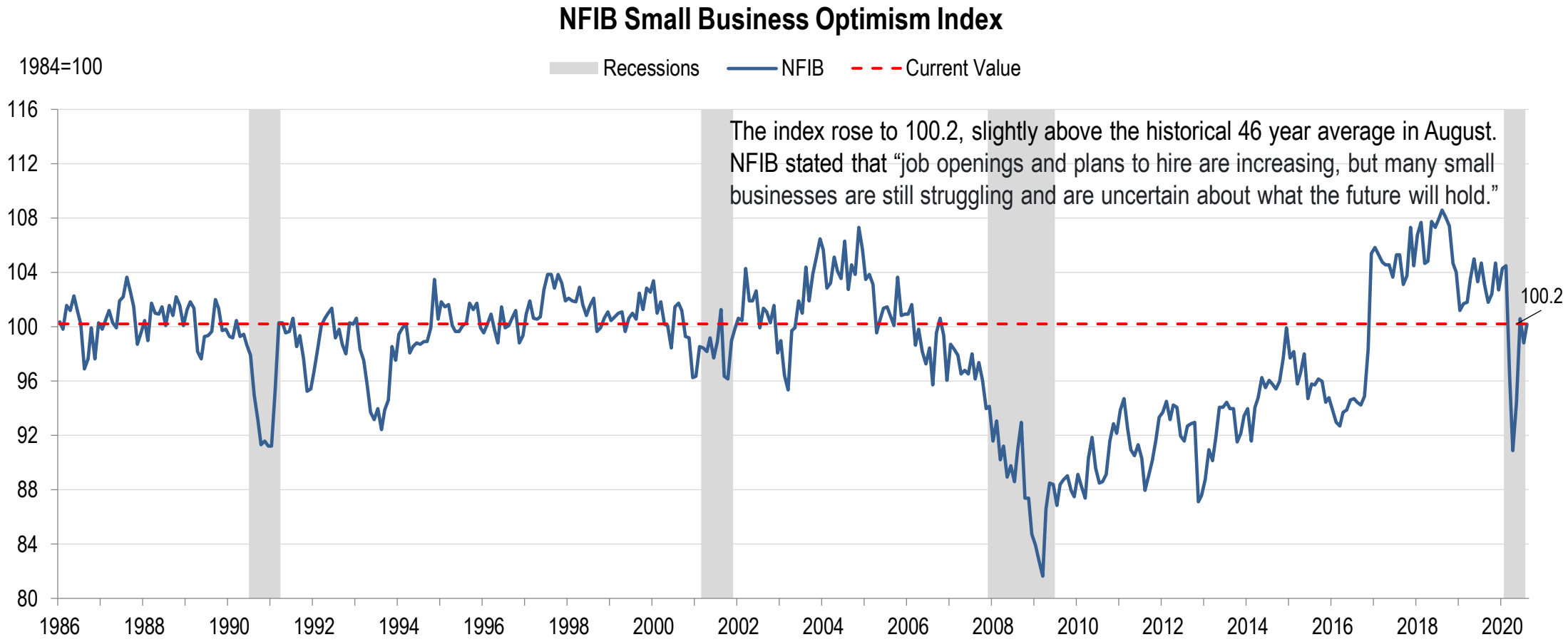
University of Michigan



Source: University of Michigan, cber.co.

