Analysis of Colorado Metropolitan Statistical Areas Gross Domestic Product

Colorado-based Business and Economic Research

October 20, 2015



The focus for the special cber.co analysis is to evaluate Gross Domestic Product for the state's seven MSAs. When evaluating the economy it is necessary to consider both employment and GDP because industries contribute to the economy in different ways.

This brief analysis is divided into the following sections.

- Colorado Gross Domestic Product by Metropolitan Statistical Area.
- Colorado Gross Domestic Product MSA vs. U.S. MSA Portion 2001 2014.
- Colorado Gross Domestic Product Size of MSA GDP and Contribution to GDP Growth by Sector.
- Colorado Gross Domestic Product Real Per Capita GDP Growth.
- Colorado Gross Domestic Product Government GDP by MSA.

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

Colorado Gross Domestic Product by Metropolitan Statistical Area

This section looks at the GDP for Colorado's seven MSAs. Industries contribute to the economy in different ways. For that reason it is important to look at both the manner in which employment and gross domestic product impact the growth of the state economy. At the state and MSA level, GDP data is produced once a year.

The information in this section will look at:

- Colorado MSA growth vs. U.S. Metro MSA growth.
- Size of GDP by sector for each MSA.
- Contribution to GDP growth by sector for each MSA.
- Per Capita GDP by MSA.

Colorado Gross Domestic Product MSA vs. U.S. MSA Portion 2001-2014

Summary of Private Sector GDP Growth by MSA

Colorado MSA Private Sector GDP Growth is **BELOW** the U.S. Metro Portion Private Sector GDP Growth for:

- Boulder
- Colorado Springs
- Pueblo

Colorado MSA GDP Private Sector Growth is **SIMILAR TO the** U.S. Metro Portion Private Sector GDP Growth for:

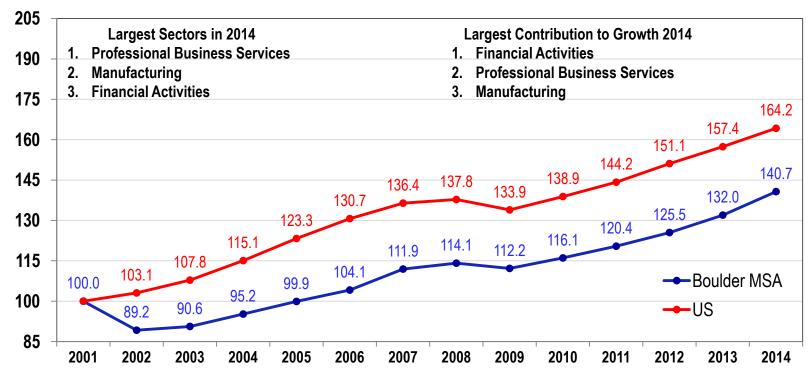
- Denver
- Fort Collins

Colorado MSA GDP Private Sector Growth is **GREATER THAN** the U.S. Metro Portion Private Sector GDP Growth for:

- Grand Junction
- Greeley

Gross Domestic Product Private Sector Index of Boulder MSA vs. U.S. Metropolitan Portion (Private)

Index of Boulder vs. U.S.



Source: Bureau of Economic Analysis.

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Gross Domestic Product Private Sector Index of Colorado Springs MSA vs. U.S. Metropolitan Portion (Private)

Index of Colorado Springs vs. U.S.

205 Largest Sectors in 2014 Largest Contribution to Growth 2014 1. Financial Activities 1. **Financial Activities** 190 2. Professional Business Services 2. Professional Business Services 3. Health Care/Private Education Manufacturing 3. 175 164.2 157.4 160 151.1 144.2 143.6 145 138.9 137.8 136.4 135.9 133.9 134.0 130.7 129.9 127.3 126.8 130 122.9 123.3 122.9 121.6 117 115.1 115 107.8 Colorado Springs MSA 100.0 100 🗕 US 85 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

Source: Bureau of Economic Analysis.

