



# Review of the Colorado Economy Analysis of First Five Month of 2014

Colorado-based Business and Economic Research

June 25, 2014



# Overview

**On average Colorado has added 67,100 jobs through the first five months 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 through five months.**

## **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 79.3% of job growth.

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. and Economy.
- Colorado Economy Stronger than the Numbers Indicate - QCEW, CPI, and GDP.
- Colorado Employment and Unemployment.
- Change in Colorado Employment by Performance Category.
- Colorado 2013 Category and Major Sector Employment.
- Total Jobs Added.



# U.S. Economy

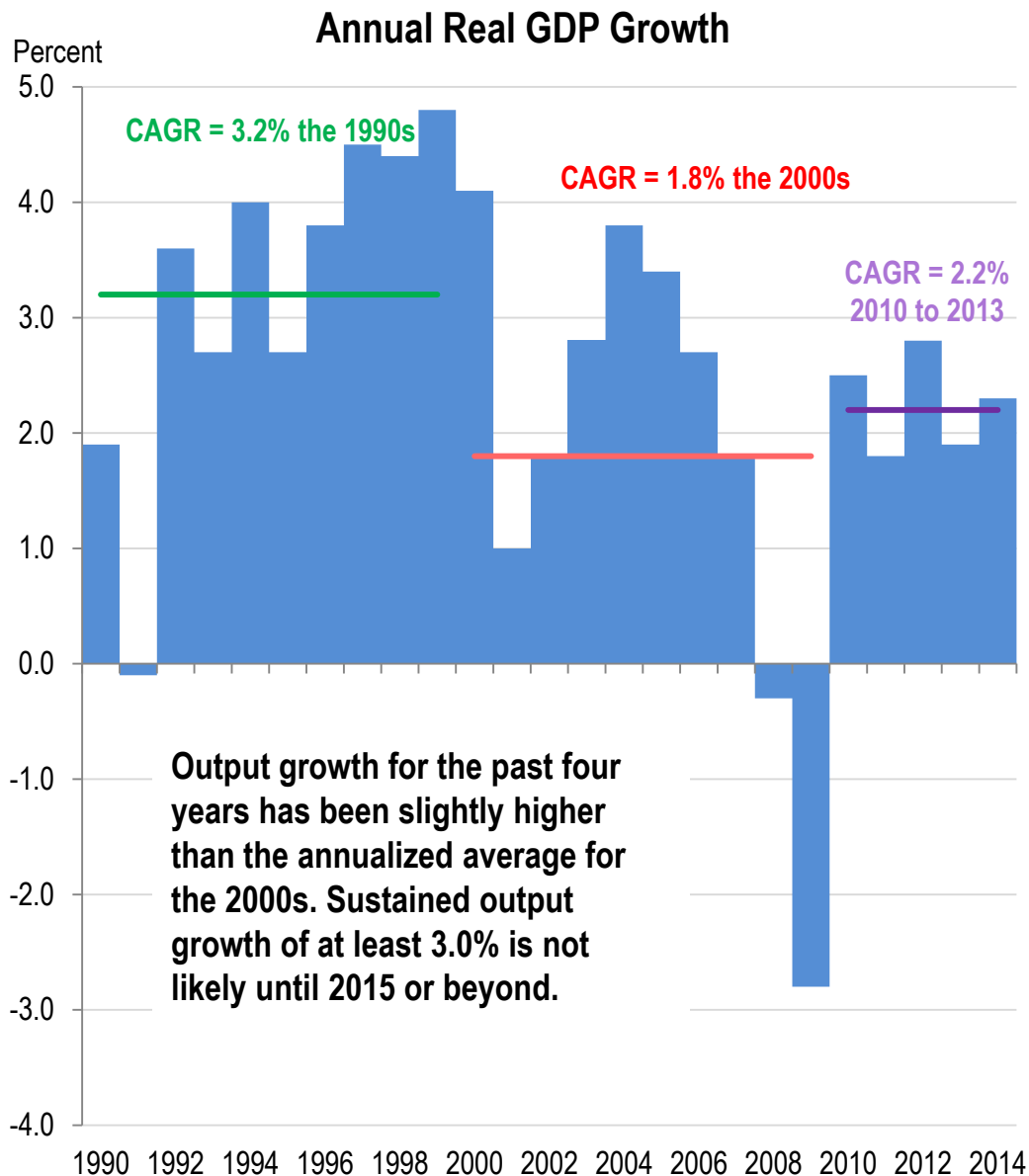
# Real US GDP Growth

## Annual

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 at least 2.3%.

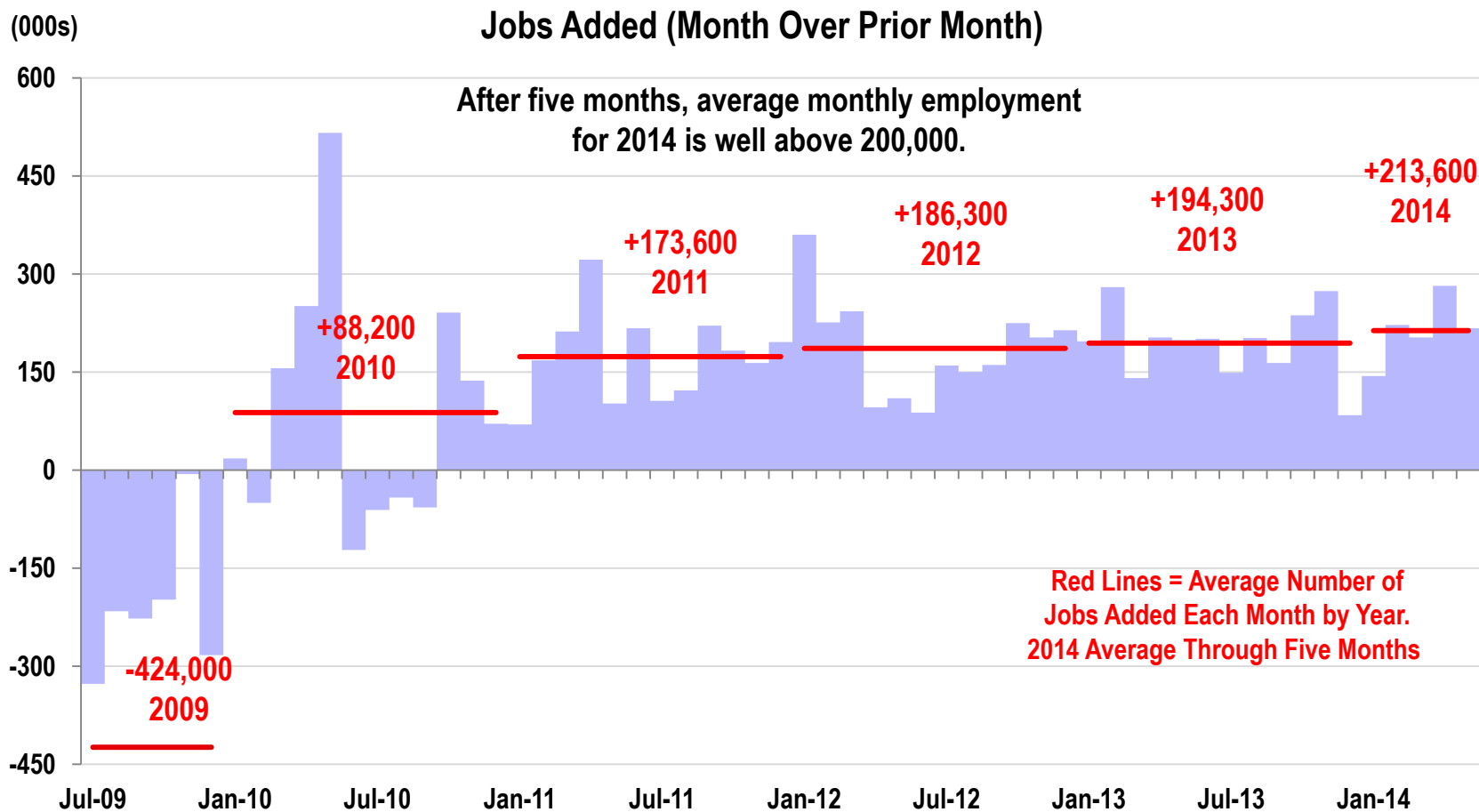
However, **real GDP declined at an annualized rate of -2.9% for Q1. Ugh!** Government spending fell off, there was a drop off in the purchase of business equipment, U.S. net exports declined, and businesses reduced the rate of their inventory growth. On a brighter note, warmer weather should produce growth in Q2 of at least 3.5%.



Source: Bureau of Economic Analysis, [cber.co](http://cber.co), Note GDP chained on 2009.

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# U.S. Employment Situation From End of Recession to Current



Source: Bureau of Labor Statistics, SA.

