

Review of Colorado Employment Data

January and February 2020

In January, government leaders were faced with a choice to either let the Wuhan/COVID-19/Corona virus run its natural course or to take steps to save lives and leave the nation healthier. Either way, there would be a significant cost to society and the economy.

There is very little data that measures the impact of the economic crisis because most of it lags by at least a month. This short analysis reviews existing data that is most relevant and other information that might foretell employment changes in the weeks ahead.

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Colorado-based Business and Economic Research
Prepared
April 5, 2020

Overview

The economy is driven by uncertainty and rapid change surrounding the spread of COVID-19. This analysis looks at the following data.

Relevant Data

- Initial Unemployment Claims - United States
- Initial Unemployment Claims – Colorado
- Crude Oil Prices
- S&P 500 Index

The UI Claims show that workers were starting to get laid off in early to mid-March. The data points to strong decreases in employment in upcoming reports.

The free fall in oil prices and the equity markets has reversed, hopefully for the long-term. This will help improve consumer confidence if these trends continue.

Forward Looking Data and Information

- Real GDP Forecast – In late March, the Conference Board released an update of their March 11 U.S. economic outlook. This latest forecast calls for negative real GDP growth in the first 3 quarters of the year, followed by strong growth in Q4.
- At Risk Metro Areas – Brookings issued an analysis showing that most Colorado metro areas have more employees in at-risk industries than most other metro areas. As a result, job losses may be greater in Colorado than other states.
- March United States Employment – In early April the seasonally adjusted month-over-month data for the United States posted significant losses in sectors that are key to the Colorado economy. Many of these losses are evident, such as the early closure of the ski areas. In several weeks, the March wage and salary employment data for Colorado will show the first wave of layoffs.

Relevant U.S. Data

U.S. and Colorado Unemployment Claims, the Equity Markets, and Crude Oil Prices

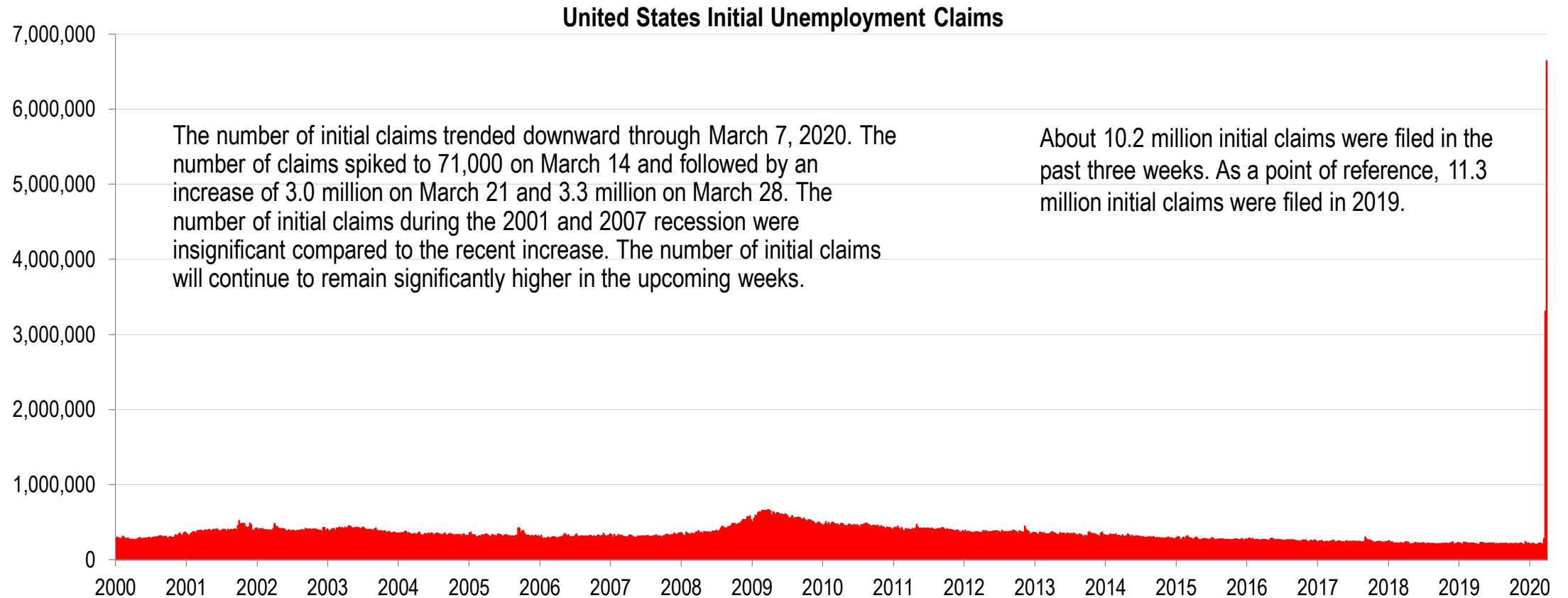
Initial Unemployment Claims

United States and Colorado

The Initial Unemployment Claims are the primary source of employment data showing how fast and severe U.S. and Colorado employment has declined. This data is available on a weekly basis and has a lag of one to two weeks. In the near-term, the changes in continuing claims will show how long people are staying unemployed.