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Gross Domestic Product Private Sector Index of Pueblo MSA vs. U.S. Metropolitan Portion

Index of Pueblo vs. U.S.

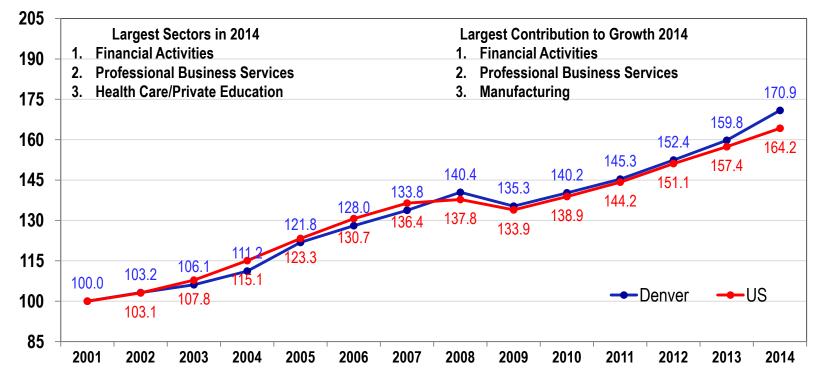
205 Largest Sectors in 2014 Largest Contribution to Growth 2014 1. Health Care/Private Education 1. Professional Business Services 190 2. Manufacturing 2. Manufacturing 3. Retail Health Care/Private Education 3. 175 164.2 157.4 160 151.1 144.2 145 138.9 137.8 136.4 148.5 133.9 130.7 140.1 138.9 130 123.3 134.2 115.1 128.1 126.9 123.7 115 107.8 120.1 103.1 112.0 111.2 ---Pueblo -US 100 106.9 100.9 100.0 99.0 85 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

Source: Bureau of Economic Analysis.

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Gross Domestic Product Private Sector Index of Denver MSA vs. U.S. Metropolitan Portion (Private)

Index of Denver vs. U.S.

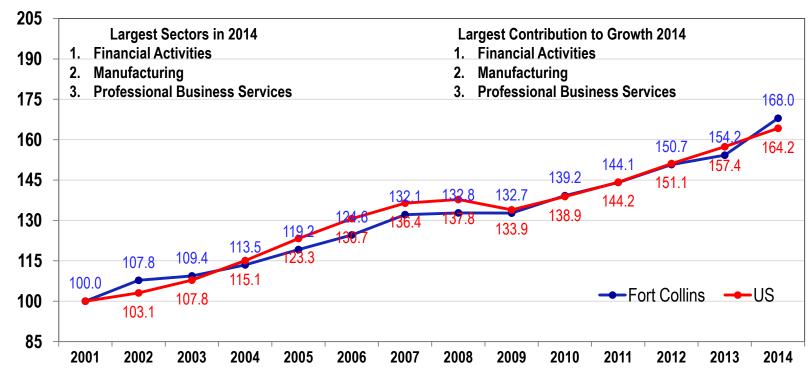


Index 2001=100

Source: Bureau of Economic Analysis.

Gross Domestic Product Private Sector Index of Fort Collins MSA vs. U.S. Metropolitan Portion (Private)

Index of Fort Collins vs. U.S.

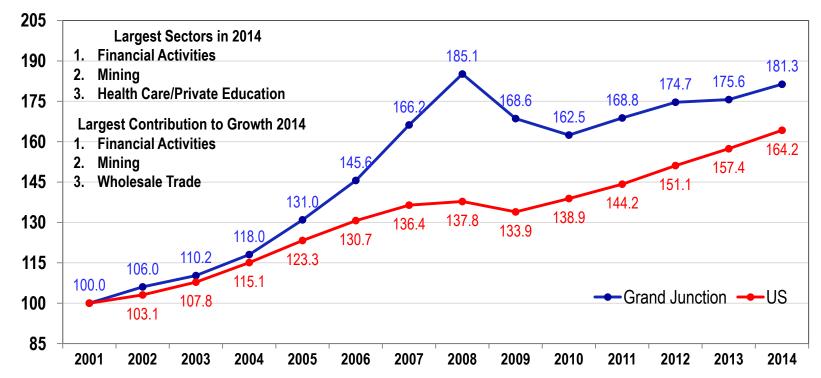


Source: Bureau of Economic Analysis.