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<http://cber.co>

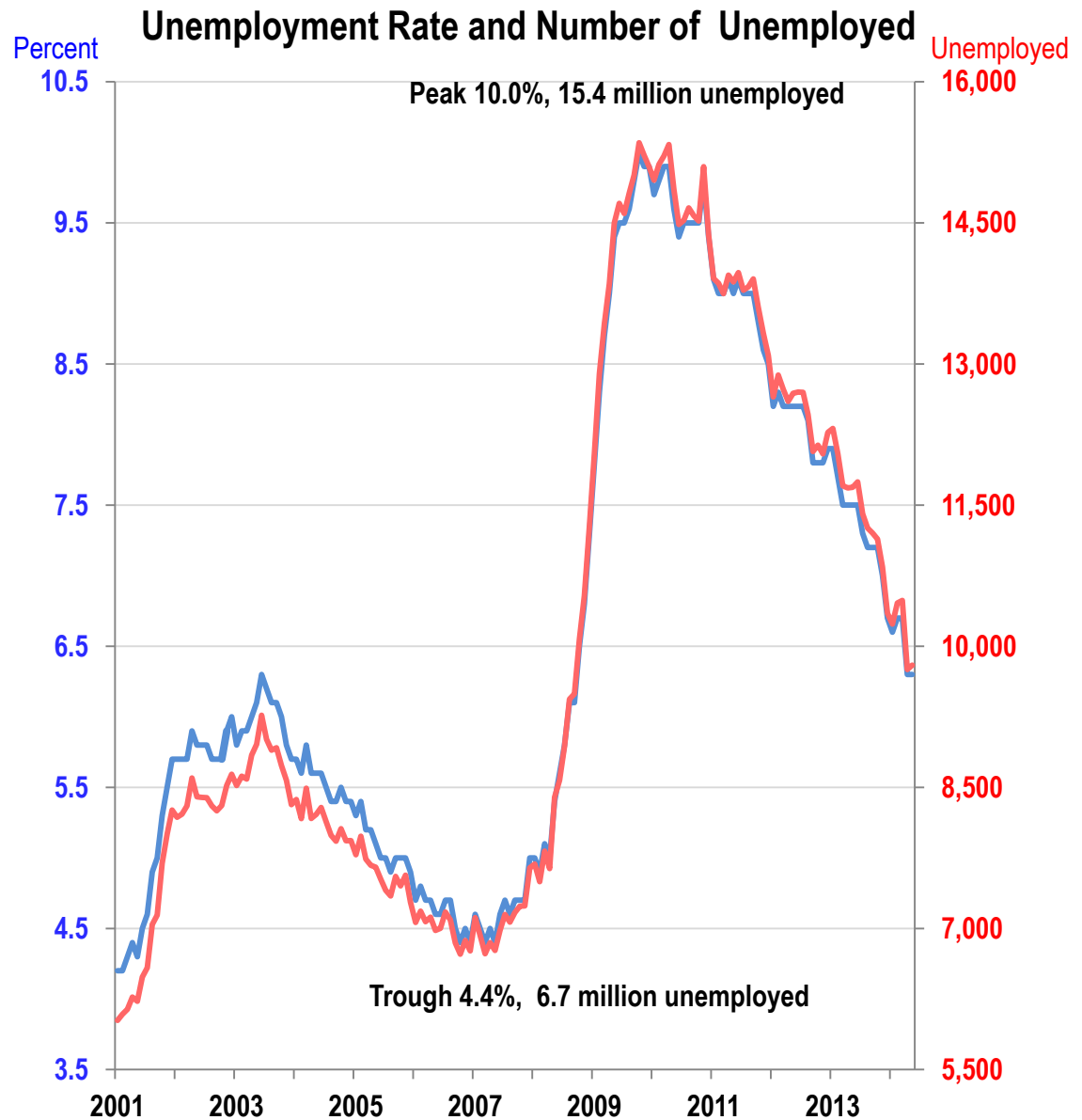
# U.S. Unemployment Rate and Number of Unemployed

- There are three key points regarding unemployment.
- The unemployment rate continues to trend downwards.
  - The number of unemployed have slowly trended downward since peaking in late 2010.
  - Despite an unemployment rate above 6.0%, there is a shortage of trained workers in key sectors and occupations.

At the end of May 2014, the unemployment rate (blue) was 6.3%.

At the end of May the total number of unemployed (red) was below 9.8 million.

The May 2014 ending total is 3.1 million above the low point in 2007 and 5.5 million below the high point in 2009.



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

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<http://cber.co>

# Summary of U.S. Economy Through May 2014

After an ugly start to the year, the U.S. economy is now on more solid footing.

- Q1 output growth stalled. It was revised downward to -1.0% on the second estimate and even lower on the third estimate, -2.9%. The decline was greater than anticipated.
- On a positive note, consumers remain optimistic and spending is expected to be stronger in the second half of the year.
- Job growth was weak in January, but it has been strong in the other four months.
- The unemployment rate and the number of unemployed continue to trend downward. This is good news, however; critical labor shortages are developing in many sectors of the economy.
- Employment and output growth for the remainder of the year will be solid.
- Nationally, inflation is in check. This is a greater issue for Coloradoans, particularly in the areas of health care, housing, and utilities.
- The midterm elections will be competitive in many states. They have the potential to be contentious in some states, including Colorado. It is unlikely the elections will have a short-term impact on the national economy.
- Housing starts and construction will continue to increase, while the gains in housing prices will be more moderate.
- Manufacturing will continue to see uneven growth.
- The equity markets have remained surprisingly strong. The rate of growth is slower than 2013.



# Colorado Economy Stronger than the Numbers Indicate - QCEW, CPI, and GDP



# Three Data Releases Indicate Stronger than Reported Growth

## QCEW, CPI, GDP

The recent release of QCEW, CPI, and GDP data indicates Colorado is outperforming the nation and suggests possible implications of this level of growth.

## Stronger Than Reported Growth

- BLS released QCEW data for Q1 2014 indicating Colorado job growth is greater than being reported in the CES data.
- CPI data showed that Colorado inflation is about twice that of the United States. High rates of inflation in housing and energy costs could be a drag on future growth of the state if they continue.
- The rate of growth for the 2013 Colorado GDP was greater than 2012, while the rate of growth for the U.S. GDP (for all states) decreased. The extractive industries, real estate, and agriculture accounted for more than half the growth in output in 2013.

Source: Bureau of Labor Statistics, Bureau of Economic Analysis.

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# QCEW Data Shows Stronger than Reported Growth

## QCEW Data

- On May 28, the BLS released preliminary QCEW data showing that 2014 Q1 employment was actually 81,100 greater than the same period in 2013. By comparison, Q1 CES data for the same period shows average monthly gains in employment are 67,900 greater than a year ago.
- Most likely the CES data is under reporting growth in the Colorado economy. **When the BLS revises 2014 CES data in March 2015, there will likely be a significant upward revision.**

## What is QCEW and CES?

- BLS publishes three employment series LAUS, QCEW, and CES. The latter two are relevant to this discussion.
- The Current Employment Statistics is a data set derived from a survey of a small segment of companies. The data is used to populate an econometrics model that produces CES jobs data. This data is published monthly and revised multiple times based on QCEW data.
- All companies with employees are required to provide employment data to BLS. It is compiled into the Quarterly Census of Employment and Wages database. The QCEW data is the benchmark used to revise the CES data.
- Additional details about the revision process can be found in the Appendix.

Source: Bureau of Labor Statistics.

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# Rate of Colorado Inflation Almost Twice the Rate for U.S.

## Colorado CPI

- The Bureau of Labor Statistics recently released data for 2013 indicating the CPI for Denver-Boulder-Greeley was 2.8% vs. 1.5% for the U.S.
- The Denver-Boulder-Greeley index is often used as a proxy for the state of Colorado.

## Inflation

A higher rate of inflation in key areas may be a drag on the growth of the Colorado economy. There are three critical categories where Colorado inflation was significantly greater than the U.S.

- Higher housing prices – As a result of Colorado's strong housing market, the shelter category increased 4.5% in Colorado, compared to 2.3% for the U.S.
- Increased fuels and utilities – Colorado's commitment to alternative energy may be the reason the fuels and utilities category increased 9.3%, compared to 2.8% for the U.S. Within that category Colorado household energy rose by 11.2%, compared to 2.4% for the U.S.
- Medical care – In Colorado, medical care rose by 3.5% compared to 2.6% for the U.S.

Source: Bureau of Labor Statistics.

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# Colorado GDP for 2013 Stronger than U.S.

## 2013 U.S. GDP (Summary of States)

U.S. Real GDP growth expanded at a rate of 1.8% in 2013, compared to 2.5% in 2012. Private sector growth grew by 2.3% in 2013 compared to 3.0% in 2012.

Nationally, the top six contributors to absolute growth were:

- Real estate and rental and leasing
- Agriculture, forestry, fishing, and hunting
- Health care and social assistance
- Finance and insurance
- Wholesale trade
- Professional, scientific, and technical services.

