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# Economic Trends for Colorado Through July 2019

Colorado-based Business and Economic Research  
Prepared  
August 20, 2019

# 2019 Economic Trends for Colorado

## Through July

Over the past nine months, there have been numerous articles in the media suggesting a recession is right around the corner. The most current data shows the economy is performing better than these projections. Specifically, growth in Q3 and Q4 may be stronger than Q2. Colorado is on track to add 51,300 jobs in 2019. The current unemployment rate is painfully low at 2.9% and businesses will struggle to find qualified workers. The contents of this chartbook are listed below.

### United States

- U.S. Real GDP, Employment, Job Openings, and Inflation
- Industrial Production and Capacity Utilization
- Manufacturing and Nonmanufacturing Indices, Manufacturing Shipments, Manufacturing Employment, PBS, Employment, and Real Exports of Goods and Services
- Retail Sales, and Auto and Light Truck Sales
- Single Family Permits, Construction Spending, 30-Year Fixed Rate Mortgages, NAHB HMI and Housing Starts, and Housing Prices
- Corporate Profits, S&P Performance, Volatility, and Historical S&P Performance
- Federal Reserve Leading Indicator, NFIB Index, Michigan Consumer Sentiment
- Summary

### Colorado

- Real GDP
- Population Components of Change
- Employment, Percent Change in Employment, and Number of Establishments
- Unemployment Rate, Change in Labor Force, Initial and Continuing Claims
- Colorado Tourism Impact, DIA Passengers, Retail Sales, New Vehicle, and Venture Capital
- Building Permits, Valuation, and Housing Prices
- Oil Production, Oil Production by State, Oil and Gas Production by County, and Prices
- Summary

The 2019 forecast can be found at <https://cber.co/economic-forecasts/cber-co-economic-forecast/>. Monthly economic updates are available at <https://cber.co/economic-updates/>

# U.S. Economy





# The U.S. Economy

Real Gross Domestic Product, Employment, Job  
Openings, and Inflation

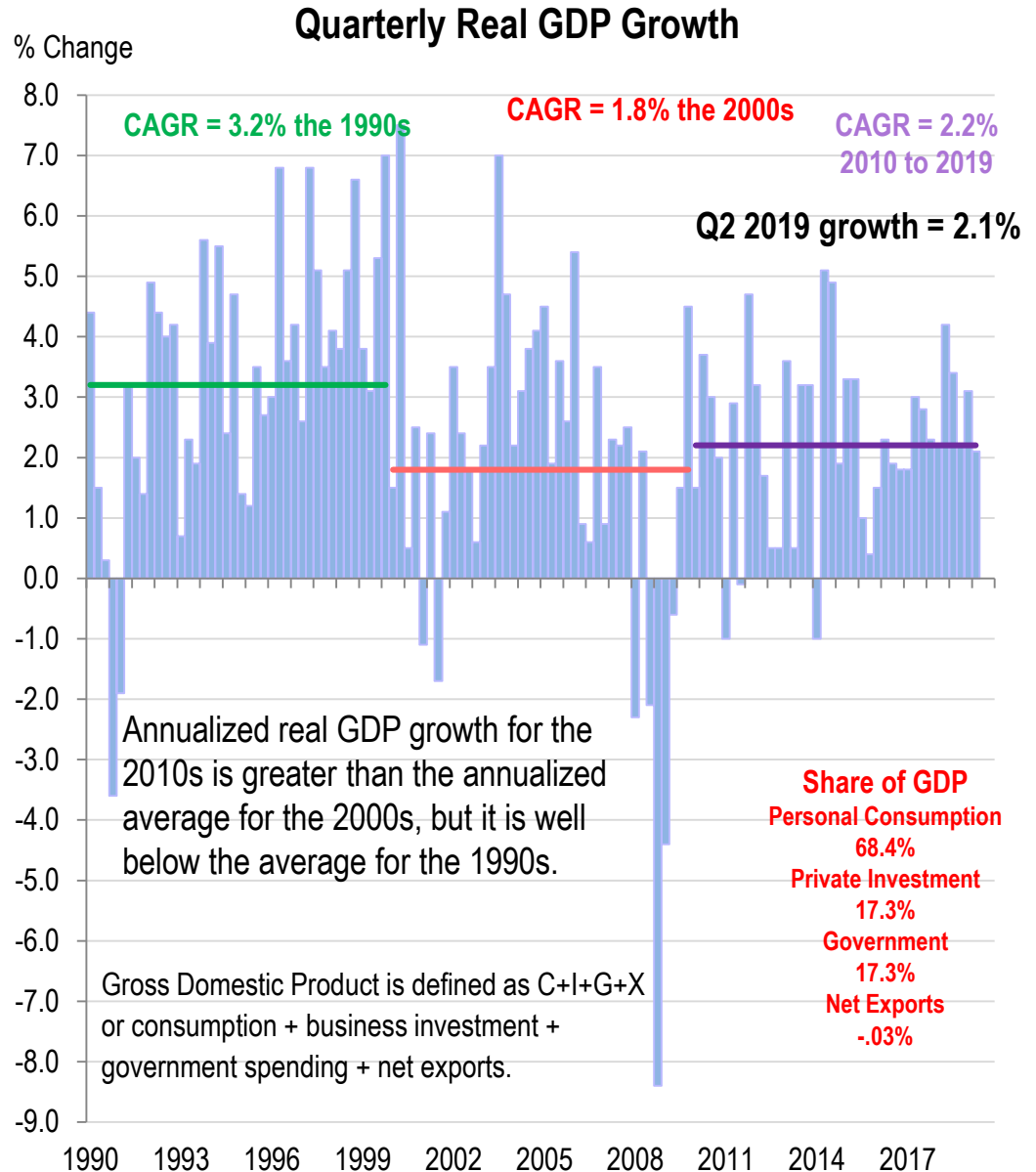
# Quarterly Real GDP Growth Historical United States

Between 2010 and 2019, quarterly real GDP growth ranged from -1.0% to 5.1%.

**The advance estimate for Q2 2019 real GDP growth came in stronger than expected by most economists at 2.1%. Overall growth for 2019 will be in the range of 2.3% to 2.5%.**

The growth was driven by personal consumption (as usual) and government spending at all levels. Growth was partly offset by private inventory investment, exports, and nonresidential fixed investment and residential fixed investment.

Q2 2019 is the 21<sup>st</sup> consecutive quarter of positive growth since Q1 2014.

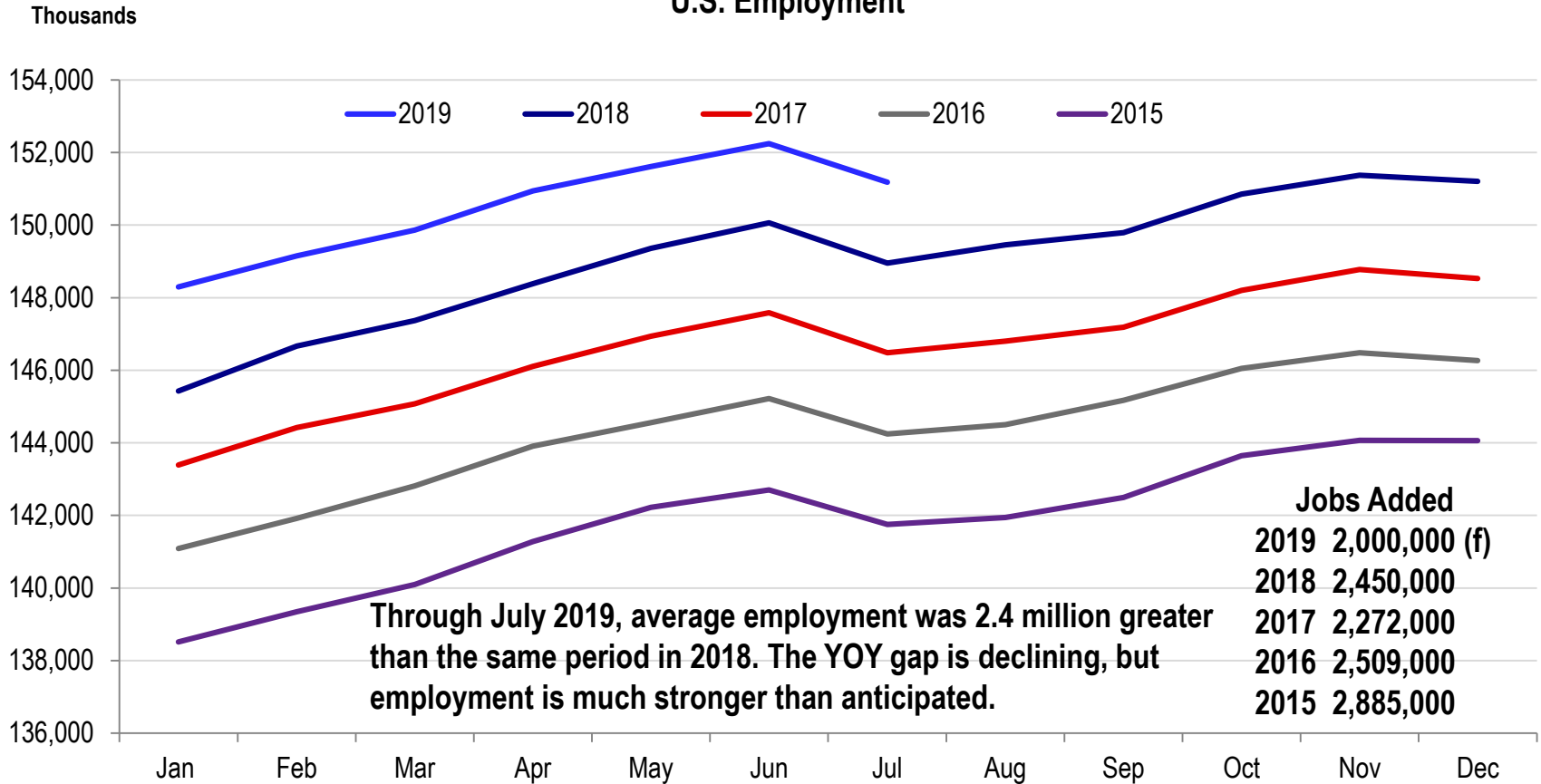


Source: Bureau of Economic Analysis, Table 1.1.1, Share of GDP based on 2017, cber.co.

# U.S. Employment

## 2015 to 2019

U.S. Employment

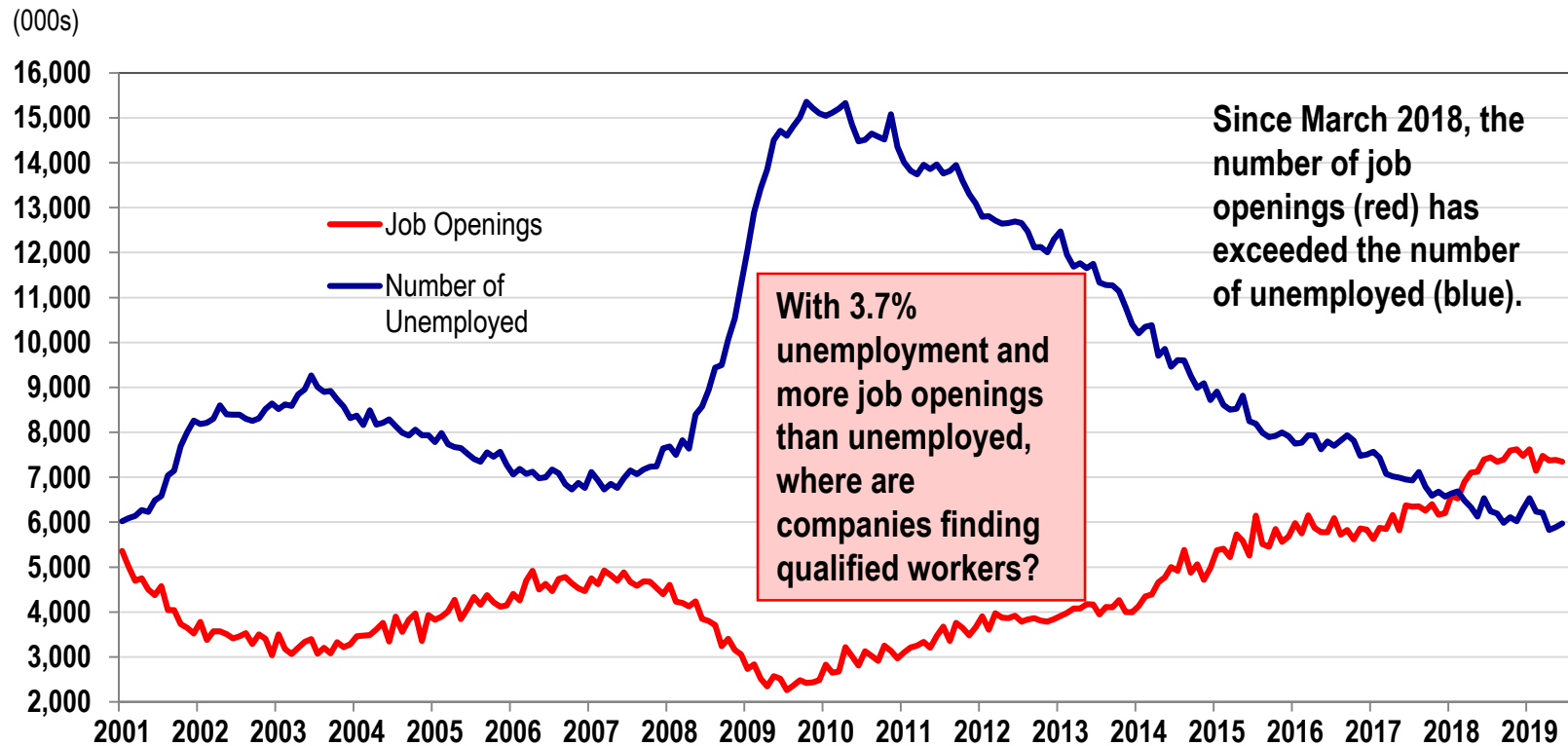


Source: BLS, NSA, cber.co. Note: CES Employment is also referred to as nonfarm wage and salary employment.

# Job Openings vs. Number of Unemployed

United States

Job Openings vs. Number of Unemployed



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

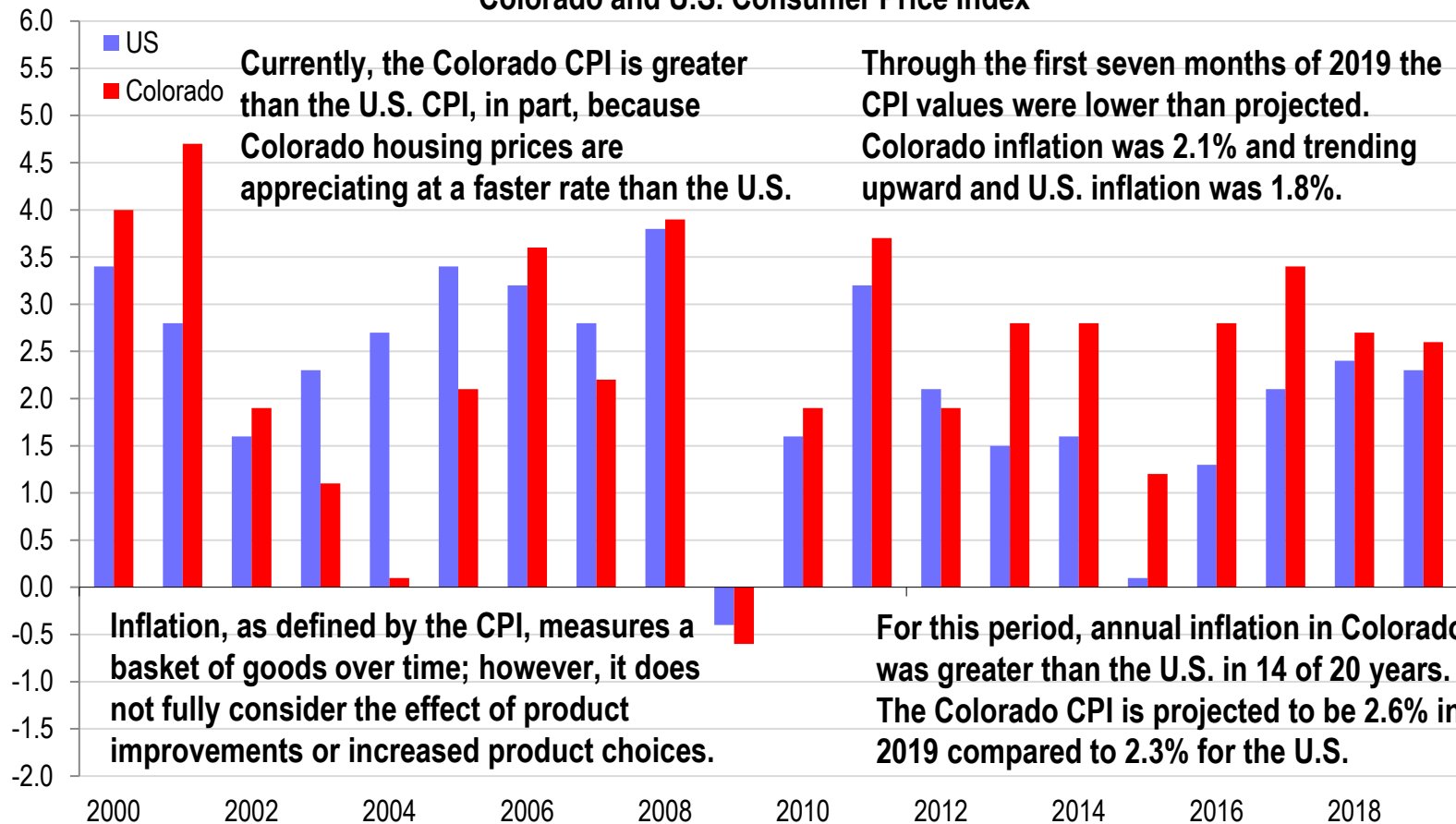
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# Consumer Price Index (CPI)

## Colorado vs. U.S.

1982-84=100,  
% change

Colorado and U.S. Consumer Price Index



Currently, the Colorado CPI is greater than the U.S. CPI, in part, because Colorado housing prices are appreciating at a faster rate than the U.S.

Through the first seven months of 2019 the CPI values were lower than projected. Colorado inflation was 2.1% and trending upward and U.S. inflation was 1.8%.

Inflation, as defined by the CPI, measures a basket of goods over time; however, it does not fully consider the effect of product improvements or increased product choices.

For this period, annual inflation in Colorado was greater than the U.S. in 14 of 20 years. The Colorado CPI is projected to be 2.6% in 2019 compared to 2.3% for the U.S.

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





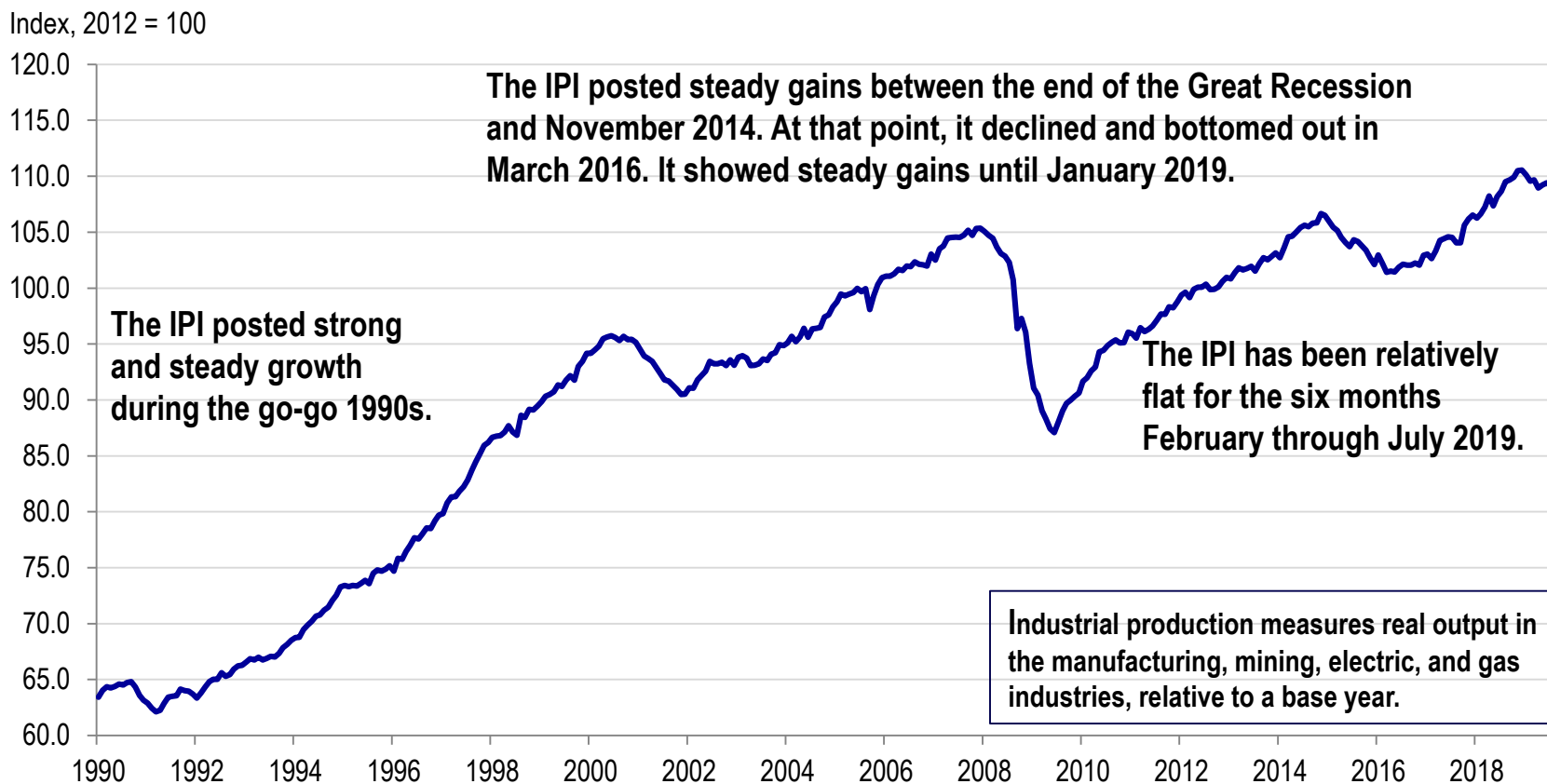
# The U.S. Economy

Industrial Production and Capacity Utilization – All Industries

# Industrial Production Index

## All Industries

Industrial Production, All Industries



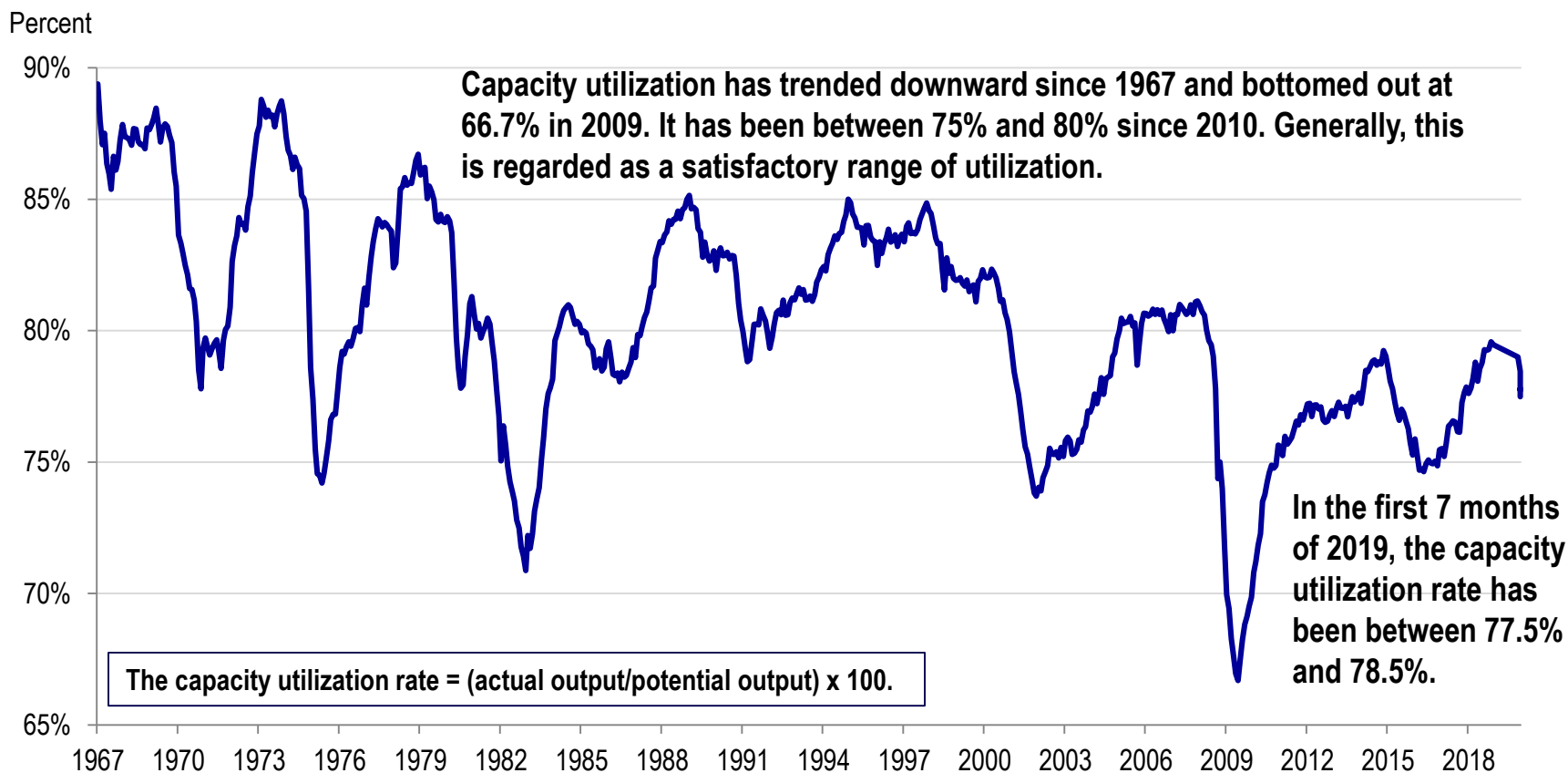
Source: FRED, Federal Reserve, cber.co.