Initial Unemployment Claims

United States Seasonally Adjusted

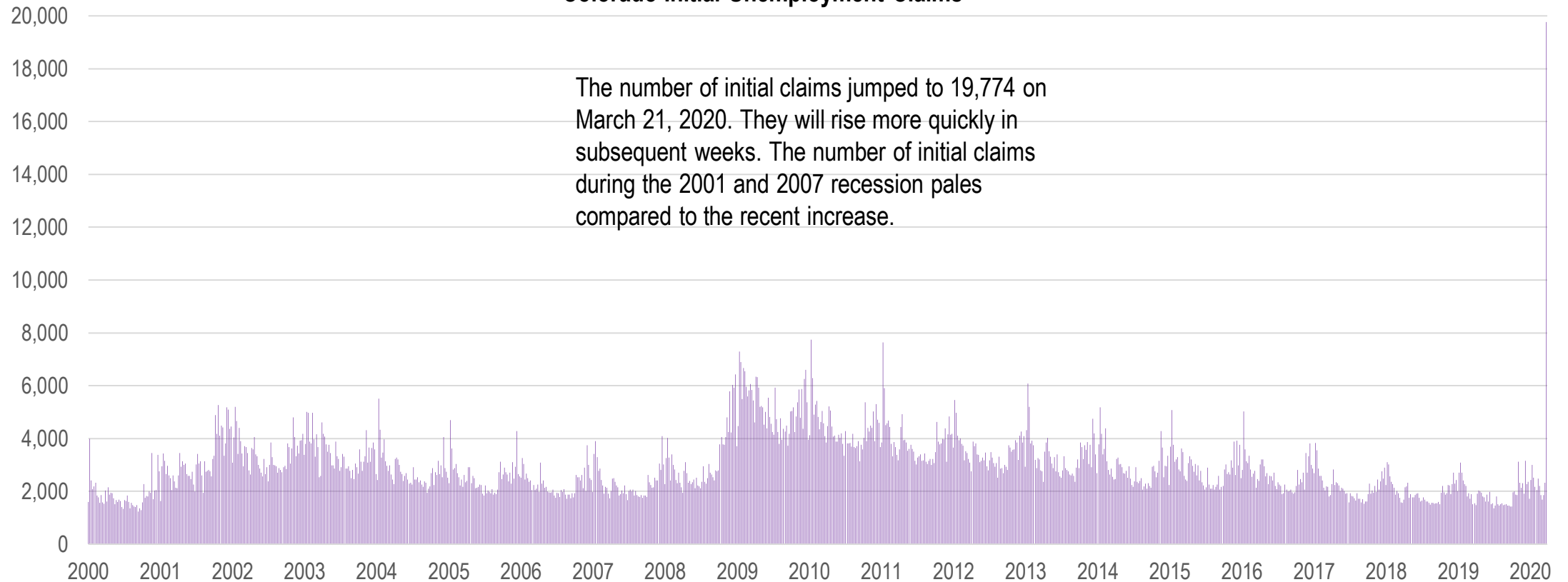


Source: FRED, Department of Labor, SA, cber.co.

Initial Unemployment Claims

Colorado Not Seasonally Adjusted

Colorado Initial Unemployment Claims



Source: FRED, Department of Labor, NSA, cber.co.

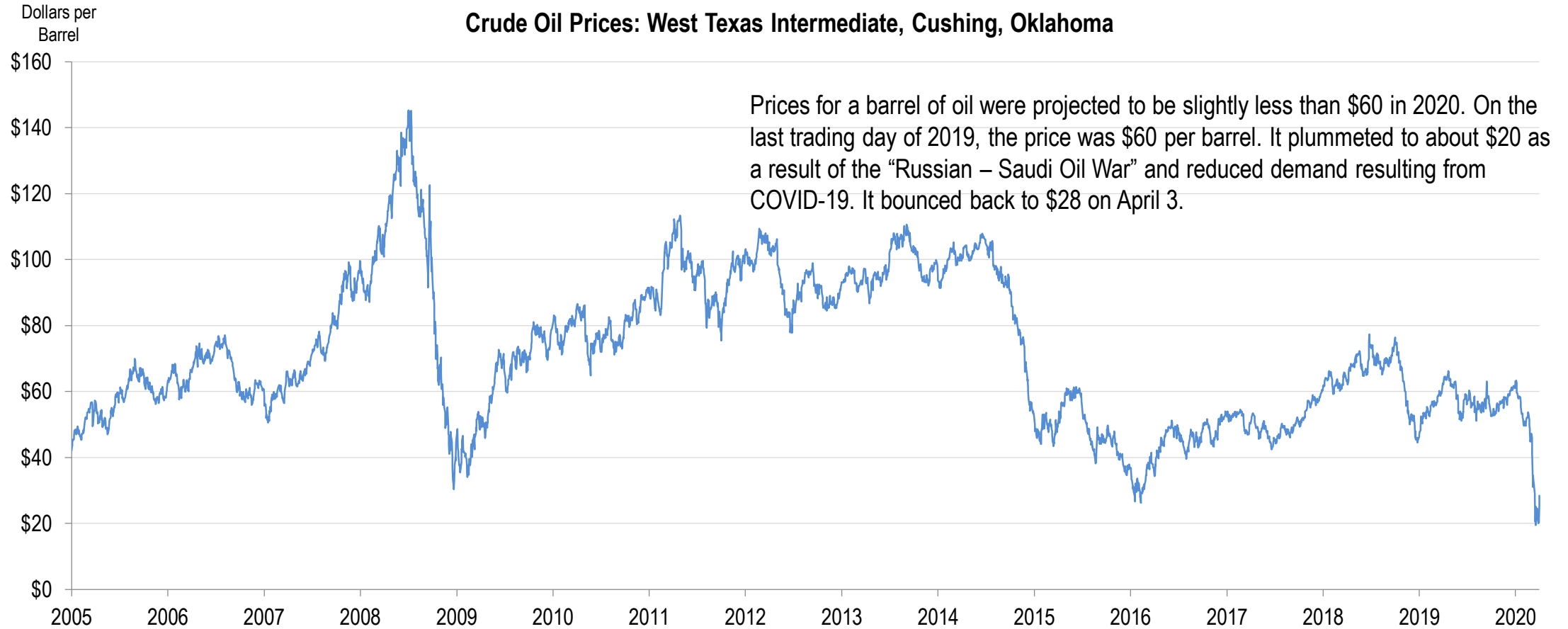
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Oil Prices and S&P 500

