## Review of Colorado Economy Analysis of 2012 Employment Data

Colorado-based Business and Economic Research

March 25, 2013



This past year Colorado's employment picture was brighter than anticipated, thanks to growth in Accommodations and Food Services, Health Care, Professional, Scientific, and Technical Services, B-to-B Services, Employment Services, and Retail Trade.

Employment has improved, but the rate of unemployment remains high in many industries, occupations, and geographic areas. Economic improvement will continue at a tepid pace (Yes, 52,000 jobs a year is a tepid pace).

This brief analysis is divided into the following sections.

- U.S. and Global Economy
- Colorado Population and Unemployment Overview
- Review of 2012 Colorado Employment
- Questions and Answers
- Summary and Challenges

The 2013 CBER forecast can be found at http://cber.co/CBEReconomy.html.

# Overview of BLS Employment Revision Process

Current Employment Survey (CES) or wage and salary data is based on a survey of companies.

Monthly press releases announce wage and salary employment. Each announcement contains minor adjustments to previous months. In March of each year, the data for the prior year is benchmarked to the Quarterly Census of Employment and Wages (QCEW) employment series. This benchmarking process produces changes to the CES series that are more significant than the monthly changes. In March of the following year, the data is adjusted for the final time. Those revisions are usually minor.

Specifically, the most recent revisions, "finalized" the 2011 data. The "final" revision for 2012 will be released in March 2013. Occasionally BLS makes slight adjustments to the "final" data as they change their models.

Every year, there is error in the data. This year the 2012 employment was revised upwards. The error in the data occurred for several reasons:

•The initial CES projections are based on a survey. Accuracy of the survey is contingent upon a representative sample of business. In 2012, the sampling process did not accurately reflect actual changes in employment.

•The BLS model is most accurate when there is "normal" growth. Like most models, it tends to understate the severity of downturns. As well, it under reports the rate of growth in periods of recovery. Such was the case in 2012.

•The BLS reduced its staff as part of cost cutting measures and has relied more heavily on modeling and sampling. These changes and revisions introduced greater fluctuation in the monthly totals, although the annual totals are thought to be reasonable.

The bottom line, Colorado had an upward revision. Originally, the data showed that about 40,000 jobs were added last year. The recent revisions show that growth was more significant – Colorado added 51,800 wage and salary positions in 2012.

## U.S. and Global Economy

#### **Estimated Global GDP 2012**



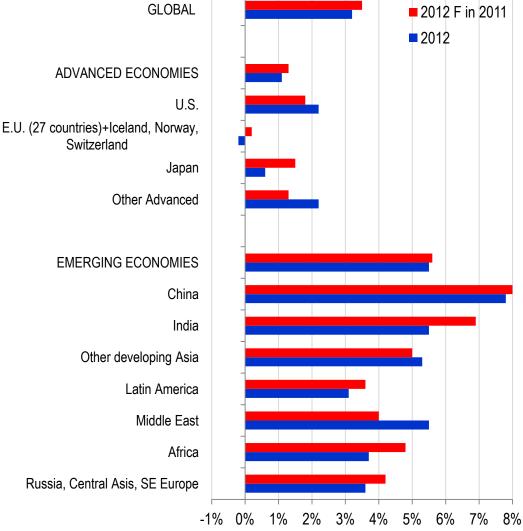


Over the past three years, The Conference Board (TCB) has provided dismal, but relatively accurate projections of the performance of the U.S. and global economies. While their 2012 forecasts made in 2011 (red bars) were dismal, they were too optimistic in foretelling global, advanced economies, and emerging economies output.

In 2012, the Advanced Economies, accounted for 51.3% of global output, and they expanded by 1.3%. The Emerging Economies, 48.7% of global output, posted a much stronger gain, 5.6%.

The EU was the only region to report negative growth in 2012.

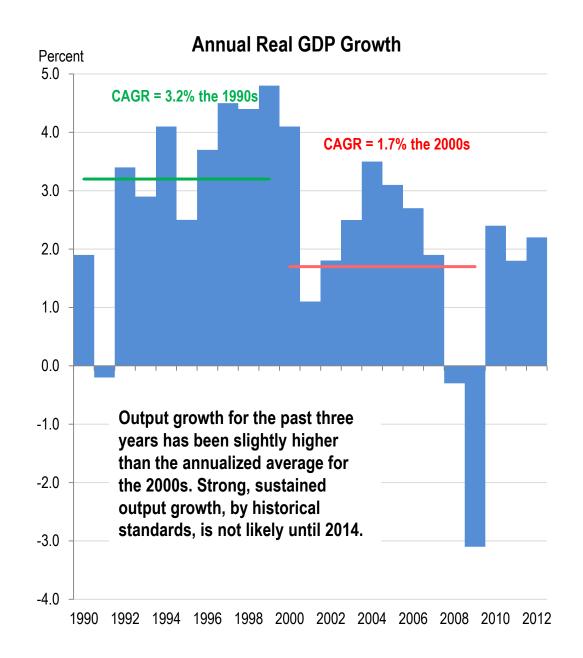
Source: The Conference Board (January, 2013). Colorado-based Business and Economic Research http://cber.co



# Real US GDP Growth

•Annualized Real GDP growth for the 1990s was 3.2% (green line). It was 1.7% for the 2000s (red line).

•Projected Real GDP for 2013 will be similar to 2012 and 2011.

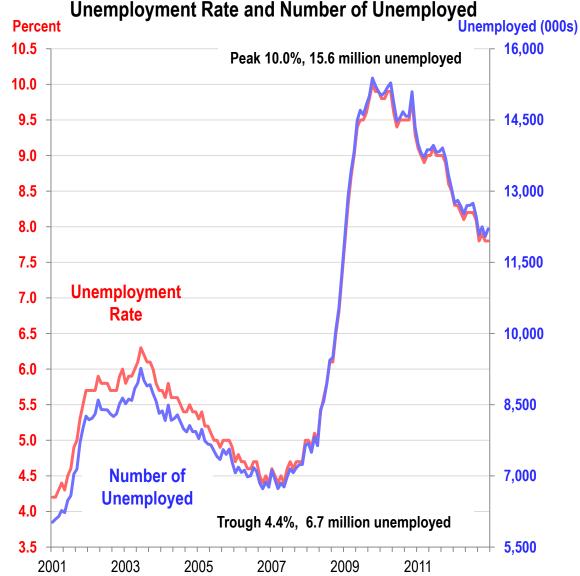


## U.S. Unemployment Rate and Number of Unemployed

As expected, the change in the number of unemployed workers parallels the change in the unemployment rate. Both the unemployment rate and number of unemployed have declined at a painfully slow rate since they peaked in late 2010.