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# Capacity Utilization

## Total Industry

### Capacity Utilization



Source: FRED, Federal Reserve, cber.co.

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

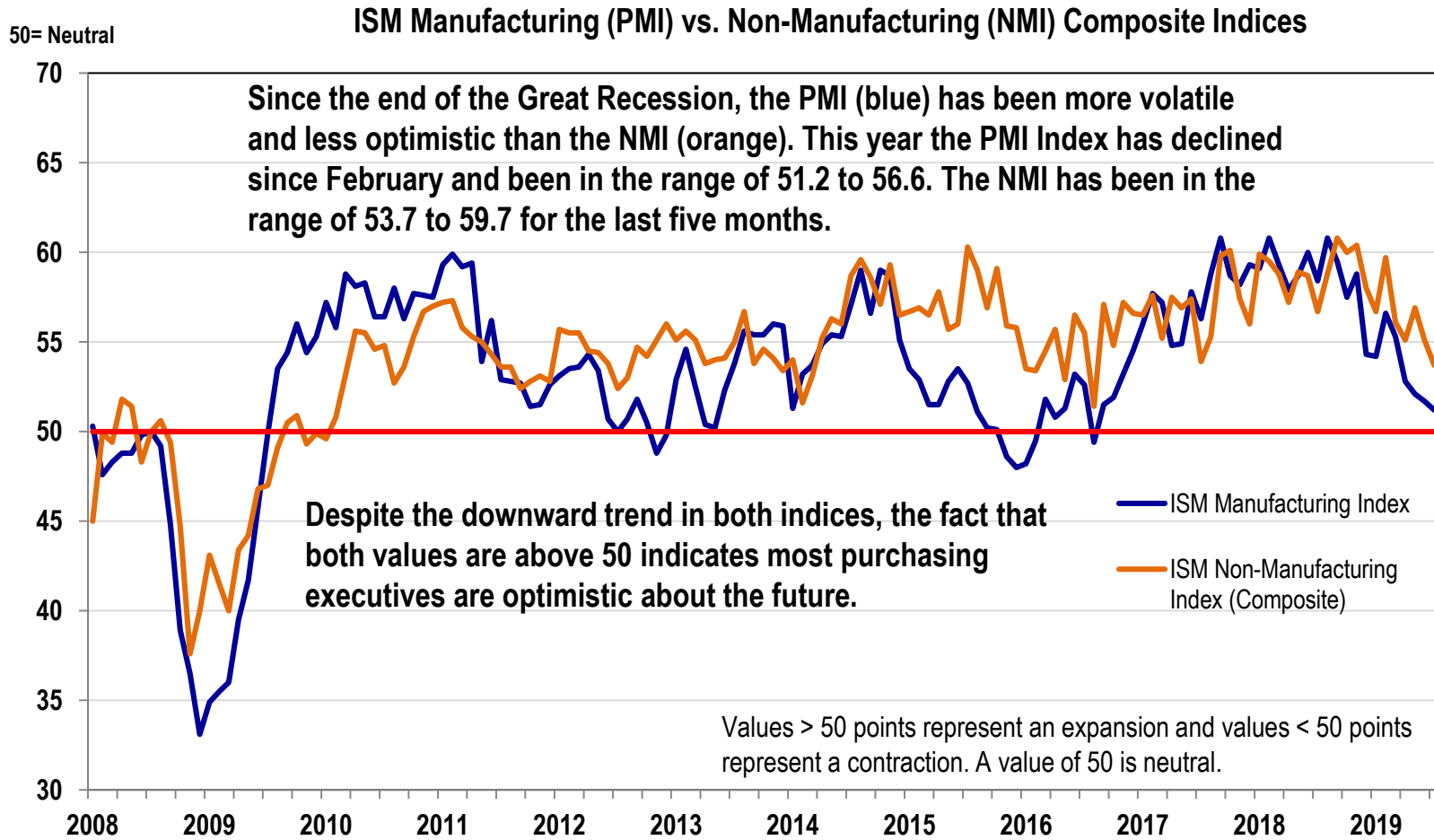


# The U.S. Economy

Manufacturing and Nonmanufacturing Indices, Manufacturing Shipments, Manufacturing Employment, PBS Employment, Exports of Goods and Services

# ISM PMI Composite Indices

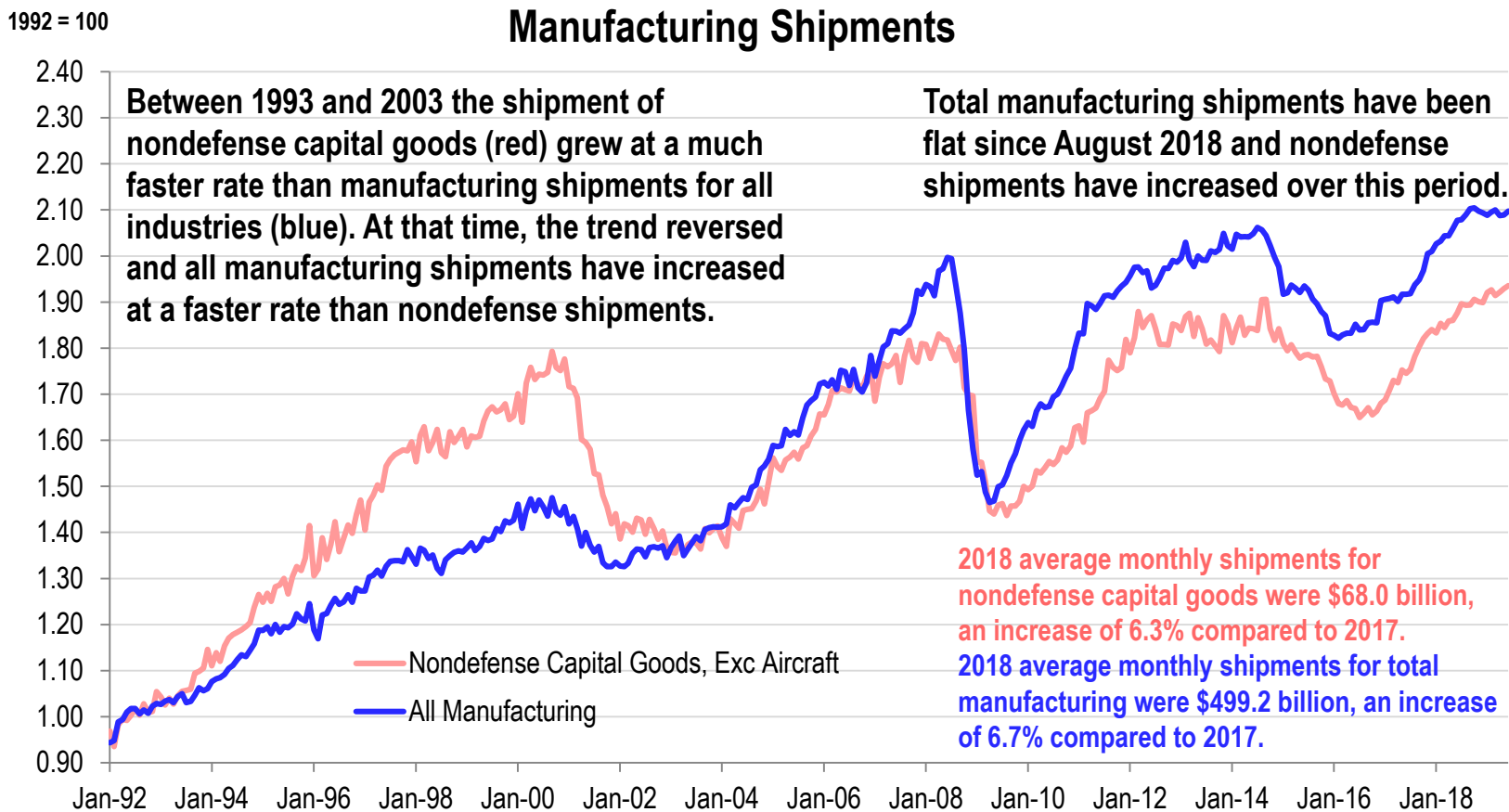
## Manufacturing vs. Non-manufacturing



Sources: Institute for Supply Management (ISM), FRED, cber.co.

# United States Manufacturing Shipments

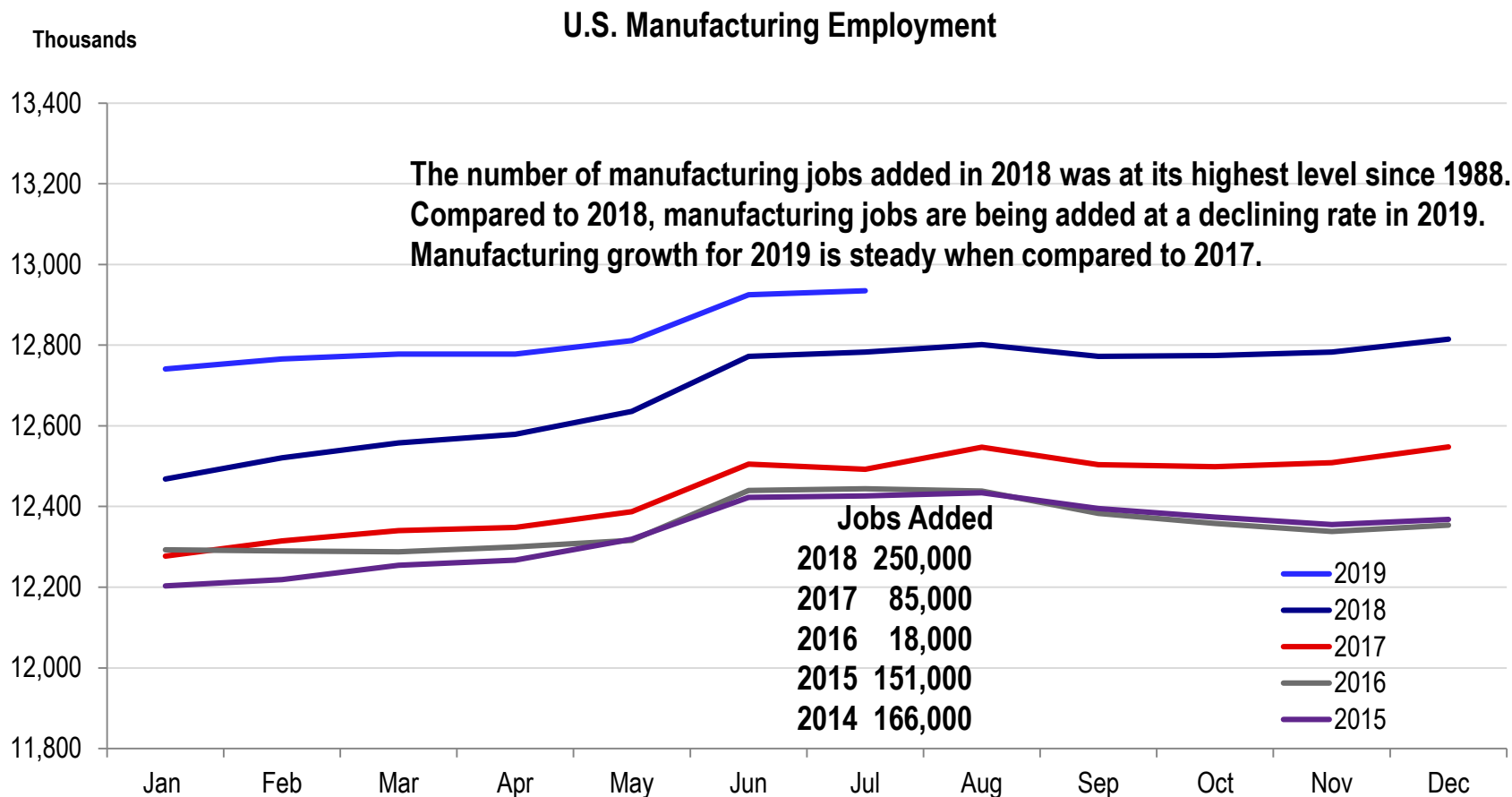
## All Industries vs. Nondefense Capital, Excluding Aircraft



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

# U.S. Manufacturing Employment

## 2015 to 2019

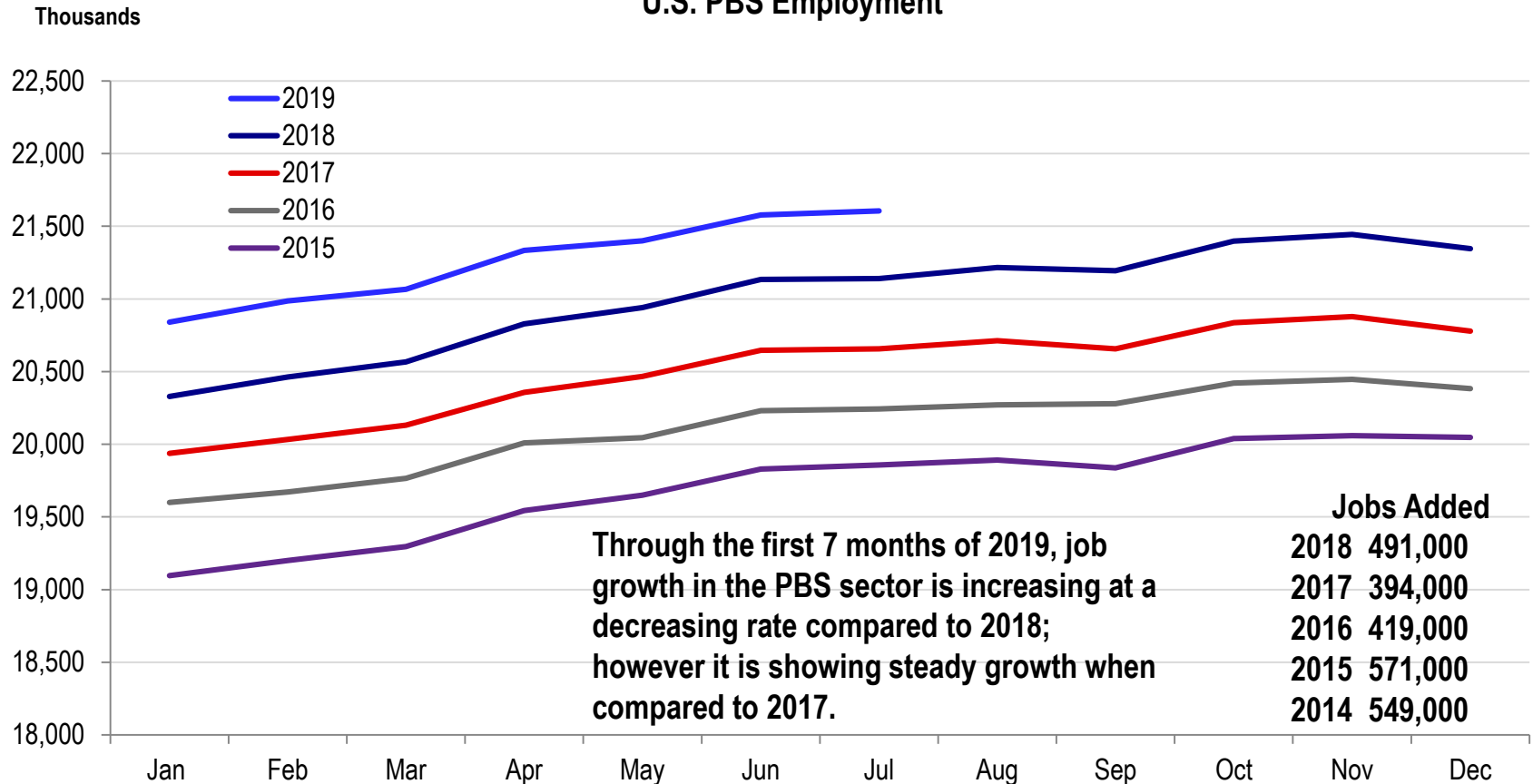


Source: BLS, cber.co.

# U.S. Professional Business Services

## 2015 to 2019

U.S. PBS Employment

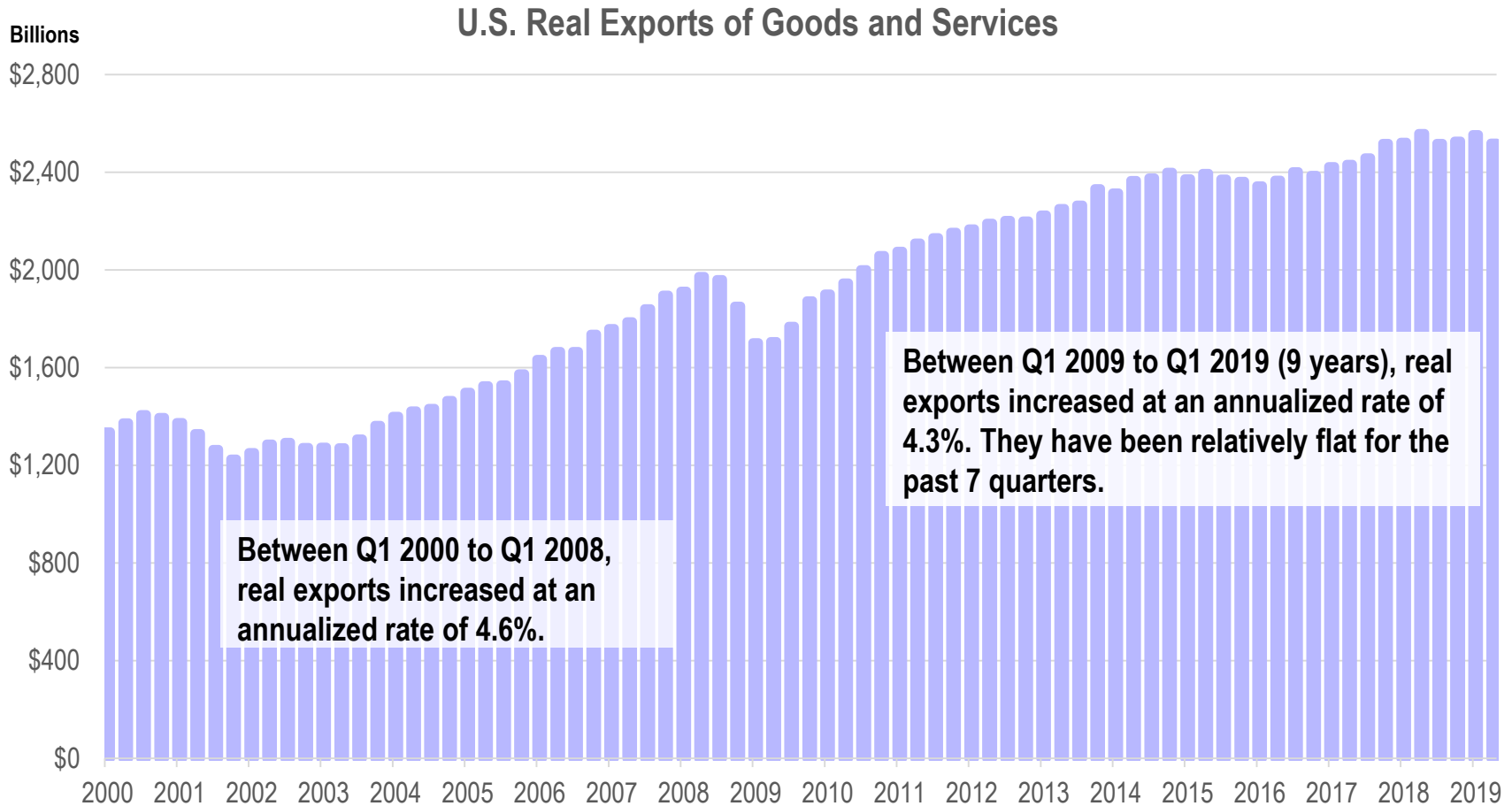


Source: BLS, cber.co.

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



# Real Exports of U.S. Goods and Services



Source: FRED, BEA, EXPGSC1, SAAR, cber.co. Note: Chained on 2012.

# Real Net Exports of U.S. Goods and Services



Source: FRED, BEA, NETEXC, SAAR, cber.co Note: Chained on 2012.

