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# Colorado Economy and Employment Data Through December 2017

Colorado-based Business and Economic Research  
Prepared  
December 28, 2017

# Overview of Economic Review

This chartbook provides a series of charts, graphs, and discussions that review the Colorado wage and salary employment data published by the Bureau of Labor Statistics. Based on the information from the November report, Colorado employment is on track to add 49,100 jobs this year. The unemployment rate of 2.9% indicates there is a lack of qualified workers in most industries. The low unemployment rate is a deterrent to stronger job and real GDP growth in the state.

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## **U.S. Economy**

- The Economy Through November 2017.
- The United States Economy.
  - Real GDP, Philadelphia Fed Leading Index, ISM Indices (Manufacturing and Non-manufacturing).
  - Employment and Unemployment Rate.

## **The Colorado Economy**

- Employment and Unemployment Rate.
- Employment in Strong Growth, Solid Growth, Volatile Categories.
- Key Sectors and Trends to Watch.
  - Extractive Industries.
  - Construction, Housing Prices.
  - New and Used Car Registrations and DIA Passenger Traffic.
- Projections for 2017 and Outlook for 2018.
- Summary.

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The 2018 forecast will be available by mid-January 2018.

# The Economy Through December 2017

## United States and Colorado

### United States

From an economic perspective, very little has changed in the second half of the 2017.

- The Fed remains optimistic about the U.S economy.
- The Q3 real GDP growth rate was 3.2%.
- The Philadelphia Fed's U.S. Leading Index is positive.
- Retail sales for the 2017 Christmas season were stronger than anticipated.
- Auto sales were stronger in the second half of 2017.
- U.S. Y-O-Y housing prices are up 6.2%.
- The S&P 500 was up 19%; the VIX showed little volatility.
- The unemployment rate is 4.1%.
- Purchasing managers are optimistic about the future.
- The U.S. is on track to add 2.1 million jobs in 2017.
- Congress passed tax legislation.

Despite uneasiness in the U.S. and abroad, economic growth in the U.S. remains solid.

### Colorado

If only there were enough qualified workers to fill the vacant jobs, the state would be experiencing stronger job growth.

#### The Good News

- Construction permits are solid.
- Housing prices are increasing at a decreasing rate.
- Auto sales are strong.
- Retail trade sales are solid.
- DIA passenger traffic is strong.
- Job growth is modest, but will increase at a slower rate in the months ahead.

#### The Best News

- Activity on the streets is positive.

#### Areas to Watch

- The Colorado CPI is higher than the U.S. rate.
- The Philadelphia Fed's Leading Index is solid.
- Price for a barrel of oil is up.
- Employment data may be understated.
- How much will the lack of snow hurt the economy?



# The U.S. Economy

Real GDP, Philadelphia Fed Leading Index, and ISM Leading Indices

# Quarterly Real GDP Growth United States

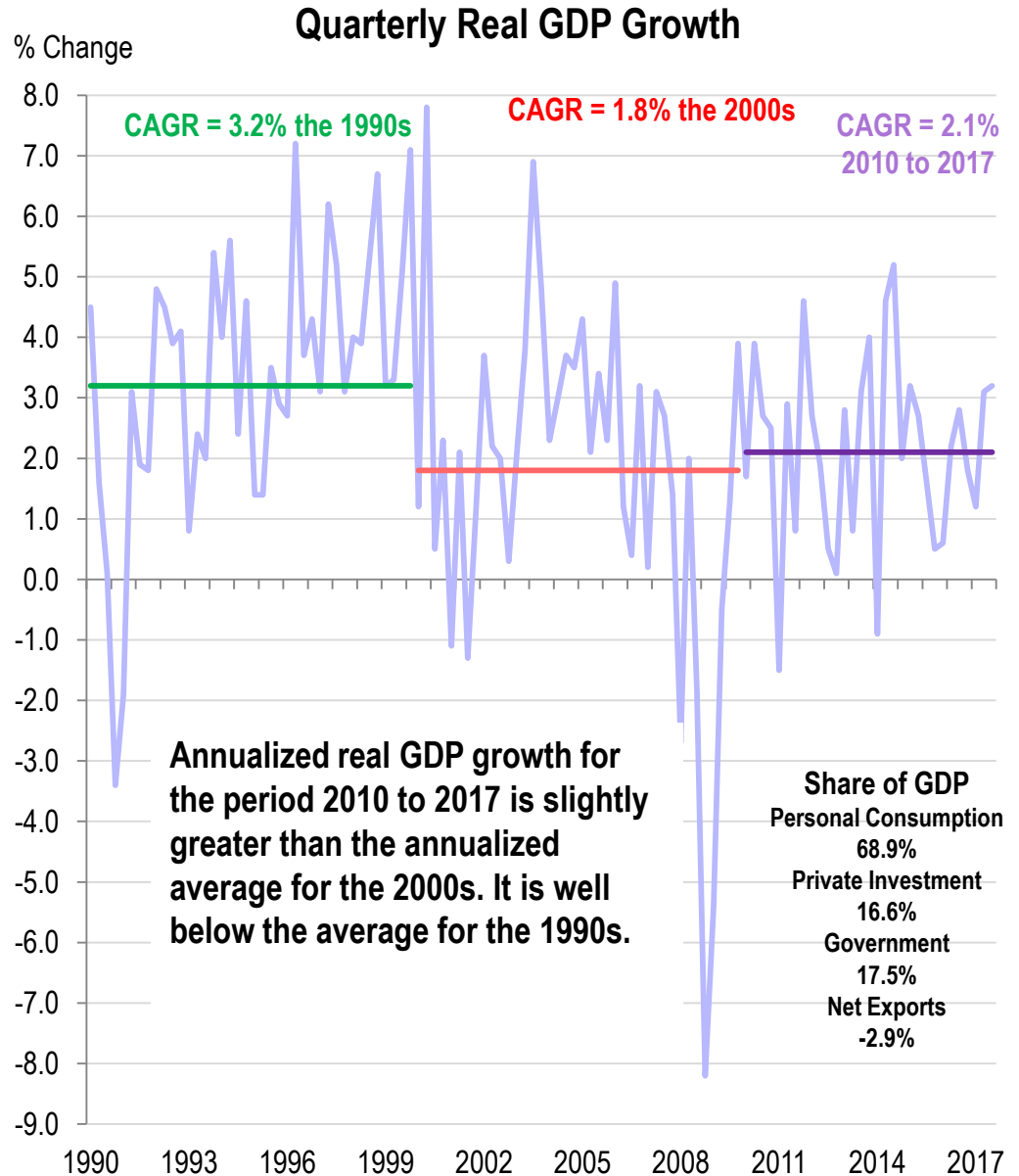
Historical annualized real GDP growth is:

- 1990s 3.2% (green line).
- 2000s 1.8% (red line).
- 2010 to 2017 2.1% (purple line).

The third estimate for Q3 real GDP growth was 3.2%. The third estimate for Q2 was bumped up to 3.1% and the final estimate for Q1 is 1.2%.

Real GDP growth for recent years was:

- 2010 2.5%
- 2011 1.6%
- 2012 2.2%
- 2013 1.7%
- 2014 2.4%
- 2015 2.6%
- 2016 1.6%
- 2017 2.1% to 2.5% projected.

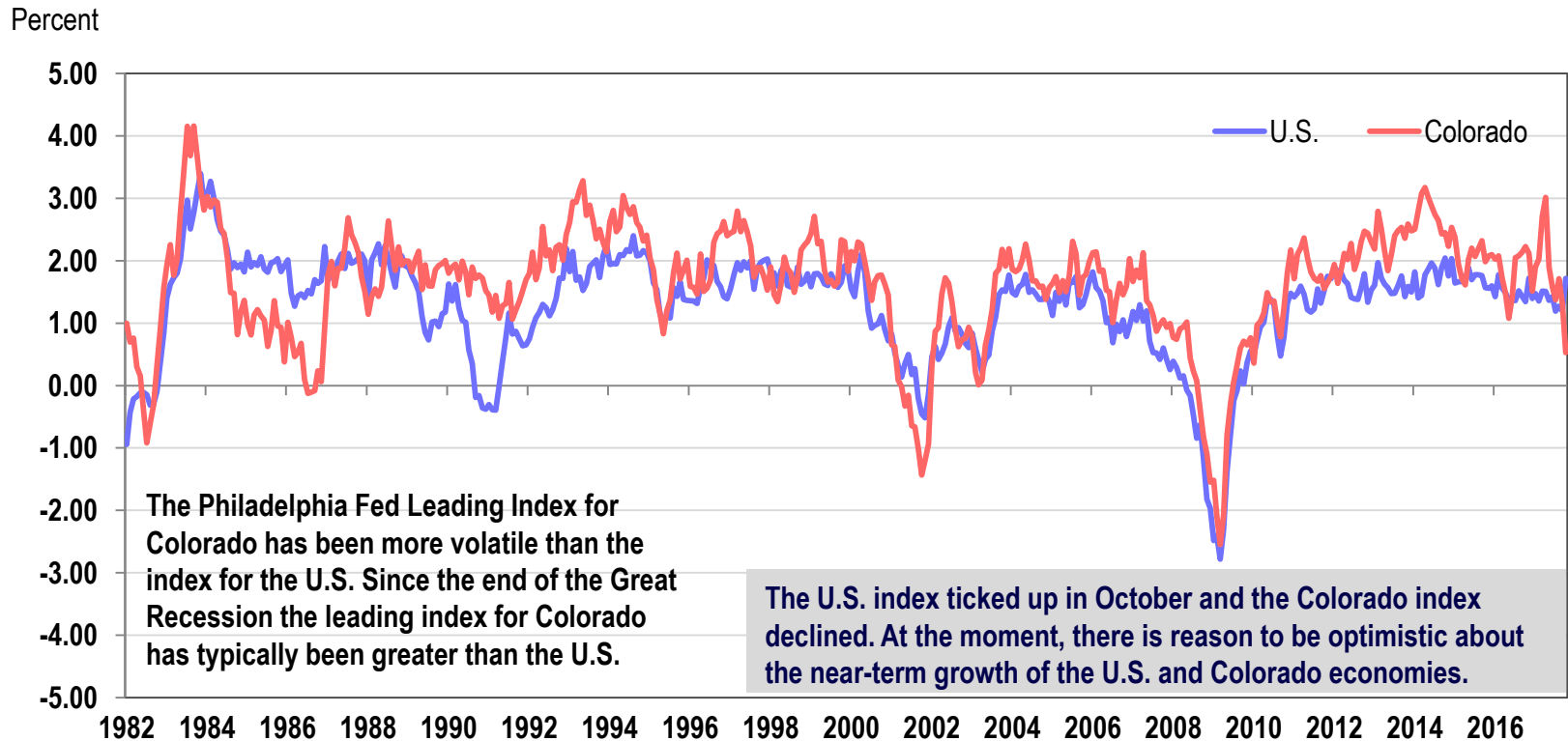


Source: Bureau of Economic Analysis, cber.co, Note GDP chained on 2009.

# Leading Index

## Colorado vs. United States

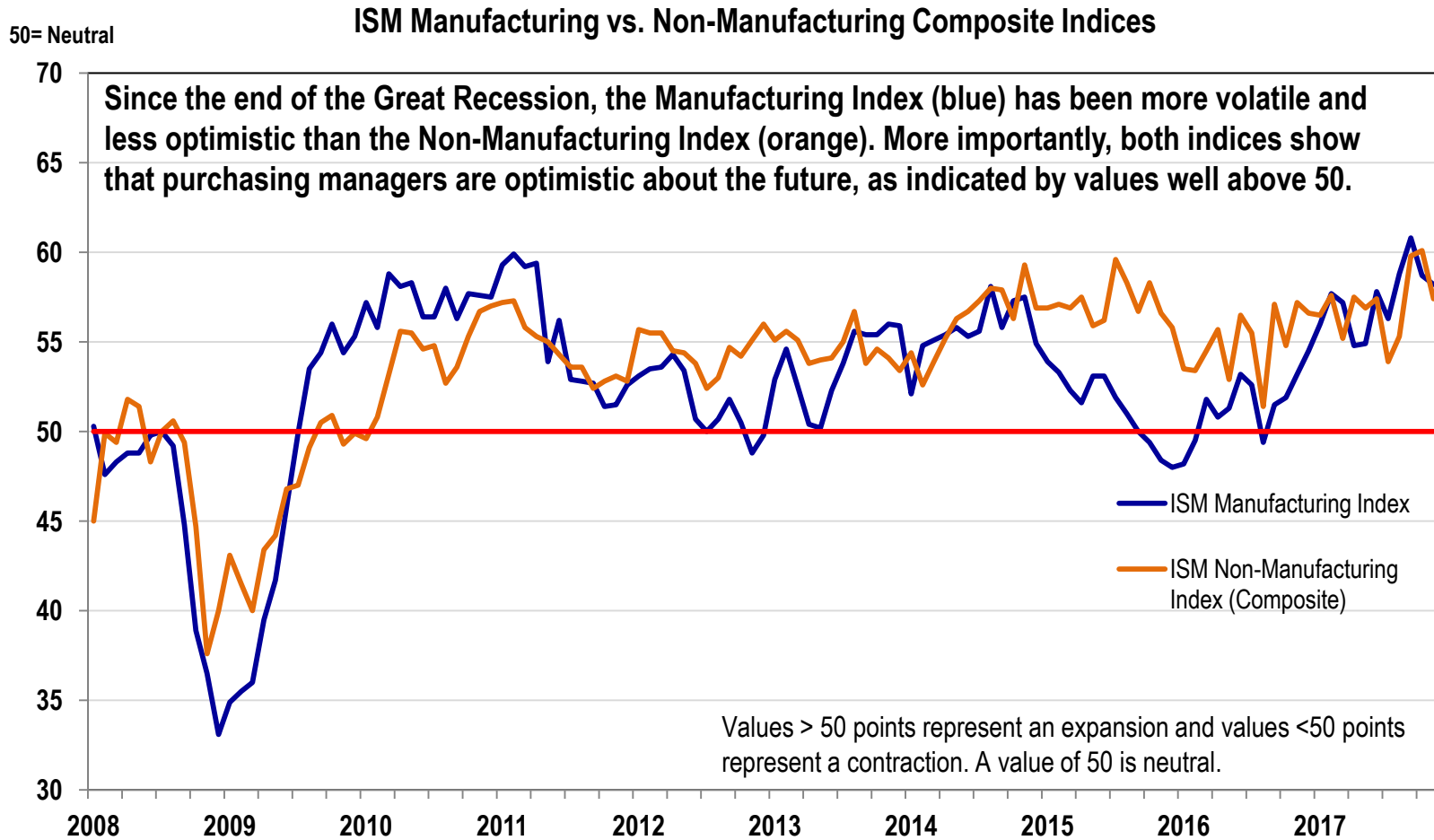
Philadelphia Federal Reserve Leading Index - Colorado vs. U.S.