NFIB Small Business Optimism Index

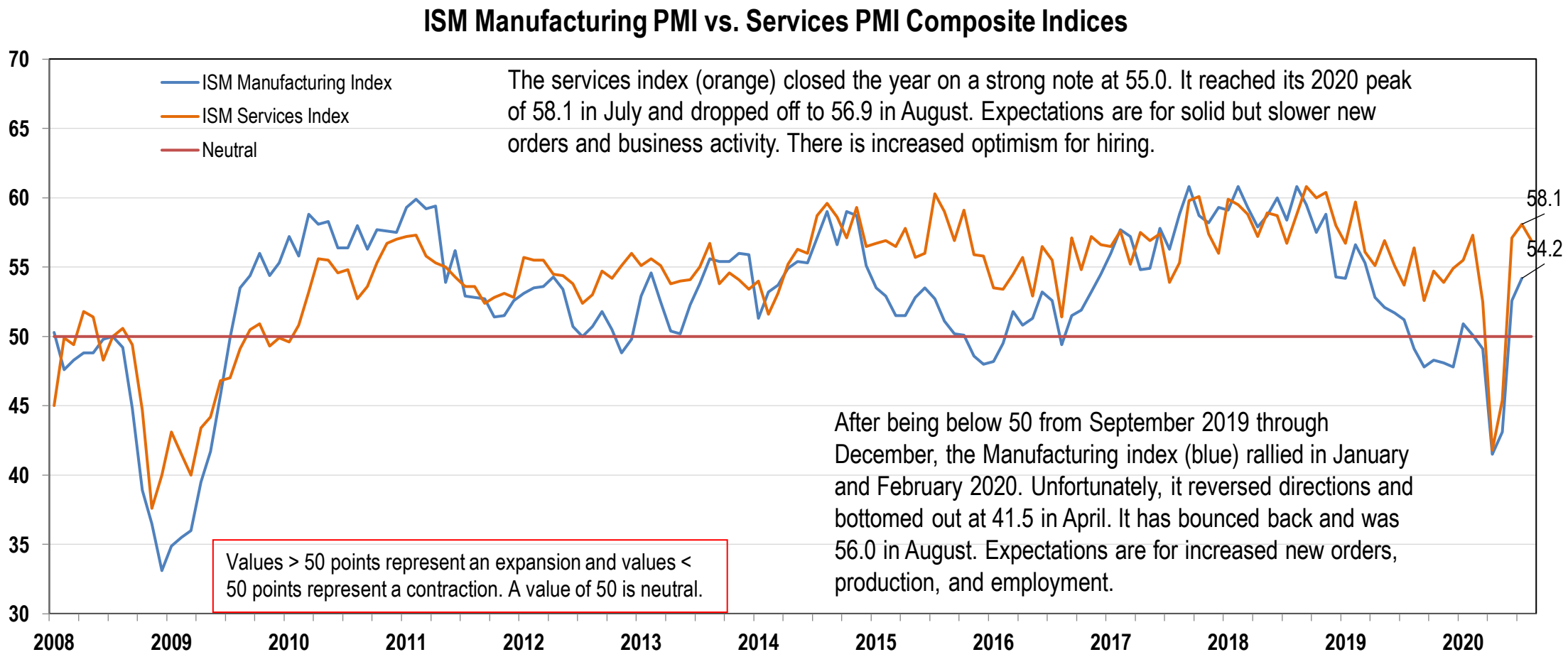
United States



Source: NFIB, cber.co.

ISM PMI Composite Indices

Manufacturing vs. Services



Source: Institute of Supply Management, cber.co

Production and Income

Industrial Production and Change in Real Disposable Personal Income

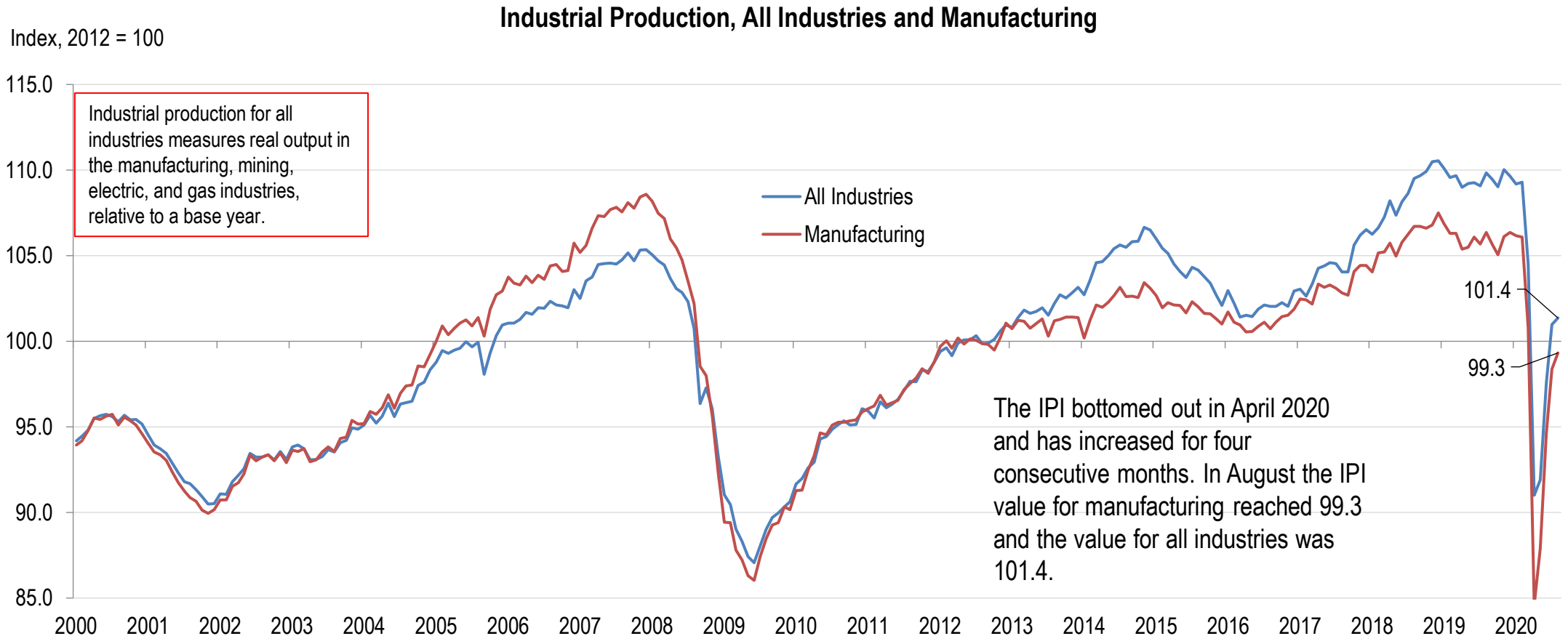
Key Points

Industrial production has rebounded as businesses have opened and the recovery process has continued.

Real disposable income (RDI) is greater than normal as a result of the federal relief programs that were developed in response to the C-19 lockdown. RDI will continue to decline as relief programs are ended.

