



Review of the Colorado Economy Analysis of First Half of 2014

Colorado-based Business and Economic Research

July 22, 2014



Overview

On average Colorado has added 67,000 jobs through the first six 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 half 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 78.0% of job growth. About 82.4% 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.
- Total Jobs Added.
- Appendix.



U.S. Economy

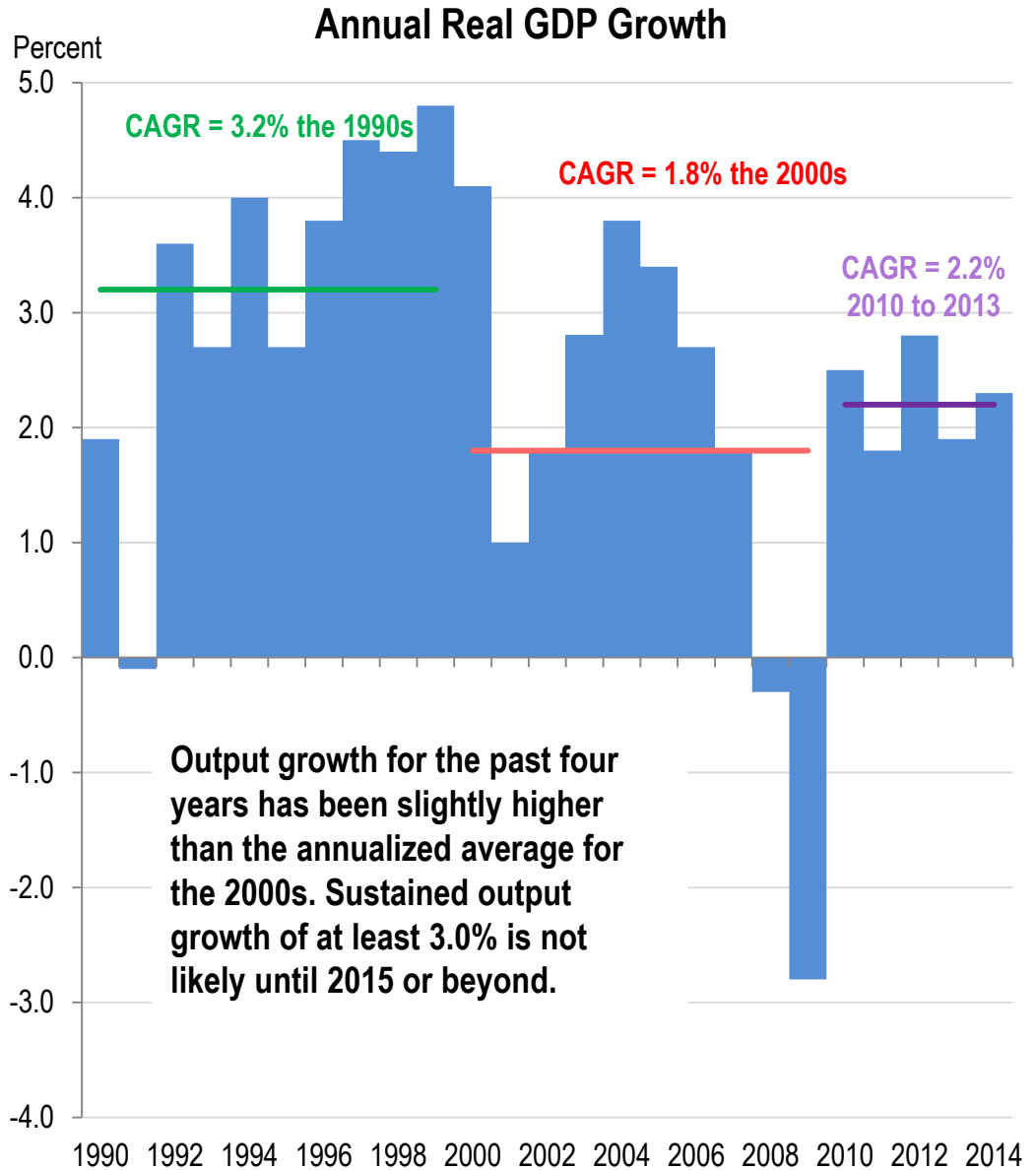
Real US GDP Growth

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%.

Real GDP **declined** at an annualized rate of -2.9% for Q1. Government spending declined, there was a drop in the purchase of business equipment, U.S. net exports declined, and businesses reduced the rate of their inventory growth. Q2 output growth is expected to be at least 3.5%.

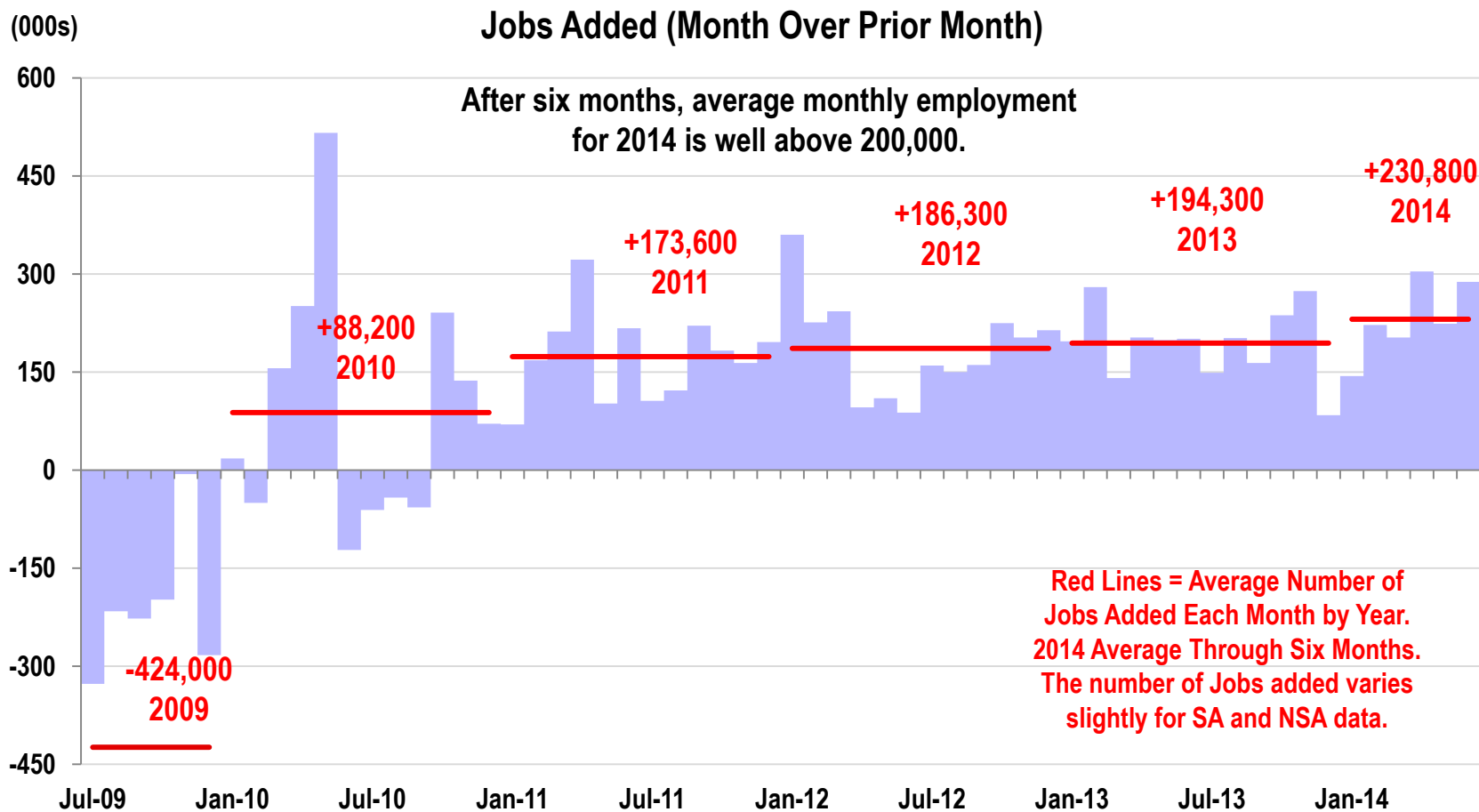


Source: Bureau of Economic Analysis, cber.co, Note GDP chained on 2009.

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U.S. Employment Situation

From End of Recession to Current



Source: Bureau of Labor Statistics, SA.

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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 has 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 June 2014, the unemployment rate (blue) was 6.1%.

At the end of June the total number of unemployed (red) was below 9.5 million.

The June 2014 ending total is 2.7 million above the low point in 2007 and 5.9 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 steadily. 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 62.8%. It appears that it may have bottomed out at that level.

While there is debate about the reason for the 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.