Combined, these 6 categories accounted for 53.6% of the change in U.S. output in 2013.

## 2013 Colorado GDP

The Colorado Real GDP growth increased from 3.0% in 2012 to 3.8% in 2013. Real private sector growth expanded at a rate of 4.2% in 2013 compared to 3.4% in 2012.

In Colorado the leading contributors to absolute growth were:

- Mining
- Real estate and rental and leasing
- Professional, scientific, and technical services
- Agriculture, forestry, fishing, and hunting
- Construction
- Government.

Combined these six sectors accounted for 75.0% of the change in Colorado output in 2013.

Source: Bureau of Economic Analysis.

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# 2013 Colorado GDP Stronger than U.S. GDP

## 2013 U.S. GDP vs. Colorado GDP

In 2013 U.S. real GDP growth expanded at a rate of 1.8%, compared to 2.5% in 2012. Private sector growth grew by 2.3% in 2013, down from 3.0% in 2012. The top six sectors accounted for 53.6% of the change in U.S. output in 2013.

The Colorado real GDP growth increased from 3.0% in 2012 to 3.8% in 2013. Real private sector growth expanded at a rate of 4.2% in 2013 compared to 3.4% in 2012. The top six sectors accounted for 75.0% of the change in Colorado output in 2013.

For a complete breakdown for all sectors, please refer to the Appendix.

## Why the Difference is Important

- Colorado output was greater in 2013 than 2012, while U.S. output declined. The Colorado economy was thriving while the country as a whole was not.
- The extractive industries accounted for 31% of the Colorado output growth.
- The combined total of the extractive industries, agriculture, and real estate industries was slightly more than half of Colorado output growth in 2013. These three sectors represent a very small portion of wage and salary employment and job growth; however, the output from these industries brings money into Colorado and creates a number of indirect jobs.

Source: Bureau of Economic Analysis.

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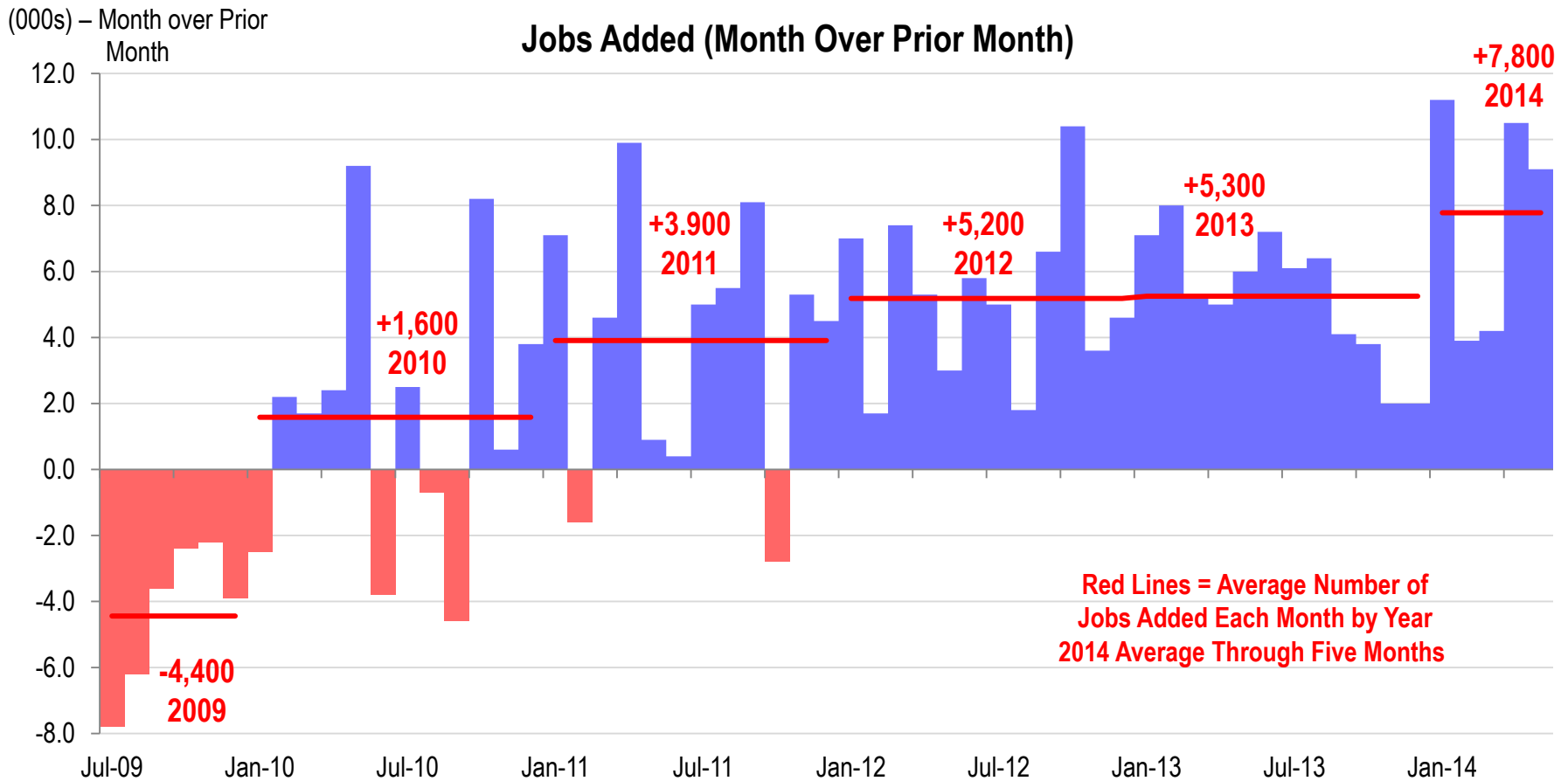
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# Colorado Employment and Unemployment

# Colorado Employment Situation

## From End of Great Recession Through May 2014



Source: Bureau of Labor Statistics, SA.

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## Colorado Unemployment Rate and Number of Unemployed

There are three key points regarding unemployment.

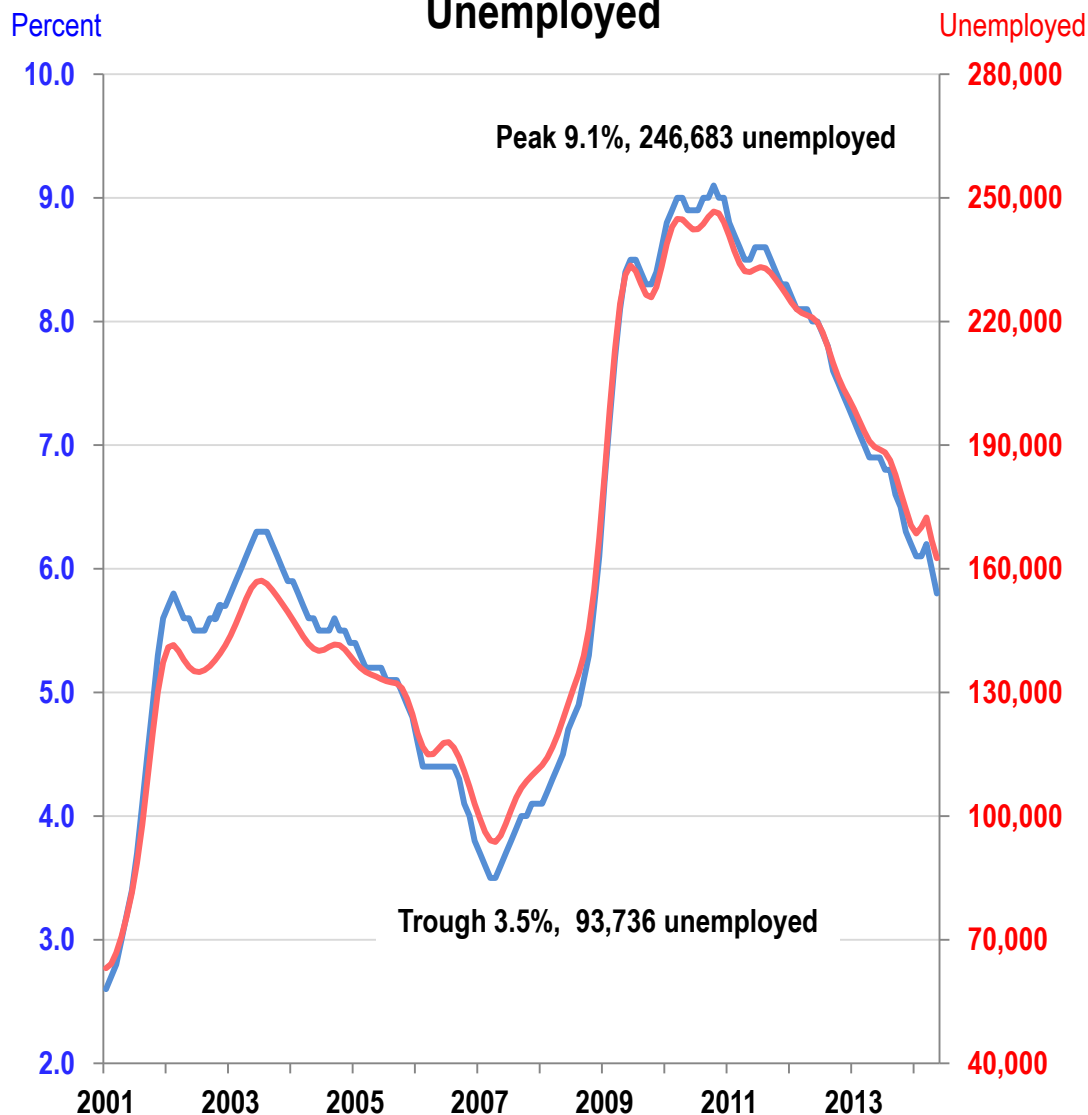
- The unemployment rate continues to trend downwards.
- The number of unemployed have slowly trended downward since peaking in late 2010.
- Despite an unemployment rate above 6.0%, there is a shortage of trained workers in key sectors and occupations.

