

Colorado-based Business and Economic Research

April 6, 2015

Overview

On average, Colorado added 79,100 jobs during January and February of 2015 compared to the same period last year. This is comparable to the number of jobs added in 2014.

Top Sectors

The following sectors were the top contributors to job growth in Colorado:

- Accommodations and Food Services.
- Health Care.
- Construction.
- Professional, Scientific, and Technical Services.
- Manufacturing.

These sectors accounted for 66.5% of total job growth.

Contents

This analysis is divided into the following sections.

- U.S. Economy.
- Colorado Jobless Claims and Employment.
- Colorado vs. U.S. Employment
- Colorado Employment by Performance Category.
- Total Jobs Added.
- Appendix.

The 2015 cber.co forecast can be found at http://cber.co/economic-forecast/.

U.S. Economy

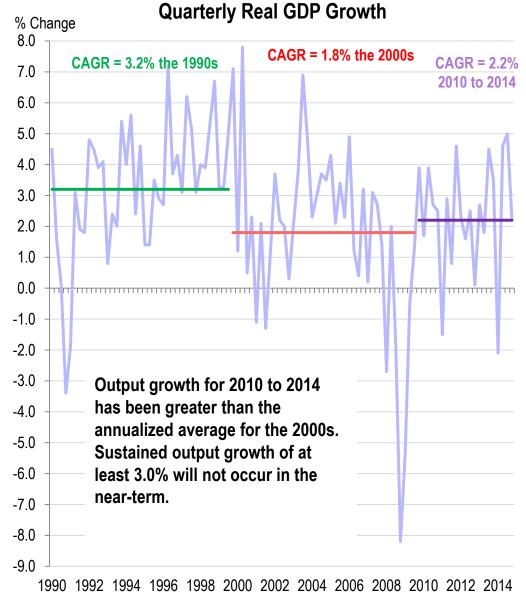
Real US GDP GrowthQuarterly

Initial forecasts for 2015 point to real output expansion of 2.5%, a slight increase over 2014.

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 2014 (purple line).

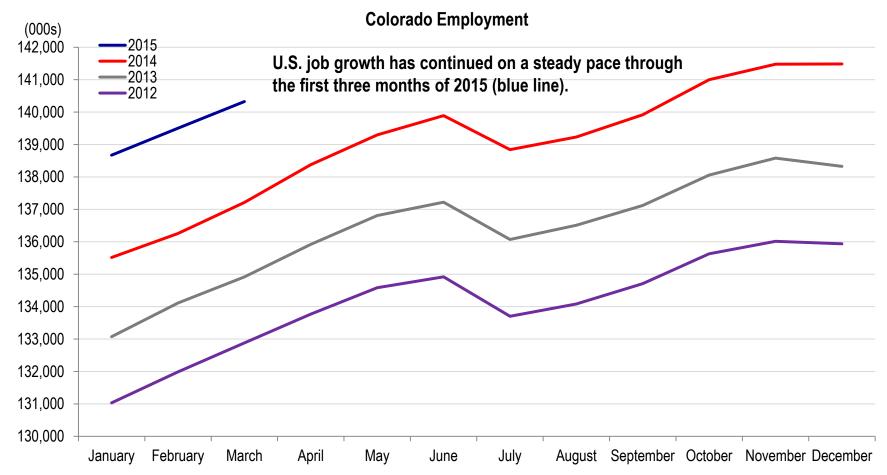
Real annual output growth for the past five years is:

- •2010 2.5%
- •2011 1.6%
- •2012 2.3%
- •2013 2.2%
- •2014 2.4% (preliminary)



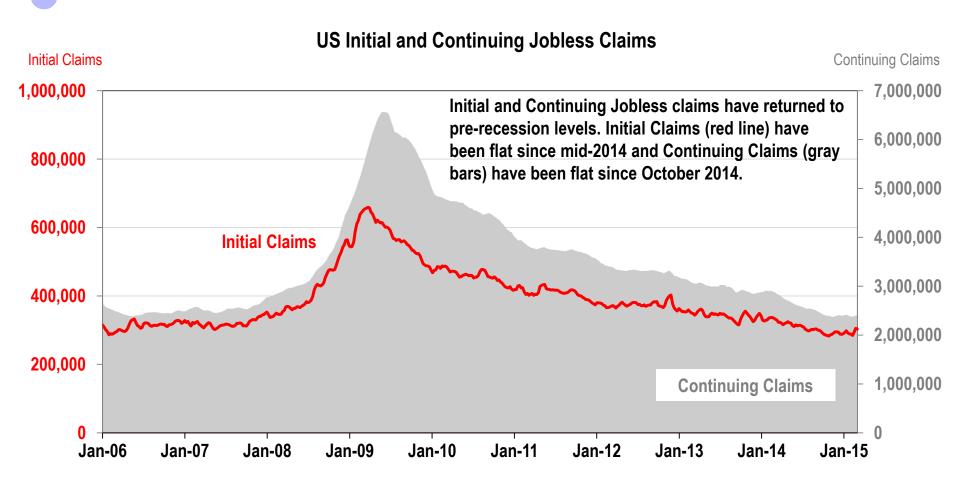
Source: Bureau of Economic Analysis, cber.co, Note GDP chained on 2009.