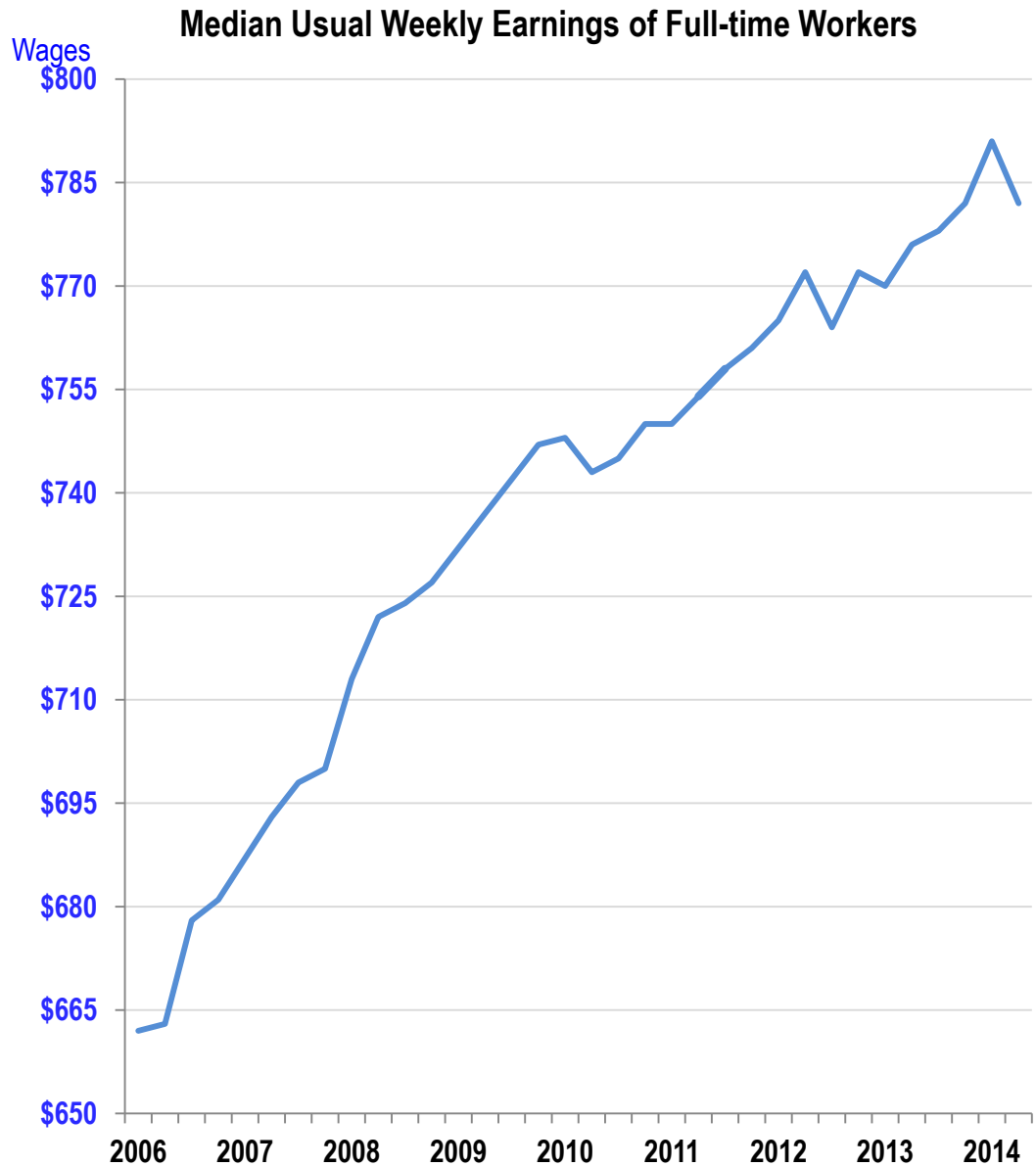
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● Median usual weekly earnings of full-time wage and salary workers by sex, quarterly averages, seasonally adjusted

Median usual weekly earnings of the nation's 106.6 million full-time wage and salary workers were \$782 in Q2 2014 compared to \$776 in Q2 2013.

When inflation is accounted for (2.1% CPI), this wage rate represents a slight decline in wages. Real wage growth may impact the rate of job and output growth in 2014.

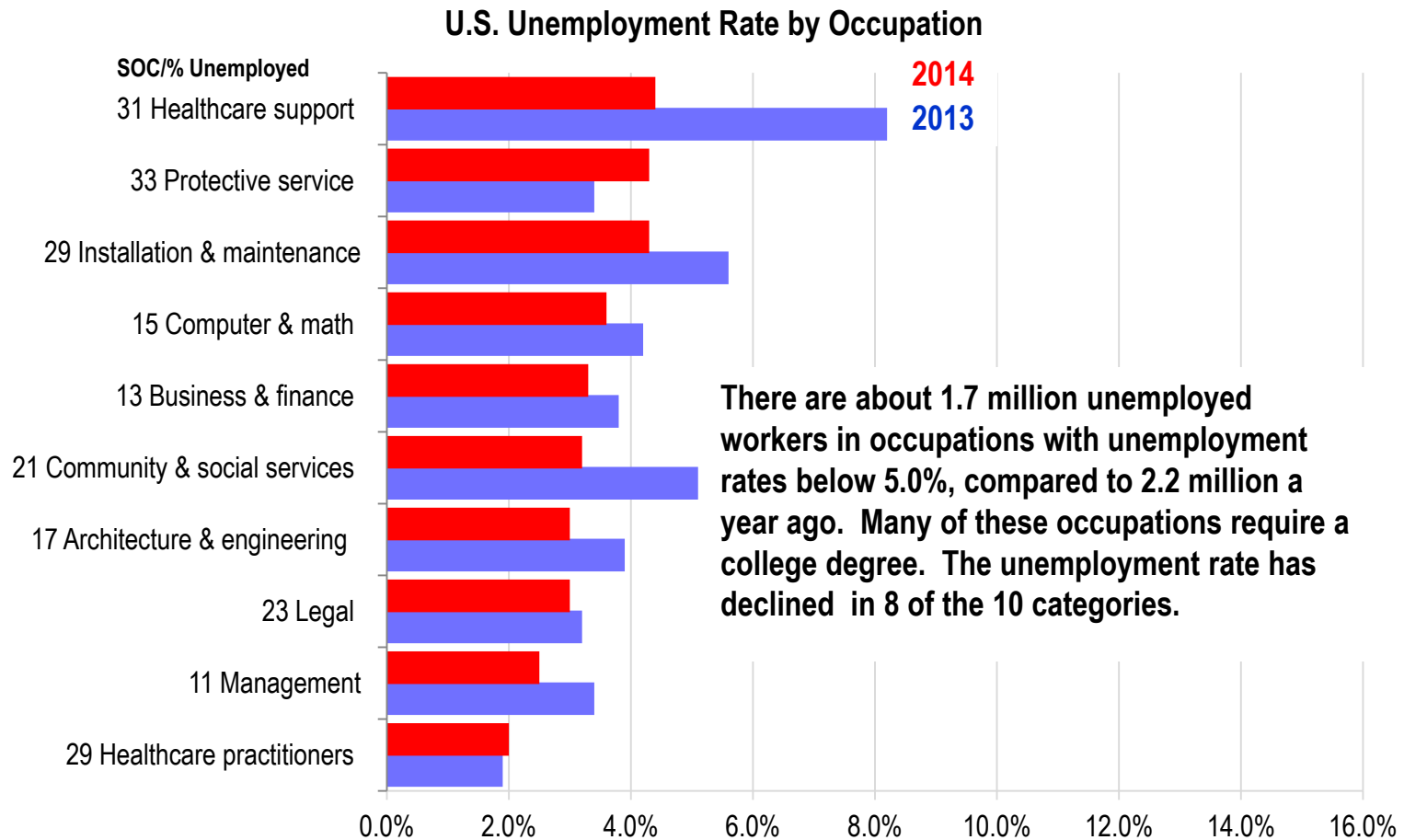


Source: Bureau of Labor Statistics, NSA, Table 1 Median usual weekly earnings.

