Review of Colorado and United States Economy

Based on July Employment Data

cber.co
Colorado-based Business and Economic Research
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Overview

The U.S. and Colorado economies have transitioned from the lockdown in March and April to the reopening and recovery in May, June, and July.

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.

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

The recovery is slower than desired, but faster than anticipated. U.S. employment for July is 91.8% of December 2019. Colorado employment for July was 92.6% of December.

Professional and technical services (PTS), 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.

GDP and Labor Data

- Real GDP Forecast -- United States
- Initial and Continuing 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 and by State – 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 will be a severe decline in real GDP in Q2 2000 followed by a strong rate of growth in Q3 and weak growth in Q4.

Annual real GDP rate for 2020 will be -4.9% and personal consumption will be -5.6%.

Annual real GDP rate for 2021 will be 2.0% with personal consumption of 2.6%.

U.S. Real GDP Growth

The Conference Board Forecast

2020

The Conference Board August 13 base scenario forecast projects a decline in real GDP of 32.9% in Q2 2020 followed by an increase of about 26.1% in Q3. The forecast for personal consumption was similar. The forecasts for Q2 and Q3 were upgraded slightly, while the forecast for Q4 was lowered. Real GDP growth for 2020 will be -4.9% with personal consumption of -5.6%. These annual forecasts reflected upgrades over the July 8 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 2.0% and personal consumption will be 2.6%. At this point, the major economic concerns for Q4 2020 and early 2021 are the damage that will be done by high unemployment rates.

Conference Board 2020 US Real GDP Growth Forecast (July 8, 2020)

	Q1 2020	Q2 2020	Q3 2020	Q4 2020	2018	2019	2020	2021
Real GDP	- 5.0%	- 32.9%	26.1%	-1.6%	2.9%	2.2%	- 4.9%	2.0%
Personal Consumption	- 6.9%	- 34.6%	27.8%	-0.5%	3.0%	2.4%	- 5.6%	2.6%
Residential Investment	19.0%	- 38.7%	8.0%	1.0%	-1.5%	-1.7%	- 2.2%	0.7%
Real Capital Spending	- 6.7%.	- 27.0%	-8.9%	0.6%	6.4%	2.19	- 8.2%	-0.7%
Exports	- 9.5%	- 64.1%	25.0%	5.0%	3.0%	-0.1%	- 16.2%	-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 Continuing Claims

United States and Colorado

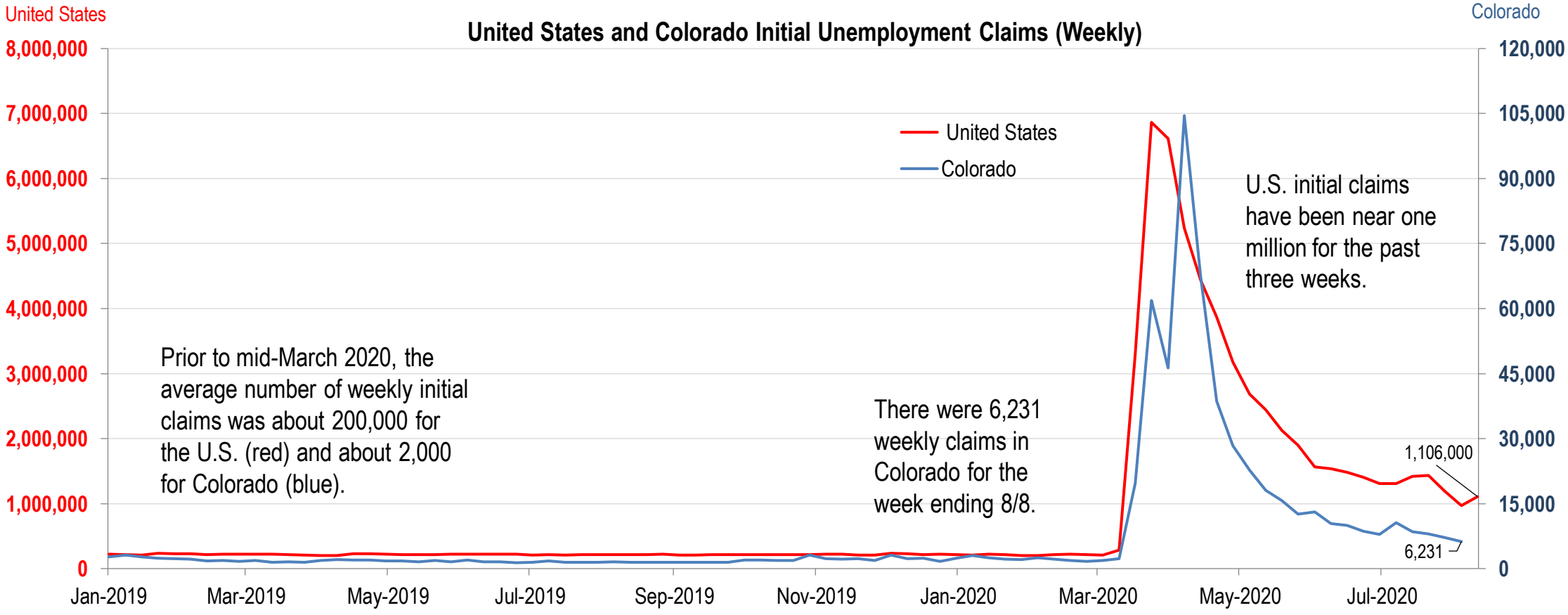
Key Points

After rising quickly in March and April, the number of initial and continuing claims has declined as the economy transitioned from the lockdown phase to the reopening phase to recovery. Obviously, more people are returning to work.

The number of initial and continuing claims must return to pre-pandemic levels to allow a full recovery of the economy.

Initial Unemployment Claims (Weekly)

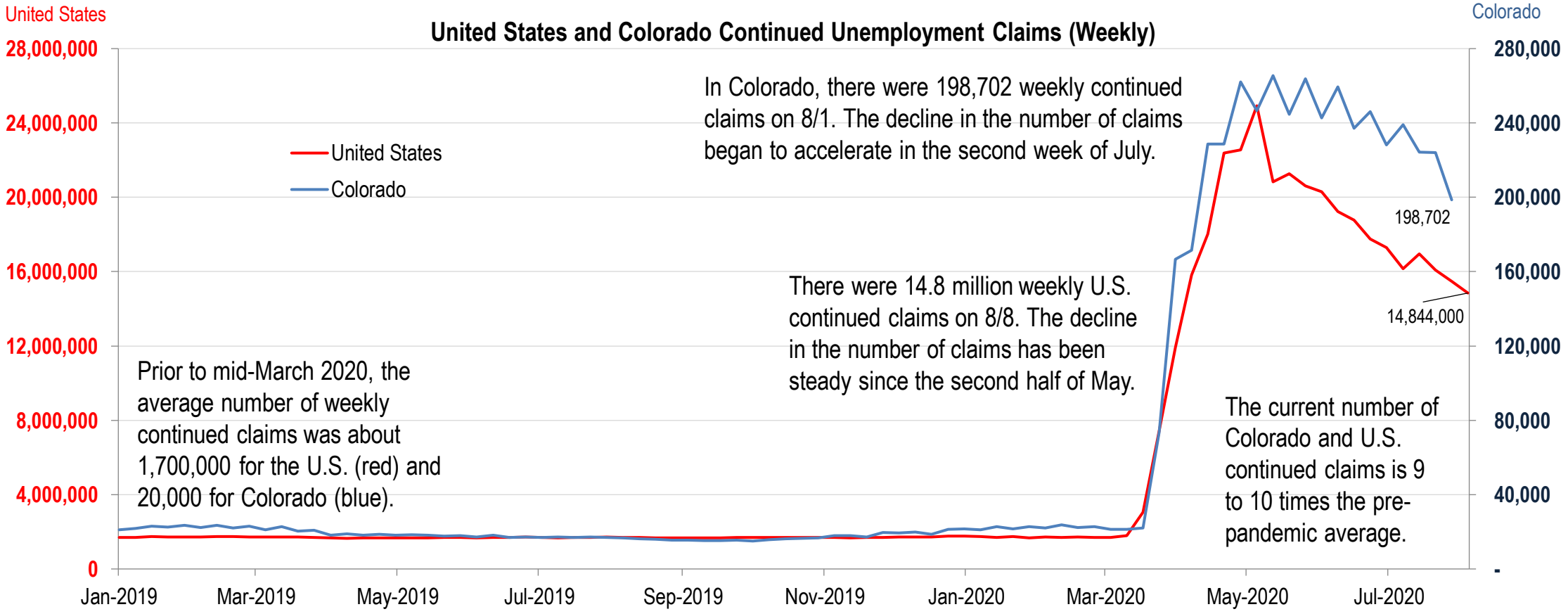
United States And Colorado 2019 to Current



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

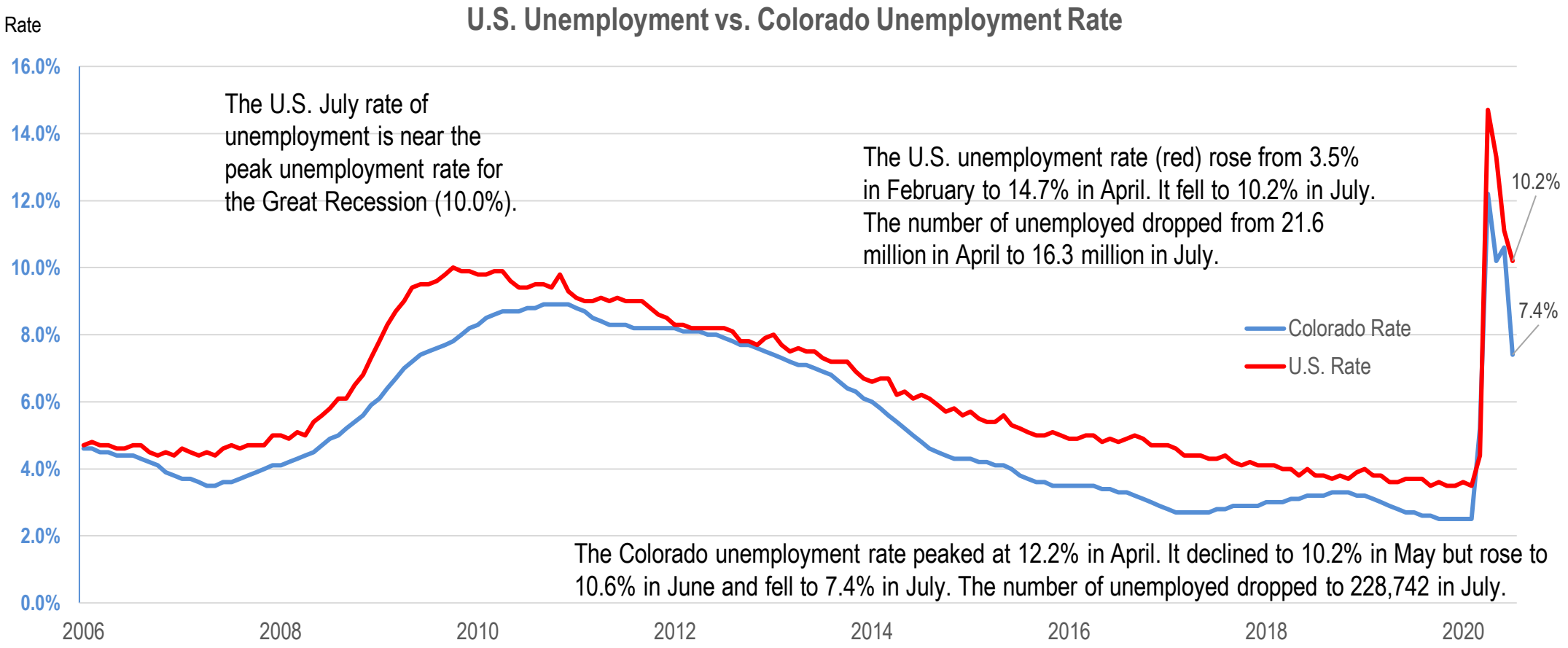
In July, the U.S. unemployment rate continued to drop. The rate declined in 30 states, was greater in 9 states, and was stable in 11 states and D.C. The Colorado rate declined significantly, although it is likely to be revised at some point.

Thirty-two states and the District of Columbia currently have single digit unemployment rates.

The U.S. and Colorado labor force participation rates decreased slightly in July.

The number of unemployed far exceeds the number of job openings.

U.S. and Colorado Unemployment Rate



Source: Bureau of Labor Statistics and cber.co.

Unemployment Rates by States

July 2020

Unemployment Rate < 7.7%

Rank	State	July
1	Utah	4.5%
2	Nebraska	4.8%
3	Idaho	5.0%
4	Kentucky	5.7%
5	South Dakota	6.3%
6	Montana	6.4%
7	Iowa	6.6%
8	North Dakota	6.6%
9	Missouri	6.9%
10	Wisconsin	7.0%
11	Arkansas	7.1%
12	Oklahoma	7.1%
13	Wyoming	7.1%
14	Kansas	7.2%
15	Colorado	7.4%
16	Georgia	7.6%
17	Maryland	7.6%

Unemployment Rate Between 7.7% and 10.1%

Rank	State	July
18	Minnesota	7.7%
19	Indiana	7.8%
20	Alabama	7.9%
21	Texas	8.0%
22	Virginia	8.0%
23	New Hampshire	8.1%
24	Vermont	8.3%
25	District of Columbia	8.4%
26	North Carolina	8.5%
27	South Carolina	8.6%
28	Michigan	8.7%
29	Ohio	8.9%
30	Louisiana	9.4%
31	Tennessee	9.5%
32	Maine	9.9%
33	West Virginia	9.9%

In July, the U.S. unemployment rate dropped to 10.2%. Thirty-two states and the District of Columbia (DC) had unemployment rates less than 10.2% (green).

