



# Review of the Colorado Economy Analysis of First Seven Months of 2014

Colorado-based Business and Economic Research

August 22, 2014



# Overview

**On average Colorado has added 67,300 jobs through the first seven months of 2014 compared to the same period last year. When the BLS revises this data series in March 2015, employment for 2014 will likely exceed the cber.co forecast of 68,000 to 74,000. Professional Business Services and Tourism were the top Super Sectors for job growth in Colorado for the first seven months of the year.**

## **Top Sectors**

The following sectors were the top contributors to job growth:

- Accommodations and Food Services.
- Health Care.
- Construction.
- Professional, Scientific, and Technical Services.
- Retail Trade.
- Administrative (B-to-B) excluding Employment Services.

These 6 sectors accounted for 78.2% of job growth. About 82.8% of job growth is in the metro areas.

The 2014 cber.co forecast can be found at <http://cber.co/economic-forecasts/cber-co-economic-forecast/>.

## **Contents of this Overview**

This brief analysis is divided into the following sections.

- U.S. Economy.
- Colorado Employment and Unemployment.
- Change in Colorado Employment by Performance Category.
- Questions and Answers
- Total Jobs Added.
- Appendix.



# U.S. Economy

# Real US GDP Growth

## Quarterly

Annualized real GDP growth for the 1990s was 3.2% (green line). It was 1.8% for the 2000s (red line). It has been 2.2% from 2010 to 2013 (purple line).

After posting annualized growth of 1.9% in 2013, the rate of growth for 2014 is projected to be 2.3%.

Real GDP **declined** at an annualized rate of -2.1% for Q1. The advanced estimate for Q2 showed an increase of 4.0%, with projections of a revision to 4.2%.

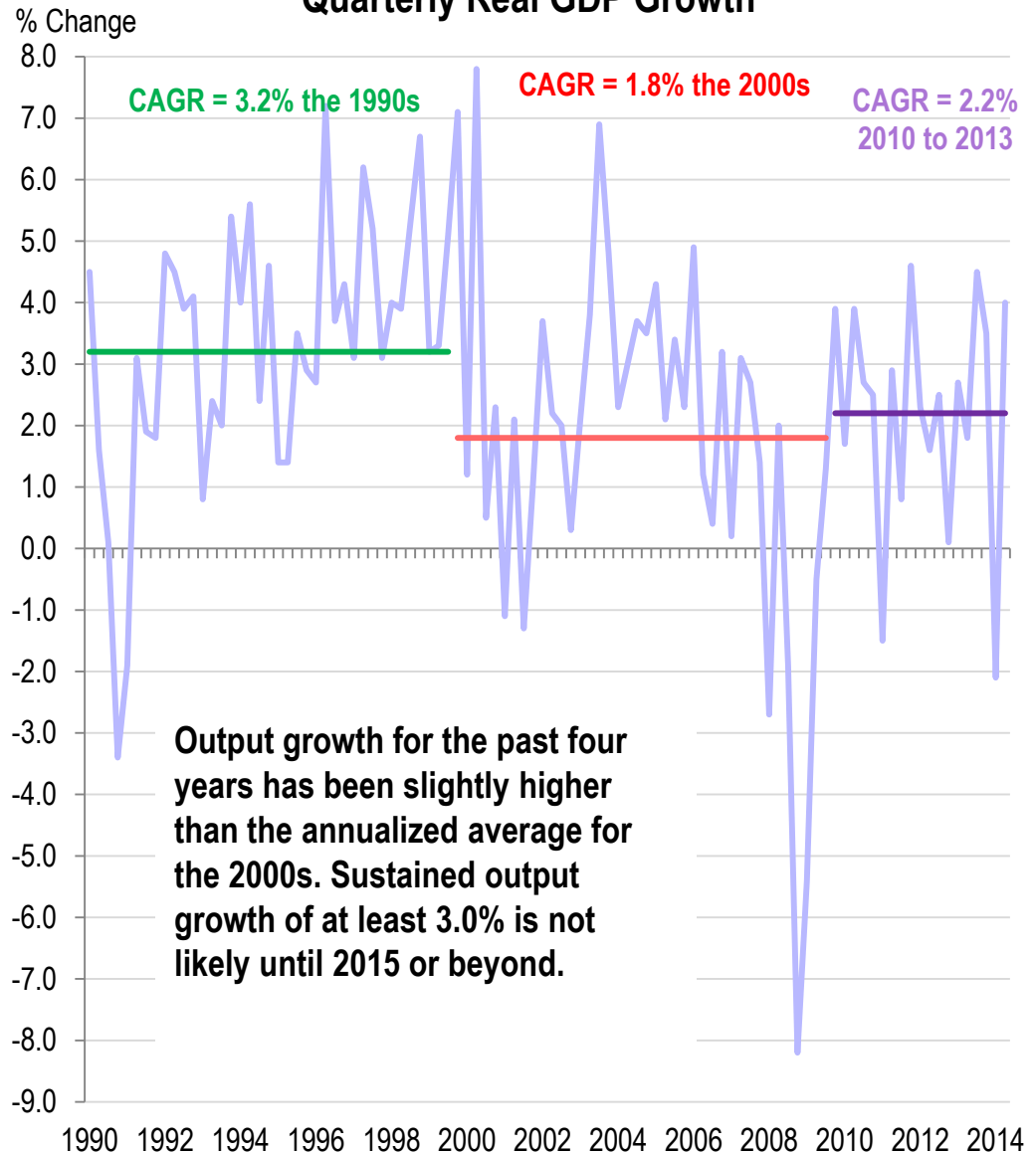
Reasons for the increase in real Q2 GDP were growth in the following areas:

- Stronger personal consumption
- Improved private inventory investment
- Stronger residential fixed investment
- Greater nonresidential fixed investment
- Increased state and local government spending
- Stronger exports

Factors that offset the growth were:

- Increased imports
- Decreased federal government spending.

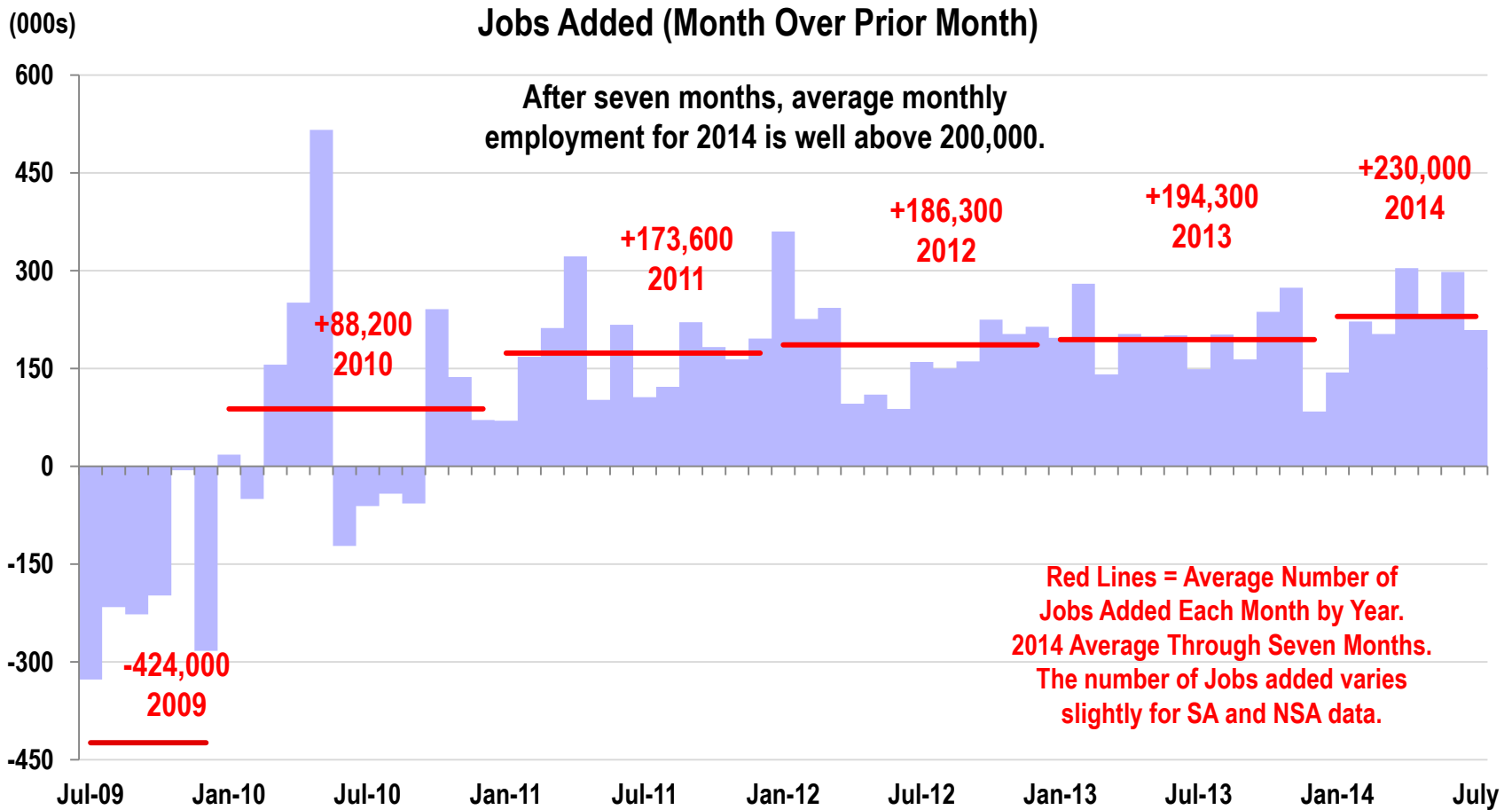
## Quarterly Real GDP Growth



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

# U.S. Employment Situation

## From End of Recession to Current



Source: Bureau of Labor Statistics, SA.

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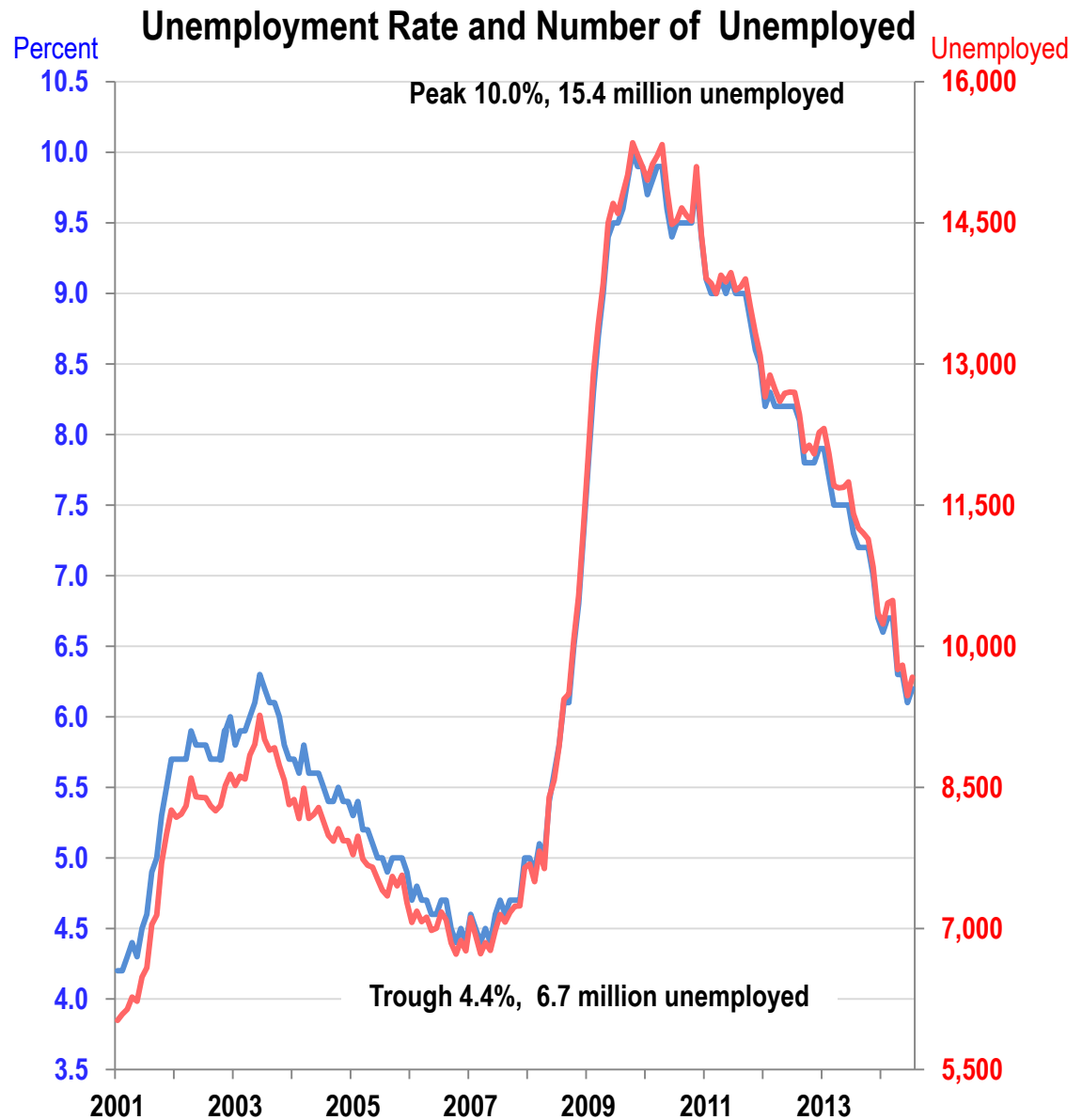
<http://cber.co>

# U.S. Unemployment Rate and Number of Unemployed

The number of unemployed has slowly trended downward since peaking in late 2010. At the end of July the total number of unemployed (red) was below 9.7 million.