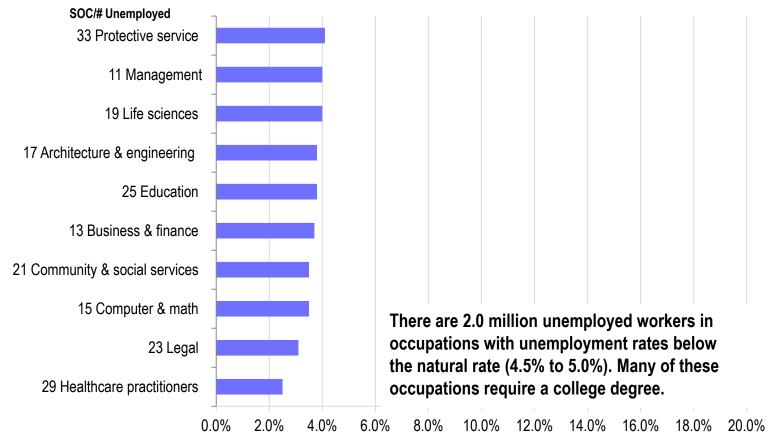
At the end of 2012, the unemployment rate (blue) dipped to 7.8%, the lowest level since 2009.

The total number of unemployed (red) fell to 12.2 million, the lowest level since 2009.



#### Source: Bureau of Labor Statistics, SA.

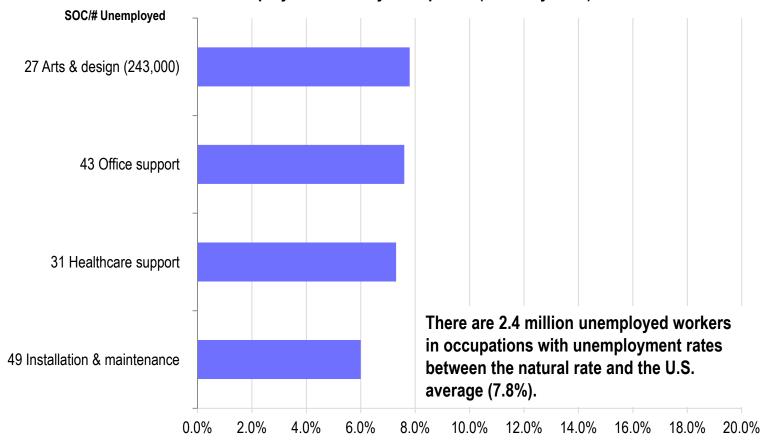
# U.S. Occupations with Unemployment Rates Below the Natural Rate (5.0%)



U.S. Unemployment Rate by Occupation (February 2013)

Source: Bureau of Labor Statistics, A-30.

# U.S. Occupations with Unemployment Rates Between the Natural Rate and 7.8%



U.S. Unemployment Rate by Occupation (February 2013)

Source: Bureau of Labor Statistics, A-30.

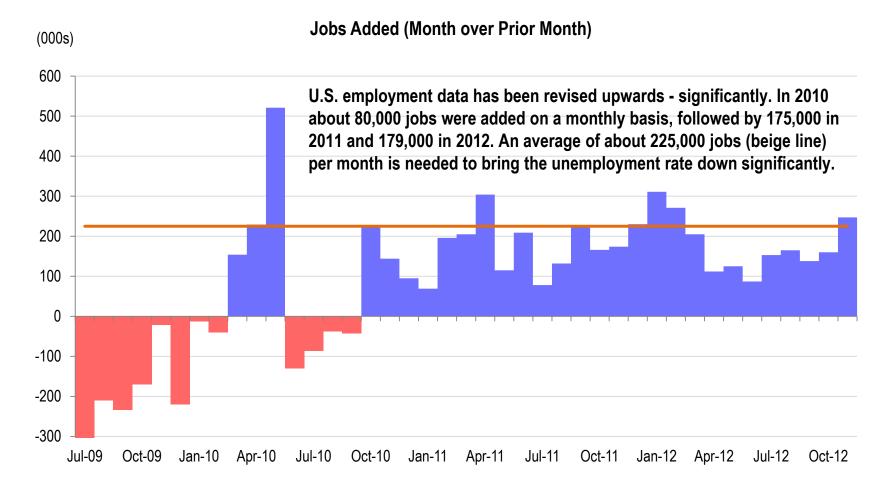
# U.S. Occupations with Unemployment Rates above the U.S. Average (Above 7.8%)

SOC/# Unemployed 45 Farming, fishing, & forestry 47 Construction & extraction 37 Building maintenance 35 Food preparation 53 Transportation 39 Personal care & service There are 6.9 million unemployed workers in occupations with 51 Production unemployment rates above the U.S. average. Most of these occupations 41 Sales & related don't require higher education. 0.0% 2.0% 4.0% 6.0% 8.0% 10.0% 12.0% 14.0% 16.0% 18.0% 20.0%

U.S. Unemployment Rate by Occupation (February 2013)

Source: Bureau of Labor Statistics, A-30.

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



#### Source: Bureau of Labor Statistics, SA.

# Summary of U.S. Economy

The U.S. economy is stronger – many of the headwinds have diminished.

- Most economists have revised output projections upwards, but most projections are for more of the same through 2013, with the likelihood of stronger sustained growth in 2014.
- Historical employment has been revised upward and steady improvement in expected to continue.
- Job gains are likely to bolster wage and salary increases, which hopefully drives stronger consumption.
- Increased hiring may point to increased capital expenditures.
- State and local governments will continue to face challenges, but revenue streams for many states have improved.
- Lack of new firms creation.
- Other concerns include: volatile gasoline and oil prices, continued uneasiness among consumers, reduced federal spending, and public and private debt. The situation in the Middle East will remain tenuous.