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

About 19% of the U.S. labor force is located in the 17 states with unemployment rates less than 7.7% (column 1).

About 33% of the U.S. labor force is located in the 15 states and the District of Columbia with unemployment rates between 7.7% and 10.1% (column 2).

About 48% of the U.S. labor force is located in the 18 states with unemployment rates of 10.2% or greater (column 3).

Unemployment Rate is 10.2% or Greater

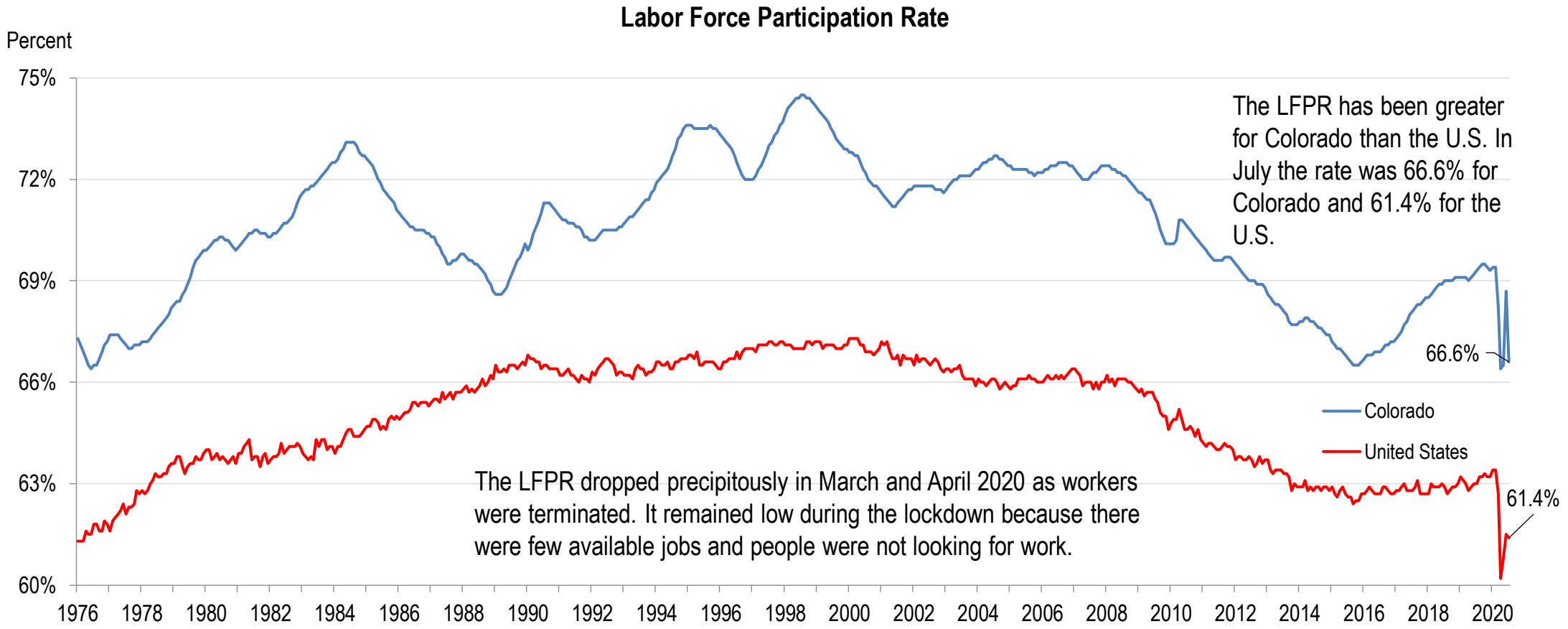
Rank	State	July
34	Connecticut	10.2%
35	Washington	10.3%
36	Delaware	10.4%
37	Oregon	10.4%
38	Arizona	10.6%
39	Mississippi	10.8%
40	Rhode Island	11.2%
41	Florida	11.3%
42	Illinois	11.3%
43	Alaska	11.6%
44	New Mexico	12.7%
45	Hawaii	13.1%
46	California	13.3%
47	Pennsylvania	13.7%
48	New Jersey	13.8%
49	Nevada	14.0%
50	New York	15.9%
51	Massachusetts	16.1%

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.

Source: Bureau of Labor Statistics, cber.co.

Labor Force Participation Rate (LFPR)

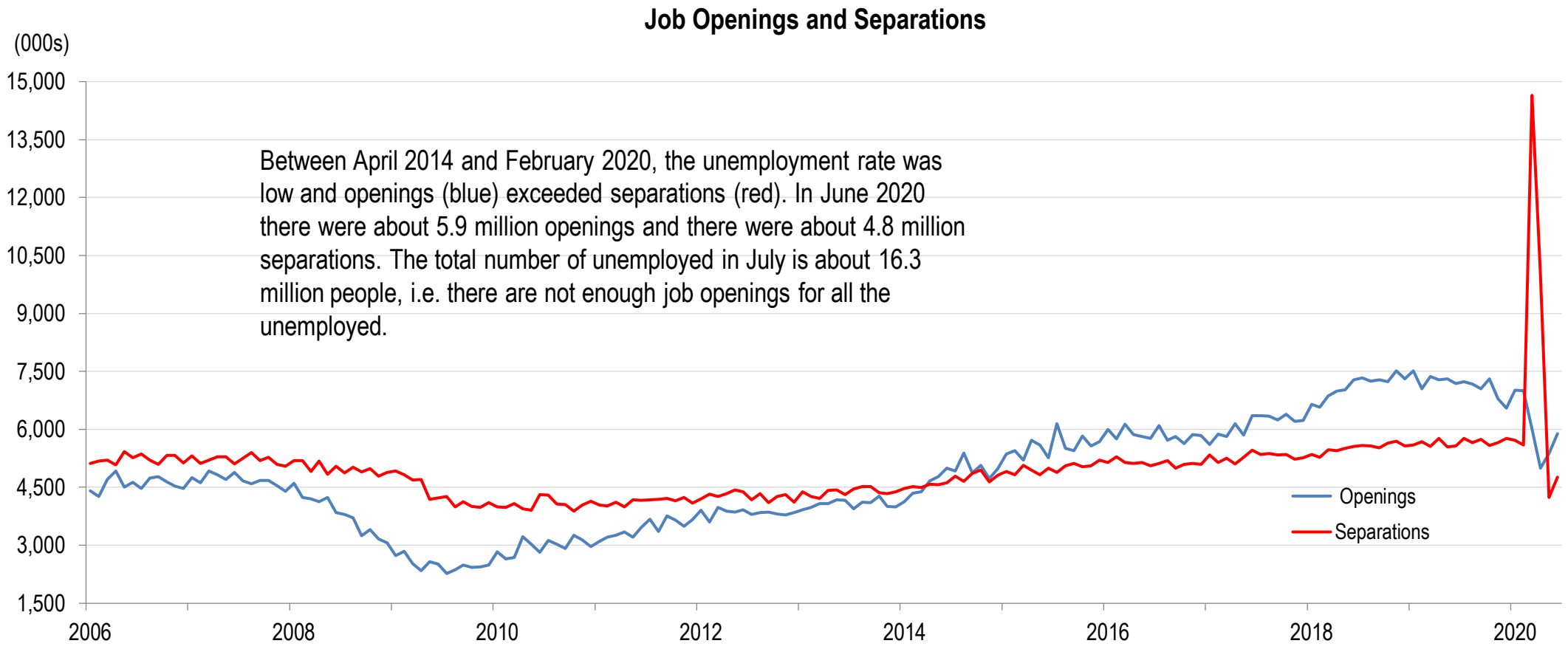
United States and Colorado



Source: FRED, BLS, cber.co.

Job Openings and Separations

United States



Source: BLS, JOLTS cber.co.

Change in Employment During the Reopening by Sector and State

United States and Colorado

Key Points

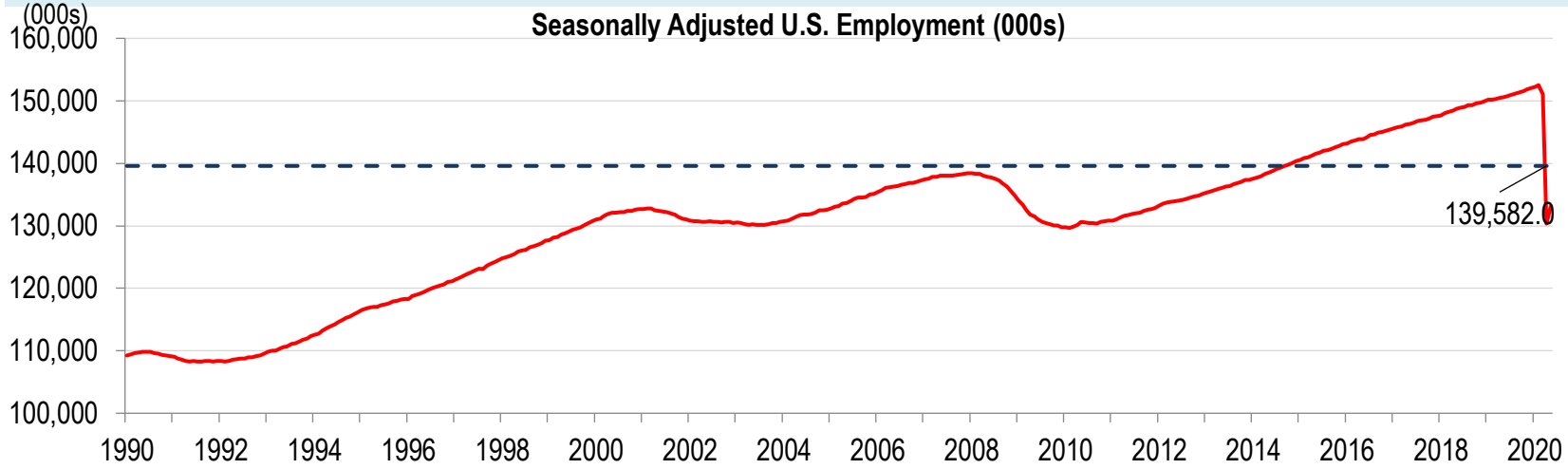
The recovery in U.S. and Colorado wage and salary employment is continuing, but at a slower rate than in May and June. The return to December 2019 pre-pandemic employment level will occur in Q2 2021 at the earliest.

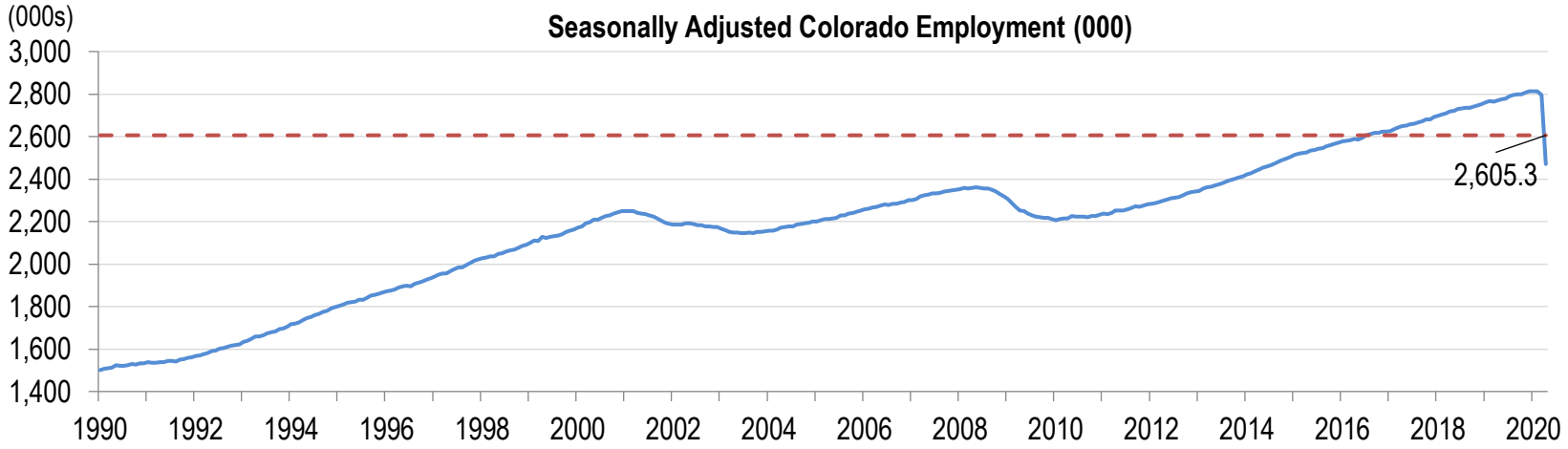
Employment is increasing unevenly across all NAICS sectors and states. Many tourism and retail jobs have been added because those sectors lost the largest number of jobs.

Colorado employment is recovering at a slightly faster pace than U.S. employment.

Seasonally Adjusted Wage and Salary Employment

United States vs. Colorado





Source: Bureau of Labor Statistics and cber.co.