U.S. Employment 2012 through March 2015



Source: Bureau of Labor Statistics, NSA.

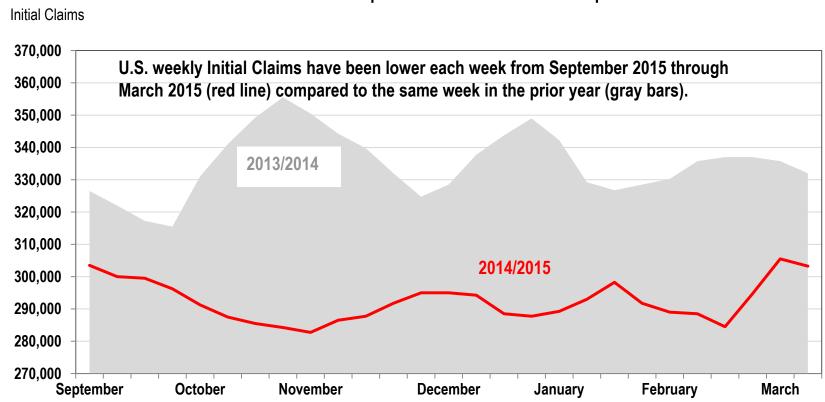
U.S. Jobless Claims



Source: US Department of Labor, ETA, SA 4 Week Average. Colorado-based Business and Economic Research http://cber.co

U.S. Initial Claims (Weekly)

Colorado Initial Claims – September March 2014/2015 Compared to Prior Year



Source: US Department of Labor, ETA, SA 4 Week Average.

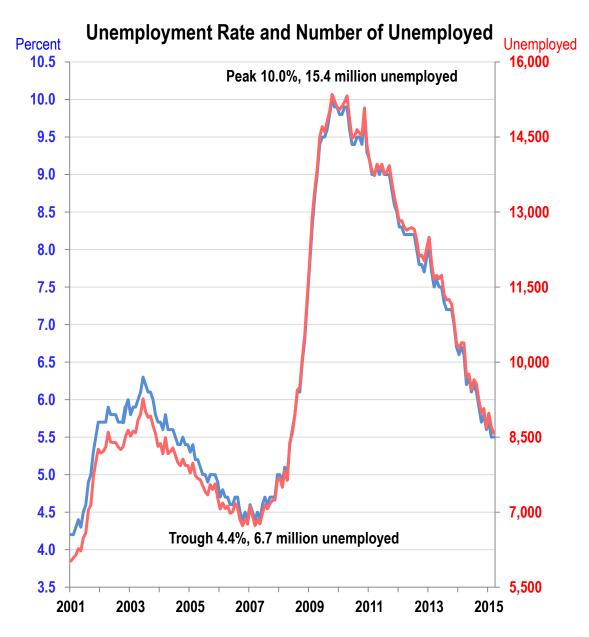
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OU.S. Unemployment Rate and Number of Unemployed

Both the unemployment rate and number of unemployed have slowly trended downward since peaking in late 2010.

The total number of unemployed (red) was 8.575 million at the end of March 2015. This is 1.9 million above the low point in 2007 and 6.8 million below the high point in 2009.

The unemployment rate was 5.5% for March 2015, down from 6.6% at the same time last year, but only down from 5.6% at the end of 2014.