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.

# ISM PMI Composite Indices

## Manufacturing vs. Non-manufacturing



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



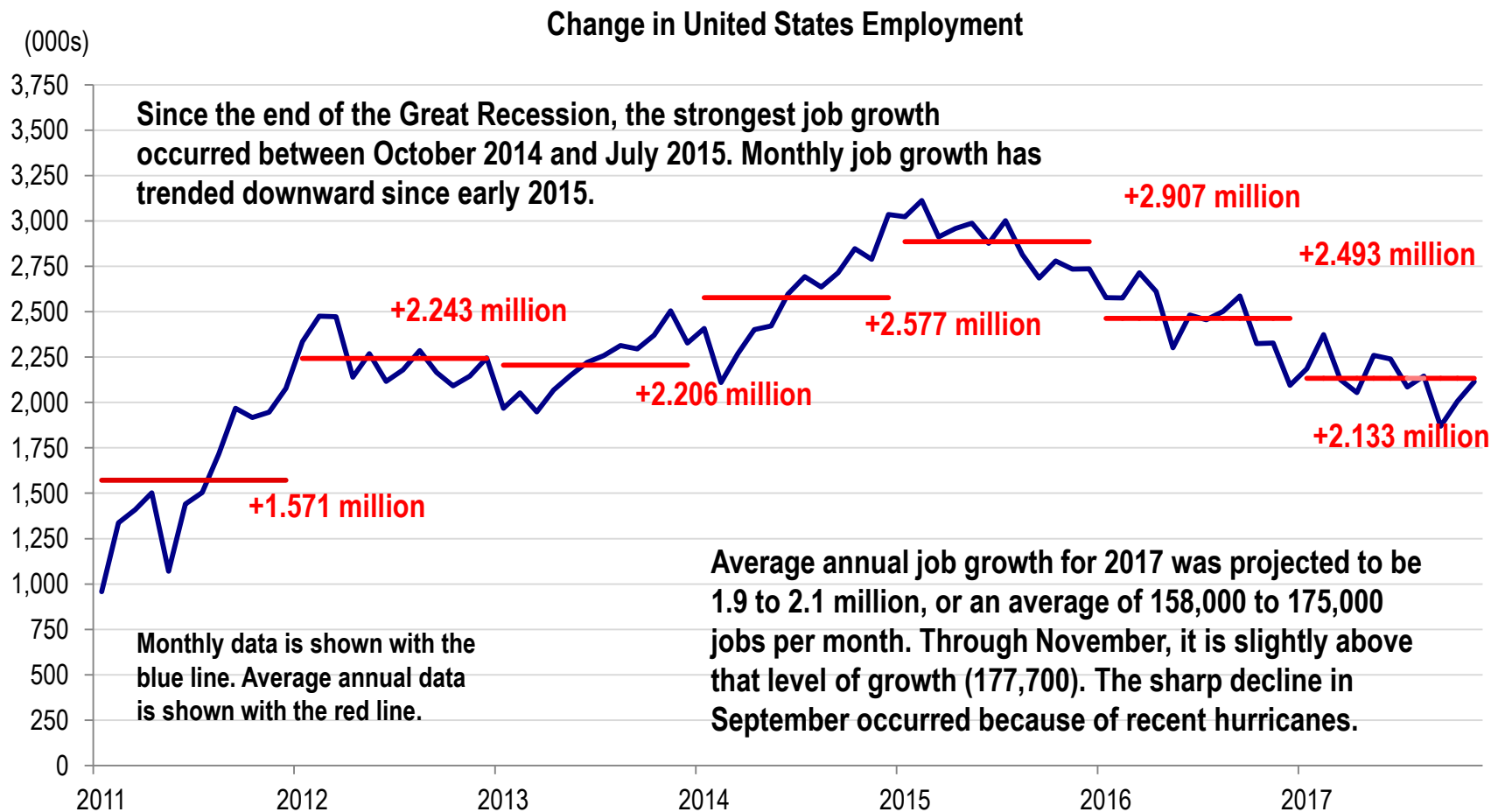
# The U.S. Economy

## Employment and Unemployment Rate



# Change in United States Employment

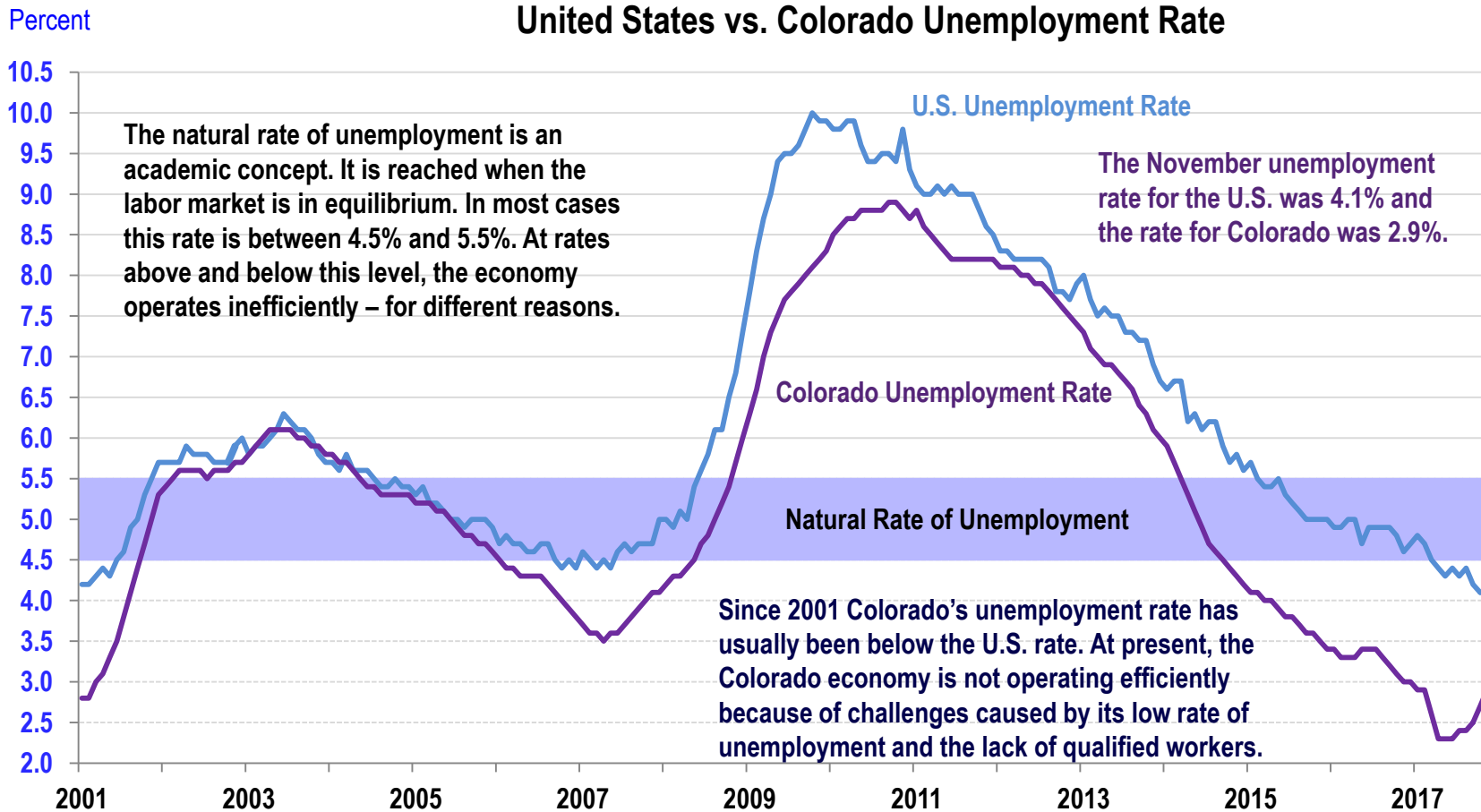
## Year-Over-Year



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

# Unemployment Rate

## United States vs. Colorado



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

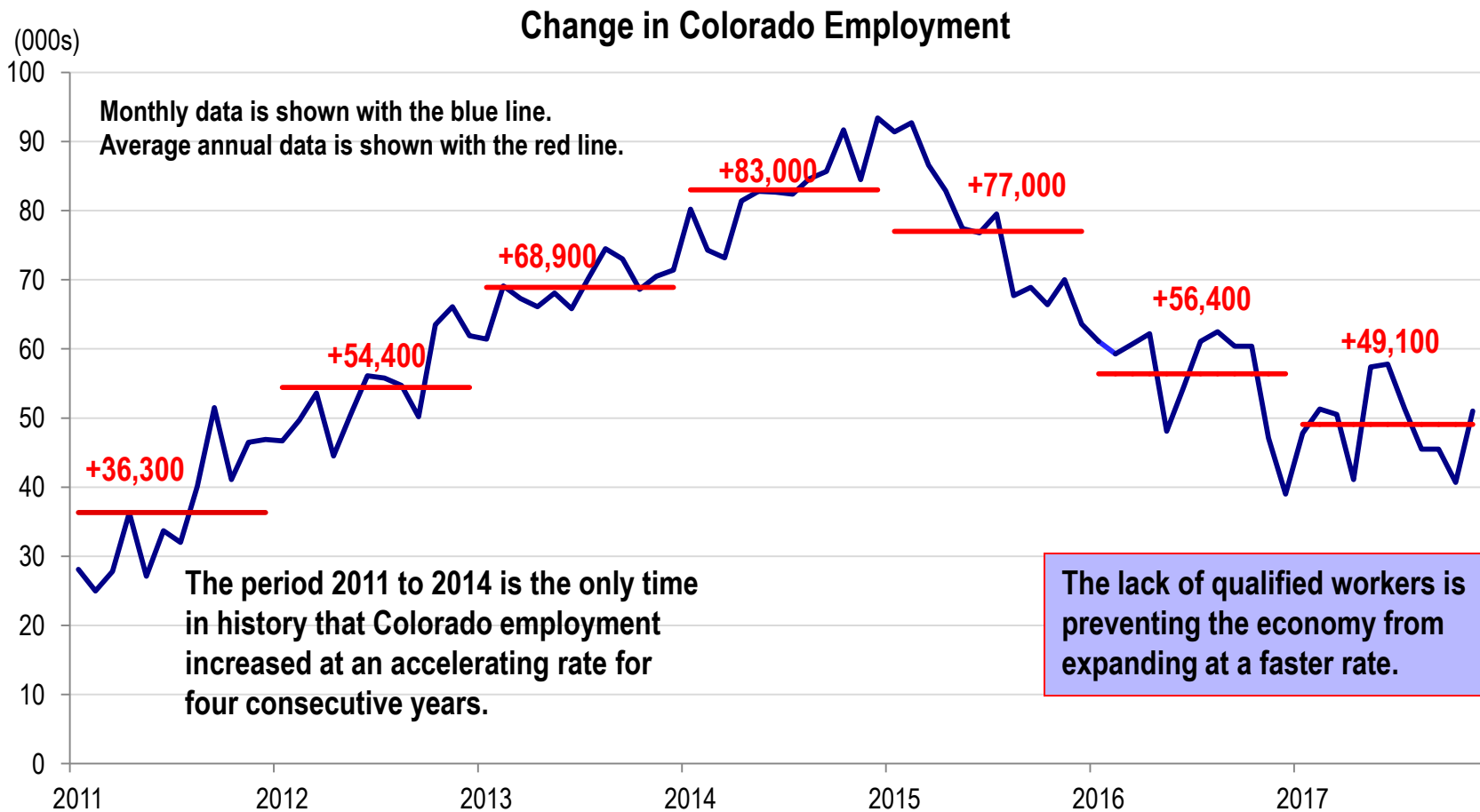


# The Colorado Economy

## Employment and Unemployment Rate

# Change in Colorado Employment

## Year-Over-Year



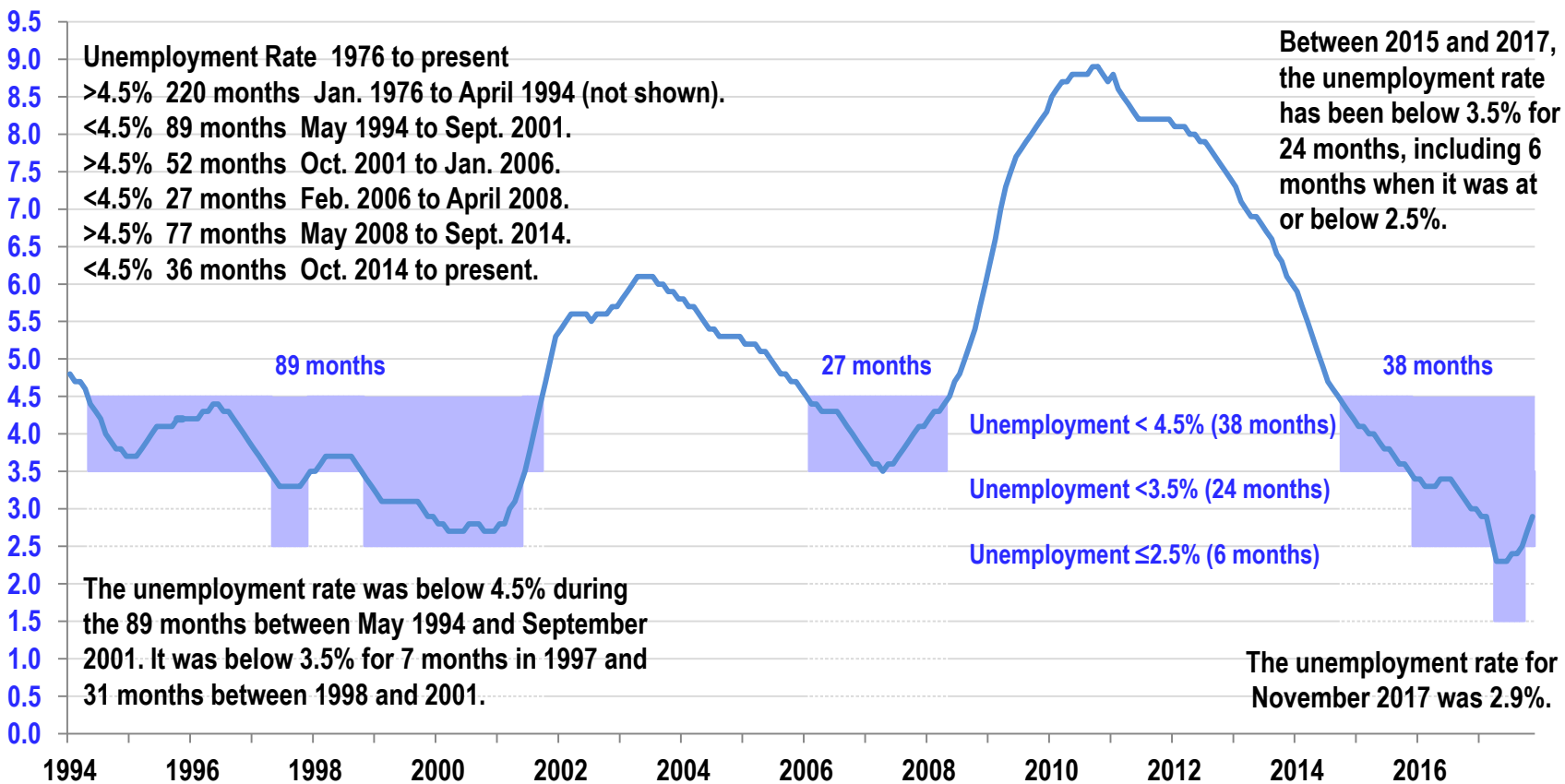
Source: Bureau of Labor Statistics, NSA, cber.co.

# Unemployment Rate

## Colorado

Percent

### Colorado Unemployment Rate



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