As of April 3, both the price for a barrel of oil (WTI) and the S&P 500 were rebounding after significant declines.

Crude Oil Prices

West Texas Intermediate



Source: FRED, EIA, cber.co.

Standard and Poor's 500 Index



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

Forward Looking Data and Information

Real GDP Forecast, At-Risk Metro Areas, Projected Vulnerabilities in Colorado Economy

Real GDP Forecast

United States

Various economic leaders revised their forecasts for the United States in early March. In late March, some revised them a second time. Four forecasts for real GDP are provided on the following page that show a wide range of opinions about how the United States economy will perform in 2020.

Forecasts for Quarterly U.S. Real GDP Growth

Late March 2020

These four forecasts were prepared during the second half of March. Two call for real GDP growth to turn positive again in Q3 and two call for a rebound in Q4. The track record of the Conference Board is the most likely, given its track record. It calls for negative real GDP growth through Q3 with a rebound in Q4.

Revised Forecasts for 2020 US Real GDP Growth				
Quarter 2020	J.P. Morgan	UBS	Conference Board	Wells Fargo
Q1	-4.0%	-2.1%	-3.8%	+1.2%
Q2	-14.0%	-9.5%	--29.9%	-14.7%
Q3	+8.0%	+2.1%	-3.3%	-6.3%
Q4	+4.0%	+6.7%	+18.5%	+4.1%

Source: Meyers Research, Wells Fargo, and the Conference Board and cber.co.

Metro Areas at Risk

Based on a report by Brookings, Colorado has a greater concentration of high-risk industries. This is likely to cause the state to underperform in the recovery from the economic crisis.

Metro Areas Most at Risk

Brookings Institution

On March 17, Brookings released the short report “The places a COVID-19 recession will likely hit hardest.” It identified the risk of 382 metro areas based on their concentration of the following high-risk industries: mining (NAICS 21), transportation (NAICS 48), employment services (NAICS 5613), travel arrangements (NAICS 5615), and leisure & hospitality (NAICS 71 & 72).

These industries comprise 16.5% of total jobs.

The study indicated the 7 Colorado MSAs had about 400,000 high risk jobs. About 76% are located in Denver and Colorado Springs. This higher than average concentration of high-risk industries is likely to cause greater job loss in Colorado during the current economic crisis.

At Risk Metro Areas Based on High Risk Industries

Rank	Metro Areas	Number of At Risk Jobs	Share of All Metro At-Risk Jobs	Share of Metro Jobs
1	Midland, TX	46,618	0.2%	42.5%
2	Kahului-Wailuku-Lahaina, HI	32,092	0.2%	40.4%
3	Atlantic City-Hammonton, NJ	44,227	0.2%	34.2%
4	Las Vegas-Henderson-Paradise, NV	342,050	1.6%	33.8%
5	Odessa, TX	26,853	0.1%	33.3%
37	Greeley, CO	22,723	0.1%	20.3%
38	Grand Junction, CO	12,744	0.1%	20.1%
111	Denver-Aurora-Lakewood, CO	255,516	1.2%	17.1%
129	Colorado Springs, CO	47,444	0.1%	16.5%
147	Fort Collins, CO	26,406	0.1%	16.1%
307	Pueblo, CO	8,268	0.0%	13.4%
317	Boulder, CO	24,603	0.1%	13.2%
378	El Centro, CA	6,360	0.0%	10.1%
379	Jefferson City, MO	7,596	0.0%	10.0%
380	Elkhart-Goshen, IN	13,091	0.1%	9.6%
381	Yakima, WA	10,556	0.1%	9.2%
382	Madera, CA	4,632	0.0%	9.1%

Source: Brookings and cber.co.