 ${\bf Source: Bureau\ of\ Labor\ Statistics, SA,\ cber.co.}$

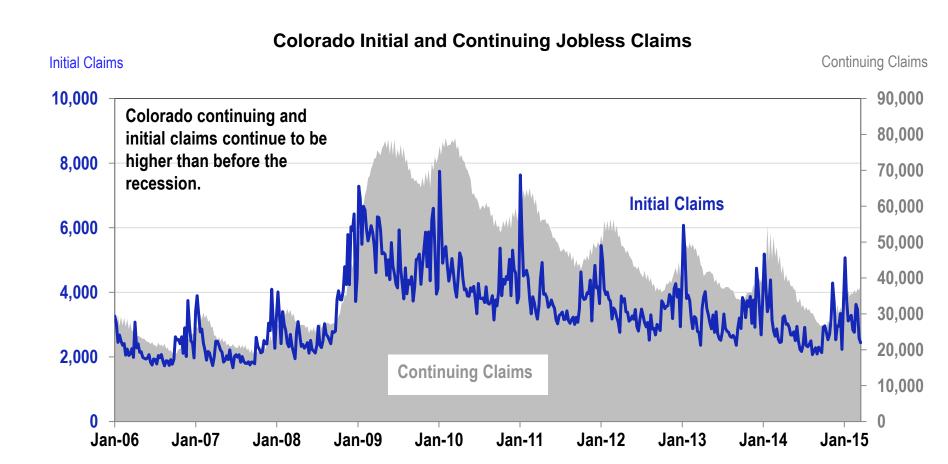
Summary of U.S. Economy in 2015

The U.S. economy is stronger in 2015 than it was in 2014. There continues to be improvement in the number of jobs added despite minimal growth in output.

- U.S. Real GDP growth in 2014 remained below potential; yet it was slightly greater than 2013, 2.4% vs. 2.2%. Output is projected to be in the 2.5% to 2.9% range for 2015.
- Consumer spending remained weak, 2.5% in 2014 vs. 2.4% in 2013. It will be in the 2.4% to 2.8% range in 2015.
- The rate of U.S. job growth for January/February/March in 2015 was 2.3%, compared to 1.9% for 2014.
- The unemployment rate continued to decline and was 5.5% in March. This is down from 5.6% at the end
 of the year and down from 6.6% at the same time last year.
- For the period September 2014 to March 2015, the number of continuing and initial claims is down from the period September 2013 to March 2014.
- It should be noted that the number of initial claims increased during March. This may be a result of the severe winter in parts of the country or layoffs in the oil and gas industry.

Colorado Jobless Claims and Unemployment

Colorado Jobless Claims

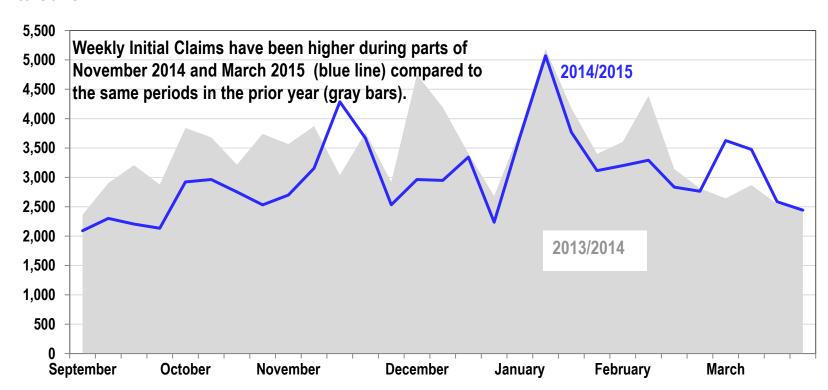


Source: LMI; US Department of Labor, ETA, NSA. Colorado-based Business and Economic Research http://cber.co

Colorado Jobless Claims (Weekly)

Colorado Initial Claims – September March 2014/2015 Compared to Prior Year

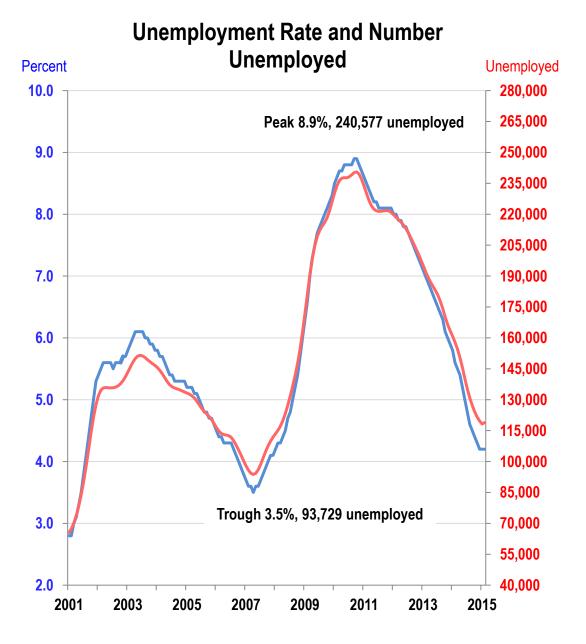
Initial Claims



Colorado UnemploymentRate and Number ofUnemployed

The number of unemployed has slowly trended downward since peaking in late 2010. The total number of unemployed workers (red) at the end of February 2015 was 118,872. The total number of unemployed is 25,743 greater than the trough in April 2007 and 121,705 less than the peak in October 2010.