# Colorado Economy

Employment in Strong Growth, Solid Growth, Volatile Categories

# Change in Employment Summary of Strong, Solid, and Volatile Growth Categories

**Strong Growth Category – 22,000 jobs added, 2.6% growth rate.**

Health care and professional, business, and personal (other) services are the top sectors for job growth.

**Solid Growth Category – 17,900 jobs added, 1.8% growth rate.**

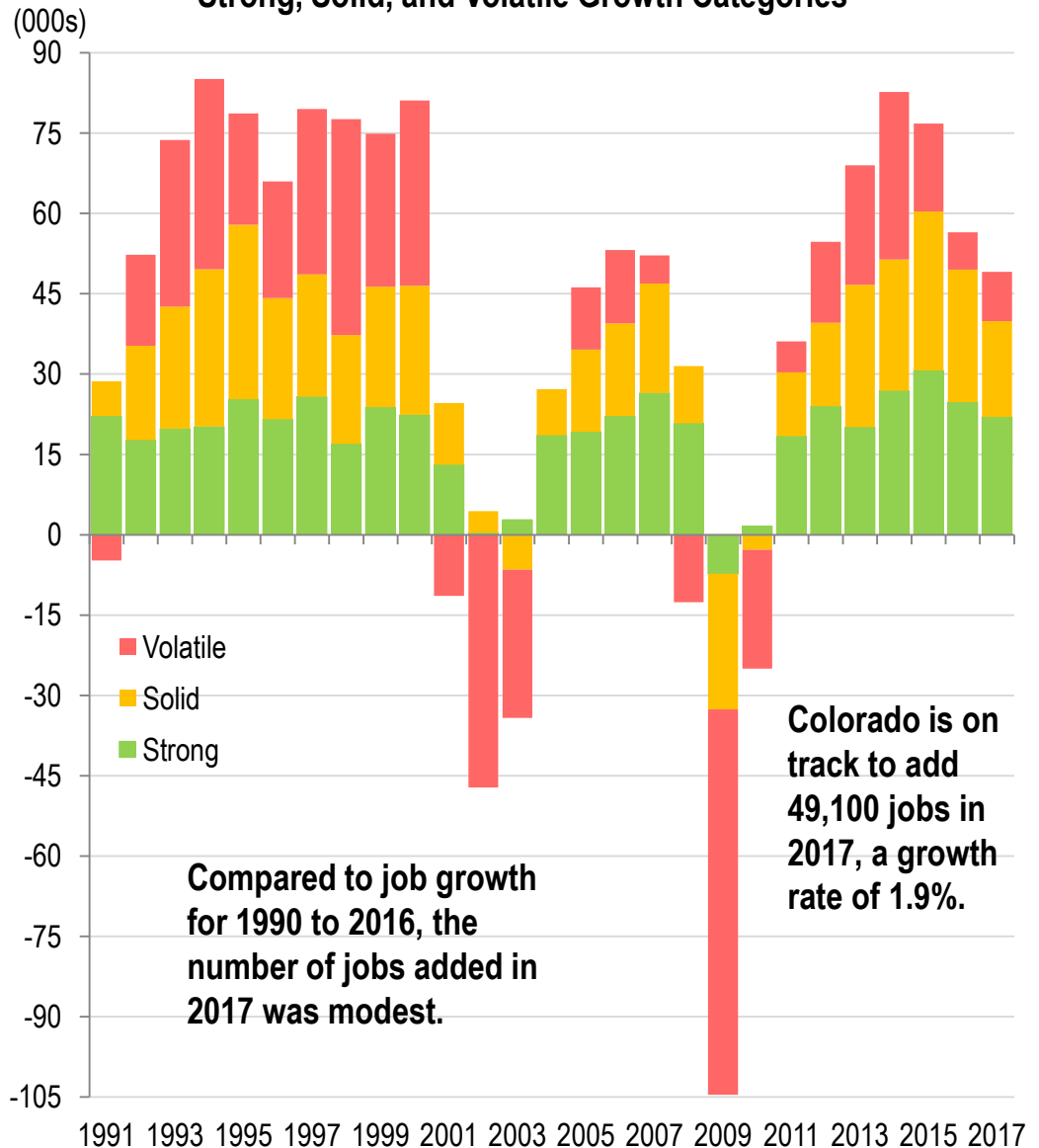
Accommodations and food services, trade, and state and local government are the leading sectors for job growth.

**Volatile Category – 9,200 jobs added 1.2% growth rate.**

Boom or bust industries – such as the extractive industries, manufacturing, information.

Colorado is on track to add **49,100 jobs** in 2017, a rate of **1.9%**, based on employment data through November.

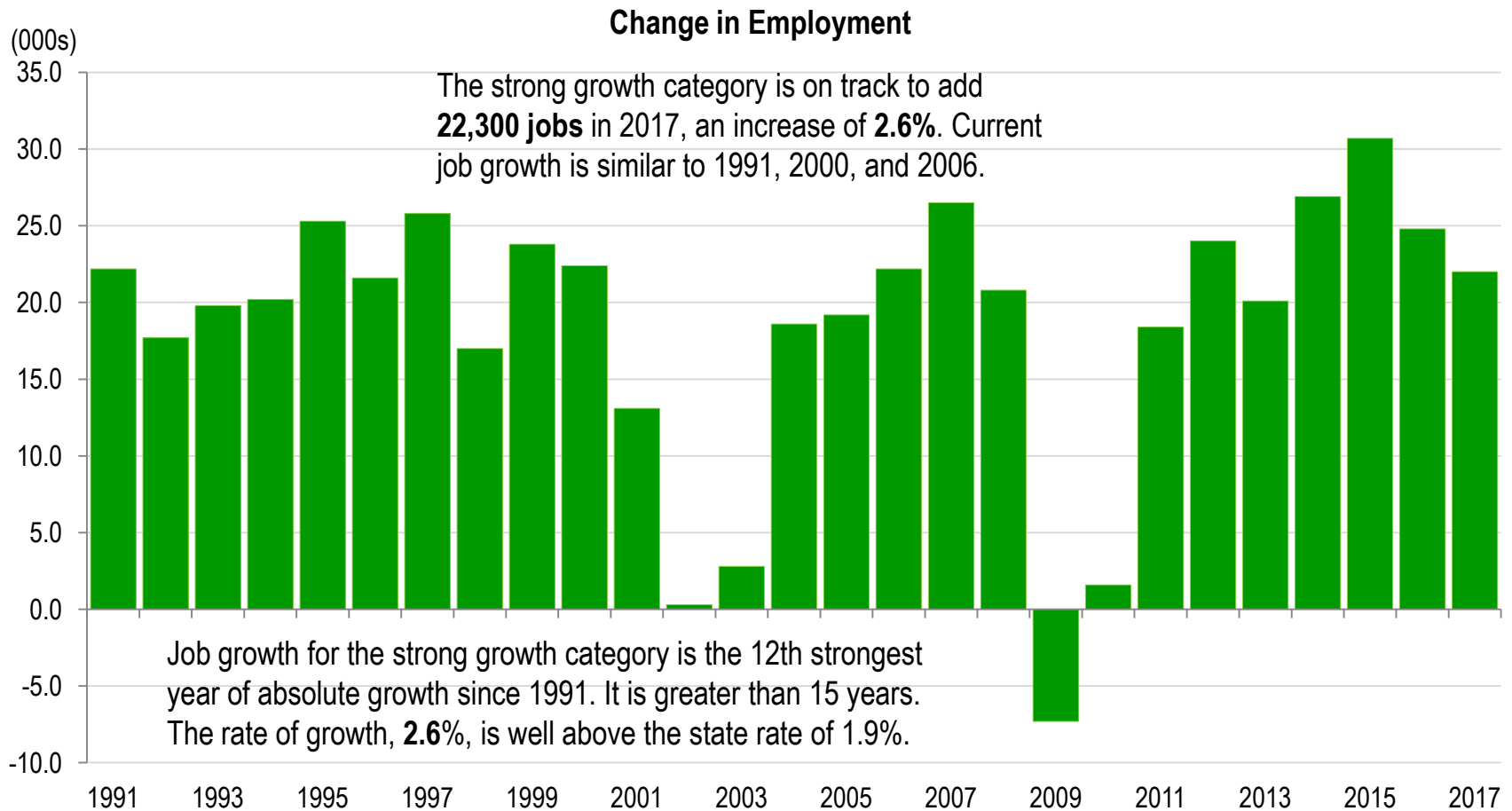
**Strong, Solid, and Volatile Growth Categories**



Source: Bureau of Labor Statistics, cber.co.