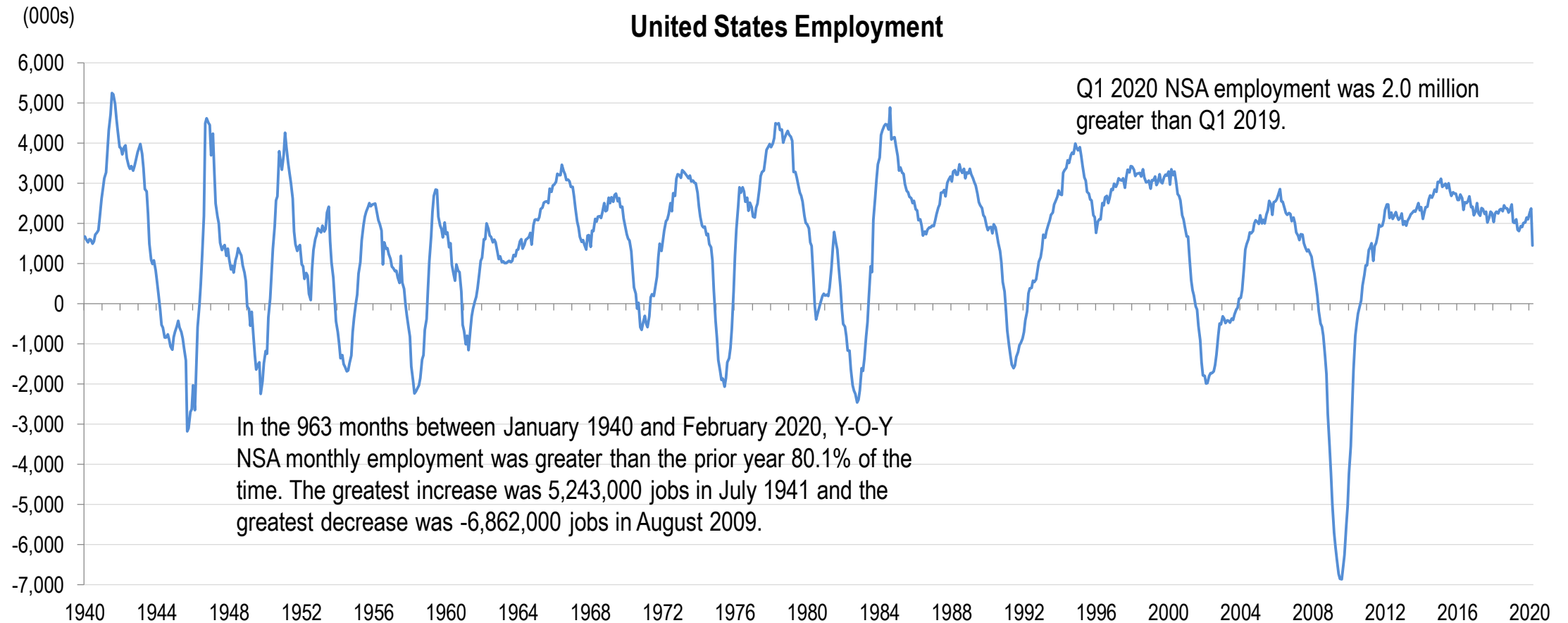
Changes in Employment

United States and Colorado

BLS produces labor statistics that show changes in wage and salary employment. The U.S. reports are released near the first of the month for the prior month. For example, the U.S. data for March was released the first week in April. The March data will be revised with the release of the April data during the first week of May. A similar process is used for the state data; however, it is released during the second half of the month. Data is released in two forms, seasonally adjusted (SA) and not seasonally adjusted (NSA) data. SA data allows for month-over-prior month analysis; although during times of volatility the seasonal adjustment factors may not be accurate. It is best to use NSA data by using year-over-year analysis. Annual averages are calculated from NSA data. This analysis looks at changes in both NSA and SA data for the United States and Colorado.

United States Employment

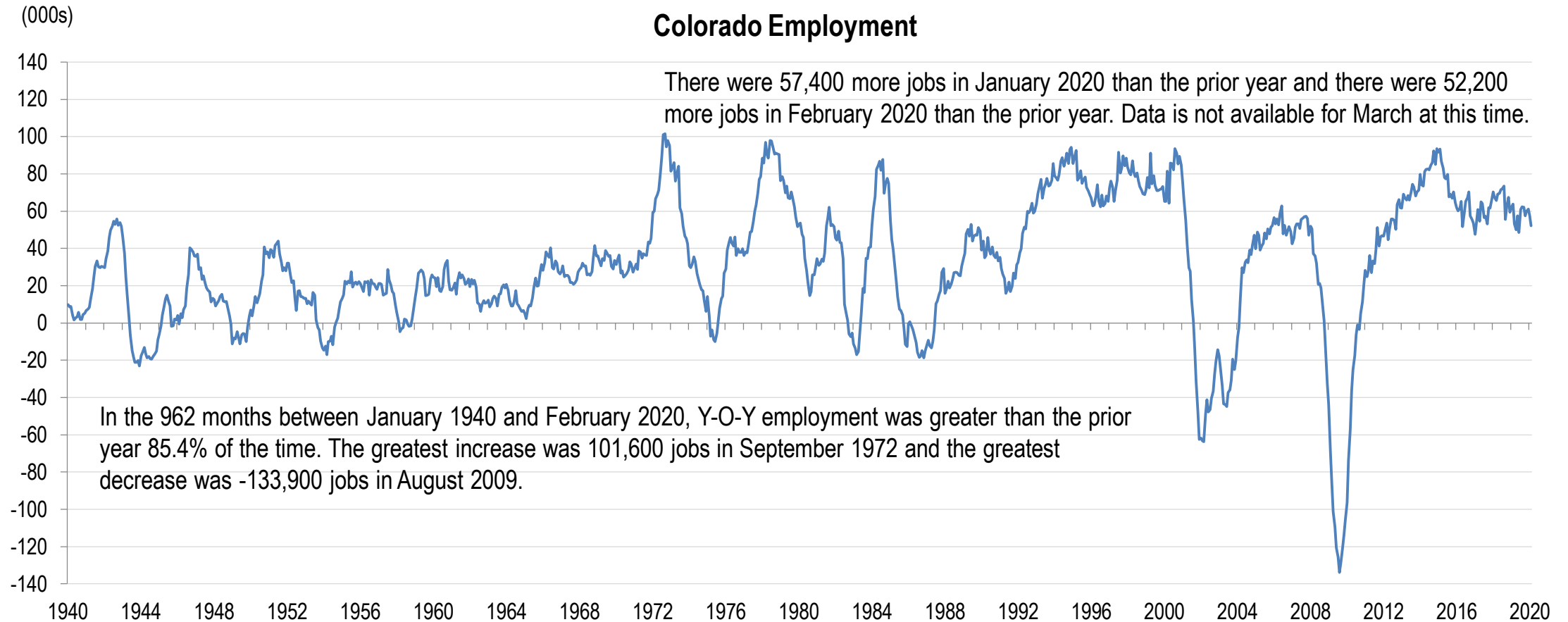
Year-Over-Year Change – Not Seasonally Adjusted