United States

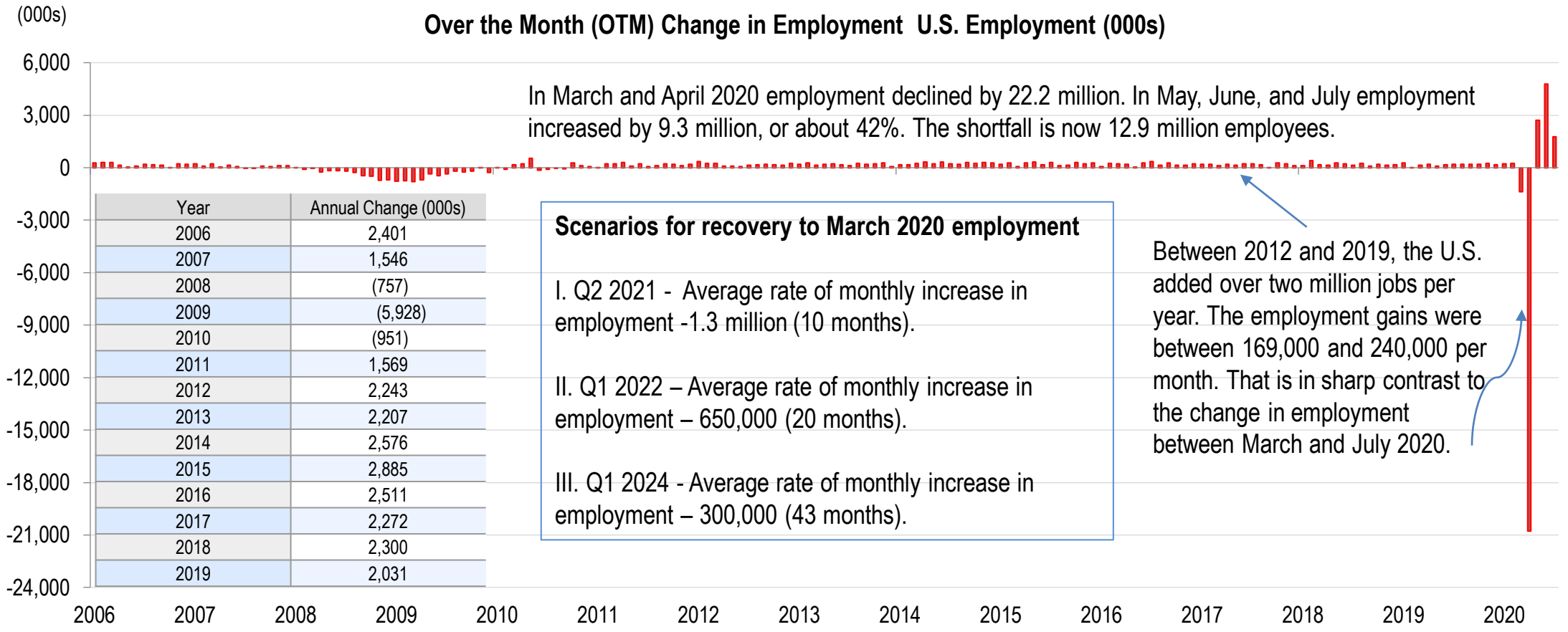
U.S. seasonally adjusted wage and salary employment for July was almost 139.58 million (blue dotted line). July employment is 91.8% of the December 2019 total; there were 12.9 million fewer jobs in July. As a point of reference, U.S. employment in April (the trough) was 85.7% of December 2019 employment.

Colorado

Colorado seasonally adjusted wage and salary employment for July was about 2.61 million (red dotted line). July employment is 92.6% of the December 2019 total; there were 208,200 fewer jobs in July. By comparison, Colorado employment in April (the trough) was 87.8% of December 2019 employment.

Change in Wage and Salary Employment

United States

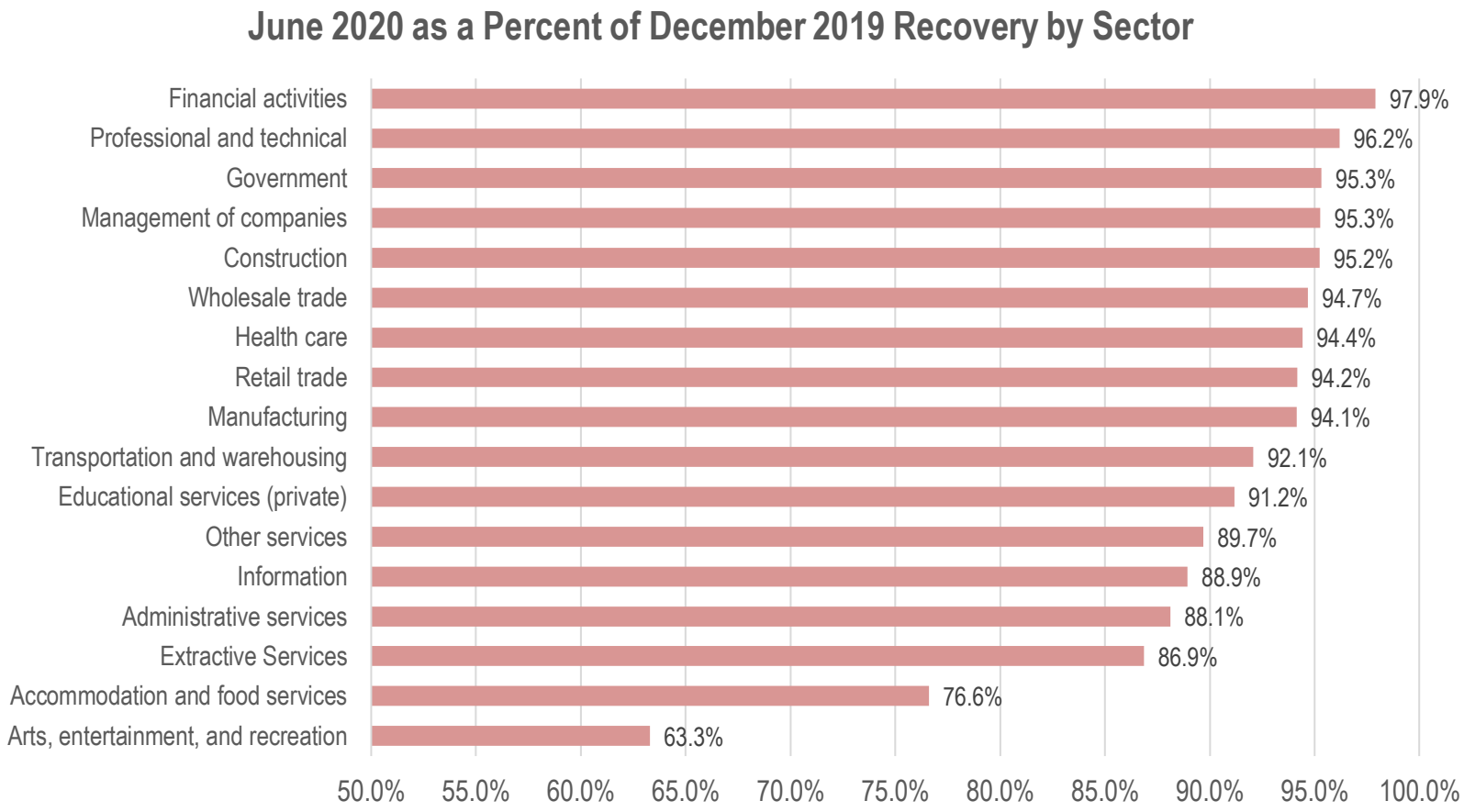


Year	Annual Change (000s)
2006	2,401
2007	1,546
2008	(757)
2009	(5,928)
2010	(951)
2011	1,569
2012	2,243
2013	2,207
2014	2,576
2015	2,885
2016	2,511
2017	2,272
2018	2,300
2019	2,031

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

Percentage of U.S. Employment Recovery by Sector

July 2020 as Percent of December 2019



July/December Recovery

This chart shows July 2020 employment by sector as a percentage of December 2019 employment by sector to illustrate the difference in the sector rate of recovery.

Key Take-aways

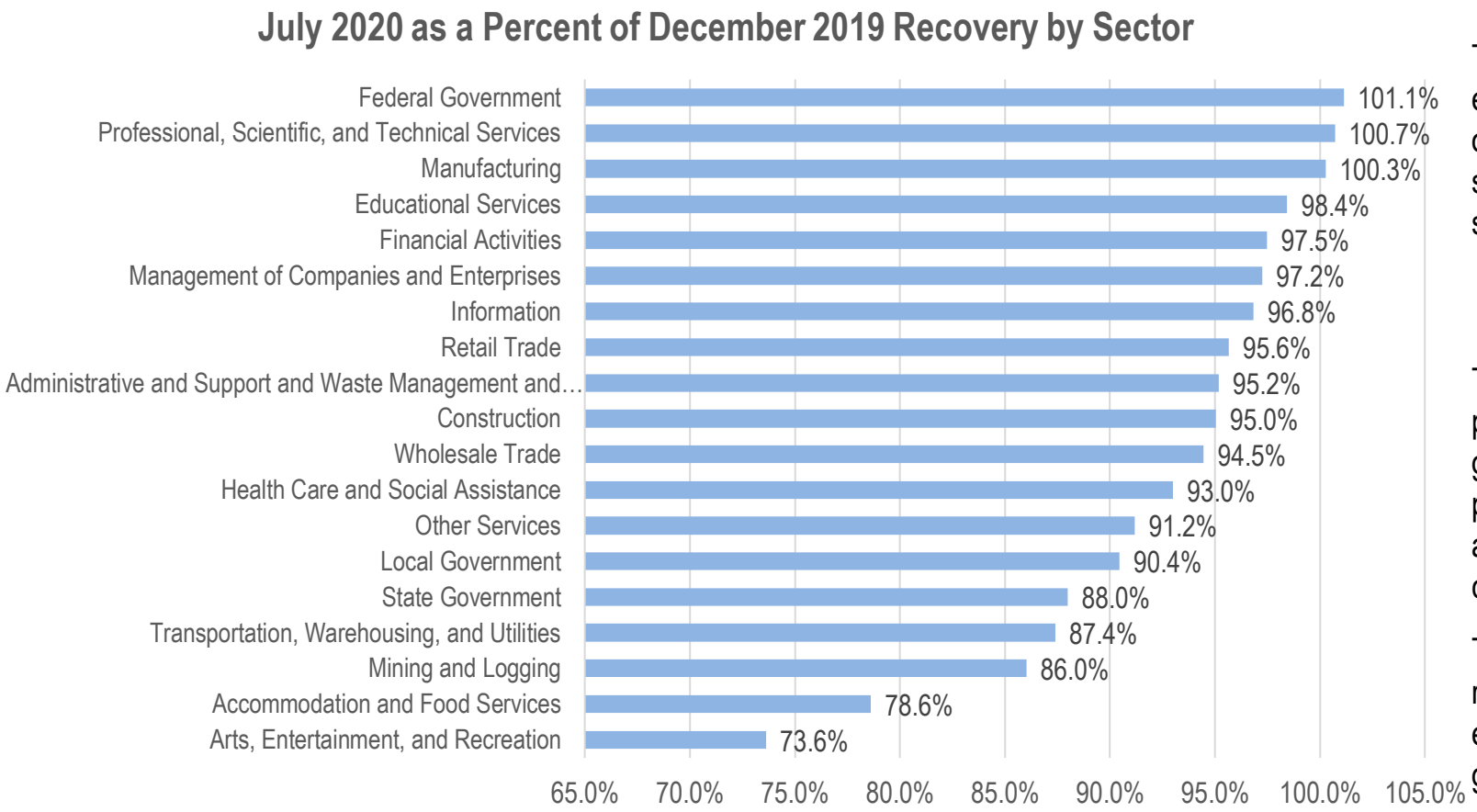
The sectors with the greatest percent of recovery are financial activities, PTS, government, MCE, and construction. These sectors have recovered more than 95% of their December employment.

The sectors that are a drag on the recovery are leisure and hospitality, extractive services, administrative services, information, and other services. These sectors have recovered less than 90% of their employment.

Source: Bureau of Labor Statistics and cber.co.

Percentage Colorado Employment Recovery by Sector

July 2020 as Percent of December 2019



July/December Recovery

This chart shows July 2020 employment by sector as a percentage of December 2019 employment by sector to illustrate the difference in the sector rate of recovery.

Key Take-aways

The Colorado sectors with the greatest percent of recovery are federal government, PTS, manufacturing, private educational services, financial activities, and management of corporations.

The sectors that are a drag on the recovery are leisure and hospitality, extractive industries, TWU, and state government.

Source: Bureau of Labor Statistics and cber.co.

Percentage Employment Recovery by State

July 2020 as Percent of December 2019

July vs. December % Change Greater Than or Equal to 91.0%

Rank	State	July/December
1	Idaho	97.3%
2	Utah	96.3%
3	Mississippi	95.9%
4	Nebraska	95.2%
5	Missouri	95.0%
6	Georgia	94.9%
7	Arizona	94.8%
8	Oklahoma	94.8%
9	Indiana	94.7%
10	South Dakota	94.7%
11	Arkansas	94.7%
12	Alabama	94.6%
13	Kansas	94.5%
14	Montana	94.2%
15	Iowa	94.1%
16	Tennessee	93.8%
17	West Virginia	93.8%
18	Wyoming	93.6%
19	South Carolina	93.4%
20	Florida	93.3%
21	Texas	93.1%
22	North Carolina	92.9%
23	District of Columbia	92.9%
24	Colorado	92.6%
25	Virginia	92.1%
26	Louisiana	92.0%
27	Kentucky	92.0%
28	Washington	91.8%
29	Illinois	91.8%
30	Maryland	91.7%
31	Oregon	91.7%
32	Minnesota	91.5%
33	North Dakota	91.4%
34	Ohio	91.1%

Recovery Varies Across the U.S.
July employment for the 15 states in the first column was greater than 94% of the December total. The employment in these healthier states accounts for about 19% of July employment. Several of these states may return to their level of December 2019 employment by the end of 2020.