## Colorado Population and Unemployment Overview

# Change in Population

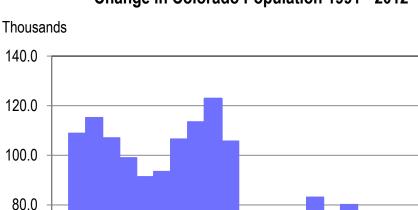
Variances in the population are based on the natural rate of change (births minus deaths) and the change in net migration (people moving in the state minus people moving out of the state.

Over the past two decades the natural change has gradually increased from 31,400 in 1991 to 42,800 in 2012.

Changes resulting from net migration are closely tied to the strength of the economy. For example, there were five years, from 1986 to 1990, when net migration was negative. More people moved out of state than moved into the state to escape a regional recession. During the past two recessions, net migration declined, but unlike during the 1980s, it remained positive. In 2012, net migration will be about 39,000.

The Colorado population increased by about 71,000 in 2012. Sources: State Demography Office.

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



**Net Migration** 

1997

2000

60.0

40.0

20.0

0.0

1991

1994

#### Change in Colorado Population 1991 - 2012

**Natural Change** 

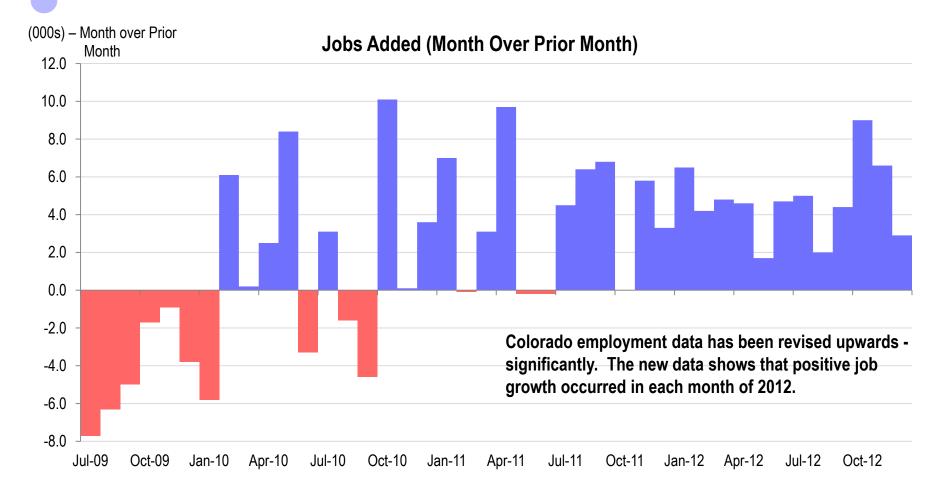
2003

2006

2012

2009

# Colorado Employment Situation From End of Recession to Current



#### Source: Bureau of Labor Statistics, SA.

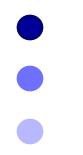
### Colorado Unemployment Rate and Number of Unemployed

Both the unemployment rate and number of unemployed have declined at a painfully slow rate since peaking in late 2010.

At the end of 2012, the unemployment rate (blue) had dipped to 7.5%, the lowest level since 2009.

The total number of unemployed (red) fell to 206,000, the lowest level since 2009.





## Review of 2012 Employment

### 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 and Scientific

•Management of Companies and Enterprises

•Business to Business (Not Employment Services)

Private Education

•Health Care

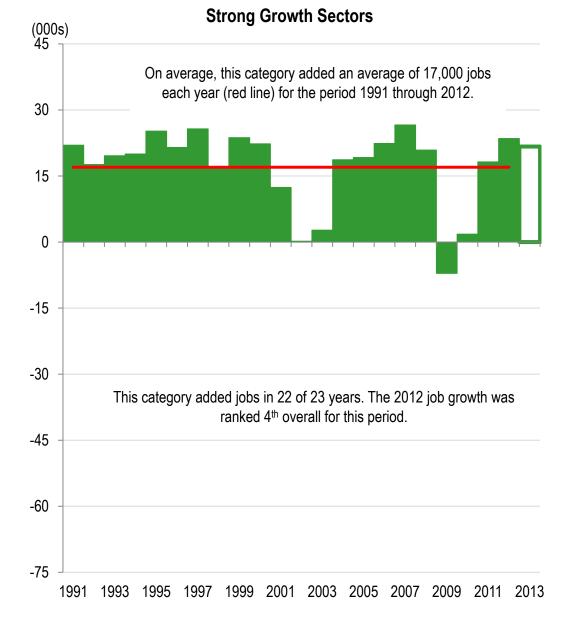
http://cber.co

•Arts, Entertainment, and Recreation

•Other Services.

Total employment for this category was: 1992 404,900 workers, 25.4% of total employment 2002 592,400 workers, 27.1% of total employment 2012 739,300 workers, 32.0% of total employment.

Growth of this category in 2012 and 2013 will be comparable to most years during the past two decades. Between 19,000 and 25,000 workers will be added in 2013, most likely at the higher end of that range.



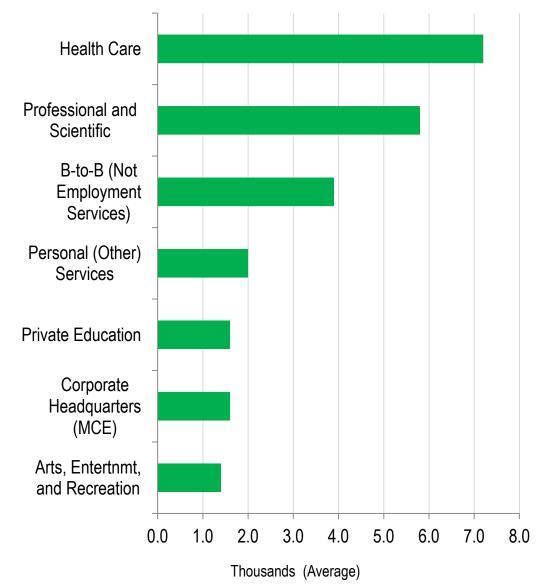
#### Job Change in 2012

### Solid Growth Sectors

•This group of industries added 23,500 jobs in 2012 compared to the prior year.

•In 2012, these sectors accounted for 45.2% of total job gains.

•These sectors accounted for 32.0% of total employees.