Between April 2007, the trough, and the peak in October 2010, the number of unemployed workers increased by 152,947. Since then, the number of unemployed workers has declined by about 84,151.

At the end of May 2014, the unemployment rate (blue) was 5.8%, down from 6.9% at the end of May 2013. The state May-ending rate was lower than the U.S. May-ending rate of 6.3%.

In May 2014, the total number of unemployed workers (red) declined to about 162,532. The total number of unemployed is almost 69,800 greater than the trough in April 2007.

## Unemployment Rate and Number Unemployed



Source: Bureau of Labor Statistics, cber.co.

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# Change in Colorado Employment by Performance Category

# Overview of Job Creation by Performance Category

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

- Strong growth.
- Solid growth.
- Volatile.

The following charts look at the change in jobs for those three categories for the first five months of 2014 vs. the first five months of 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.

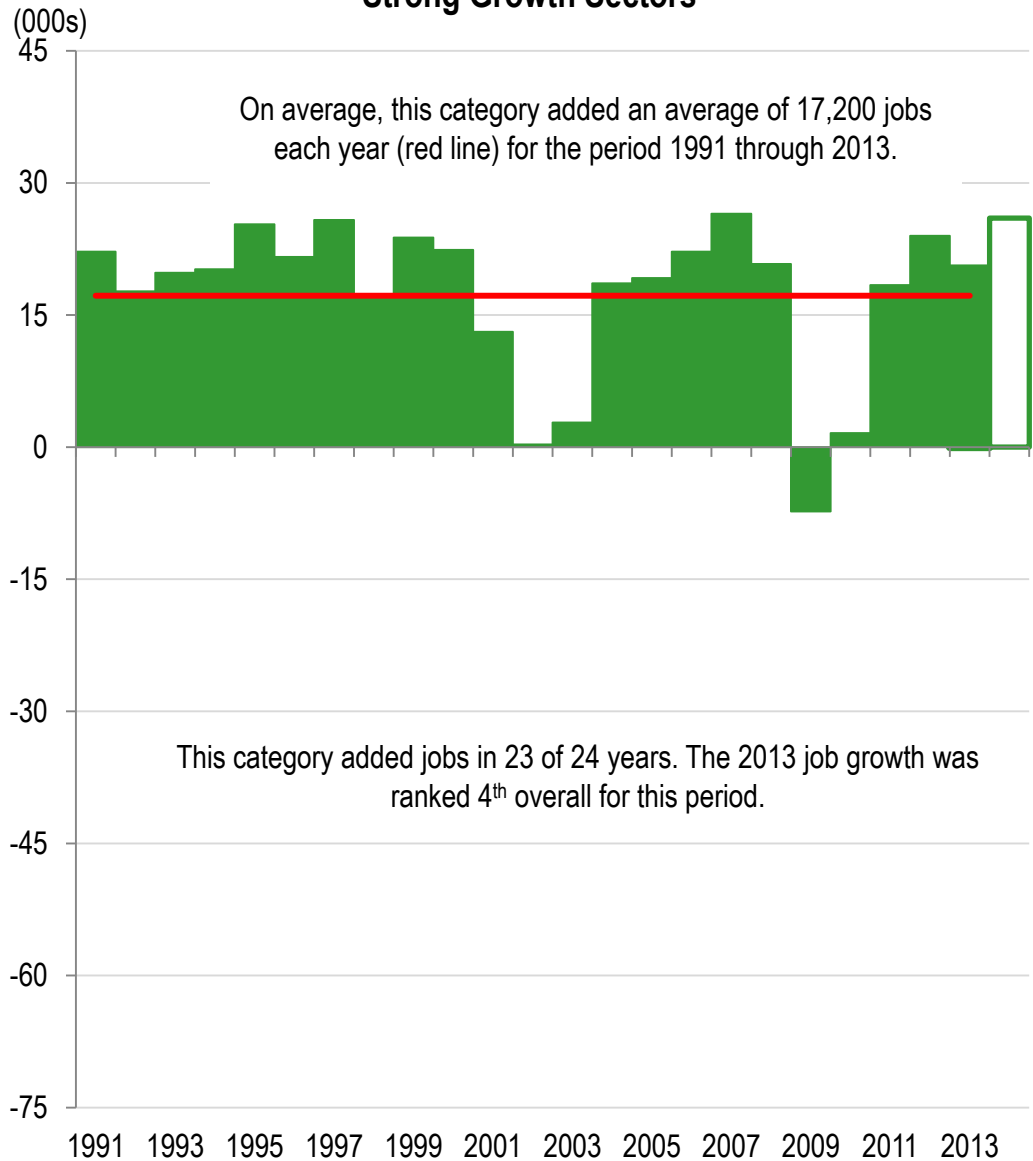
Total employment for this category was:

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



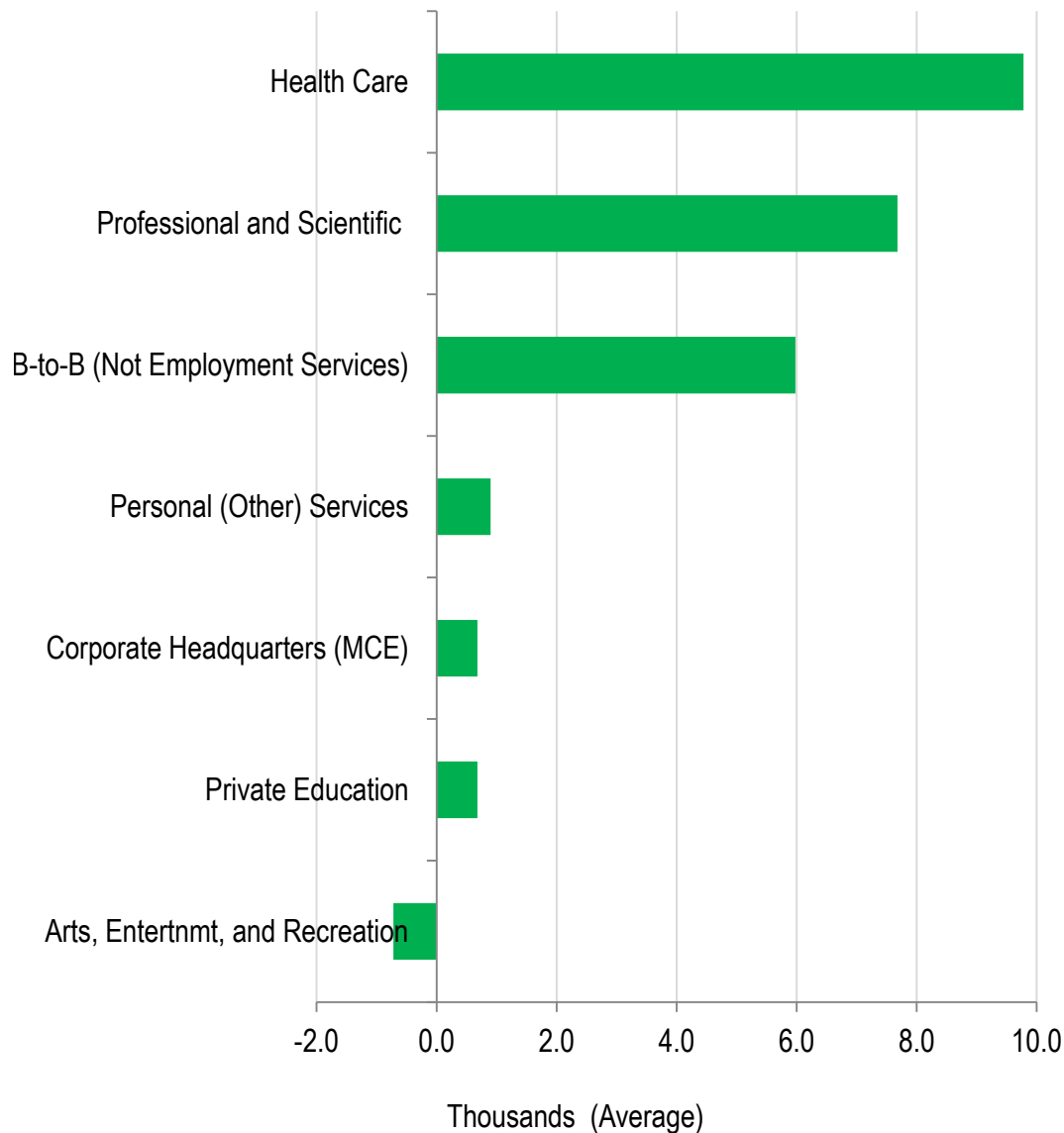
Source: Bureau of Labor Statistics, cber.co.