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

Colorado Employment

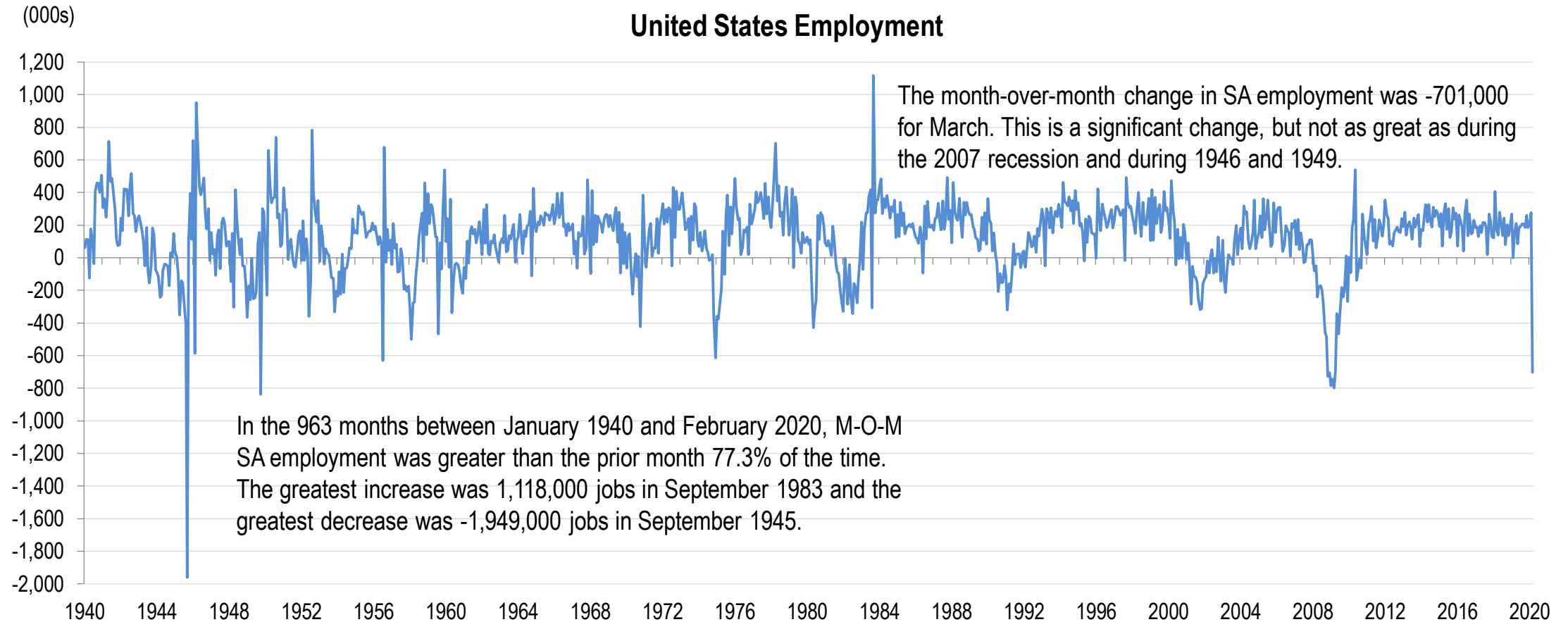
Year-Over-Year Change - Not Seasonally Adjusted