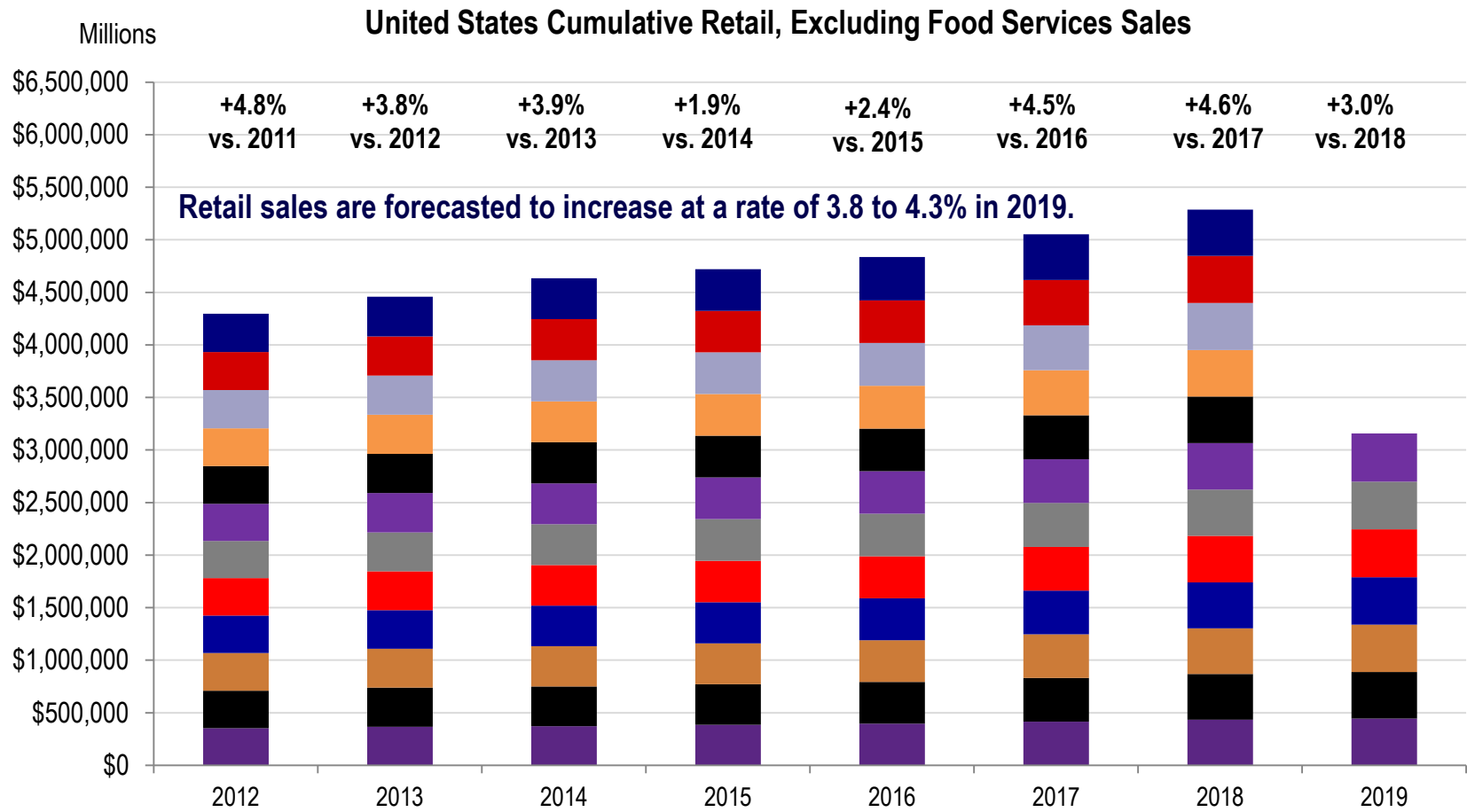


# The U.S. Economy

## Retail Sales, and Auto Sales

# Cumulative Retail, Excluding Food Services Sales

## Monthly

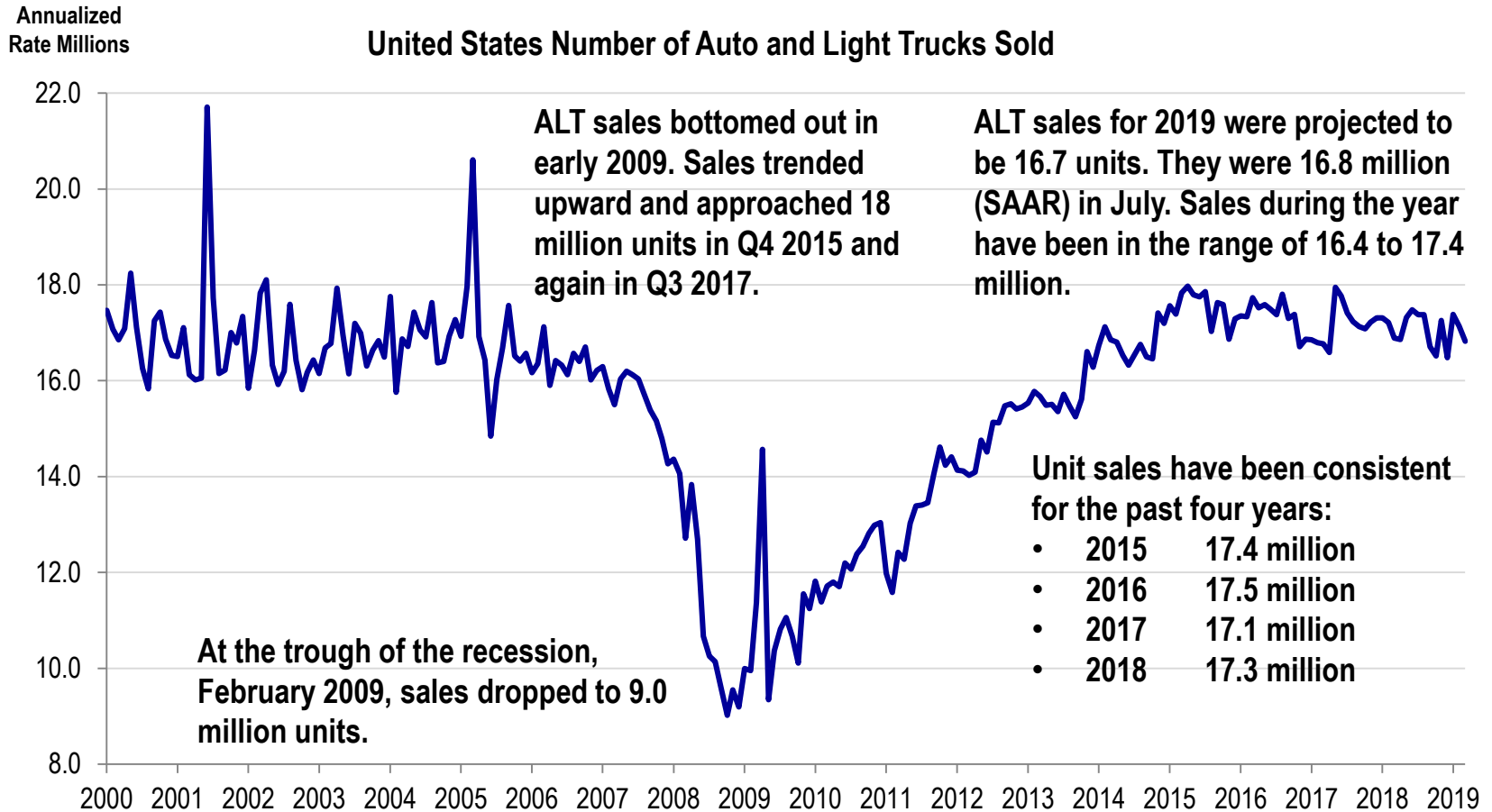


Source: U.S. Census Bureau, FRED, cber.co.

Note: Data is in descending order with December at the top and January at the bottom, not adjusted for inflation.

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

## Monthly (Annualized Rate Millions)



Source: FRED, BEA, cber.co.

Note: Seasonally Adjusted Annualized Rate.

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

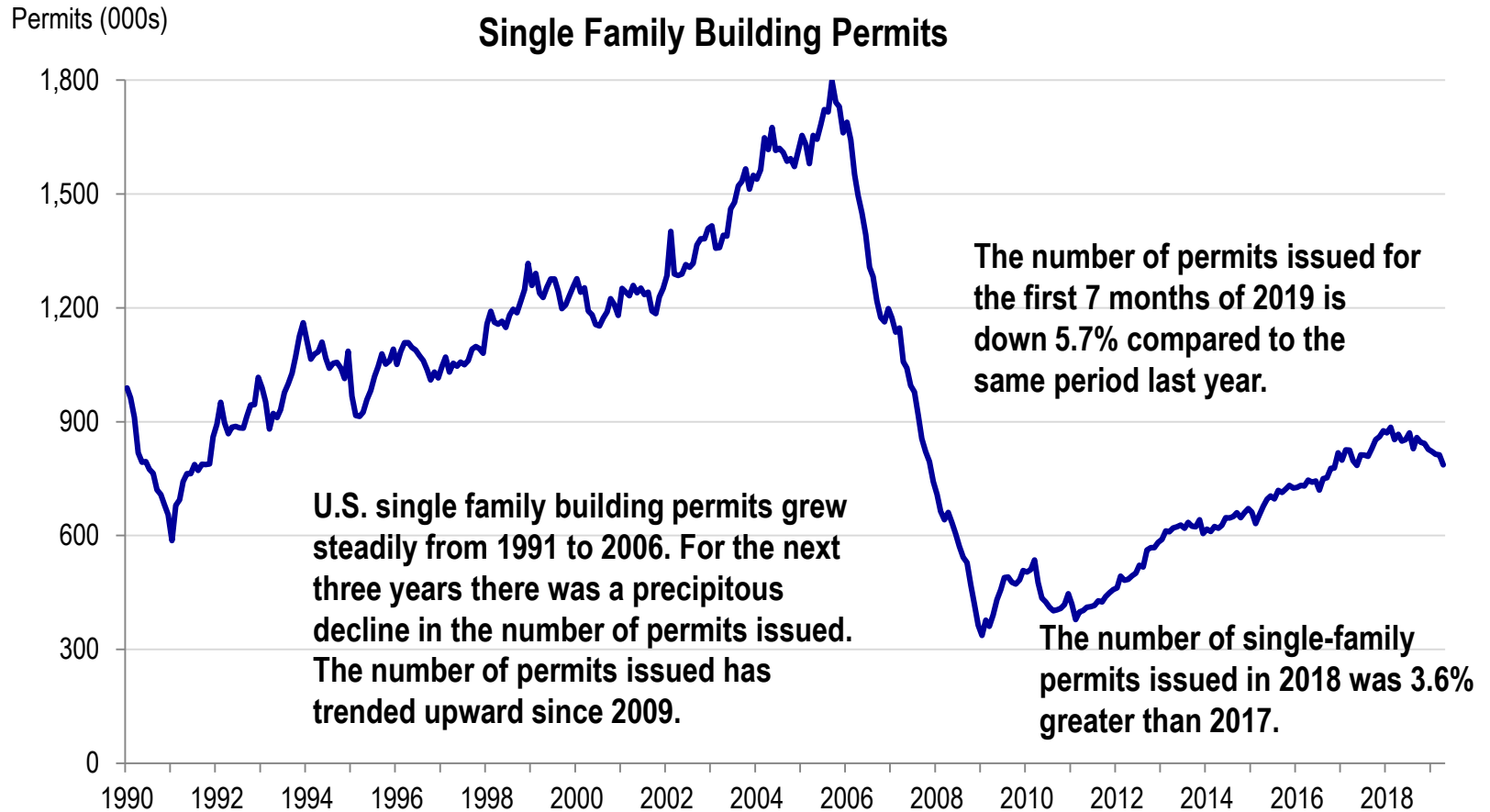


# The U.S. Economy

Single Family Permits, Construction Spending, 30-Year Fixed Rate Mortgages, NAHB HMI and Housing Starts, and Case Shiller Home Price Index

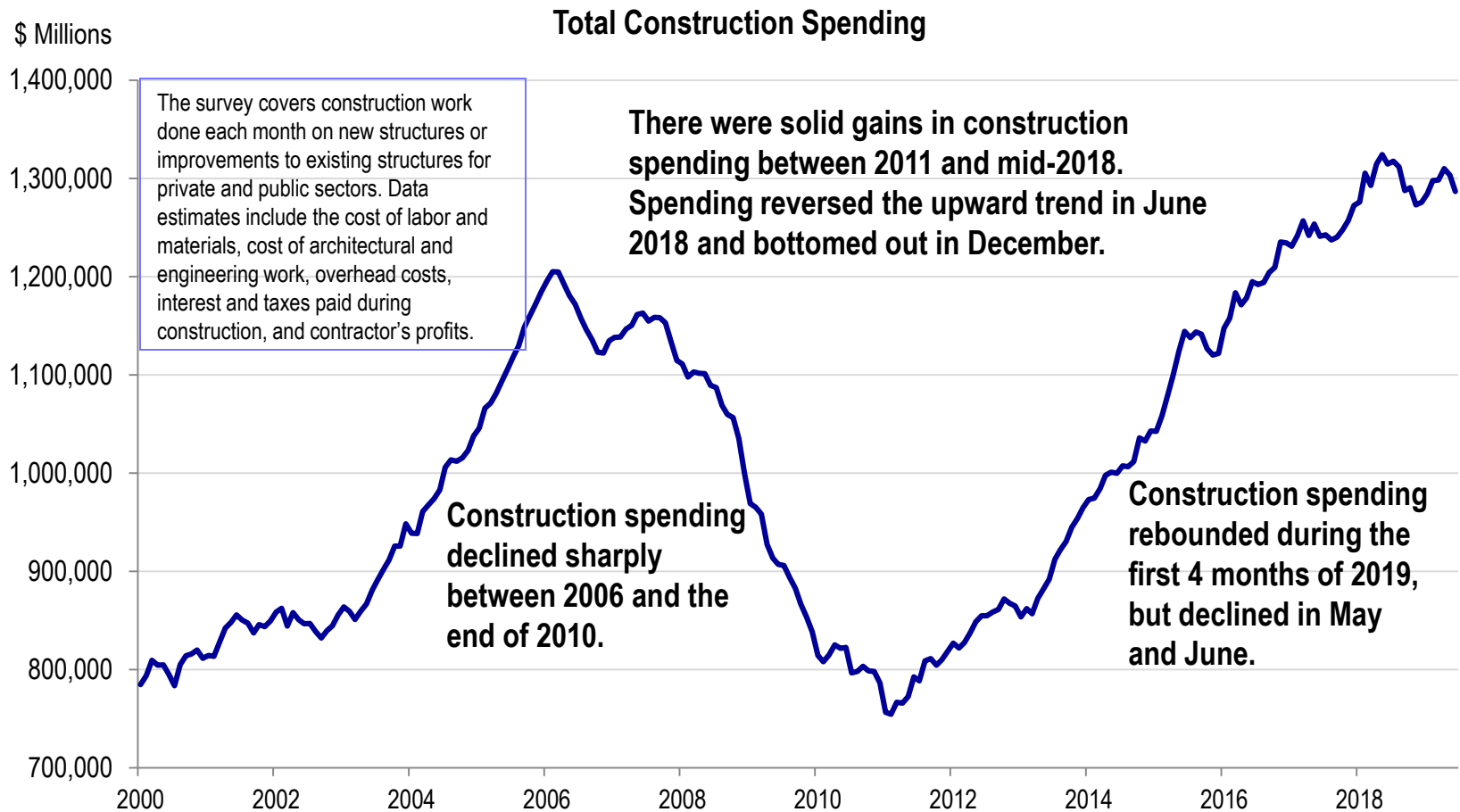
# New Single-Family Building Permits

United States



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

# Total U.S. Construction Spending

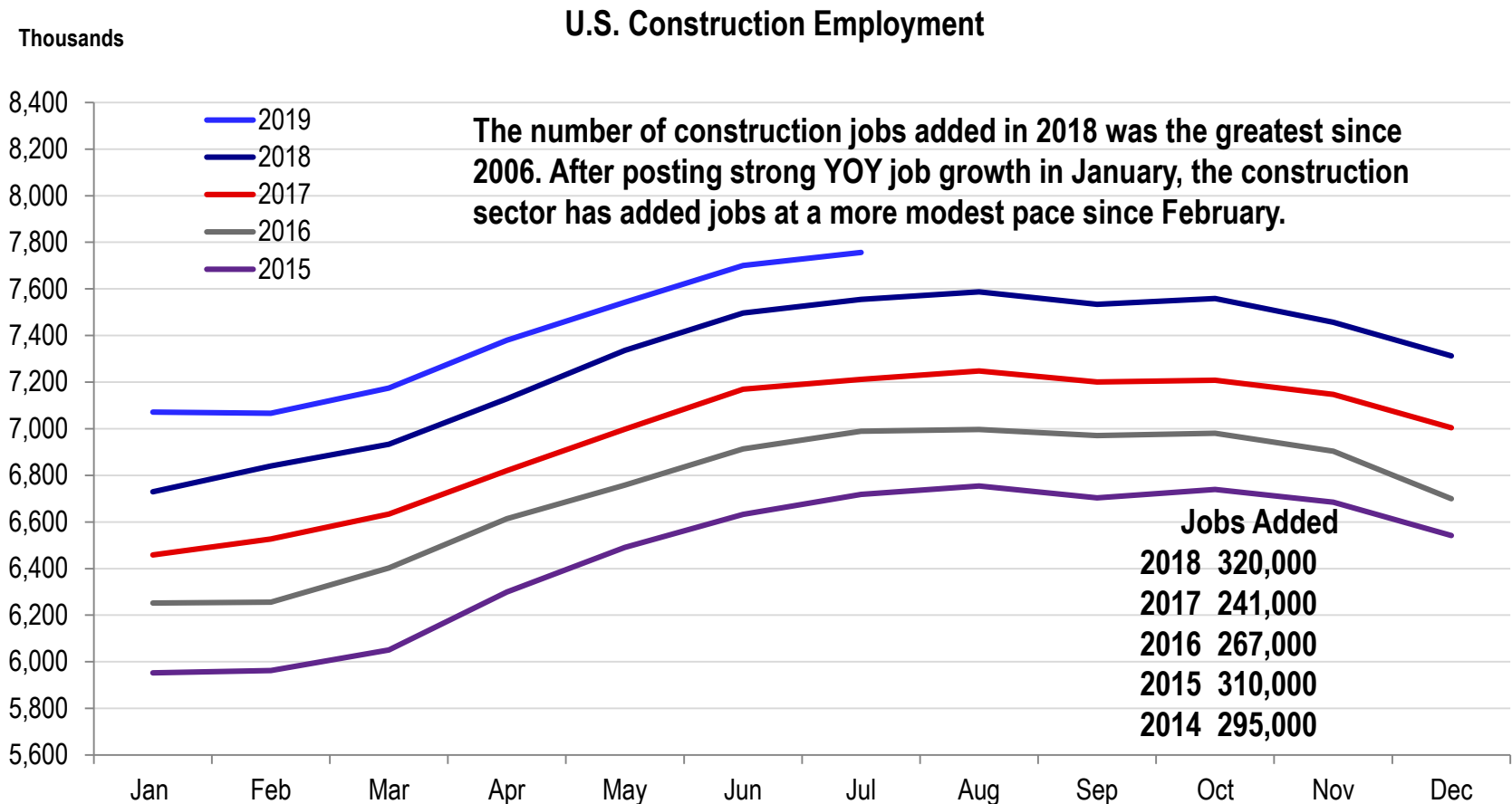


Source: FRED, Census Bureau, not adjusted for inflation, SAAR, cber.co.



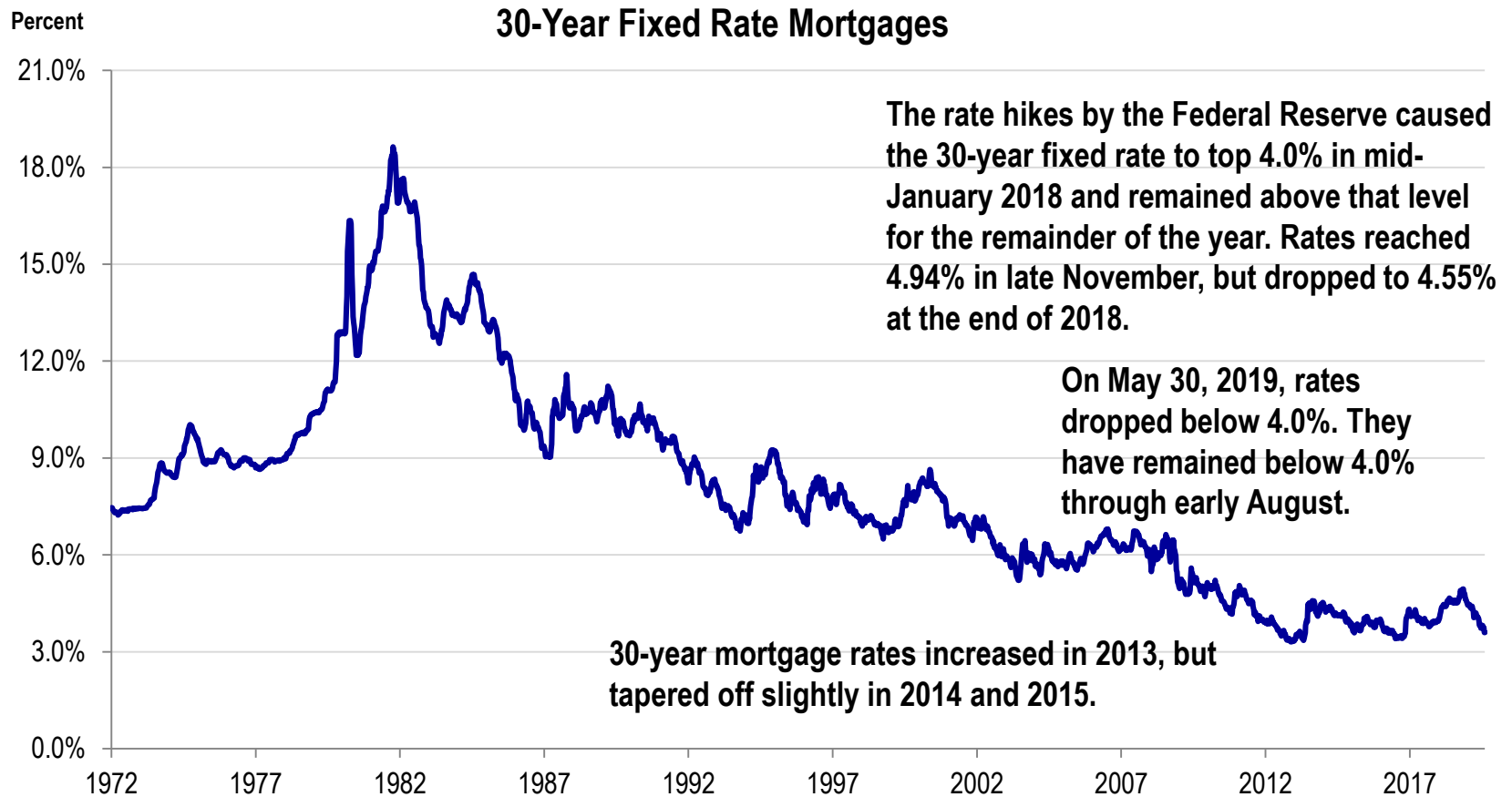
# U.S. Construction Employment

## 2015 to 2019



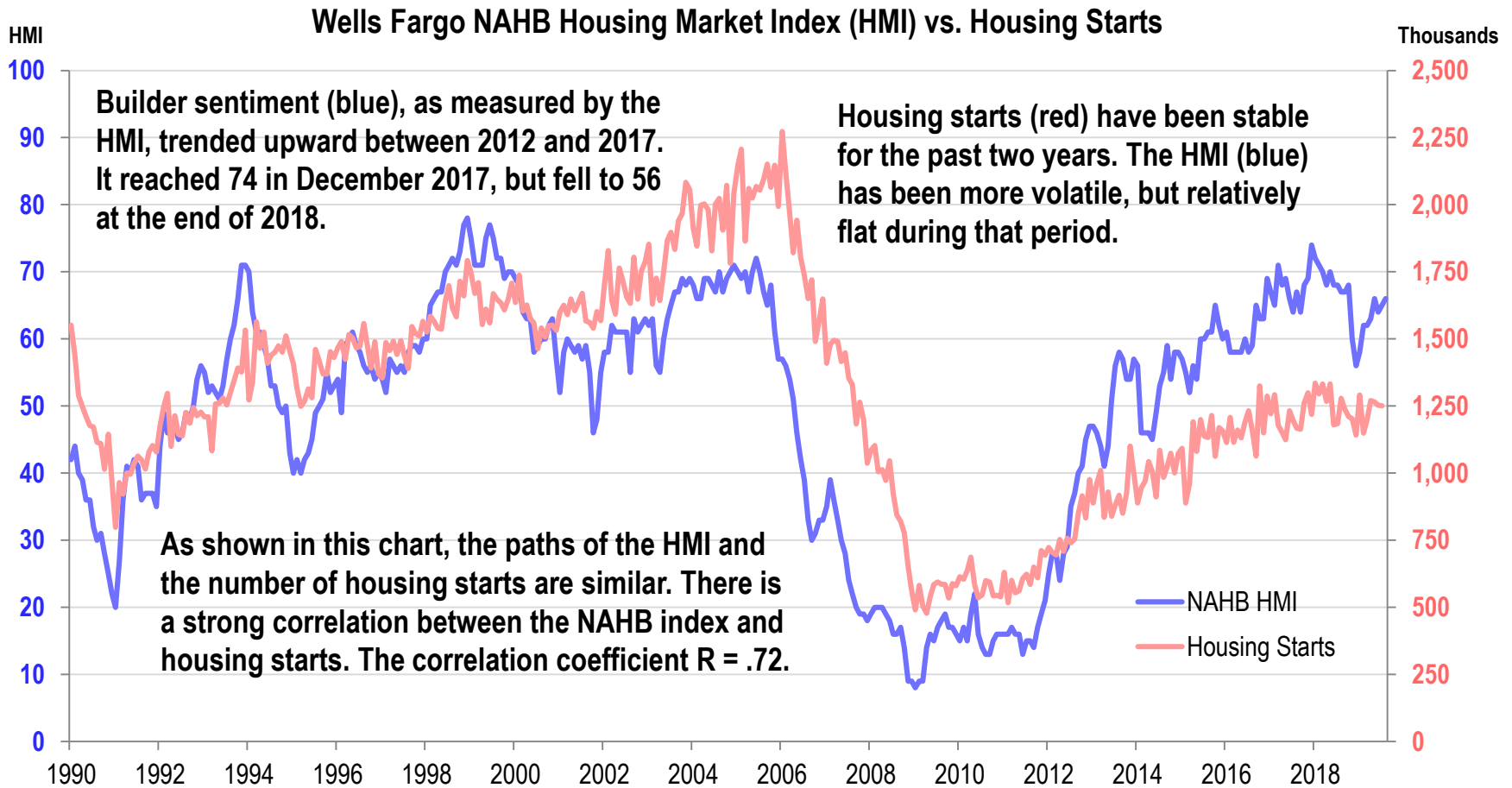
Source: BLS, cber.co.