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## Solid Growth Sectors

- Through May 2014 this group of industries added 25,000 jobs compared to the first 5 months of 2013.
- This category was projected to add 24,000 to 28,000 for the year. To date, its performance is near the bottom 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 five months, the sectors with the strongest growth were:
  - Health Care
  - Professional and Scientific and Technical Services.
  - Administrative (B-to-B) excluding Employment Services.
- The Arts, Entertainment, and Recreation sector was weaker than anticipated.

## Job Change Through Five 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

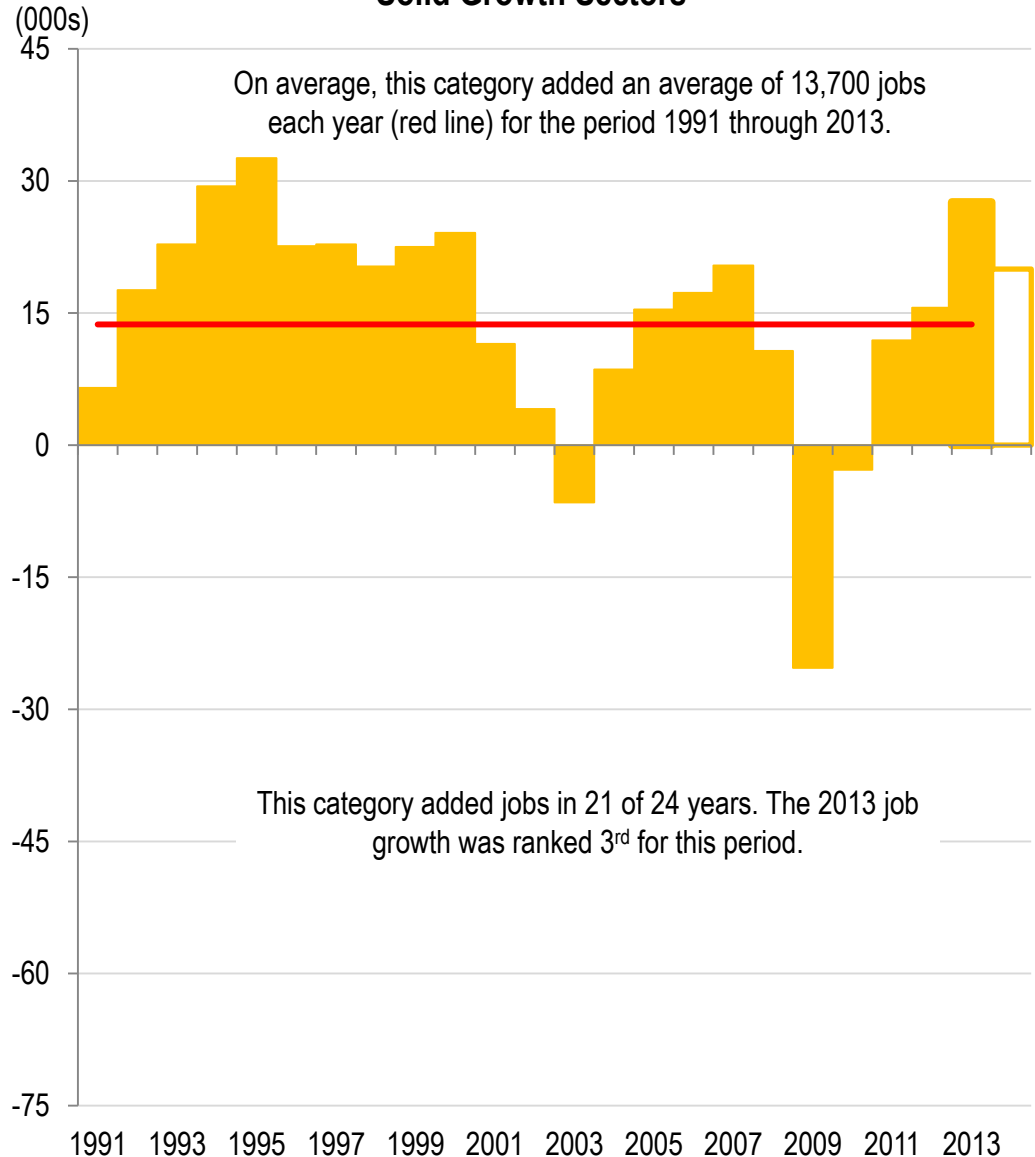
Employment in some of these sectors has remained flat during most of the past decade.

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



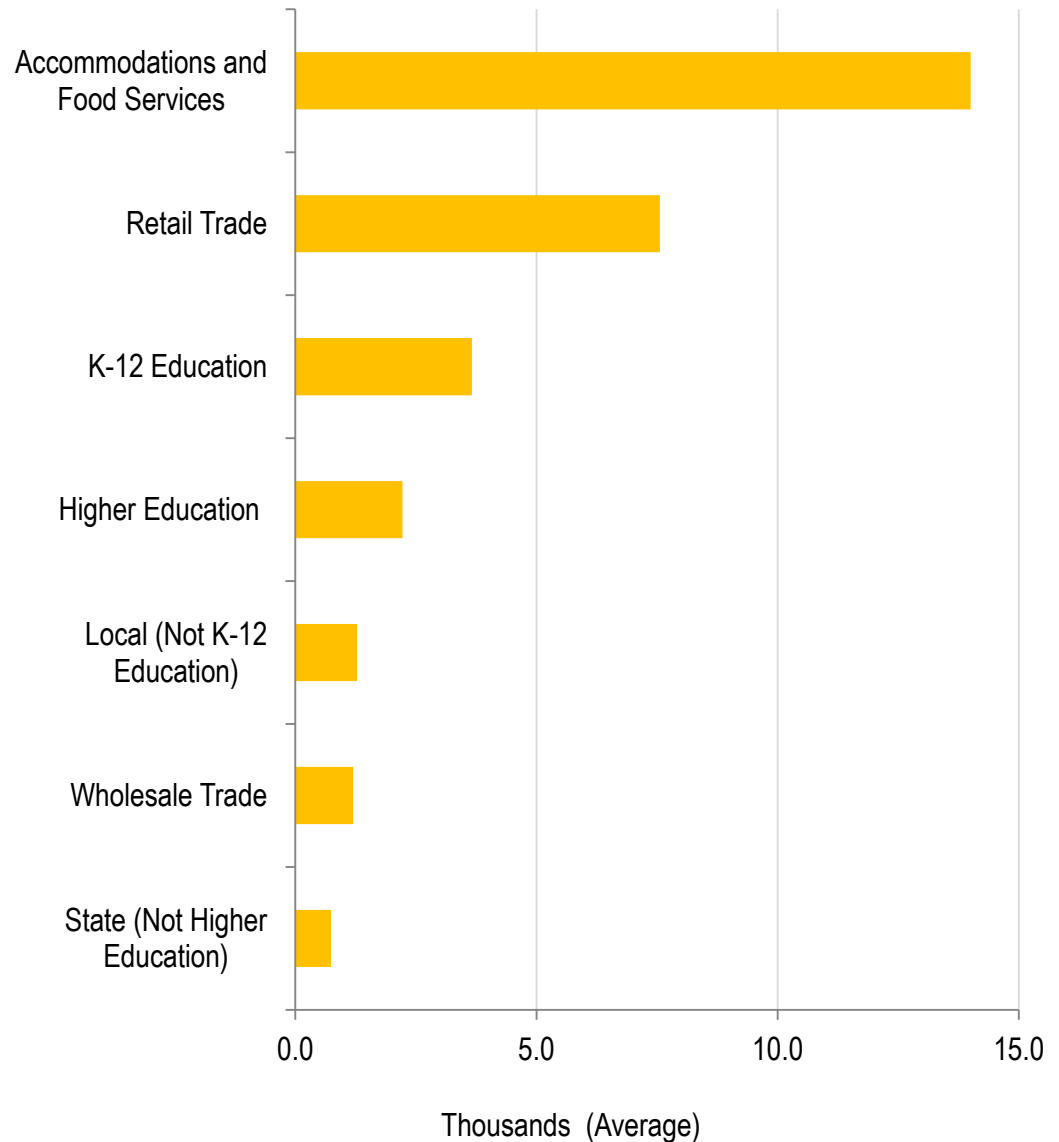
Source: Bureau of Labor Statistics, cber.co.