Even though the unemployment rate is 6.2%, there is a shortage of trained workers in key sectors and occupations. At the end of July 2014, the unemployment rate (blue) was 6.2%. This compares to 7.3% one year ago.

The July 2014 ending total is 3.0 million above the low point in 2007 and 5.7 million below the high point in 2009.



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

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# ● Labor Force Participation Rate



After peaking in 2000, the labor force participation rate (LFPR) has declined. The rate is the percentage of people eligible to participate in the labor force who are either employed or actively looking for work.

Since 2000 the LFPR has declined from 67.3% to 62.9%. It appears that it may have bottomed out at that level, a positive sign for the economy.

While there is debate about the reason for the recent decrease, the primary factors are an increase in discouraged workers (a weak recovery from the Great Recession) and a change in demographics (more baby boomers retiring).

## Labor Force Participation Rate



Source: Bureau of Labor Statistics, SA.

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● New Private Housing Units  
Authorized by Building  
Permits – In Structures with  
1 Unit

The number of monthly single family permits tumbled from almost 1.8 million in September 2005 to just over 300,000 in January 2009.

The number of permits has doubled since bottoming out, but remains at levels last seen in 1991.

For the past year, the number of permits issued has been flat.



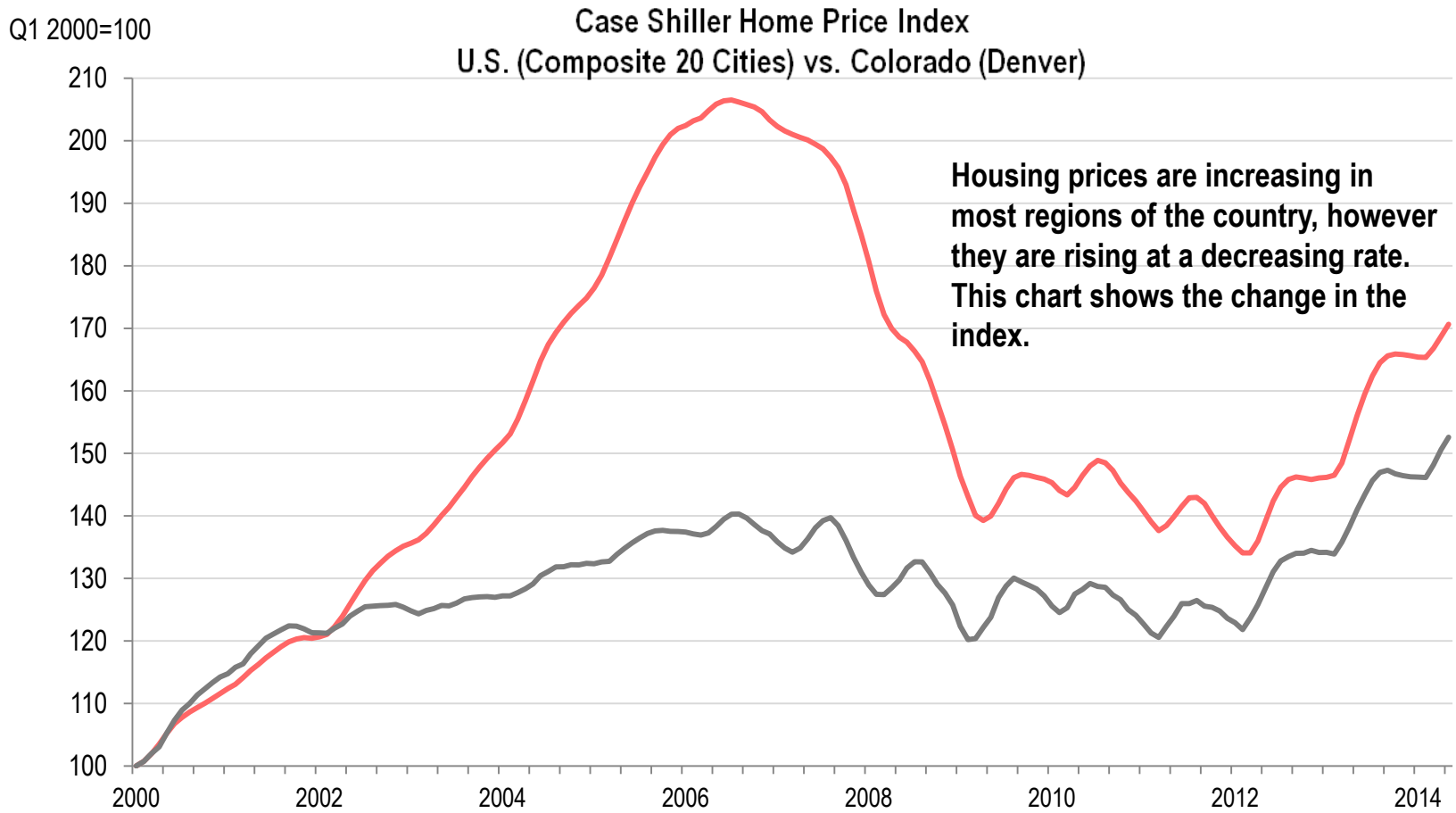
Source: FRED, Census Bureau SA.

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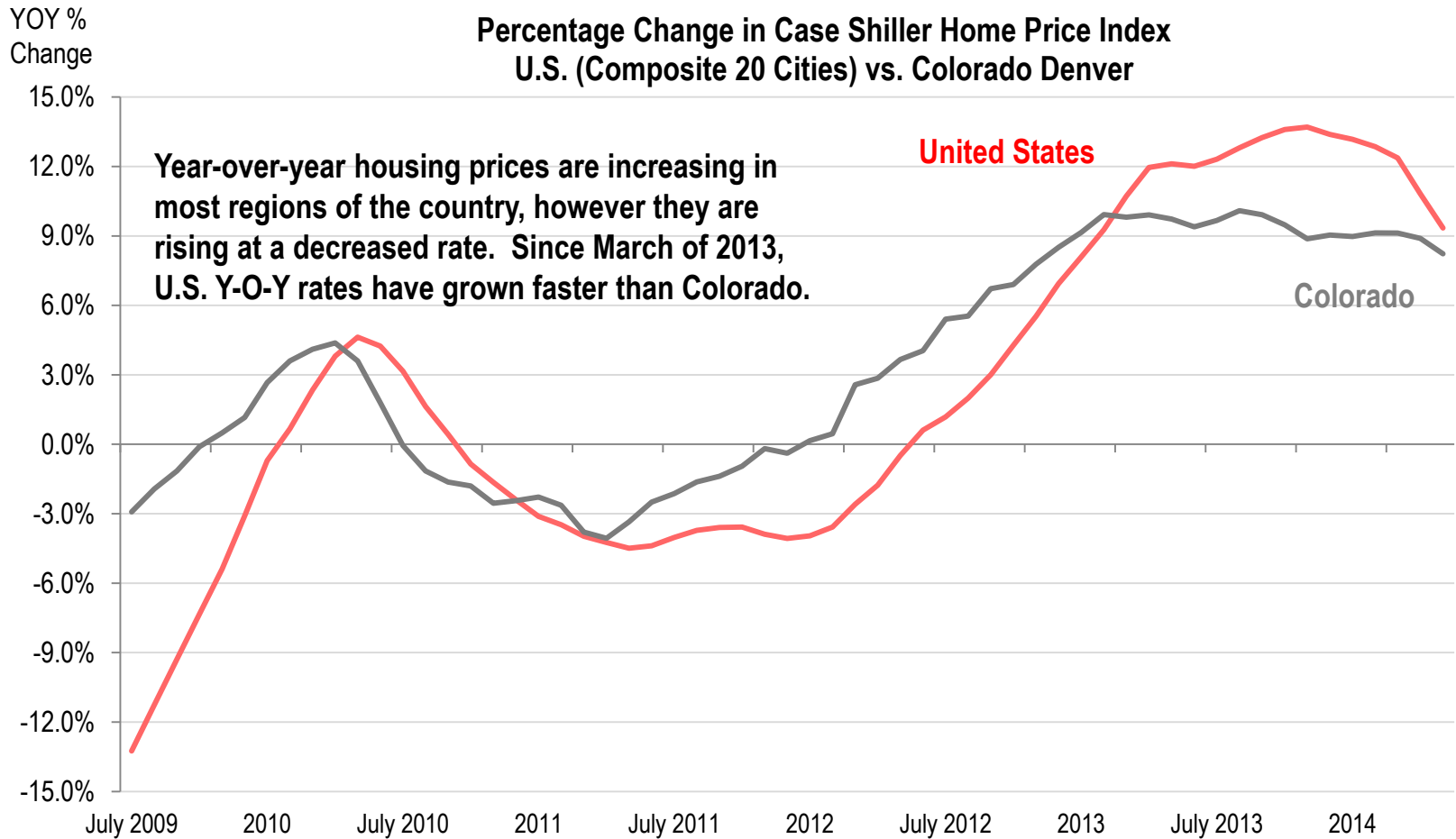


# U.S. Housing Prices – Case Shiller Composite 20 Cities



Source: S&P Case-Shiller.

# Percentage Change in Housing Prices Since the End of the Recession

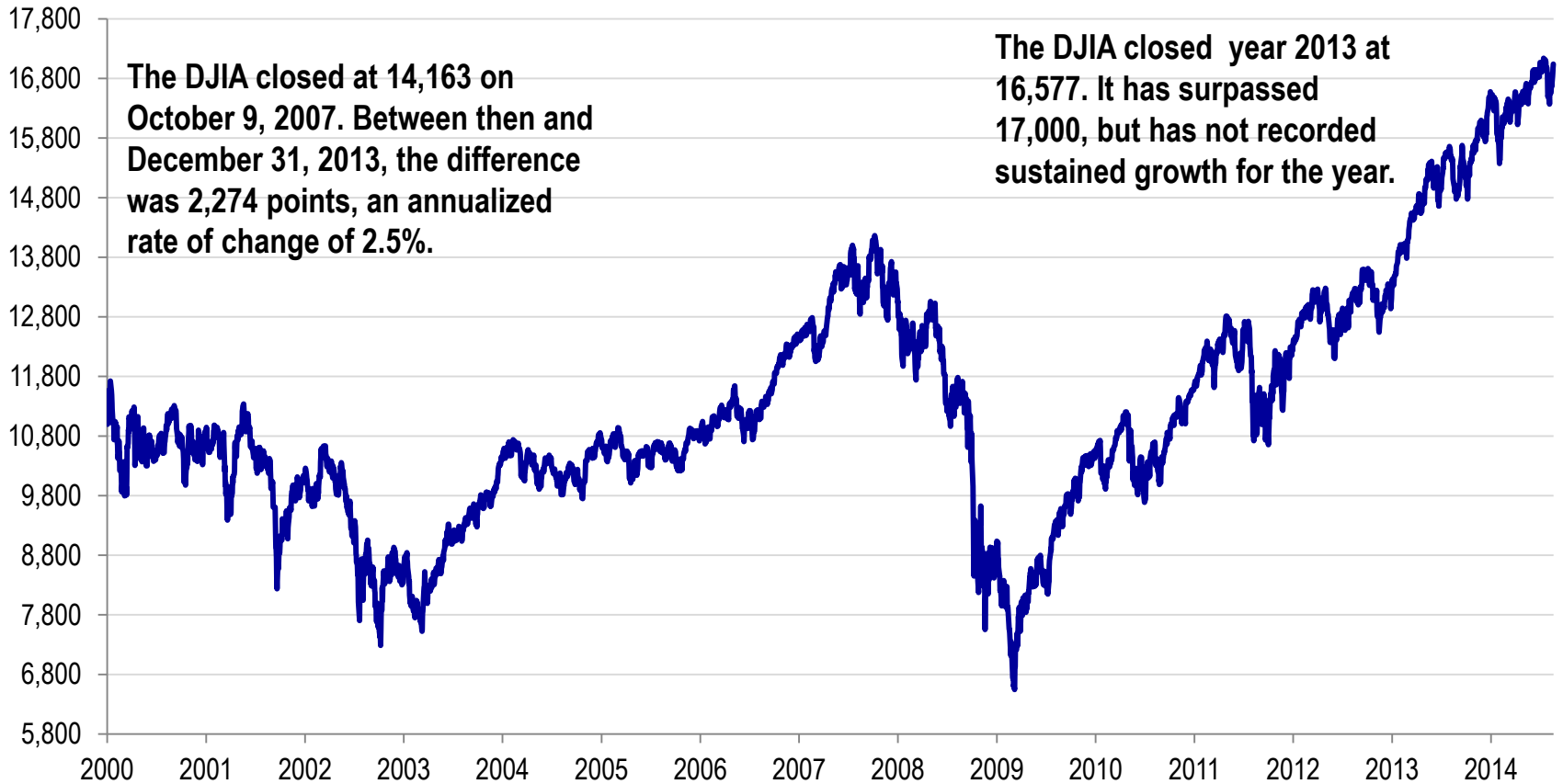


Source: S&P Case-Shiller, cber.co.