# 30-Year Fixed Rate Mortgages



Source: FRED, Freddie MAC, cber.co.

# Wells Fargo NAHB HMI vs. Housing Starts

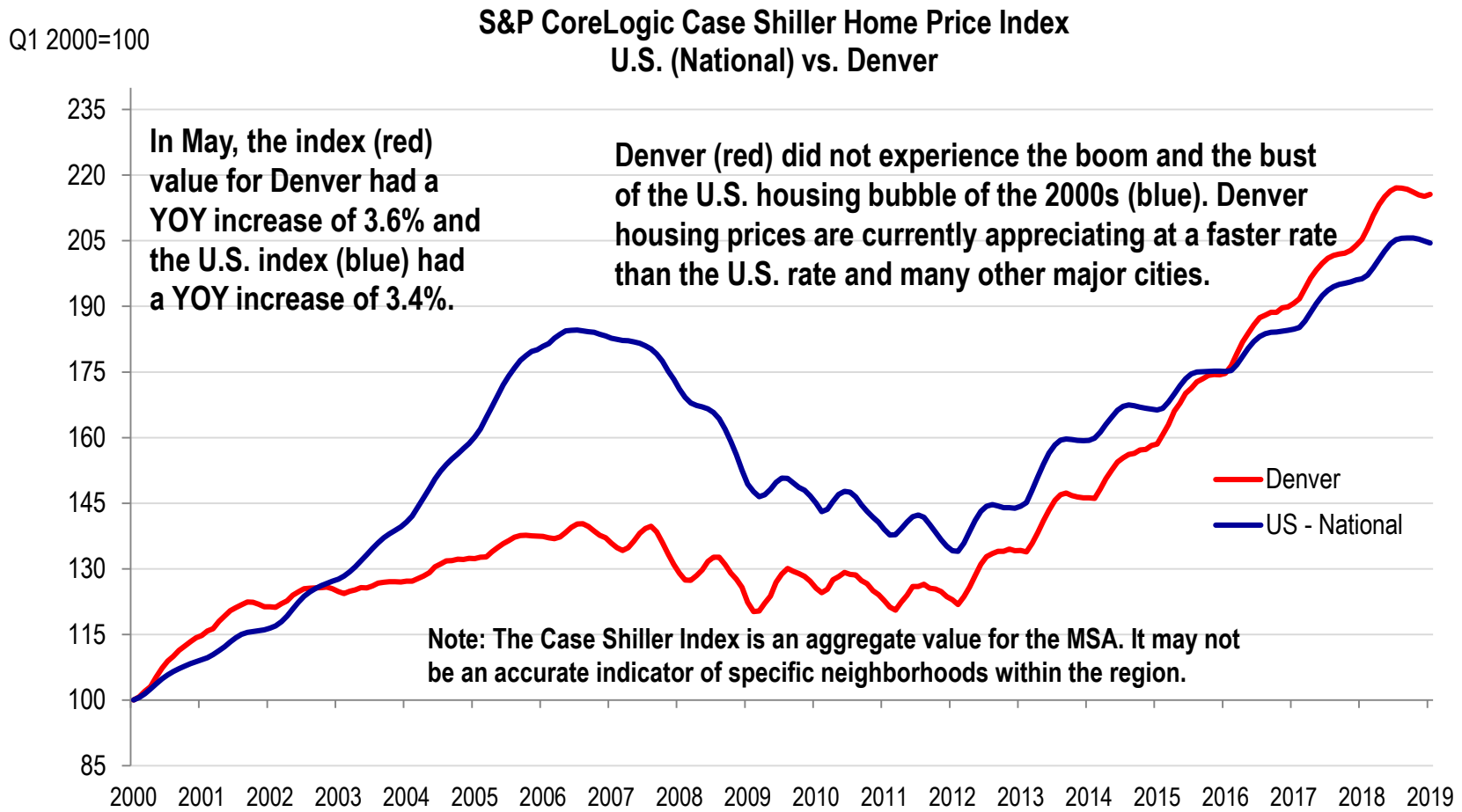


Source: NAHB, cber.co.

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

# Case Shiller Home Price Index

## National vs. Denver Index Value



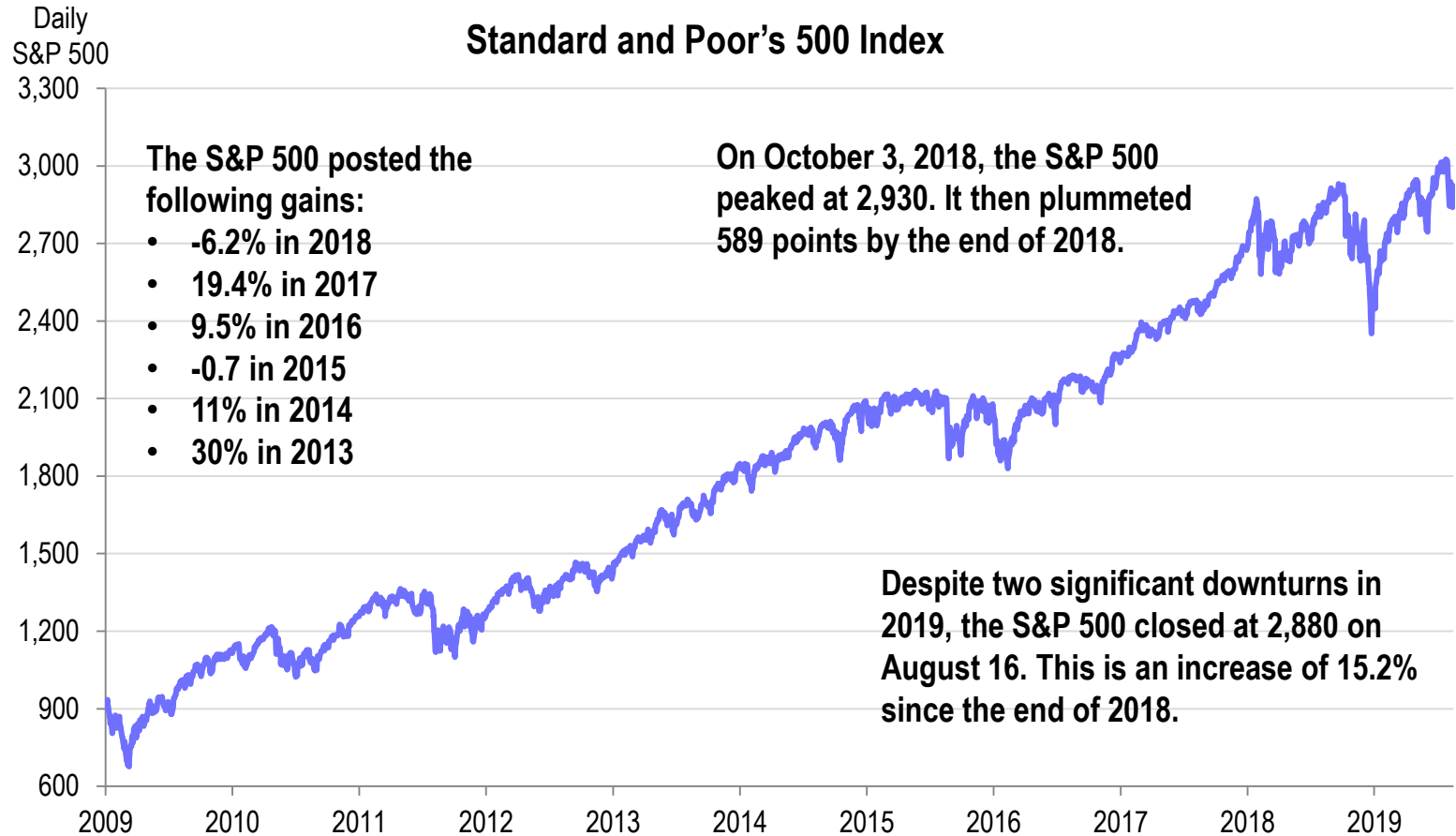
Source: S&P Core-Logic Case-Shiller, cber.co.



# United States Economy

S&P Performance, Volatility, Historical S&P Performance

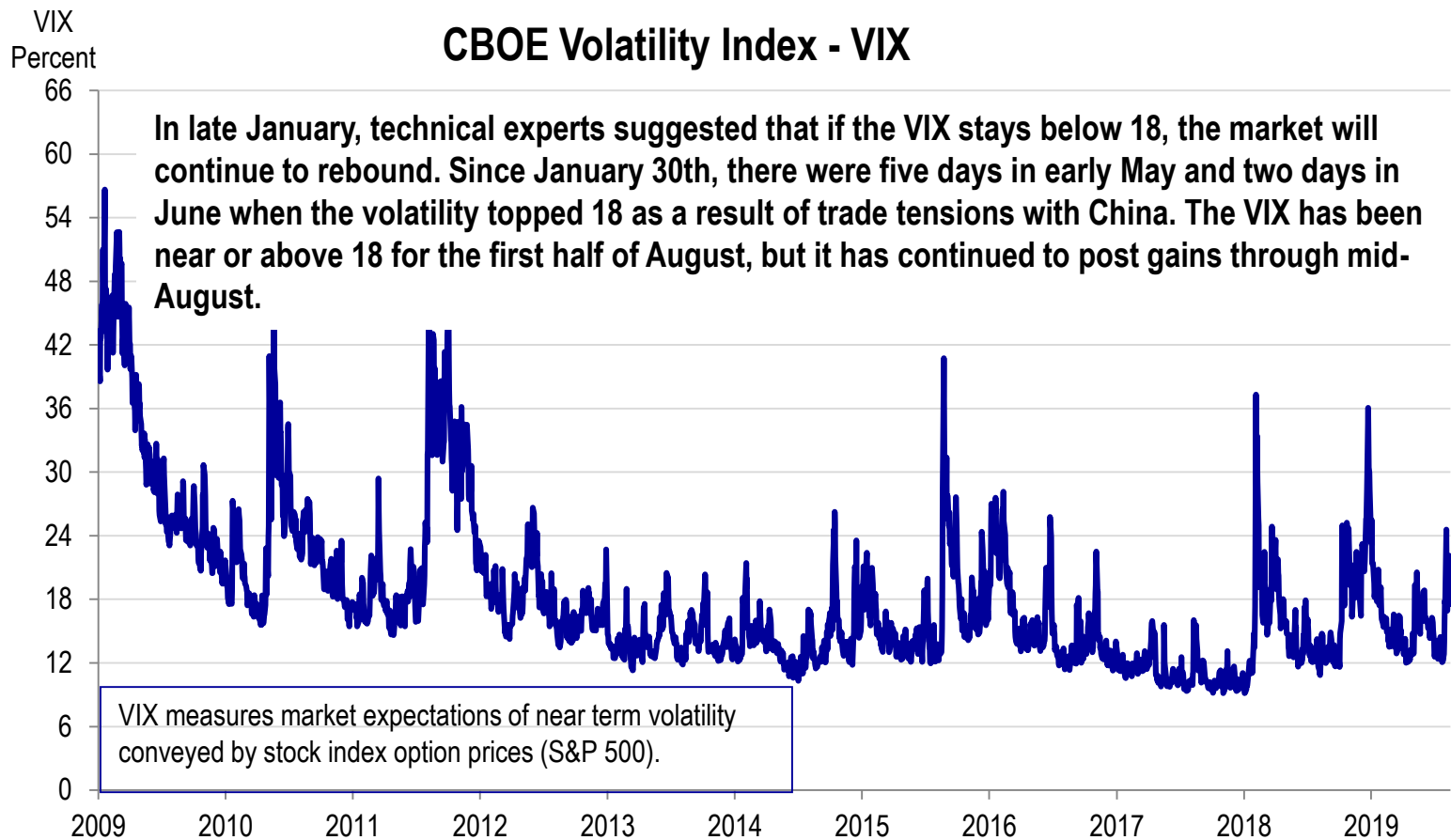
# Standard and Poor's 500 Index



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

# CBOE Volatility Index

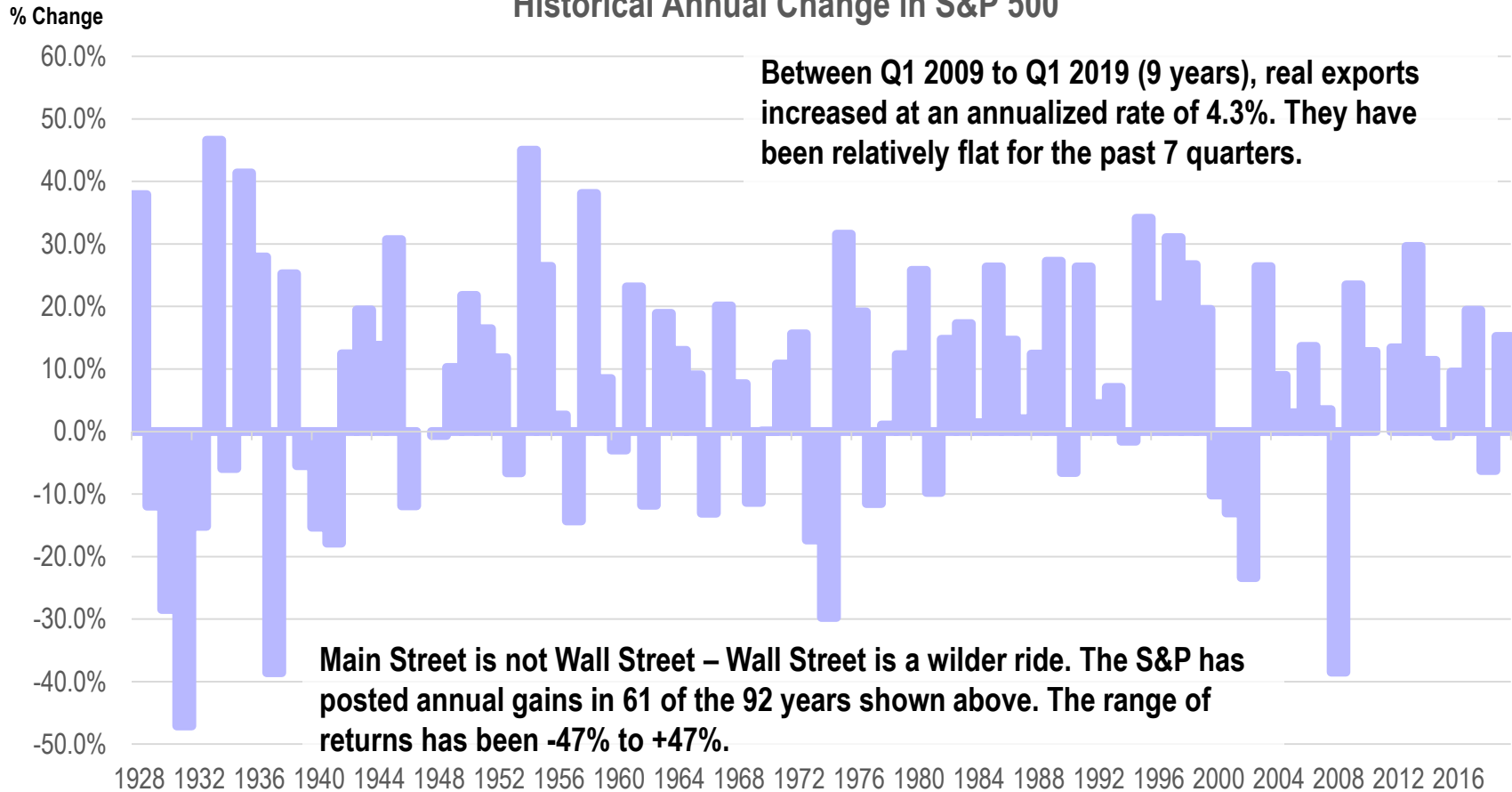
## VIX (VIXCLS)



Source: FRED, Chicago Board Options Exchange, cber.co.

# Historical Annual Performance of S&P 500

## Historical Annual Change in S&P 500



Source: FRED, cber.co





# The U.S. Economy

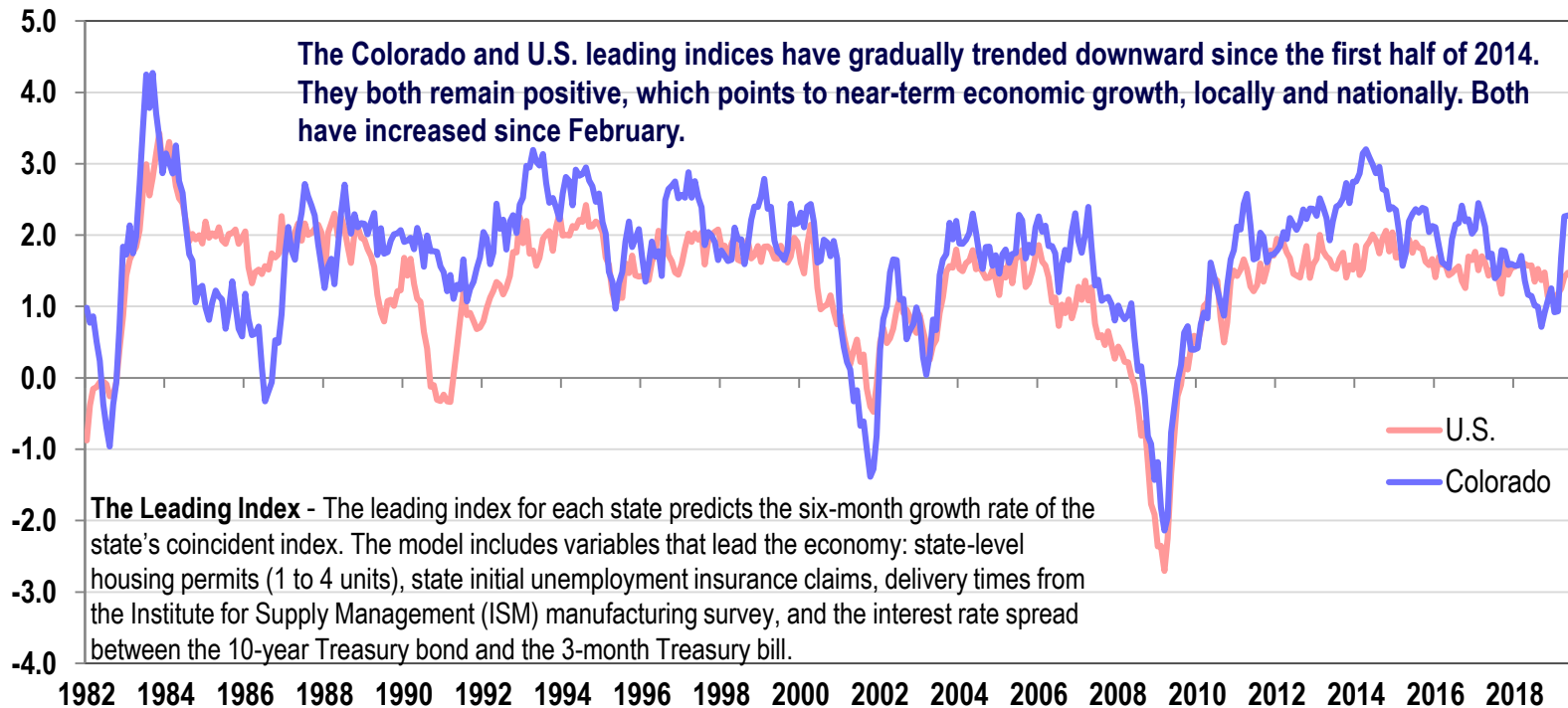
Federal Reserve Leading Indicator, NFIB Index, Michigan Consumer Sentiment

# Philadelphia Fed Leading Index

## Colorado vs. U.S.

### Philadelphia Federal Reserve Leading Index – Colorado and U.S.

Index Value



Source: Philadelphia Federal Reserve, [cber.co](http://cber.co). Note: The leading index predicts the six-month growth rate of the U.S. and state's coincident index.