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

Gross Domestic Product Private Sector Index of Grand Junction MSA vs. U.S. Metropolitan Portion

Index of Grand Junction vs. U.S.



Index 2001=100

Source: Bureau of Economic Analysis.

Gross Domestic Product Private Sector Index of Greeley MSA vs. U.S. Metropolitan Portion (Private)

Index of Greeley vs. U.S.

205 196.5 Largest Sectors in 2014 Largest Contribution to Growth 2014 1. Mining Mining 1. 190 2. Manufacturing 2. Construction 174. 3. **Financial Activities** 3. Transportation/Warehousing 175 160.3 160 164.2 148.4 157.4 140.1 139.8 145 137.6 137.1 151.1 144.2 26 138.9 137.8 130 36.4 133.9 119 100 115 103 101.6 100.0 ---Greeley 🗕 US 100 103.1 85 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

Source: Bureau of Economic Analysis.

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Colorado Gross Domestic Product

Size of GDP and Contribution to GDP Growth by Sector

Summary of 2014 Private Sector GDP Sector Size and Contribution to Growth

This section shows the top 5 sectors for each MSA in terms of sector size and the greatest contribution to growth.

Largest Sectors

- The Financial Activities and PBS Sectors were in the "top 5" sectors for each MSA.
- Healthcare was in the "top 5" sectors for all MSAs except Greeley.
- Manufacturing was a "top 5" sector for all MSAs except Denver and Grand Junction.
- Retail was a "top 5" sector for Colorado Springs, Fort Collins, Grand Junction, and Pueblo. Each are regional shopping areas.
- Mining was a "top 5" sector for Greeley, Grand Junction, and Denver. Corporate headquarters are located in Denver.
- Information was a "top 5" sector for Denver and Boulder MSAs.

Sectors with Greatest Contribution to GDP

- Financial Activities was one of the "top 5" sectors for contribution to GDP growth in all MSAs except Pueblo.
- PBS was one of the "top 5" sectors for contribution to GDP growth in all MSAs except Grand Junction.
- Manufacturing was one of the "top 5" sectors for contribution to GDP growth in all MSAs except Denver and Greeley.
- Construction was one of the "top 5" sectors for contribution to GDP growth in all MSAs except Boulder and Pueblo.

2014 Private Sector GDP Percent of Total GDP vs. Contribution to GDP

Percentage of 2014 Private Sector Total

Largest Sectors for Metro Areas

- Financial Activities
- Professional Business Services
- Health Care
- Manufacturing
- Secondary Sectors for Metro Areas
- Retail Trade
- Mining
- Information
- Construction

Sectors with Greatest Percentage of 2014 Private Sector Growth

Sectors with Greatest Growth by Metro Area

- Financial Activities
- Professional Business Services
- Manufacturing
- Construction
- Health Care
- Mining

Secondary Sectors for Growth by Metro Area

- Hospitality
- Retail Trade
- Transportation and Warehousing
- Utilities
- Wholesale Trade
- Information