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- U.S. Occupations with Unemployment Rates
- Below the Natural Rate (5.0%) of Unemployment
- June 2014 vs. June 2013 – Sorted by 2014 (red)



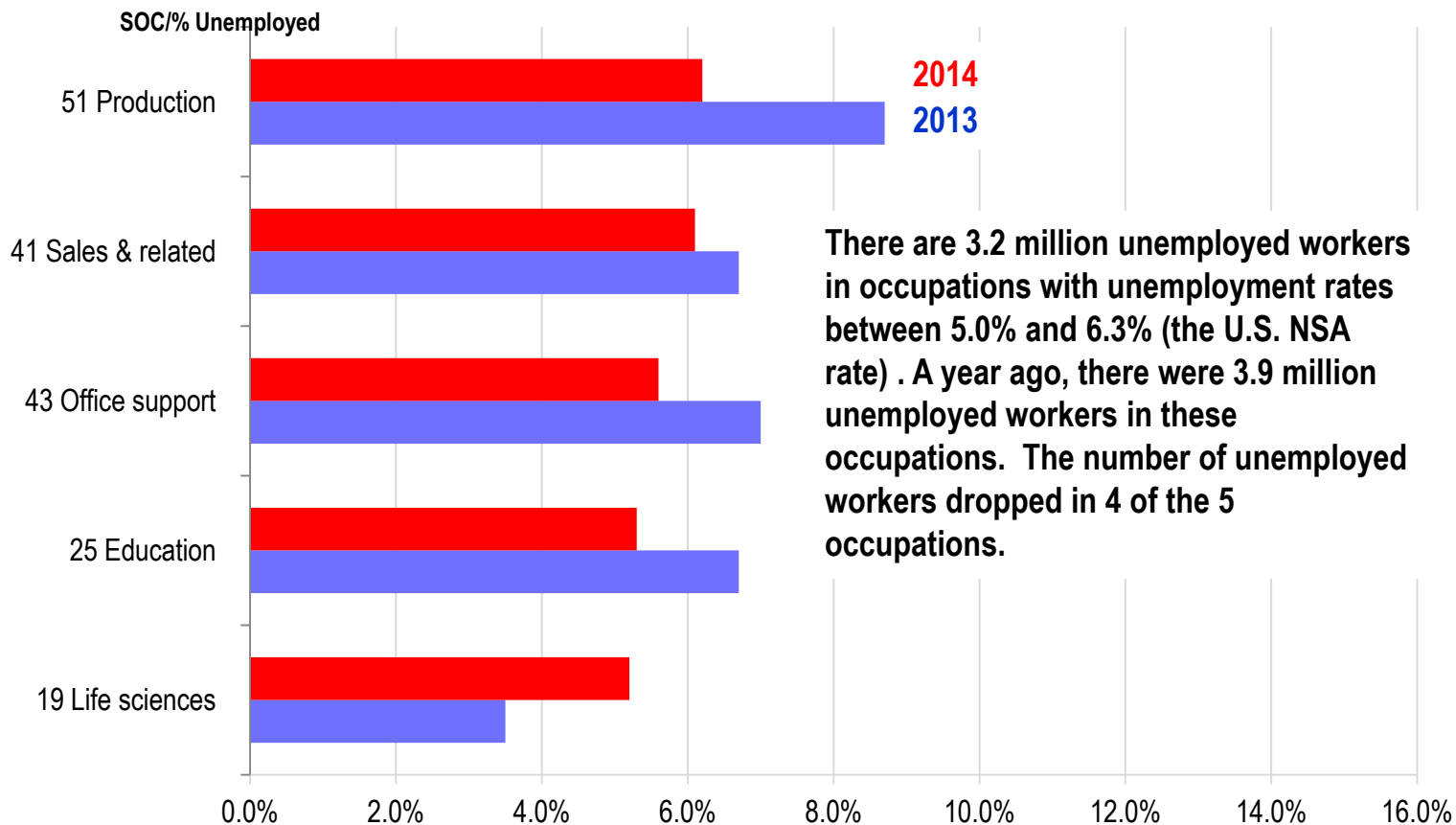
Source: Bureau of Labor Statistics, A-30.

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- U.S. Occupations with Unemployment Rates Between
- 5.0% and 6.3% (U.S. NSA Rate)
- June 2014 vs. June 2013 – Sorted by 2014 (red)

U.S. Unemployment Rate by Occupation

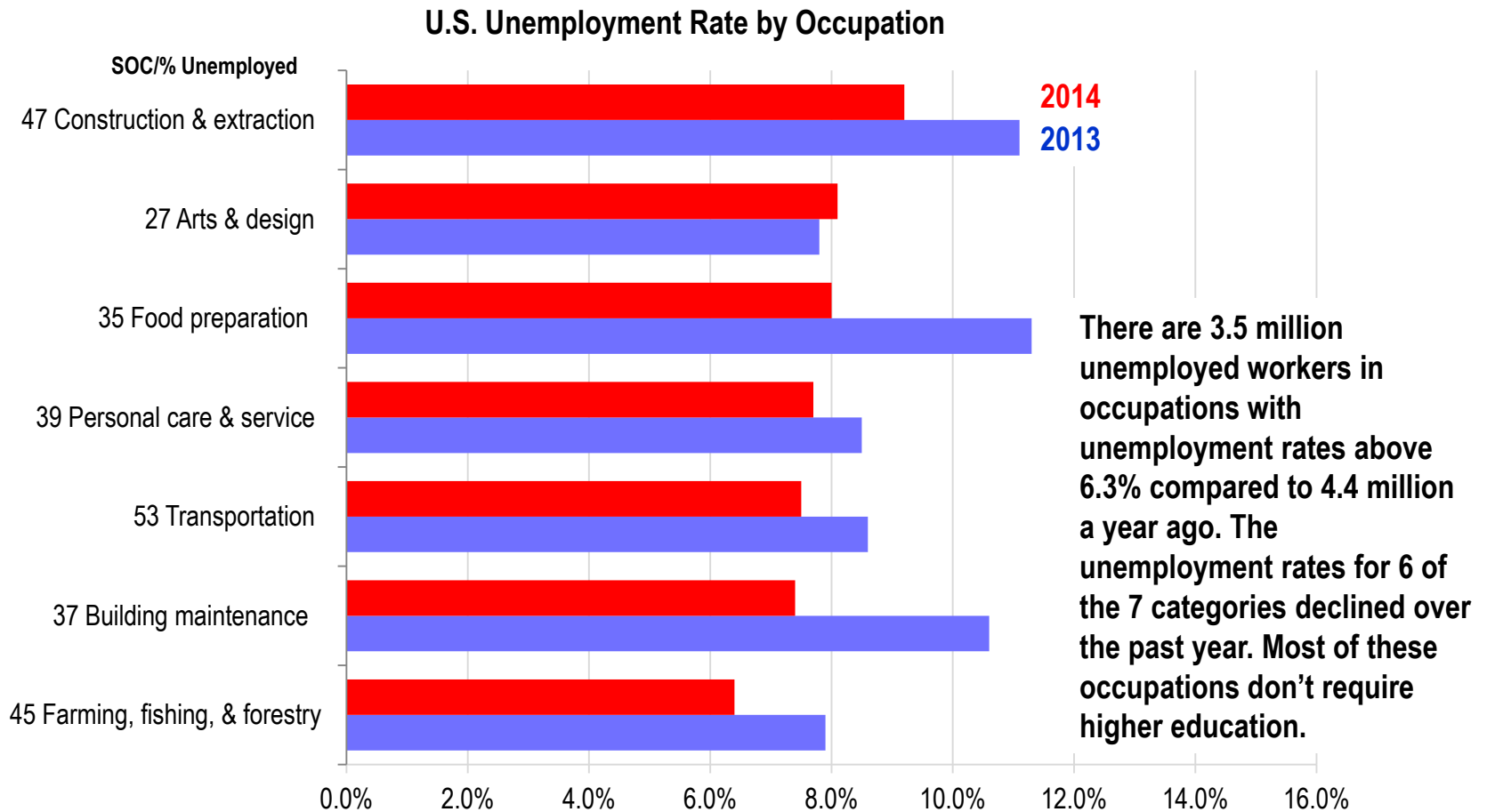


Source: Bureau of Labor Statistics, A-30.

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- U.S. Occupations with Unemployment Rates above 6.3%
- June 2014 vs. June 2013 – Sorted by 2014 (red)



Source: Bureau of Labor Statistics, A-30.

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Occupations Unemployment Summary

The NSA unemployment rate has declined from 7.8% in June 2013 to 6.3% in June 2014. For this period the number of unemployed has fallen from 12.2 million to 9.9 million, a decrease of 2.3 million.

In June 2014 the 9.9 million unemployed workers could be classified in the following categories:

- 1.7 million in occupations with rates below 5.0%. The rates of unemployment for these 10 occupations ranged from 2.2% to 4.4%. Many of these occupations require higher education training.
- 3.2 million in occupations with rates between 5.0% and 6.3%. The rates of unemployment for these 5 occupations ranged from 5.2% to 6.2%.
- 3.5 million in occupations with rates above 6.3%. The rates of unemployment for these 7 occupations ranged from 6.4% to 9.2%. Many of these occupations do not require higher education training.
- 1.5 million had no previous work experience, i.e. they could not be classified by previous occupation.

Eighteen of the 22 occupations had lower unemployment rates in June 2014 than the prior year. The exceptions are:

- Protective services
- Healthcare practitioners
- Life sciences
- Arts and design

Nineteen of the 22 occupations have lower levels of unemployment in June 2014 than the prior year. The exceptions are:

- Protective services
- Healthcare practitioners
- Arts and design

A number of occupations are beginning to experience labor shortages!

Summary of U.S. Economy Through June 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.