# Dow Jones Industrial Average

Daily Index

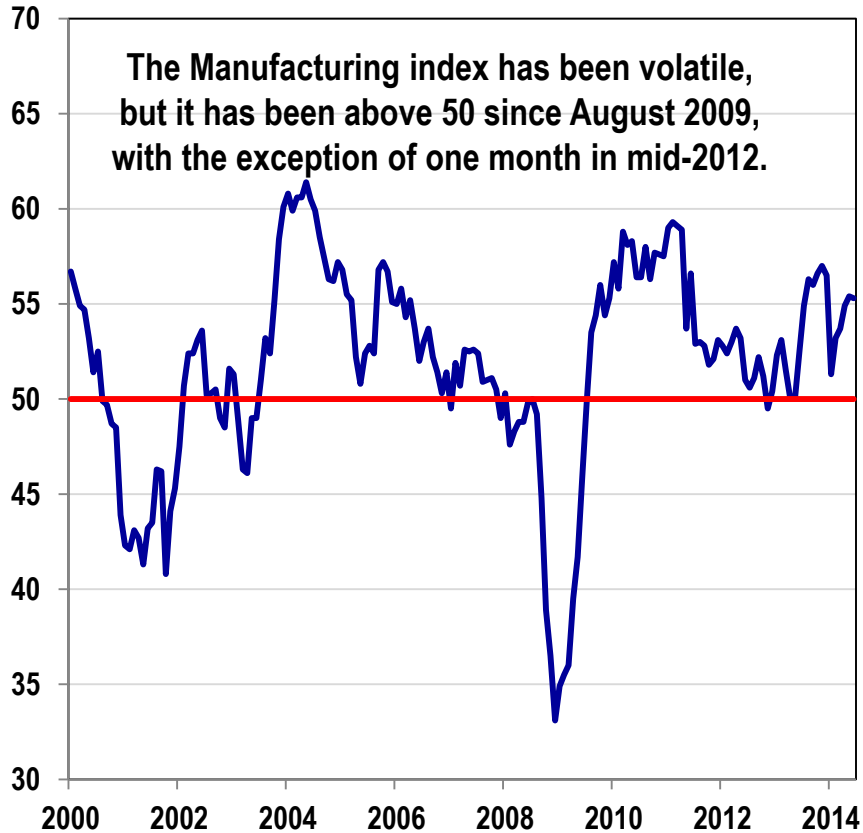
## Dow Jones Industrial Average



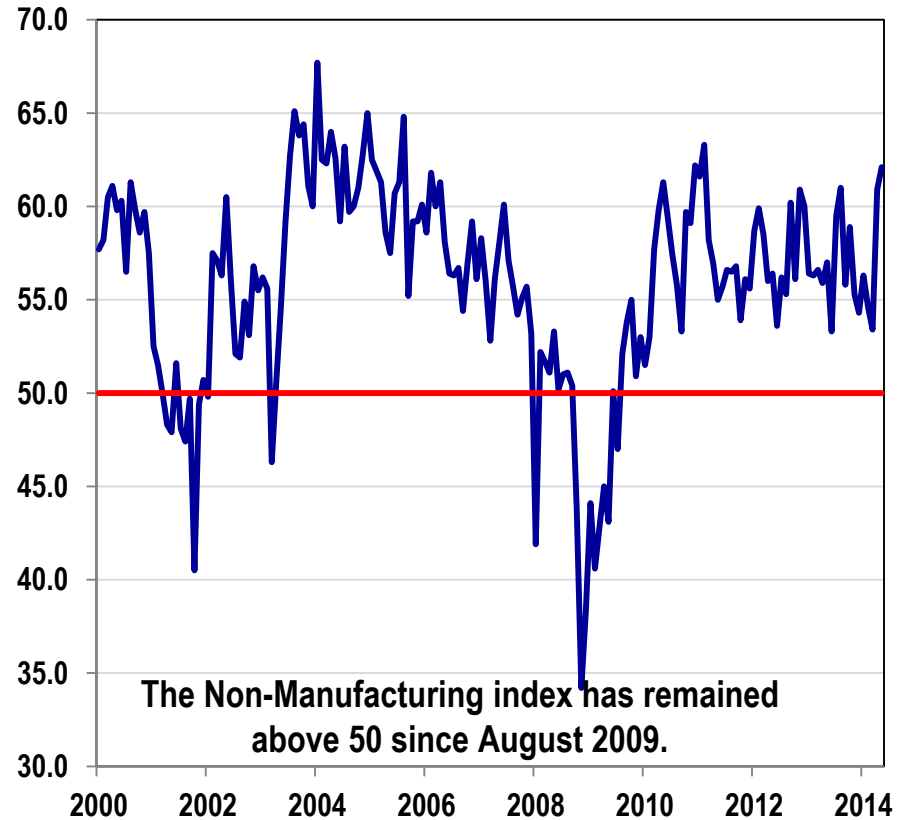
Source: FRED.

# ISM Purchasing Managers Indices

### ISM Manufacturing Index



### ISM Non-Manufacturing Business Activity Index



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

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<http://cber.co>

# Summary of U.S. Economy Through July 2014

After slow job growth in January and a decline in Q1 GDP, the U.S. economy is on more solid footing at mid-year.

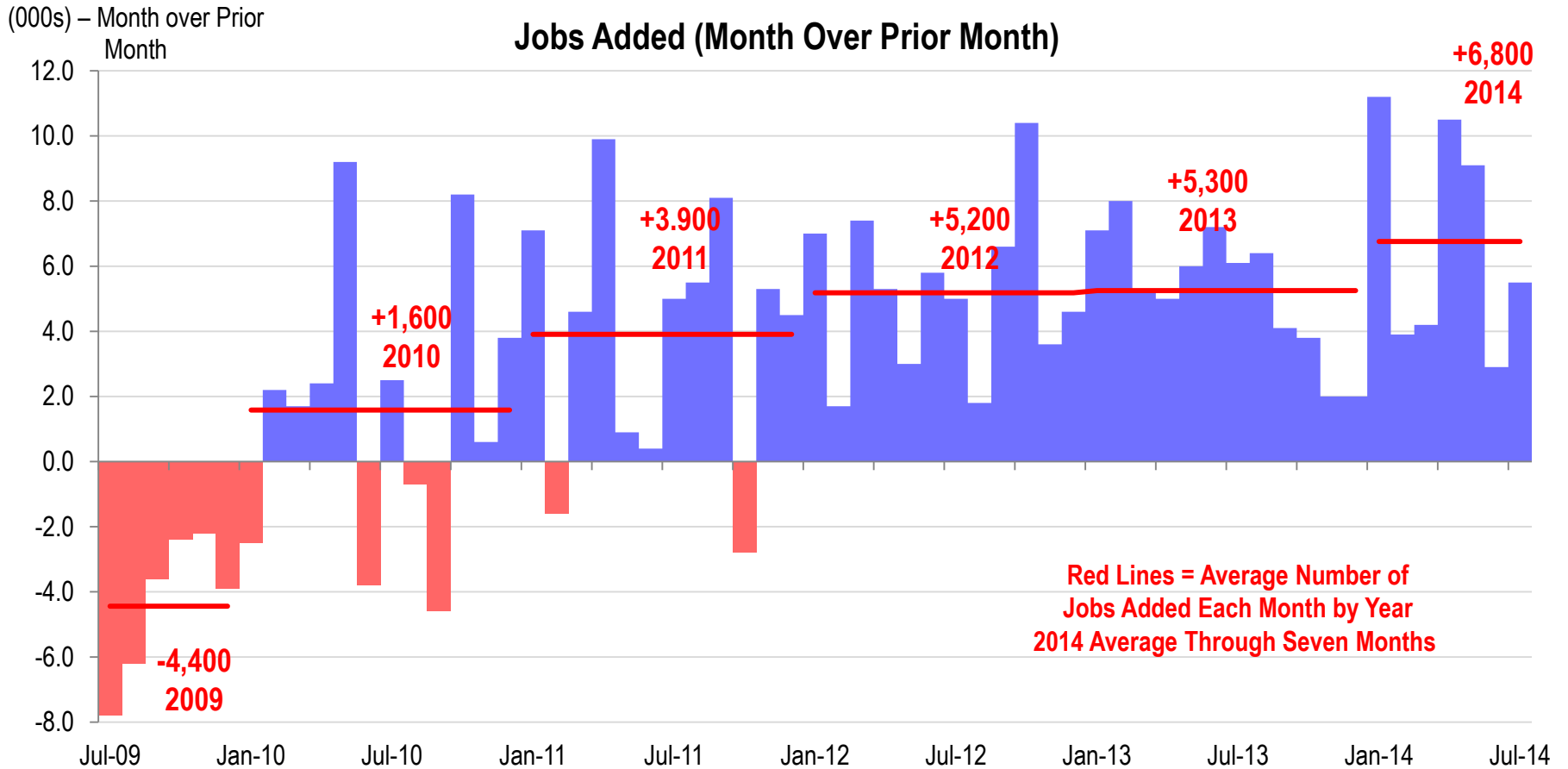
- Employment remains strong, an average of 230,000 jobs have been added each month through seven months.
- Real GDP increased by 4.0% in Q2.
- Consumers remain optimistic. Spending is expected to be stronger in the second half of 2014.
- The unemployment rate and the number of unemployed continue to trend downward however, the number of unemployed is a source of concern.
- The labor force participation rate appears to have bottomed out.
- Critical labor shortages are developing in many occupations. Workers are being raided from other companies and industries, which will ultimately drive wages up.
- The growth of the economy may be slowed if weak wage growth continues.
- The Fed is on track to end QE3 bond purchases in October. They may begin increasing interest rates in 2015.
- The Dow has surpassed 17,000 briefly; however, the rate of growth for equity markets is slower than 2013.
- The number of building permits issued over the past year has been flat.
- The rapid appreciation in housing prices is tapering off.
- Both manufacturing and services have been solid since the second half of 2009.
- Tension in the Ukraine and Gaza strip may have short term impacts on the economy.
- The midterm elections have the potential to be contentious in some states, including Colorado.



# Colorado Employment and Unemployment

# Colorado Employment Situation

## From End of Great Recession Through July 2014



Source: Bureau of Labor Statistics, SA.

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<http://cber.co>

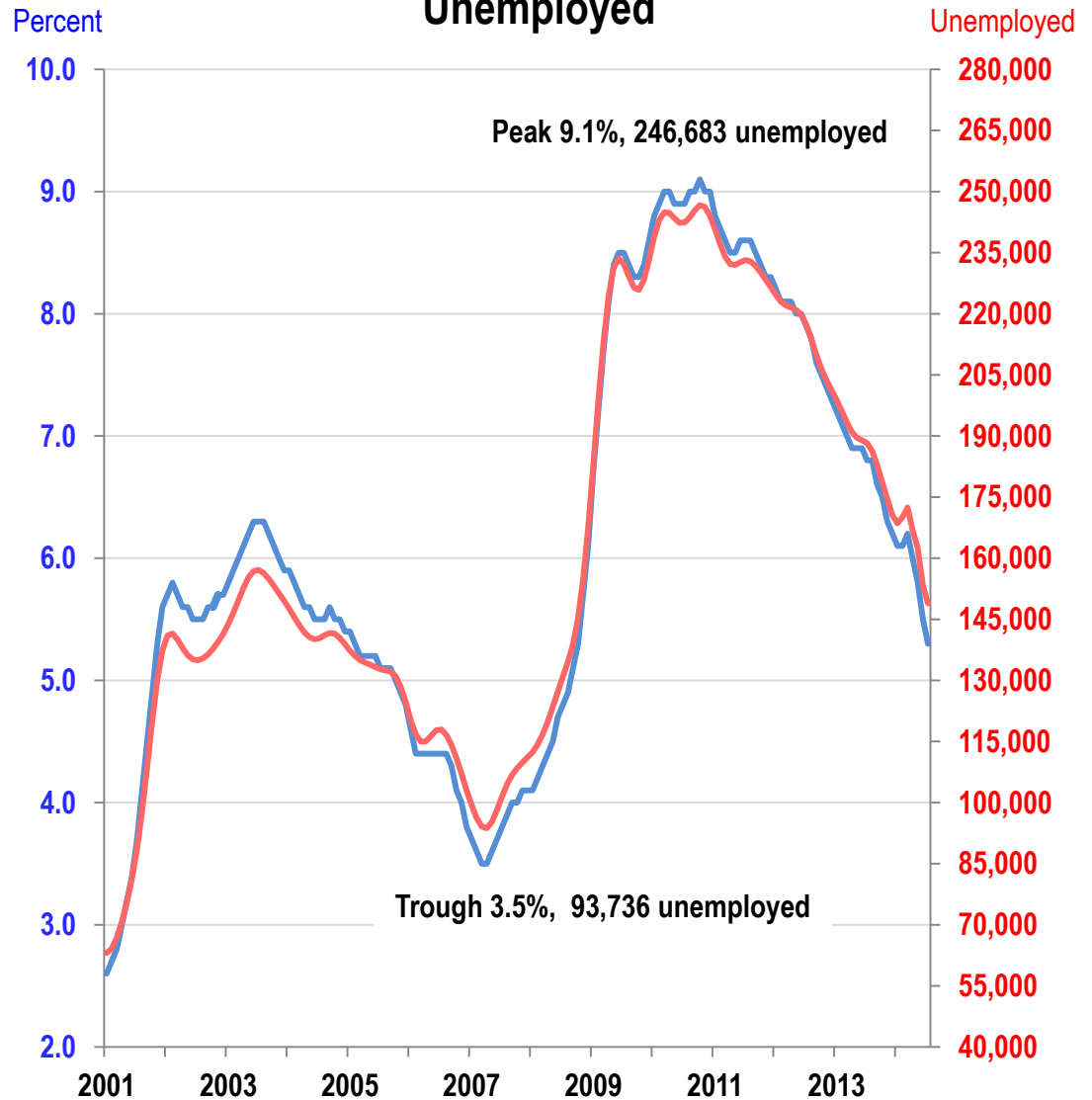
## Colorado Unemployment Rate and Number of Unemployed

The number of unemployed has slowly trended downward since peaking in late 2010. In July 2014, the total number of unemployed workers (red) declined to about 148,896. The total number of unemployed is 55,160 greater than the trough in April 2007 and 97,787 less than the peak in October 2010.