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

United States Employment

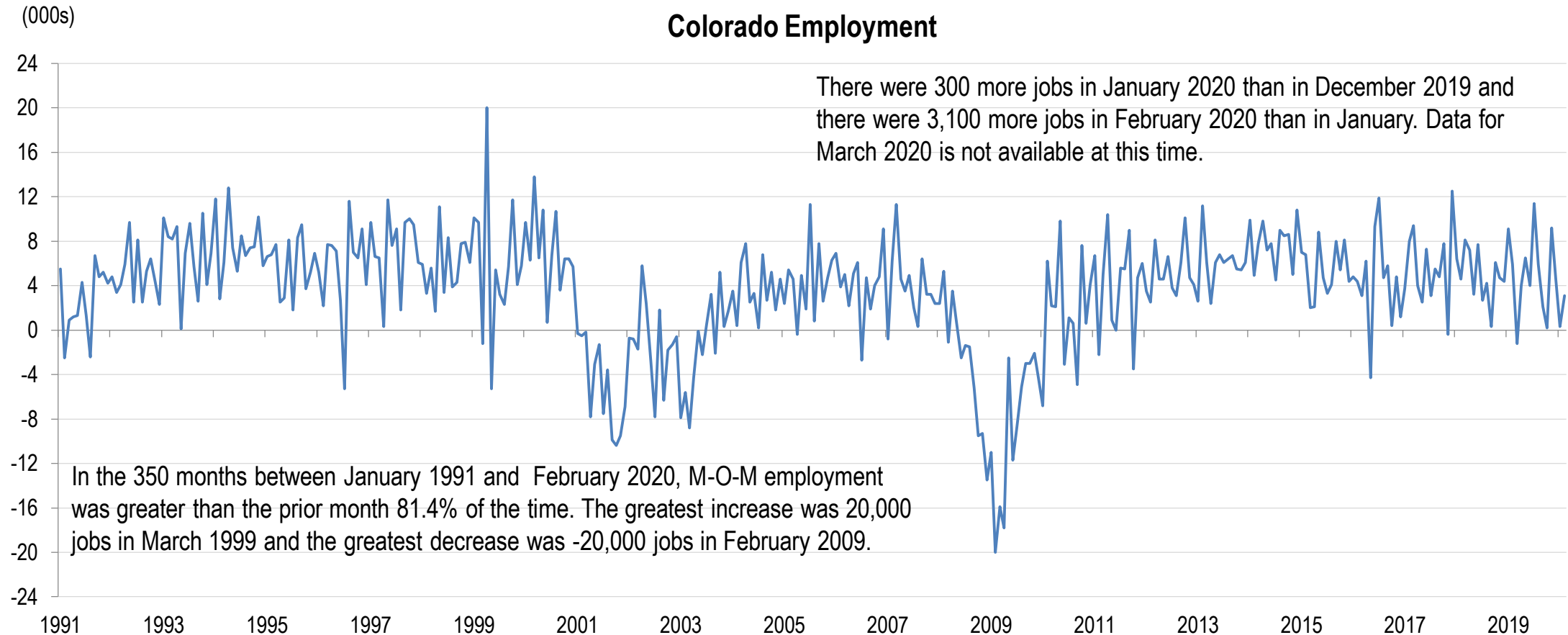
Month-Over-Month Change – Seasonally Adjusted



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

Colorado Employment

Month-Over-Month Change - Seasonally Adjusted



Source: Bureau of Labor Statistics, NSA, cber.co. Note: SA data for Colorado is only available from 1990 to current.