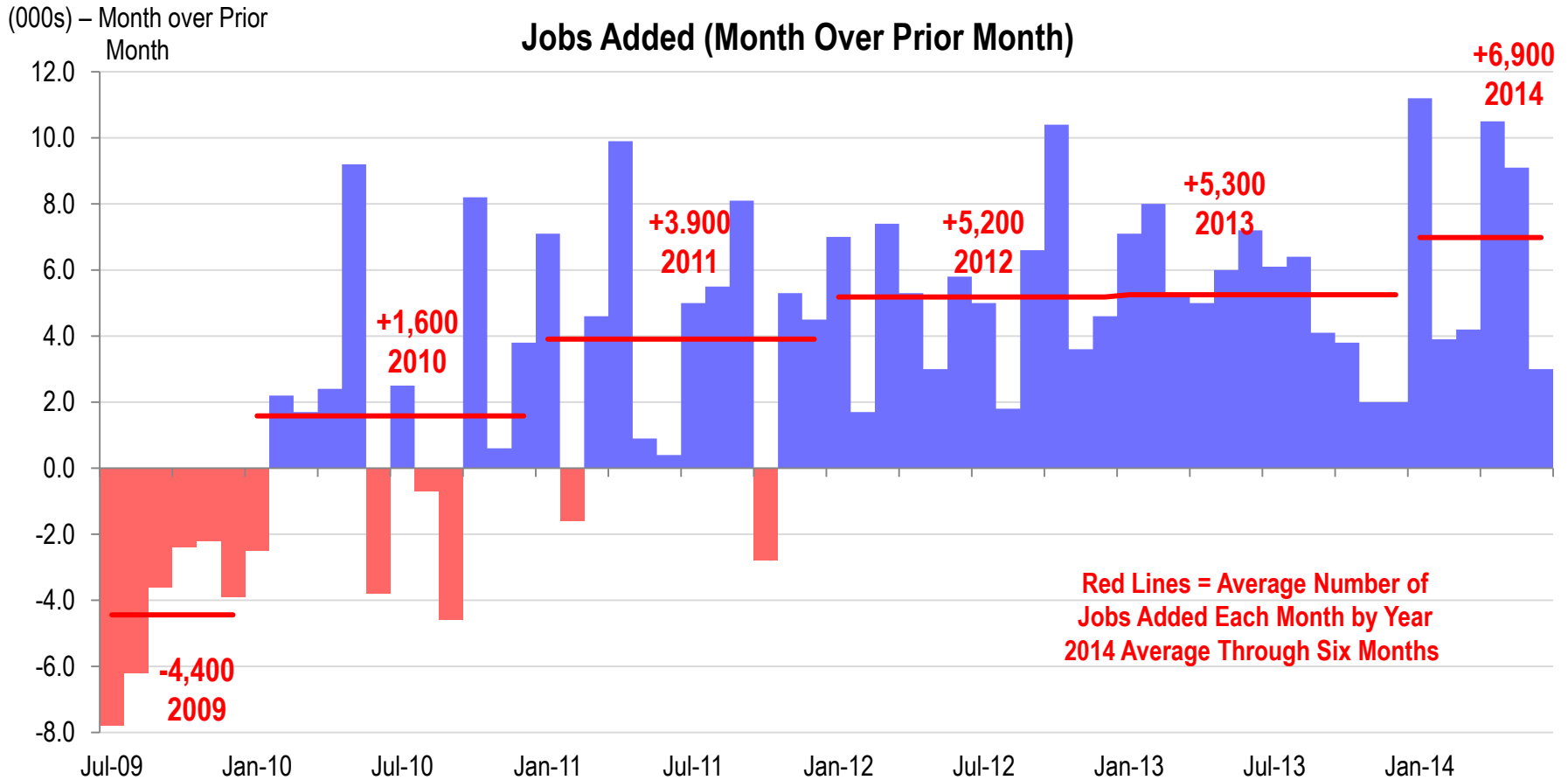
- Employment and output growth are projected to be solid for the remainder of the year. Consumers remain optimistic, although retail sales have been volatile. Spending is expected to be stronger in the second half of 2014.
- The unemployment rate and the number of unemployed continue to trend downward; however, the number of unemployed is a source of concern.
- The growth of the economy may be slowed if weak wage growth continues.
- Critical labor shortages are developing in many occupations. Workers are being raided from other companies and industries, which will ultimately drive wages up.
- 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; however, the rate of growth for equity markets is slower than 2013.
- Housing starts and will continue to increase as a result of household formation from students and millennials moving out of their parents' basements. Through the first half of 2014, the construction market has not met expectations.
- Housing prices will continue to show moderate gains.
- Manufacturing will continue to see uneven growth. Capital spending is likely to pick up in the second half of the year, which may drive stronger manufacturing growth.
- Tension in the Ukraine and Gaza strip may have short term impacts on the economy.
- The midterm elections will be competitive in many states. They have the potential to be contentious in some states, including Colorado.



Colorado Employment and Unemployment

Colorado Employment Situation

From End of Great Recession Through June 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.

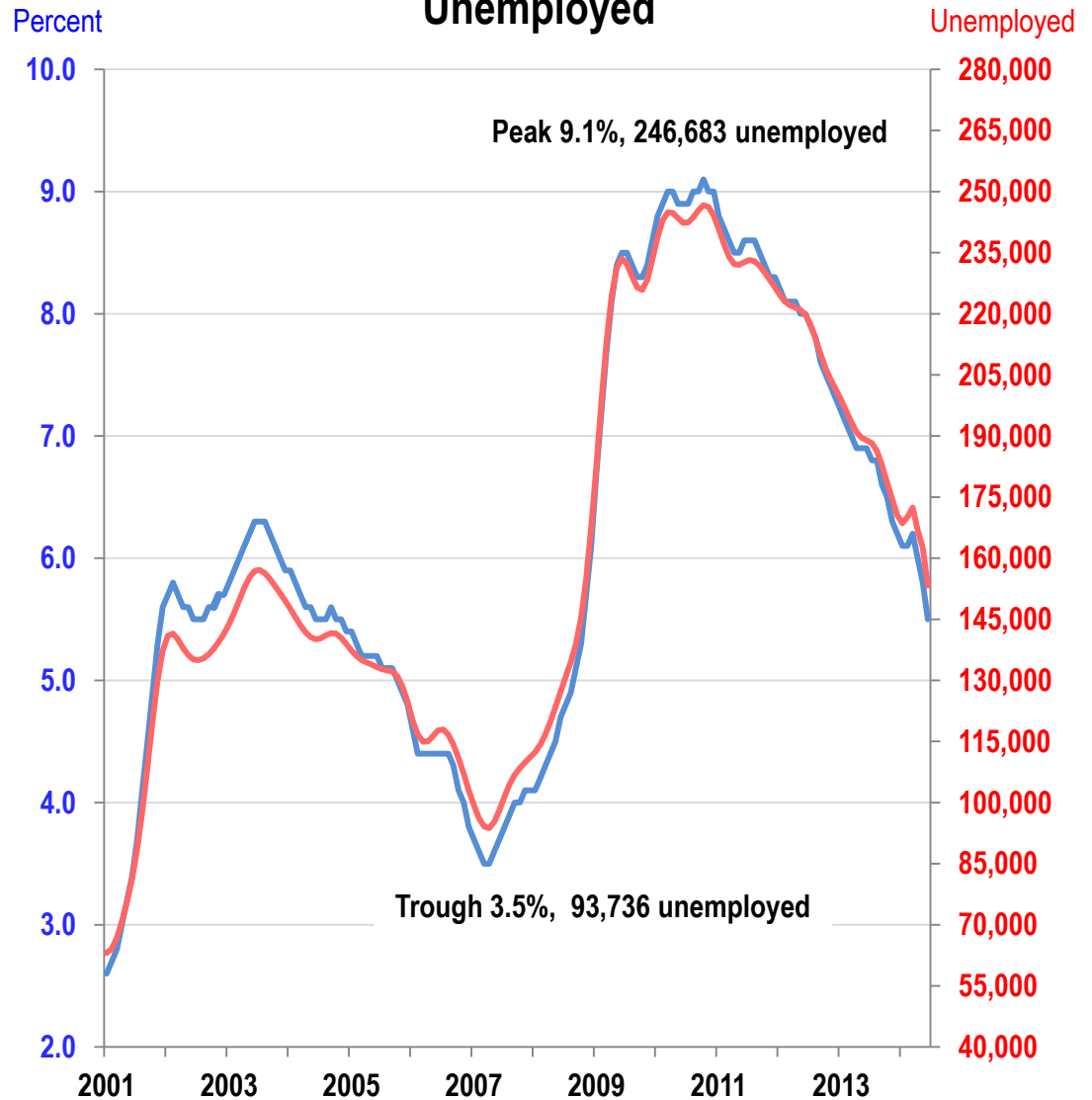
- The unemployment rate continues to trend downwards.
- The number of unemployed has slowly trended downward since peaking in late 2010.
- Despite an unemployment rate of 5.5%, there is a shortage of trained workers in key sectors and occupations.

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 93,402.

At the end of June 2014, the unemployment rate (blue) was 5.5%, down from 6.9% at the end of June 2013. The state June-ending rate was lower than the U.S. June-ending rate of 6.1%.

In June 2014, the total number of unemployed workers (red) declined to about 153,281. The total number of unemployed is almost 56,545 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 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 six 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.