There is a shortage of trained workers in key sectors and occupations. The February 2015 unemployment rate (blue) was 4.2%, down from 5.6% at the end of February 2014.

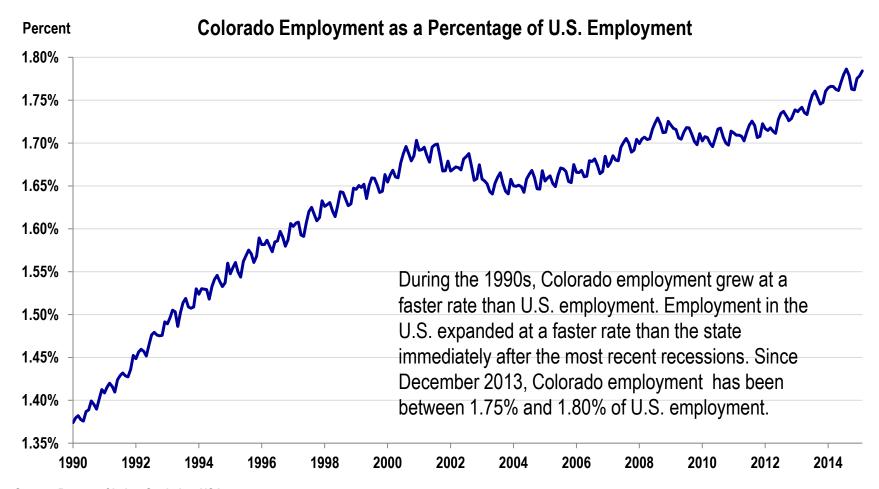


 ${\bf Source: Bureau\ of\ Labor\ Statistics, SA,\ cber.co.}$

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Colorado vs. U.S. Employment

Colorado Employment as a Percentage of U.S. Employment

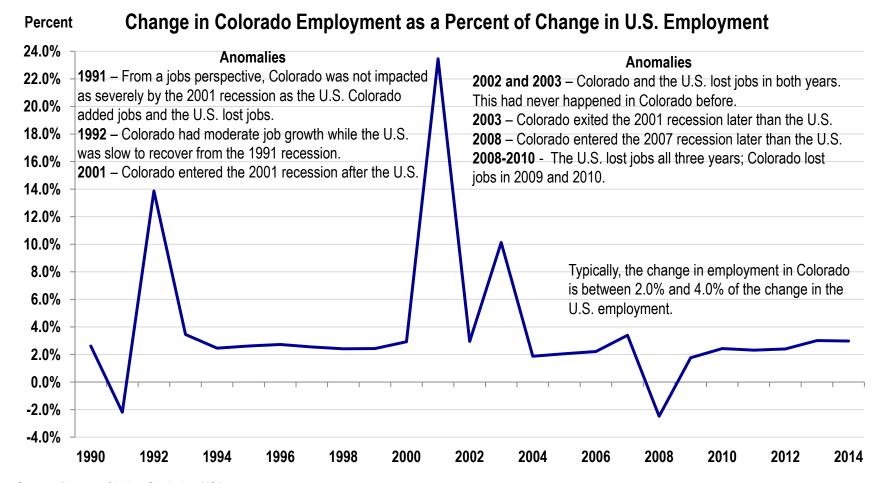


Source: Bureau of Labor Statistics, NSA.

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Change in Colorado Employment as a Percent of the Change in U.S. Employment

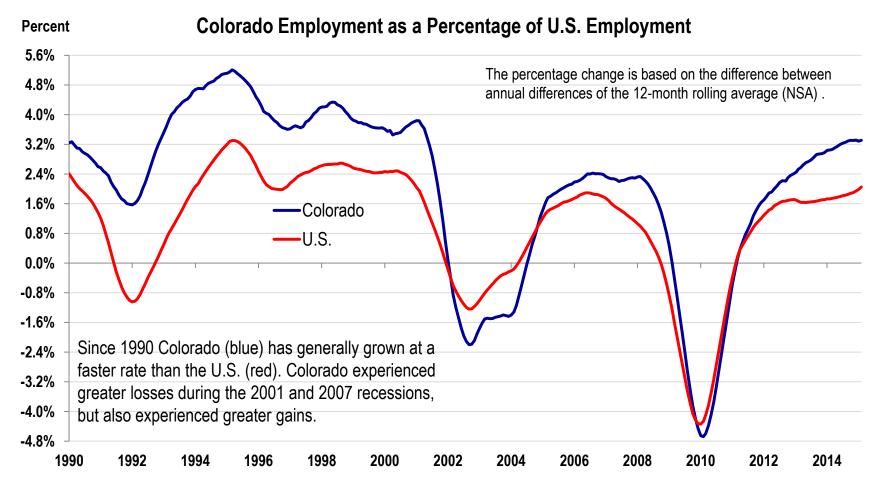


Source: Bureau of Labor Statistics, NSA.