Ranking of Top Five Sectors Based on Percentage of Private Sector GDP

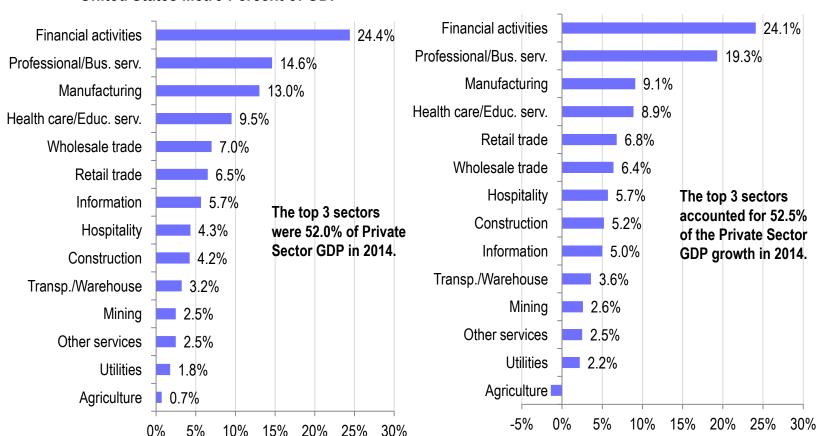
Sector	Boulder	Co. Springs	Denver	Fort Collins	Gr. Junction	Greeley	Pueblo
Construction						4	
Financial Activities	3	1	1	1	1	3	5
Health Care and Educ. Services	5	3	5	4	3		1
Hospitality							
Information	4		3				
Manufacturing	2	5		2		2	2
Mining			4		2	1	
Professional Bus. Services	1	2	2	3	5	5	4
Retail Trade		4		5	4		3
Transportation Narehousing							
Jtilities							
Wholesale Trade Colorado-based Busi		Descent					

Ranking of Top Five Sectors Based on Percentage of Growth for Private Sector GDP

Sector	Boulder	Co. Springs	Denver	Fort Collins	Gr. Junction	Greeley	Pueblo
Construction		3	4	4	4	2	
Financial Activities	1	1	3	1	1	4	
Health Care and Educ. Services	4	2	5				3
Hospitality				5			
nformation	5						
Manufacturing	3	4		2	5		2
Vining			1		2	1	
Professional Bus. Services	2	5	2	3		5	1
Retail Trade							4
Transportation Warehousing						3	
Jtilities							5
Wholesale Trade					3		

2014 Percent of GDP vs. GDP Growth Rate U.S. Metropolitan Portion

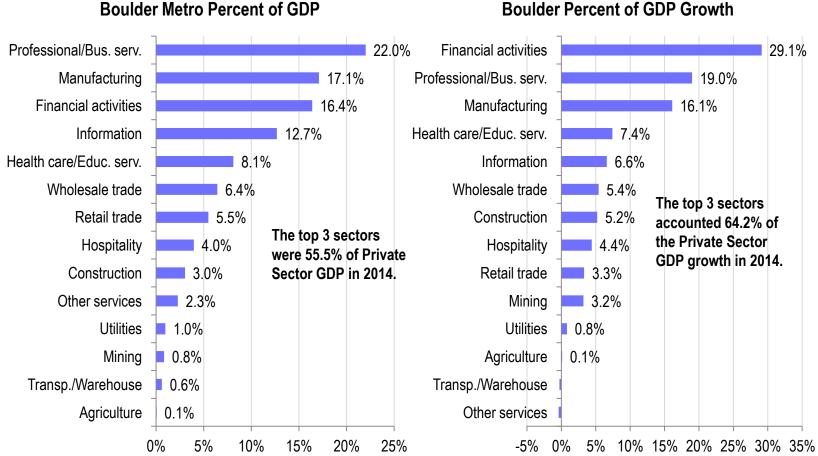
United States Metro Percent of GDP Growth



United States Metro Percent of GDP

Source: Bureau of Economic Analysis.