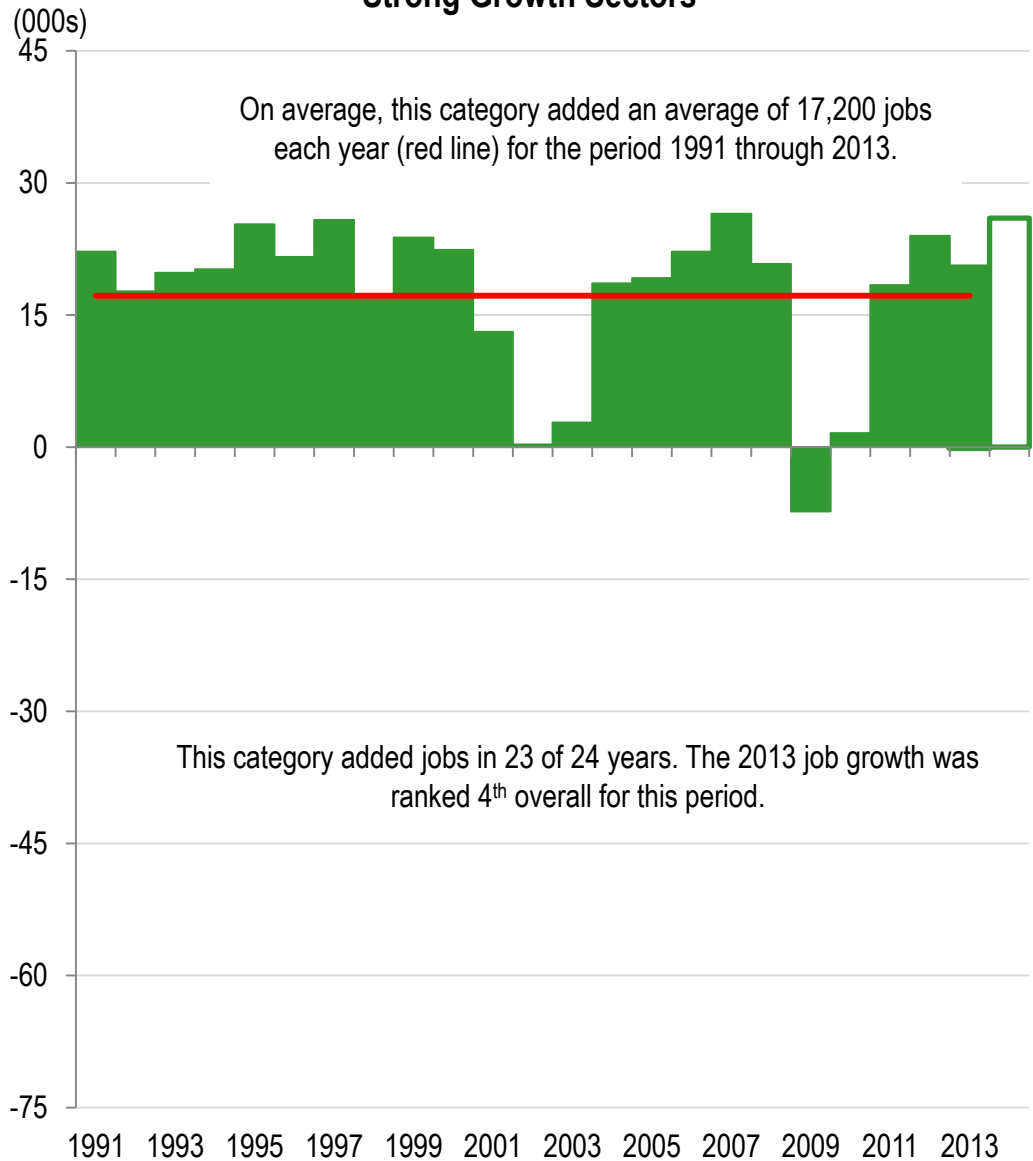
Total employment for this category was:

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



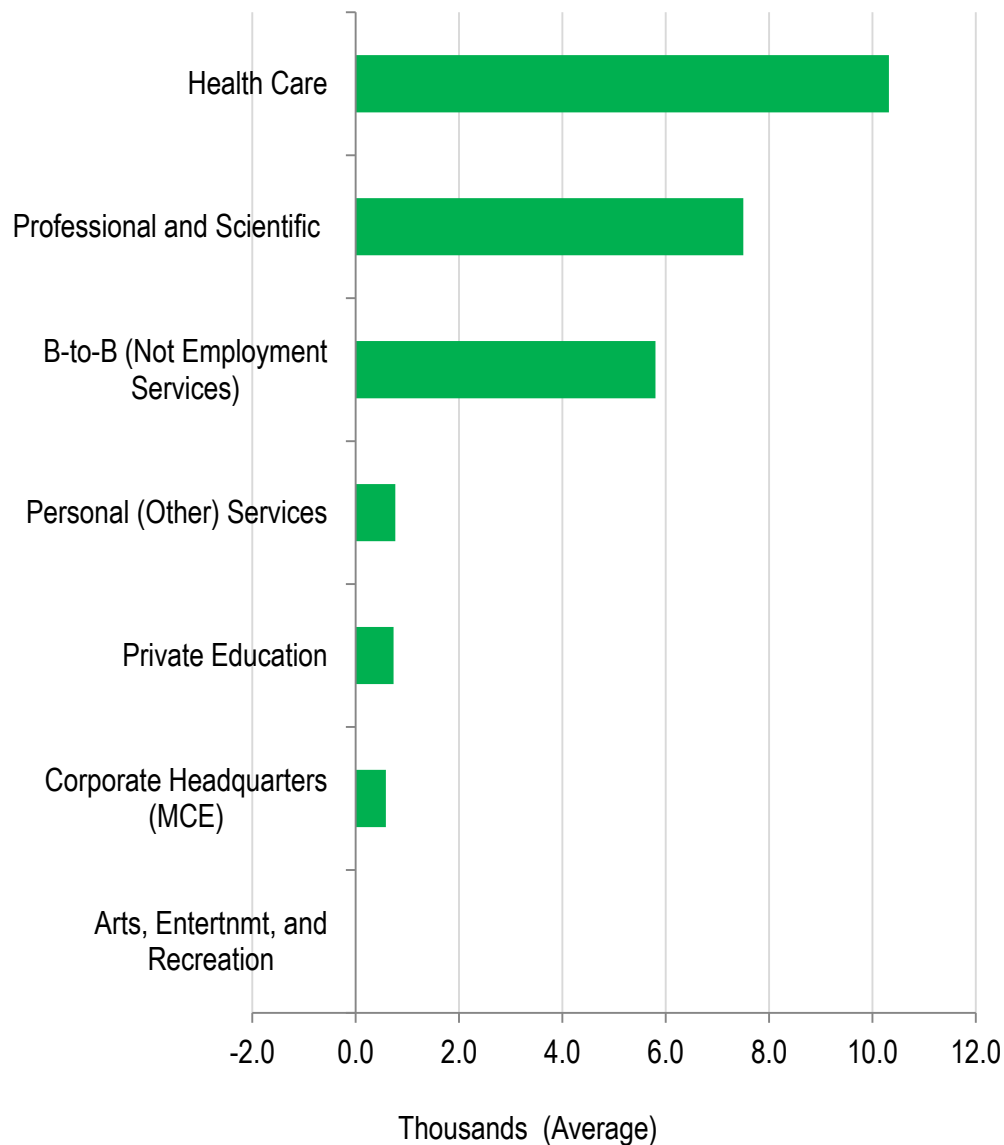
Source: Bureau of Labor Statistics, cber.co.

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Solid Growth Sectors

- Through the first half of 2014 this group of industries added 25,700 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 slightly below 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 six 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 Six 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