Industrial Production Index

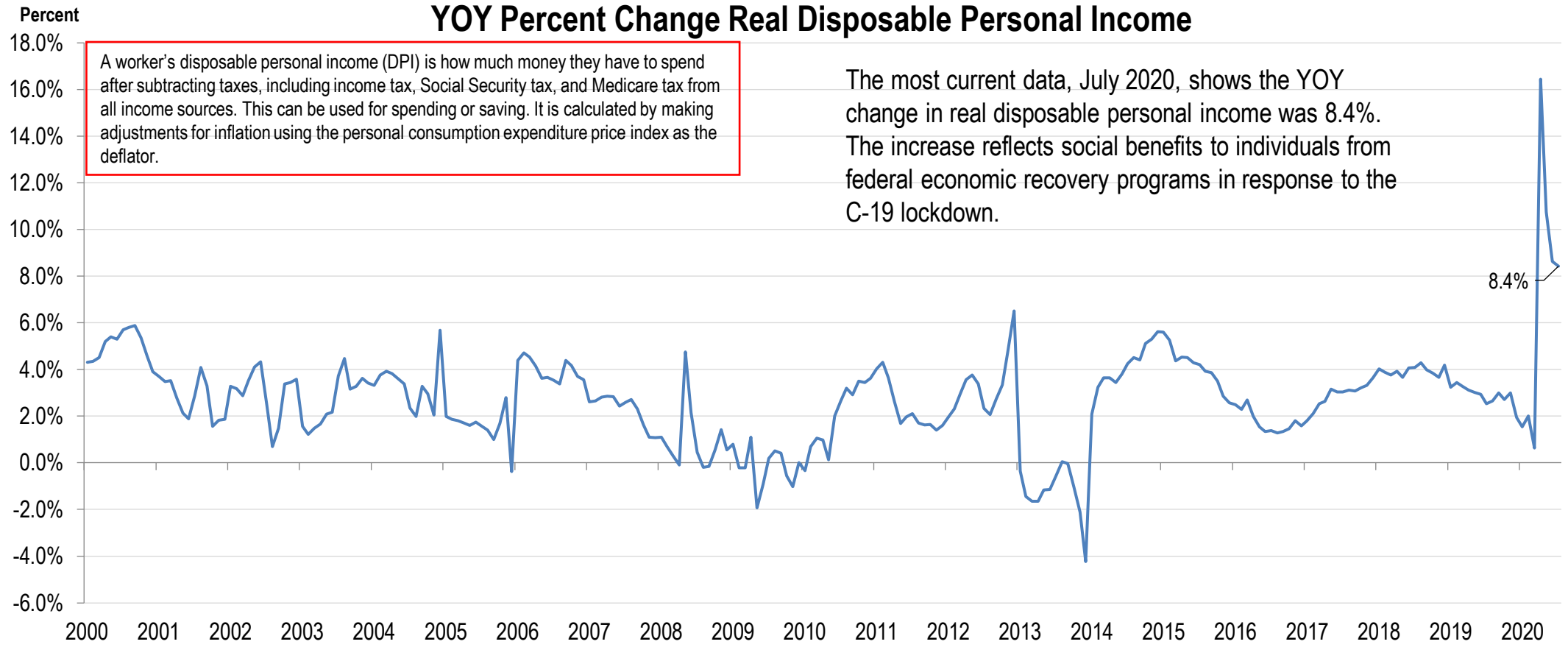
All Industries and Manufacturing



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

Real Disposable Personal Income

Percent Change Prior Year



Source: BEA, FRED, SA.

Other Industry Metrics

U.S. Light Truck and Auto Sales, Advanced Retail Sales, Colorado Retail Sales, and Denver International Airport (DIA) Passengers