Source: Bureau of Labor Statistics. Colorado-based Business and Economic Research http://cber.co

### Annual Employment Situation for Solid Growth Sectors

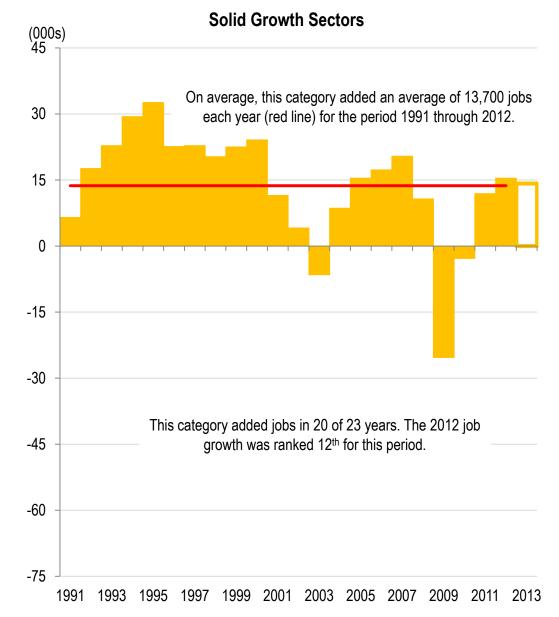
Over the past two decades the following sectors usually added jobs. As a group their job gains were stronger during the 1990s than the 2000s.

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

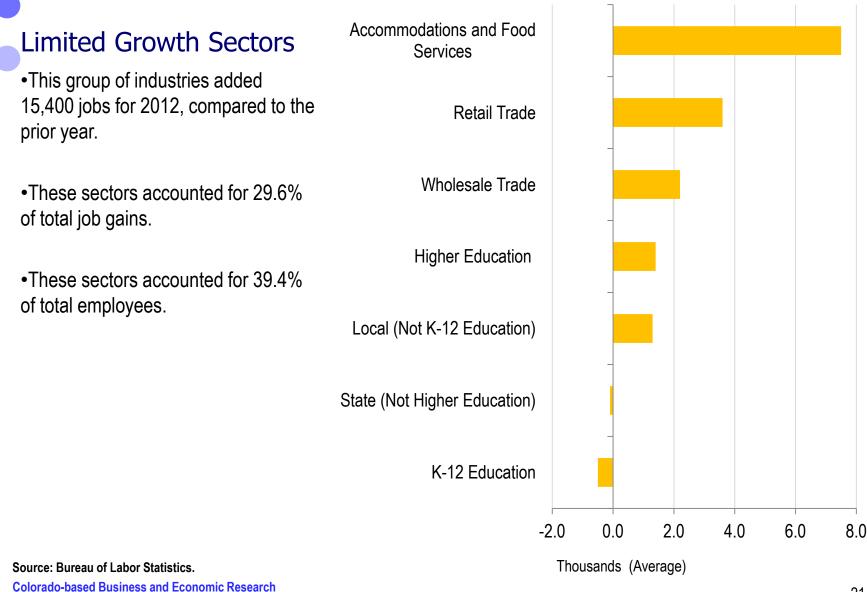
Employment in some of these sectors has remained flat during most of the past decade.

Total employment for this category was: 1992 633,200 workers, 39.6% of total employment 2002 845,900 workers, 38.7% of total employment 2012 911,000 workers, 39.4% of total employment

Growth of this category in 2012 and 2013 will be about average for the past two decades. Between 12,000 and 16,000 jobs will be added.



#### Source: Bureau of Labor Statistics, CBER.



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## Annual Employment Situation for Volatile Growth Sectors

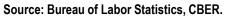
Over the past two decades the sectors listed below were the source of volatility.

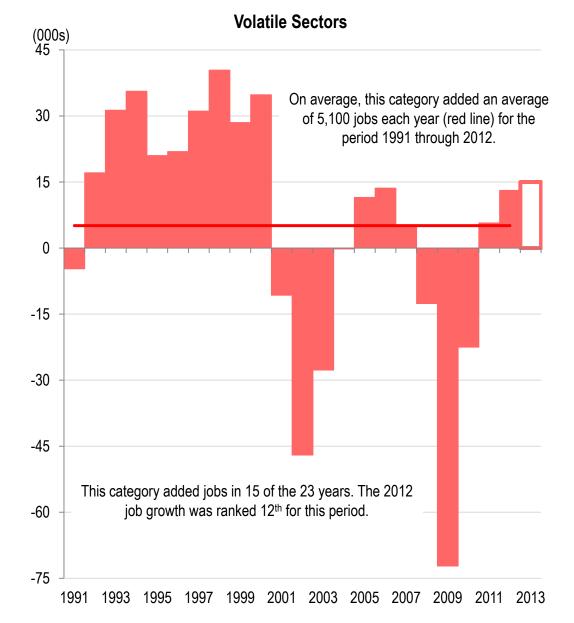
The sectors are:

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

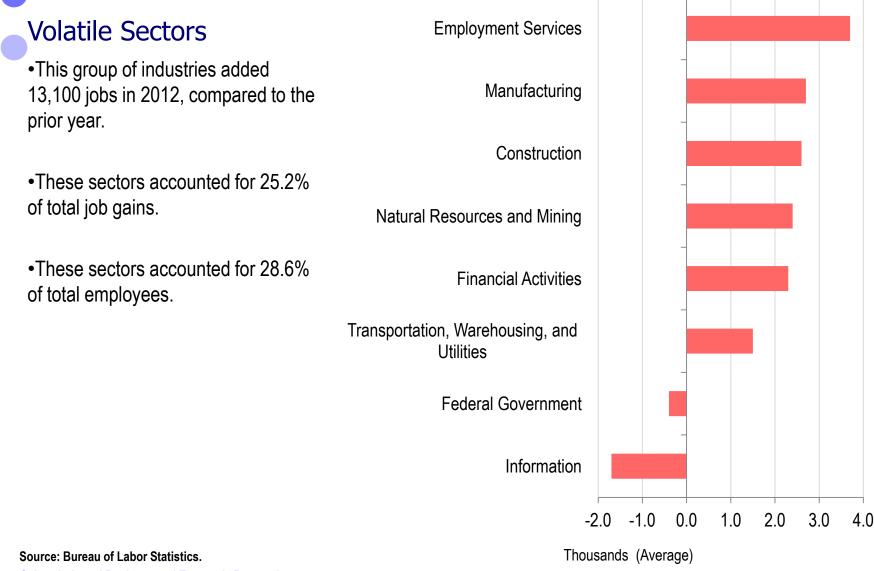
Total employment for this category was: 1992 559,100 workers, 35.0% of total employment 2002 746,000 workers, 34.2% of total employment 2012 659,900 workers, 28.6% of total employment.