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## Solid Growth Sectors

- Through May 2014 this group of industries added 30,700 jobs compared to the first 5 months of 2013.
- This category was projected to add 18,000 to 22,000 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.
- A majority of the growth has occurred in the Accommodations and Food Services and Retail Trade sectors. Higher education continues to be a job creation machine.

## Job Change Through Five 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:

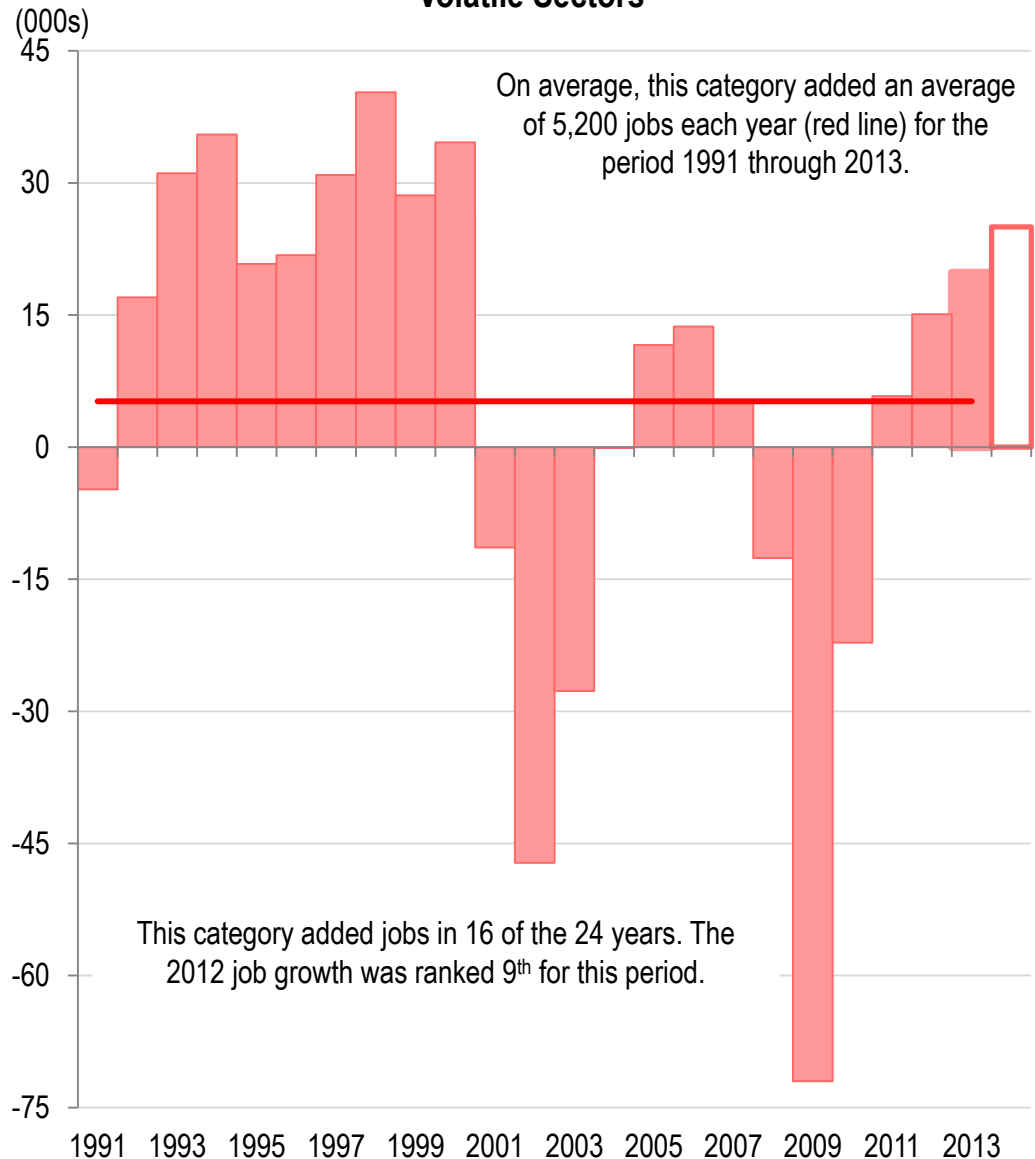
- Natural Resources and Mining
- Construction
- Manufacturing
- Transportation, Warehousing, and Utilities
- Employment Services
- Financial Activities
- Information
- Federal Government

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.

## Volatile Sectors



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

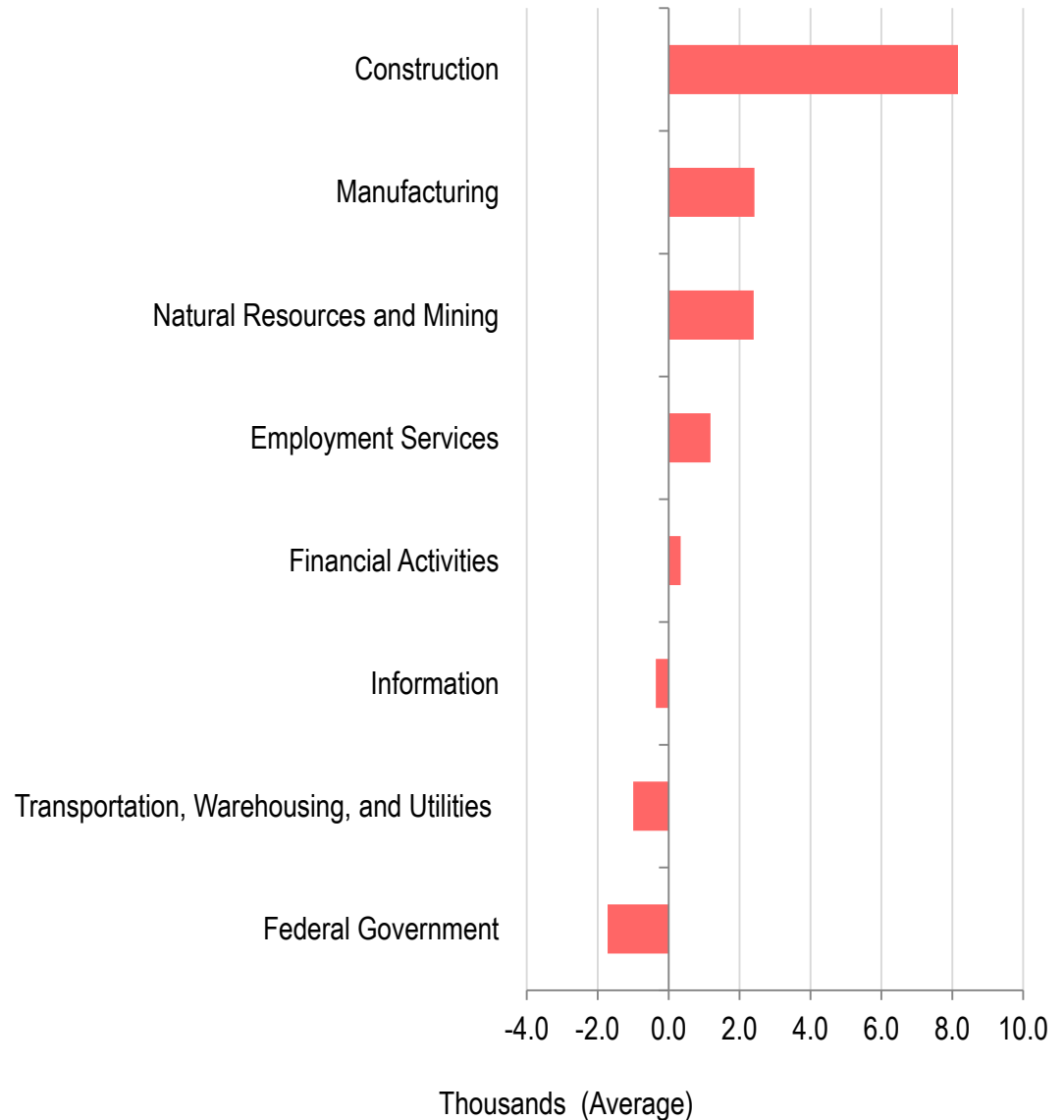
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## ● Volatile Sectors

- Through May 2014 this group of industries added 11,400 jobs compared to the first 5 months of 2013.
- This category was projected to add 23,000 to 27,000 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 leading in job creation, but most other sectors are adding jobs at a slower rate than anticipated.