The 18 states and D.C. (second column) account for about 45% of July employment. The 17 states in the third column account for about 36% of July employment.

July vs. December % Change Less than 91.0%

Rank	State	July/ December
35	Wisconsin	90.9%
36	New Mexico	90.8%
37	Connecticut	90.6%
38	Maine	90.5%
39	Pennsylvania	90.4%
40	Rhode Island	90.4%
41	New Hampshire	90.0%
42	Nevada	89.8%
43	California	89.7%
44	Delaware	89.4%
45	Vermont	88.8%
46	New Jersey	88.4%
47	Michigan	88.3%
48	Alaska	88.3%
49	Massachusetts	87.4%
50	New York	85.8%
51	Hawaii	83.5%

Source: Bureau of Labor Statistics, SA, 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 103,000 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 123,000 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 148,000 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 forecasted Colorado's employment would decline by 152,900 in 2020. This forecast called for an increase in employment of 47,300 in 2021.

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 total 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

2020 employment will be -103,000 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 total 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. In addition, the presidential election and its outcome will disrupt the management of C-19 and the country's economic vitality.

2020 and Recovery

2020 employment will be -123,000 and employment will return to the December 2019 level in Q3 2021.

Worst Case Growth Recovery Scenario

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

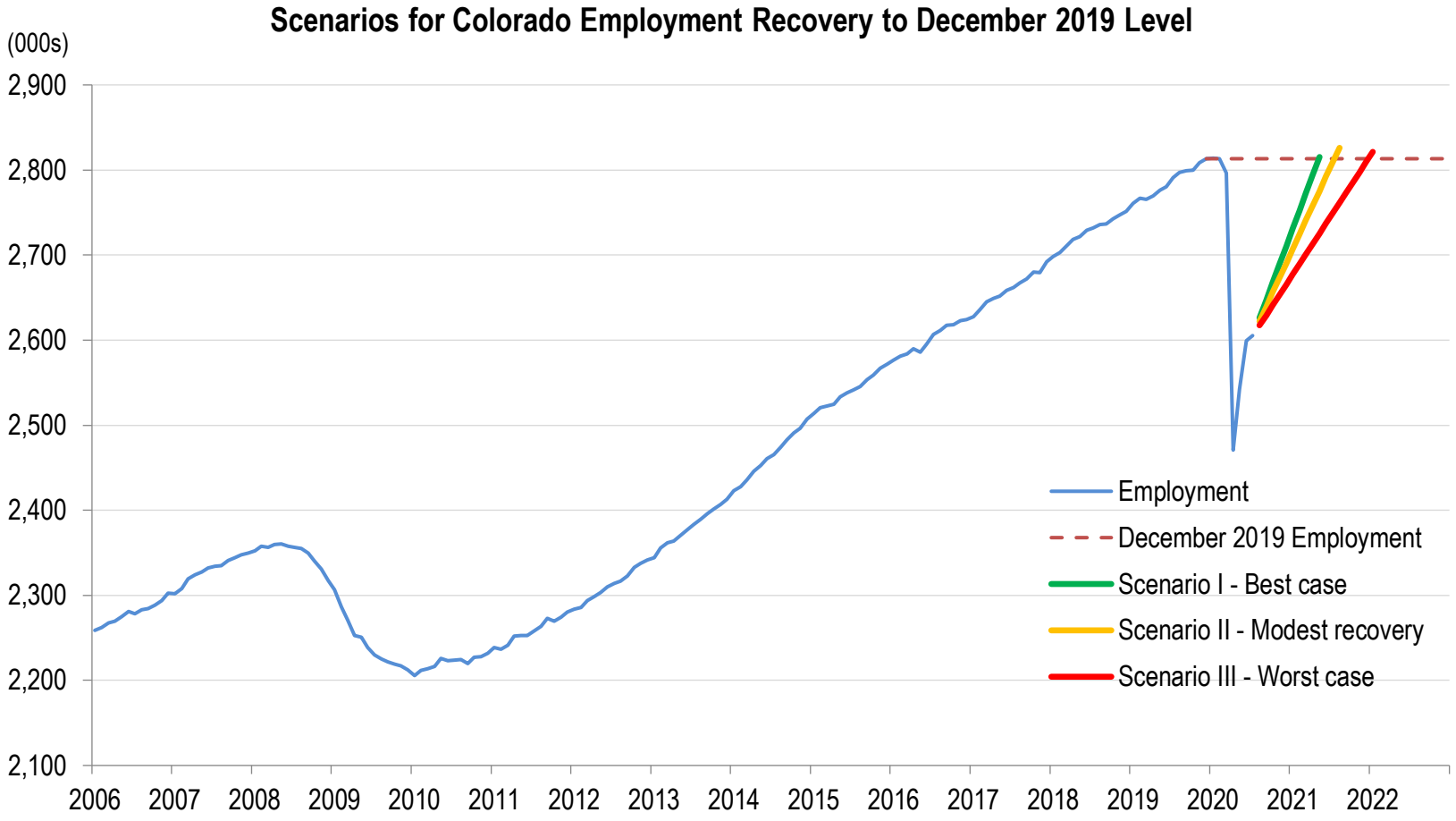
C-19 flareups will result in lockdowns. College and professional sports will be held, but with problems. Air travel will not increase significantly, In addition, the return to school for K-12 and higher education will be worse than anticipated. Finally, the presidential election and its outcome will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

2020 and Recovery

2020 employment will be -148,000 and employment will return to the December 2019 level in Q1 2022.

Scenarios for Wage and Salary Employment Recovery

Colorado



Three Scenarios for Recovery
There are three scenarios for 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 Q1 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 Q1 2022.

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

Recovery of Major Sectors

Early Recovery, Midterm Recovery, and Last to Recover

Key Points

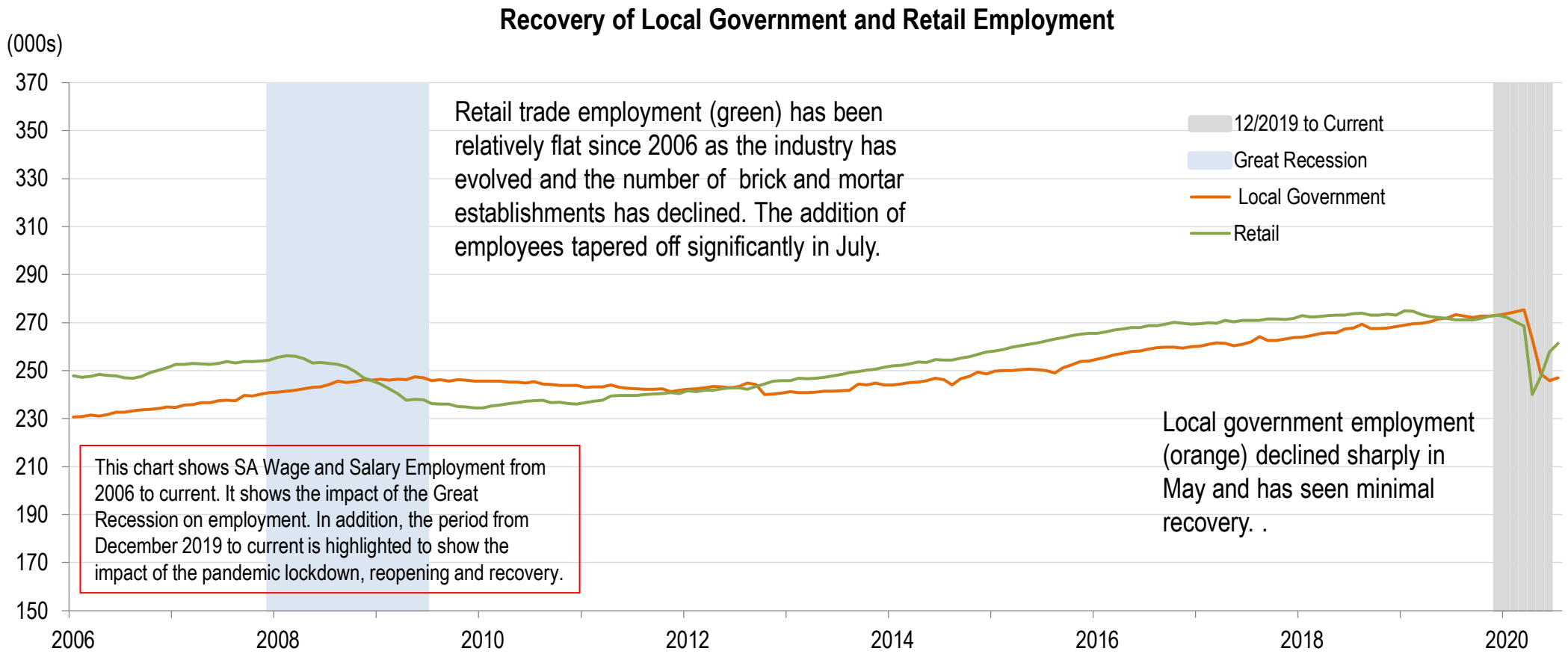
Early recovery: PST, financial activities, manufacturing, MCE, private education, and federal government.

Midterm recovery: Health care, information, construction, and TWU.

Last to recover: Local government, retail, tourism, administrative services, wholesale trade, and extractive industries, state education, and other services.

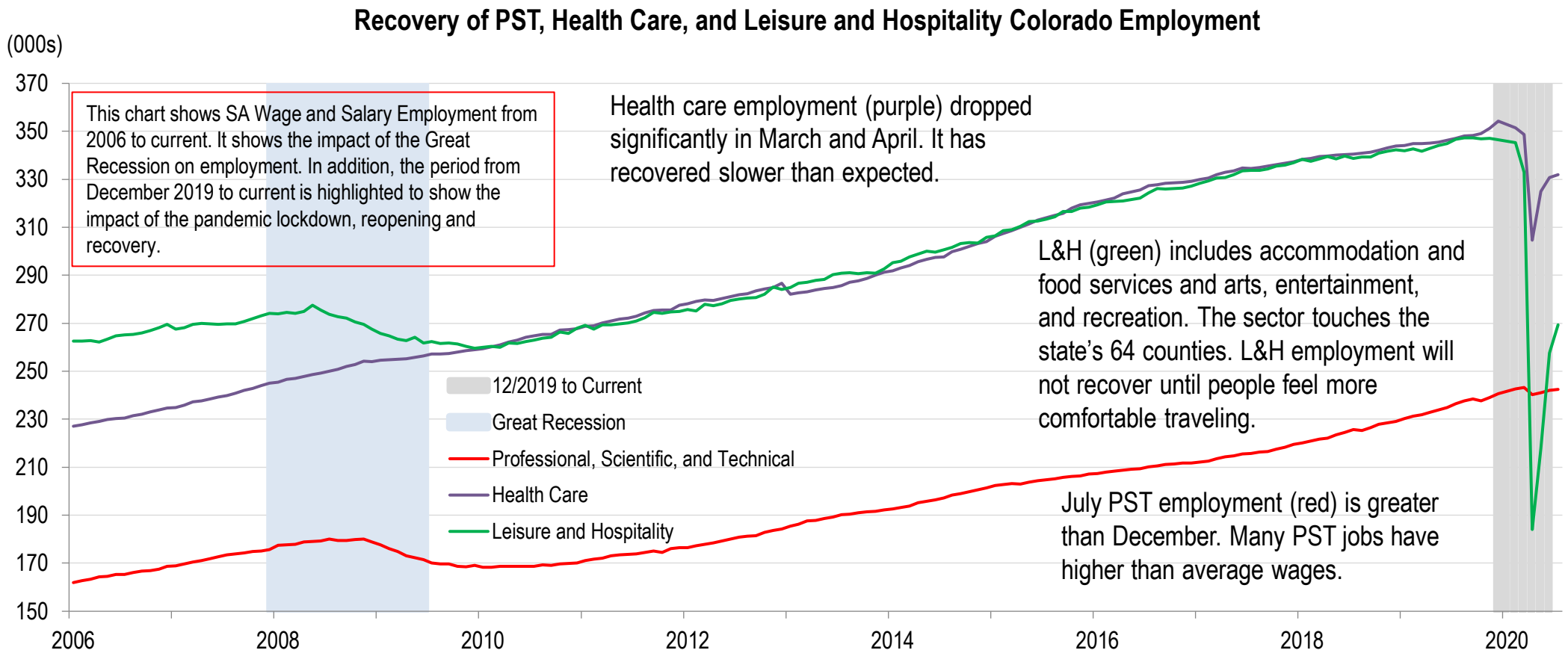
Recovery of Local Government and Retail Employment

Colorado (Large Sectors)



Source: BLS, cber.co.