There is a shortage of trained workers in key sectors and occupations. The July 2014 unemployment rate (blue) was 5.3%, down from 6.8% in July 2013.

The state July 2014 rate was almost a point lower than the U.S. rate of 6.2%.

## Unemployment Rate and Number Unemployed



Source: Bureau of Labor Statistics, cber.co.

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<http://cber.co>





# Change in Colorado Employment by Performance Category

# Overview of Job Creation by Performance Category

Twenty-two sectors are classified into one of three categories based on their past performance:

- Strong growth.
- Solid growth.
- Volatile.

The following charts look at the change in jobs for these three categories for the first seven months of 2014 vs. the same period in 2013.

# Annual Employment Situation for Strong Growth Sectors

Over the past two decades the following sectors have been the foundation for consistent growth in Colorado employment.

- Professional, Scientific, and Technical Services
- Management of Companies and Enterprises
- Administrative - Business to Business (Not Employment Services)
- Private Education
- Health Care
- Arts, Entertainment, and Recreation
- Other Services.

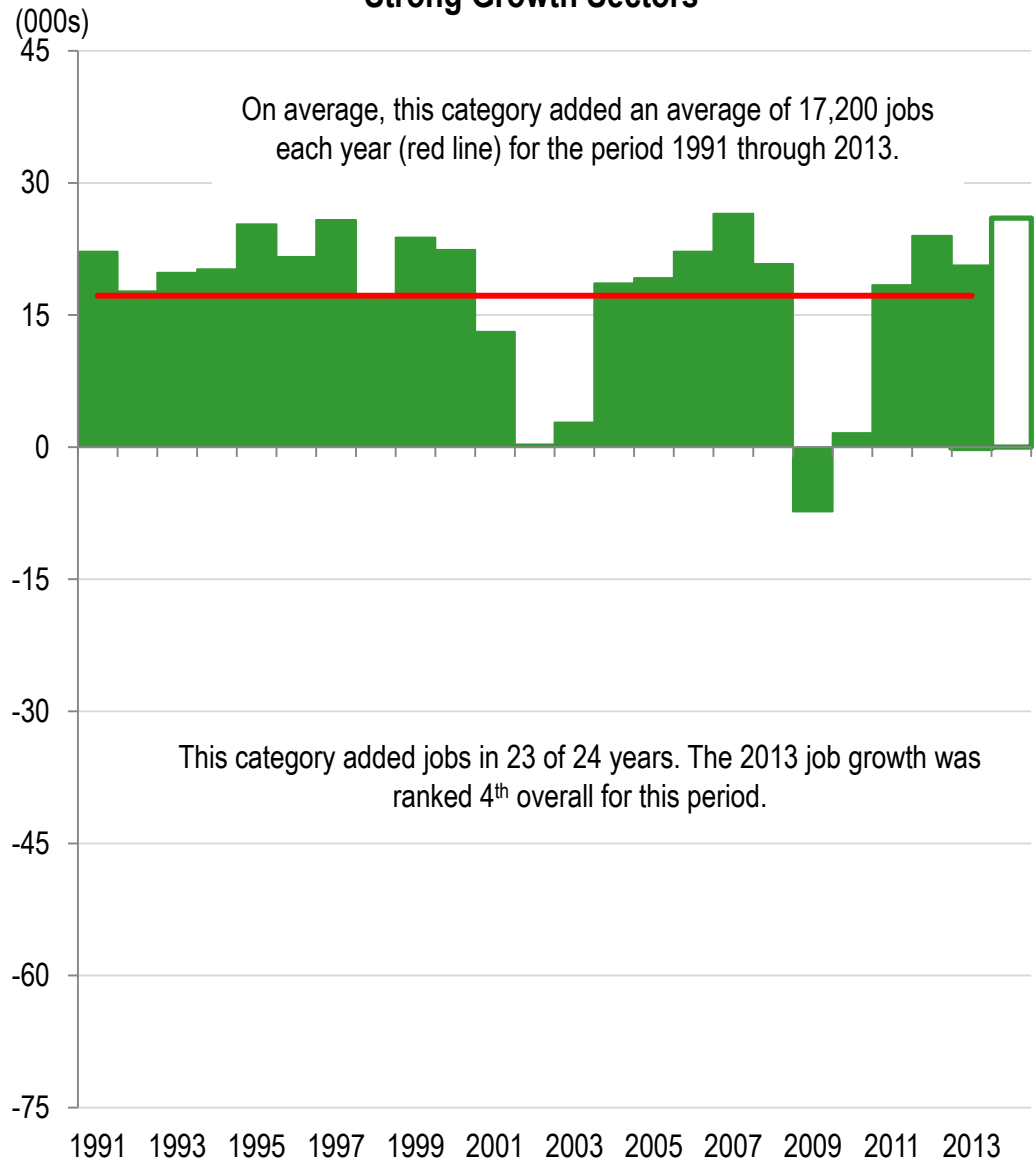
Total employment for this category was:

1993 425,000 workers, 25.4% of total employment  
 2003 597,300 workers, 27.7% of total employment  
 2013 761,600 workers, 32.0% of total employment.

Growth of this category in 2014 will be comparable to the stronger years during the past two decades.

Between 24,000 and 28,000 workers will be added at a rate of 3.3% to 3.5%.

## Strong Growth Sectors



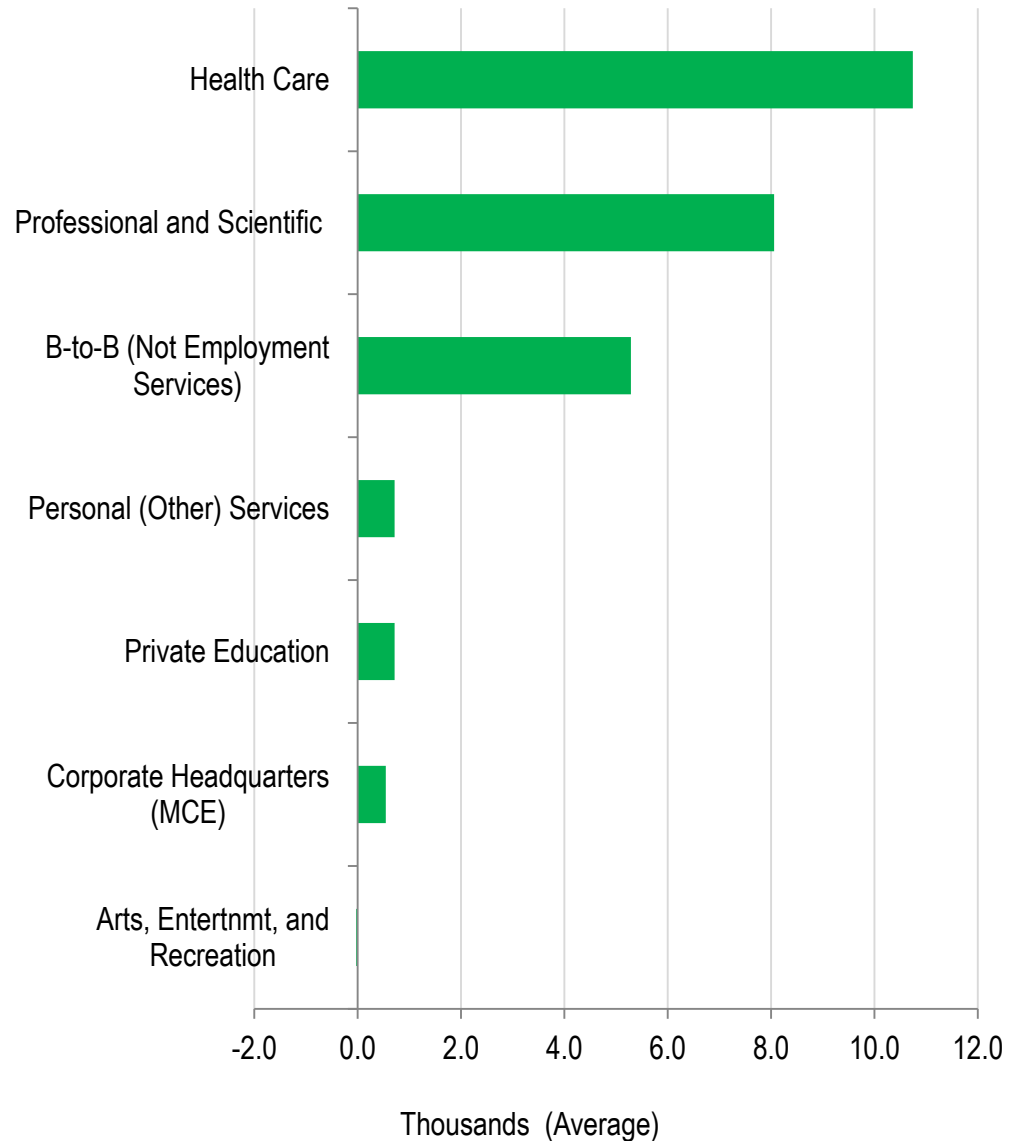
Source: Bureau of Labor Statistics, cber.co.

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## Solid Growth Sectors

- Through the first seven months of 2014 this group of industries added 26,100 jobs compared to the same period in 2013.
- This category was projected to add 24,000 to 28,000 jobs for the year. To date, its performance is near the midpoint of the projected range.
- In 2013, these sectors accounted for 43.9% of total job gains and 32.0% of total employees.
- For the first seven months, the sectors with the strongest growth were:
  - Health Care
  - Professional and Scientific and Technical Services.
  - Administrative (B-to-B) excluding Employment Services.

## Job Change Through Seven Months 2014 vs. 2013



Source: Bureau of Labor Statistics.

# Annual Employment Situation for Solid Growth Sectors

Over the past two decades the following sectors usually added jobs. As a group their job gains were stronger during the 1990s than the 2000s.

- Wholesale Trade
- Retail Trade
- State (Not Higher Education)
- Higher Education
- Local (Not K-12 Education)
- K-12 Education
- Accommodations and Food Services

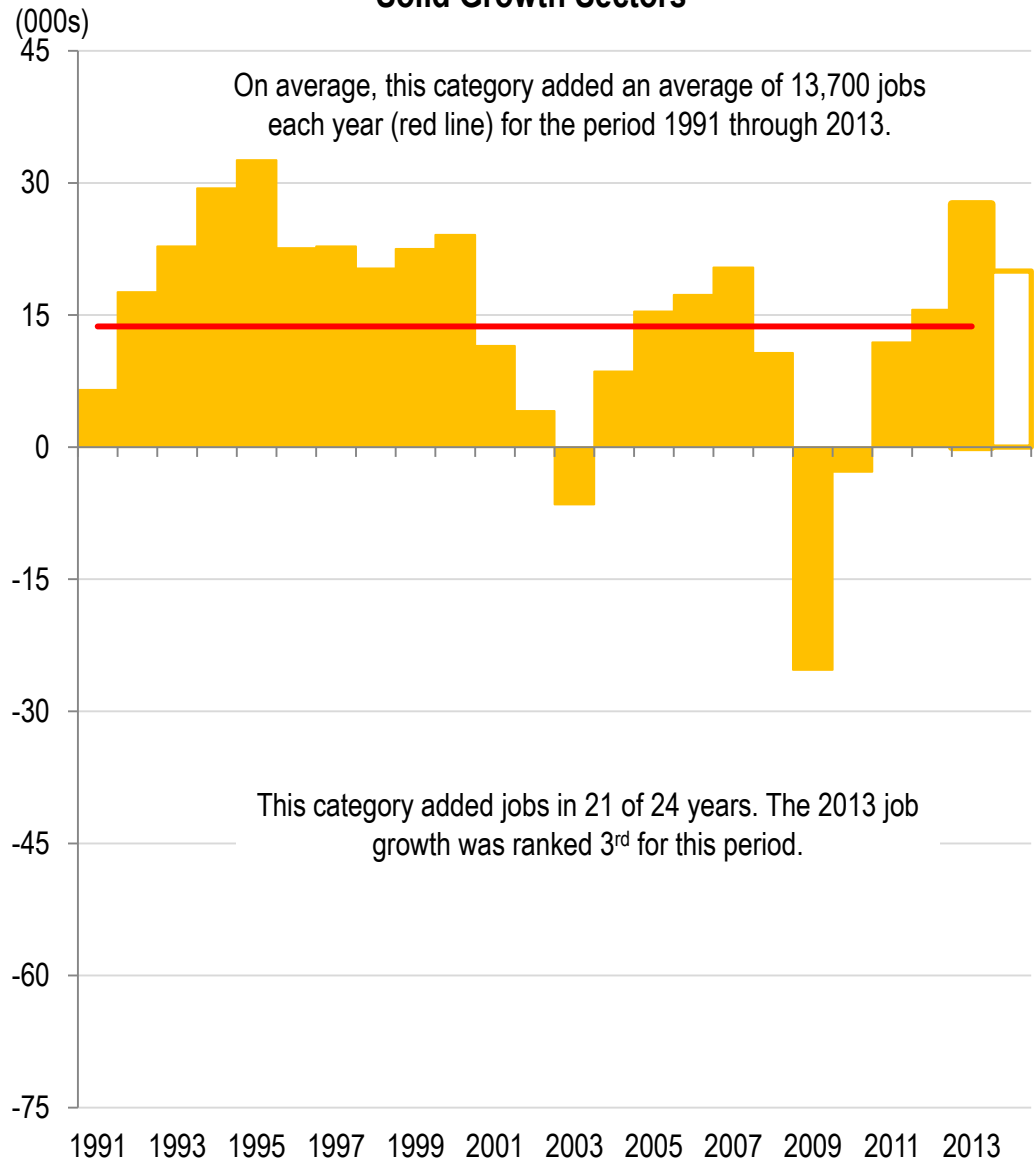
Employment in some of these sectors has remained flat during most of the past decade.

