



# Analysis of Colorado Gross Domestic Product 1997 Through 2011

Colorado-based Business and Economic Research

September 25, 2012

# Overview of Output Analysis 1997 to 2011 and 2007 to 2011

This analysis of U.S. and Colorado GDP includes the following:

- Value and percent of GDP by sector
- State sectors as a percentage of U.S. GDP
- Annualized rate of change – Real GDP
- Historical change in value – Real GDP
- Summary
- Conclusions

If additional information is needed about the definition of the sectors, refer to the U.S. Census website, <http://www.census.gov/eos/www/naics/>.

To complete this analysis, the Real GDP by State data was used. U.S. GDP (sum of the states) is slightly different from U.S. GDP. See the BEA website for clarification ([www.bea.gov](http://www.bea.gov).)

# GDP – Current Dollars

## Value and Percent of Total

The next two slides show 2011 GDP by NAICS sector in current dollars for the United States and Colorado. They include the value and percentage of the GDP. The top industries for the U.S. and Colorado are similar, but they are ranked in different order.

### United States Gross Domestic Product 2011 (Sum of States)

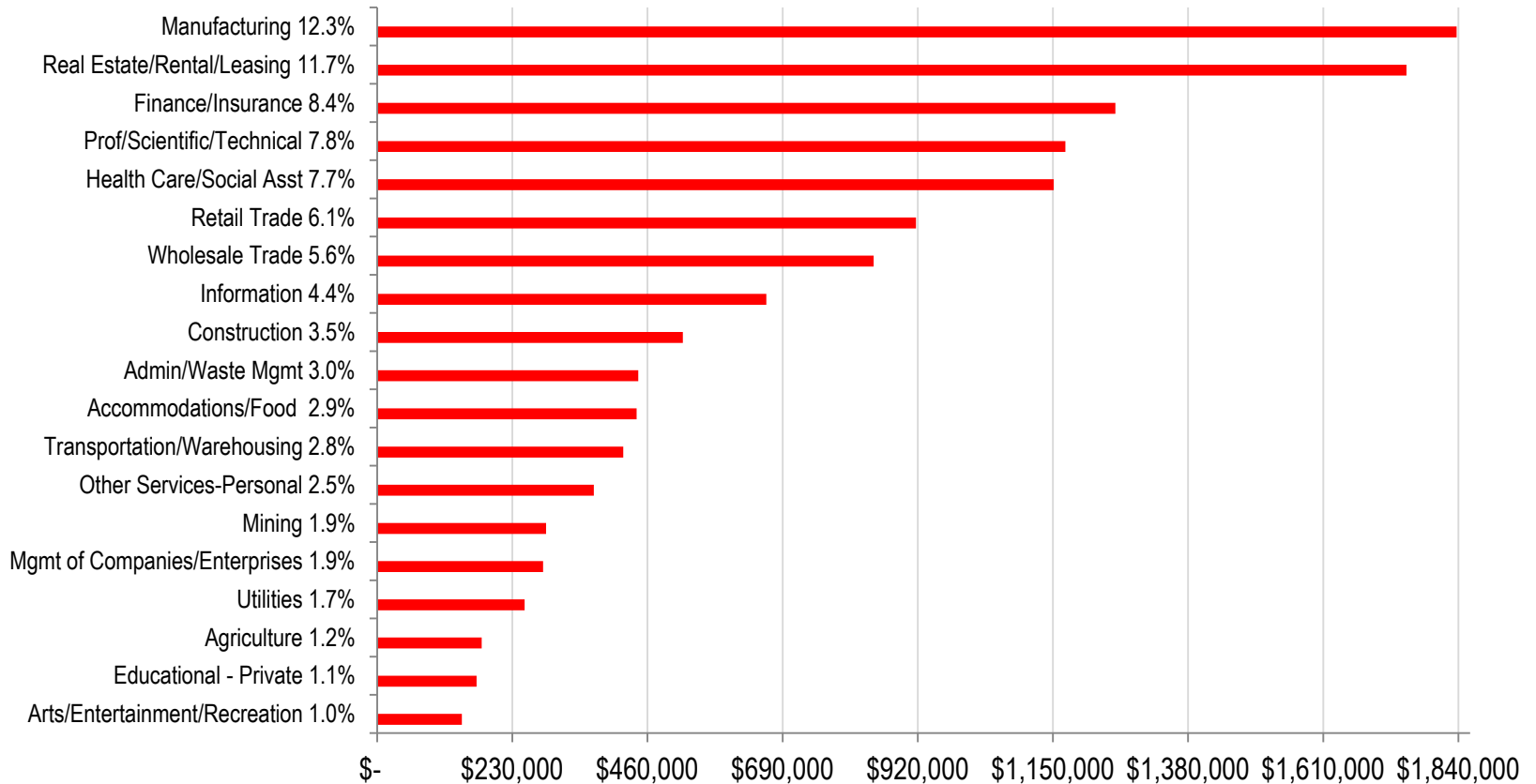
- \$14.981 trillion.
- Private sector is 87.4% of total GDP; Government is 12.6%.
- Manufacturing; Real Estate/Rental/Leasing; Finance and Insurance are 32.4% of total GDP.
- Professional, Scientific, and Technical; Health Care and Social Assistance, and Retail Trade are 21.6% of the total.