## Job Change Through Five Months 2013 vs. 2014



Source: Bureau of Labor Statistics.

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## Supporting Colorado's Advanced Industries

Companies in Colorado's advanced industries cross several sectors and provide high paying primary jobs for state residents. They also contribute significantly to the state's output.

For the past four years, OEDIT has supported economic development in the advanced industries. For example, Governor Hickenlooper recently announced the recipients of the latest round of Advanced Industry Accelerator Grants at a press conference at RavenBrick. Twelve organizations received a total of \$1,583,244 in the latest round of funding.

Awards in the proof of concept category benefit university research while early stage and retention grants provide assistance to companies developing or expanding their product line.



Source: Photo by Allyson Horvath.

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# Summary of Job Creation by Performance Category

The cber.co forecast projected the state would add 68,000 to 74,000 jobs in 2014. At the end of May, 67,100 jobs have been added compared to the first 5 months of 2013. The current CES data shows that jobs are being added at a level slightly less than the bottom of the cber.co projected range.

- Job growth for the **Strong Growth** category was at the bottom of the projected range. Health care; Professional, Scientific, and Technical Services, and B-to-B (excluding employment services) were the top sources of job gains.
- The **Solid Growth** category added more jobs than expected, especially in Accommodations and Food Services and Retail Trade.
- The growth of the **Volatile** category was much weaker than anticipated. Construction was the leading contributor to job growth in this category.
- On a positive note, a portion of the jobs in the Strong Growth category pay higher than average wages.
- Growth in all categories may be impacted by shortages in key occupations.
- The U.S. economy will show stronger growth in Q2 and remain solid through the end of the year.
- It is likely the state will add at least 74,000 jobs in 2014, 3.1%, after the BLS revises the data to account for current growth that is not being captured by the CES data.

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



# Total Jobs Added

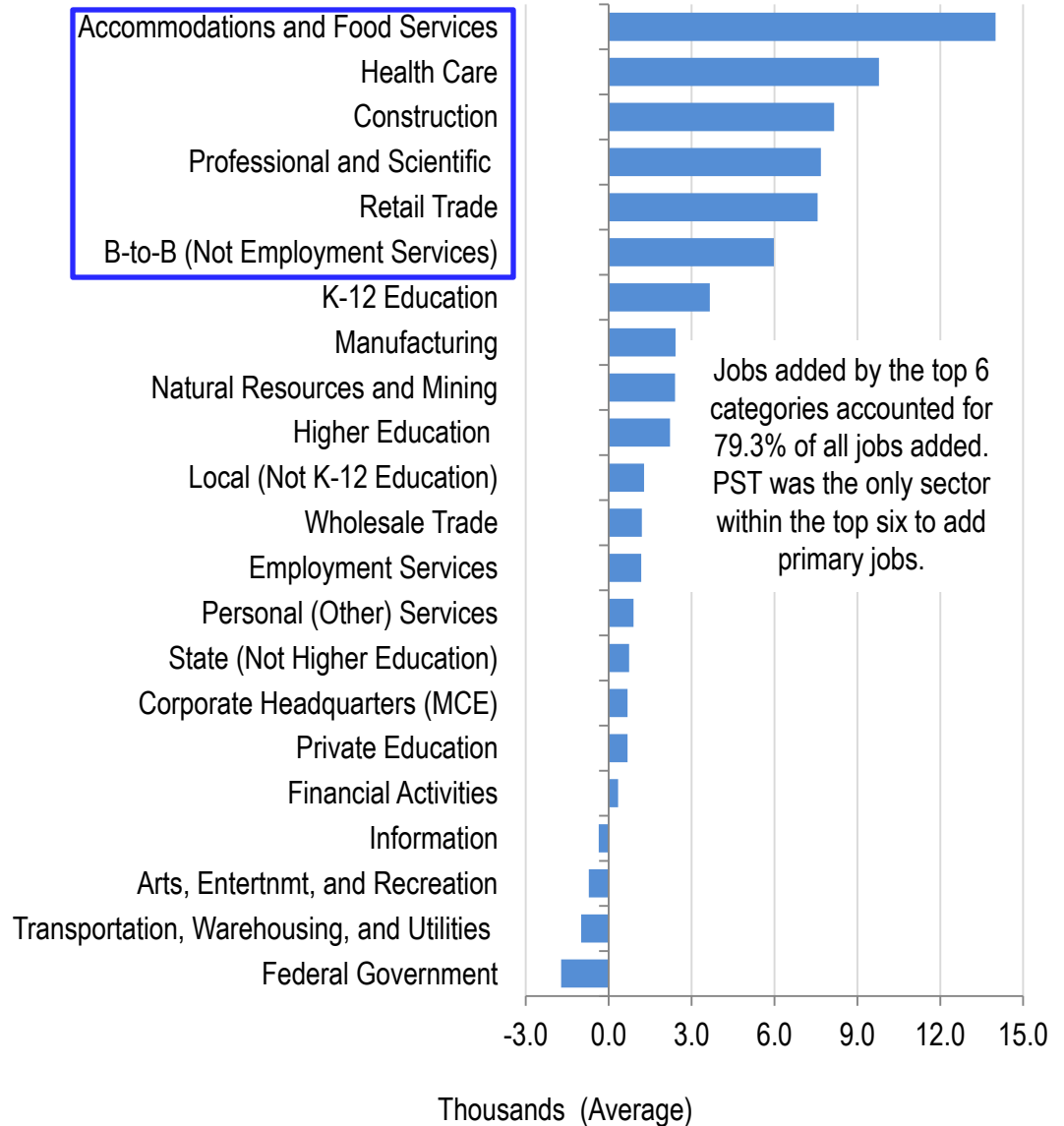
## Change in Employment for All Sectors - First Five Months of 2014 vs. the Same Period in 2013

There were 67,100 more jobs in the first five months of 2014 than the same period in 2013, an increase of 2.9%.

- Growth was led by Accommodations and Food Services (AFS); Health Care, Construction and Professional, Scientific, and Technical Services (PST).

- Professional Business Services was the Super Sector that added the highest number of jobs (15,500), followed by Tourism (13,300).

### Job Change Through 5 Months 2013 vs. 2014



Source: Bureau of Labor Statistics.

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## Summary of Job Growth for Colorado MSAs - First 5 Months of 2013 v 2014

The Northern Colorado MSAs had the highest rate of job growth for the first five months of 2014 compared to the same period in 2013. The rates of growth were:

- Greeley 5.4%
- Fort Collins 3.5%
- Boulder 3.1%
- Denver 2.8%
- Pueblo 2.1%
- Grand Junction 1.4%
- Colorado Springs 1.2%

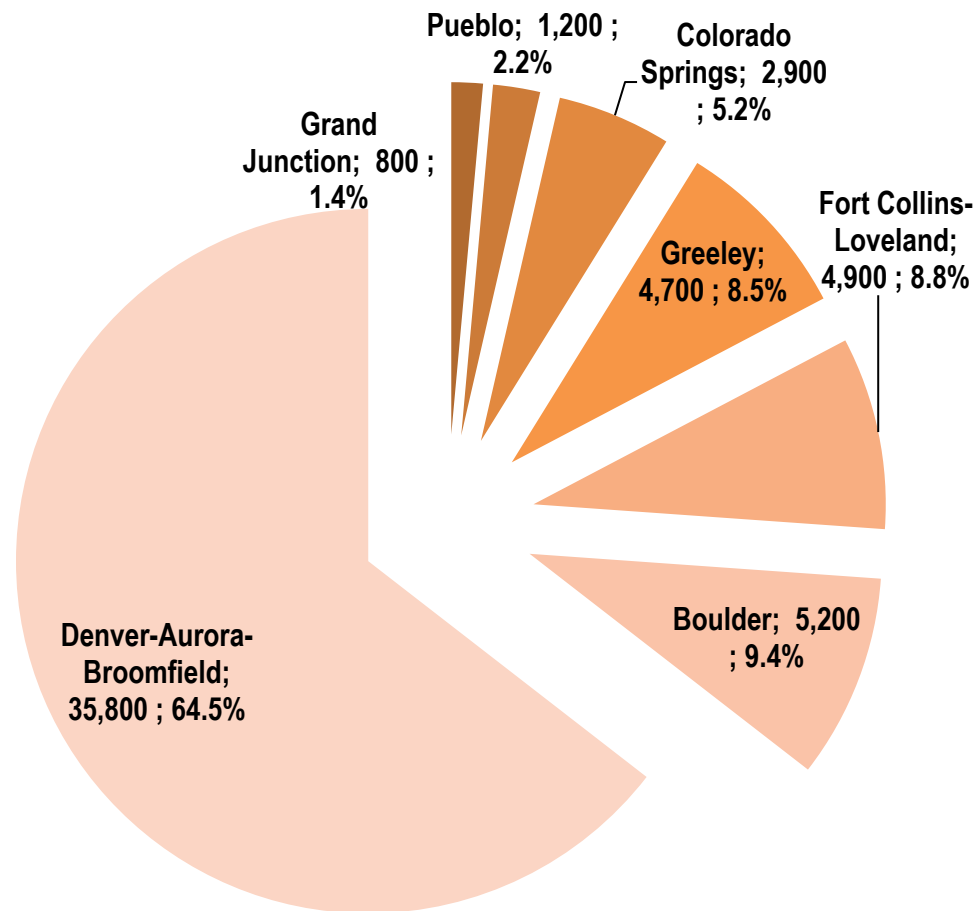
The rate of growth for the state was 2.9%.