Key Points

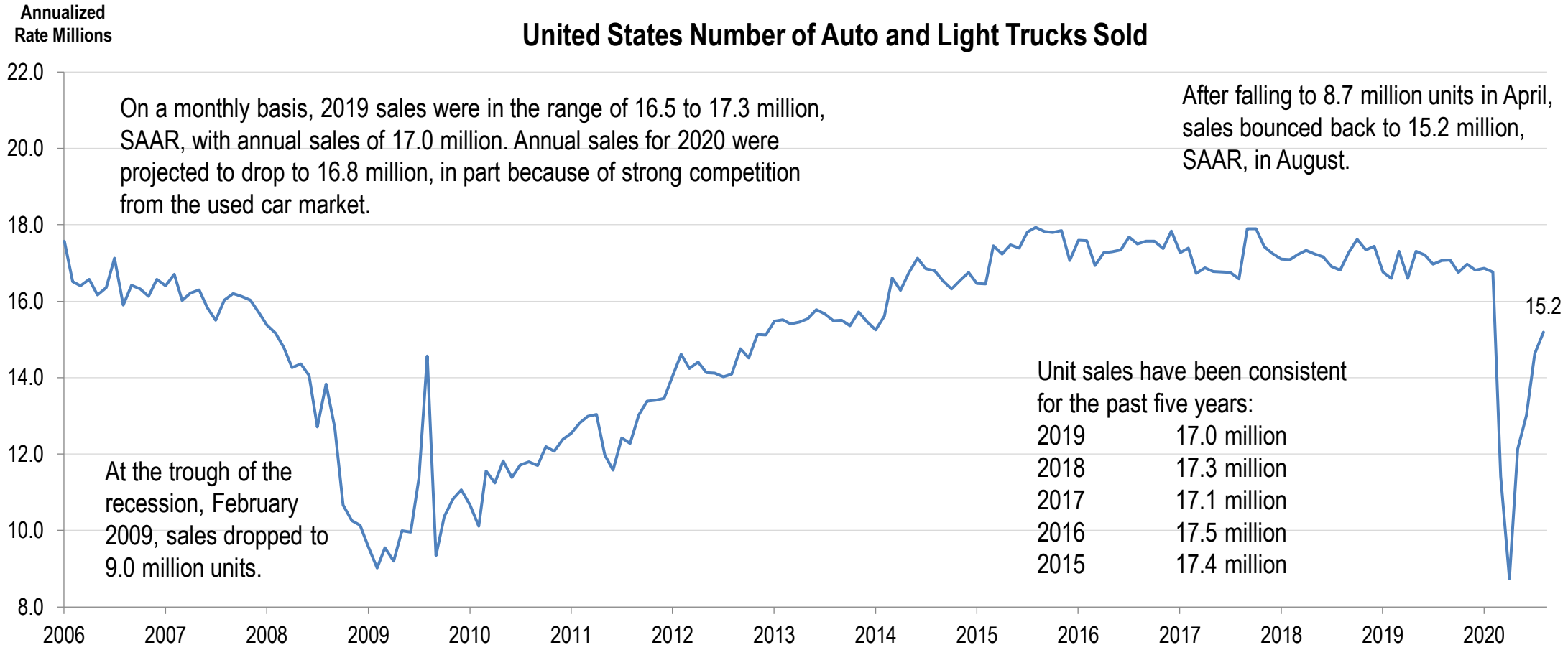
Auto and light truck sales have rebounded quicker than anticipated.

The retail industry has been evolving in ways that have impacted employment, the number of brick and mortar establishments, and e-commerce. The lockdown for C-19 has accelerated some of those trends. Sales rebounded quickly in Q2 2020, in part because of the federal support programs. Additional assistance may be necessary to stimulate consumption in Q4.

The sharp decline and slow recovery of passengers at DIA is an indication that Americans are not comfortable traveling, especially on airplanes. The economy will not fully recover until that confidence is regained.

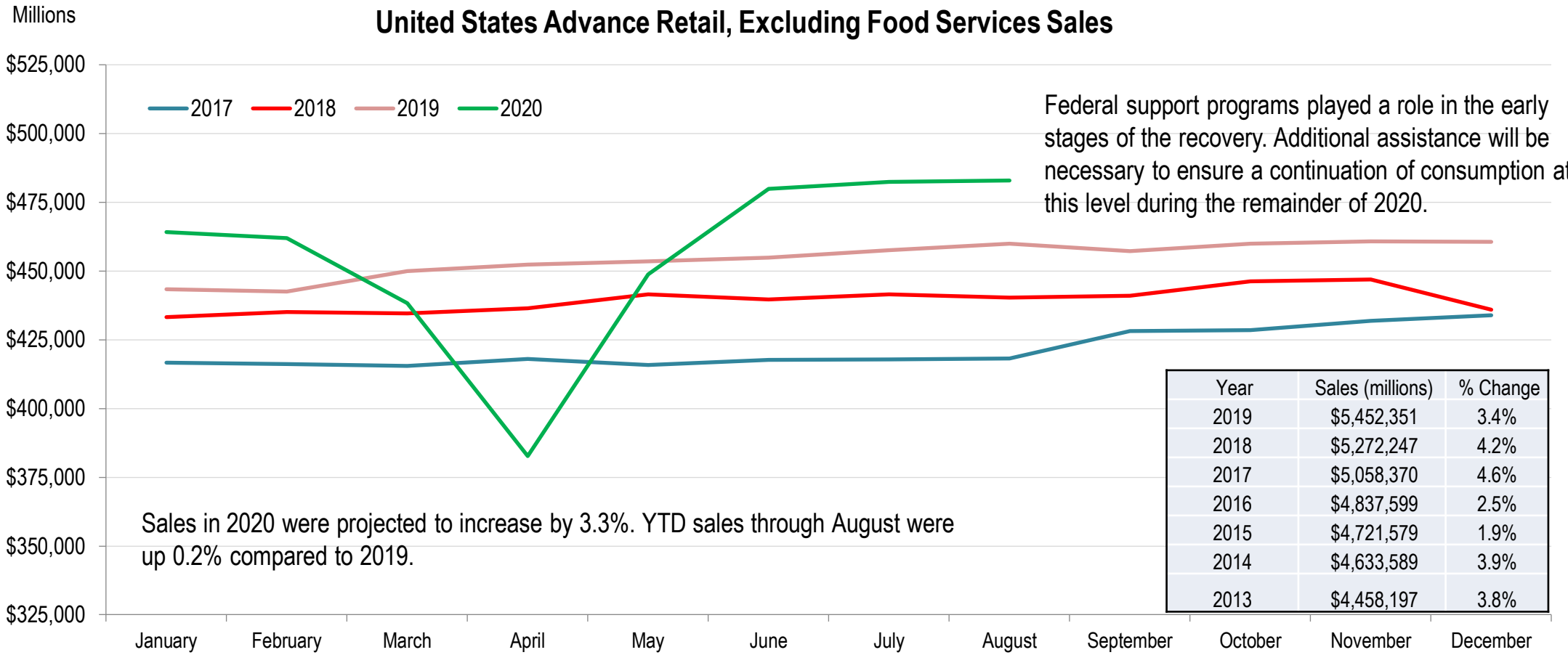
U.S. Auto and Light Truck (ALT) Sales

Monthly (Annualized Rate Millions)