### Colorado Gross Domestic Product 2011

- \$264.308 billion.
- Private sector is 87.2% of total GDP; Government is 12.8%.
- Real Estate/Rental/Leasing; Professional/Scientific/Technical; and Information are 30.1% of total GDP.
- Manufacturing; Finance and Insurance; and Health Care/Social Assistance are 20.7% of the total.

- 2011 Gross Domestic Product
- United States (Sum of All States)
- Sector Amount and Percentage of Total

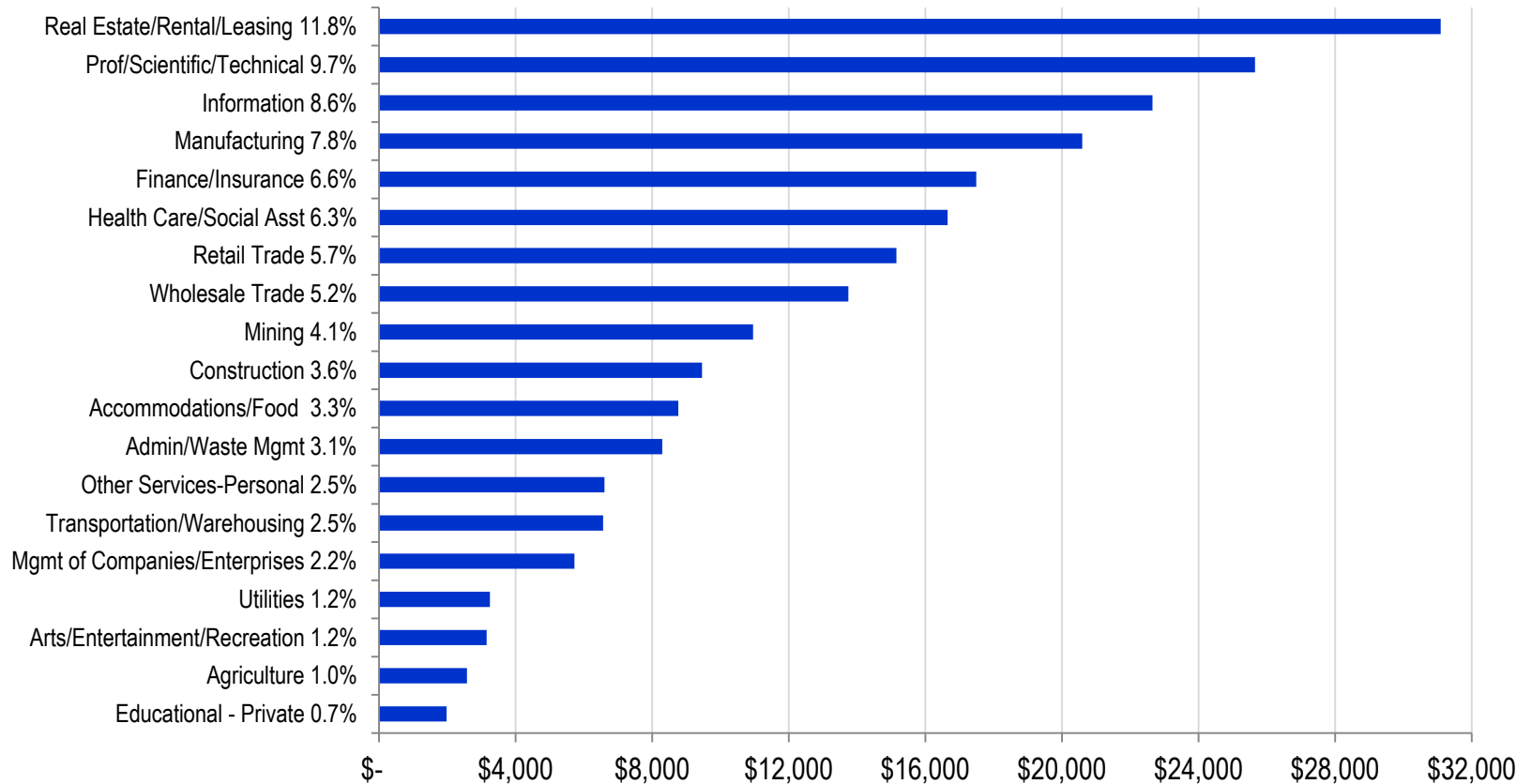
Gross Domestic Product – Millions of Current Dollars