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Colorado Employment vs. U.S. Employment Rate of Growth



Source: Bureau of Labor Statistics, NSA.
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How Colorado is Tracking Against U.S. Employment

Summary

- •Since 1990 Colorado employment has generally grown at a faster rate than the U.S. employment. This has occurred because Colorado has a smaller base of workers and because its economy has been more vibrant.
- •Colorado experienced greater losses during the 2001 and 2007 recessions, but also experienced greater gains. Colorado's rate of job growth has been greater than the U.S. since 2012.
- •Currently Colorado's rate of job growth appears to have reached a plateau between 3.0% and 3.3%.

- •Recently state employment has been between 1.75% and 1.80% of U.S. employment. That percentage has increased steadily since 1990.
- •Typically, the change in employment in Colorado is between 2.0% and 3.0% of the change in the U.S. employment.

2015 Colorado by Performance Category

Average Employment January/February 2015

Colorado Employment Category Portfolio Analysis

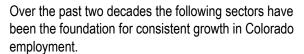
Strong Growth, Solid Growth, and Volatile Categories

This portfolio approach has made it easy to see that some categories consistently create jobs at a higher rate of growth, some show solid growth, and others are more volatile. Ultimately, the volatile category tends to have a greater influence on the amount of change in <u>total</u> job growth than the sectors with steady growth.

The Process of Establishing the Categories

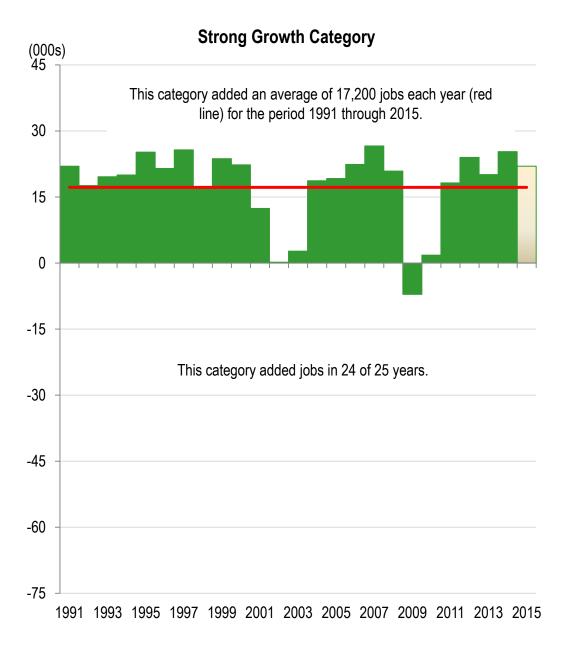
In 2012, 2013, and 2014 cber.co evaluated the performance of 23 sectors over the past two decades and refined the manner in which the sectors are grouped. The evaluation factors for grouping include the rate of growth, number of years with positive job growth, size of the sector, and volatility in job growth. In the short period this process has been used, it has produced a high level of accuracy in the forecast – most error has resulted from revisions to the BLS data. More importantly, it has produced a better understanding of what is driving the economy.

Annual Employment
Situation for the Strong
Growth Category



- 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: 1994 445,200 workers, 25.4% of total employment 2004 615,900 workers, 28.3% of total employment 2014 786,700 workers, 32.0% of total employment

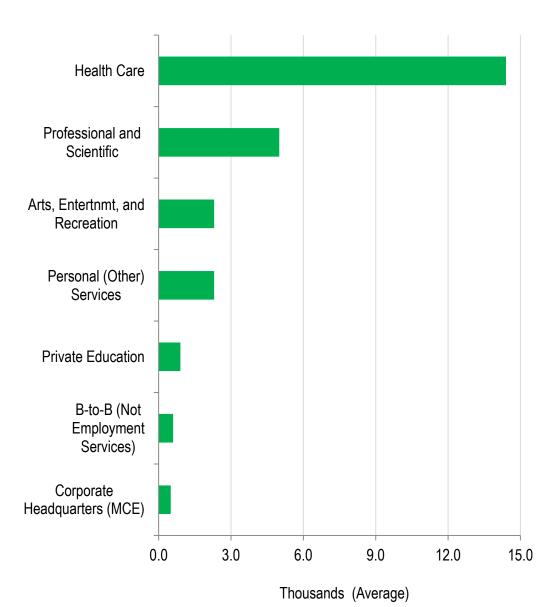


Source: Bureau of Labor Statistics, cber.co.