# Change in Employment

## Strong Growth Category

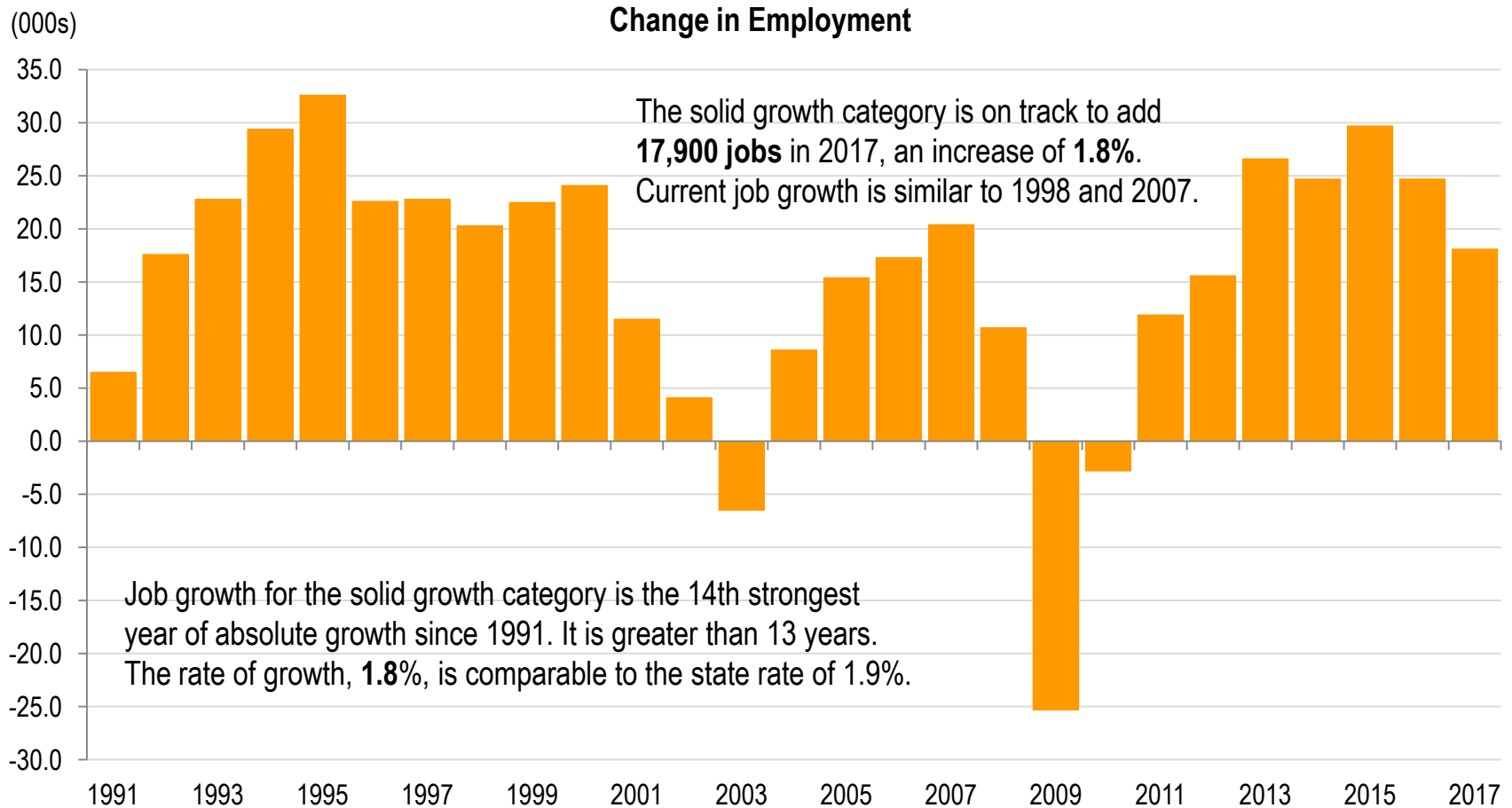


Source: Bureau of Labor Statistics, [cber.co](http://cber.co).



# Change in Employment

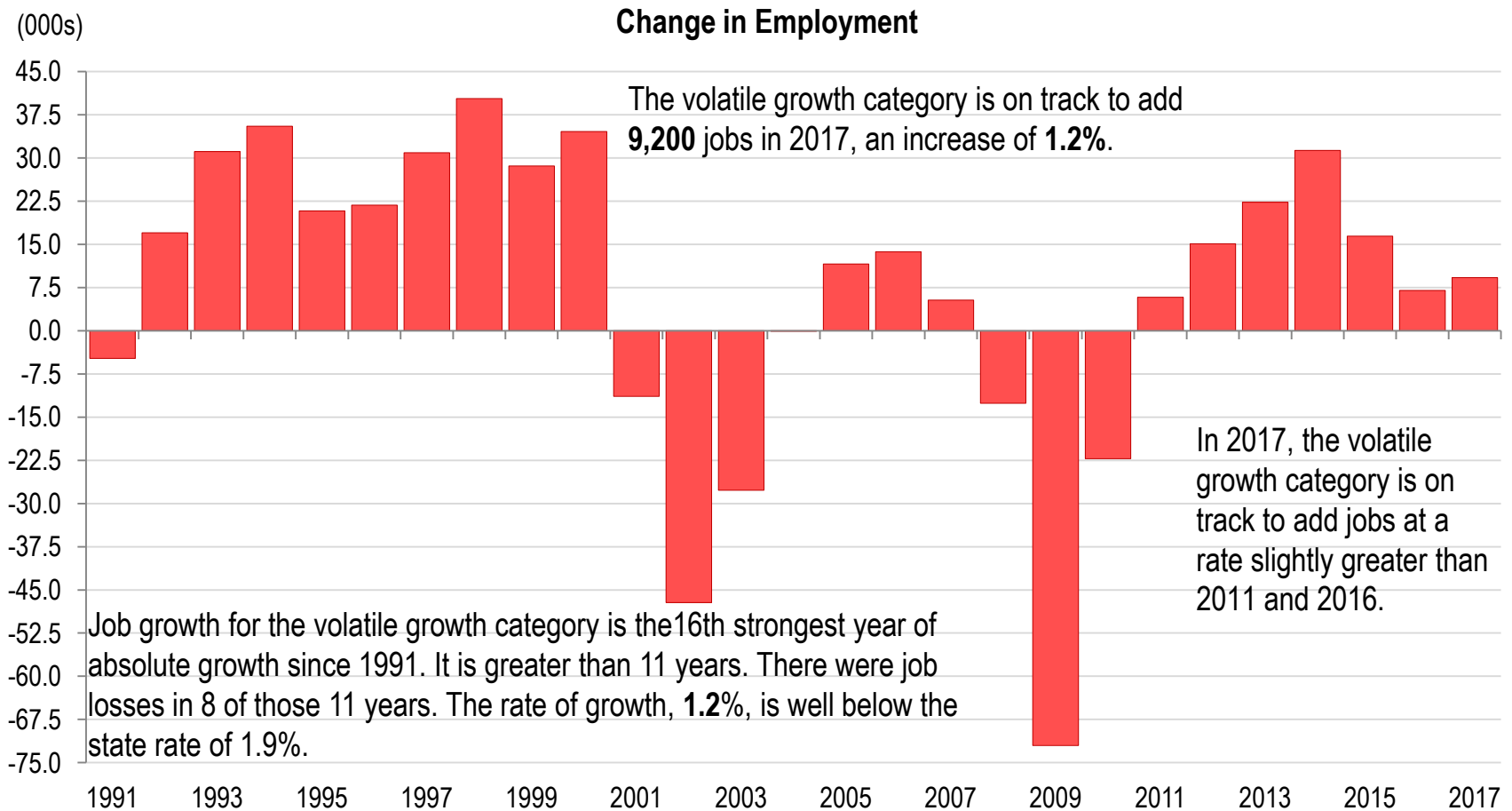
## Solid Growth Category



Source: Bureau of Labor Statistics, cber.co.

# Change in Employment

## Volatile Growth Category



Source: Bureau of Labor Statistics, cber.co.

# Six Industries That Are Important to Employment Growth for Different Reasons

The charts on the following six pages look at two sectors from each of the strong growth, solid growth, and volatile job categories that are contributing significant job growth. Combined, these sectors are responsible for 67% of the jobs added in 2017.

## Strong Growth Category

- Healthcare
  - Professional, Scientific, and Technical Services
- Total 29% of jobs added, or 14,300 jobs.

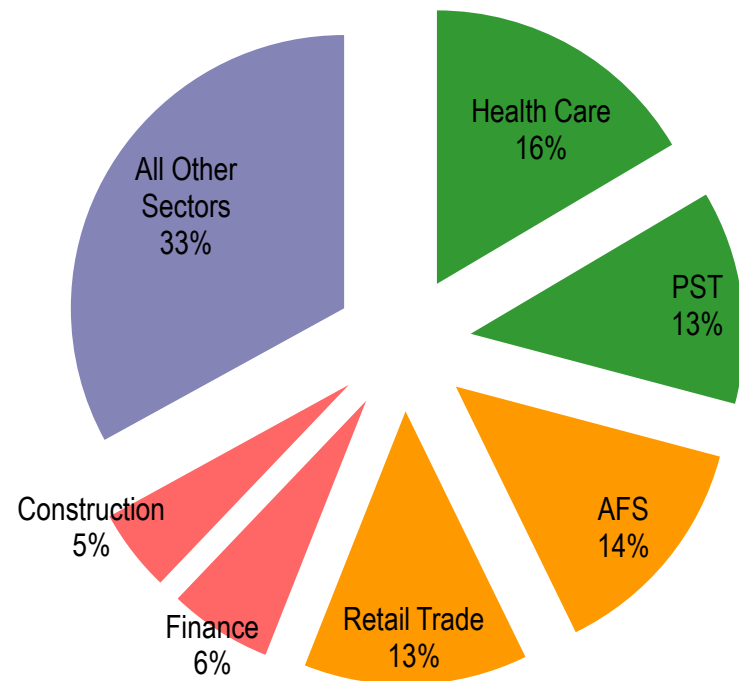
## Solid Growth Category

- Accommodations and Food Services
  - Retail
- Total 27% of jobs added, or 13,200 jobs.

## Volatile Category

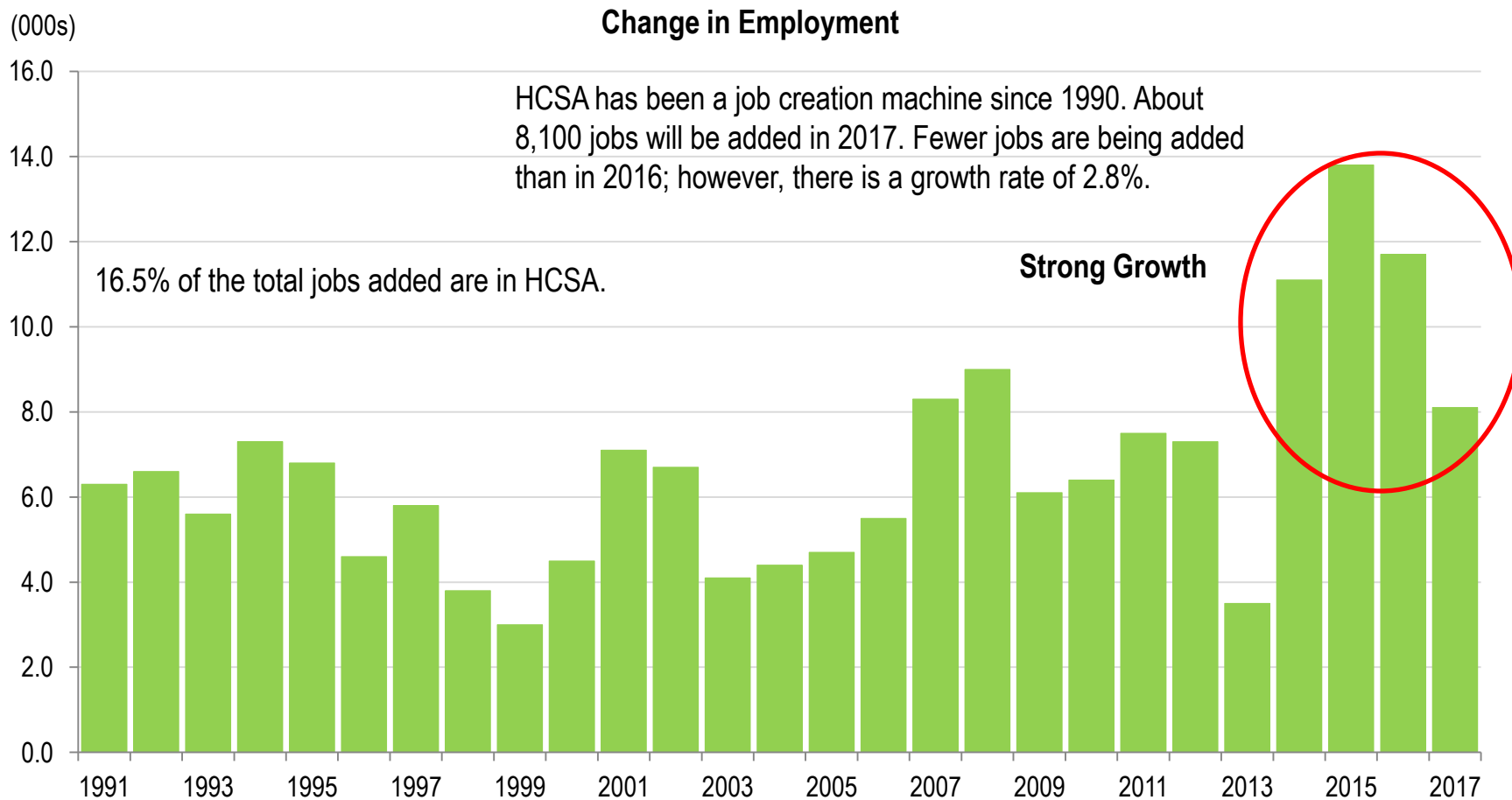
- Financial Activities
  - Construction
- Total 11% of jobs added, or 9,200 jobs added.