Total employment for this category was:

1993 656,000 workers, 39.3% of total employment  
 2003 839,400 workers, 39.0% of total employment  
 2013 938,800 workers, 39.4% of total employment

Growth of this category in 2014 will be slightly above average for the past two decades. Between 18,000 and 22,000 jobs will be added at a rate of 2.0% to 2.2%.

## Solid Growth Sectors



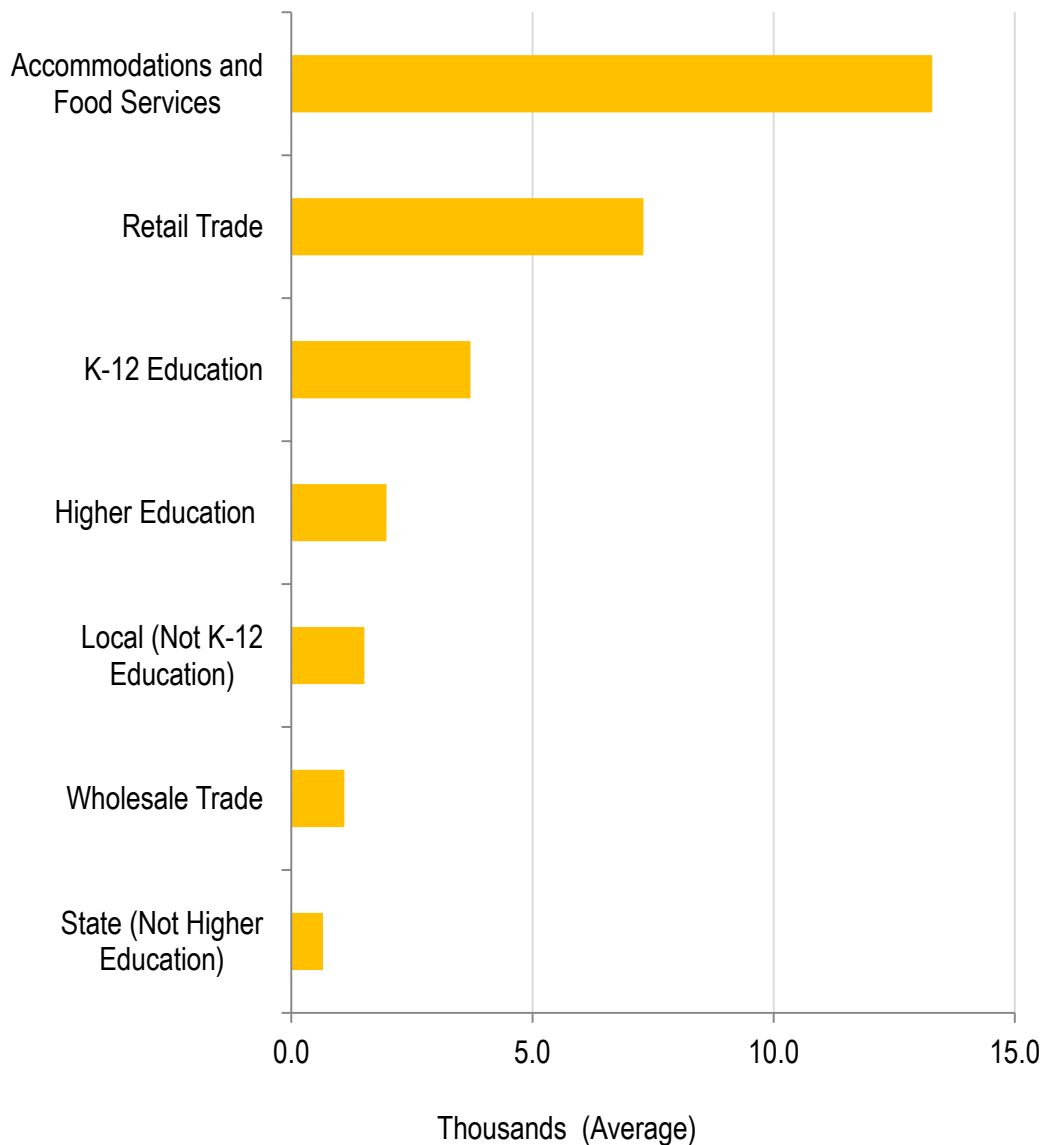
Source: Bureau of Labor Statistics, cber.co.

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## Solid Growth Sectors

- Through July 2014 this group of industries added 29,500 jobs compared to the same period in 2013.
- This category was projected to add 18,000 to 22,000 jobs for the year. To date, its performance is much stronger than anticipated.
- These sectors accounted for 28.5% of total job gains and 39.4% of total employees in 2013.
- A majority of the growth has occurred in the Accommodations and Food Services and Retail Trade sectors. K-12 education suffered job cuts during the Great Recession, but has since added jobs. Higher education continues to be a consistent job creation machine.

## Job Change Through Seven Months 2014 vs. 2013



Source: Bureau of Labor Statistics.

# Annual Employment Situation for Volatile Growth Sectors

Over the past two decades the sectors listed below were the source of volatility.

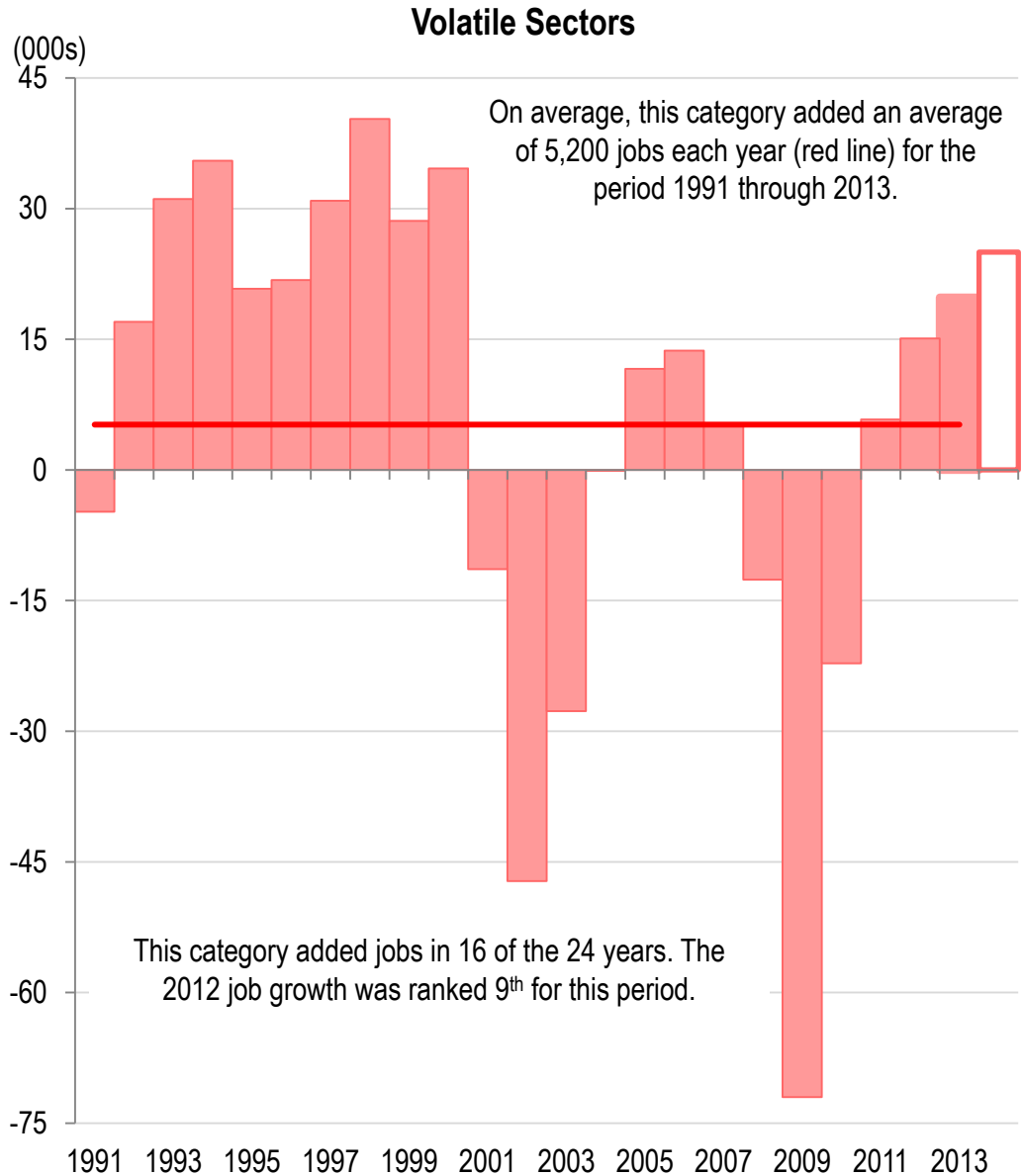
The sectors are:

- Natural Resources and Mining
- Construction
- Manufacturing
- Transportation, Warehousing, and Utilities
- Employment Services
- Financial Activities
- Information
- Federal Government

Total employment for this category was:

1993 589,900 workers, 35.3% of total employment  
 2003 716,100 workers, 33.3% of total employment  
 2013 680,500 workers, 28.6% of total employment.

In 2014 this category will add between 23,000 and 27,000 jobs at a rate of 3.6% to 3.8%. Growth in this category will be the strongest since 1999.



Source: Bureau of Labor Statistics, cber.co.

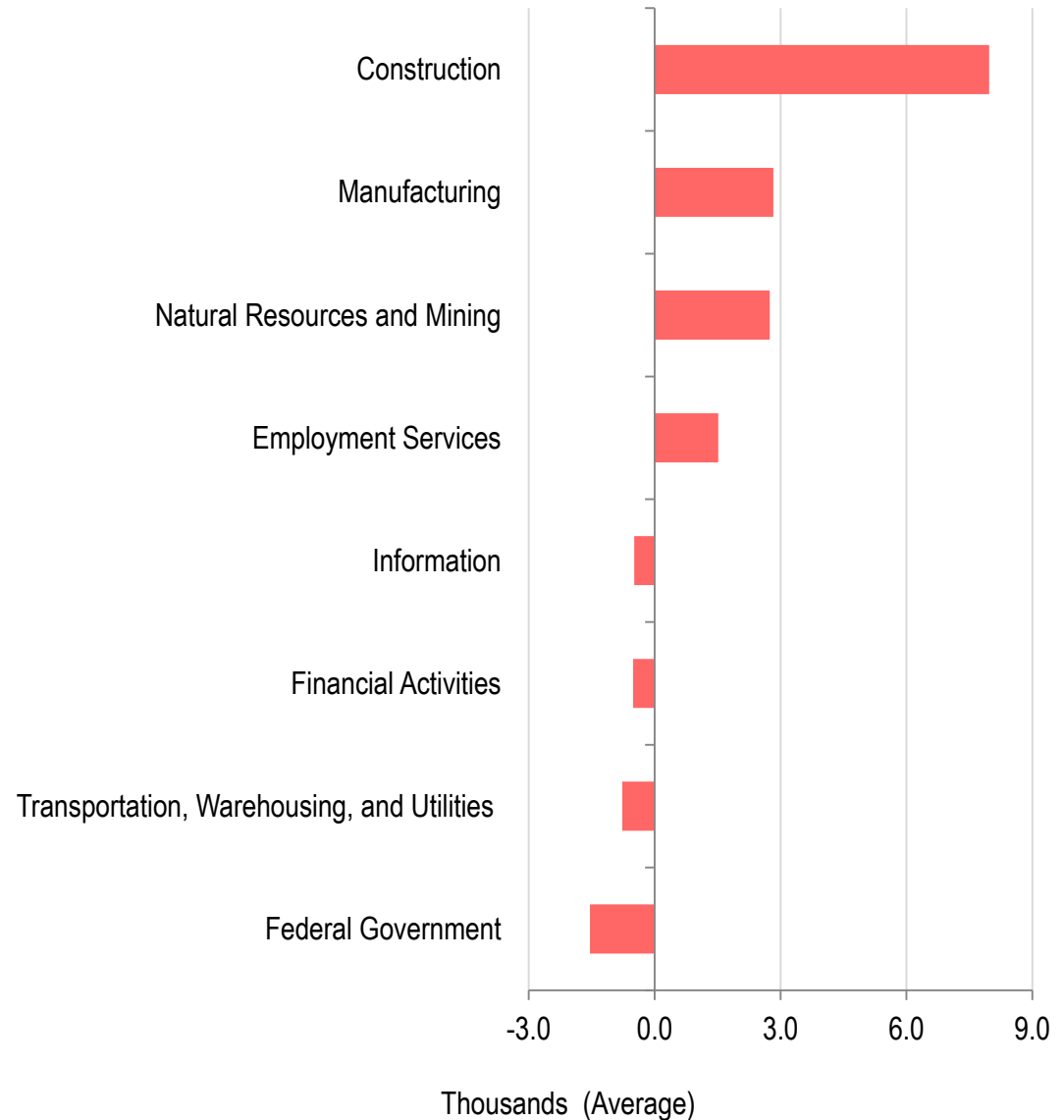
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## ● Volatile Sectors

- Through July 2014 this group of industries added 11,700 jobs compared to the same period in 2013.
- This category was projected to add 23,000 to 27,000 jobs for the year. To date, its performance is significantly weaker than anticipated.
- In 2013 these sectors accounted for 27.6% of total job gains and 28.6% of total employees.
- Construction is the leader in job creation, but most other sectors are adding jobs at a slower rate than anticipated. While the extractive industries have only added 2,700 direct jobs, they are responsible for the addition of a number of indirect jobs.