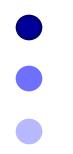
In 2012 and 2013 this category will add between 13,000 and 17,000 jobs . Growth in this category will be above the annual average.





### Job Change in 2012



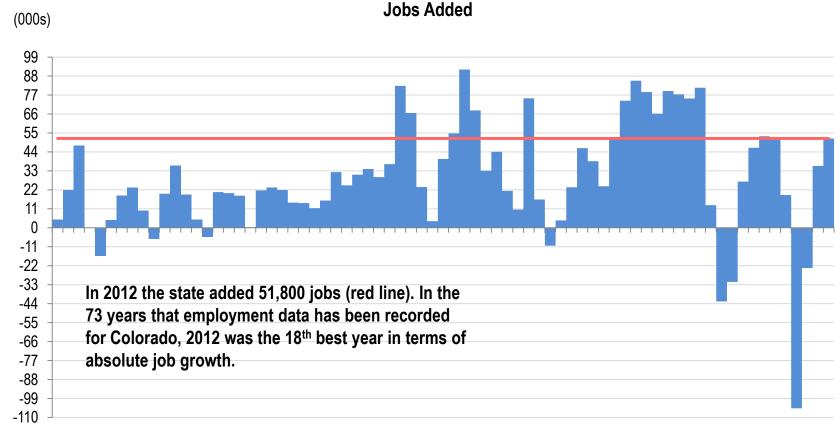


## **Questions and Answers**

## Questions and Answers How Strong Was the Job Growth in 2012?

In 2012, the state added 51,800 jobs, an increase of 2.3% compared to 2011. How does that compare to previous years?

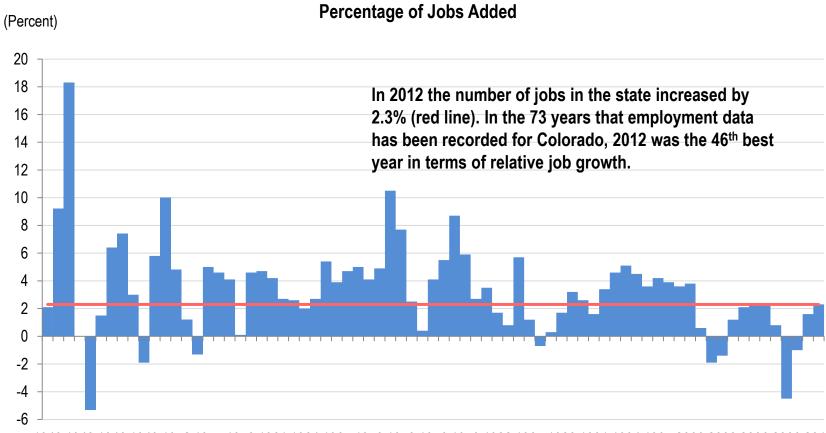
# How Does 51,800 Jobs Compare to Previous Years?



1940 1943 1946 1949 1952 1955 1958 1961 1964 1967 1970 1973 1976 1979 1982 1985 1988 1991 1994 1997 2000 2003 2006 2009 2012

#### Source: Bureau of Labor Statistics, NSA.

# How Does 2.3% Job Growth Compare to Previous Years?



1940 1943 1946 1949 1952 1955 1958 1961 1964 1967 1970 1973 1976 1979 1982 1985 1988 1991 1994 1997 2000 2003 2006 2009 2012

#### Source: Bureau of Labor Statistics, NSA.

# How were the Industries Ranked for Job Creation in 2012?

### Job Change in 2012

## Job Change All Sectors

•Growth was led by Accommodations and Food Services; Health Care; Professional, Scientific, and Technical Services (PST); B-to-B Services (Administrative and Waste Services), Employment Services, and Retail Trade.

•Only four sectors lost jobs. Three of the four were governmental sectors.

•The growth of the B-to-B Services and Employment Services are indicators of an improvement in the business sector.

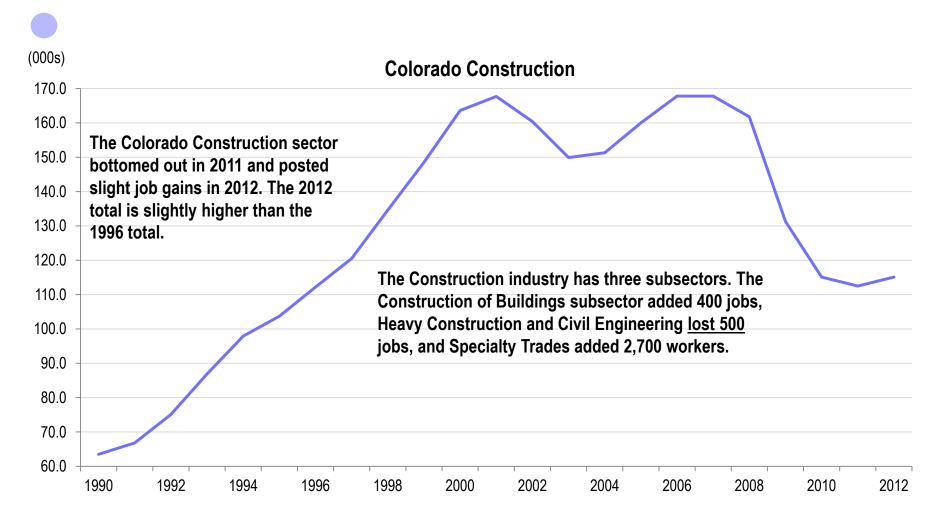
•Expansion in Retail and Other Services are indicators that consumer spending has improved.



Thousands (Average)

Has the Construction Sector Recovered from the Great Recession?

## Colorado Construction



### How Has the Construction Sector Performed Relative to the Nation?

One way to answer this question is to look at the location quotient, or the concentration of local workers relative to the U.S.