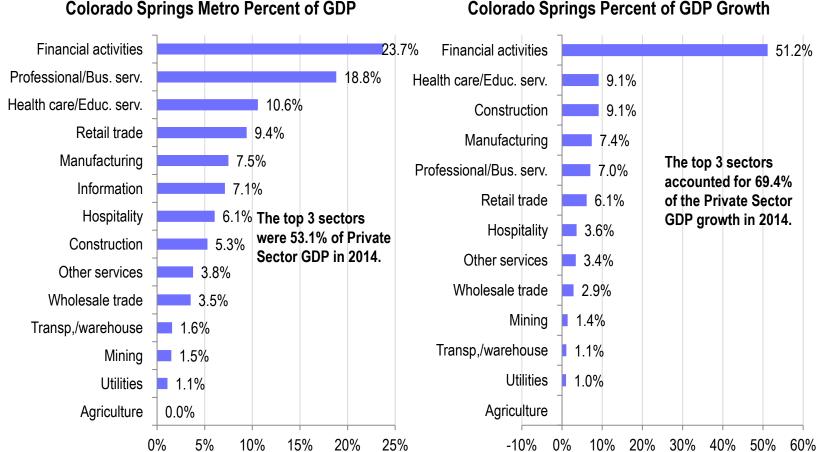
2014 Percent of GDP vs. GDP Growth Rate **Boulder MSA**



Boulder Metro Percent of GDP

Source: Bureau of Economic Analysis.

²2014 Percent of GDP vs. GDP Growth Rate Colorado Springs MSA

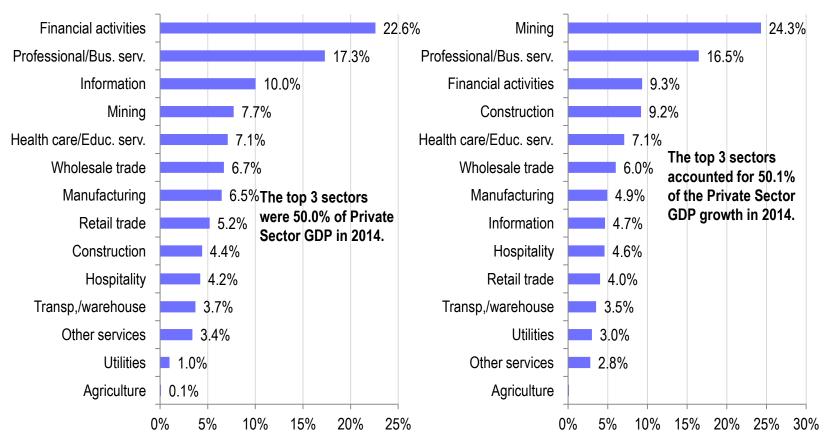


Colorado Springs Percent of GDP Growth

Source: Bureau of Economic Analysis.

2014 Percent of GDP vs. GDP Growth Rate Denver MSA

Denver Percent of GDP Growth

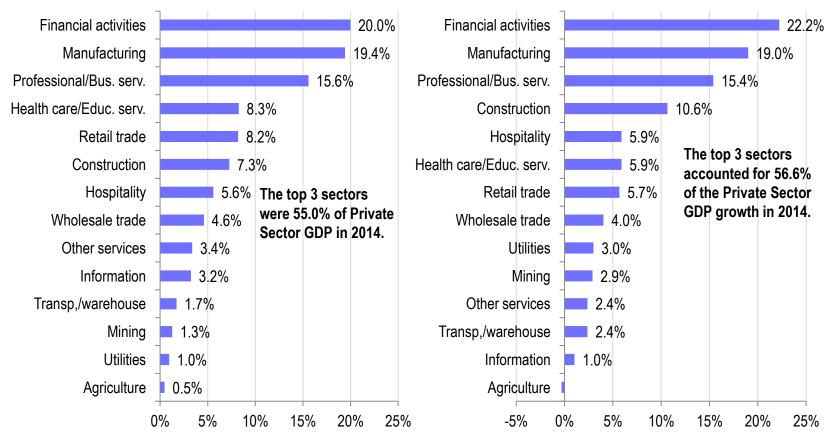


Denver Metro Percent of GDP

Source: Bureau of Economic Analysis. Note: Utilities, Wholesale Trade, and Other Services estimated.