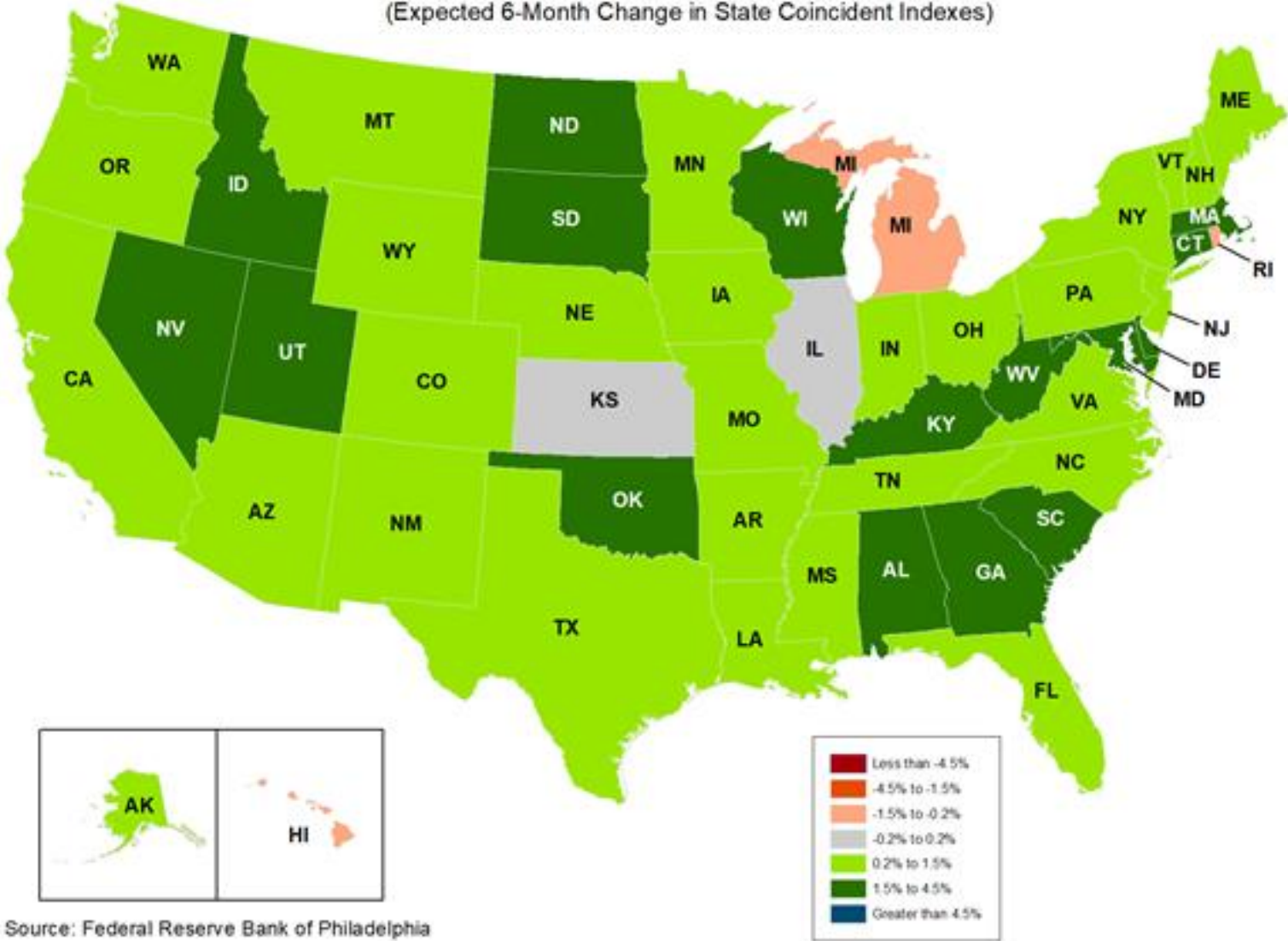
# Philadelphia Fed Leading Index

## June 2019 vs. December 2018

The following two maps compare the Leading Index for all 50 states for December 2018 and June 2019. The June 2019 Leading Index suggests there has been improvement in the economy since the December 2018 index.

# December 2018 State Leading Indexes

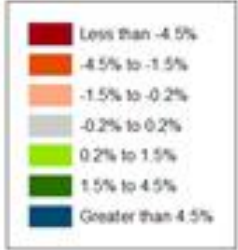
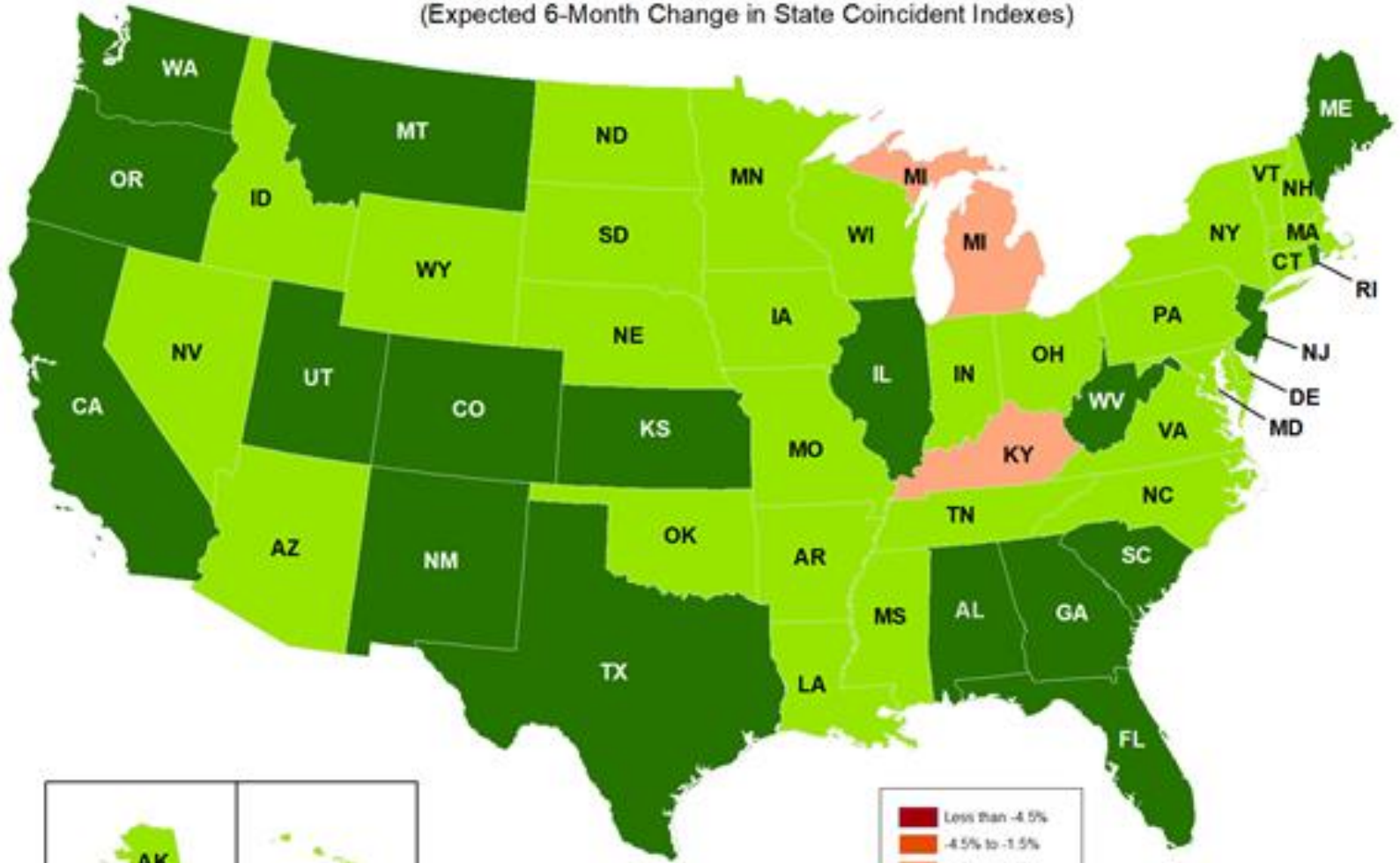
(Expected 6-Month Change in State Coincident Indexes)



Source: Federal Reserve Bank of Philadelphia

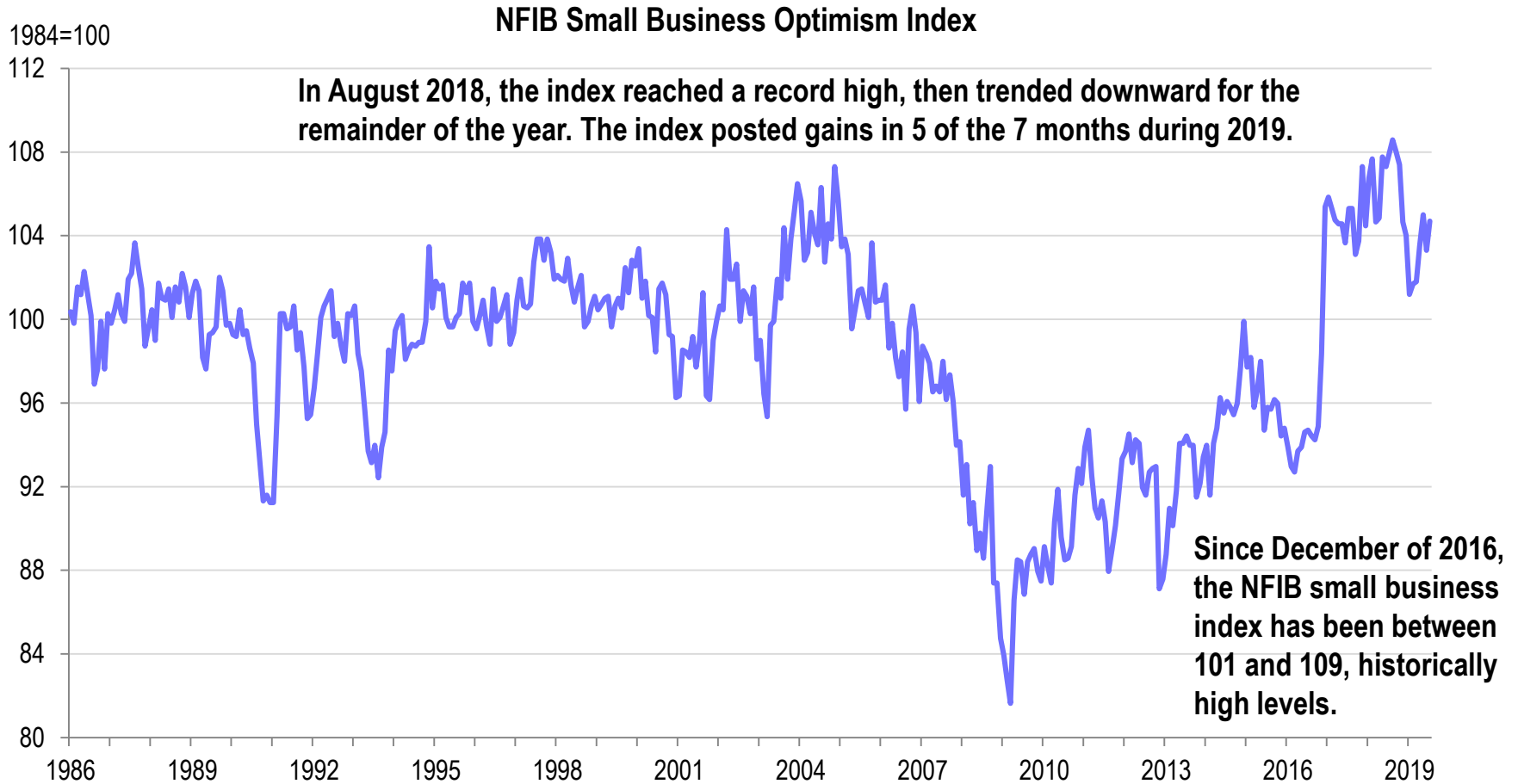
# June 2019 State Leading Indexes

(Expected 6-Month Change in State Coincident Indexes)



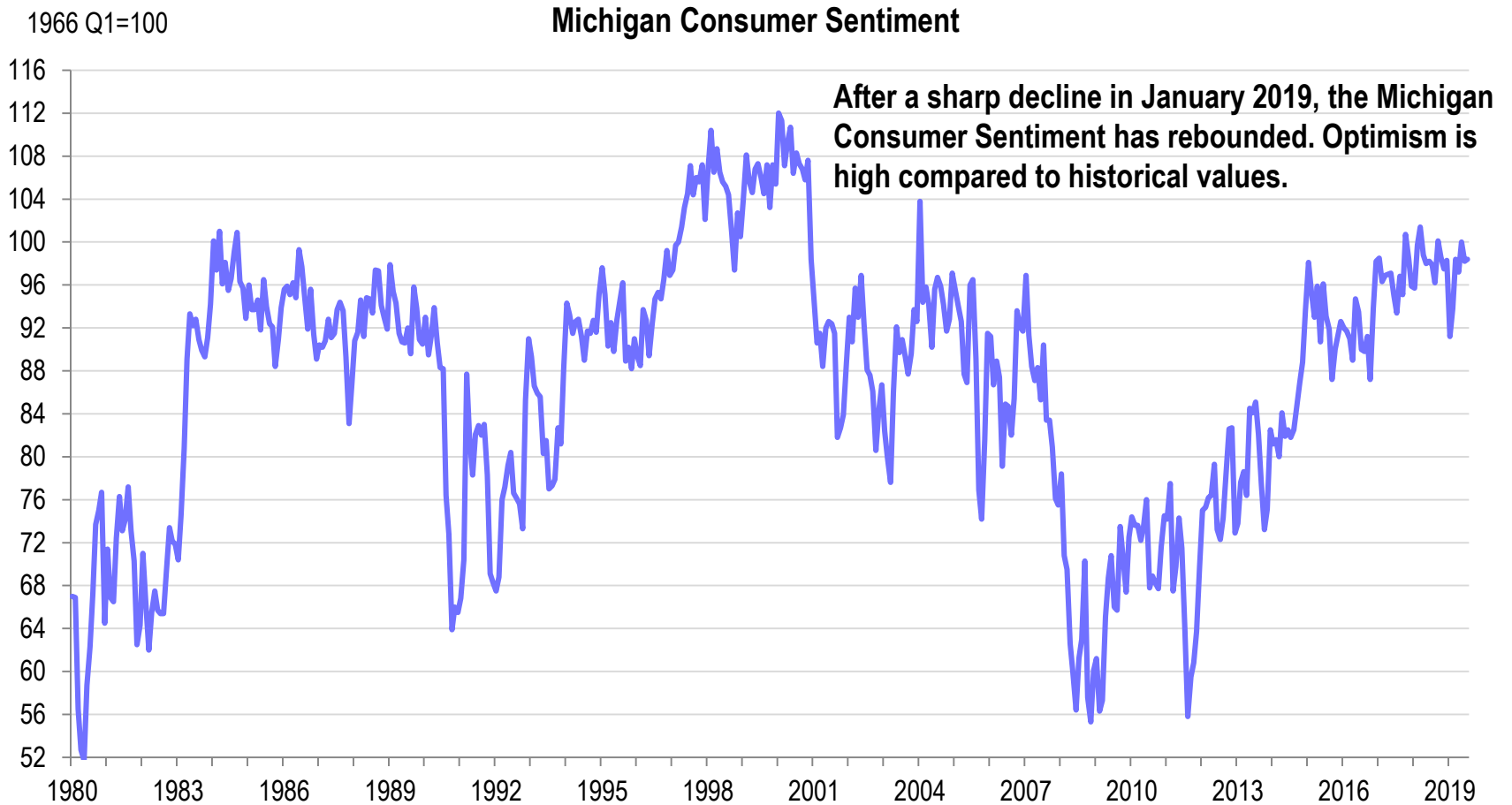
Source: Federal Reserve Bank of Philadelphia

# NFIB Small Business Optimism Index



Source: NFIB, cber.co. Index 1984=100

# University of Michigan Consumer Sentiment



Source: University of Michigan, cber.co.

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

# ● Role of Confidence in the Performance ● of the Economy ●

*“Confidence is contagious. So is lack of confidence.” Vince Lombardi*

**When consumers and business leaders are rightfully confident, they invest in the economy and it expands. When they lack confidence, they postpone, reduce, or eliminate investments in the economy and it may not expand.**





# The U.S. Economy

## Summary



# Summary

## U.S. Economy

### On a Positive Note

Solid-to-modest employment and real GDP growth is expected through the end of the year.

The leading indicators point to continued confidence in the economy from consumers and business leaders.

In addition, the Federal Reserve lowered interest rates to ensure that growth continues in the near-term. Additional rate cuts are expected as a precautionary measure.

### There are Headwinds

In the months ahead, there will be overall slowing in the global economy that includes major countries in Asia, Europe, and Latin America.

The Brexit situation in the UK and the trade tension with China present a unique set of challenges.

The U.S. labor market will remain tight. It will be difficult to find qualified workers, especially in critical occupations in the healthcare, education, and advanced technology sectors.

The slowdown in the global economy is unlikely to result in a recession in the U.S.

A grayscale photograph of a dense forest. In the center, a waterfall cascades down a rocky ledge. The trees are tall and thin, filling the background and foreground. The overall scene is serene and natural.

# The Colorado Economy



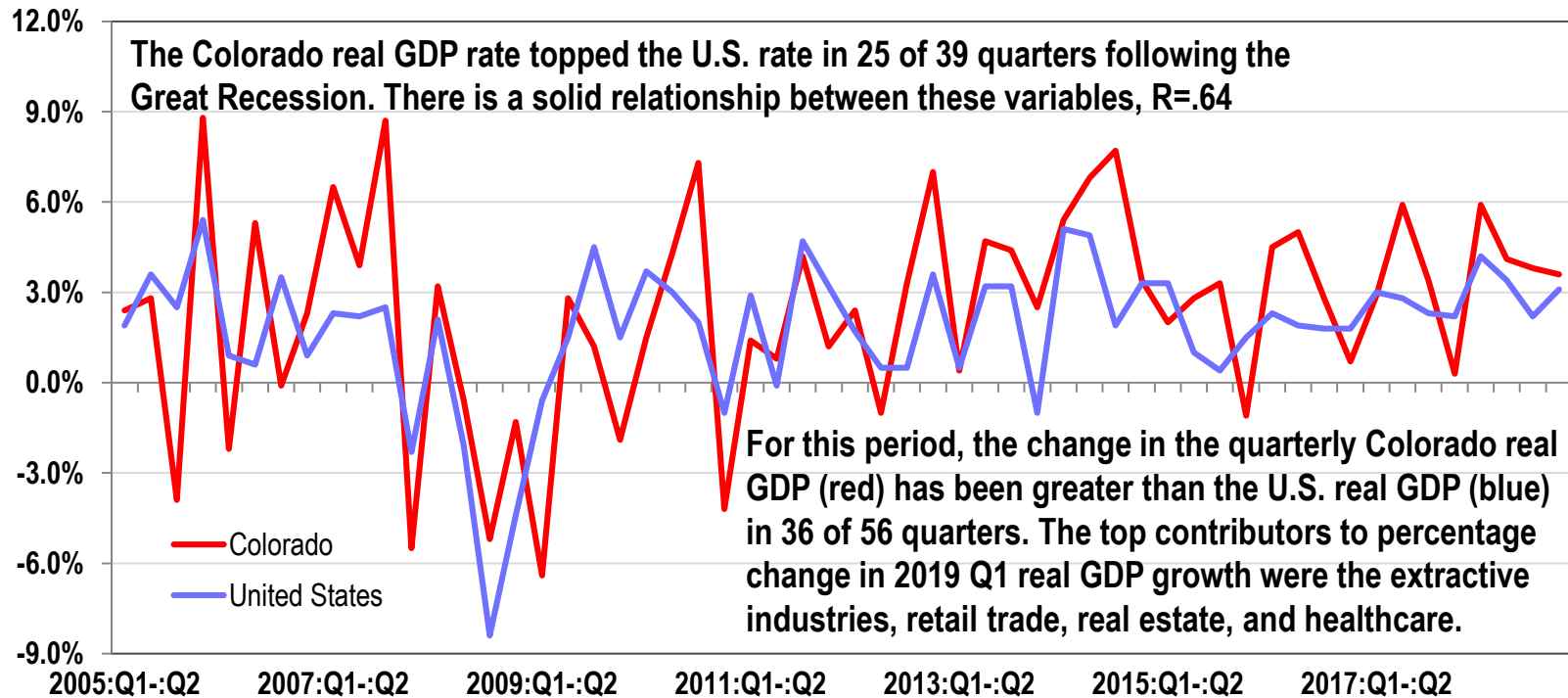
# The Colorado Economy

## Gross Domestic Product

# Real Gross Domestic Product

## Colorado vs. U.S. (Quarterly Rate)

Change in the Quarterly Rate of Change for Real Gross Domestic Product



Source: Bureau of Economic Analysis. Note: U.S. real GDP is summary of states GDP; quarterly rate is annualized.



# The Colorado Economy

## Population Components of Change

# Colorado Population

## Components of Change

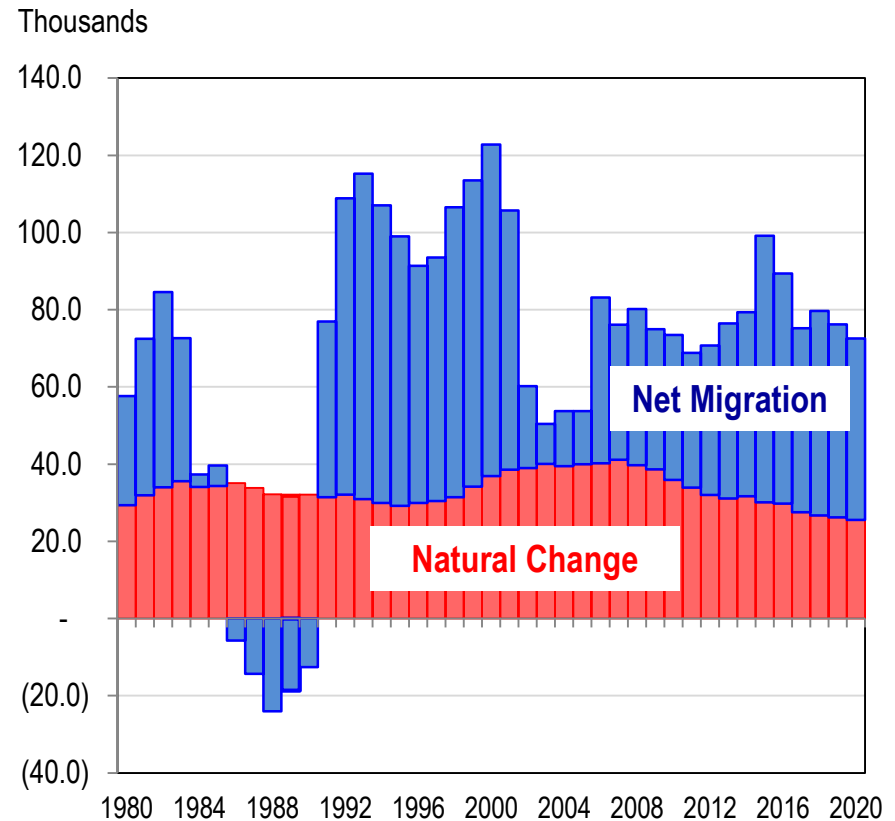
Population increases and decreases are a result of the natural rate of change (births minus deaths) and the change in net migration (people moving into the state minus people moving out of the state).

Over the past 3½ decades the natural rate of change (red bars) varied from a low of 26,700 in 2018 to a peak of 41,124 in 2007. The natural rate for 2019 is projected to be 26,200, a new low, as a result of a decline in fertility rates.

Changes resulting from net migration (blue bars) are closely tied to the strength of the economy and the change in state employment. For example, there were five years, from 1986 to 1990, when net migration was negative. More people moved out of state than moved into the state to escape the regional recession. During the past two recessions, 2001 and 2007, net migration declined, but did not turn negative. It was difficult for people to move anywhere to escape the bad economy.

The Colorado population will increase by about 75,000 for each of the years from 2016 to 2020. In 2019, the state's population will increase by 1.3%, or 76,200, to 5,765,527.