Top Sectors by Category



# Change in Employment

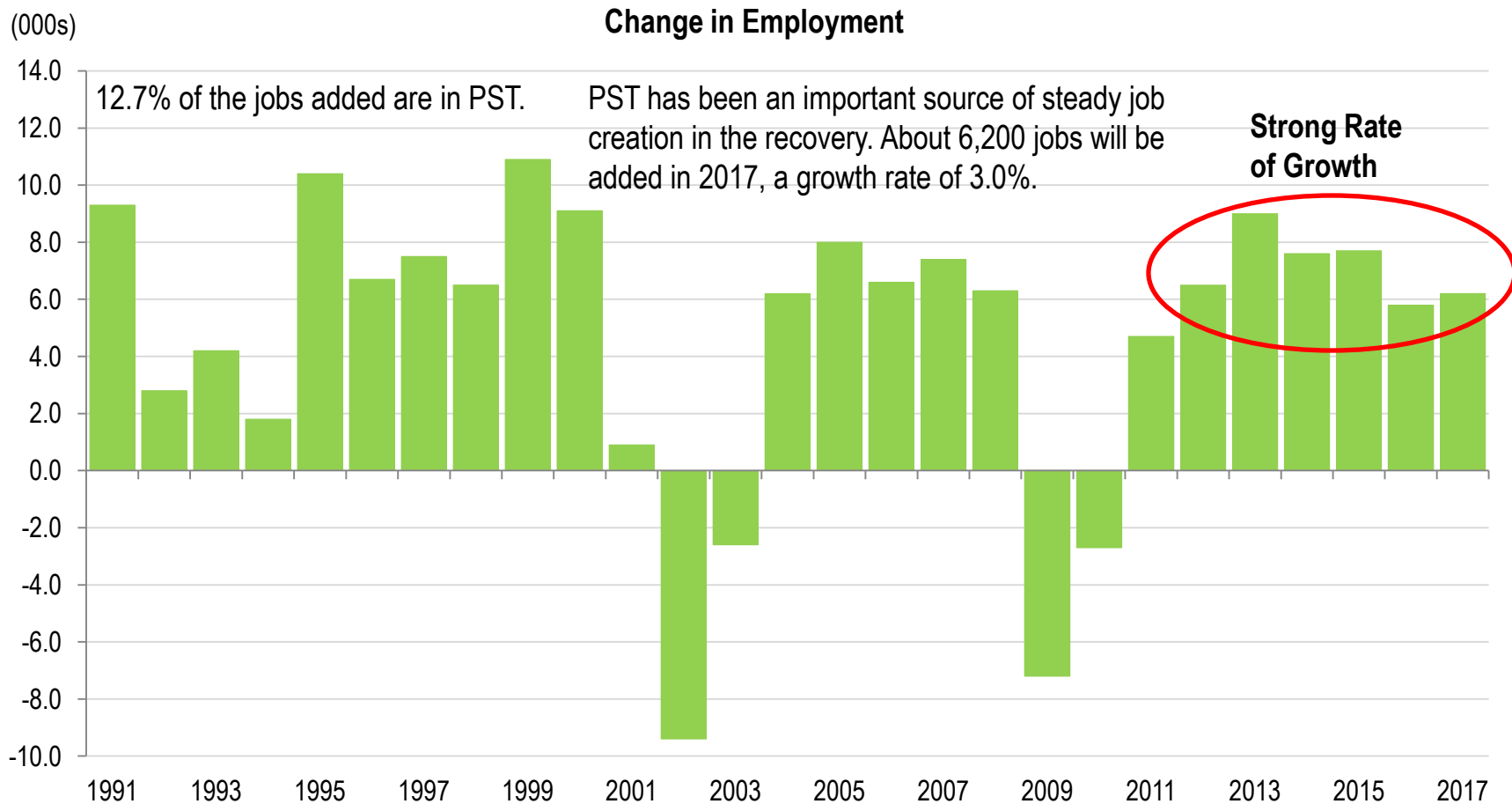
## Health Care and Social Assistance



Source: Bureau of Labor Statistics, cber.co.

# Change in Employment

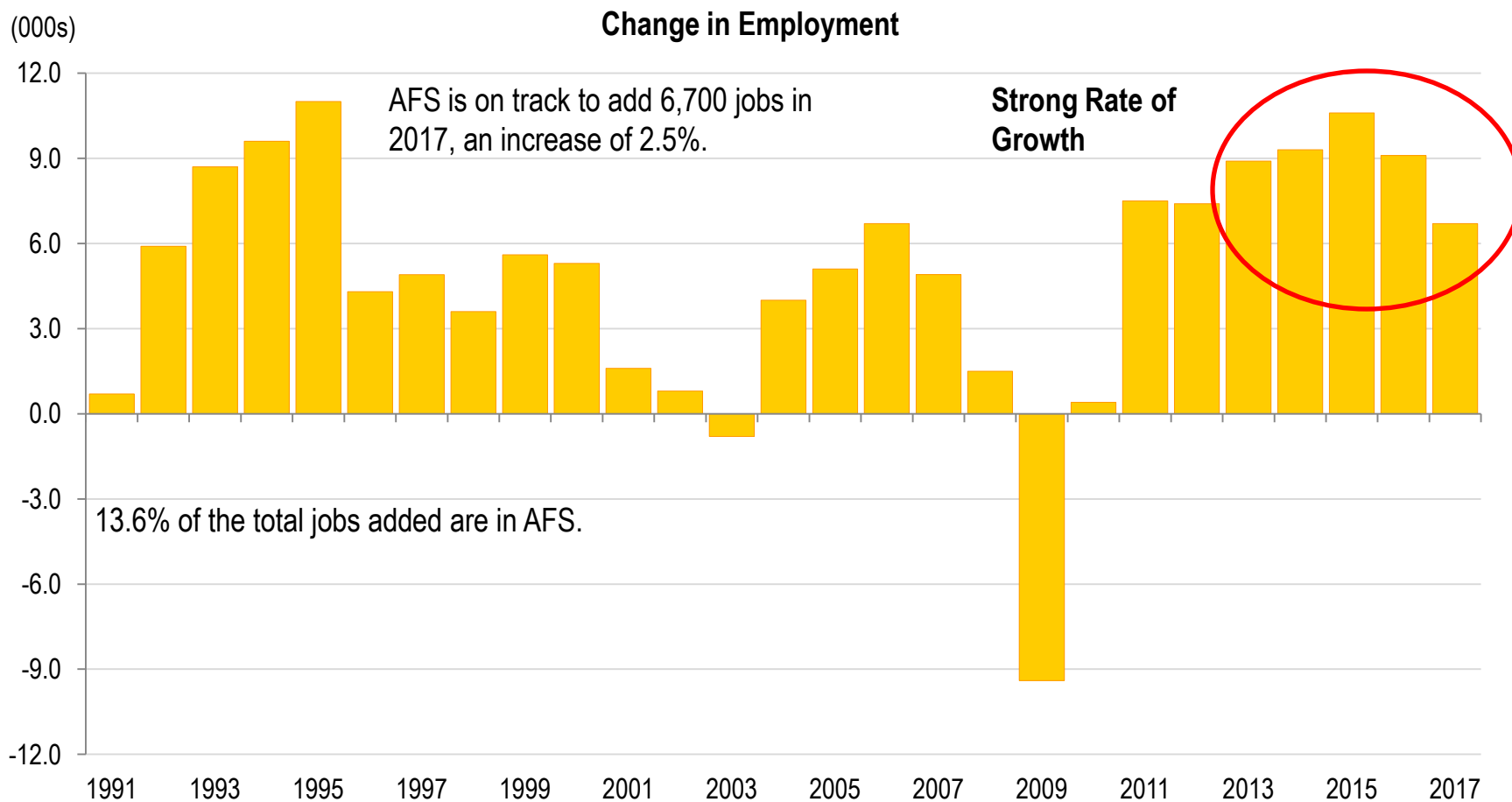
## Professional, Scientific, and Technical Services



Source: Bureau of Labor Statistics, cber.co.

# Change in Employment

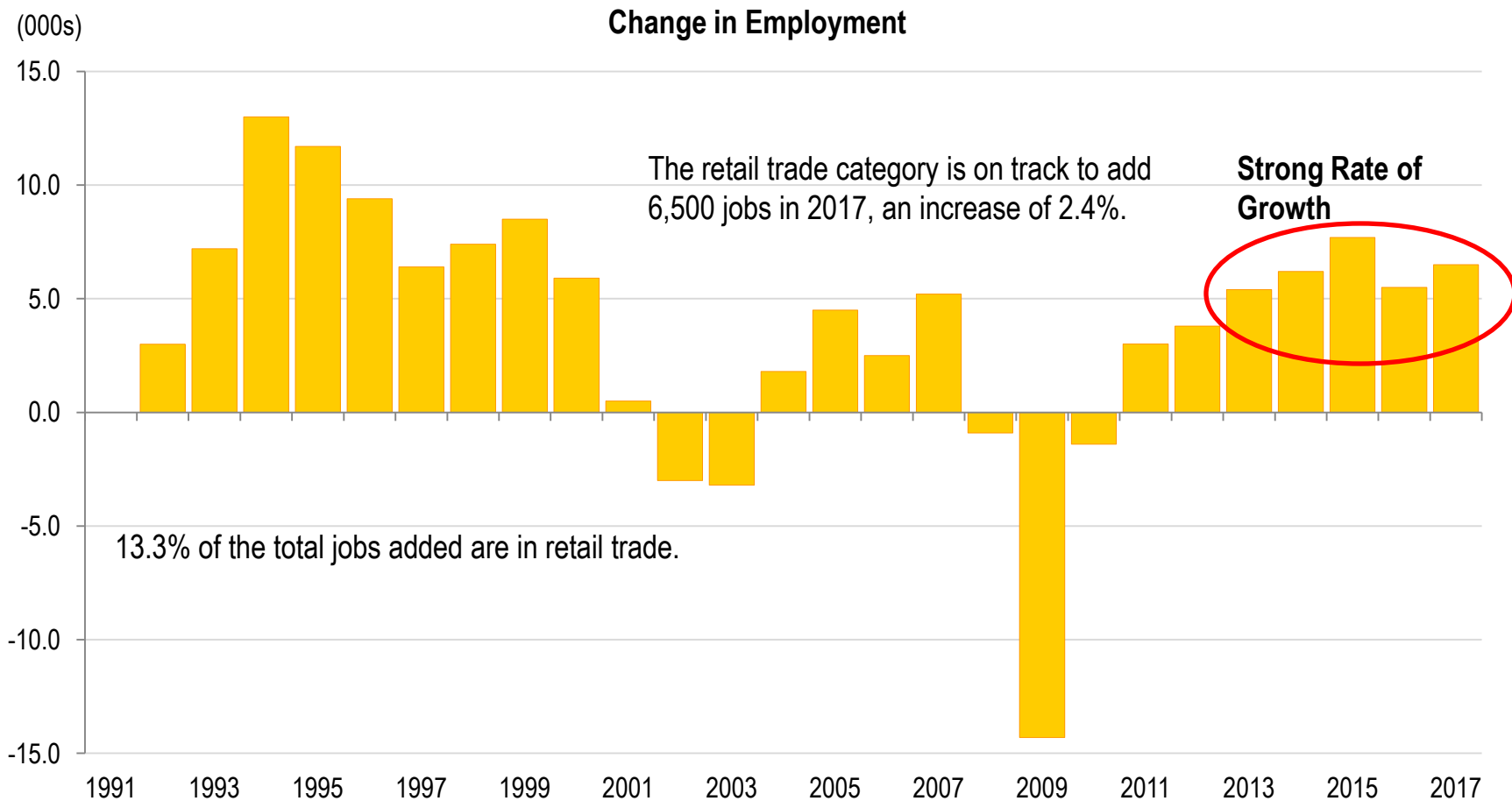
## Accommodations and Food Services



Source: Bureau of Labor Statistics, cber.co.

# Change in Employment

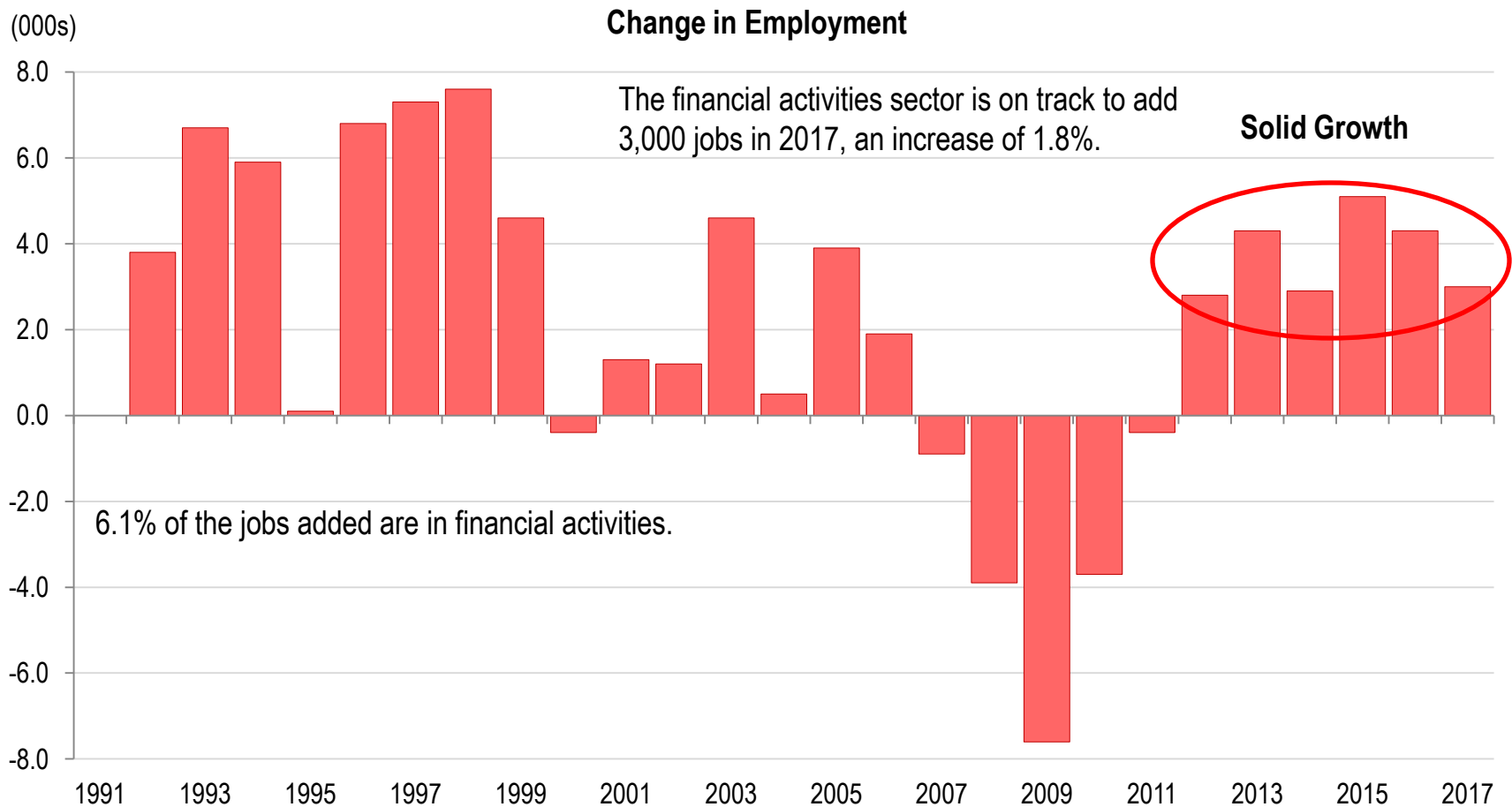
## Retail Trade



Source: Bureau of Labor Statistics, cber.co.