Source: FRED, Federal Reserve Bank of St. Louis, Seasonally Adjusted Annualized Rates (SAAR), cber.co.

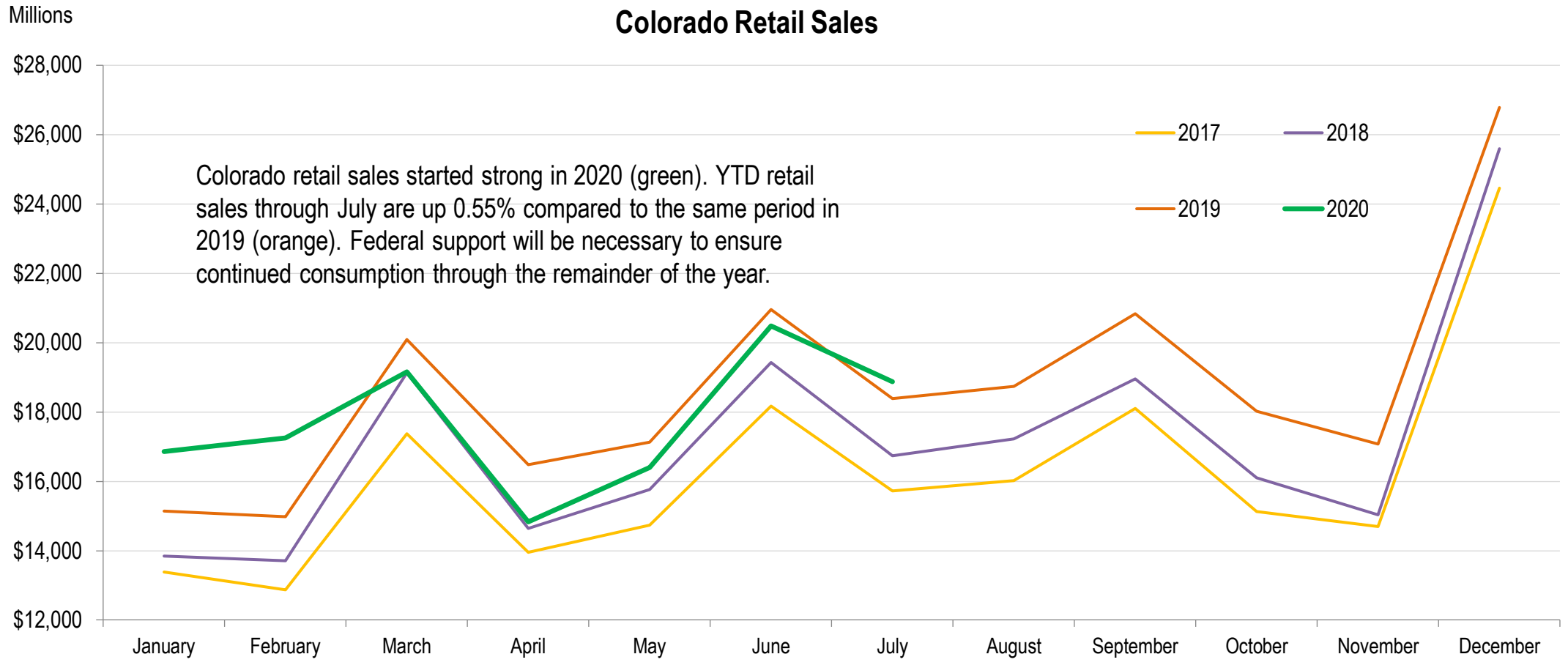
Advance Retail, Excluding Food Services Sales
Monthly



Year	Sales (millions)	% Change
2019	$5,452,351	3.4%
2018	$5,272,247	4.2%
2017	$5,058,370	4.6%
2016	$4,837,599	2.5%
2015	$4,721,579	1.9%
2014	$4,633,589	3.9%
2013	$4,458,197	3.8%