Change in Colorado Population 1980 - 2020





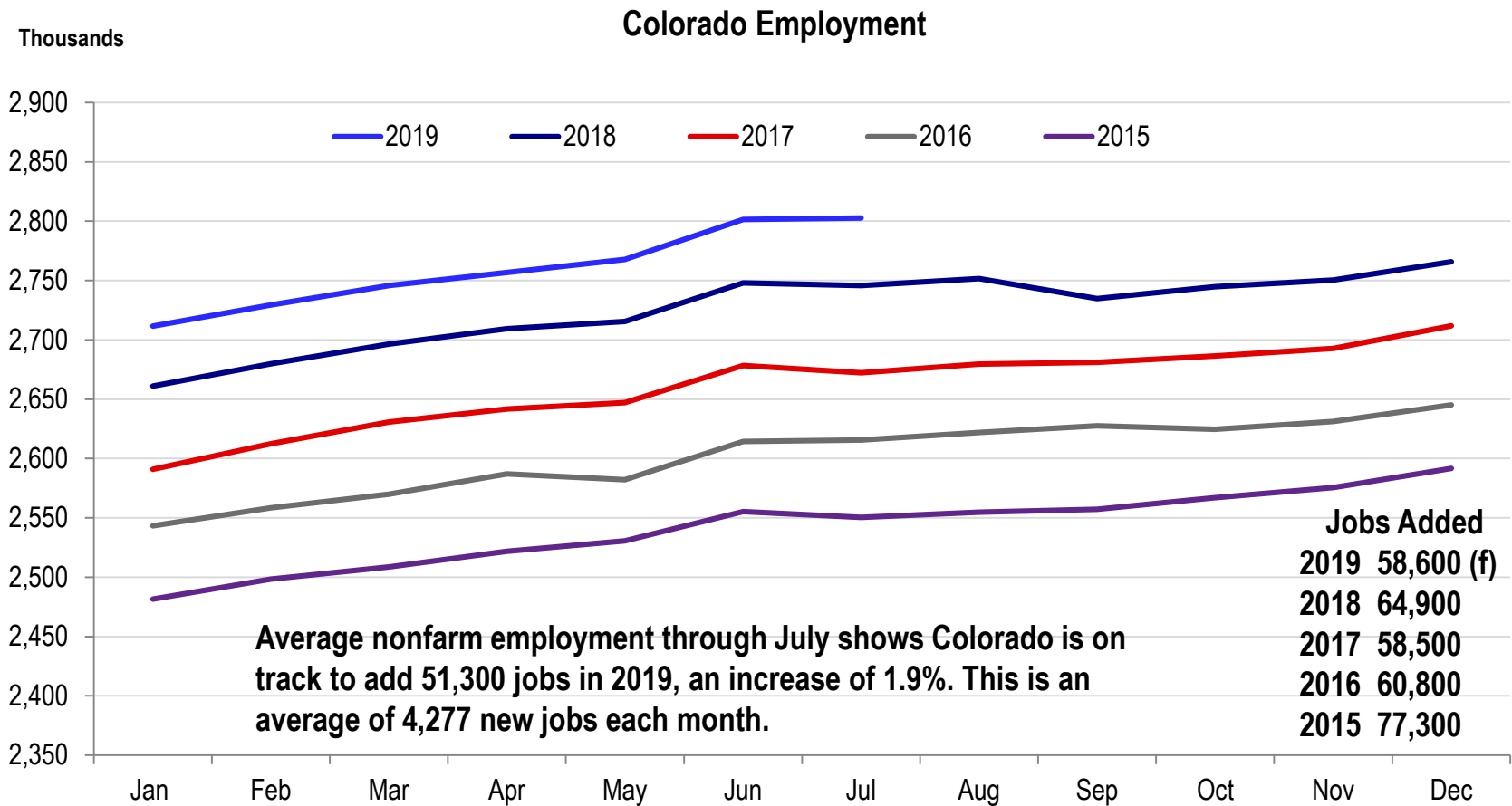
# The Colorado Economy

Employment, Percent Change in Employment, and Establishments



# Colorado Employment

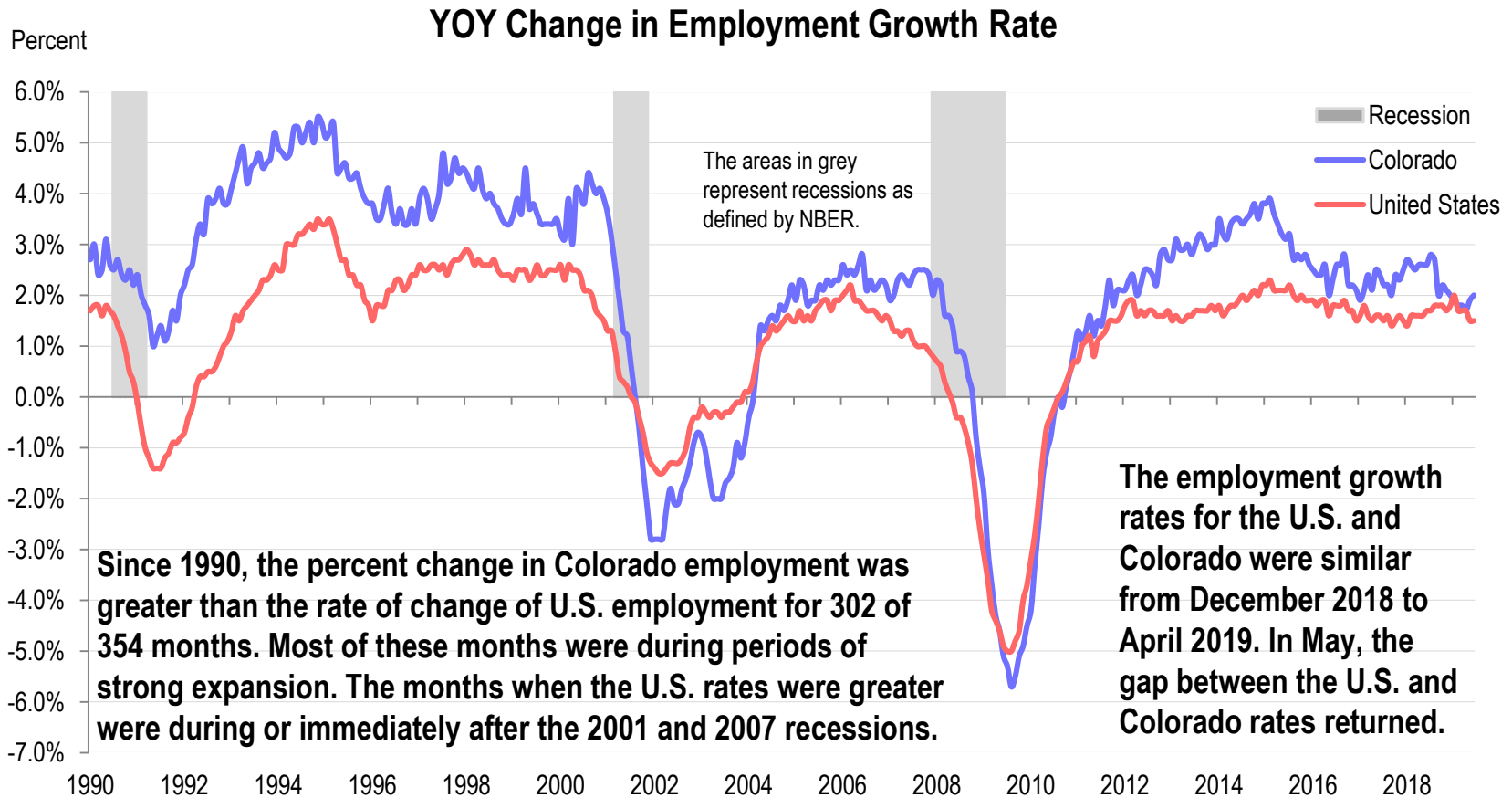
## 2015 to 2019



Source: BLS, cber.co. Note: CES Employment is also referred to as nonfarm wage and salary employment.

# YOY Percent Change in Employment

## Colorado vs. U.S.

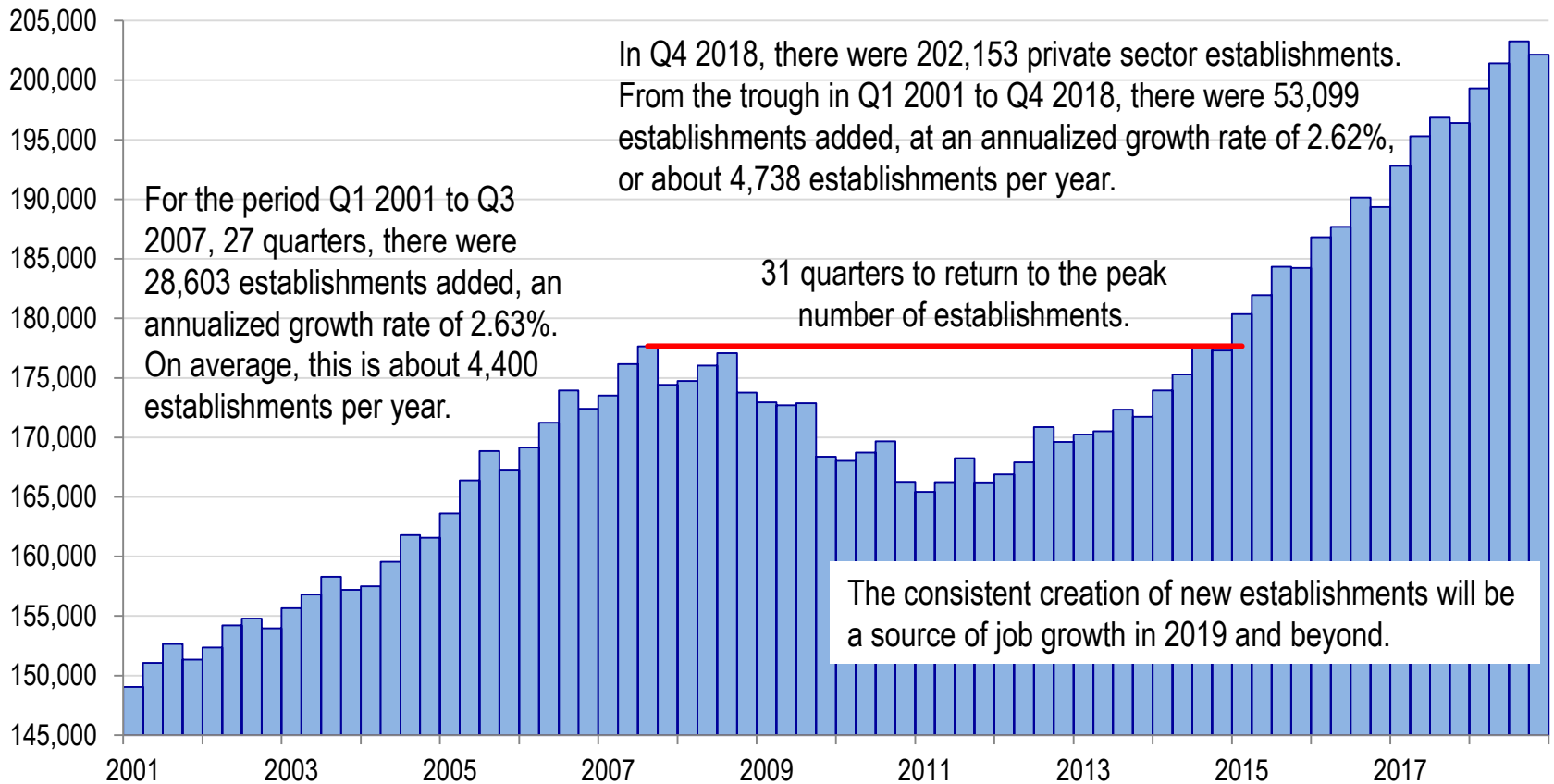


Source: Bureau of Labor Statistics, NSA, NBER, cber.co.

# Number of Colorado Private Establishments (Quarterly)

Establishments

## Number of Private Establishments



Source: Bureau of Labor Statistics, cber.co.



# The Colorado Economy

Unemployment Rate, Change in the Labor Force, Initial and Continuing Unemployment Claims

# Unemployment Rate vs. Colorado

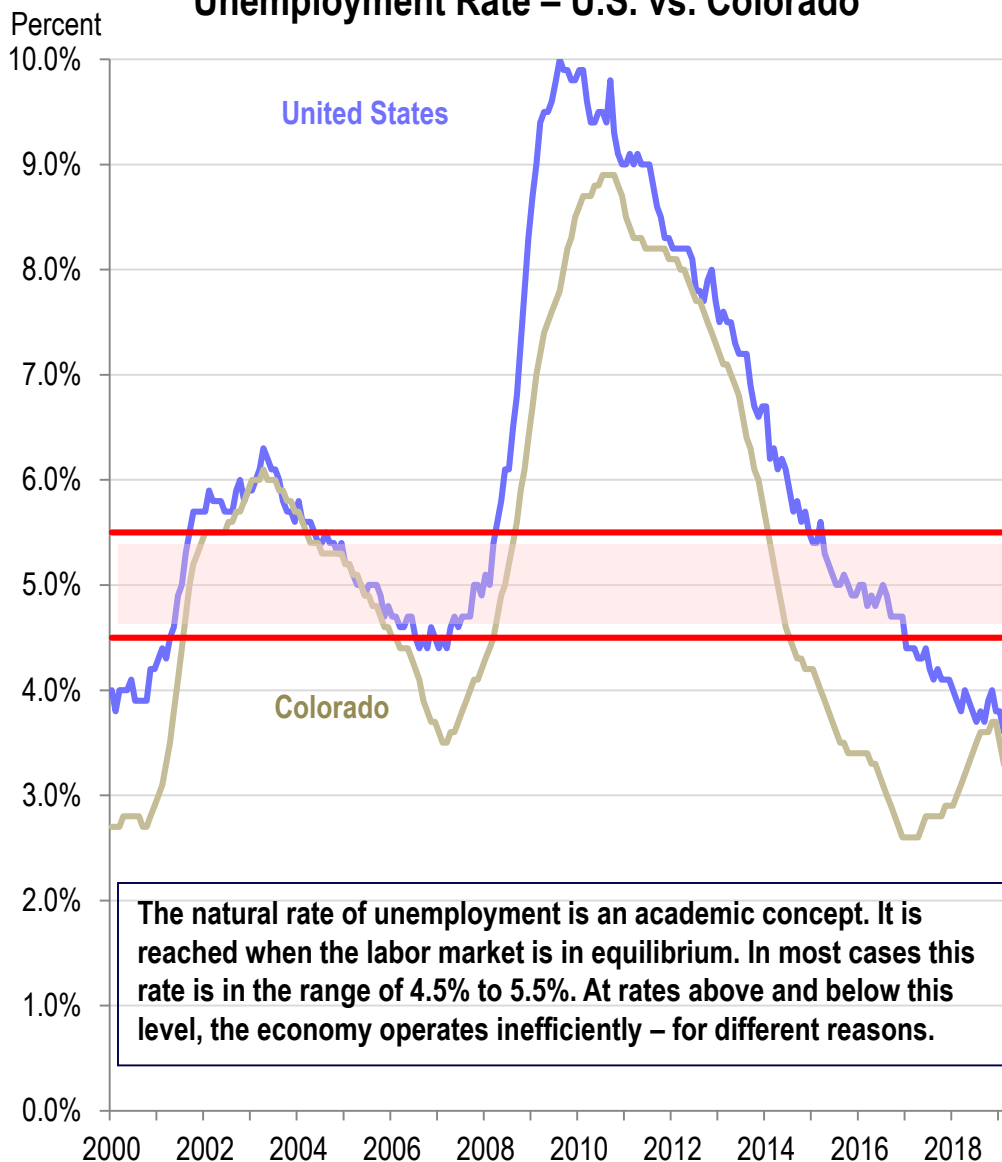
The U.S. and Colorado unemployment rates have declined since 2010 when the U.S. rate was 9.9% and the Colorado rate was 8.8%.

The U.S. rate fell below 4.5% in March 2017 and has been there for 29 months. By comparison, there was a 31-month period from November 1998 to May 2001 (not shown) when the U.S. rate was below 4.5%.

The Colorado rate dropped below 4.5% in October 2014 and has been there for 58 months. By comparison, there was an 89-month period from May 1994 to September 2001 (not shown) when Colorado's rate of unemployment was less than 4.5%.

In July 2019, the unemployment rate for Colorado dropped to 2.9% compared to 3.7% for the U.S.

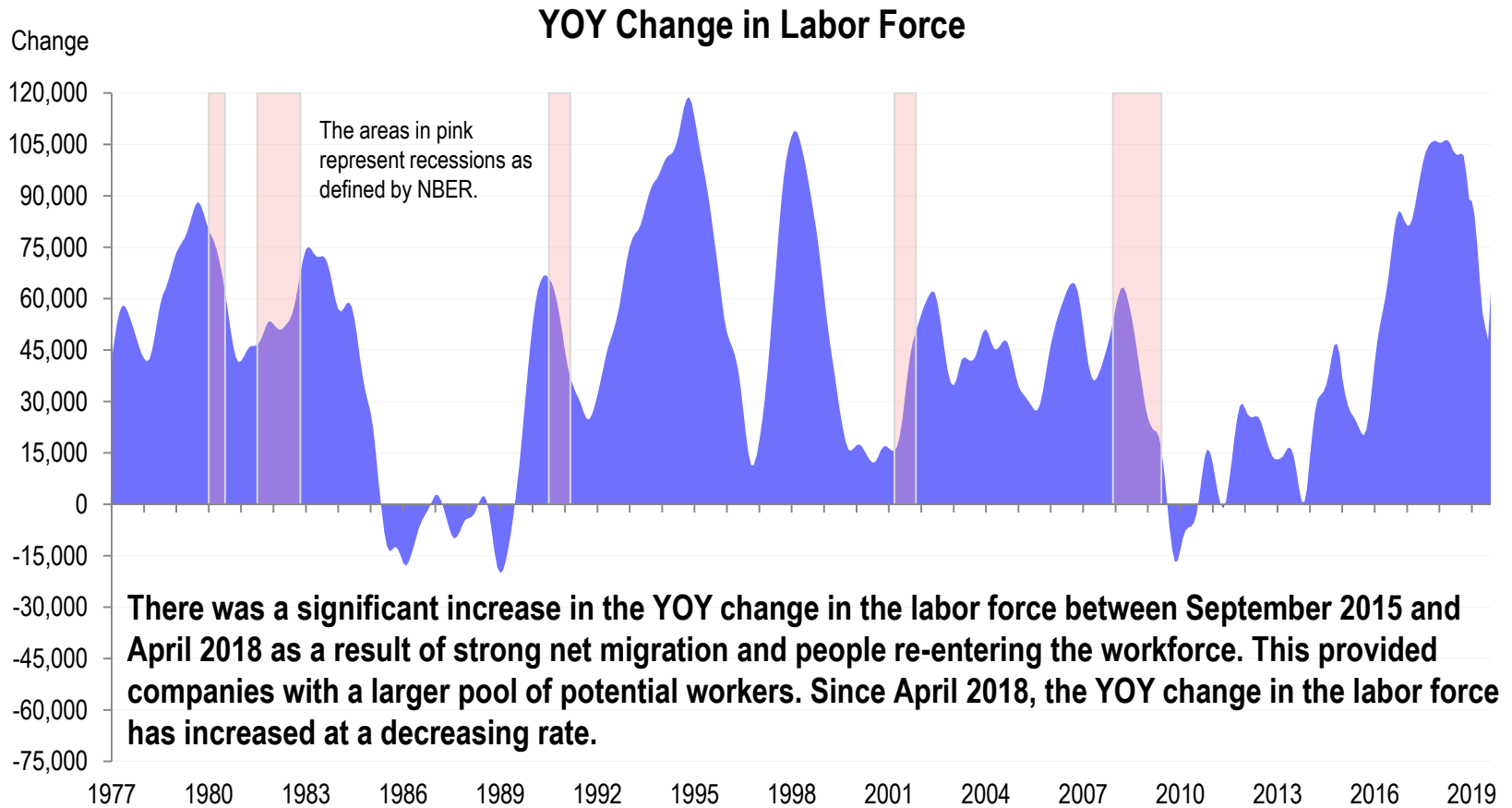
## Unemployment Rate – U.S. vs. Colorado



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

# YOY Change in the Labor Force

## Colorado

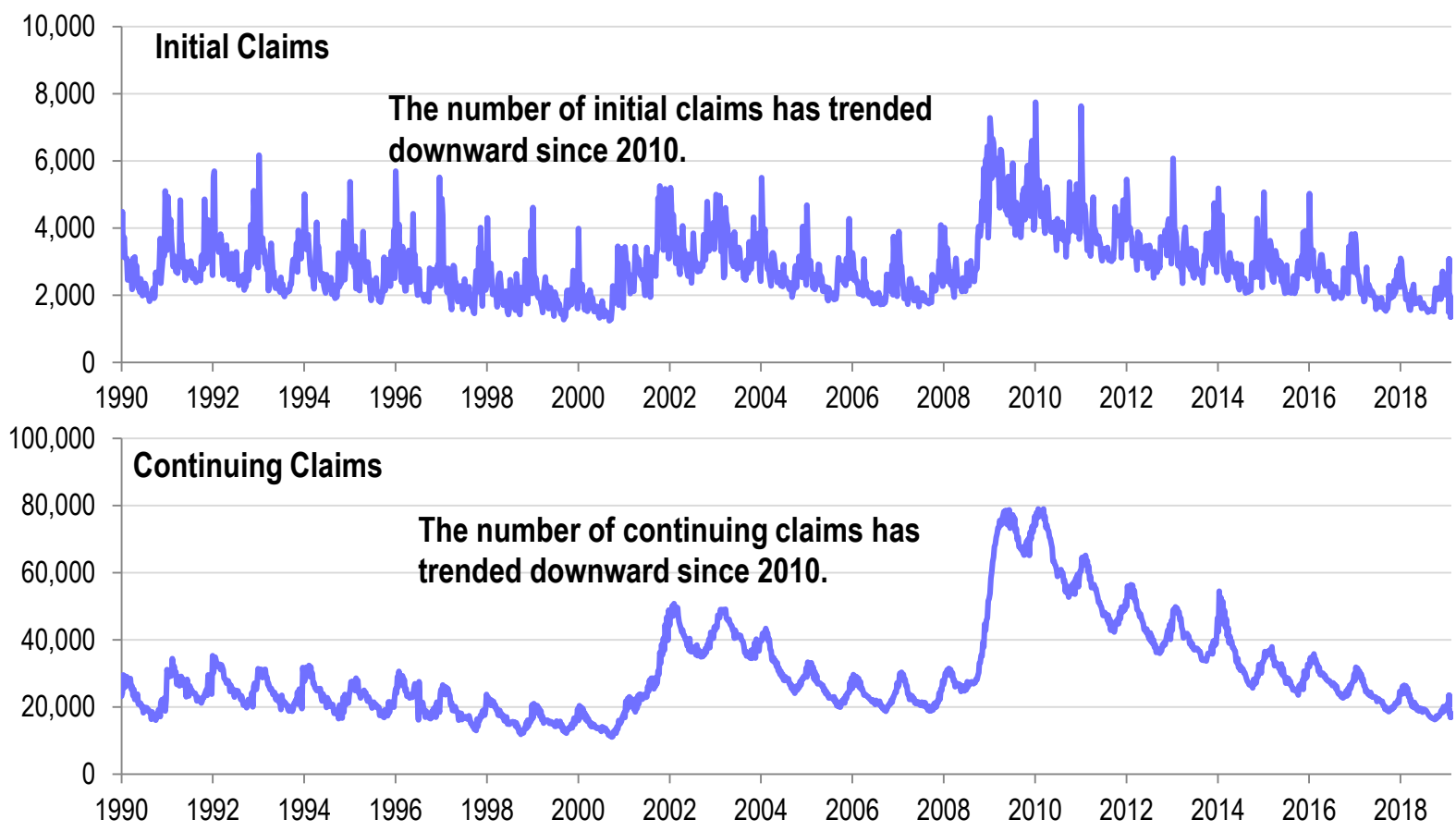


Source: Bureau of Labor Statistics, LAUS, NSA, NBER, cber.co.