Solid Growth Sectors

Job Change

- •Average employment for January and February shows this category of sectors added 26,000 jobs in 2015 compared to the same period last year.
- •For the first two months, growth of the Health Care Sector was stronger than anticipated. It is unlikely it will continue to grow at this rate for the year. The PST Sector is likely to show stronger growth for the year.
- •In 2014, these sectors accounted for 32.6% of total job gains and 32.0% of total employees.



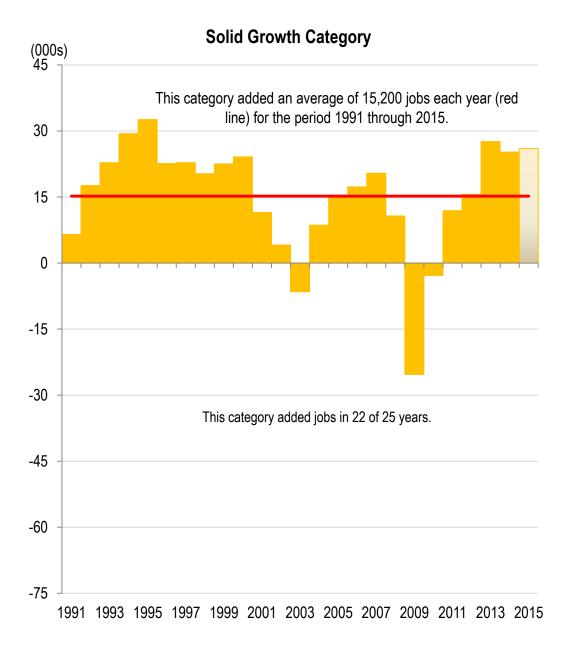
Source: Bureau of Labor Statistics.

Annual EmploymentSituation for the SolidGrowth Category

Over the past two decades the following sectors generally posted gains. The category posted stronger jobs gains 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

Total employment for this category was: 1994 685,400 workers, 39.0% of total employment. 2004 848,000 workers, 38.9% of total employment. 2014 960,900 workers, 39.0% of total employment.



Source: Bureau of Labor Statistics, cber.co.

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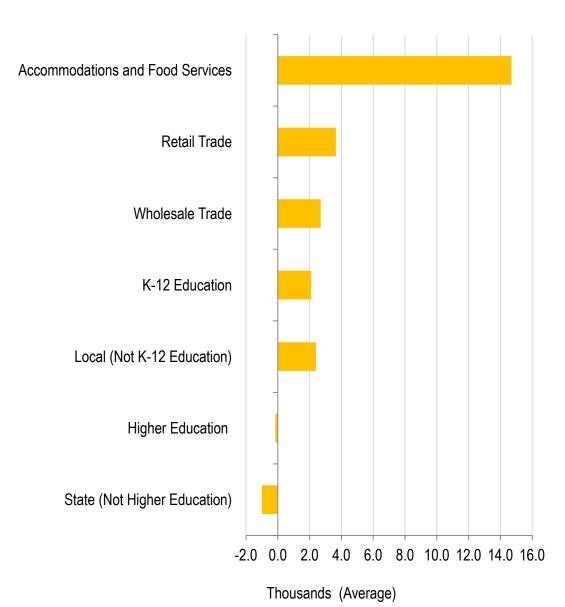
Solid Growth Sectors

Job Change

•Average employment for January and February shows this category of sectors added 24,400 jobs in 2015 compared to the same period last year.

•For the first two months, growth of the AFS, K-12, and Local Government Sectors appear to be overstated, while the State Government and Higher Education numbers appear to be understated

•In 2014, these sectors accounted for 29.1% of total job gains and 39.0% of total employees.



Source: Bureau of Labor Statistics.