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

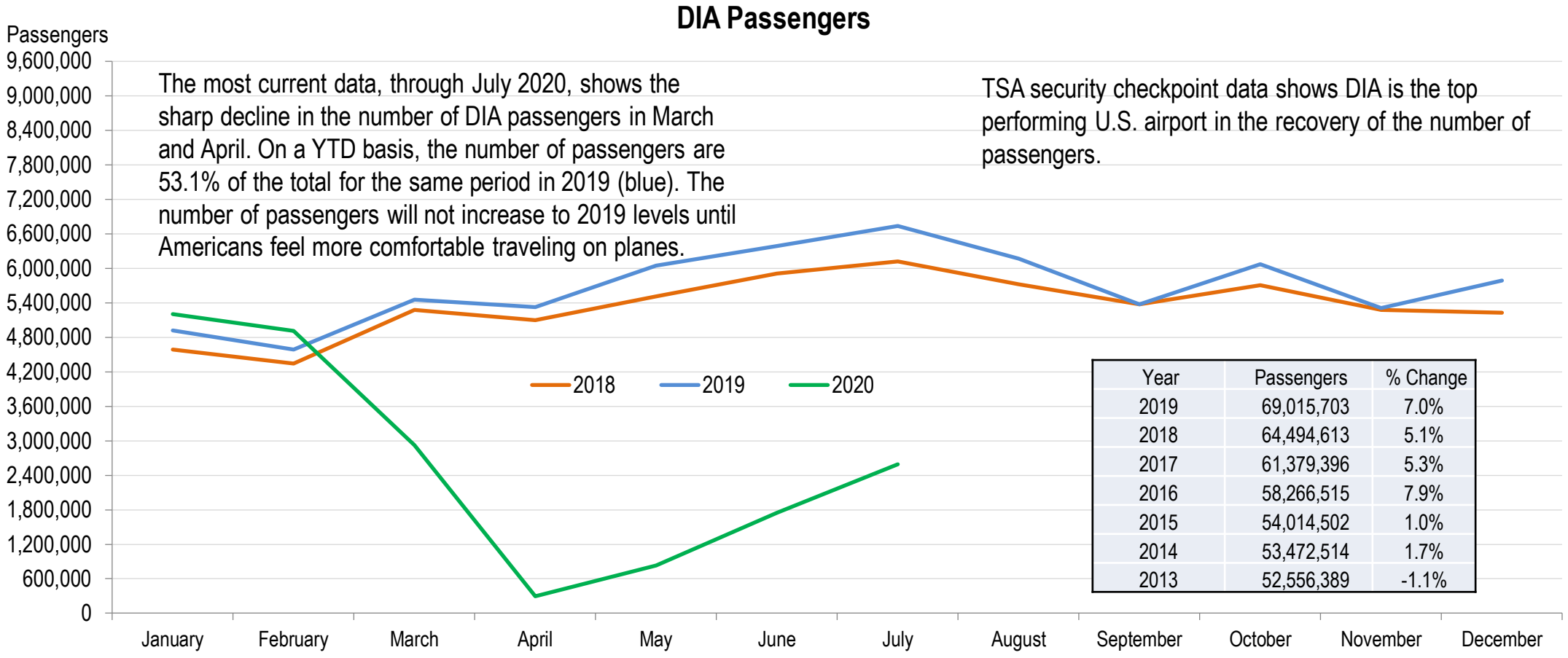
Colorado Retail Sales
Monthly



Source: Colorado Department of Revenue, cber.co. Note: Not adjusted for inflation.

Denver International Airport Passengers

Monthly



The most current data, through July 2020, shows the sharp decline in the number of DIA passengers in March and April. On a YTD basis, the number of passengers are 53.1% of the total for the same period in 2019 (blue). The number of passengers will not increase to 2019 levels until Americans feel more comfortable traveling on planes.

TSA security checkpoint data shows DIA is the top performing U.S. airport in the recovery of the number of passengers.

Year	Passengers	% Change
2019	69,015,703	7.0%
2018	64,494,613	5.1%
2017	61,379,396	5.3%
2016	58,266,515	7.9%
2015	54,014,502	1.0%
2014	53,472,514	1.7%
2013	52,556,389	-1.1%