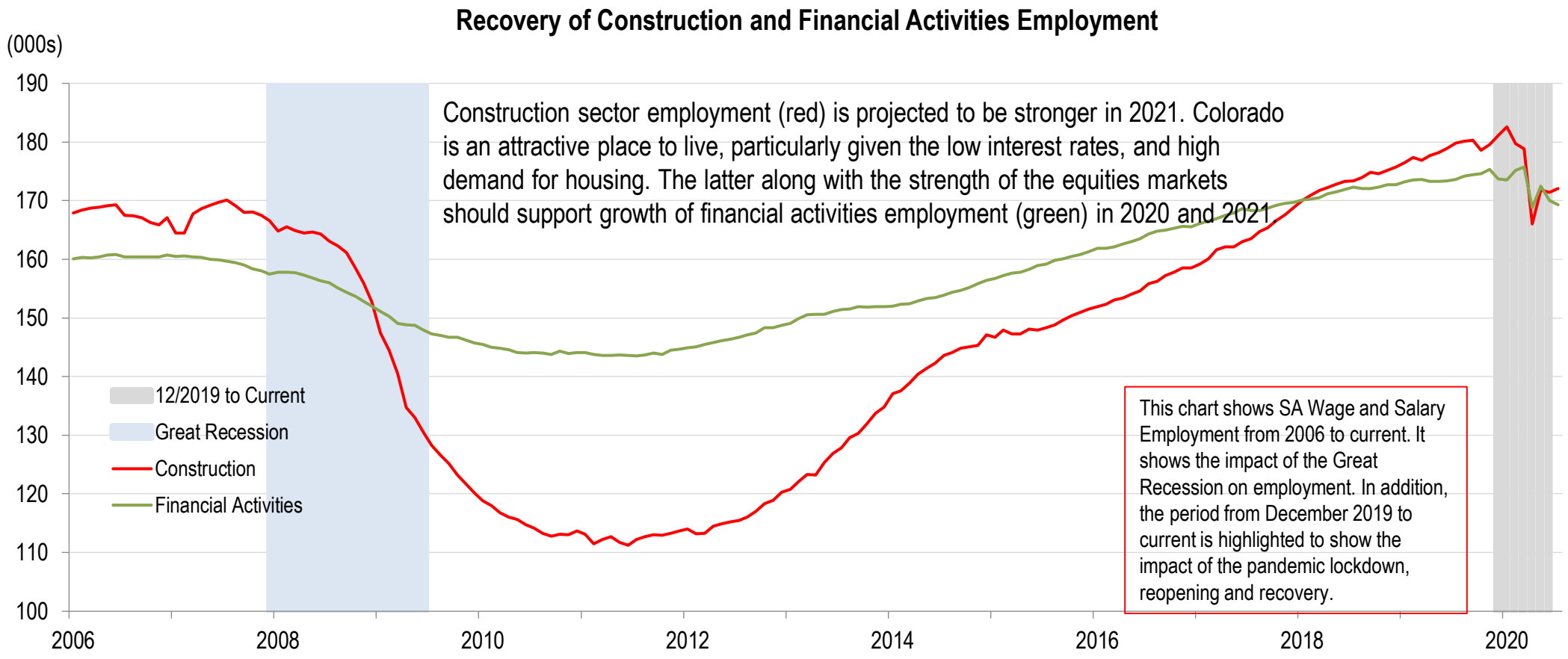
Recovery of PST, Health Care, and Leisure and Hospitality Employment
Colorado (Large Sectors)



Source: BLS, cber.co.

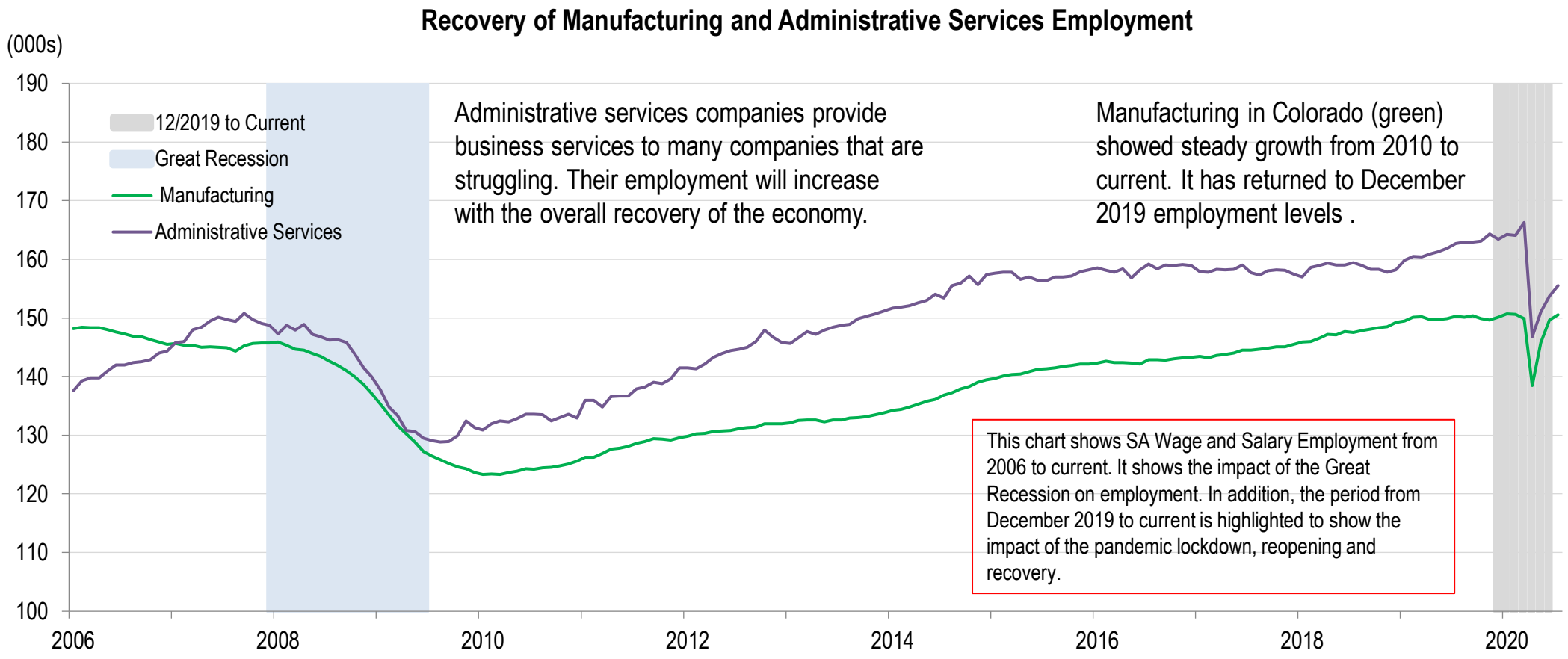
Recovery of Construction and Financial Activities Employment

Colorado (Medium/Large Sectors)



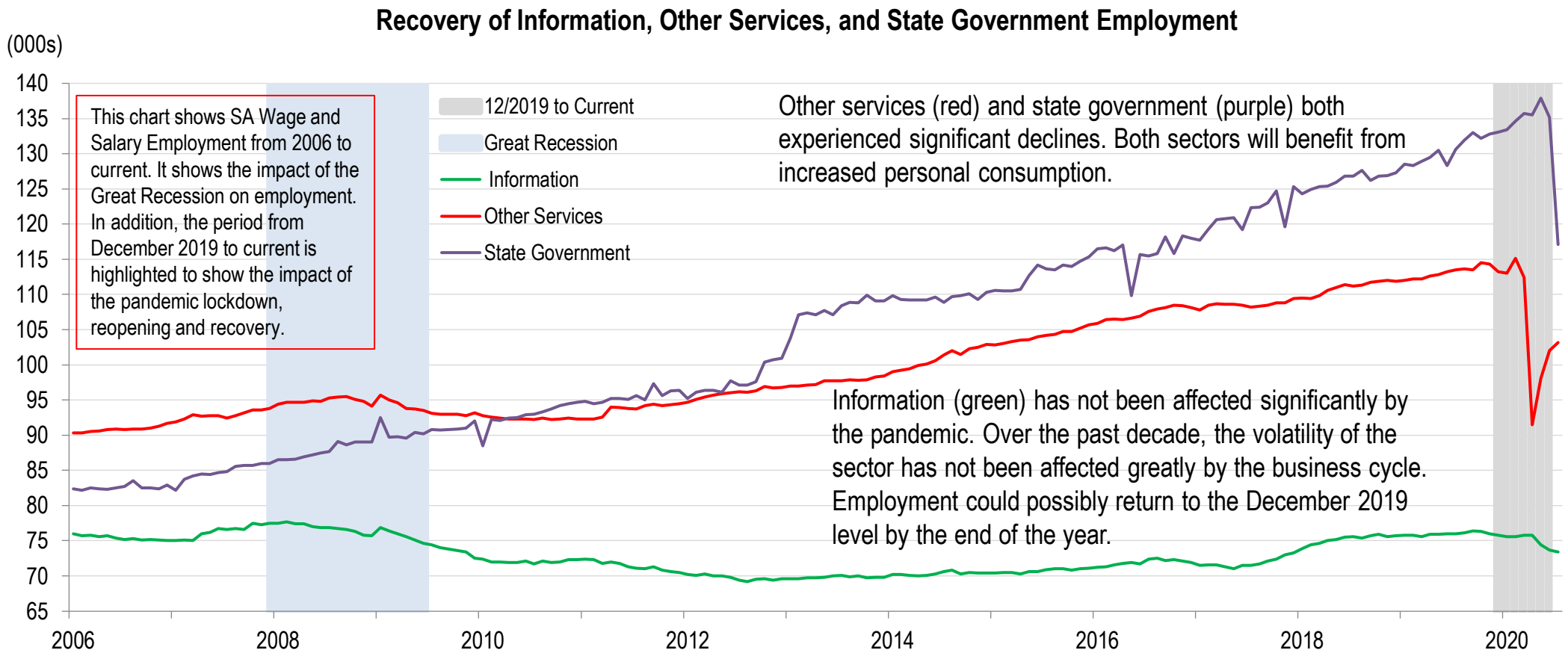
Source: BLS, cber.co.

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



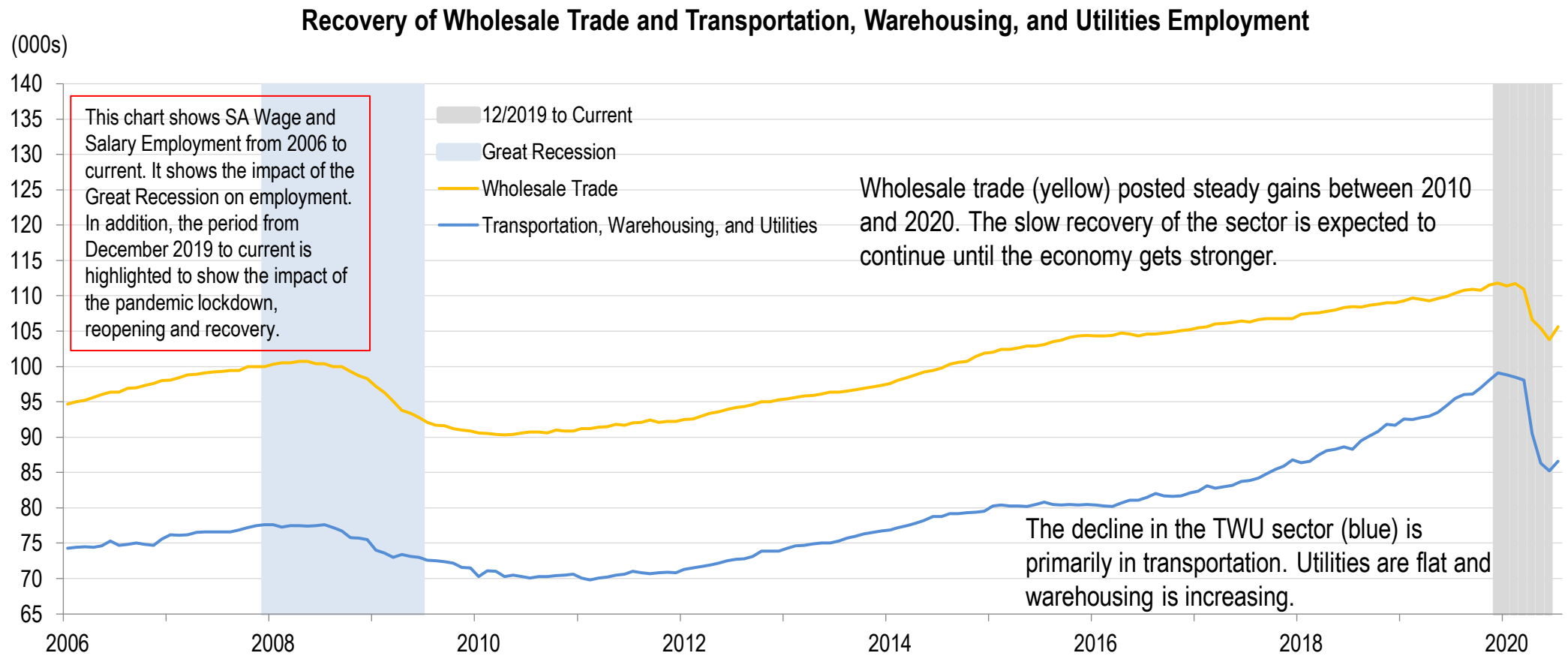
Source: BLS, cber.co.

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



Source: BLS, cber.co.