## Job Change Through Seven Months 2013 vs. 2014



Source: Bureau of Labor Statistics.

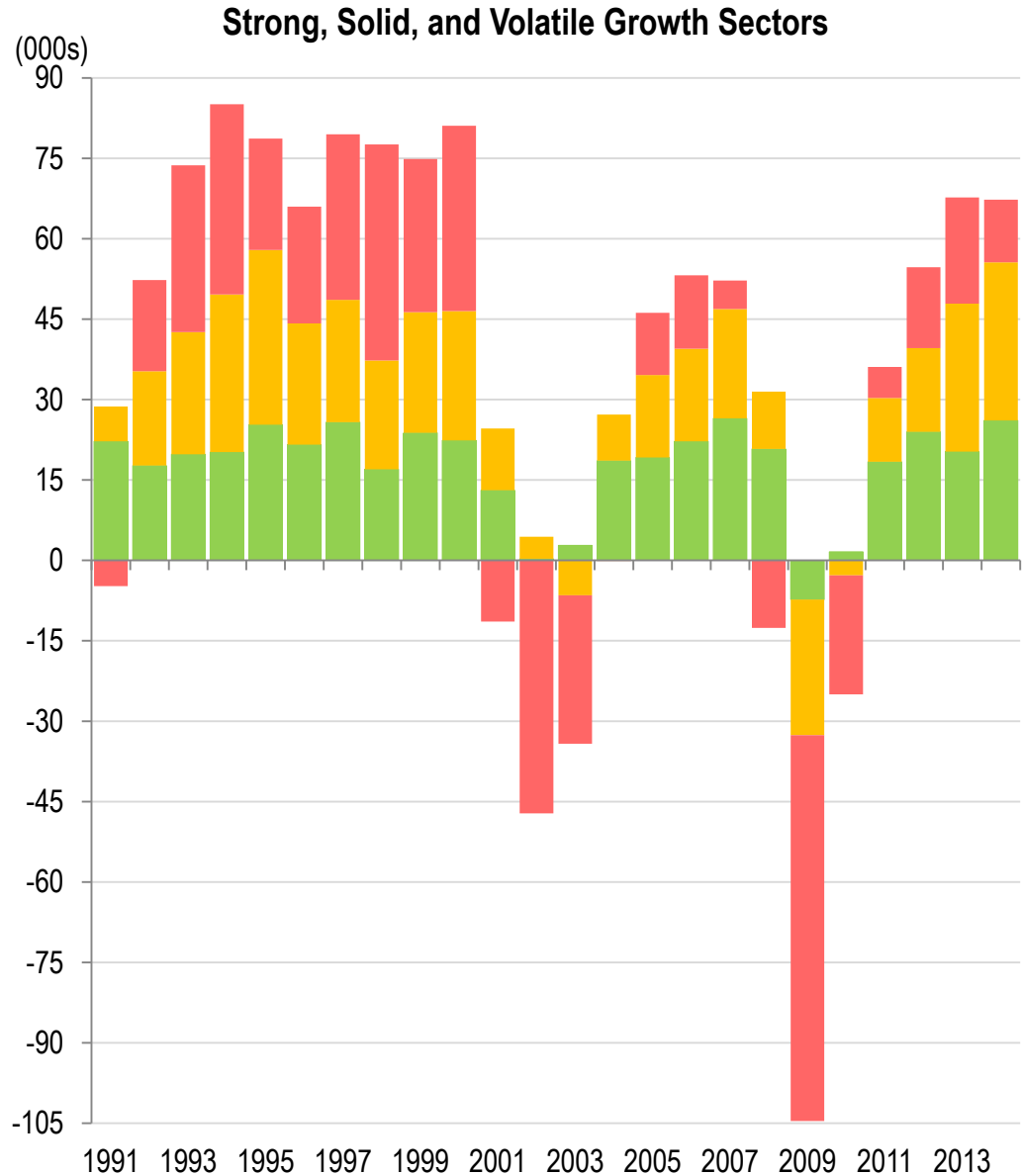


## Summary of Strong, Solid, and Volatile Growth Sectors

The Strong Growth Category of sectors (green) has performed consistently over time. The category has added jobs as expected in 2014.

The Solid Growth Category of sectors (yellow) has been more volatile. In 2014, this group of sectors has performed stronger than anticipated.

Finally, the Volatile Category of sectors (red) has underperformed this year. This group of sectors has been weak since 1999.



Source: Bureau of Labor Statistics, cber.co.

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<http://cber.co>



# Questions and Answers



# Question and Answers

This section addresses the following questions:

- How does Colorado's construction industry compare to the U.S.?
- Colorado has outperformed the U.S. in job growth. What industries have been the leaders in job creation?
- How has Colorado's rate of inflation compared to the nation's rate for the past six months?



# Question and Answers

## Construction

How does Colorado's construction industry compare to the U.S.?

● New Private Housing Units  
● Authorized by Building  
● Permits – In Structures with  
● 1 Unit

The number of monthly permits tumbled from 3,715 in November 2005 to 474 in January 2009.

The number of permits has increased by about 3 times, but remains at levels last seen in 1992.

For the past year, the number of permits issued has been flat.

### Colorado Single Family Permits (Monthly)

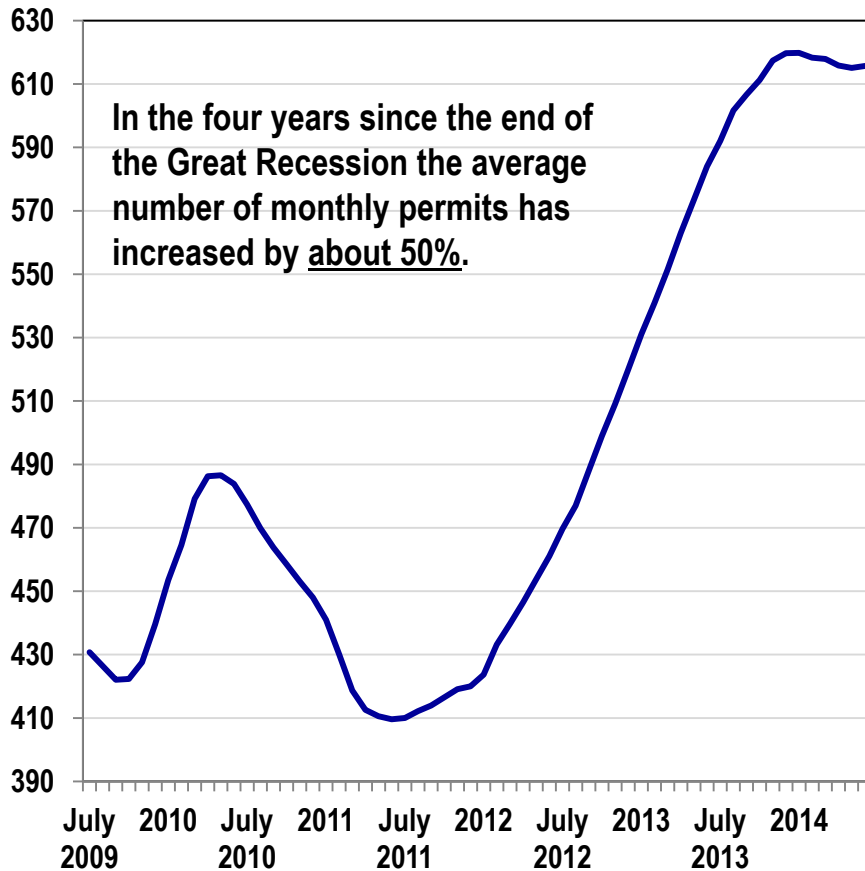


Source: FRED, Census Bureau SA.

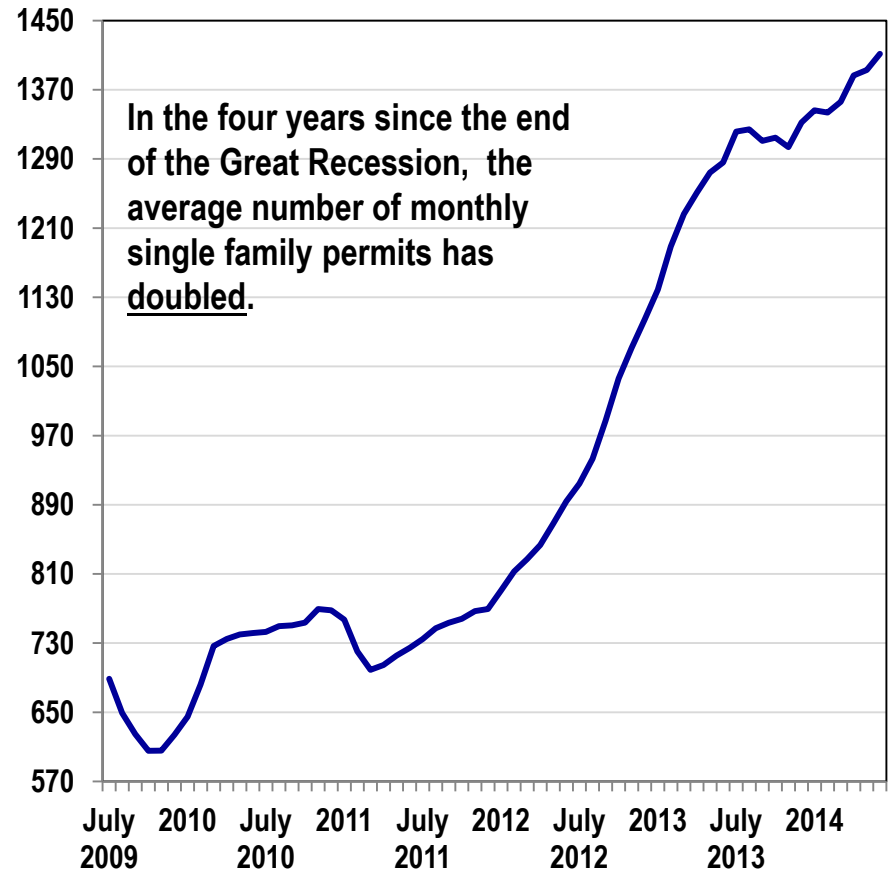
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- 12 Month Rolling Average Single Family Permits
- U.S. vs. Colorado – End of Recession to Current
- 

(000s) U.S. Rolling Average Single Family Permits

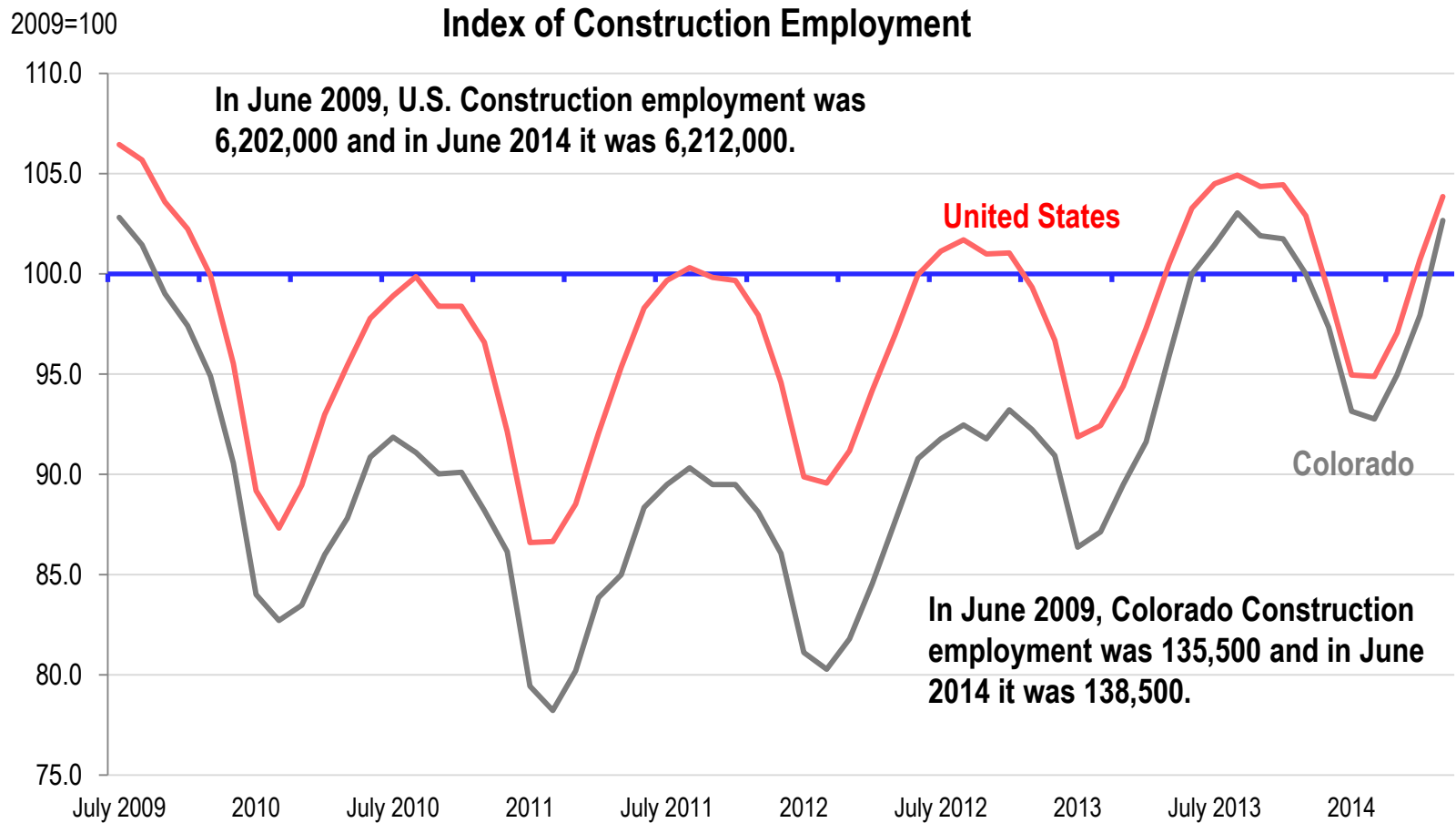


Colorado Rolling Average Single Family Permits



Sources: Census Bureau, FRED.