Annual EmploymentSituation for the VolatileCategory

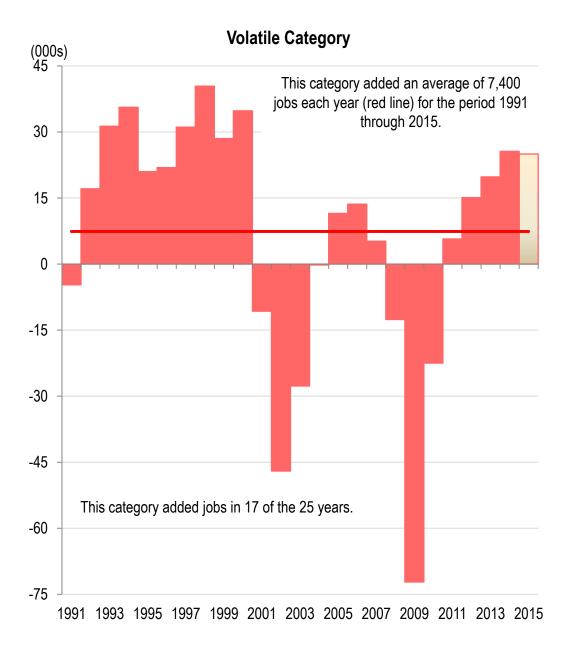
Over the past two decades the sectors listed below were the primary source of volatility in total employment.

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:

1994 625,400 workers, 35.6% of total employment 2004 716,000 workers, 32.8% of total employment 2014 713,000 workers, 29.0% of total employment



Source: Bureau of Labor Statistics, cber.co.

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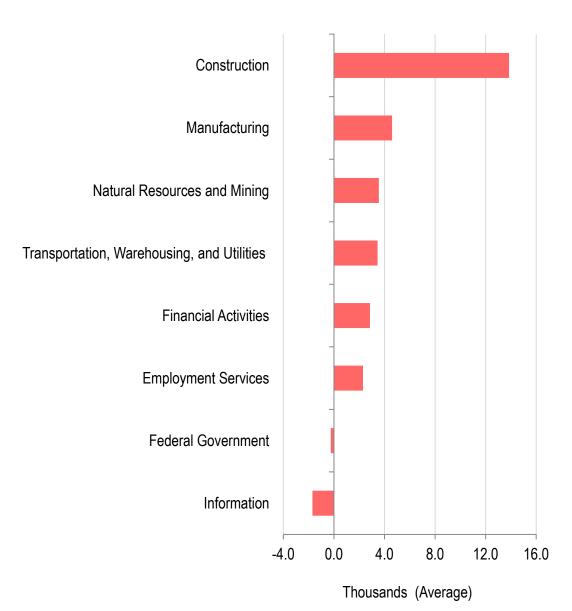
Volatile Sectors

Job Change

•Average employment for January and February shows this category of sectors added 28,700 jobs in 2015 compared to the same period last year.

•For the first two months, the Construction and Manufacturing Sectors led job growth.

•In 2014, these sectors accounted for 38.3% of total job gains and 29.0% of total employees.



Source: Bureau of Labor Statistics.

Summary of Strong, Solid, and Volatile Growth Categories

In 2015, the growth of the Strong, Solid, and Volatile Growth Categories will be similar to 2014.

The Strong Growth Category of sectors (green) has performed consistently over time. The category added jobs as expected in 2014. The larger sectors (Health Care, PST, and B-to-B, excluding Temp. Services) grew at a rate faster than the state. Arts, Entertainment, and Recreation, a smaller sector, grew faster than the state.

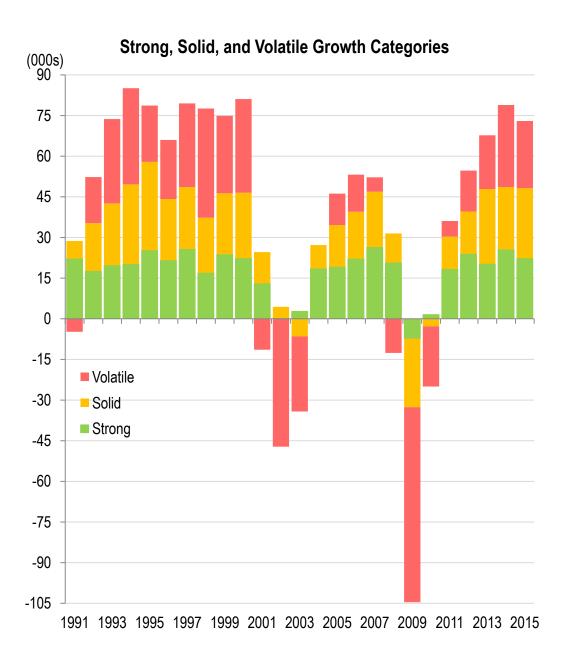
Over time, the Solid Growth Category of sectors (yellow) has been more volatile than the Strong Growth Category. In 2014, this category performed stronger than anticipated. AFS and K-12 Education expanded at a faster rate than the state.

Finally, the Volatile Category of sectors (red) were a significant source of growth in 2013 and 2014. In 2014 the Construction, Employment Services, Transportation and Warehousing, and the Extractive Industry sectors expanded at a faster rate than the overall state average.