Location

Because it is difficult for geographically large states to develop distinctive competencies in construction, the location quotient should be near 1.0.

During the 1980s, the Colorado single family market was drastically overbuilt. As a result, its location quotient was below 1.0 through mid-1991. The concentration of construction workers increased for the next 10 years (2001) to about 1.5 in 2001.

In early 2001, the location quotient began declining and dropped off sharply for three years (2004). It leveled off for five years, then plummeted again in 2009. After bottoming out in mid-2011, it has been flat.

Construction is an industry that has an above average concentration of workers in a number of Colorado's counties. There are those who make the argument that such a high concentration of construction employment is not healthy for the state.

Note: Location quotient based on all wage and salary workers. Source: BLS ,SA.

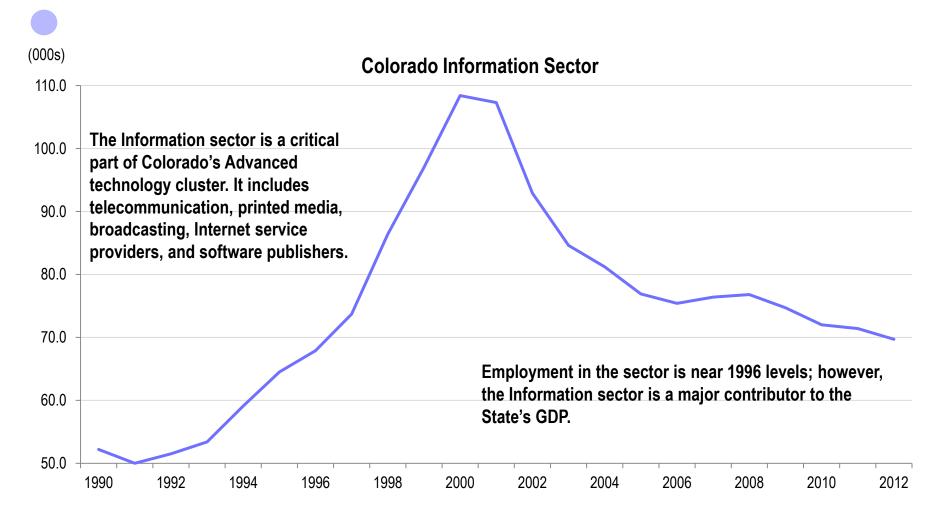
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### **Construction Location Quotient**



# What Direction is the Information Sector Headed?

## Colorado Information Sector



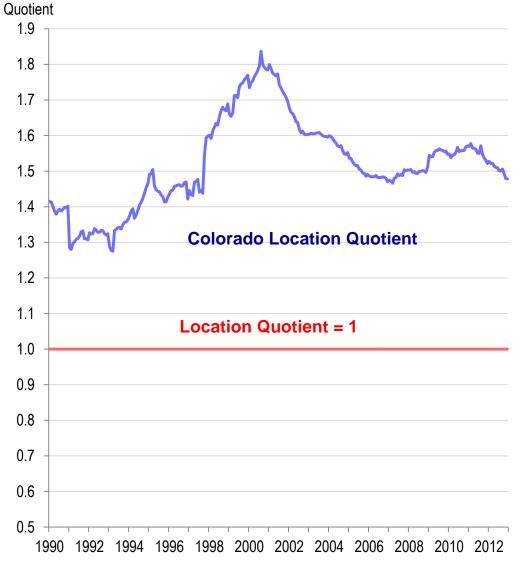
Source: Bureau of Labor Statistics, NSA.

### How Has the Information Sector Performed Relative to the Nation?

One way to answer this question is to look at the location quotient, or the concentration of local workers relative to the U.S. Location

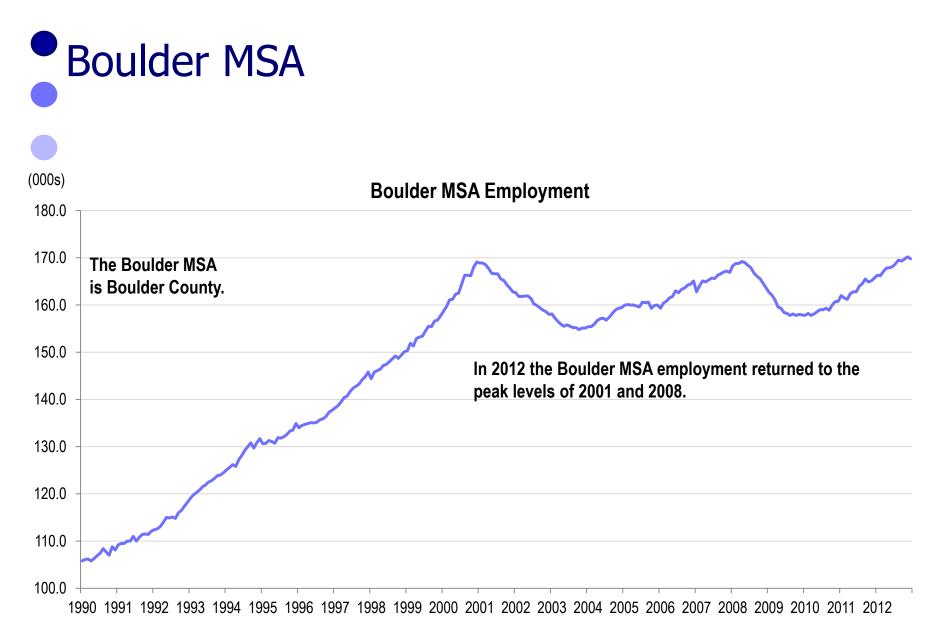
This sector is an area where the state has developed a competitive advantage with strength in telecommunications and software. As the size of the Colorado industry has declined, the location quotient has dropped off.