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

Other Key Metrics

S&P 500 Index, WTI Crude Oil Prices and Colorado Oil Production

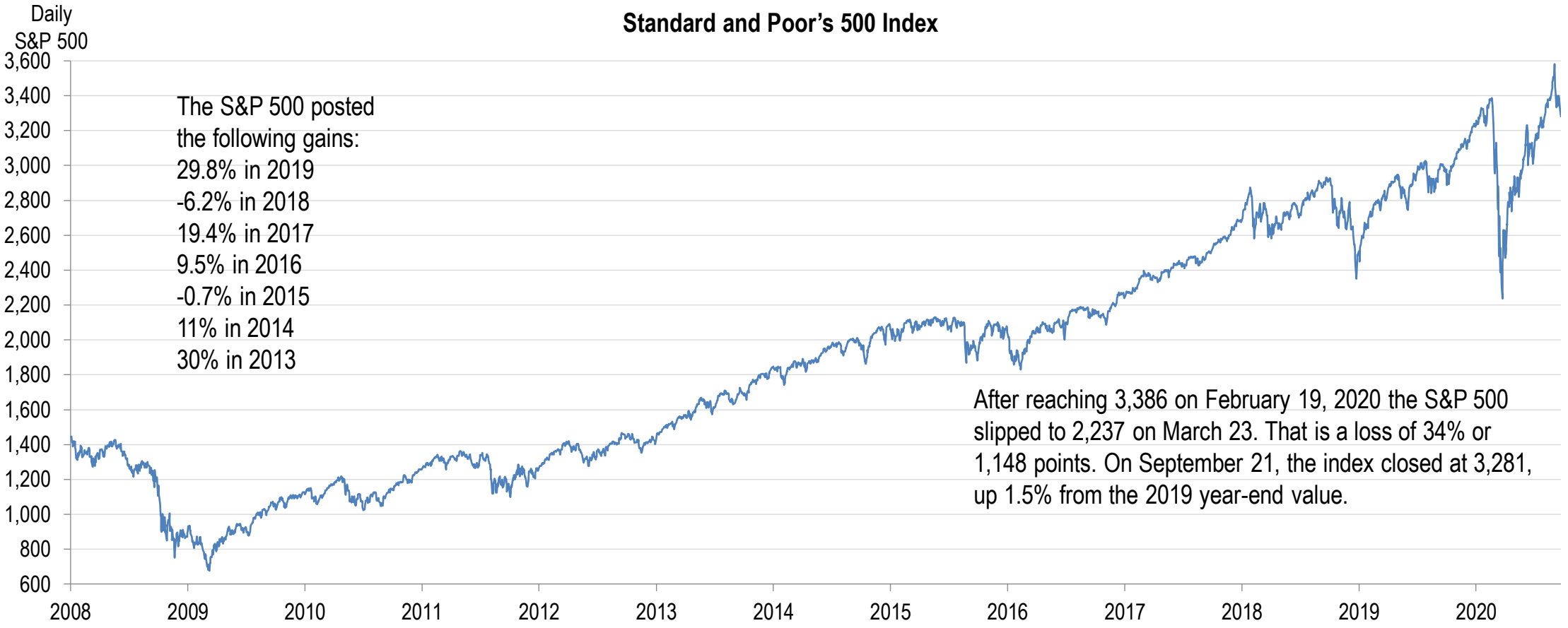
Key Points

The S&P Index fell 34% in February and March. It has rebounded and is 1.5% above the December 31 closing level.

The lower demand for oil has played havoc with the price of oil, although the price has been in the upper thirties and lower $40 per barrel through the second half of the summer.

The level of oil production in Colorado and other states has declined in 2020. Within the past year, the industry has been negatively impacted by state regulations.