2014 Percent of GDP vs. GDP Growth Rate Fort Collins MSA

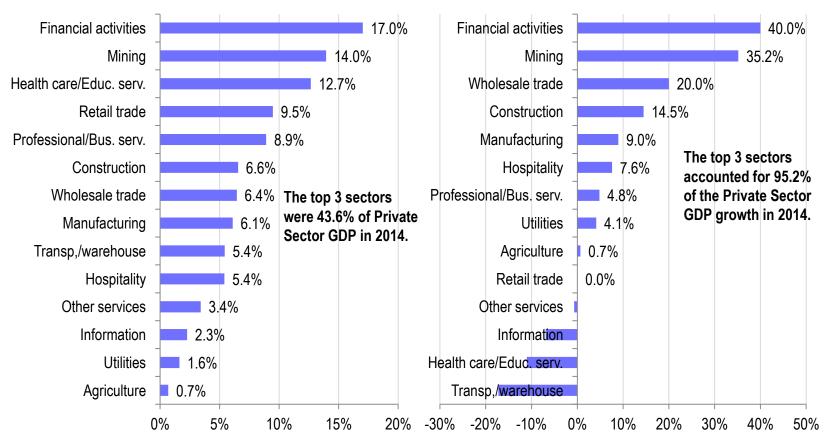
Fort Collins Percent of GDP Growth



Fort Collins Metro Percent of GDP

Source: Bureau of Economic Analysis.

2014 Percent of GDP vs. GDP Growth Rate Grand Junction MSA



Grand Junction Metro Percent of GDP

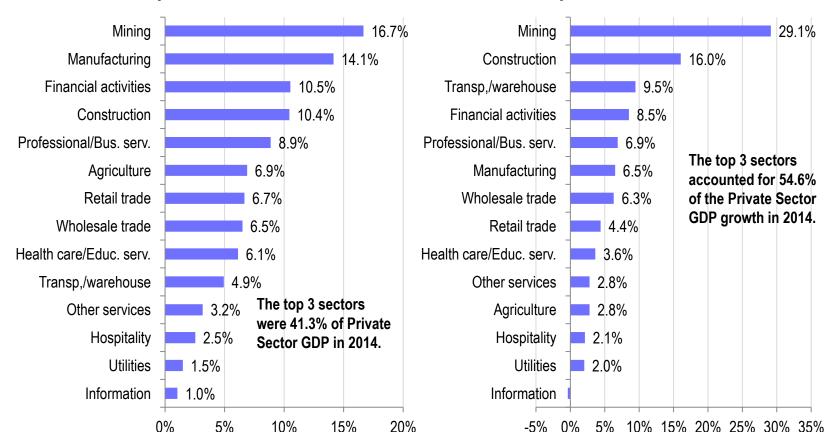
Source: Bureau of Economic Analysis.

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Grand Junction Percent of GDP Growth

²2014 Percent of GDP vs. GDP Growth Rate **Greeley MSA**

Greeley Percent of GDP Growth



Greeley Metro Percent of GDP

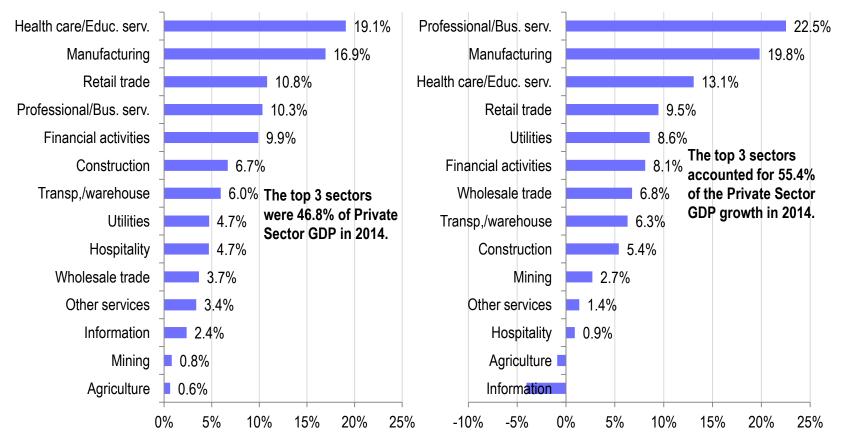
Source: Bureau of Economic Analysis.