# Index of Construction Employment Colorado vs. U.S.



Source: Bureau of Labor Statistics, NSA.

# Question and Answers

## Construction

How does Colorado's construction industry compare to the U.S.?

- Colorado construction employment declined more sharply after the end of the Great Recession than U.S. construction employment.
- Employment for both Colorado and U.S. employment is about the same as it was at the end of the recession.
- The number of Colorado single family permits has increased at a faster rate in Colorado than the U.S.



# ● Question and Answers

## ● Colorado Outperforms U.S.

Colorado has outperformed the U.S. in job growth. What industries have been the leaders in job creation for the state?

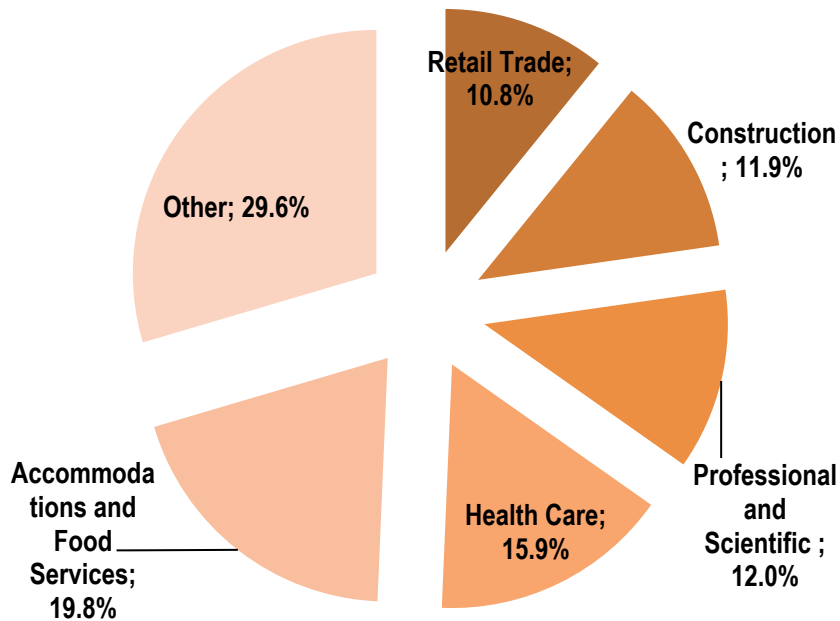
# Colorado's Sectors with Top Job Growth

## Percentage of Job Growth

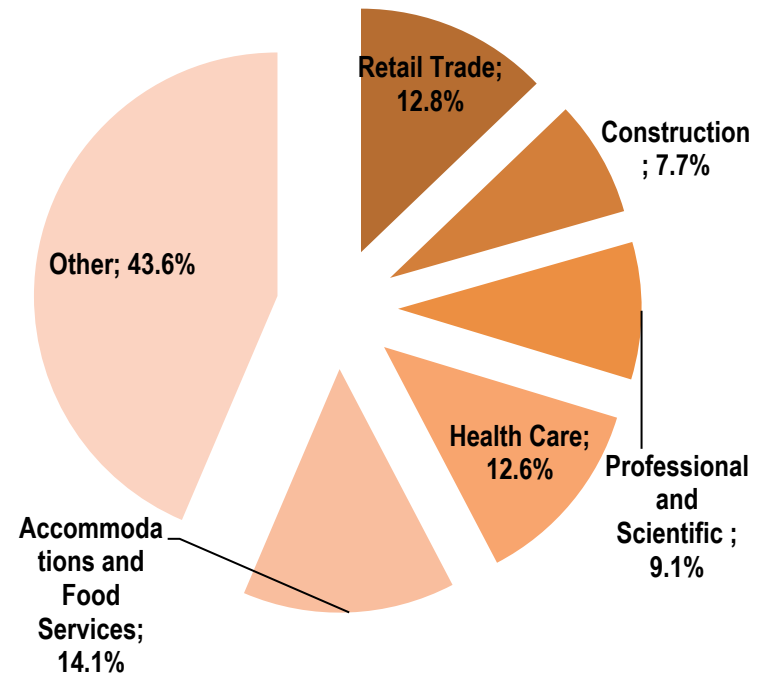
Through seven months, the sectors that have contributed the greatest number of jobs (top five) account for 70.4% of jobs created in Colorado.

These same five sectors have only contributed 56.4% of the jobs created in the U.S.

Sectors with Top Job Growth in Colorado



Job Growth in U.S.



Source: Bureau of Labor Statistics.

# Question and Answers

## Colorado Outperforms U.S.

Colorado has outperformed the U.S. in job growth. What industries have been the leaders in job creation for Colorado?

- For the first seven months of 2014, slightly more than 70% of job growth in Colorado can be attributed to five sectors. Each sector is growing at a faster rate than the U.S.:
  - AFS 5.5% vs. 2.8%
  - Health Care 4.3% vs. 1.7%
  - PST 4.3% vs. 2.7%
  - Construction 6.5% vs. 3.2%
  - Retail Trade 3.0% vs. 2.0%.
- For the first seven months, the cumulative total of Colorado sectors where primary jobs were categorized (manufacturing, information, PST) expanded at a faster rate than the U.S, 2.7% vs. 1.3%.
- The following are the average annual private sector wages for the sectors that are adding the most jobs.
  - Accommodations and Food Services \$18,808
  - Health Care, \$45,905
  - Retail Trade \$28,159
  - Construction \$51,064
  - PST \$84,842
  - Average private sector wages \$50,768.

These results raise the following questions:

- While all jobs are important, is it beneficial for Colorado to be adding so many jobs in sectors that have lower than average wages?
- Is Colorado adding a sufficient number of primary jobs to support these secondary jobs?

- Question and Answers
- CPI – Colorado vs. U.S.
- 

How has Colorado's rate of inflation compared to the nation's rate for the past six months?

# Consumer Price Index Colorado vs. U.S.

For the past six months, the overall rate of inflation for Colorado was greater than the U.S., 1.9% vs. 1.4%.

Colorado (red) had a significantly higher rate in the following categories:

- Food and Beverage
- Housing
- Transportation

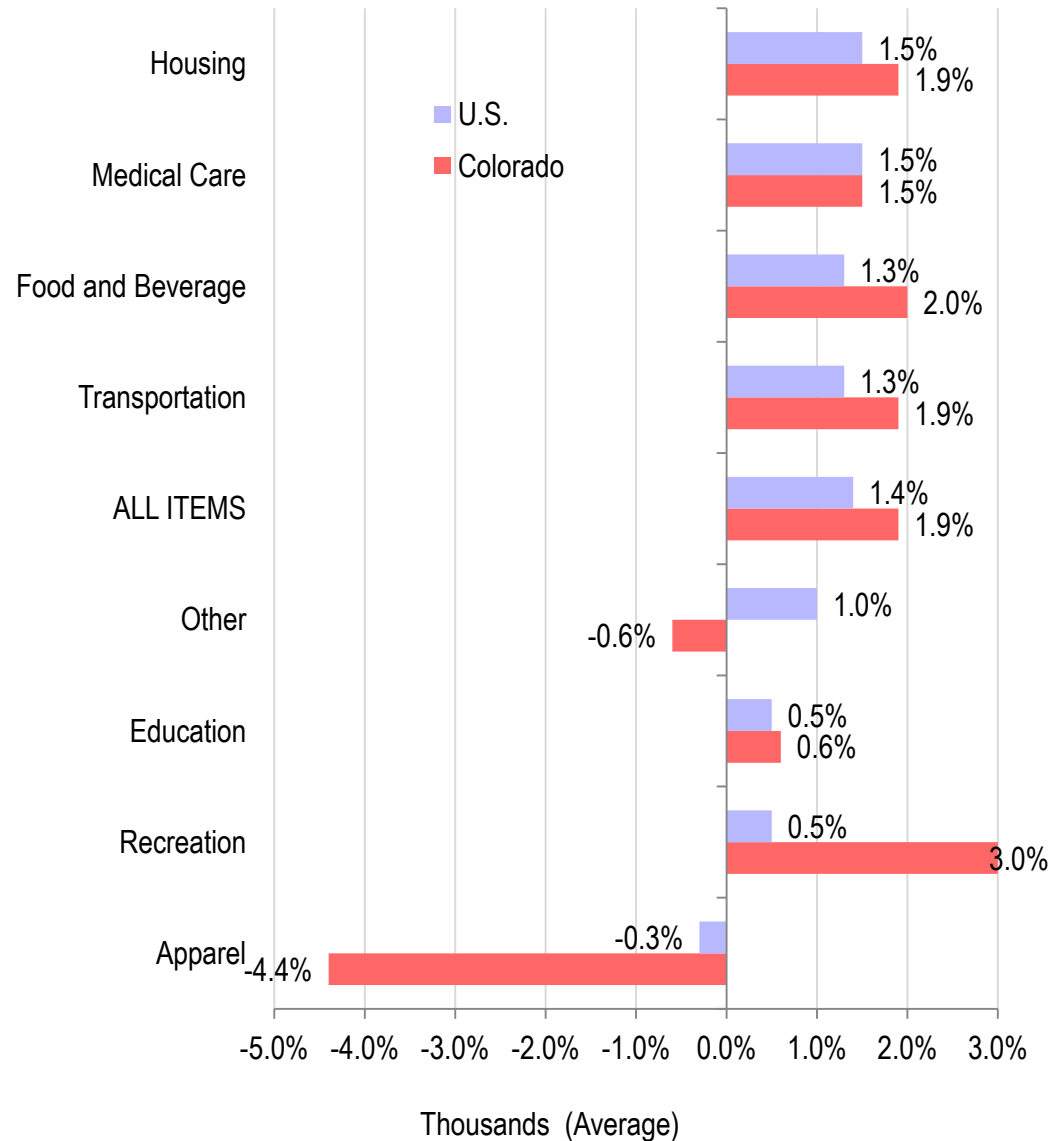
Colorado had a lower rate in the following categories:

- Apparel
- Other

The Colorado and U.S. rates were similar for:

- Medical Care
- Education
- Recreation

Consumer Price Index Colorado vs. U.S.  
H1 2014 vs. H2 2013



Source: Bureau of Labor Statistics.



# Total Jobs Added

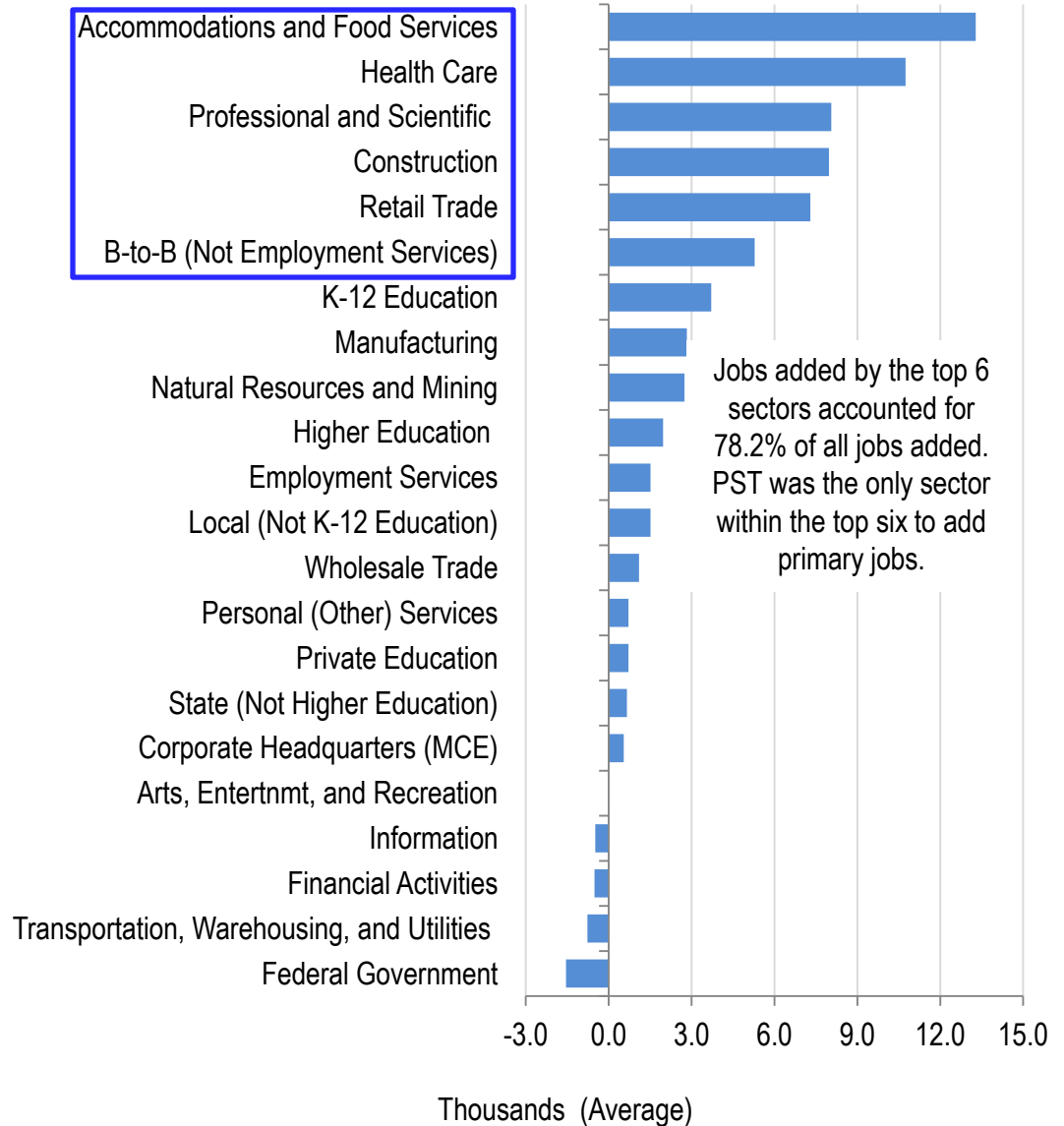
## Change in Employment for All Sectors - First Seven Months of 2014 vs. the Same Period in 2013

There were 67,300 more jobs in the first seven months of 2014 than the same period in 2013, an increase of 2.9%.