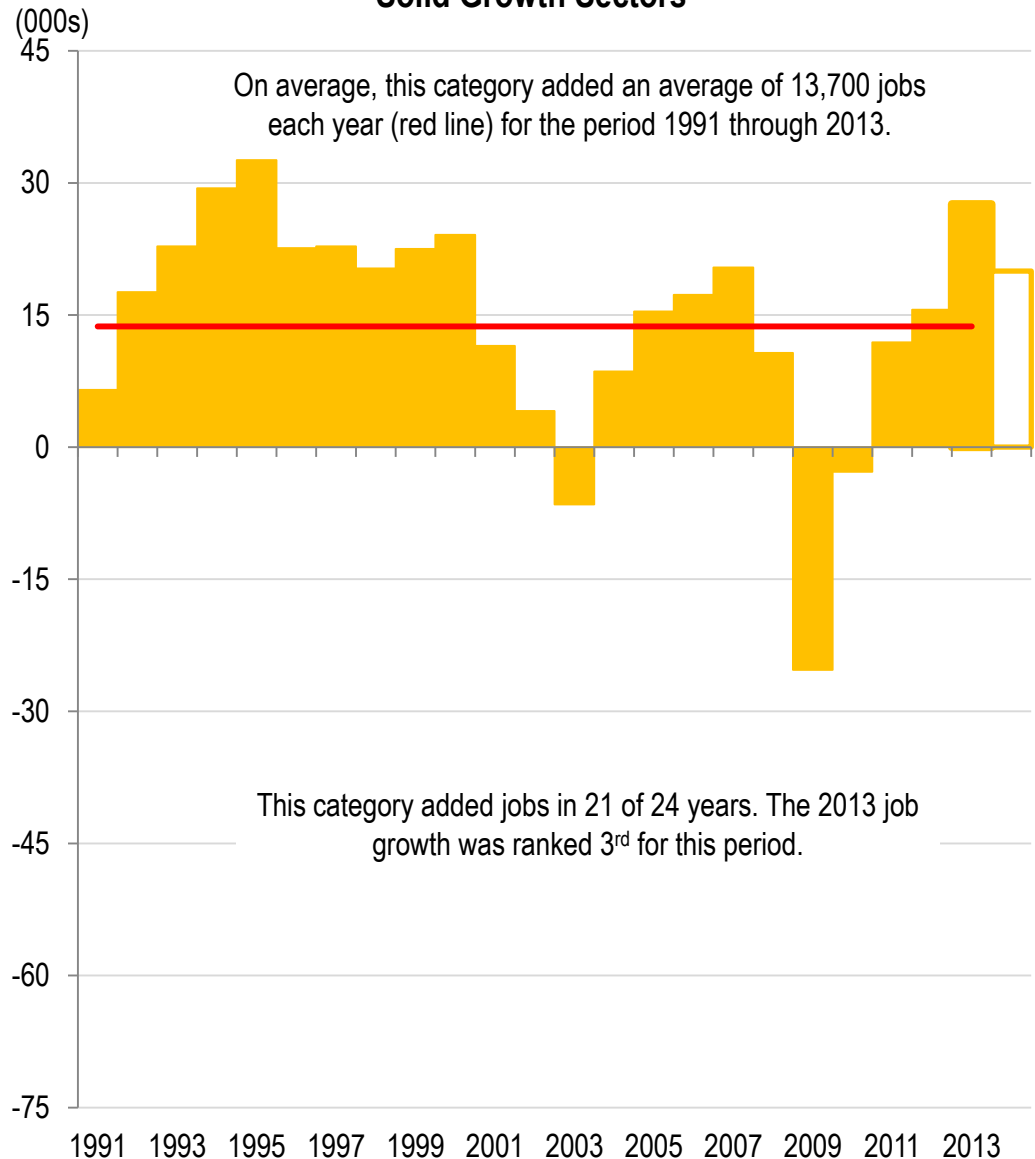
Employment in some of these sectors has remained flat during most of the past decade.

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



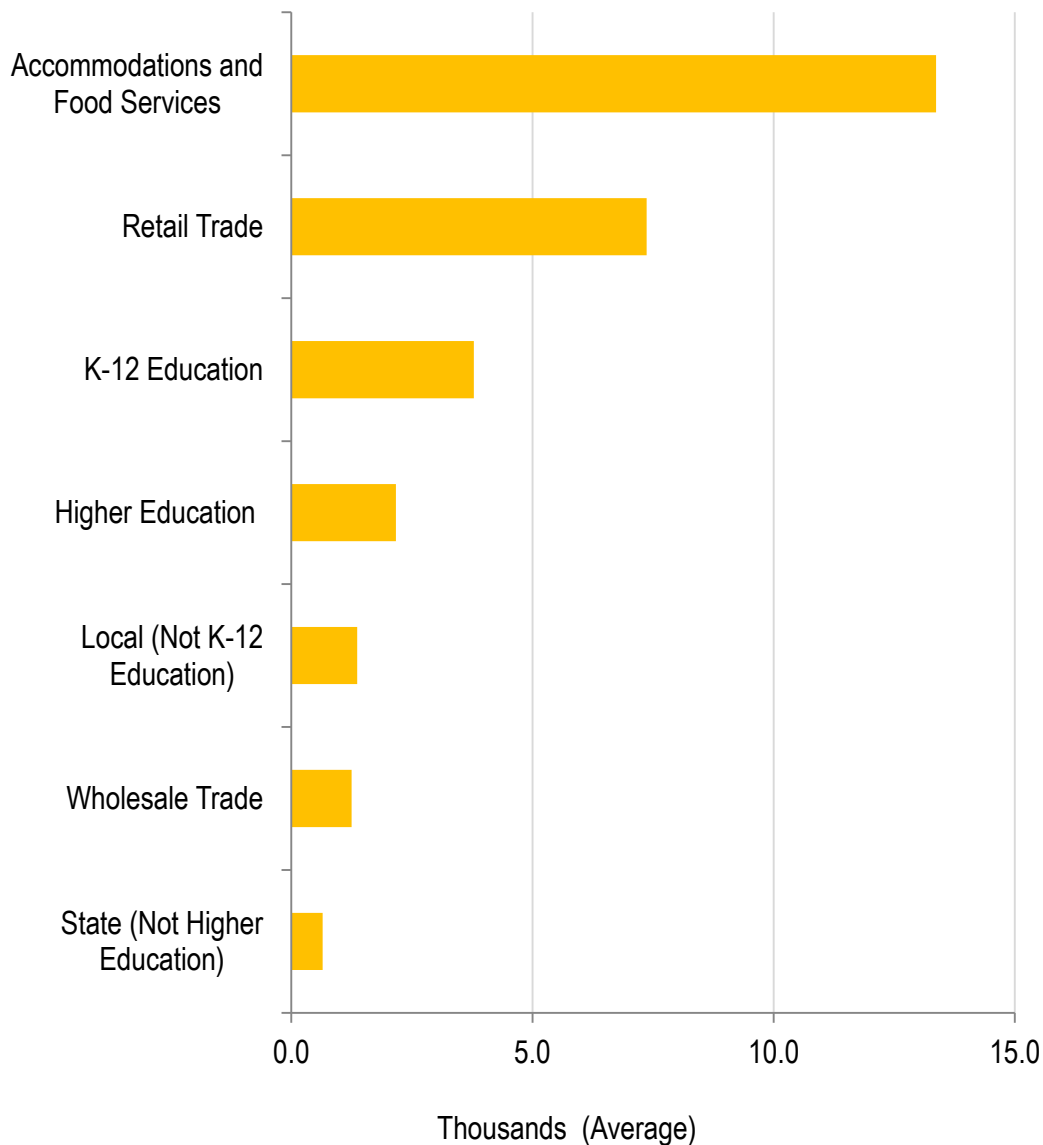
Source: Bureau of Labor Statistics, cber.co.

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Solid Growth Sectors

- Through June 2014 this group of industries added 30,000 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 Six 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:

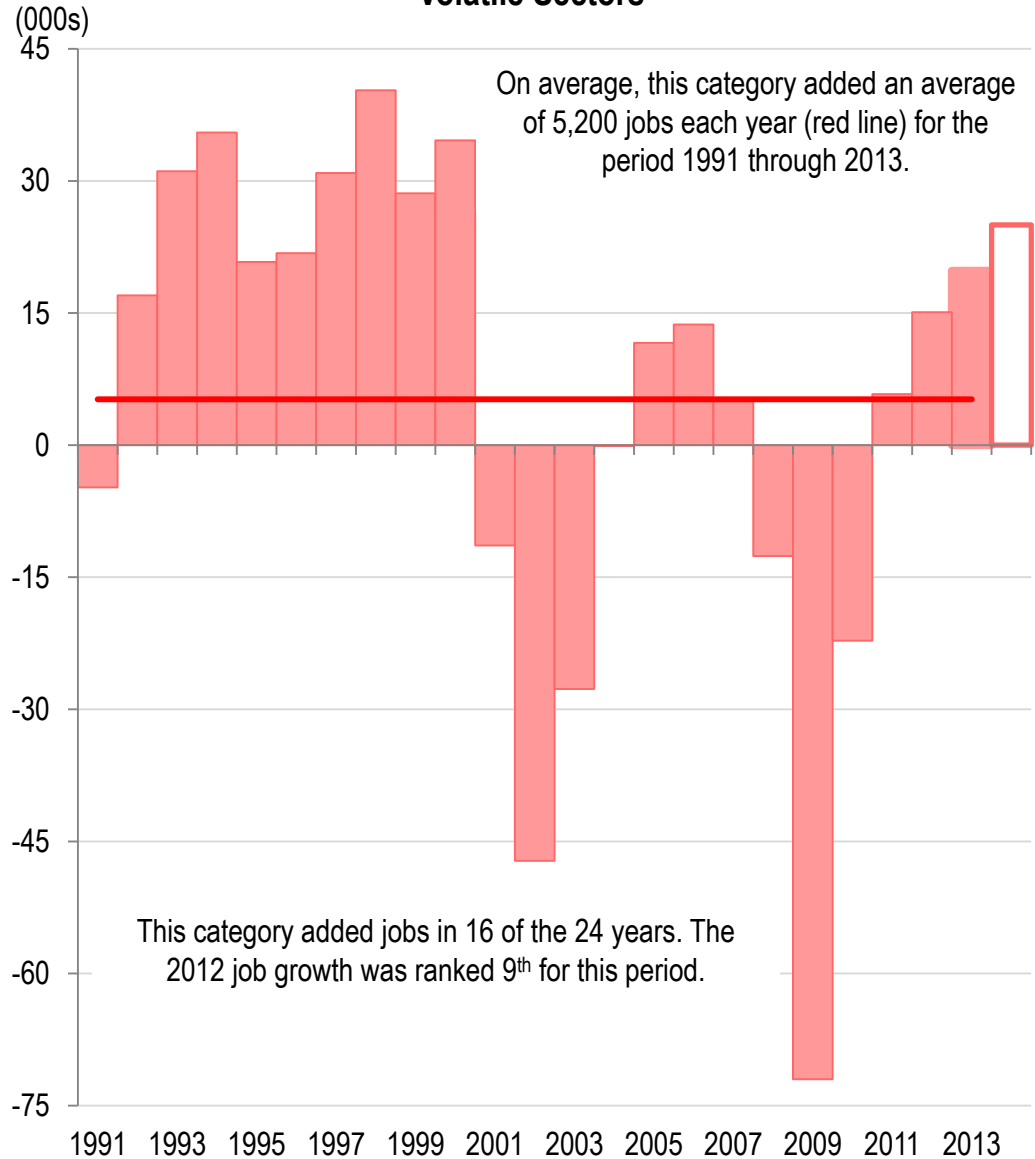
- Natural Resources and Mining
- Construction
- Manufacturing
- Transportation, Warehousing, and Utilities
- Employment Services
- Financial Activities
- Information
- Federal Government

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.