# Change in Employment

## Financial Activities

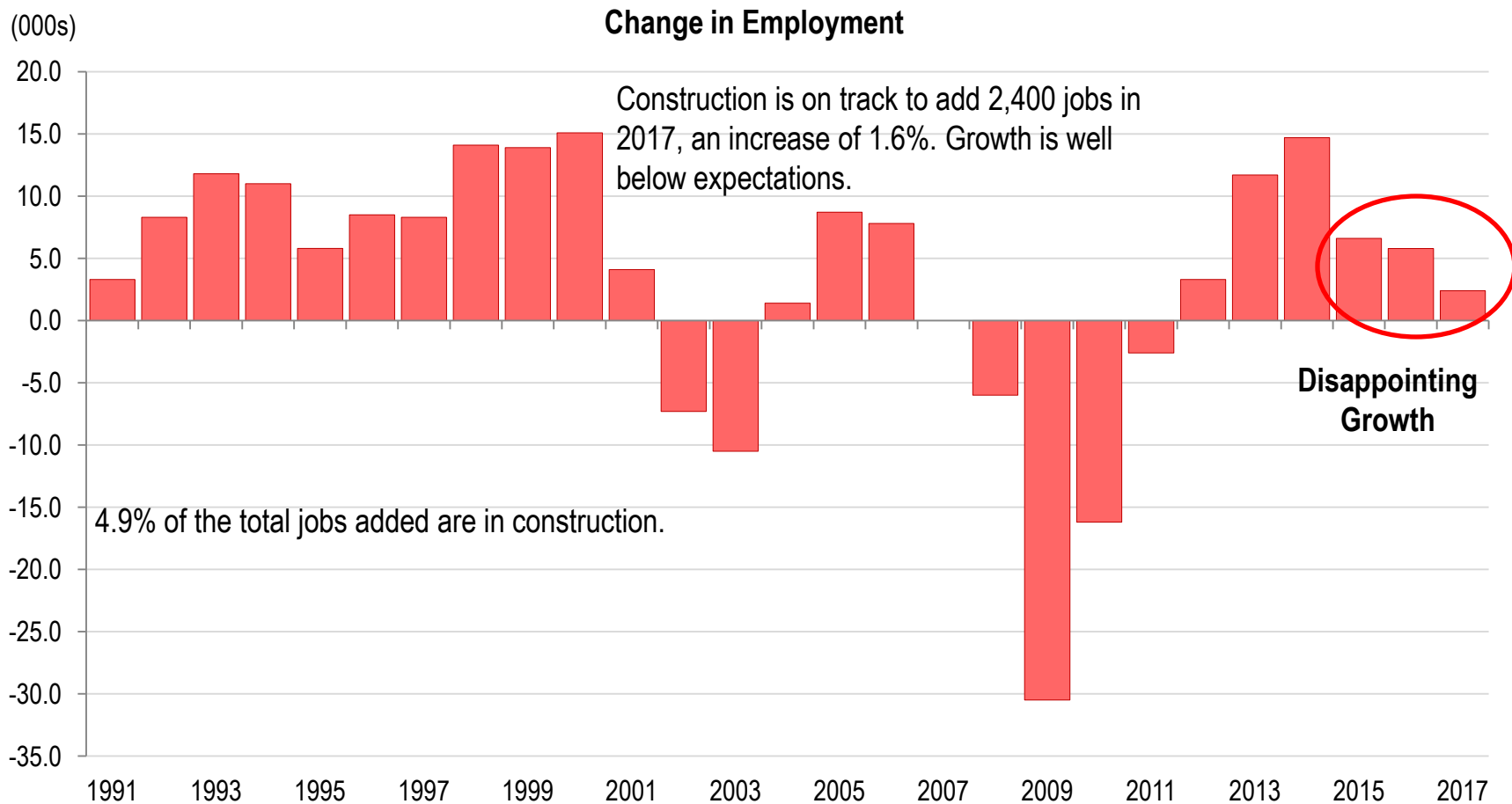


Source: Bureau of Labor Statistics, cber.co.



# Change in Employment

## Construction



Source: Bureau of Labor Statistics, cber.co.



# Colorado Economy

## Key Sectors and Trends to Watch

# Key Sectors and Trends to Watch

Within the three categories of employment (strong growth, solid growth, and volatile) there are key sectors and sources of economic activity that drive changes in the state economy. This section looks at “trends to watch” in those categories and sectors.

- Extractive industries – prices, rig count, and production.
- Construction – permits.
- Housing prices – appreciation rates.
- Auto sales - new and used car registrations.
- DIA – passenger traffic.

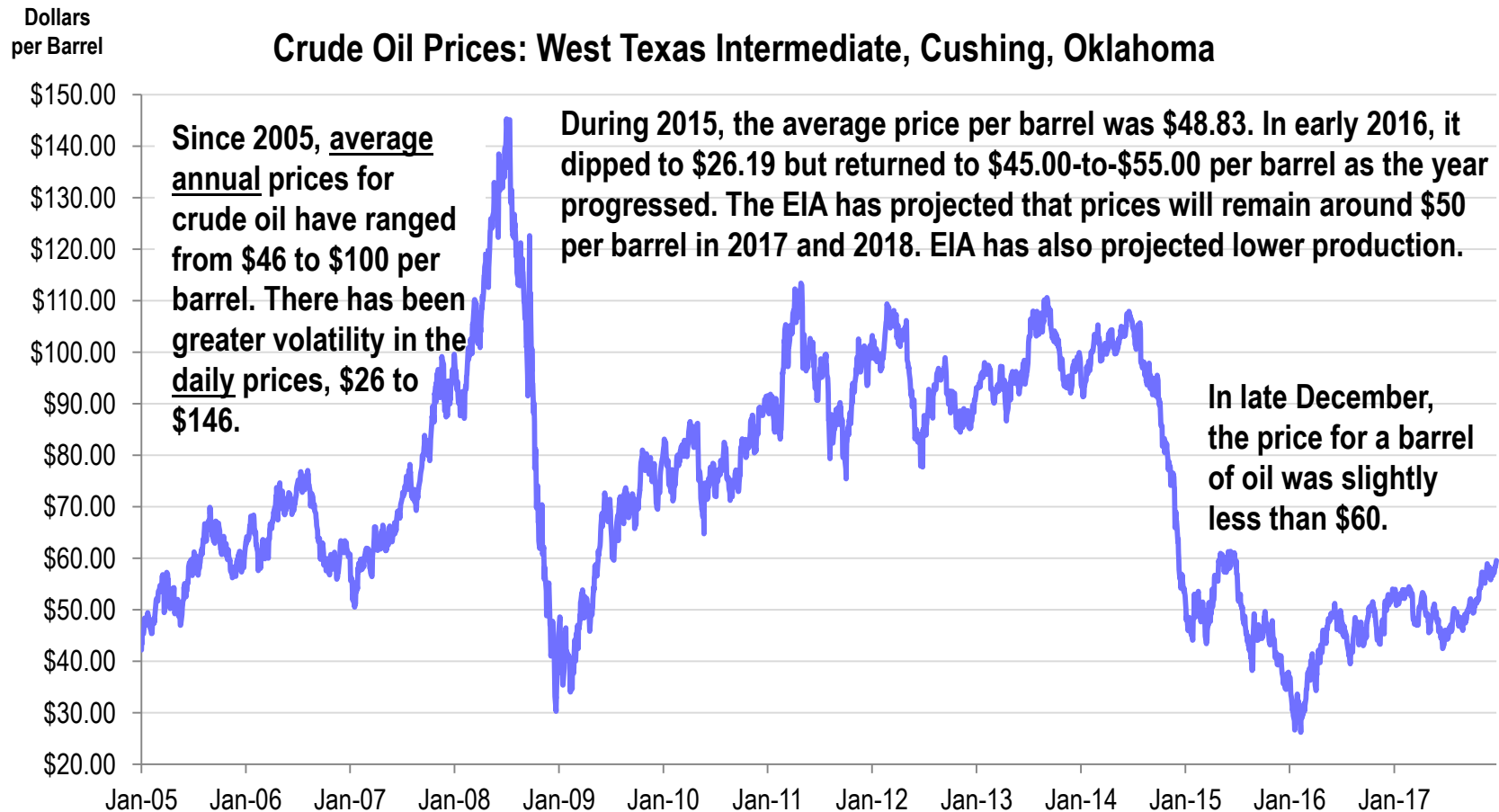
# ● Key Sectors and Trends to Watch

● Extractive Industries – Prices, Rig Count, Production

●

# Crude Oil Prices

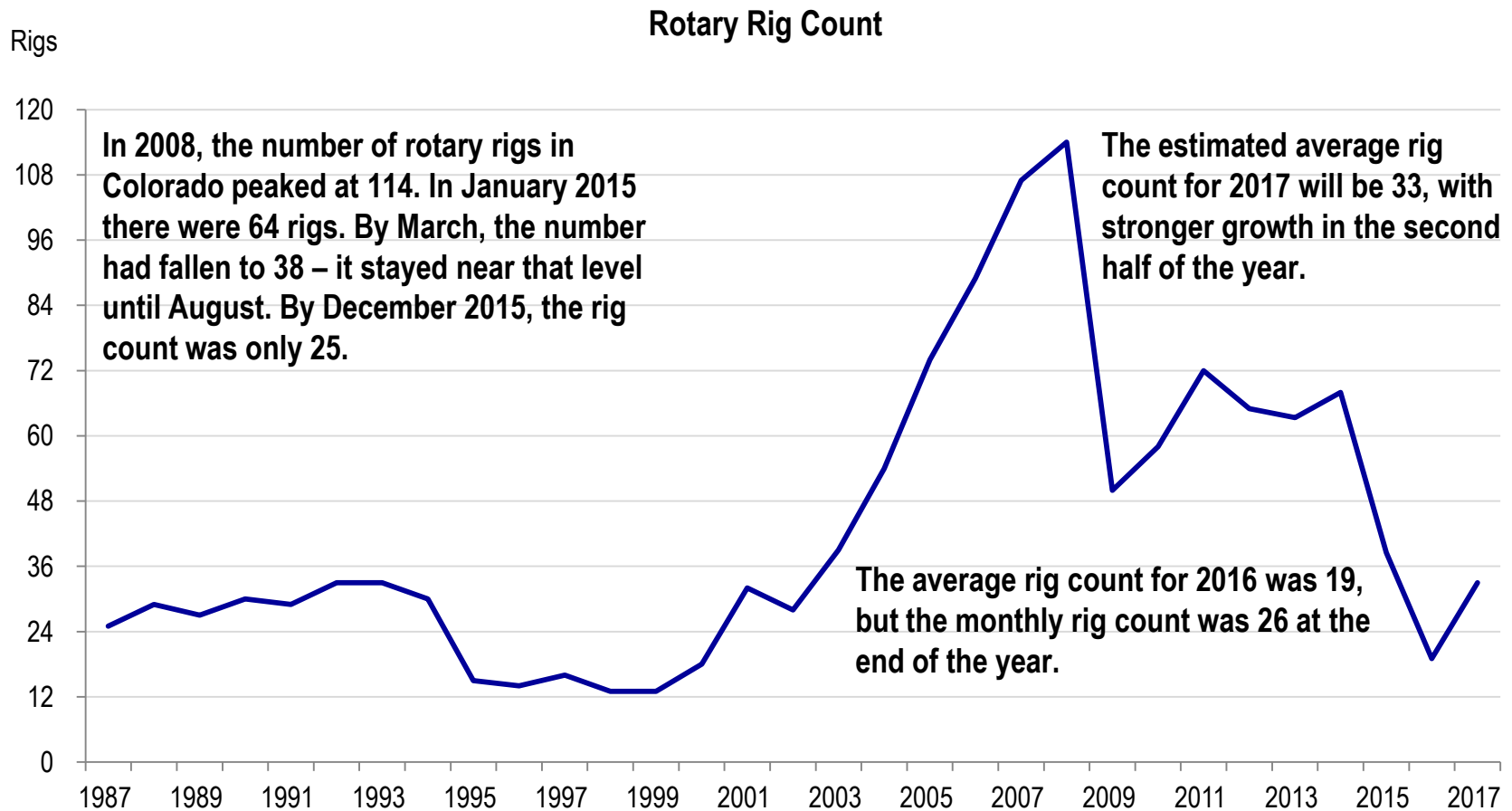
## West Texas Intermediate



Source: FRED, EIA, cber.co.