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



# Initial and Continuing Unemployment Claims 1990 to 2019 (Colorado)



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



# The Colorado Economy

Colorado Tourism, DIA Passengers, Retail Sales, Vehicle Registrations, and Venture Capital





# Colorado Tourism Impact

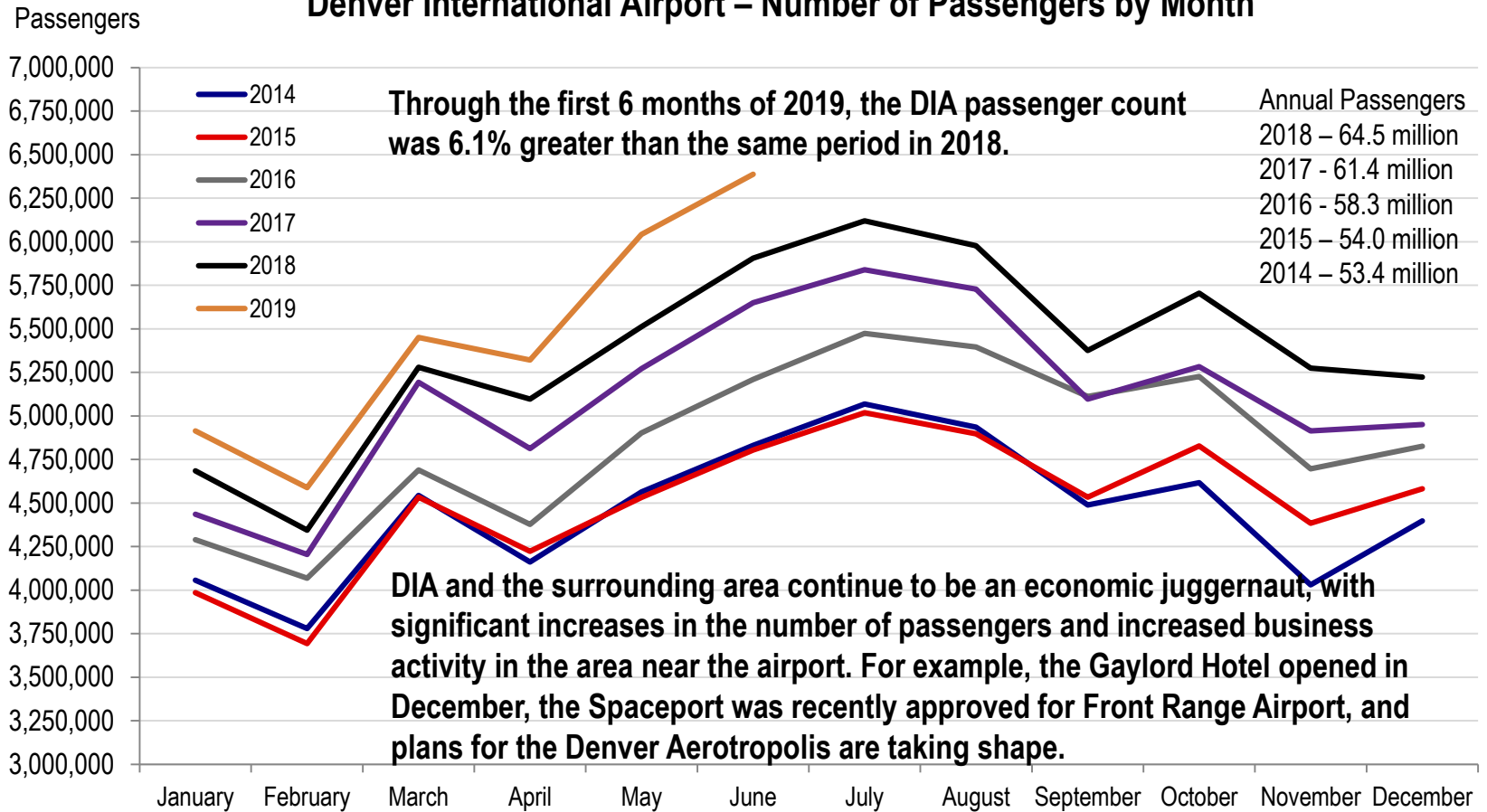
## 2018

**There was \$22.3 billion in direct spending by tourists in Colorado in 2018. Another record year!**

# Denver International Airport

## Passenger Count

Denver International Airport – Number of Passengers by Month



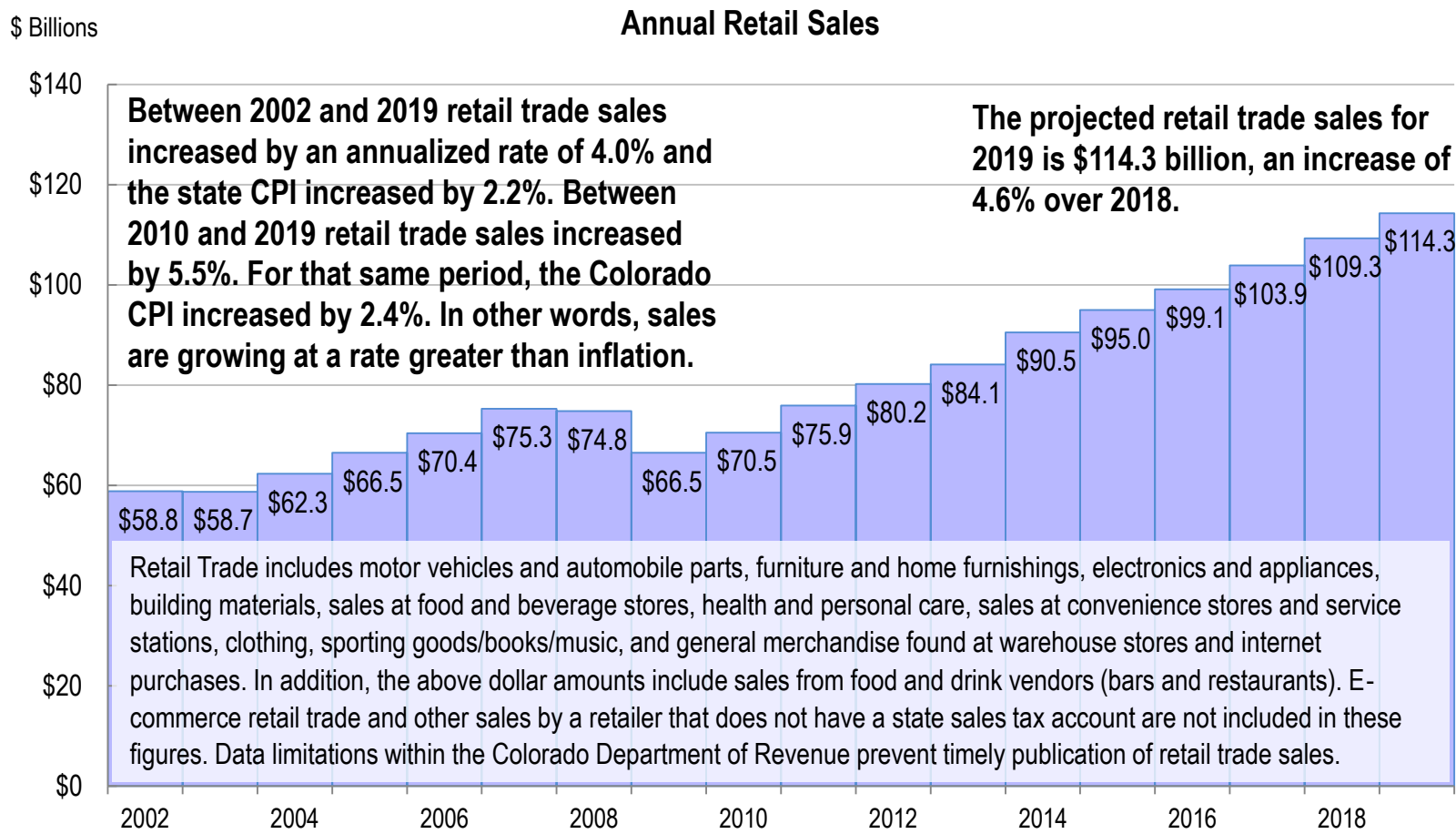
Source: FlyDenver.com, cber.co.

# Great Hall Project

- The DIA Great Hall project is reportedly 3+ years behind schedule and millions of dollars overbudget. For better or worse, a new contractor will complete the project. Despite the chaos, the number of passengers through June is up 6.1%.



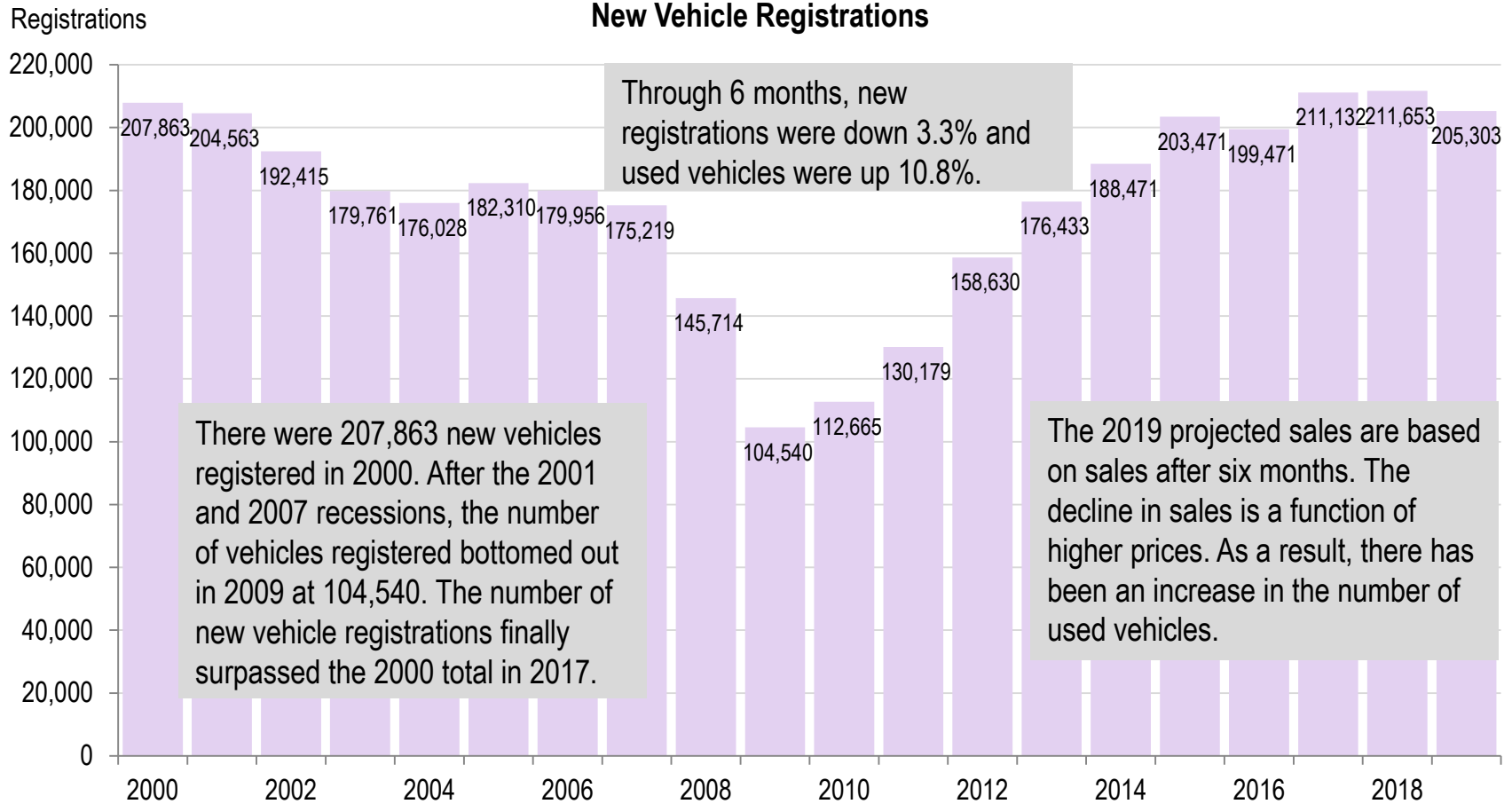
# Annual Retail Sales - Colorado



Source: OSPB, cber.co.

# New Vehicle Registrations

Colorado

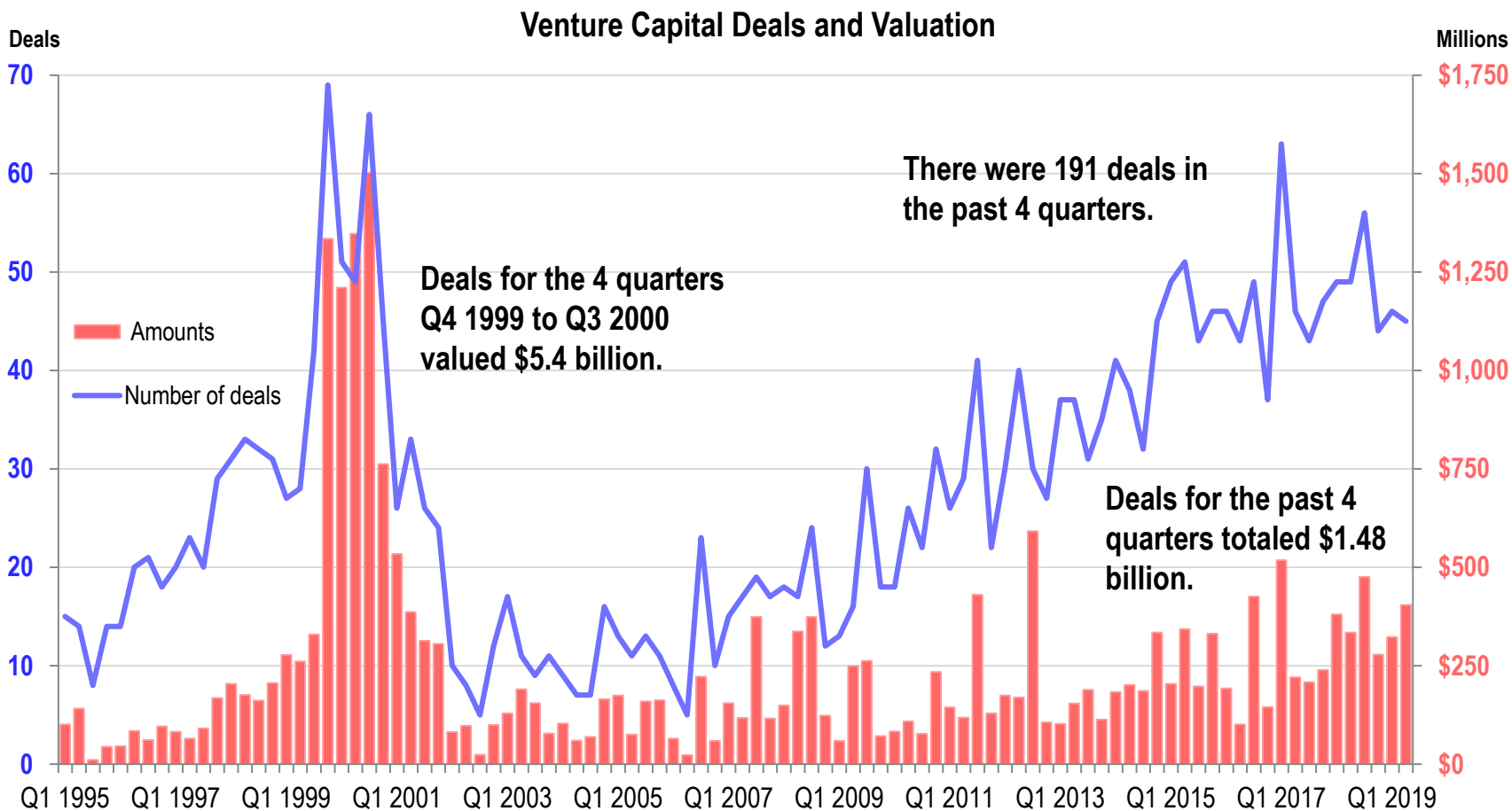


Source: Colorado Auto Dealers Association, cber.co.

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

# PWC Venture Capital Deals and Value

## Colorado



Source: PWC, cber.co.

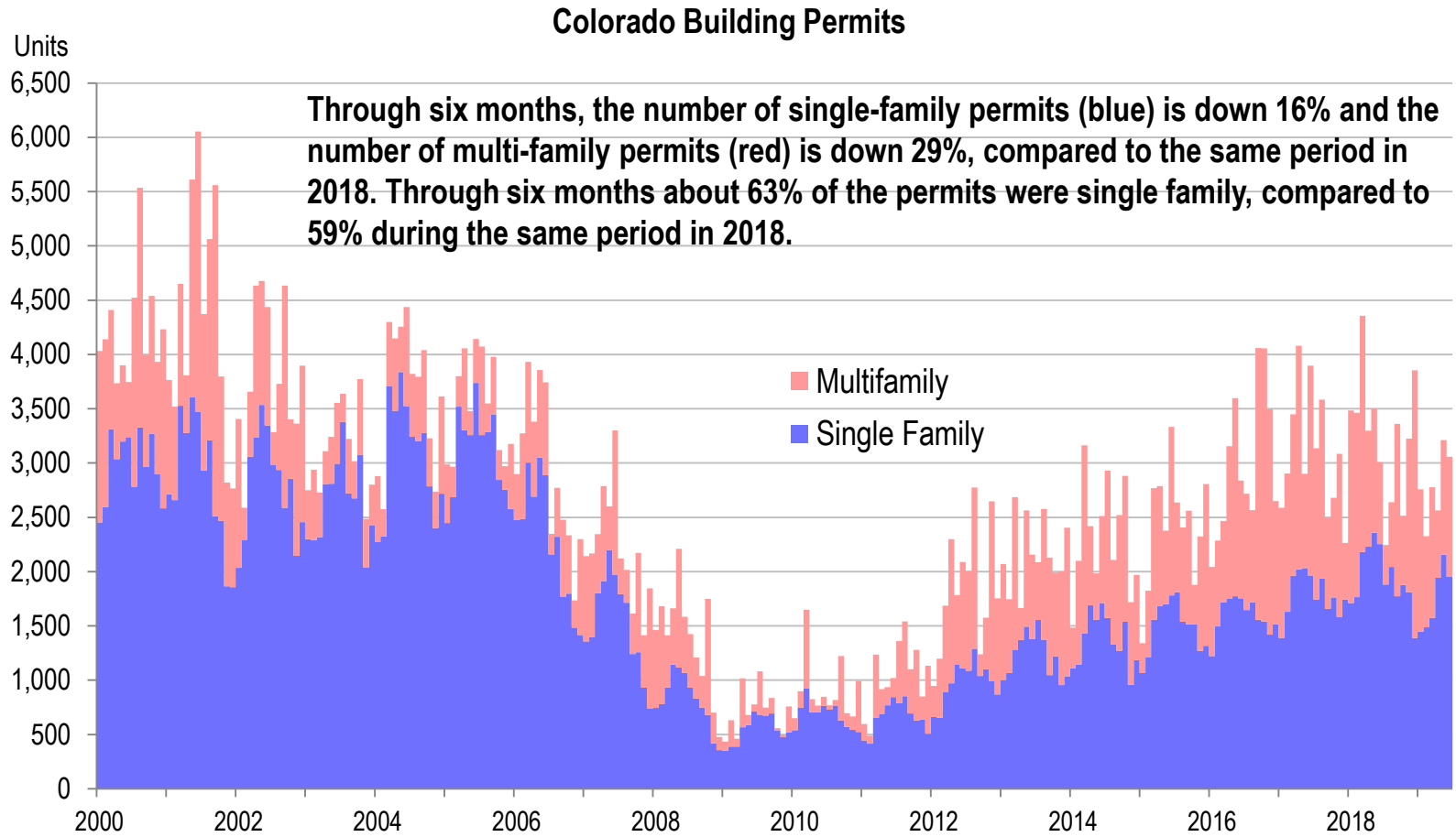


# The Colorado Economy

## Building Permits, Valuation, and Housing Prices

# Colorado Residential Building Permits

Units

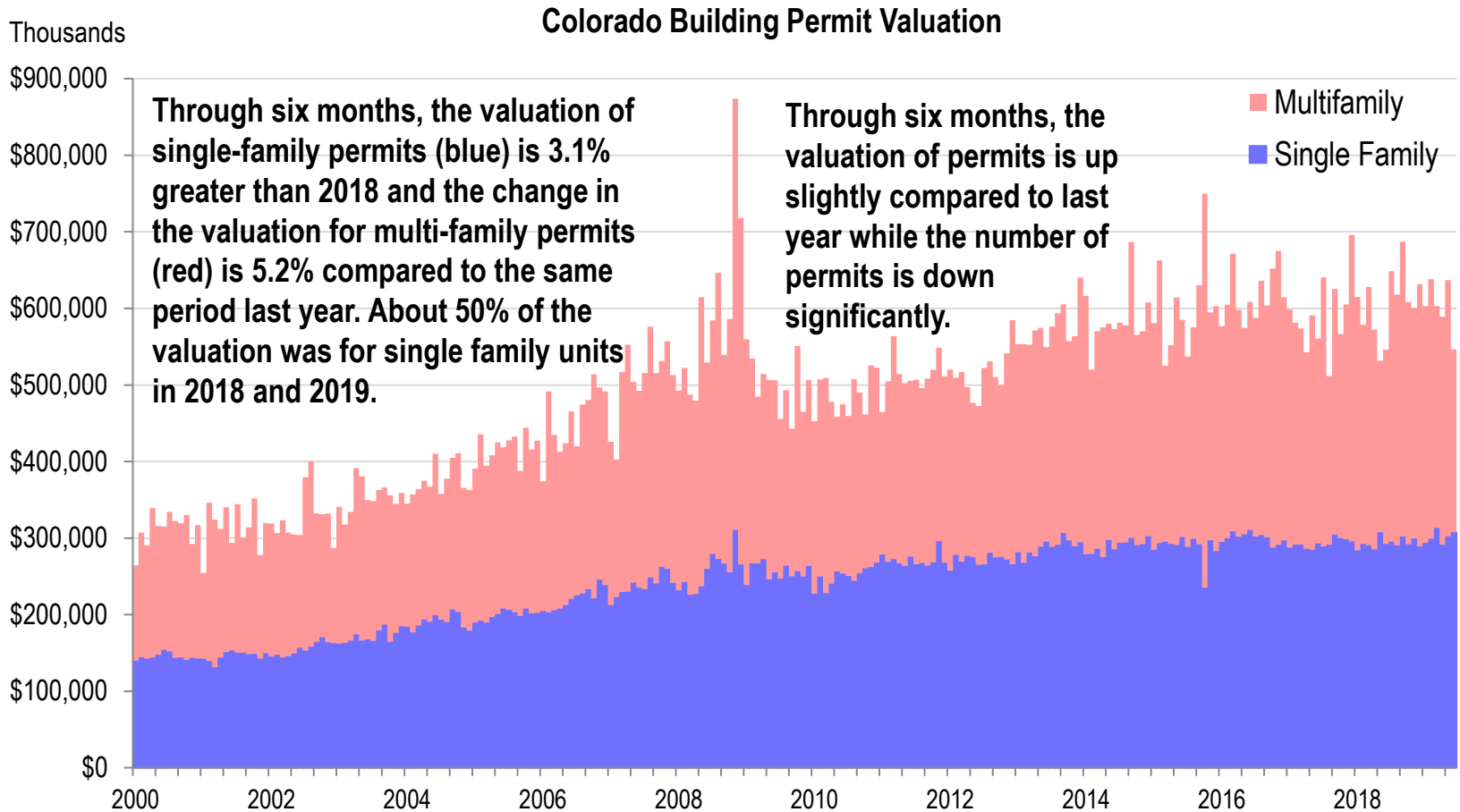


Source: TAMU Real Estate Center, U.S. Census Bureau, cber.co.