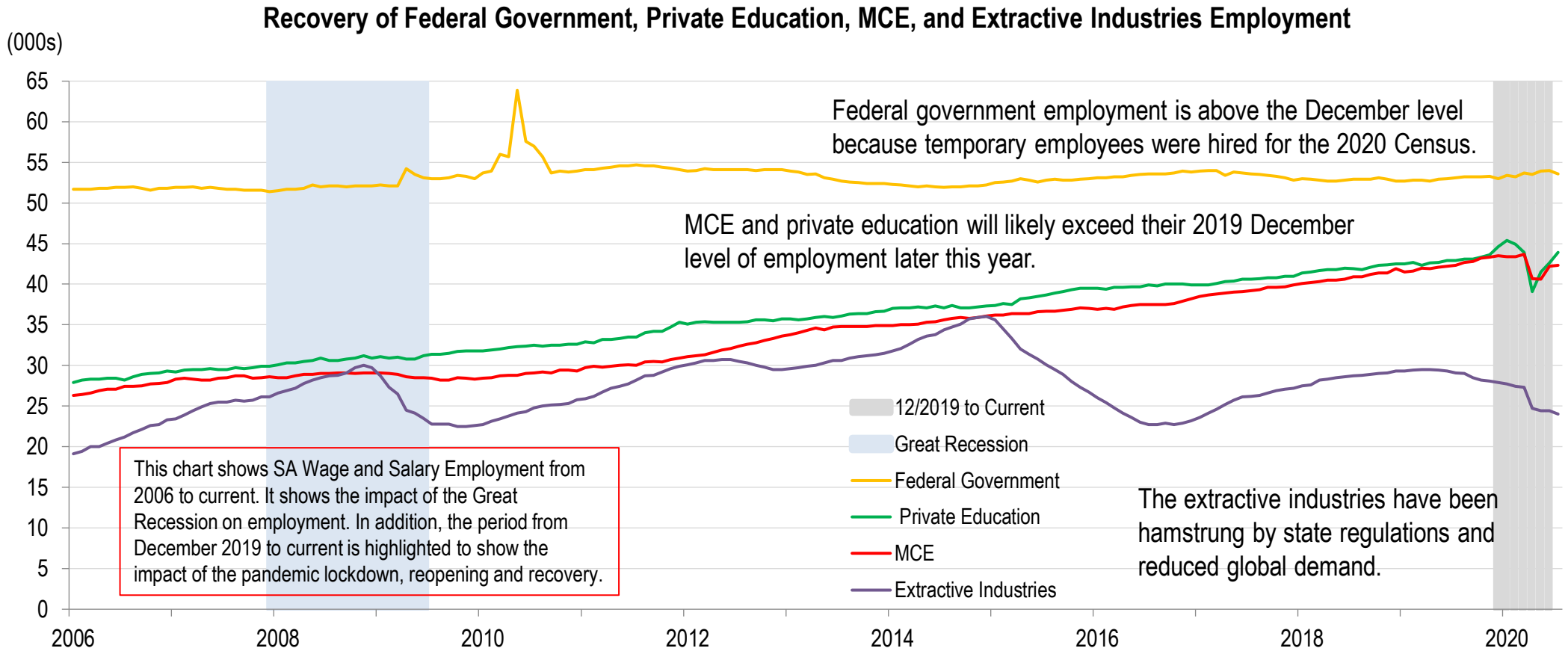
Recovery of Wholesale Trade and TWU Employment
Colorado Medium Sectors



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 ISM PMI and NMI Indices

Key Points

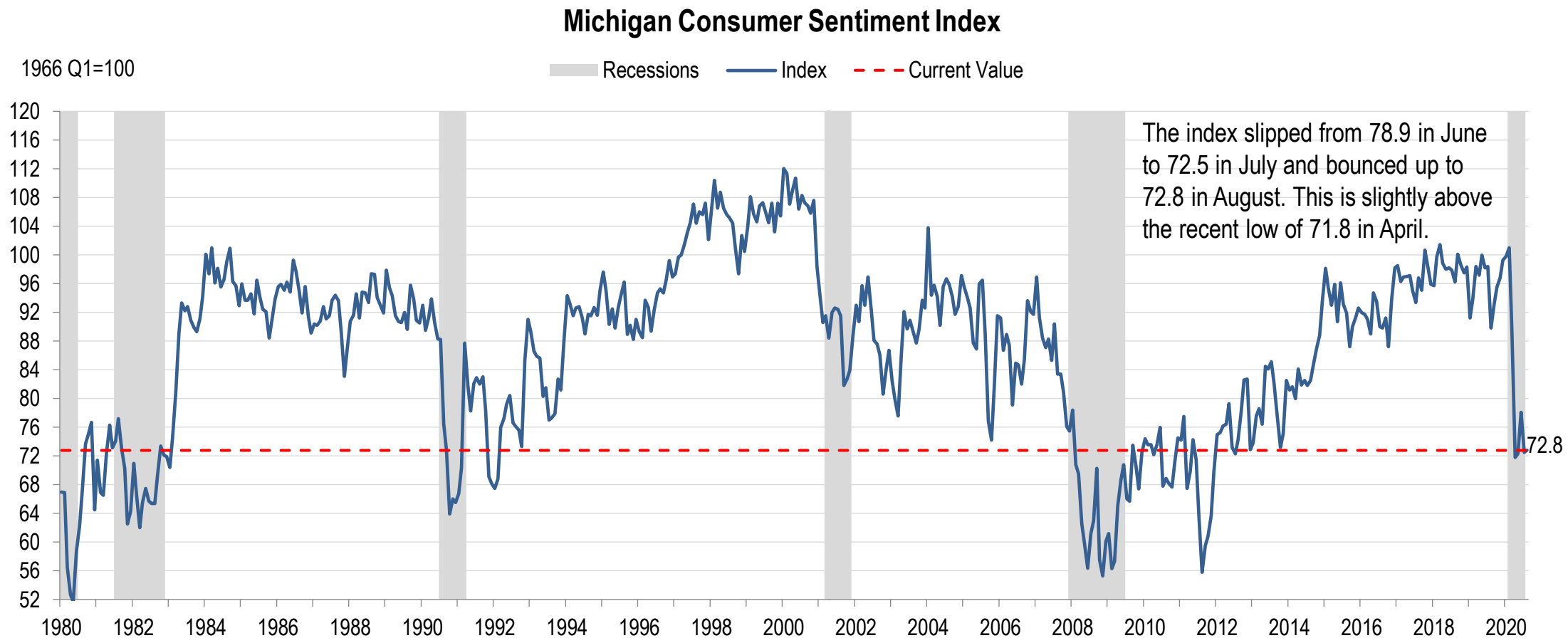
The Michigan Consumer Sentiment Index was flat in the July and August readings.

The Small Business Optimism Index decreased slightly in July on expectations that real sales would decrease.

Manufacturing and nonmanufacturing purchasing managers indicated their industries have gotten stronger and are in expansionary territory.

Consumer Sentiment Index

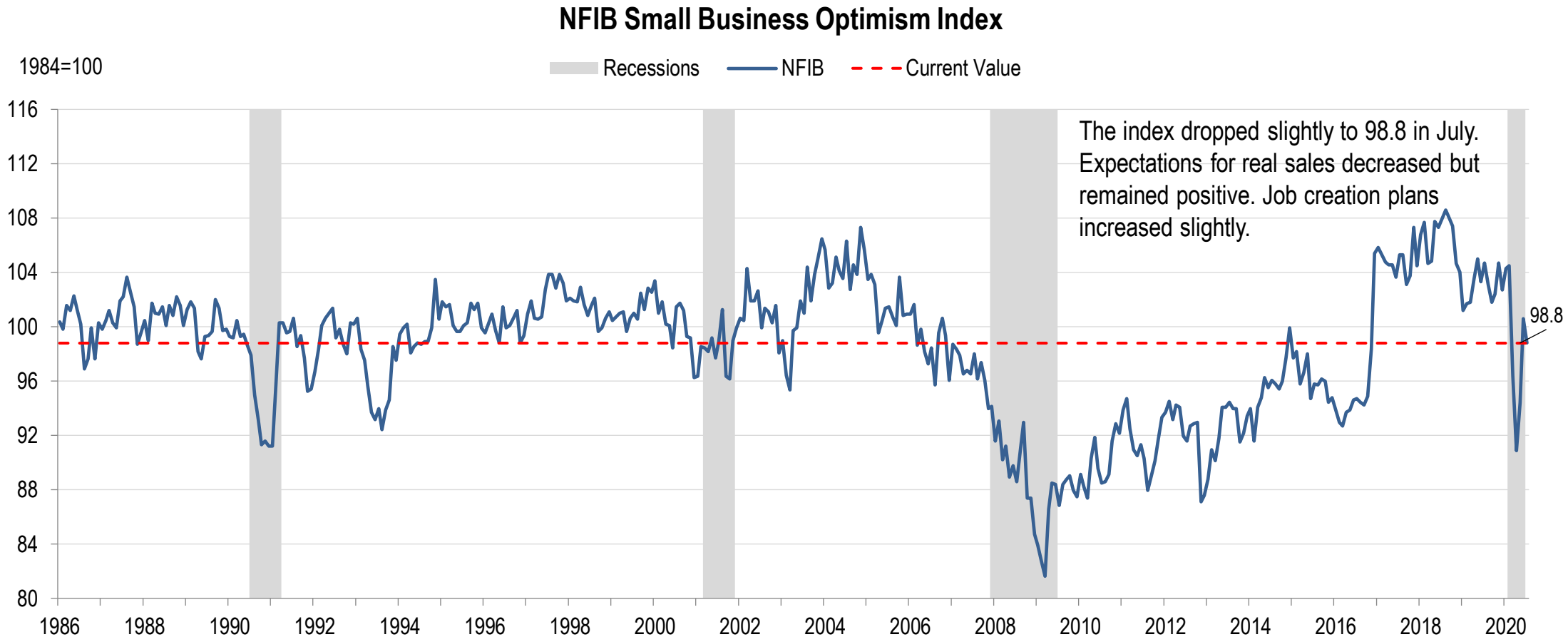
University of Michigan



Source: University of Michigan, cber.co.

NFIB Small Business Optimism Index

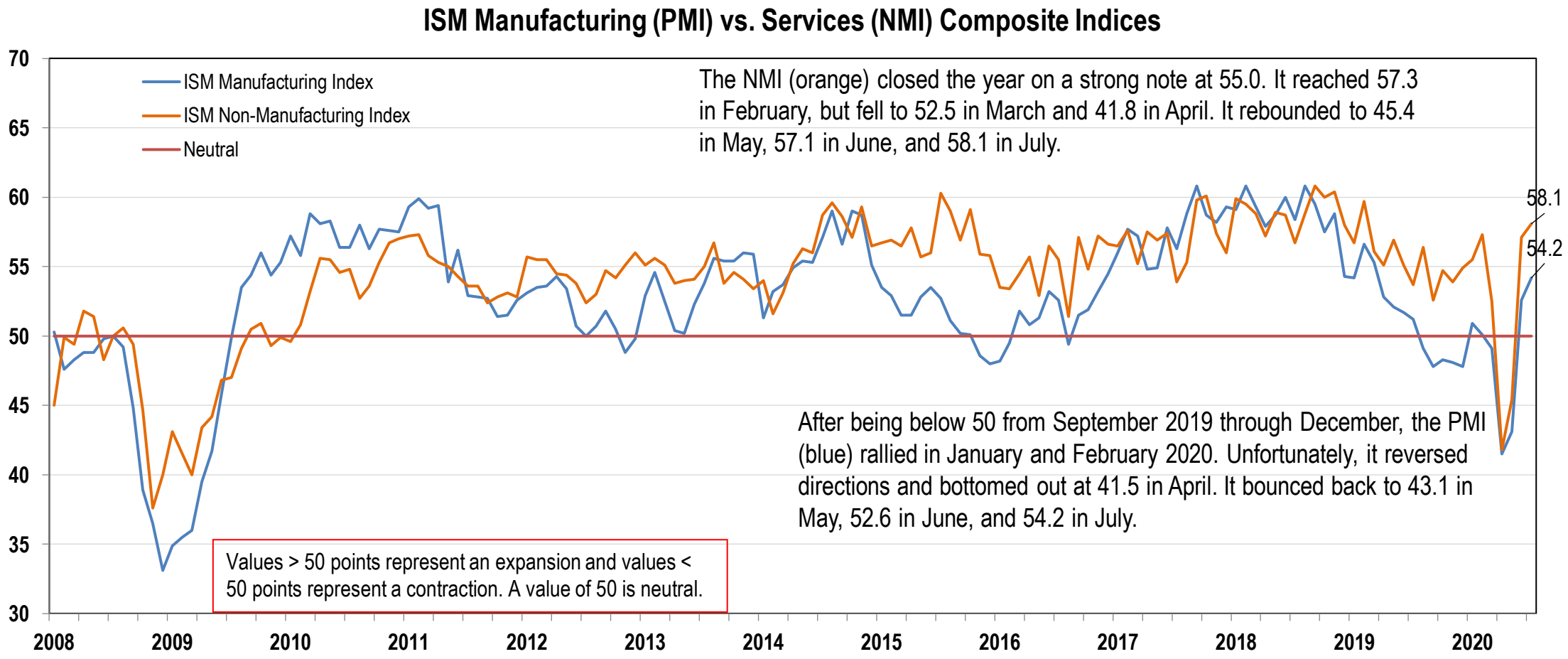
United States



Source: NFIB, cber.co.