Source: Bureau of Economic Analysis.  
 Colorado-based Business and Economic Research  
<http://cber.co>

- 2011 Gross Domestic Product
- Colorado
- Sector Amount and Percentage of Total

Gross Domestic Product – Millions of Current Dollars



Source: Bureau of Economic Analysis.  
 Colorado-based Business and Economic Research  
<http://cber.co>

# GDP – Percentage United States vs. Colorado

The following two slides compare percentages by NAICS sector for the U.S. and Colorado. One is sorted by the U.S. and the other is sorted by Colorado. The purpose is to show areas where the percentage is noticeably different. The two charts contain the same data; they are sorted differently for ease in comparing the relationship between the state and national data.

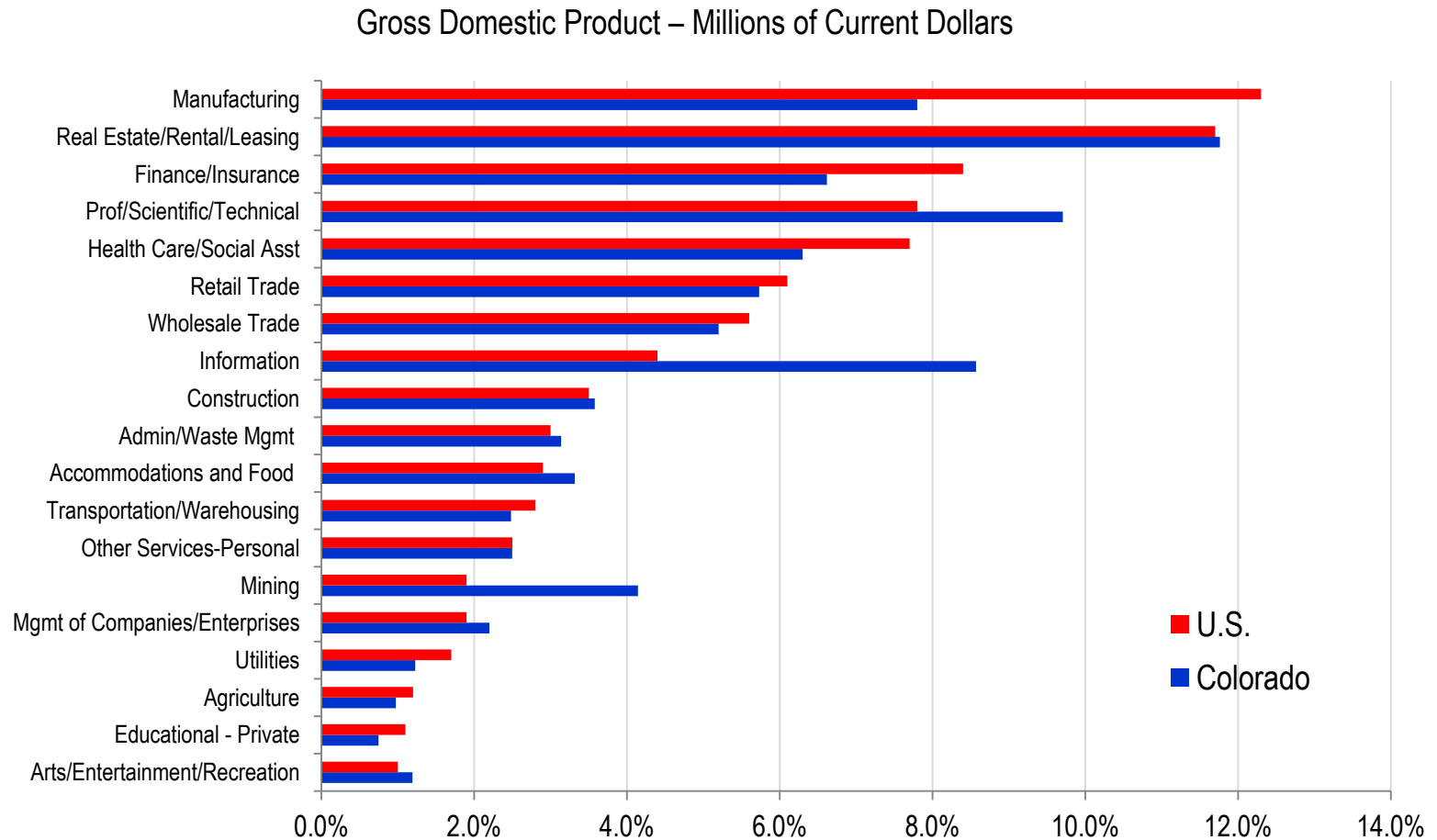
The U.S. has a higher percentage of output than Colorado in the following sectors:

- Manufacturing
- Finance and Insurance
- Health Care and Social Assistance

Colorado has a noticeably higher percentage of output than the U.S. in the following sectors:

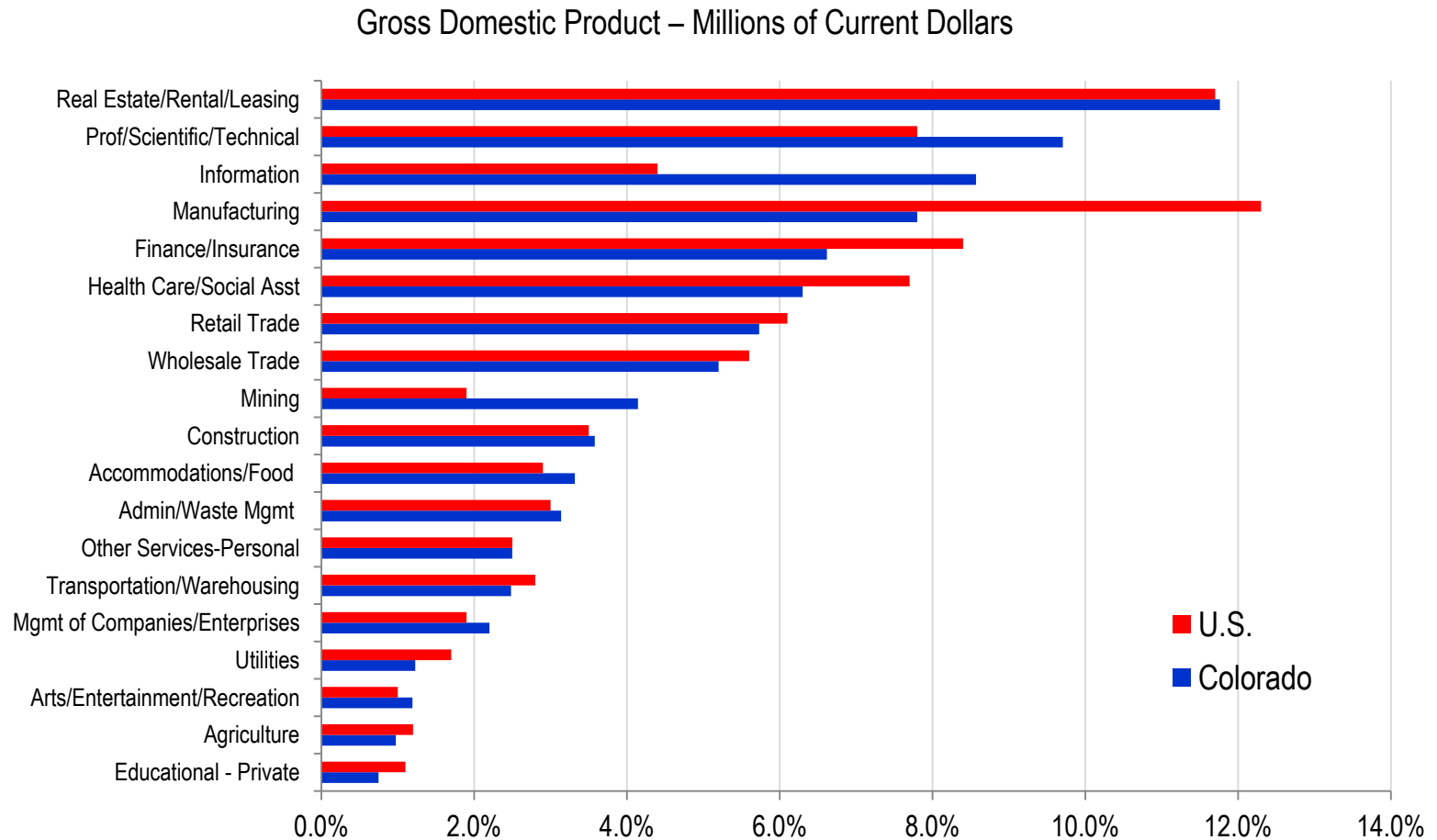
- Professional, Scientific, and Technical
- Information
- Mining