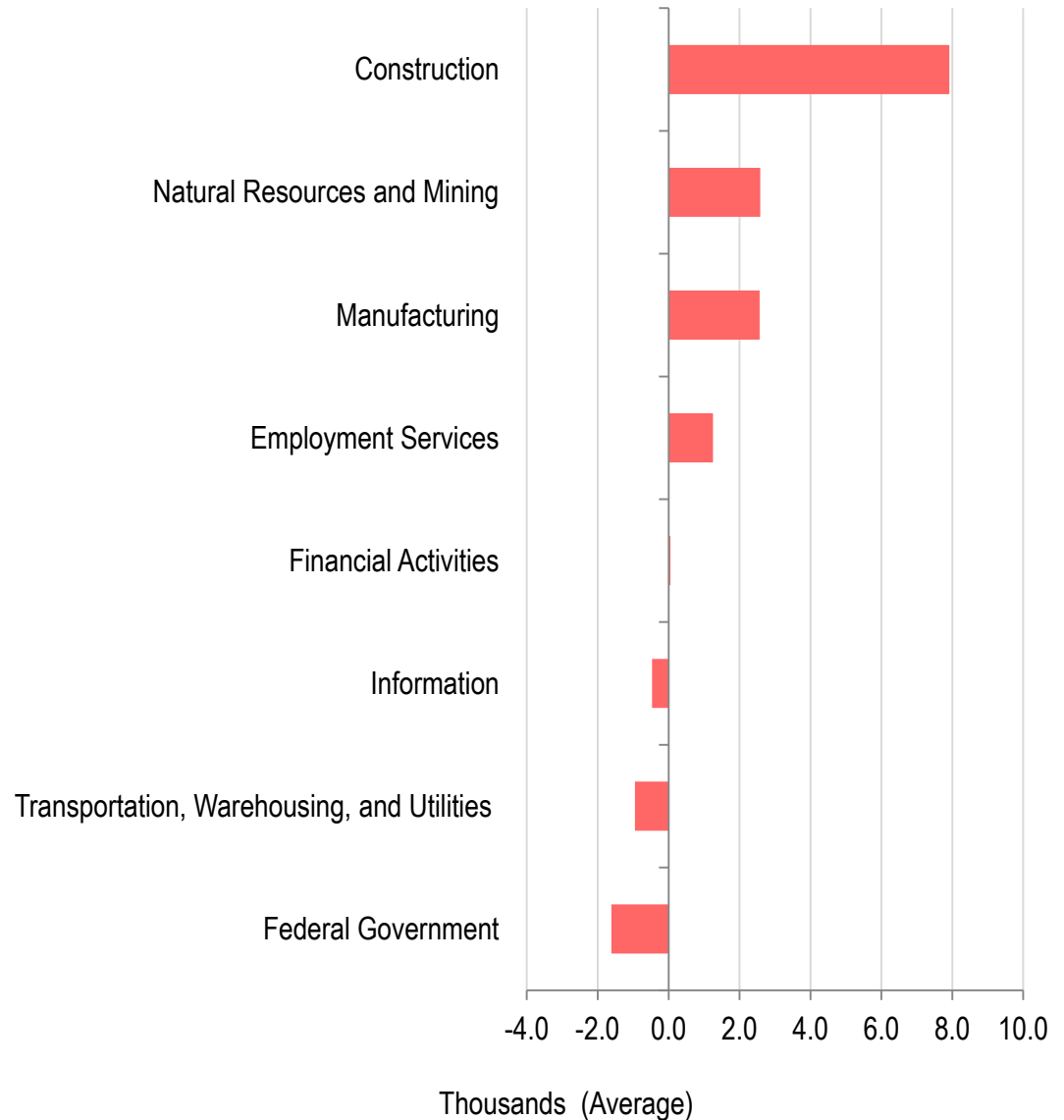
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● Volatile Sectors

- Through June 2014 this group of industries added 11,300 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 2,600 direct jobs, they are responsible for the addition of a number of indirect jobs.

Job Change Through Six Months 2013 vs. 2014



Source: Bureau of Labor Statistics.

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 six 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.

- The number of jobs added 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 labor 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.** (See the Appendix for additional information about the revision process).

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



Total Jobs Added

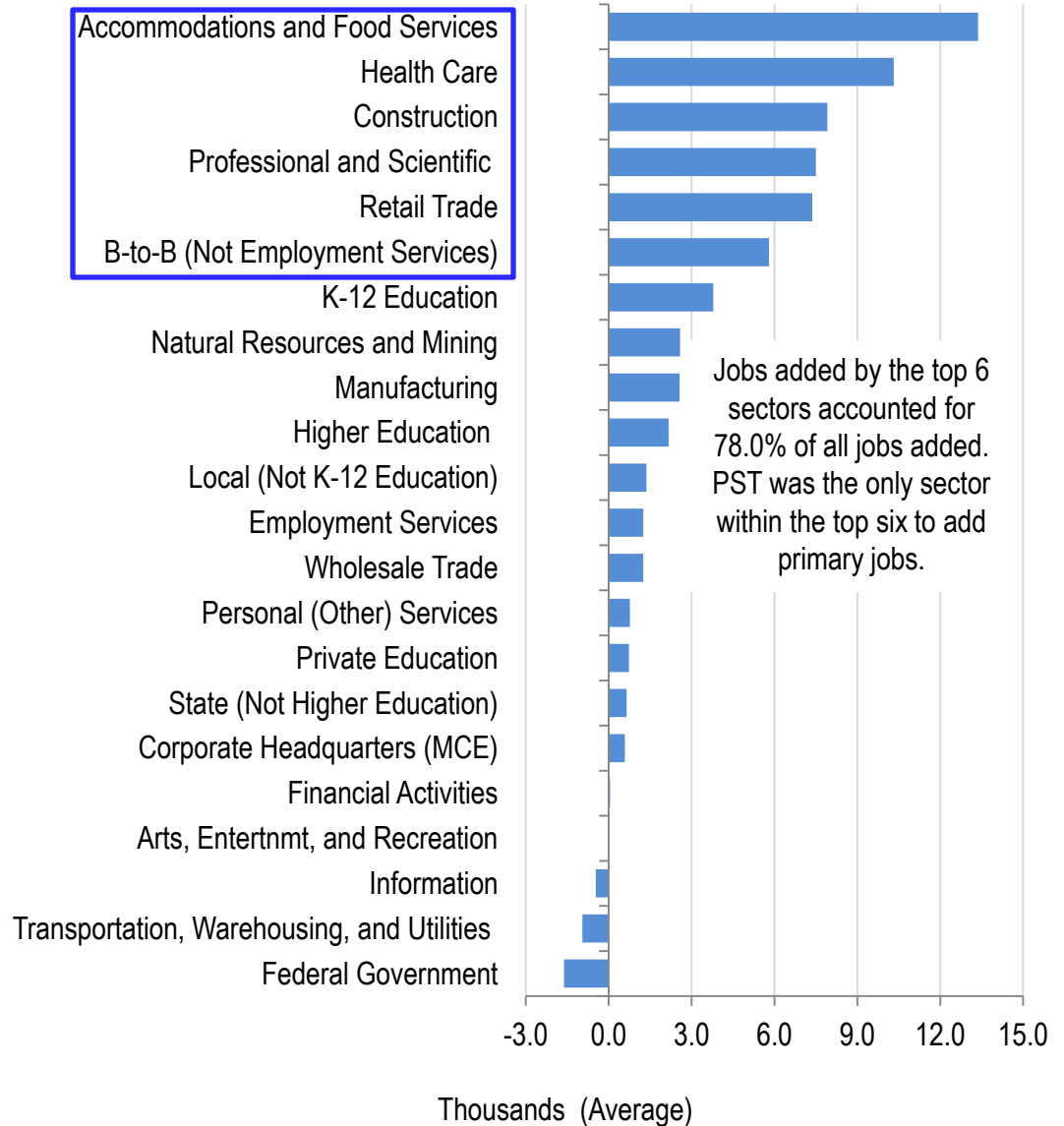
● Change in Employment for All Sectors - First Six Months of 2014 vs. the Same Period in 2013

There were 67,000 more jobs in the first six months of 2014 than the same period in 2013, an increase of 2.8%.