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29.1%

2014 Percent of GDP vs. GDP Growth Rate Pueblo MSA

Pueblo Percent of GDP Growth



Pueblo Metro Percent of GDP

Source: Bureau of Economic Analysis.

Colorado Gross Domestic Product

Real Per Capita GDP by MSA

Summary Real Per Capita GDP

Real per Capita GDP for a region is the GDP for that region divided by it's population.

Boulder and Denver were the only MSAs to have Real Per Capita GDP that was above the level of the U.S. Metro Portion.

Only Boulder had an annualized growth rate that was above the U.S. This is the result of low population growth for Boulder rather than a high growth rate in GDP.

Greeley, Pueblo, and Colorado Springs showed decreases in their Real Per Capita GDP between 2001 and 2014.

Real Per Capita GDP by MSA and Annualized Growth Rates

\$67,000 \$61,000 Boulder, 0.9% CAGR \$55,000 Denver-Aurora-Lakewood, 0.3% CAGR -United States, 0.7% CAGR \$49,000 Fort Collins, 0.6% CAGR \$43,000 -Colorado Springs, -0.3% CAGR Grand Junction, 0.3% CAGR \$37,000 -Greeley,-0.3% CAGR Pueblo, -0.5% CAGR \$31,000 \$25,000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

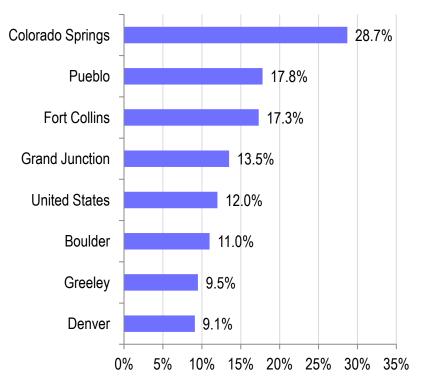
Per Capita GDP and Annualized Growth (2001-2014)

Source: Bureau of Economic Analysis.

Colorado Gross Domestic Product Government GDP by MSA

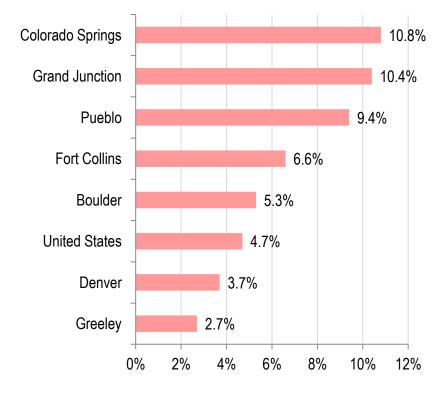
Government Gross Domestic Product Size of Government GDP/Annualized Growth and 2014 Growth

The government percentage of GDP varies drastically depending upon the MSA and its mix of industries. Likewise the percentage of government contribution to Total GDP varies by MSA.