# Colorado Annual Rotary Rig Count

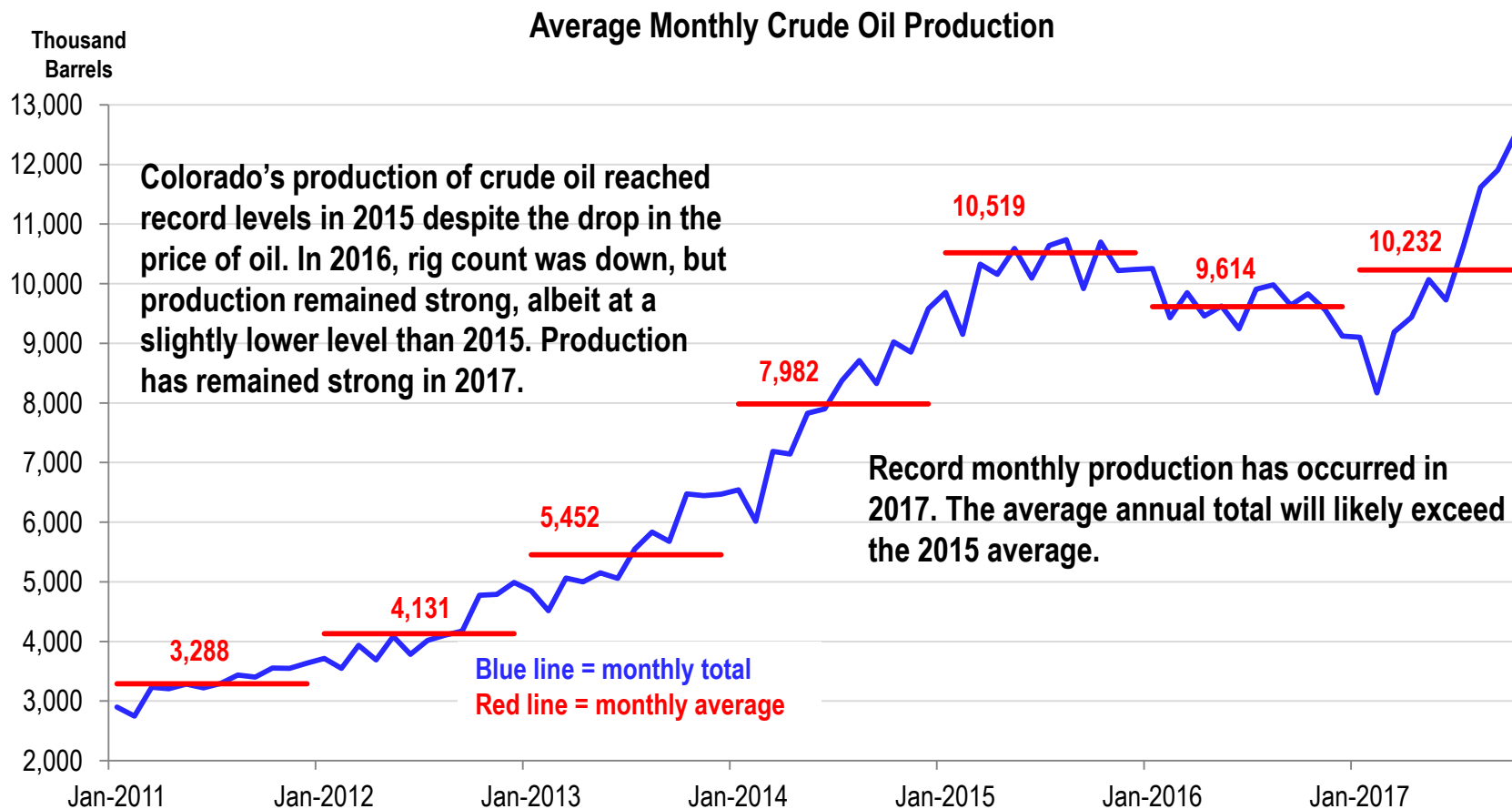
## 1987 to 2017



Source: Baker-Hughes, cber.co.

# Average Monthly Colorado Crude Oil Production

## 2011 to 2017 (Thousand Barrels)



Source: EIA, cber.co.

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

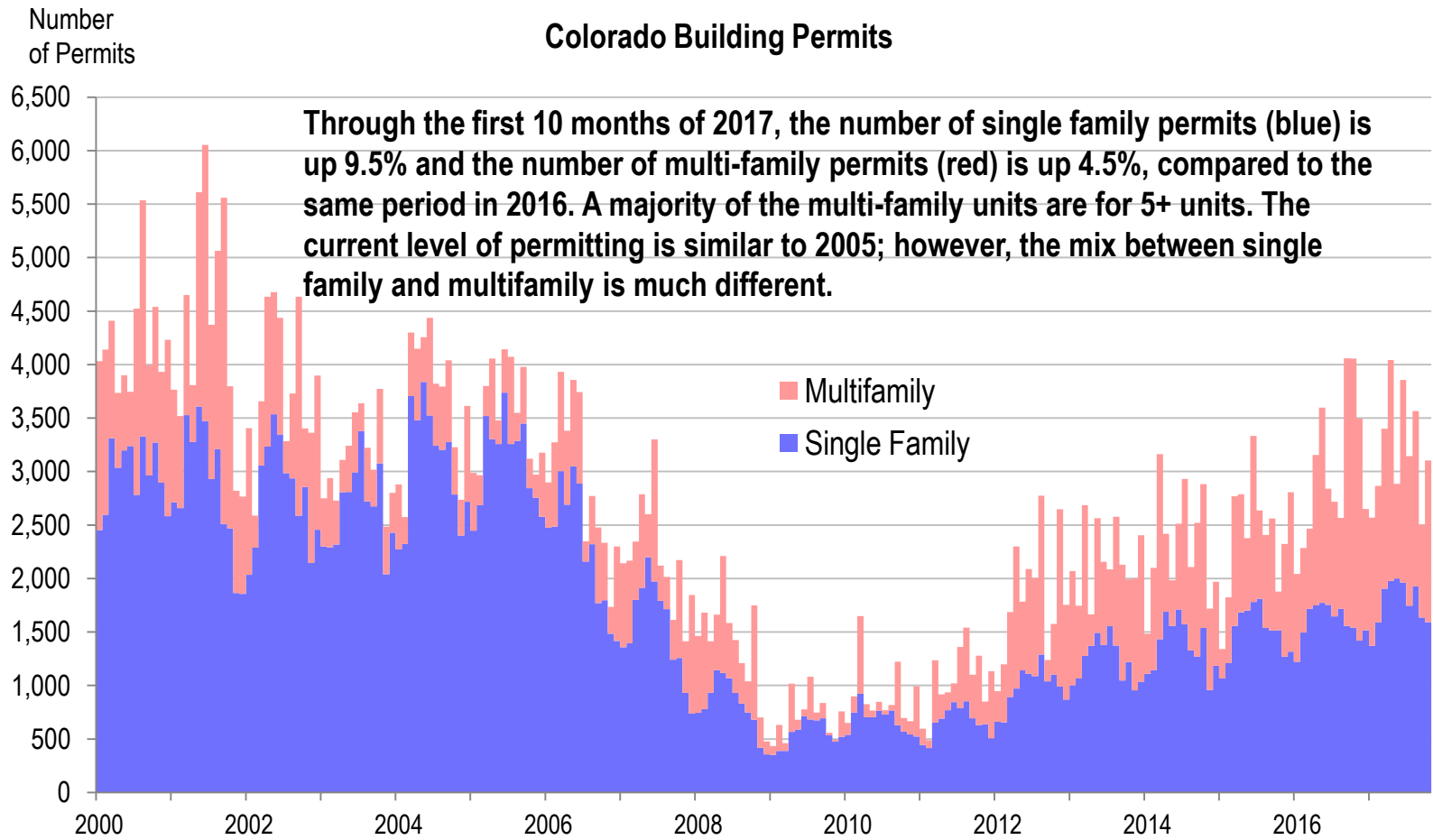


# Key Sectors and Trends to Watch

Construction and Housing Prices



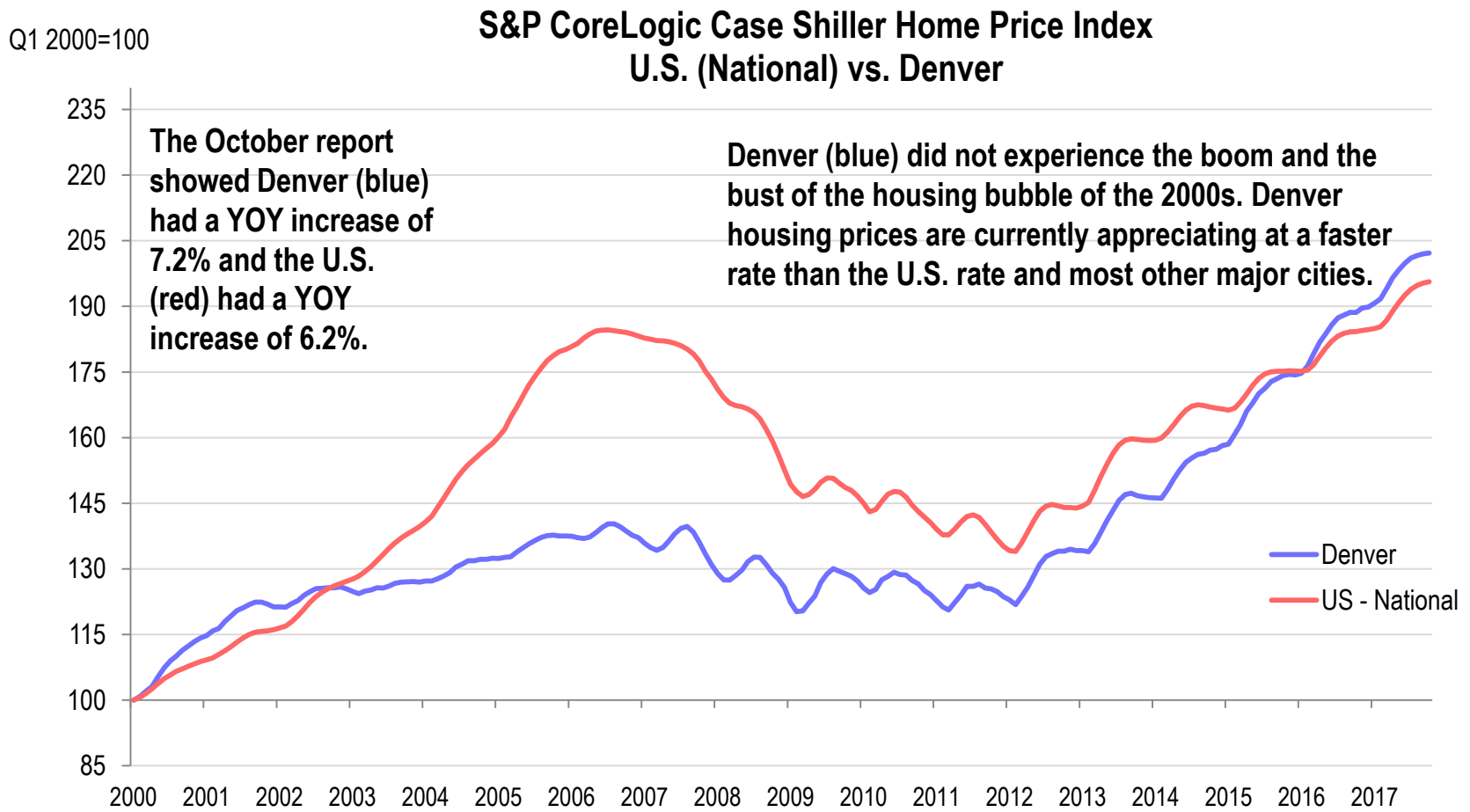
# Colorado Residential Building Permits - Units