As expected Denver added 64.5% of the jobs, followed by Boulder, at 9.4%.

Combined, the Northern Colorado MSAs added 17.3% of all jobs.

Note: This chart includes MSAs only. They accounted for about 83% of total job growth in the state for this period.

## Job Growth and Percent Growth



Source: Bureau of Labor Statistics.

## Colorado Employment The Lost Decade and Beyond

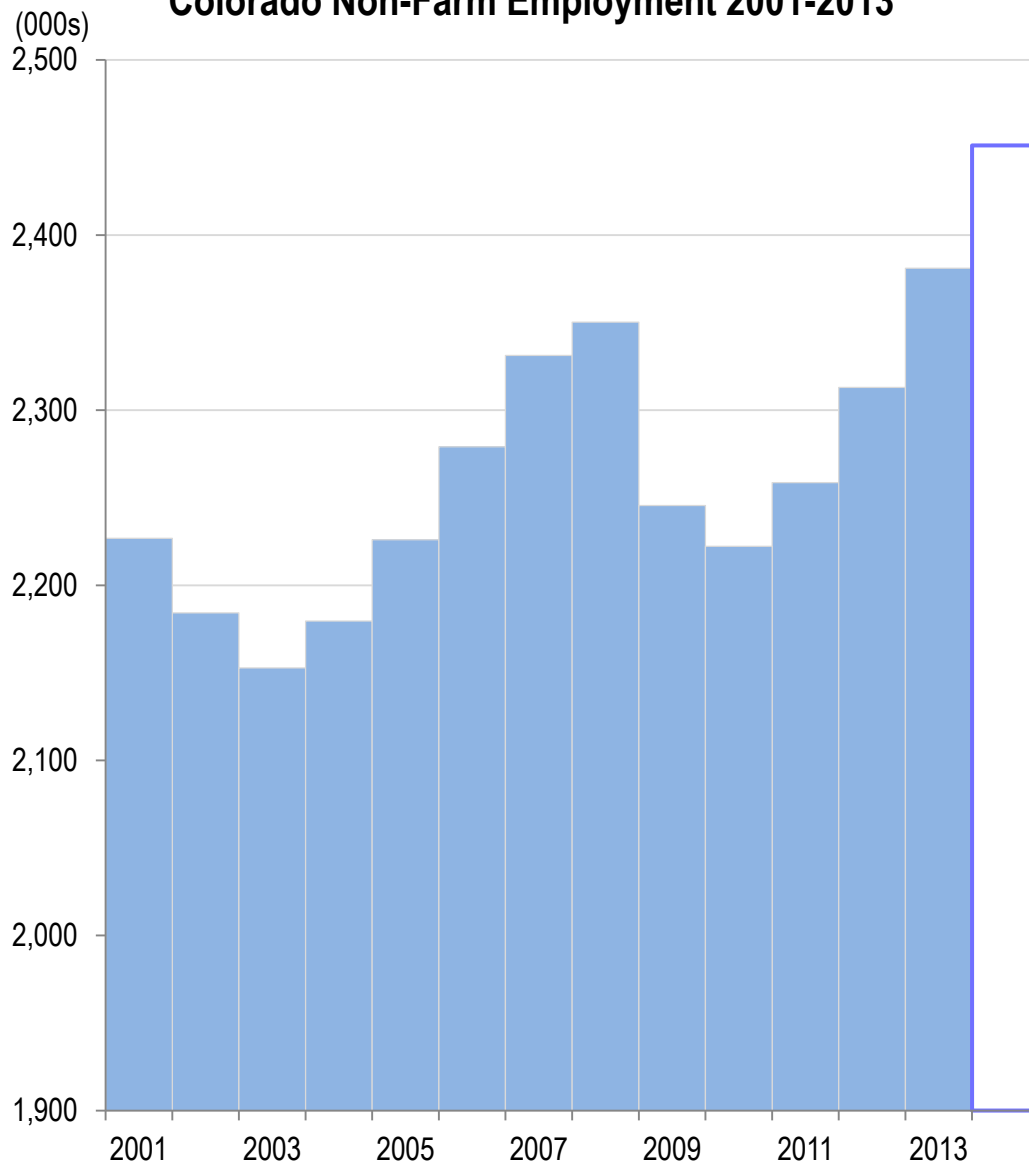
Colorado employment declined in 2009 and 2010. After that, the state added:

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

The number of jobs added has increased in each of these 3 years.

Between 68,000 and 74,000 jobs are expected to be added in 2014. Given the performance of the state and the U.S. through five months, it is likely Colorado will add more than 74,000 jobs this year after BLS revisions are made in March 2015.

### Colorado Non-Farm Employment 2001-2013



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

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# Summary of Colorado Economy Through May 2014

## On One Hand...

- Colorado real GDP for 2013 grew at a faster rate than 2012 (3.8% vs. 3.0%), while the U.S. real GDP expanded at a slower rate (2.5% vs. 1.8%). The extractive industries, real estate, and agriculture accounted for more than half the growth in output in 2013. This growth in output is driving job creation in other sectors.
- Through the first five months of 2014, CES employment is 67,100 jobs greater than the same period in 2013. It is likely the BLS will make significant revisions to the CES data in March 2015 and more than 74,000 jobs will be added this year.
- Northern Colorado and Boulder continue to be the hot spots for growth.

## On the Other Hand...

- CPI data showed that Colorado inflation is about twice that of the U.S. High inflation in housing, medical, and energy costs could be a drag on future growth of the state.
- At the moment there is calm on the political front; however, some of the election races are likely to become contentious. It is unlikely the elections will have a short-term impact on the state economy.
- Information, manufacturing, and financial activities are adding fewer jobs than projected.



## Review of the Colorado Economy Analysis of First Five 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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# 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.

# Contribution to GDP – U.S.

U.S. Sector	Dollar amount of contribution to change in output (millions)	Percent of contribution to change in output
Real estate and rental and leasing	\$ 84,219	15.0%
Agriculture, forestry, fishing, and hunting	\$ 67,961	12.1%
Health care and social assistance	\$ 43,532	7.8%
Finance and insurance	\$ 36,441	6.5%
Wholesale trade	\$ 35,991	6.4%
Professional, scientific, and technical services	\$ 31,939	5.7%
Durable goods manufacturing	\$ 31,129	5.6%
Construction	\$ 30,301	5.4%
Retail trade	\$ 28,453	5.1%
Information	\$ 25,638	4.6%
Accommodation and food services	\$ 20,822	3.7%
Management of companies and enterprises	\$ 20,205	3.6%
Mining	\$ 19,696	3.5%
Transportation and warehousing	\$ 18,620	3.3%
Administrative and waste management services	\$ 15,954	2.8%
Nondurable goods manufacturing	\$ 14,056	2.5%
Utilities	\$ 11,920	2.1%
Other services, except government	\$ 8,616	1.5%
Arts, entertainment, and recreation	\$ 5,233	0.9%
Educational services	\$ 4,785	0.9%
Government	\$ 4,752	0.8%
Total	\$560,263	100.0%
Source: BEA		

Source: Bureau of Economic Analysis.

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# Contribution to GDP – Colorado

Colorado Sector	Dollar amount of contribution to change in output (millions)	Percent of contribution to change in output
Mining	\$5,029	31.6%
Real estate and rental and leasing	\$2,229	14.0%
Professional, scientific, and technical services	\$1,468	9.2%
Agriculture, forestry, fishing, and hunting	\$1,139	7.2%
Construction	\$1,082	6.8%
Government	\$978	6.2%
Finance and insurance	\$968	6.1%
Wholesale trade	\$748	4.7%
Transportation and warehousing	\$641	4.0%
Retail trade	\$549	3.5%
Accommodation and food services	\$544	3.4%
Health care and social assistance	\$429	2.7%
Information	\$196	1.2%
Nondurable goods manufacturing	\$175	1.1%
Other services, except government	\$156	1.0%
Durable goods manufacturing	\$147	0.9%
Arts, entertainment, and recreation	\$145	0.9%
Educational services	\$77	0.5%
Administrative and waste management services	\$-42	-0.3%
Management of companies and enterprises	\$-370	-2.3%
Utilities	\$-395	-2.5%
Total	\$15,892	100.0%
Source: BEA		

Source: Bureau of Economic Analysis.

Colorado-based Business and Economic Research

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