Percentage of Total GDP - 2014

Contribution to Total GDP - 2014

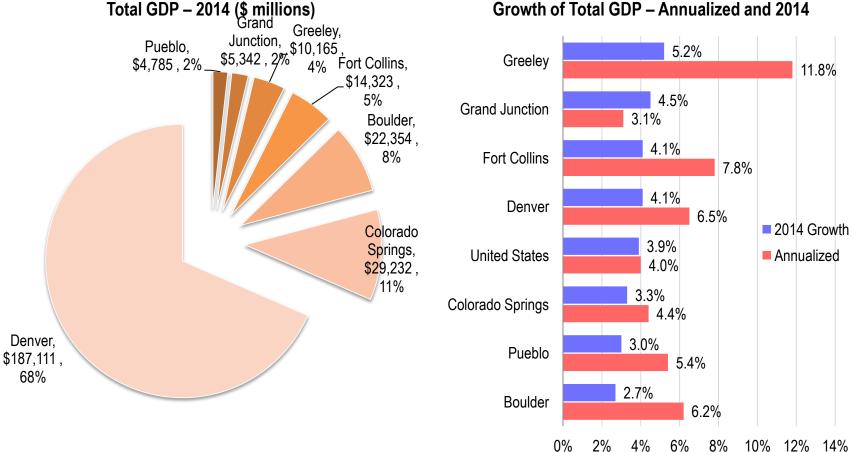


Summary 2014 Government GDP

- Colorado Springs, Pueblo, Fort Collins, and Grand Junction, had the highest percentage of Government GDP. The percentage for each of these MSAs is greater than the percentage for the U.S. Metro portion.
- The percentage of Government GDP ranged from 9.1% to 28.7%.
- The Government Sector had its highest percentage of growth in Colorado Springs, Pueblo, Fort Collins, and Grand Junction.
- The percentage contribution of Government GDP for 2014 ranged from 2.4% to 10.8%.

Summary GDP, Unemployment, and Employment

State GDP Size/% of Total Metro GDP/Growth of GDP 2014



Growth of Total GDP – Annualized and 2014

MSA Gross Domestic Product Key Points

- The 2014 GDP for the Denver MSA is more than twice the GDP of all the other MSAs combined.
- After Denver, the MSAs with the largest GDPs in 2014 were Colorado Springs, Broomfield, and Fort Collins.
- In 2014 the MSAs with the fastest growth in their GDP were Greeley, Grand Junction, and Fort Collins.
- The MSAs with the fastest growth in GDP for the period 2001 to 2014 were Greeley, Fort Collins, and Denver.

Summary of Factors Colorado Job and GDP Growth

The factors relating to GDP that are listed below have had an impact on Colorado economic growth and may impact the way Colorado expands in months ahead.

Colorado MSA vs. U.S. MSA Private Sector Growth

- Boulder, Colorado Springs, and Pueblo were below the U.S. Metro rate.
- Denver and Ft. Collins were similar to the U.S. Metro rate.
- Greeley and Grand Junction were above the U.S. Metro rate.

Size of Colorado Sectors for the MSAs (2014)

- The largest sectors for the metro areas were Financial Activities, Professional Business Services, Health Care, and Manufacturing.
- The secondary sectors for MSAs were Retail Trade, Mining, Information, and Construction.

Growth of Colorado Sectors for the MSAs (2014)

- The sectors with the greatest rate of growth were Financial Activities, Professional Business Services, Manufacturing, Construction, Health Care, Mining.
- The secondary sectors for growth were Hospitality, Retail Trade, Transportation and Warehousing, Utilities, Wholesale Trade, and Information.

Real Per Capita GDP

- Boulder and Denver had Real Per Capita GDP that was above the level of the U.S. Metro Portion.
- Boulder had an annualized growth rate for Real Per Capita GDP that was above the U.S. rate.
- Greeley, Pueblo, and Colorado Springs showed decreases in their Real Per Capita GDP between 2001 and 2014.

Government GDP

- Colorado Springs, Pueblo, Fort Collins, and Grand Junction, had the highest percentage of Government GDP. The percentage for each of these MSAs is greater than the percentage for the U.S. Metro portion.
- The percentage of Government GDP ranged from 9.1% to 28.7%.
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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 road map 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.