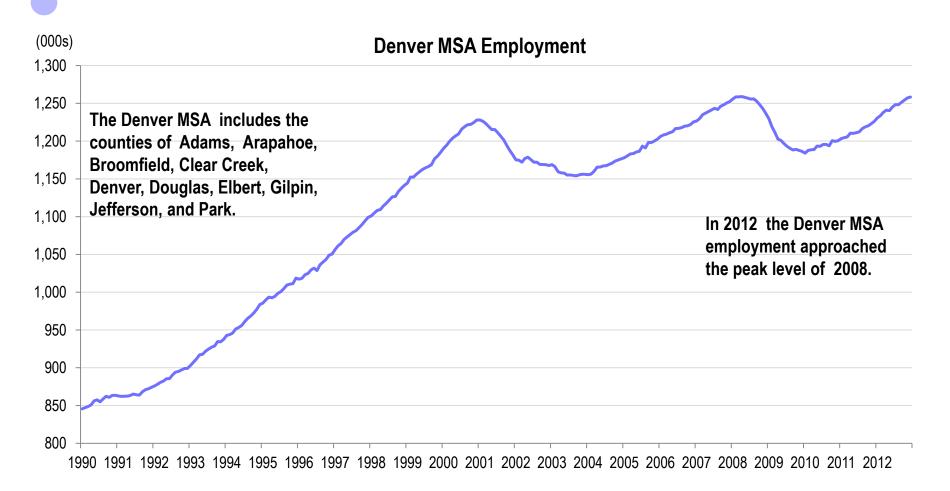


Note: Location quotient based on all wage and salary workers. Source: BLS ,SA.

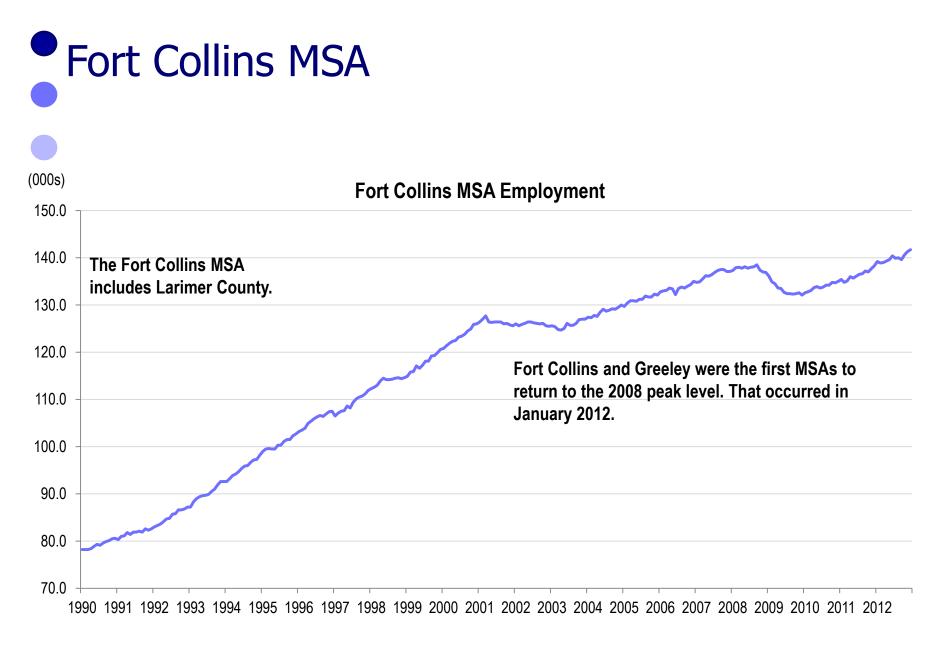
## Have the Major Cities (MSAs) Recovered From the Great Recession?