Changes in Employment

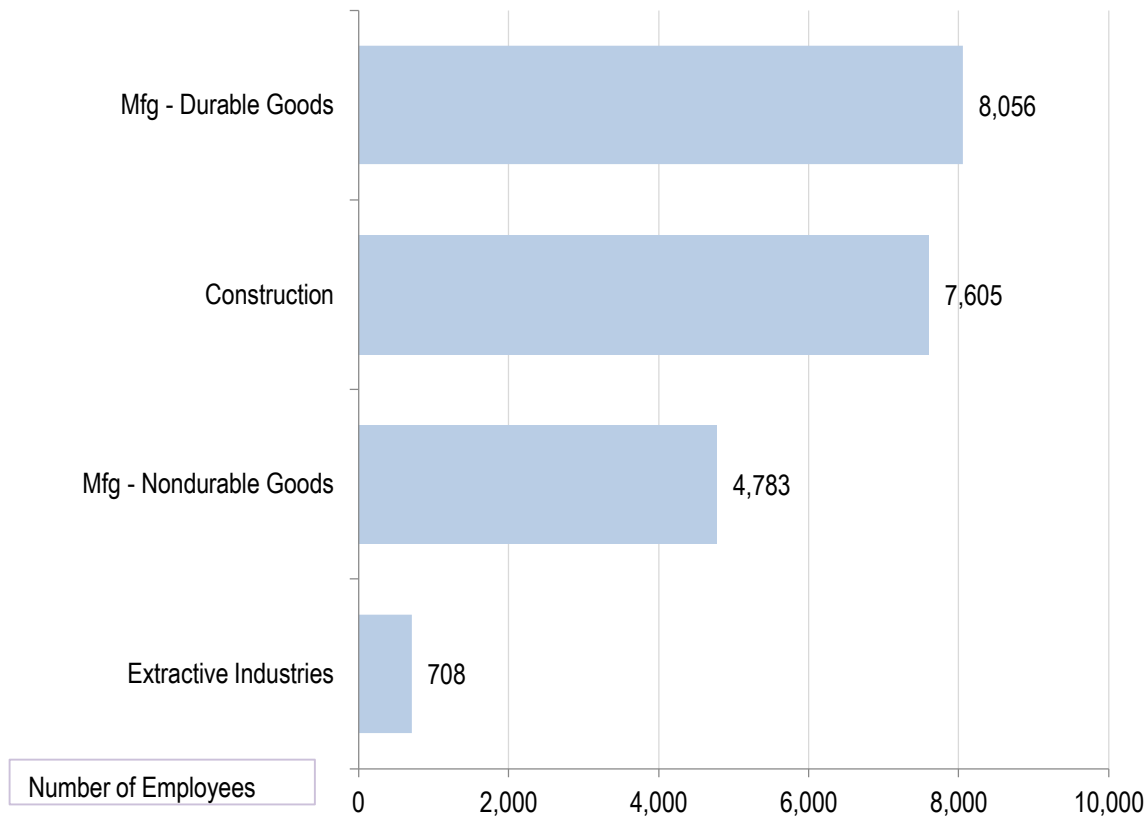
United States

The following three charts look at the M-O-M SA changes in U.S. employment for March by goods producing, private service producing, and government sectors. When the data is released for Colorado later this month, Colorado is likely to see significant reductions in food and beverage, administrative services, retail, and other services. In addition, extensive losses can be expected in private education, arts and recreation, manufacturing of nondurable goods, extractive services, and manufacturing of durable goods.

U.S. Change in Employment

March 2020 Goods Producing Sectors SA

Employment (000s)



Changes in Employment

Total goods producing employment for March was 21,252,000 and 54,000 jobs were lost. The rate of loss was -0.3%.

The change and percent change in employment was:

- Manufacturing durable goods, -7,000, -0.1%.
- Construction, -29,000, -0.4%.
- Manufacturing nondurable goods, -11,000, -0.2%.
- Extractive industries, -7,000 -1.0%.

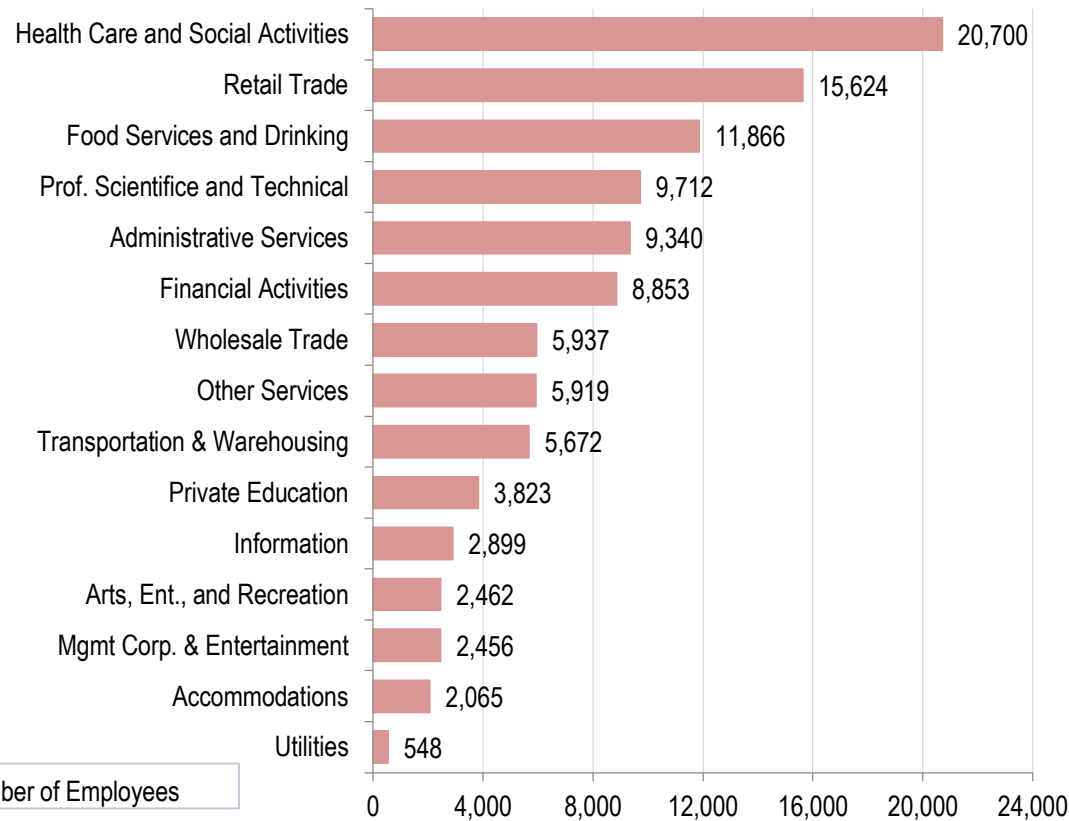
Source: Bureau of Labor Statistics, cber.co.

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U.S. Change in Employment

March 2020 Private Services SA

Employment (000s)



Changes in Employment

The M-O-M change in jobs is measured in thousands (SA). Total service producing employment for March was 107,874,000 and 660,000 jobs were lost. The rate of change was -0.6%.