•Growth was led by the following sectors: Accommodations and Food Services (AFS); Health Care, Professional, Scientific, and Technical Services (PST); and Construction.

•Professional Business Services was the Super Sector that added the highest number of jobs (15,400), followed by Tourism (13,300).

## Job Change Through 7 Months 2013 vs. 2014



Source: Bureau of Labor Statistics.

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<http://cber.co>

## Summary of Job Growth for Colorado MSAs - First Seven Months of 2013 v 2014

Greeley had the highest rate of job growth for the first seven months of 2014 compared to the same period in 2013. The rates of growth were:

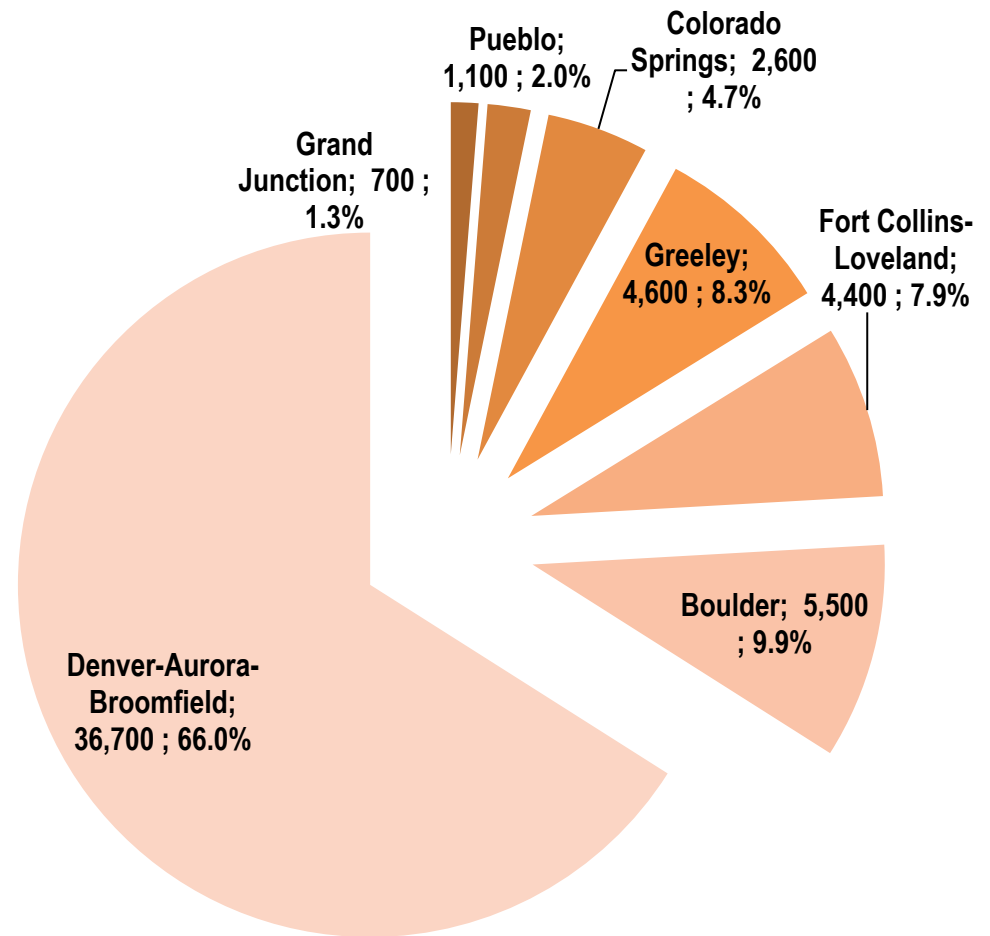
- Greeley 5.2%
- Boulder 3.2%
- Fort Collins 3.1%
- Denver 2.9%
- Pueblo 1.9%
- Grand Junction 1.2%
- Colorado Springs 1.0%

The rate of growth for the state was 2.9%.

Denver added 66.0% of the jobs, followed by Boulder, at 9.9%. Combined, the Northern Colorado MSAs added 16.2% of all jobs for the metro areas.

Note: This chart includes MSAs only. They accounted for about 82.8% of total job growth in the state for this period.

## MSA Job Growth and Percent Growth



**Key**  
MSA, Jobs added, % of MSA jobs added.

Source: Bureau of Labor Statistics.



## Colorado Employment The Lost Decade and Beyond

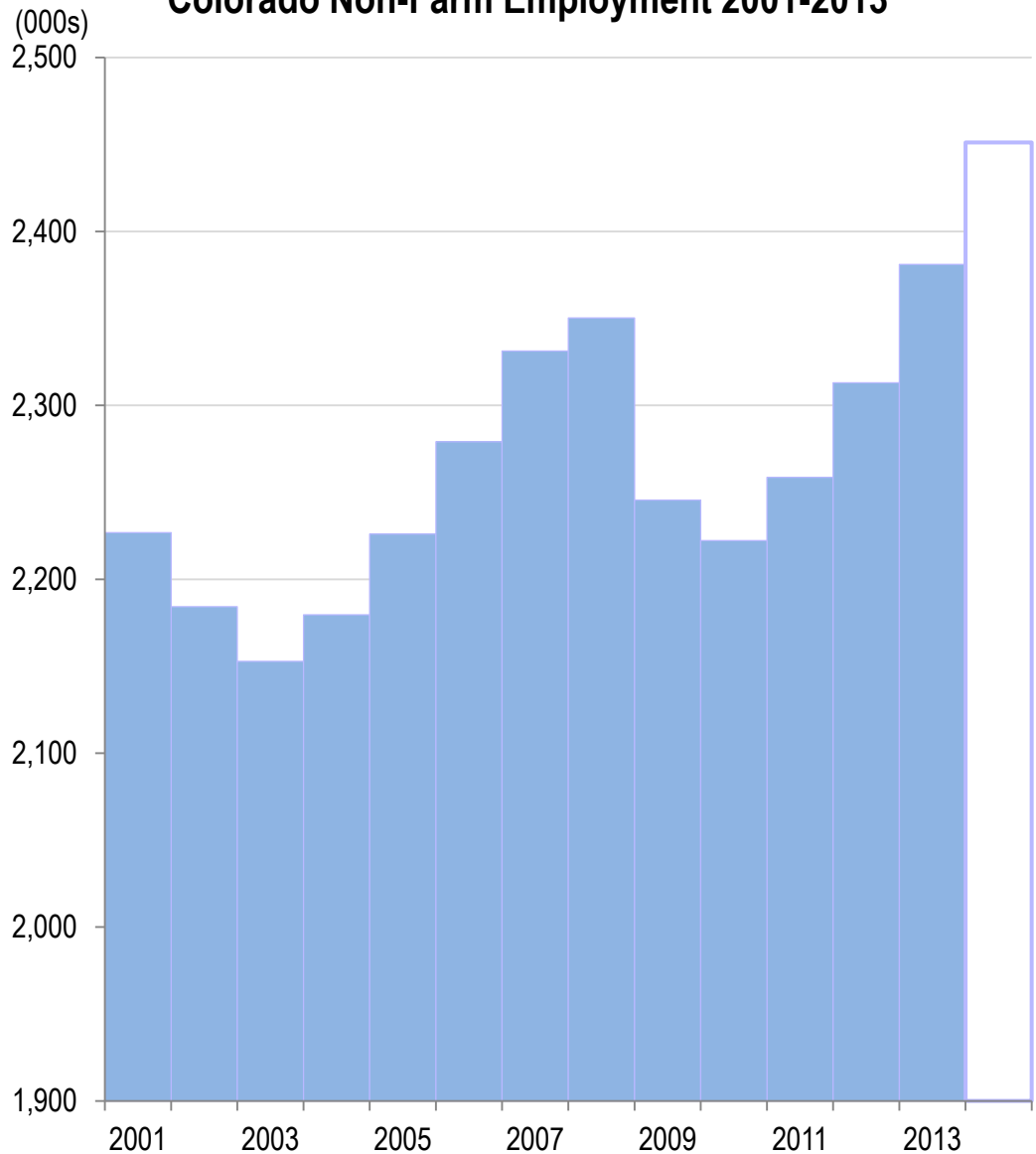
Colorado employment declined in 2009 and 2010. In the following years the state added:

- 36,300 jobs in 2011
- 54,400 jobs in 2012
- 68,100 jobs in 2013.

The number of jobs added has increased at an accelerating rate in each of these 3 years.

cber.co projected that between 68,000 and 74,000 jobs will be added in 2014. Information from the Colorado Labor Market Information group suggests that Colorado will add more than 74,000 jobs this year when the BLS revises the data in March 2015.

### Colorado Non-Farm Employment 2001-2013



Source: Bureau of Labor Statistics, cber.co.

Colorado-based Business and Economic Research

<http://cber.co>

# Summary of Colorado Economy Through July 2014

## On One Hand...

- Through the first seven months of 2014, CES employment is 67,300 jobs greater than the same period in 2013. When the BLS makes its annual revisions in March 2015, they are expected to revise 2014 job growth higher.
- Job growth is wide spread; however, about 70% of job growth is in five sectors.
- Although the agriculture, real estate, and extractive industries produce very few direct jobs they are responsible for output growth that is driving job creation in other sectors.
- Northern Colorado and Boulder continue to be the hot spots for job and output growth.
- The elections will be over soon.

## On the Other Hand...

- Colorado inflation remains higher than the U.S. rate. Higher inflation in housing, food and beverage, and transportation could be a drag on future growth of the state.
- Lackluster wage growth may be a problem if inflation increases at a higher rate.
- At the moment there is calm on the political front; however, some of the election races are showing signs they will become contentious.
- The following sectors are underperforming: Information, manufacturing, financial activities, and transportation.
- There is concern that primary jobs are not being added at a fast enough rate.



# Appendix



# BLS/LMI Data Revision Process

## BLS and LMI Data Projections

In recent years, data-producing federal agencies have been asked to deliver more accurate data, in a shorter time frame, using fewer staff, with lower research budgets. The data used for most short-term forecasts is the Current Employment Survey, also called Nonfarm or Wage and Salary data. It is possible for the CES data to be revised up to four times. Revisions to the CES data are based on changes in the Quarterly Census of Employment and Wages (QCEW) data set.

## BLS and LMI Data Revision Process

The CES projection process is outlined below:

1. Around the 20<sup>th</sup> of a month, preliminary data for the prior month will be published and the month prior to that will be updated (For example, around June 20<sup>th</sup> preliminary data for May will be produced and April will be updated.) These revisions are usually minor.
2. In March of the following year, the previous two years will be revised. (For example, the 2013 employment data will be revised in March 2014 and finalized in March 2015).
3. The initial March update is usually the most significant revision, and the two-year update is often minor (In the case of 2013, some of the monthly totals will see significant upward revisions when revised in March 2014.)
4. Periodically, BLS updates the entire data series back to 1990. This usually occurs when they recalibrate their projection models or redefine NAICS codes.



# North American Industry Classification System

For purposes of analysis, the Bureau of Labor Statistics classifies companies using the North American Industry Classification Systems (NAICS), a two-through-six digit hierarchical classification system. Companies are classified into categories based on their primary processes. BLS has further aggregated NAICS sectors into groupings called "Supersectors." The aggregations include Goods-Producing and Service-Providing industries.

## Goods-Producing Industries

### **10 - Natural Resources and Mining**

NAICS 1133—Logging

Sector 21—Mining

### **20 - Construction**

Sector 23—Construction

### **30 - Manufacturing**

Sectors 31, 32, 33—Manufacturing

## Service-Providing Industries

### **40 - Trade, Transportation, and Utilities**

Sector 42—Wholesale Trade Sectors 44, 45—Retail Trade Sectors 48, 49—Transportation and Warehousing Sector 22—Utilities

### **50 - Information**

Sector 51—Information

### **55 - Financial Activities**

Sector 52—Finance and Insurance Sector 53—Real Estate and Rental and Leasing

### **60 - Professional and Business Services**

Sector 54—Professional, Scientific, and Technical Services Sector 55—Management of Companies and Enterprises Sector 56—Administrative and Support and Waste Management and Remediation Services

### **65 - Education and Health Services**

Sector 61—Educational Services Sector 62—Health Care and Social Assistance

### **70 - Leisure and Hospitality**

Sector 71—Arts, Entertainment, and Recreation Sector 72—Accommodation and Food Services

### **80 - Other Services**

Sector 81—Other Services, except Public Administration

### **90 - Government\***

Sector 91—Federal Government

Sector 92—State Government

Sector 93—Local Government



## Review of the Colorado Economy Analysis of First Seven Months of 2014

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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