•Growth was led by the following sectors: 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 (15,100), followed by Tourism (13,400).

Job Change Through 6 Months 2013 vs. 2014



Source: Bureau of Labor Statistics.

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Summary of Job Growth for Colorado MSAs - First 6 Months of 2013 v 2014

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

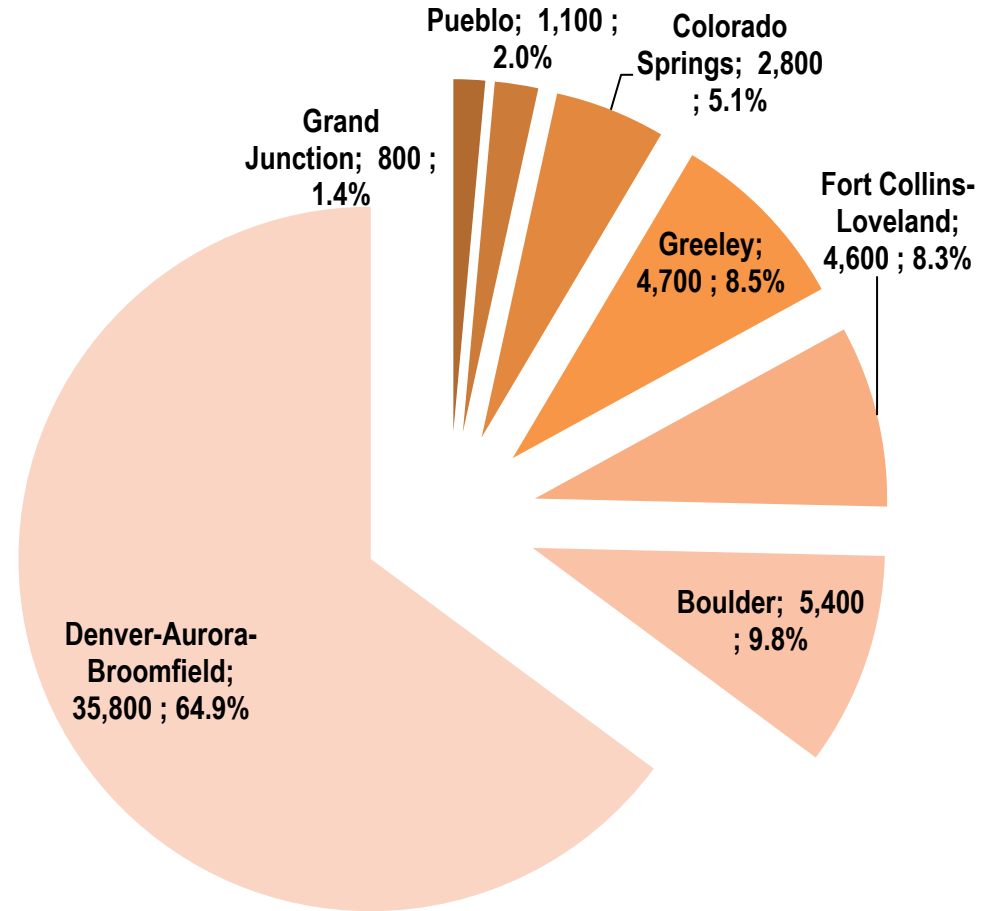
- Greeley 5.3%
- Fort Collins 3.2%
- Boulder 3.2%
- Denver 2.8%
- Pueblo 2.0%
- Grand Junction 1.3%
- Colorado Springs 1.1%

The rate of growth for the state was 2.8%.

Denver added 64.9% of the jobs, followed by Boulder, at 9.8%. Combined, the Northern Colorado MSAs added 16.8% of all jobs.

Note: This chart includes MSAs only. They accounted for about 82.4% of total job growth in the state for this period.

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

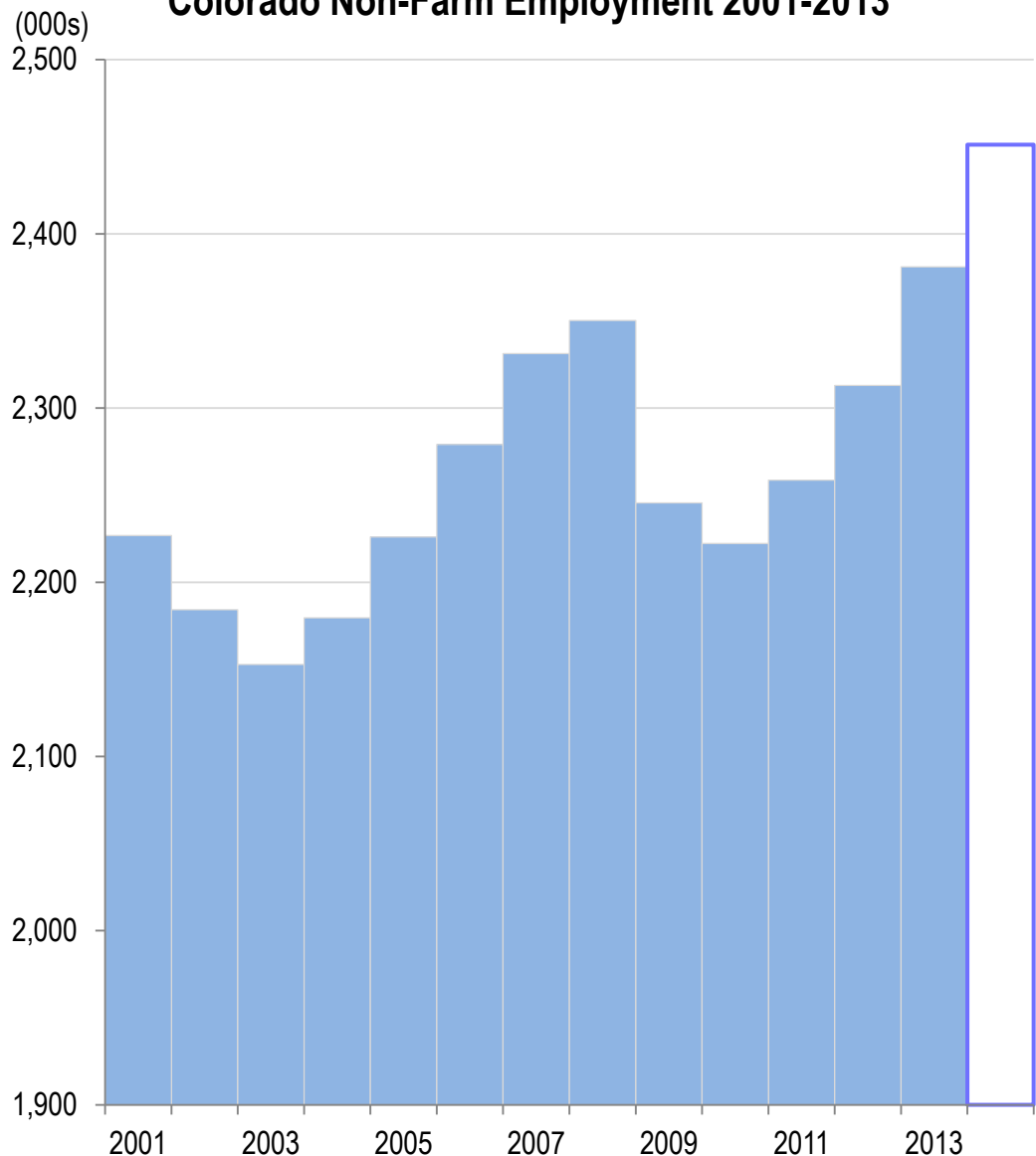
Colorado employment declined in 2009 and 2010. In the following years the state added:

- 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.

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<http://cber.co>

OSPB and CLC

Revised Projections for 2014

In late June, the [Governor's Office of State Planning and Budgeting](#) and the [Colorado Legislative Council](#) released their quarterly updates of the economy. These are must read documents for anyone interested in a comprehensive in-depth analysis of the Colorado economy.

Two key projections from the OSPB forecast:

- U.S. Real GDP growth will be 2.3% in 2014. Growth near 3.0% is projected for 2015.
- The state will add 74,500 jobs this year, with solid growth in 2015.

Two key projections from the CLC forecast

- U.S. Real GDP will be 2.2% in 2014. The U.S. will see growth near 3.0% in 2015.
- The state will add 64,300 jobs this year followed by stronger growth in 2015.

Summary of Colorado Economy Through May 2014

On One Hand...

- Through the first six months of 2014, CES employment is 67,000 jobs greater than the same period in 2013. The BLS is projected to revise job growth up in its March 2015 revisions for 2014.
- 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. Colorado output for 2014 will likely exceed U.S. output.
- Northern Colorado and Boulder continue to be the hot spots for job and output 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.
- 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, and financial activities.



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 20th 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 20th 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.



Review of the Colorado Economy Analysis of First Half of 2014

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