The change and percent change in employment was:

- Healthcare and Social Assistance, -61,200, -0.3%
- Retail Trade, -46,200, -0.3%
- Food and Drinking Services, -417,400, -3.4%
- **PST, +6,500, 0.1%**
- Administrative Services, -61,000, -0.6%
- Financial Activities -1,000, -0.0%
- **Wholesale Trade, +900, 0.0%**
- Other Services, -24,000, -0.4%
- Transportation and Warehousing, -4,900, -0.1%
- Private Education, -15,200, -0.4%
- **Information, +2,000, 0.1%**
- AER, -13,200, -0.5%
- MCE, +2,700, 0.1%
- Accommodation, -28,900, -1.4%
- **Utilities, +800, 0.1%**

Green indicates jobs added.

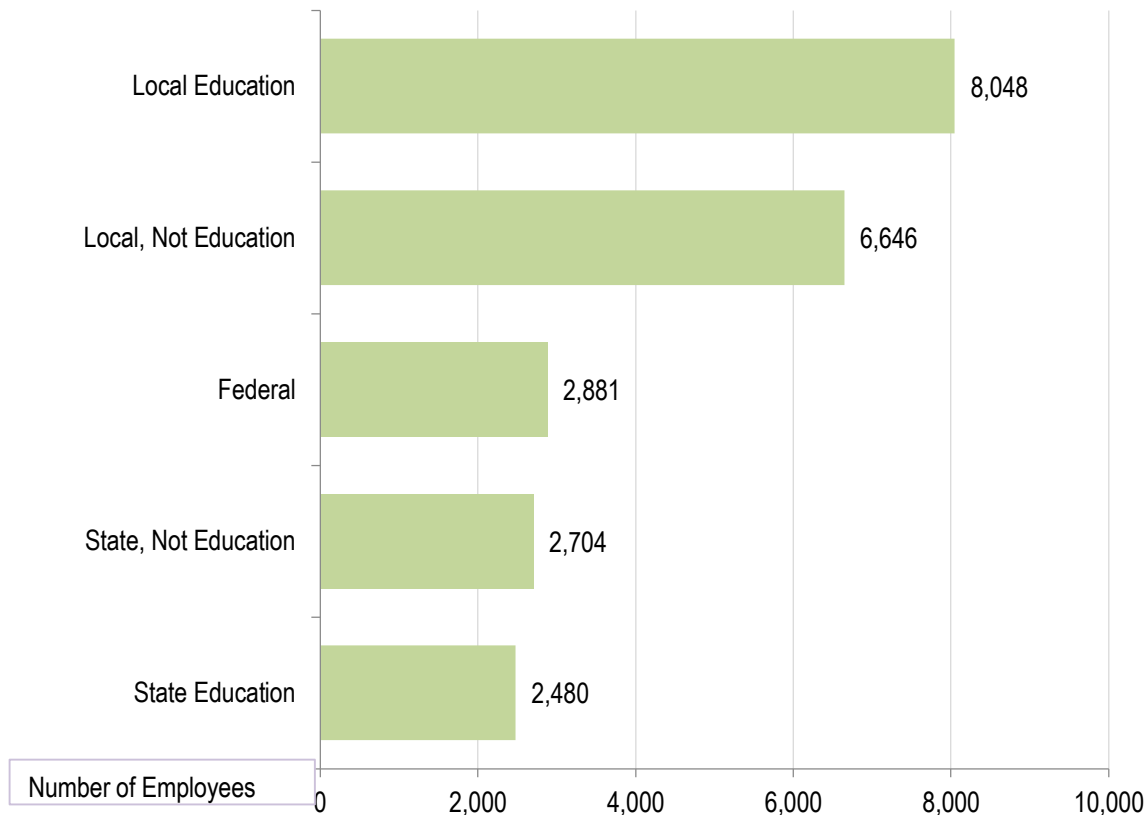
Source: Bureau of Labor Statistics, cber.co.

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U.S. Change in Employment

March 2020 Government SA

Employment (000s)



Changes in Employment

The M-O-M change in jobs is measured in thousands (SA). Total goods producing employment for March was 22,759 and 12 jobs were gained. The rate of gain was +0.1%.

The change and percent change in employment was:

- Local Education -300, -0.0%.
- Local, not Education, +7,600, 0.1%.
- Federal, +18,000, 0.6% (primarily U.S. Census).
- State, Not Education, -5,500, -0.2%.
- State Education, -8,600, -0.3%.

Green indicates jobs added.

Source: Bureau of Labor Statistics, cber.co.

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Summary

Summary

The economy is driven by uncertainty and rapid change surrounding the spread of COVID-19. When the new cases and deaths from the virus begin to decline then businesses will open, consumers will gain confidence in being in groups, and the economy will gradually return.

Relevant Data

- Both the U.S. and Colorado initial unemployment claims point to significant declines in Colorado employment for March and April.
- The free fall in oil prices and the equity markets appears to have bottomed out and is trending upward. The reversal of this downward trend may help increase consumer confidence.

Forward Looking Data and Information

- Real GDP Forecast – The late-March Conference Board forecast portends the United States will again have real positive GDP growth in Q4.
- At Risk Metro Areas – Brookings reported that Colorado may experience greater job loss than other states because of the percentage of high-risk industries in most Colorado metro areas
- March United States Employment – The upcoming March employment data for Colorado will show it will record significant job losses in the following industries: tourism, health care, retail trade, other services, administrative services, and private education.

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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 25 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 lead for the photonics/electronics cluster in OEDIT’s early stage and proof of concept grant program.