ISM PMI Composite Indices

Manufacturing vs. Services



Source: FRED, ISM, cber.co

Production and Income

Industrial Production and Change in Real Disposable Personal Income

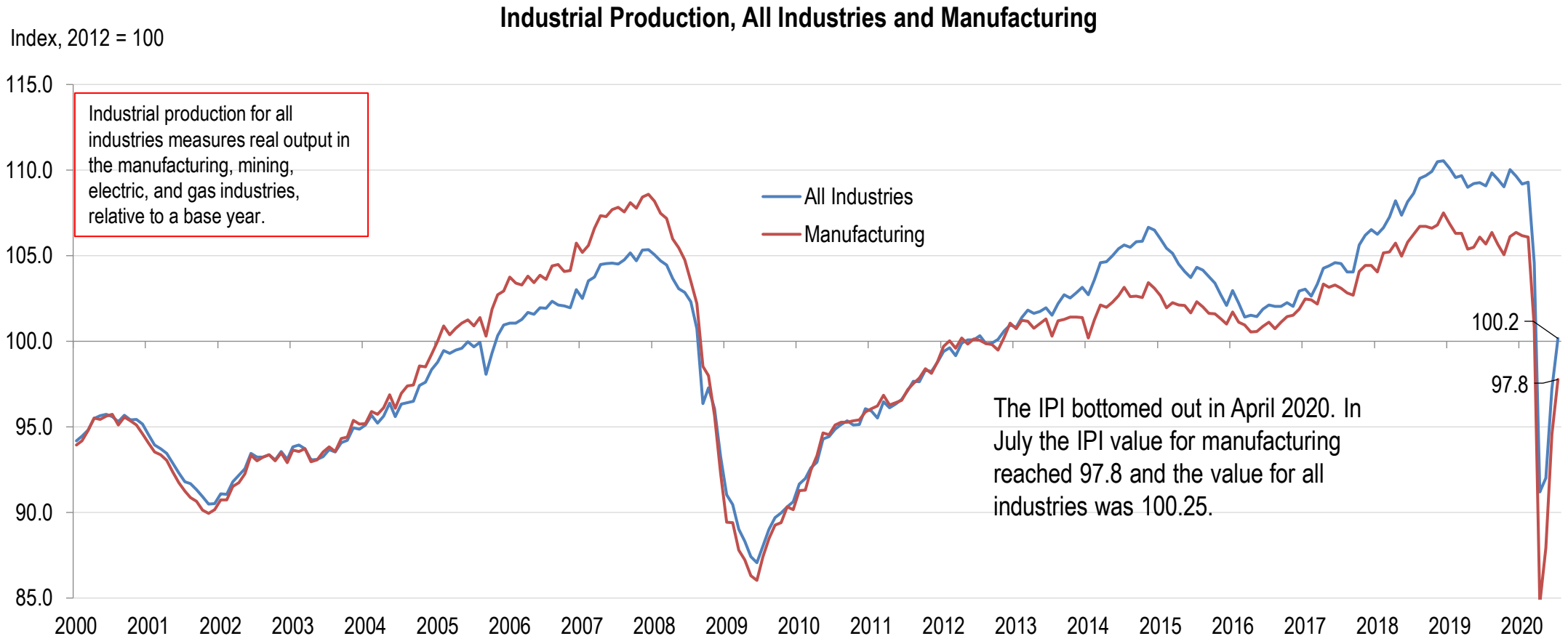
Key Points

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

Real disposable income is greater than normal as a result of the federal relief programs that were developed in response to the C-19 lockdown.

Industrial Production Index

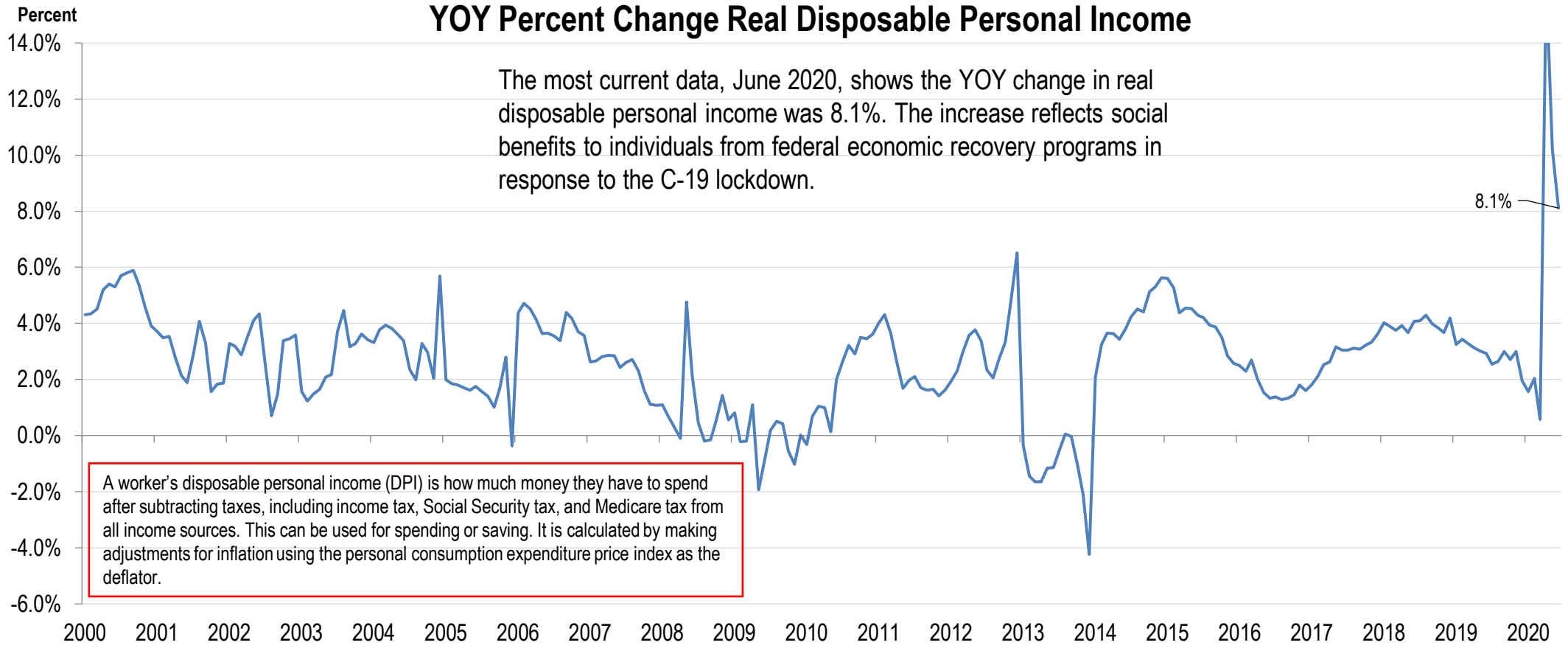
All Industries and Manufacturing



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, and Denver International Airport (DIA) Passengers

Key Points

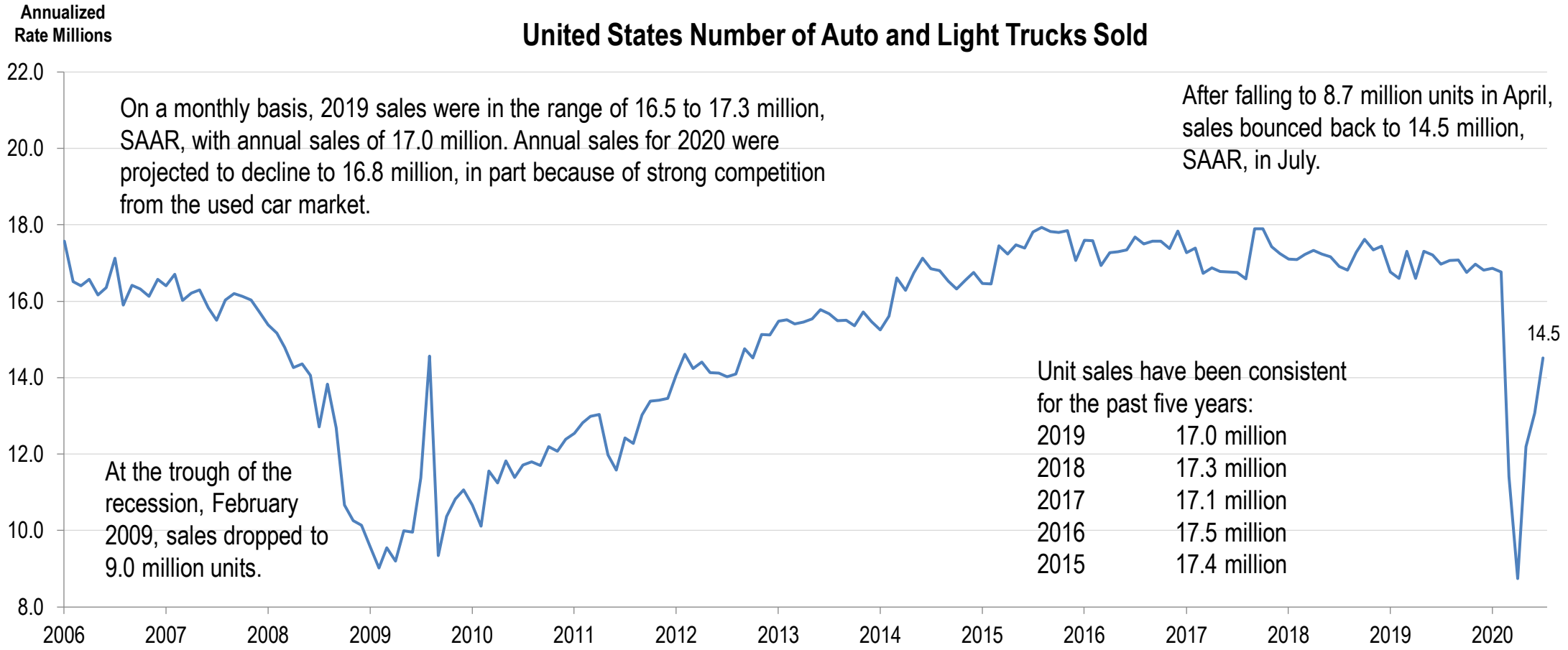
Auto and light truck sales have rebounded quicker than anticipated.

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 the second half of the year.

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.

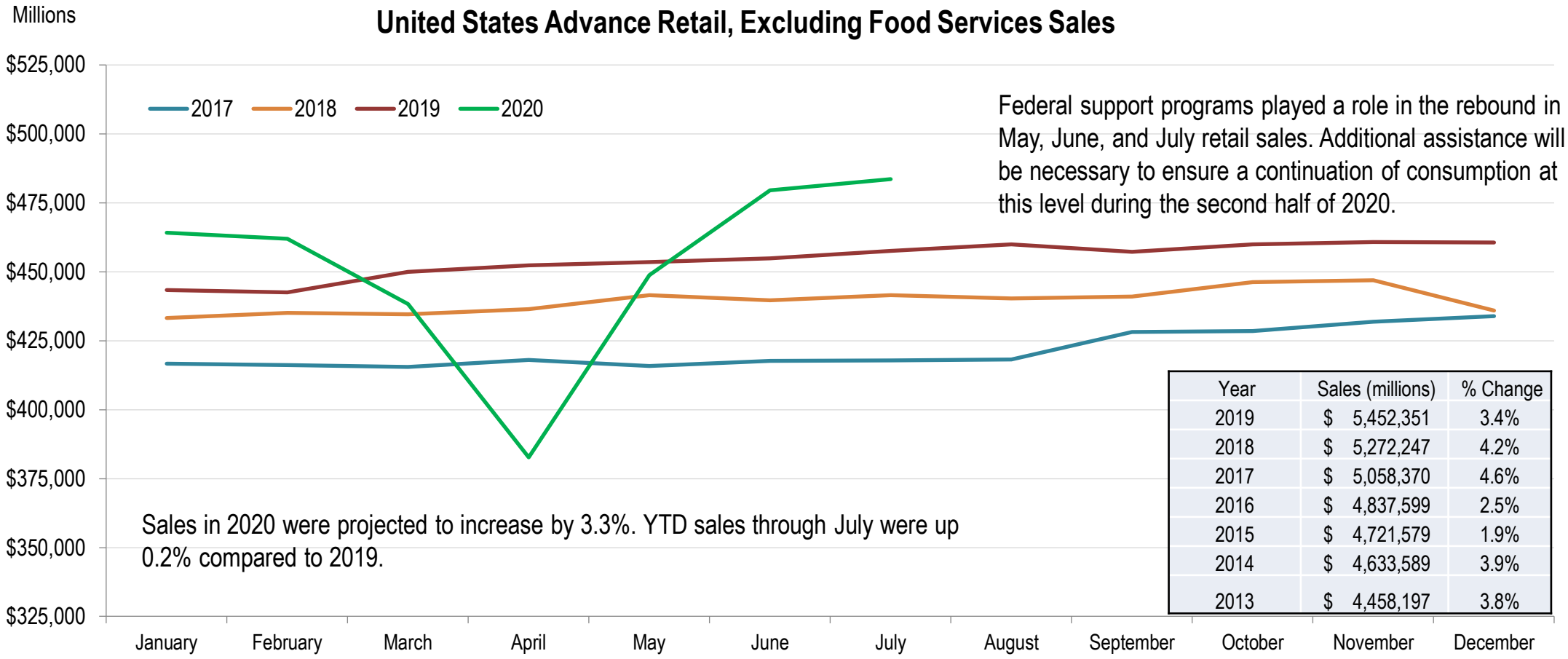
U.S. Auto and Light Truck (ALT) Sales

Monthly (Annualized Rate Millions)