Note: This data reflects projected changes to the 2014 data when BLS makes its revisions in March 2015.

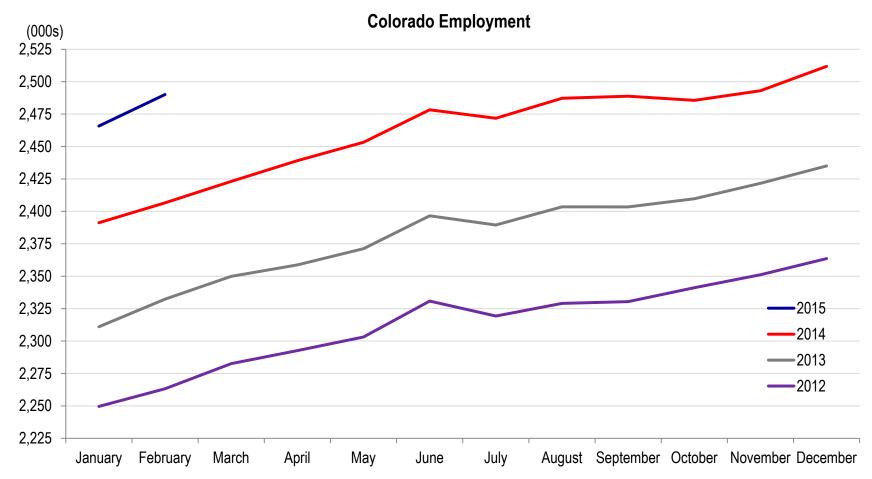
Source: Bureau of Labor Statistics, cber.co.

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Total Jobs Added

Colorado Employment 2012 to 2015

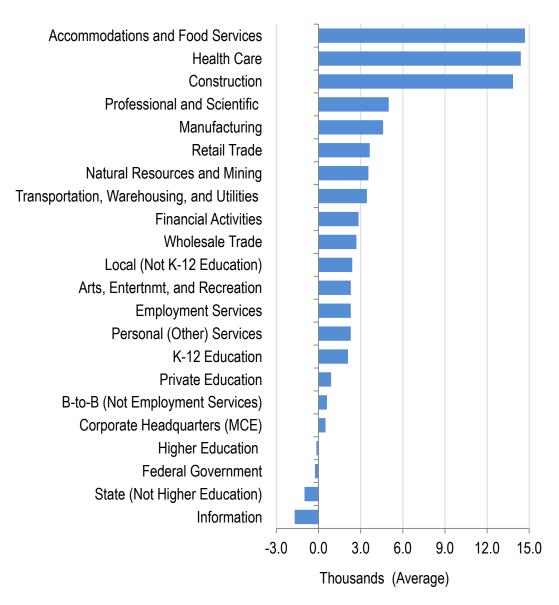


Source: Bureau of Labor Statistics, NSA.

Change in Employment for All Sectors

- •On average 79,100 jobs were added in January/February 2015, an increase of 3.3% compared to the same period last year.
- •Growth was led by Accommodations and Food Services; Health Care; Construction; and Professional, Scientific, and Technical Services; and Manufacturing. These five sectors accounted for 66.5% of job growth in the first two months of 2015.

Change in Employment



Concluding Thoughts

United States

There are two overriding thoughts about the growth of the U.S. economy:

- •After three months of jobs data, it is clear that U.S. employment remains strong and the rate of growth is greater than 2014.
- •On the other hand, output growth remains below potential. The relationship between growth and employment is not fully in sync.

Colorado

The following thoughts sum up the growth of the Colorado economy:

- •Colorado added 78,900 jobs in 2014. Jobs increased at a rate of 3.3%. Job growth for the first two months of 2015 is at a similar pace.
- •cber.co projected that 2015 job growth would be similar to 2014. In other words the strong growth rate of growth would reach a plateau. That appears to be happening.
- •The sectors with the top job growth in the first two months of 2015 are: Accommodations and Food Services; Health Care; Construction; Professional, Scientific, and Technical Services; and Manufacturing. These sectors accounted for 66.5% of total job growth.

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.

BLS and LMI Data Revision Process

The CES projection process is outlined below:

- 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. Most short-term forecasts use this data.
- 2. In March of the following year, the previous two years will be revised. (For example, the 2014 employment data will be revised in March 2015 and finalized in March 2016).
- 3. The initial March update is usually the most significant revision, and the two-year update is often minor (In the case of 2014, some of the monthly totals will see significant upward revisions when revised in March 2015.)
- 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 Colorado Economy Analysis of January/February 2015 Employment Data

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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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.