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

# Case Shiller Home Price Index

## National vs. Denver Index Value



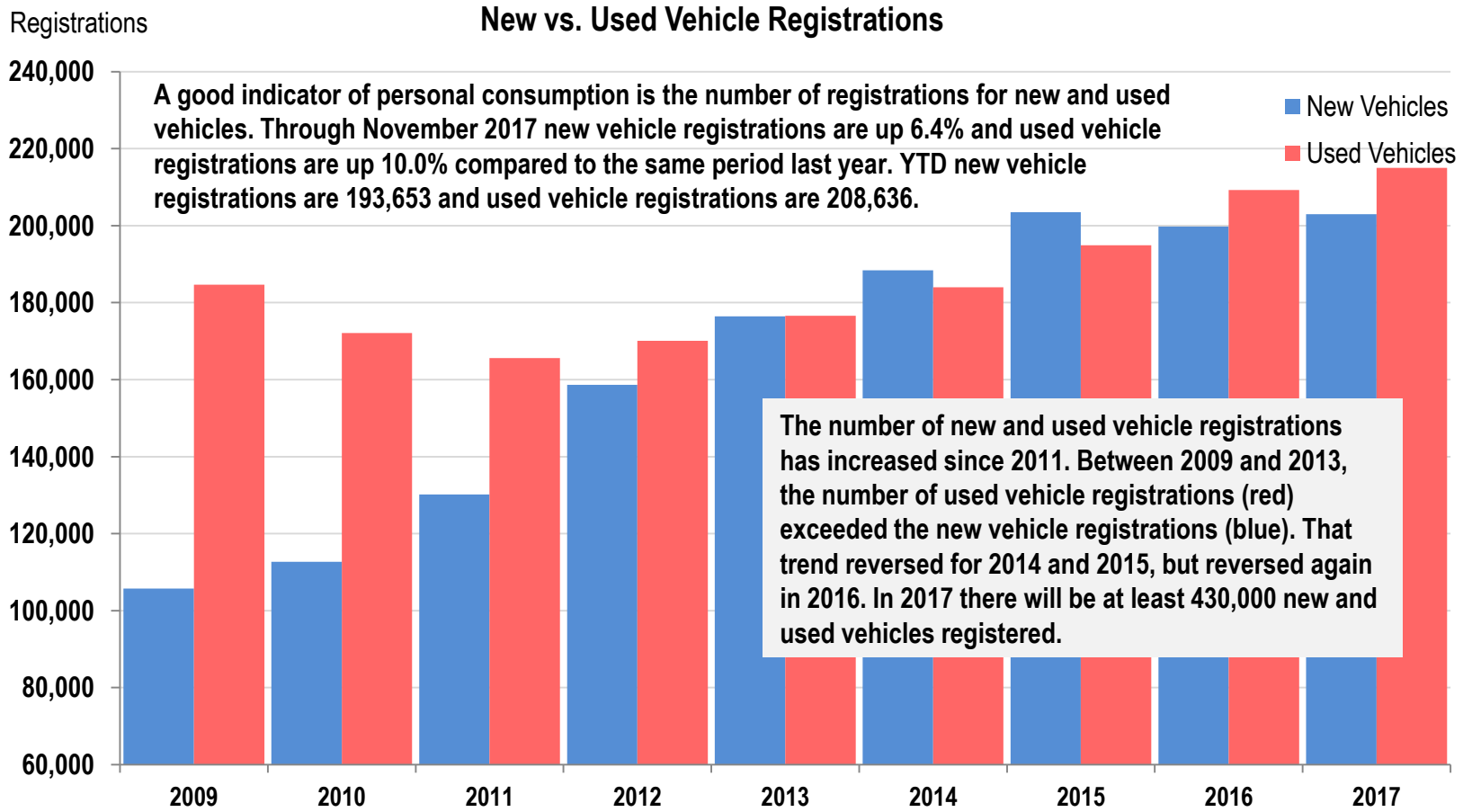
Source: S&P Core-Logic Case-Shiller, cber.co.



# Key Sectors and Trends to Watch

New and Used Car Registrations and DIA Passengers

# Colorado New and Used Vehicle Registrations



Source: Colorado Auto Dealers Association, cber.co.

# DIA Passengers

## Up, Up, and Away



Source: flydenver.com, cber.co.

# Key Sectors and Trends to Watch

## Summary of Key Trends

- Extractive industries
  - YTD oil prices, rig count, and production are stronger than last year.
  - Companies are operating more efficiently, which will impact future employment growth and profitability.
  - Employment is bouncing back – slowly.
  - Resistance to the industry has increased.
- Construction
  - Given the activity on the drawing boards, where is the industry going to find workers to meet the demand?
- Housing prices
  - Appreciation is increasing at a decreasing rate; however, it is greater than the national rate.
  - What affect will housing prices have on the growth of the Colorado economy?
- Retail trade
  - Retail trade sales remain solid. Estimated spending during the Christmas season was expected to be stronger than 2016 (charts not included this month).
- Auto sales
  - State light truck and automobile sales will likely set a record in 2017.
- DIA
  - DIA traffic is on track to set a new annual record.



# The Colorado Economy

## Projections for 2017 and Outlook for 2018

# ● Job Projections for 2017 and Outlook for 2018

## ● SDO, OSPB, CLC

### ●

#### State Demography Office

- 2.1% job growth in 2017.
- 1.8% job growth in 2018.

The SDO forecast includes wage and salary and sole proprietors. The OSPB and CLC forecasts are wage and salary only.

#### Governor's Office of State Planning and Budgeting

- 2.2% job growth in 2017; 57,200 jobs added.
- 1.9% job growth in 2018; 50,400 jobs added.

Job growth for 2017 will be modest. A slower rate of growth is expected in 2018.

#### Colorado Legislative Council

- 2.2% job growth in 2017; 57,200 jobs added.
- 1.7% job growth in 2018; 45,200 jobs added.

Look for the 2018 cber.co Colorado economic forecast. It will be released in mid-2018.





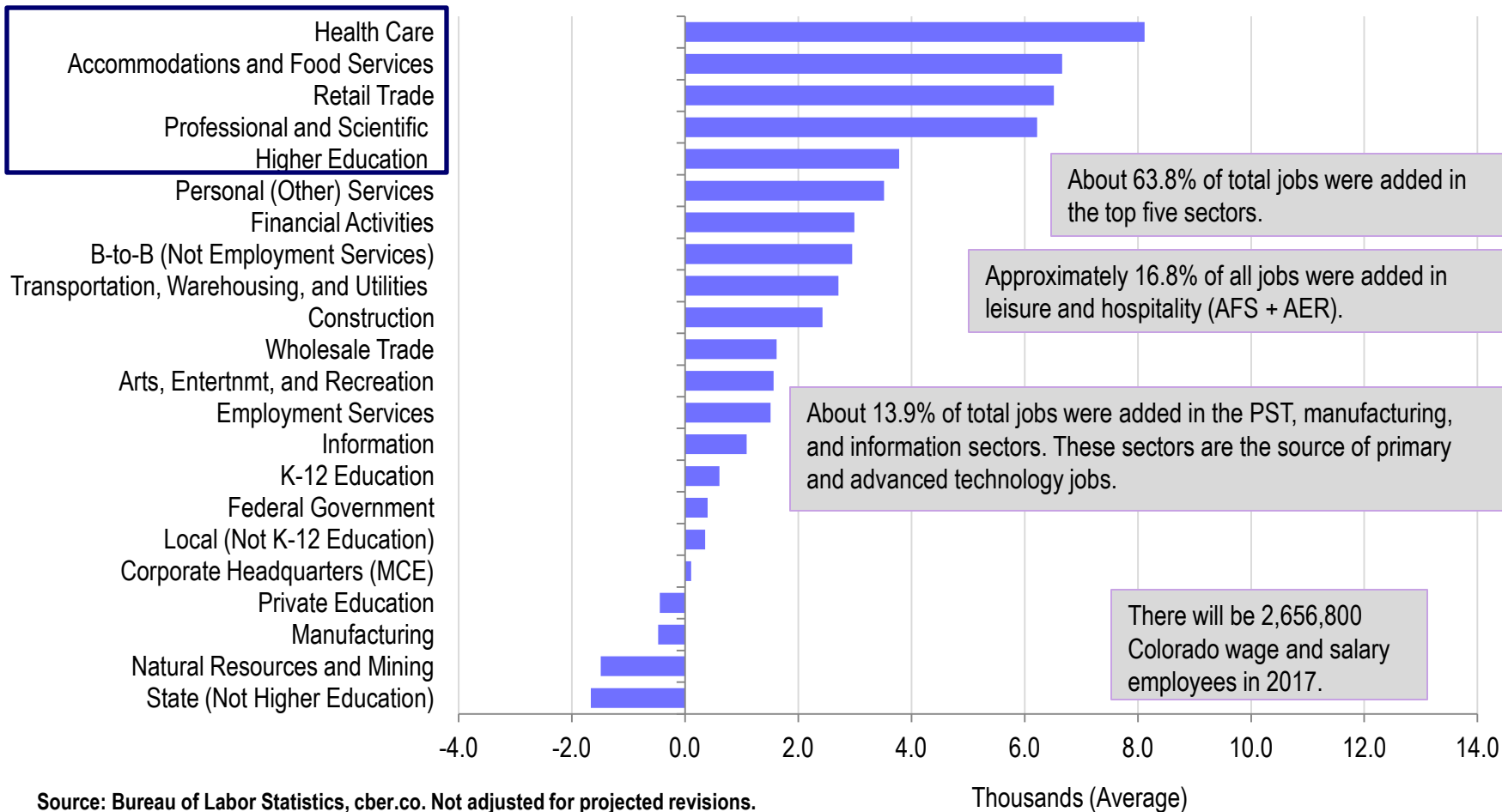
# The Colorado Economy

## Summary

# Job Changes

## 2017 YTD Through November

Job Change All Sectors



Source: Bureau of Labor Statistics, cber.co. Not adjusted for projected revisions.

Thousands (Average)

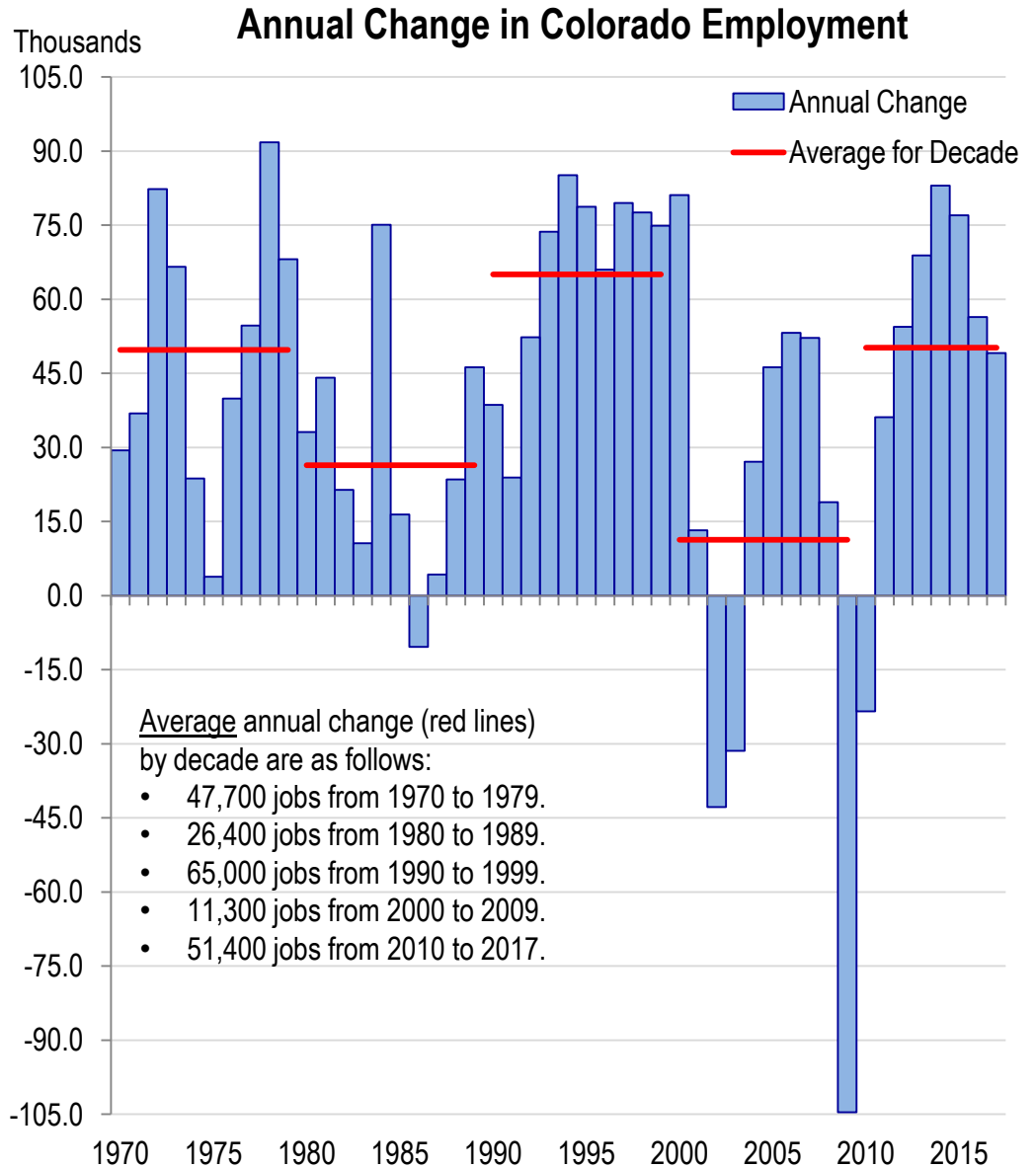
# Annual Employment Change in Colorado

For the first 8 years of this decade (2010 to 2017), Colorado added an average of 50,250 jobs.


Colorado added 77,000 jobs in 2015 and 56,400 jobs in 2016.

The current data indicates the state is on track to add 49,100 jobs in 2017. Reports from the Labor Market Information suggest that 2017 job growth might be understated by as much as 8,000 workers. This estimate will be updated in early December.

The low unemployment rate has created a lack of qualified workers. This shortage is preventing the economy from expanding at a faster rate.



Source: Bureau of Labor Statistics, cber.co. Not adjusted for projected revisions.



## Review of Colorado Economy and Employment Data Through November 2017

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](mailto:cber@cber.co).

### ABOUT THE AUTHOR

Gary Horvath has produce 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.

In addition, 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, which is part of OEDIT’s early stage and proof of concept programs.