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

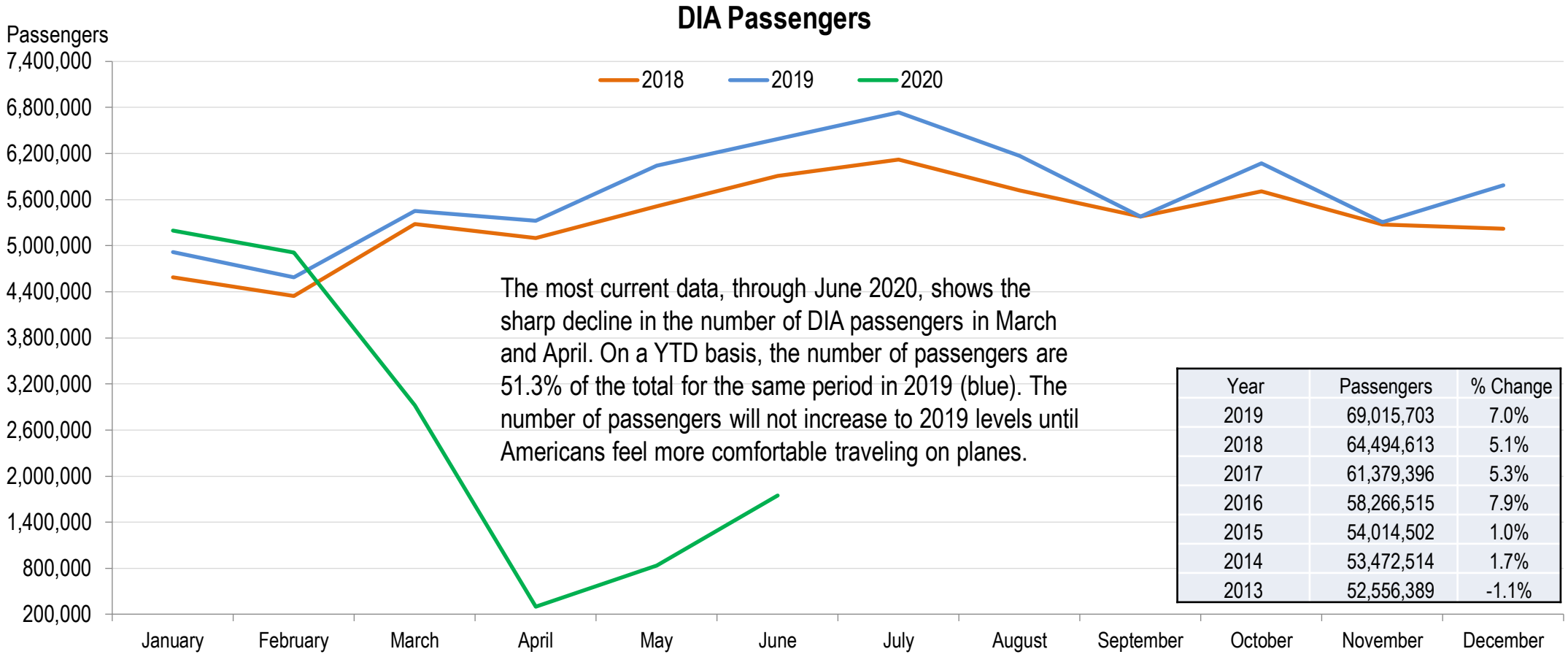
Advance Retail, Excluding Food Services Sales
Monthly



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.**

Denver International Airport Passengers
Monthly



The most current data, through June 2020, shows the sharp decline in the number of DIA passengers in March and April. On a YTD basis, the number of passengers are 51.3% 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.

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

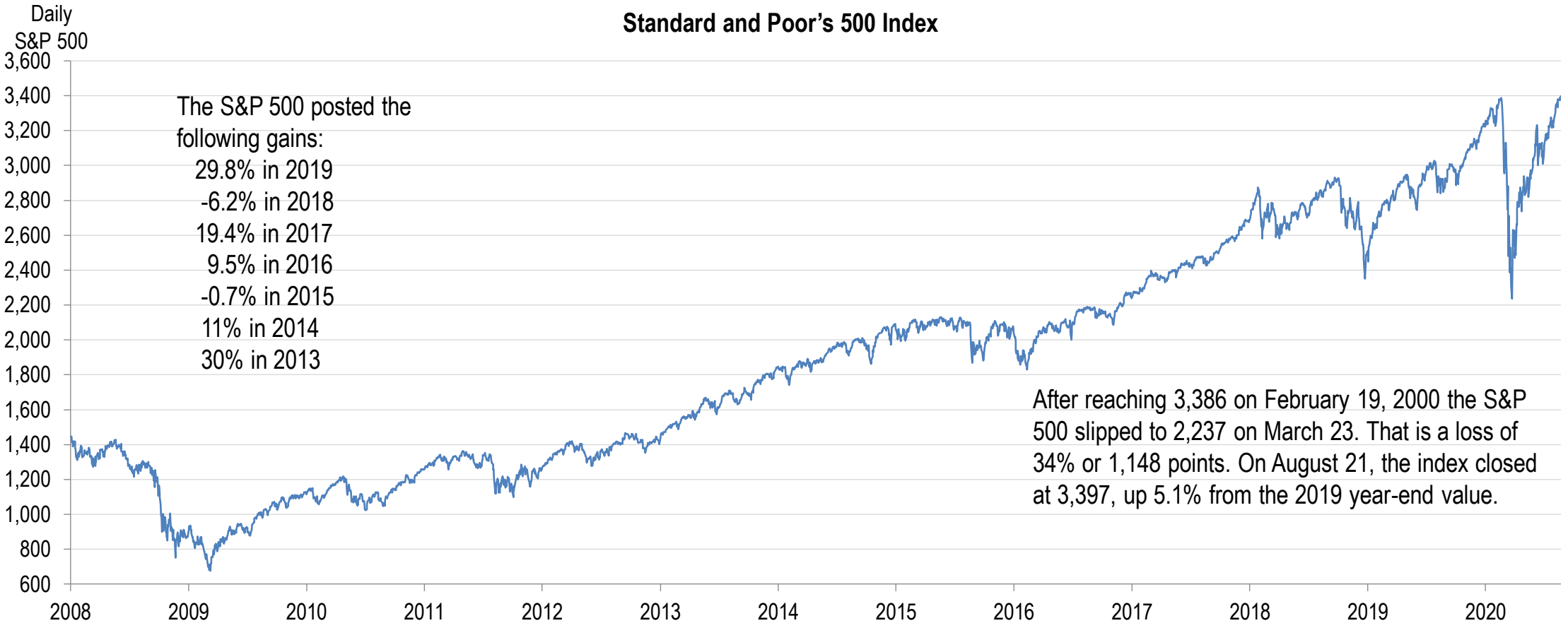
S&P 500 Index, WTI Crude Oil Prices and Colorado Oil Production

Key Points

The S&P Index fell 34%. It has rebounded and is 5.1% above the December 31 closing level.

The lower demand for oil has played havoc with the price of oil, although the price is above $40 per barrel. 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.

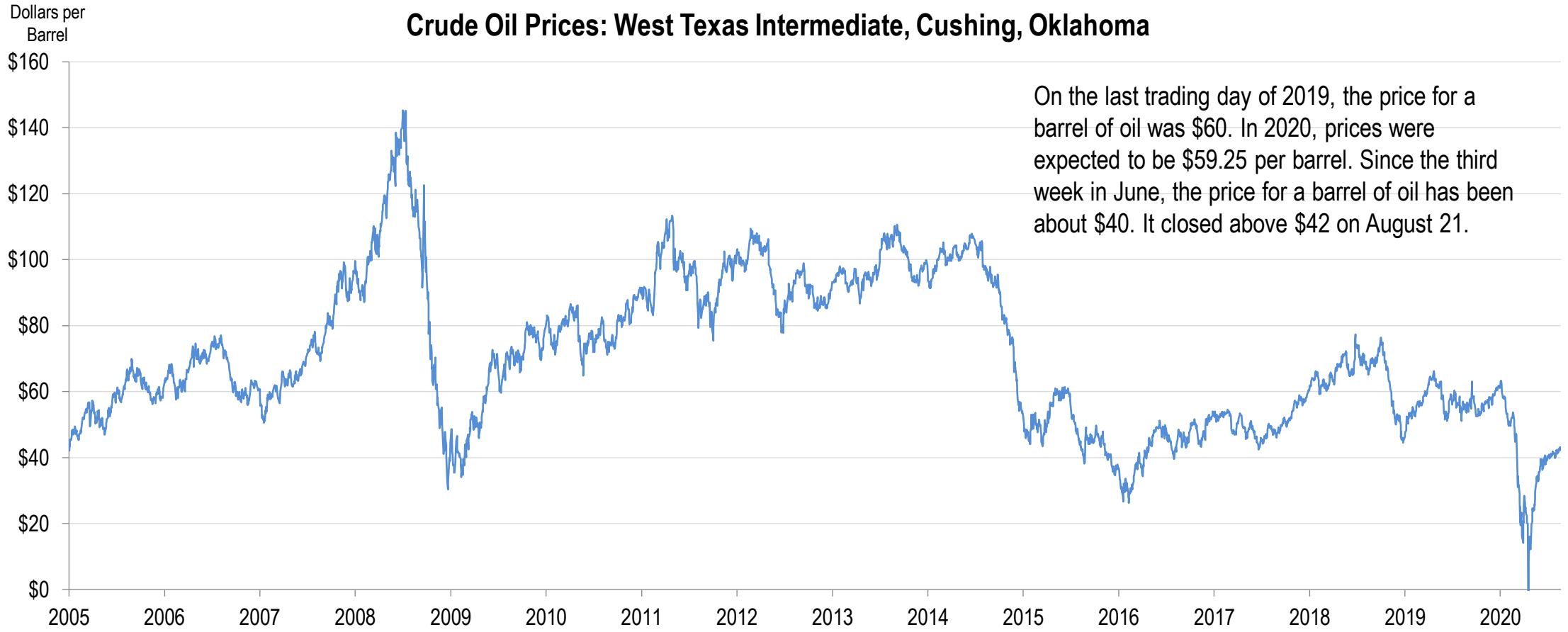
Standard and Poor's 500 Index



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

Crude Oil Prices

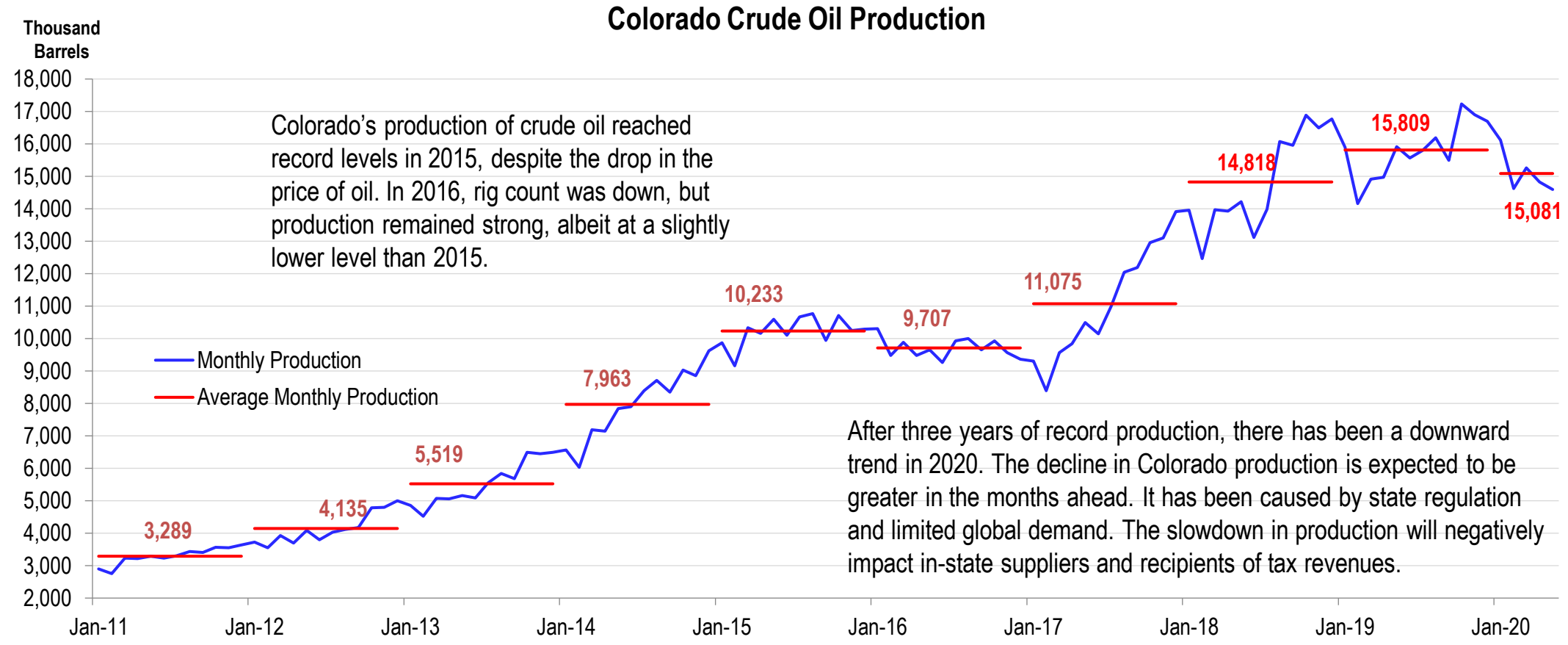
West Texas Intermediate



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

- About two-thirds of all states and D.C. have single digit unemployment rates. Three states have rates of 5.0% or less.
- The elections, and associated chaos, will be over soon.
- There are varying degrees of optimism among small businesses, consumers, manufacturers, and non-manufacturers.
- The addition of employment in the following sectors will accelerate the recovery in Colorado: professional, scientific, and technical; management of corporations (headquarters); information; manufacturing; and warehousing.
- Construction and financial activities are bellwether sectors that indicate growth. Both are pointed in a positive direction.

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 personal consumption will be reduced by high unemployment 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.
- Funding for state and local government in some states.
- Funding for K-12 and higher education in some districts.
- The following sectors will be a drag on the recovery: leisure and hospitality, state and local government, extractive industries, wholesale trade, other services, and administrative services.

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Review of Colorado and United States Economy
Based on July 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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For additional information contact cber.co at cber@cber.co or gary@garyhorvath.com.

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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.