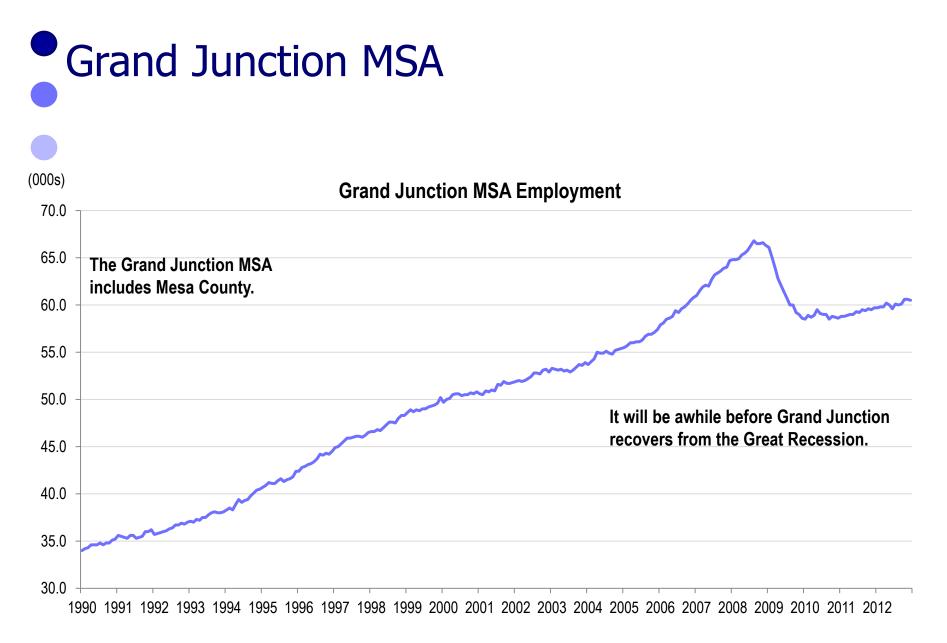


# Denver-Aurora-Broomfield MSA

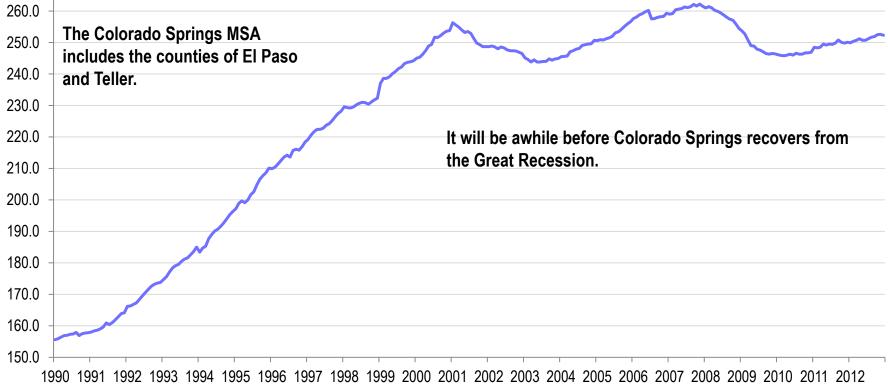


#### Source: Bureau of Labor Statistics, SA.



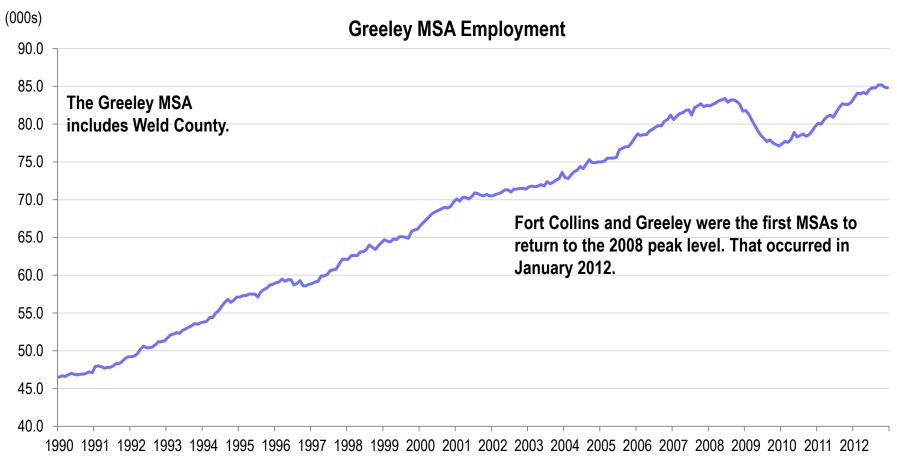


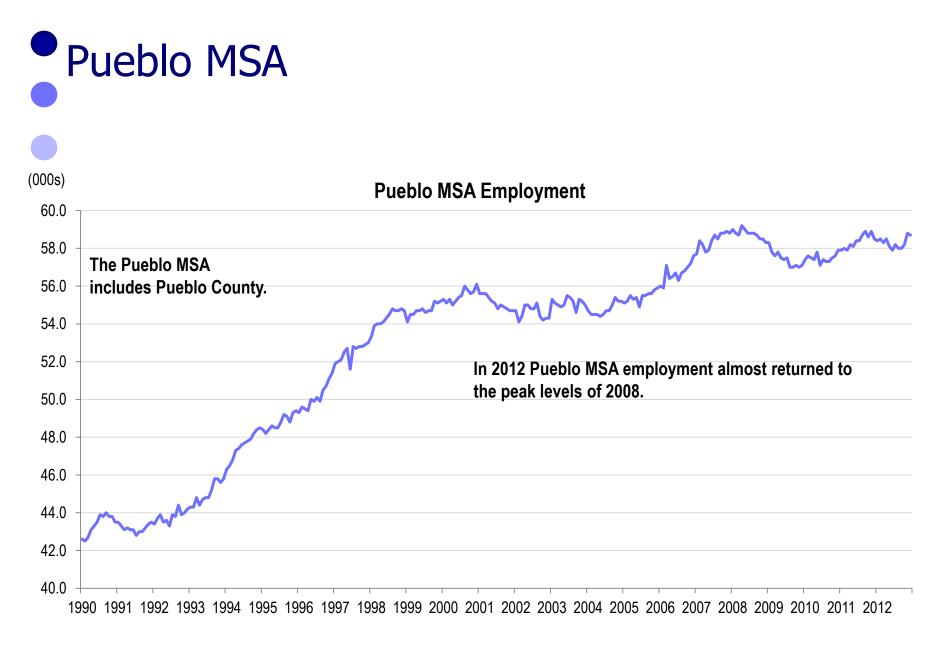
### Colorado Springs MSA (000s) 270.0 270.0 270.0 270.0 270.0



#### Source: Bureau of Labor Statistics, SA.









The recovery from the Great Recession has been led by Fort Collins and Greeley, followed by Boulder, Denver, and Pueblo.

It will be awhile before Grand Junction and Colorado Springs return to 2008 peak employment.



## Summary and Challenges

## Colorado Employment The Lost Decade and Beyond

The three years of recovery after the 2001 and Great Recession have similar job growth patterns.

The job growth after the 2001 recession was: •2004 +26,800 jobs, 1.2% •2005 +46,400 jobs, 2.1% •2006 +53,100 jobs, 2.4%. •On average 42,100 jobs were added each year.

Projected growth after the 2007 recession will be: •2011 +33,500 jobs, 1.5% •2012 +51,800 jobs, 2.3% •2013 up to 55,000 jobs will be added, 2.4%.

•On average, about 46,700 jobs will be added each year.

Employment in 2013 will be similar to 2012. In 2013, 2,100 Colorado will <u>finally</u> exceed 2008 peak employment.

Colorado Non-Farm Employment 2001-2013 (000s) 2,400 2,350 2,300 2,250 2,200 2,150

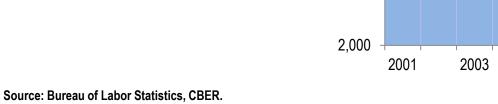
2005

2007

2009

2011

2013



2,050

Challenges Facing the Colorado Economy

#### The Financial System, Debt, and the Political Process

- Public and consumer debt.
- The credibility of the financial system.
- Lack of confidence in political leaders.

#### **Demand for Goods and Services**

- Recession in parts of Europe and weak economy of other major trading partners.
- Lack of new firm creation.

#### Funding Education, Training the Workforce, and Maintaining the Infrastructure

- "Proper" level of funding for PK-12 level and higher education.
- The role of the older worker in the workforce.
- The mismatch between the skills that companies need and the skill sets of job applicants.
- Despite improved revenue streams, the legislature continues to face tough fiscal challenges.

#### The 2013 Legislative Issues and Other Concerns for the State

- The Democrats control both houses and the governor's office. Will they act in the best interest of the state or their party?
- Management of water storage and consumption by state and local governments.
- Growth of Colorado industries that rely on natural resources (Tourism, Extractive Industries, Agriculture).
- Support for Advanced Industries (Aerospace, photonics, biosciences, etc.) as a key to the creation of primary jobs.
- Continued improvement in the real estate markets and job growth in construction.
- The state's latest Pandora's Box the implementation of Amendment 64.

The 2013 CBER forecast can be found at http://cber.co/CBEReconomy.html.

#### Review of Colorado Economy 2012 Analysis of Employment Data

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