# Colorado Residential Building Permits

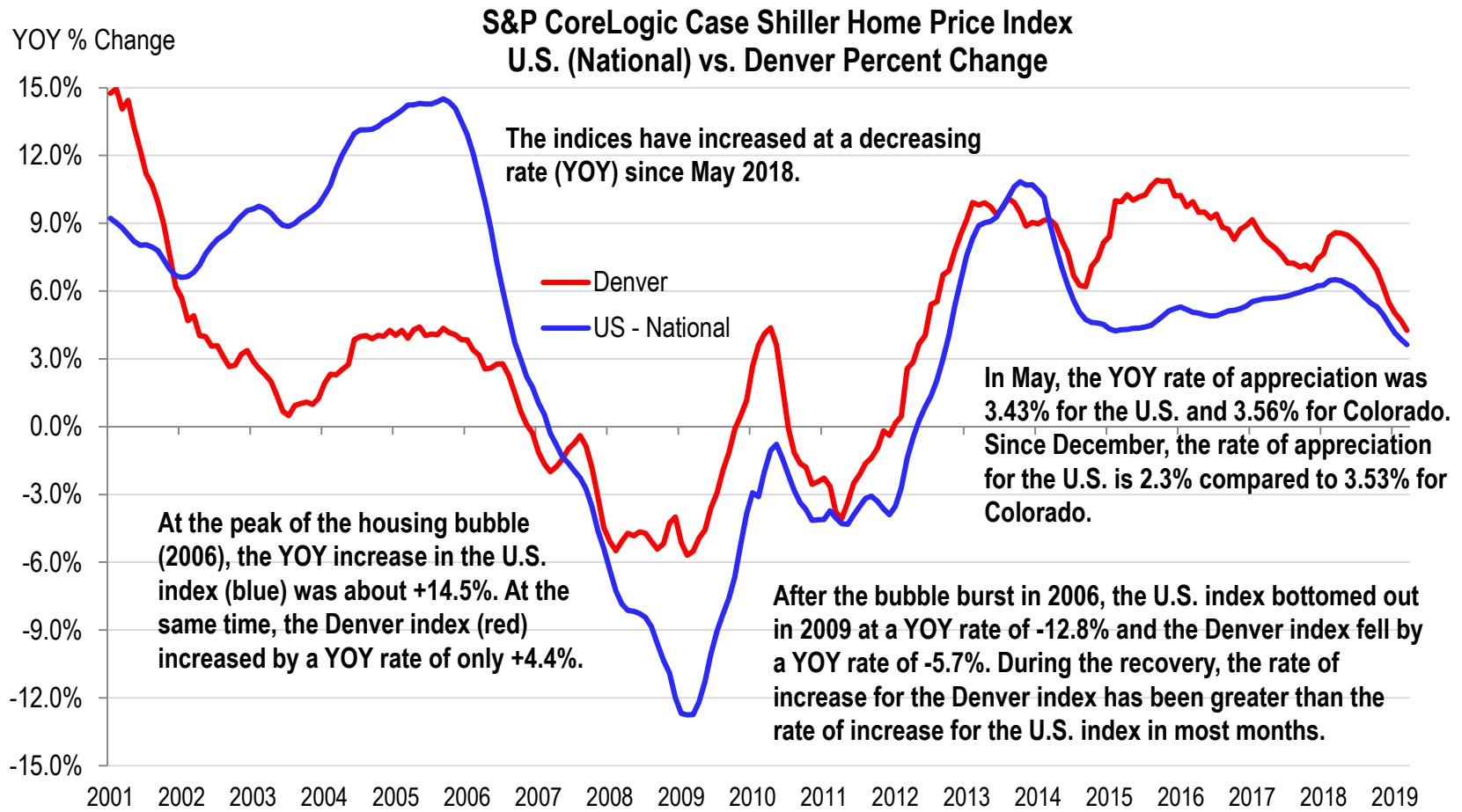
## Valuation



Source: TAMU Real Estate Center, U.S. Census Bureau, cber.co. Note: Not adjusted for inflation.

# Case Shiller Home Price Index

## National vs. Denver Rate of Change



Source: S&P Core-Logic Case-Shiller, cber.co.

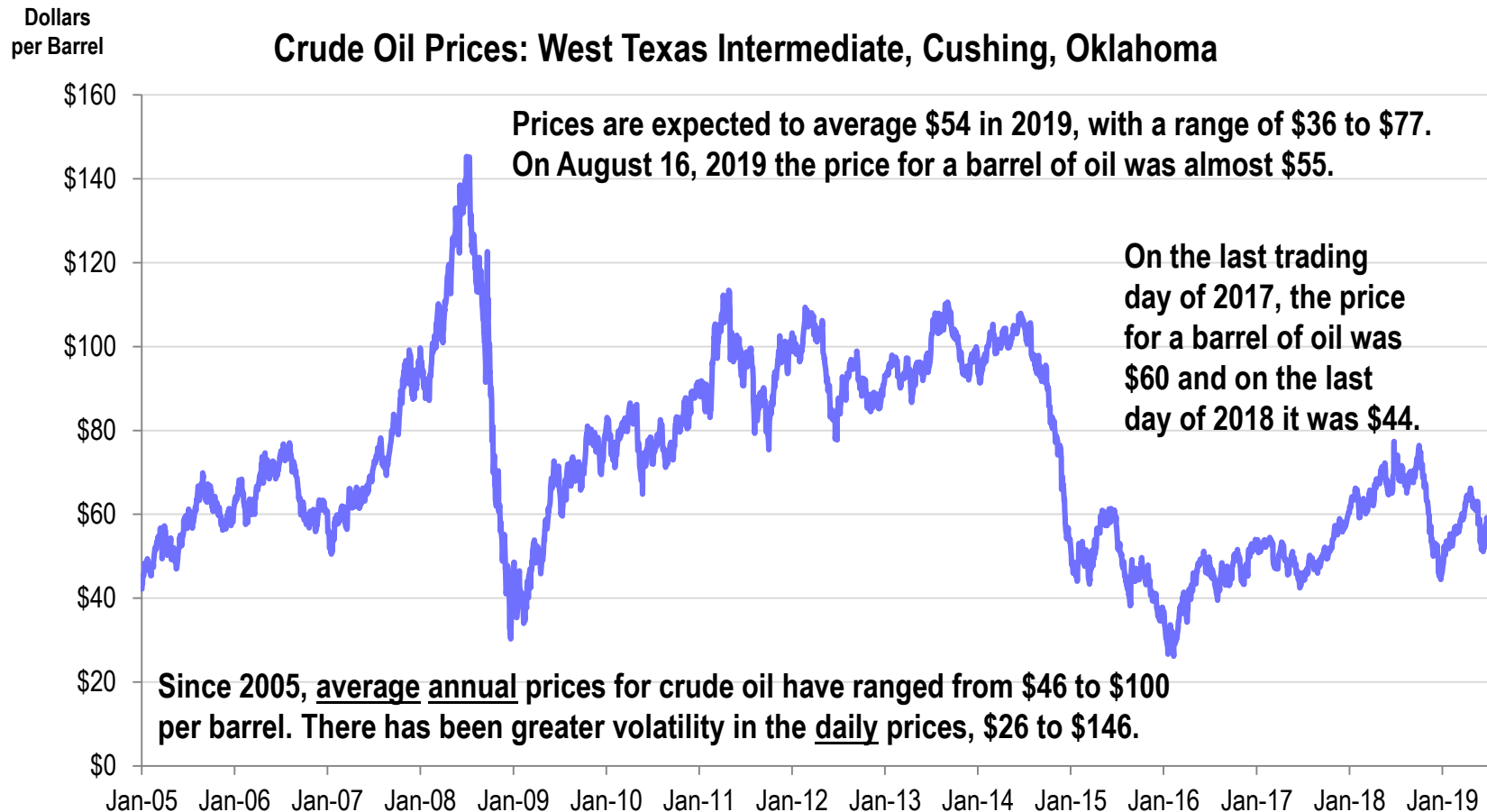


# The Colorado Economy

## Oil Production and Prices

# Crude Oil Prices

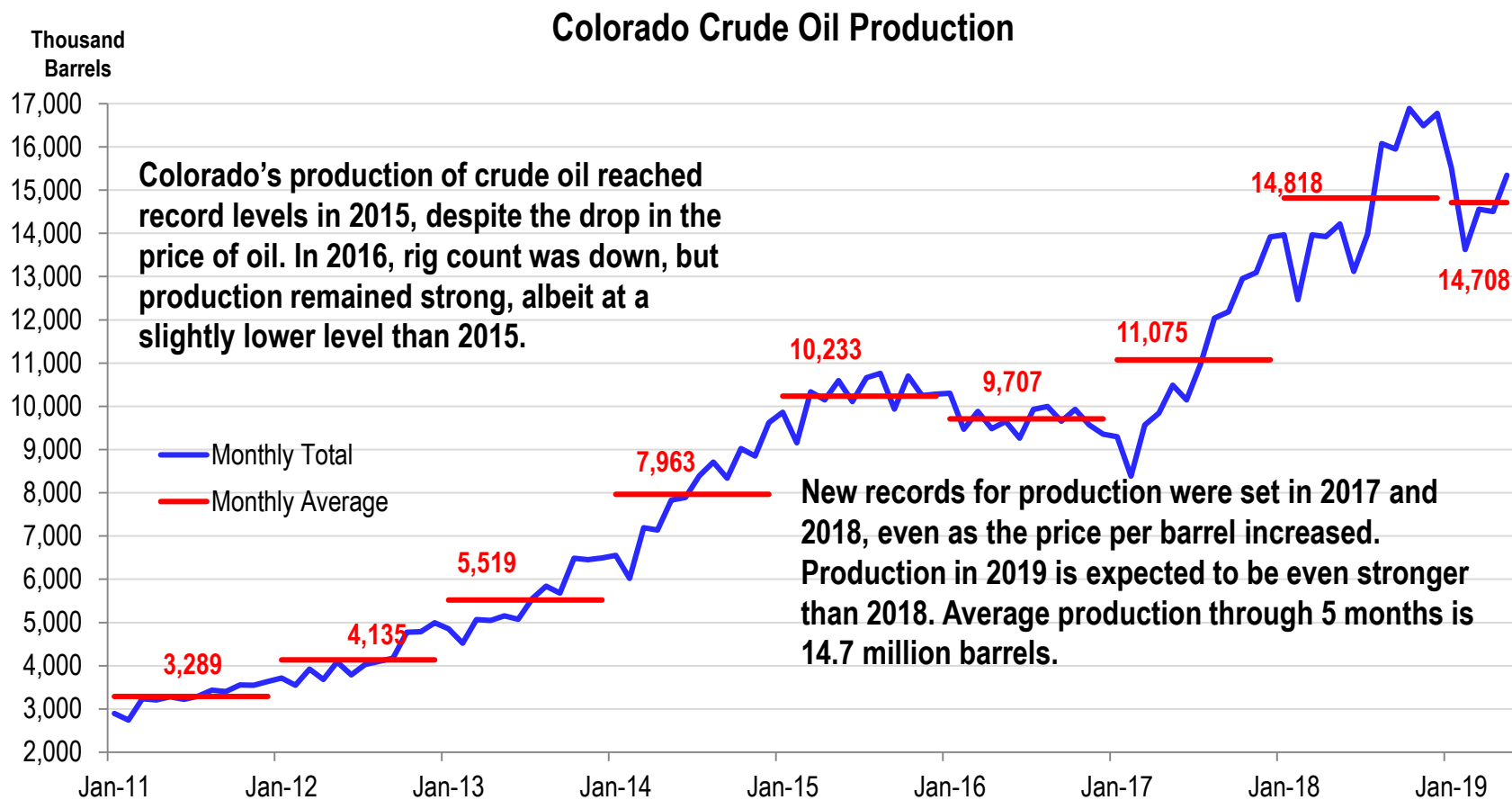
## West Texas Intermediate



Source: FRED, EIA, cber.co.

# Colorado Field Production of Crude Oil

## 2011 to 2019 (Thousand Barrels)



Source: EIA, cber.co.

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

# Crude Oil Production by State

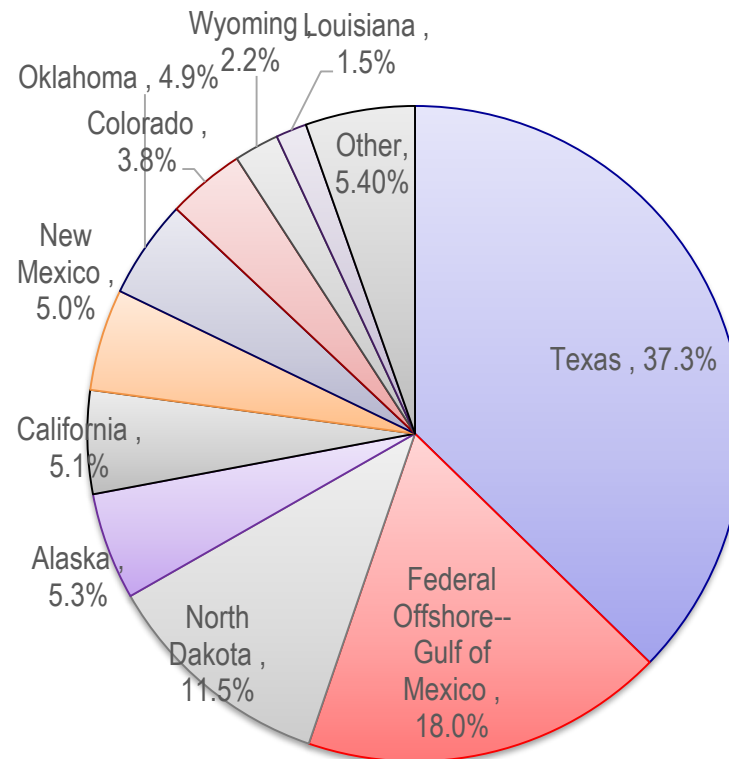
## January 2019

### Percent of Oil Production by State

In January 2019 oil was produced in 32 states plus two federal offshore regions (Gulf of Mexico and West Coast).

Colorado accounted for 3.8% of the total oil produced. While this percent is a small part of the U.S. production, the industry plays an important role in the U.S. and Colorado economies.

### Percent of U.S. Production, Jan 2019

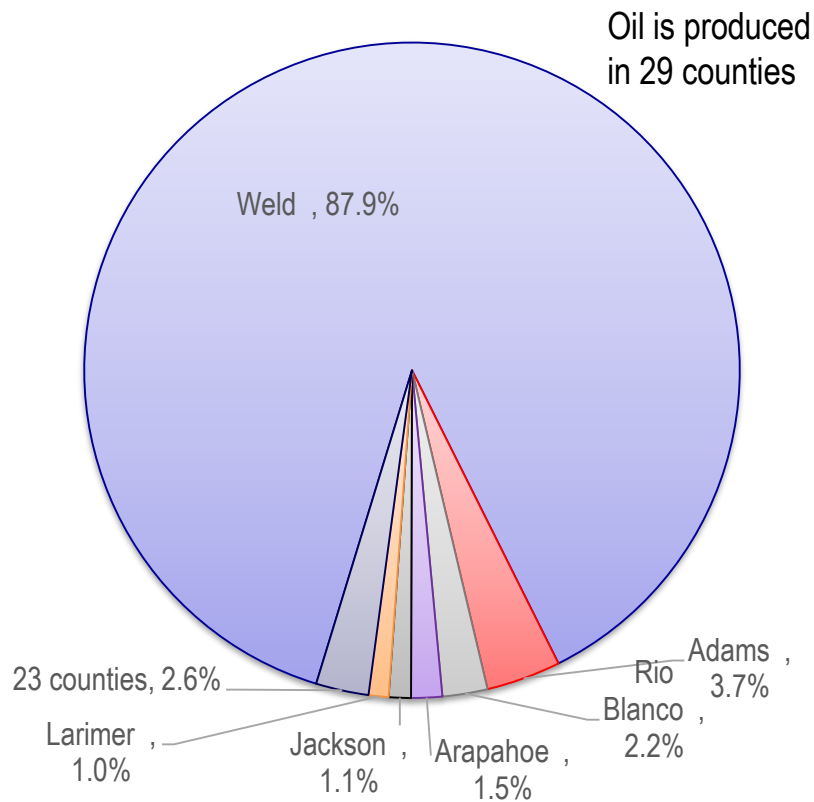


Source: EIA, cber.co.

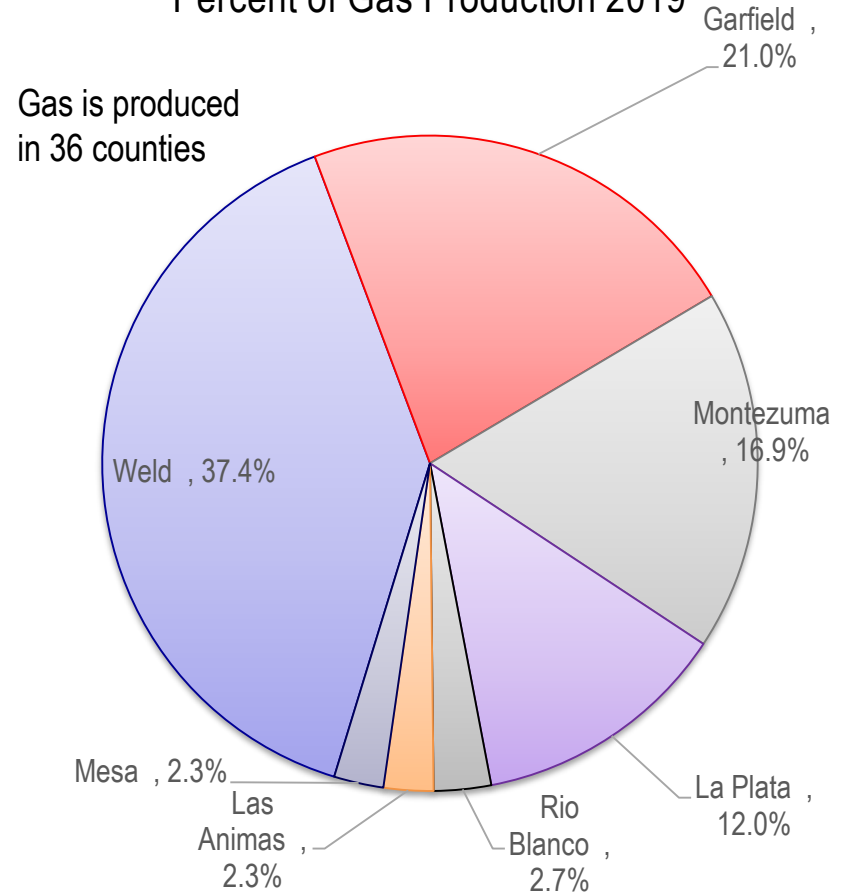
# Production of Colorado Oil and Gas by County

## 2019

Percent of Oil Production 2019



Percent of Gas Production 2019



Source: COGCC, cber.co.



# The Colorado Economy

## Summary

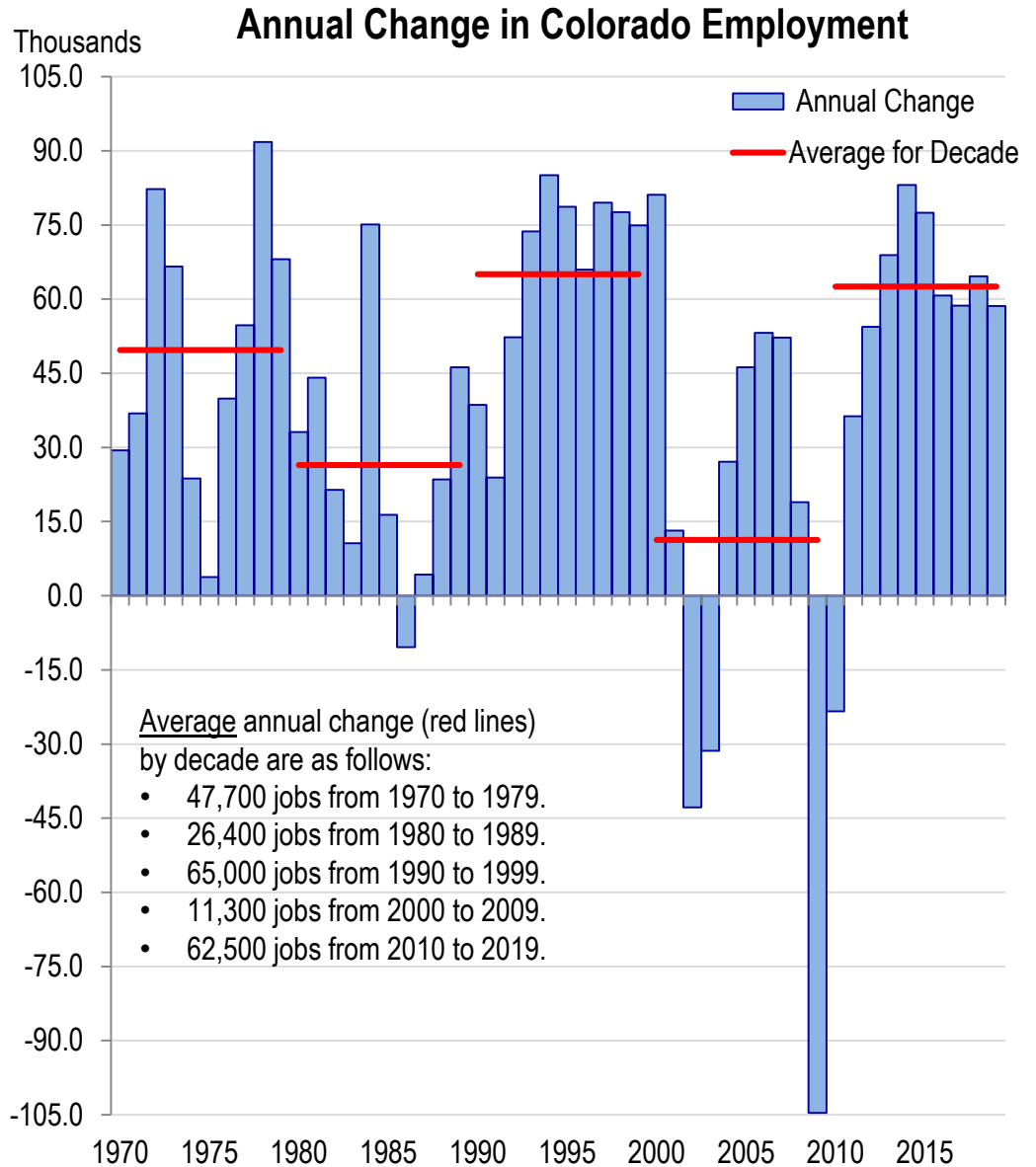


# Annual Employment Change in Colorado

Through the first 7 months of 2019, average employment is up 51,300 jobs, or 1.9% greater than the same period in 2018.

Job growth for 2019 was projected to be 58,600 workers (see chart), an increase of 2.2%. This projected rate of job growth for Colorado will again be greater than the rate for the U.S.

The rate of growth for Colorado has been slower than expected; however, it has been steady. YOY job growth has been in the range of 47,400 to 56,900.



Source: Bureau of Labor Statistics, cber.co.



# Summary

## Colorado Economy

### **On a Positive Note**

Both the data and activity on the streets show the Colorado economy is on solid footing.

There is consistent growth of new business establishments.

In addition, the economic development community has worked to attract and retain companies and their supply chain such as Maxar, Arrow Electronics, Vestas, Ball Aerospace, and Lockheed Martin.

### **There are Headwinds**

In the short-term, Colorado businesses will continue to be challenged to find qualified and clean workers in the tight labor market.

The state government will continue to be struggle financially to meet the infrastructure needs of the state, including transportation, safety, health and well-being, water, education, and communications.

Within the past year, policies and legislation have been put in place that make Colorado a more expensive and litigious place to conduct business.



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Economic Trends for Colorado Through July 2019

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#### ABOUT THE AUTHOR

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.