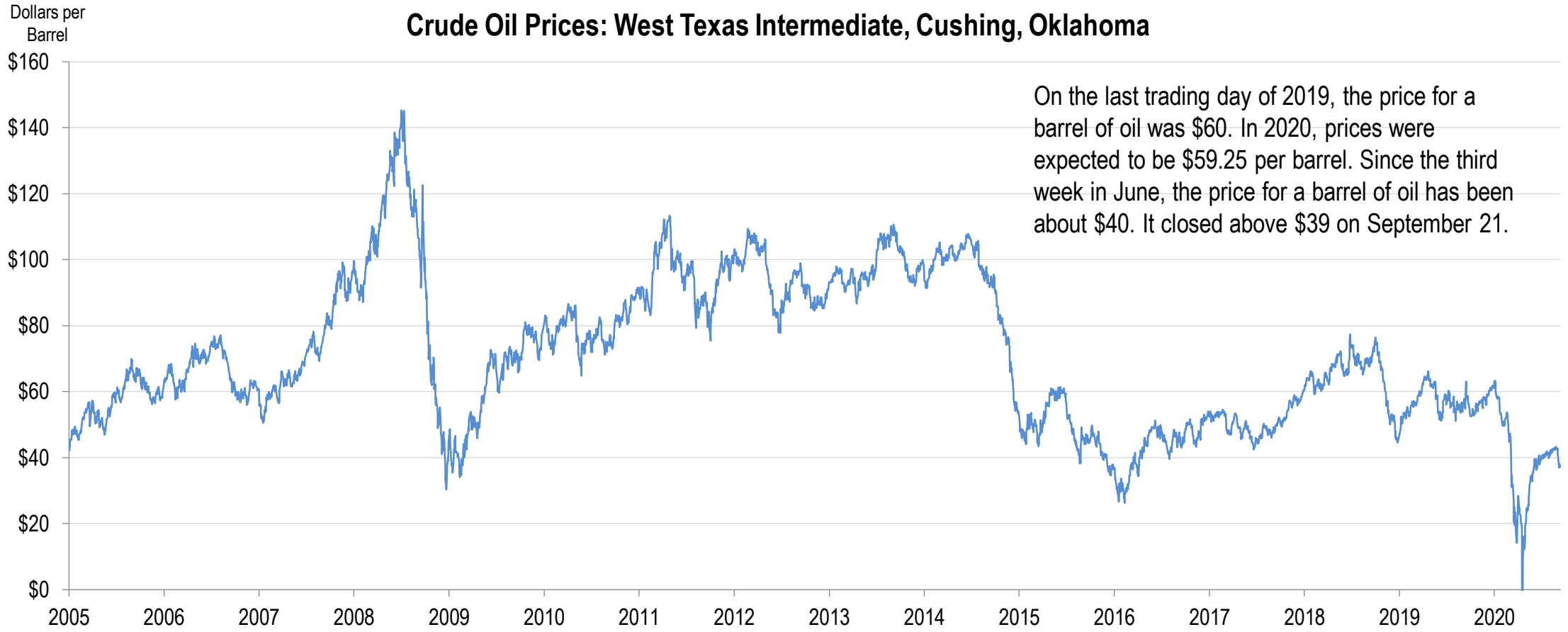
Standard and Poor's 500 Index



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

Crude Oil Prices

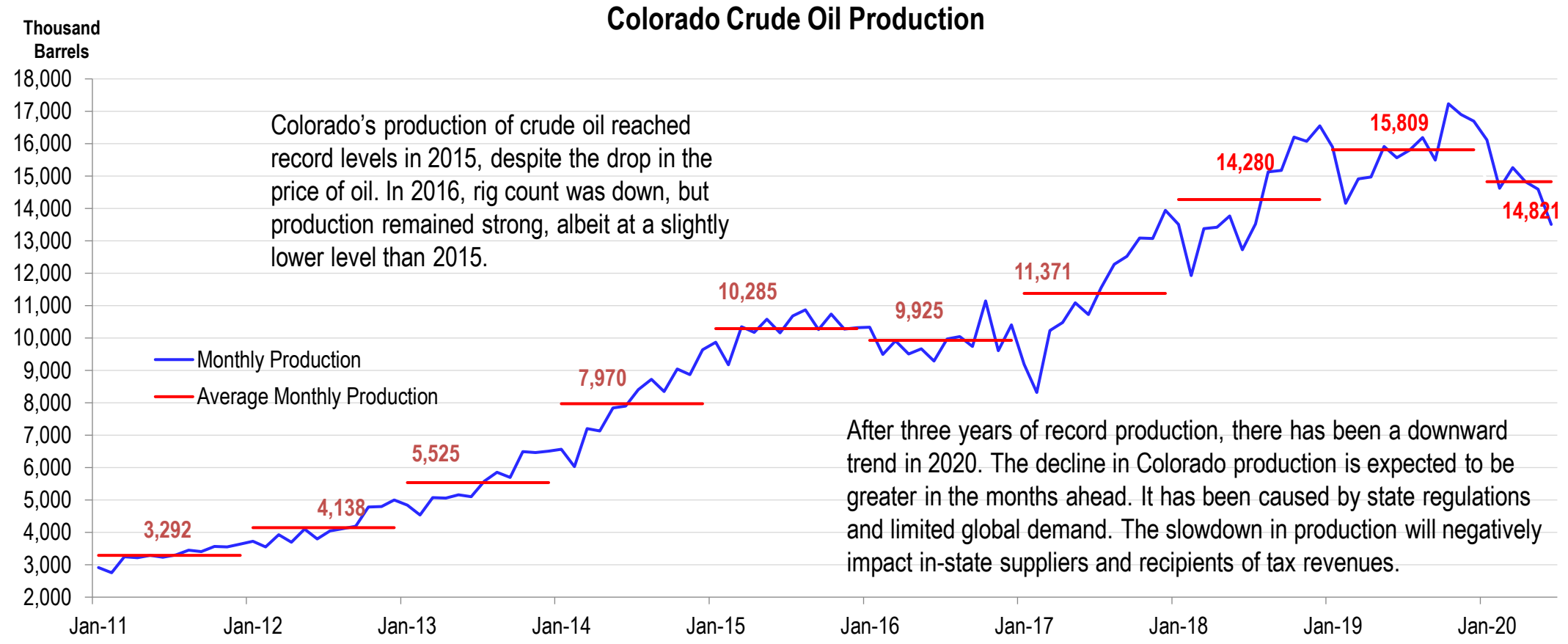
West Texas Intermediate



Source: FRED, EIA, cber.co.

Colorado Field Production of Crude Oil

2011 to 2020 (Thousand Barrels)



Source: EIA, cber.co.

Summary

Key Points

The United States and Colorado have transitioned unevenly from lockdown to reopening because of differences in policies, leadership, resources, number of C-19 cases, and industry mix. Colorado is currently ranked in the middle of all states for employment recovery.

Reasons to be Optimistic

- Only ten states have double digit unemployment rates. Three states have rates of 5.0% or less.
- The elections, and associated chaos, will be over soon.
- National indices for small businesses, consumers, manufacturers, and non-manufacturers are optimistic.
- In Colorado, employment in sectors with higher wages is closer to recovery than midrange or low wage sectors.
- Colorado August employment for the PST, federal government, private education, and manufacturing sector is greater than the December 2019 level.
- Some Colorado sectors are experiencing challenges finding qualified workers, specifically construction. In addition, Amazon is offering a sign-on bonus for jobs that pay $15 to $16 per hour.

Reasons for Concern

- The high unemployment rates in major cities, such as LA, NYC, Detroit, Boston, and Chicago, will slow the recovery of the overall U.S. economy.
- In Q4 the overall economy may experience a slowdown caused by high unemployment rates and high C-19 rates.
- Transportation is a bellwether sector, particularly air transportation. It measures the confidence consumers have in traveling, particularly on planes. That level of confidence is weak but improving. DIA is considered one of the top performing airports in the country.
- Funding for state and local government and education will be shaky.
- In Colorado, the following sectors will be a drag on the recovery: leisure and hospitality, extractive industries, other services, and administrative services.

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Review of Colorado and United States Economy
Based on August Employment Data

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.
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ACKNOWLEDGEMENTS
A special thank you to Ana and Allyson Horvath for the review and comments of this publication.

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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.