- 2011 Gross Domestic Product (Percent of Total)
- United States and Colorado – Sorted by U.S. (Red)
- Sector Amount and Percentage of Total



Source: Bureau of Economic Analysis.  
 Colorado-based Business and Economic Research  
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- 2011 Gross Domestic Product (Percent of Total)
- United States and Colorado – Sorted by Colorado (Blue)
- Sector Amount and Percentage of Total



Source: Bureau of Economic Analysis.  
 Colorado-based Business and Economic Research  
<http://cber.co>



# State Sectors as a % of U.S. Sector GDP

The following four slides show Colorado's percentage or share of U.S. GDP by sector. The sectors are grouped based on their 2011 share as follows:

- Lowest 1.12% to 1.39%
- Low 1.45% to 1.65%
- High 1.77% to 1.99%
- Highest 2.03% to 2.81%

In 2011 Colorado GDP was 1.76% of the U.S. GDP. The Private sector GDP was 1.76% and the Government GDP was 1.8% of U.S. GDP.

Of the 20 sectors, 16 increased their share of the national GDP between 1997 and 2011 as the state grew at a faster rate than the nation. The sectors that had decreased share were:

- Real Estate/Rental/Leasing decreased from 1.82% to 1.77%.
- Construction decreased from 2.04% to 1.82%.
- Administrative/Waste Management decreased from 2.04% to 1.87%.
- Arts, Entertainment, and Recreation decreased from 2.27% to 2.19%.

The decline of all four sectors has been occurring for over a decade.

# State Sectors as a % of U.S. Sector GDP

## 1997 to 2011

State Sector as a Percentage of U.S. Sector GDP – Sectors with Lowest Percentages

Colorado  
as % of U.S.

2.25

2.00

1.75

1.50

1.25

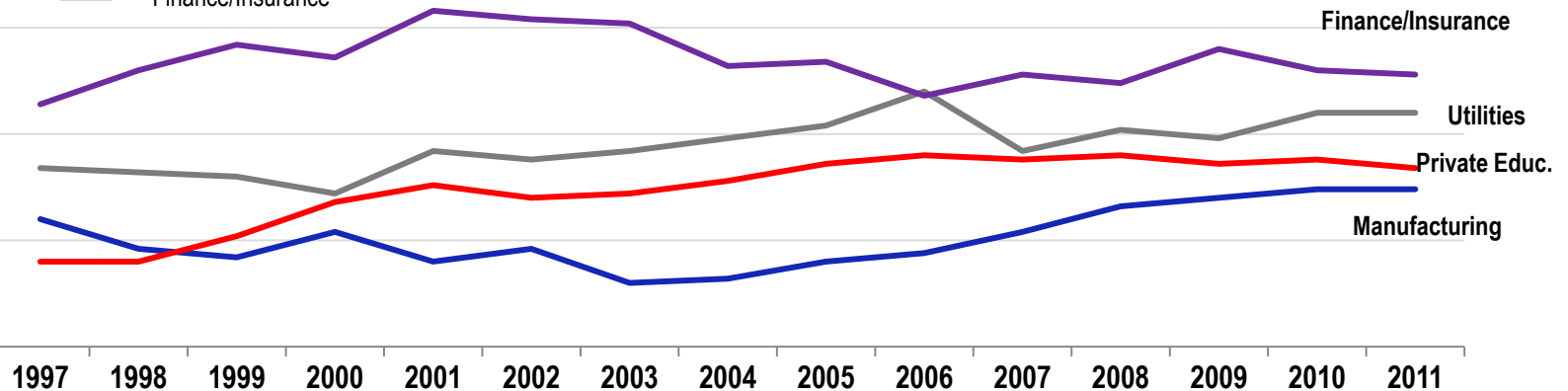
1.00

0.75

In 1997 Colorado GDP was 1.61% of the U.S. GDP. By 2011 it had increased to 1.76% of the U.S. total. The percentages for each of these sectors increased between 1997 and 2011.

- Manufacturing
- Educational - private
- Utilities
- Finance/Insurance

Sector Share 1997 and 2011		
Finance/Insurance	1997	1.32%
	2011	1.39
Utilities	1997	1.17
	2011	1.30
Educational -private	1997	0.95
	2011	1.17
Manufacturing	1997	1.05
	2011	1.12



Source: Bureau of Economic Analysis.

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# State Sectors as a % of U.S. Sector GDP

## 1997 to 2011

State Sector as a Percentage of U.S. Sector GDP – Sectors with Low Percentages

Colorado  
as % of U.S.

2.75

2.50

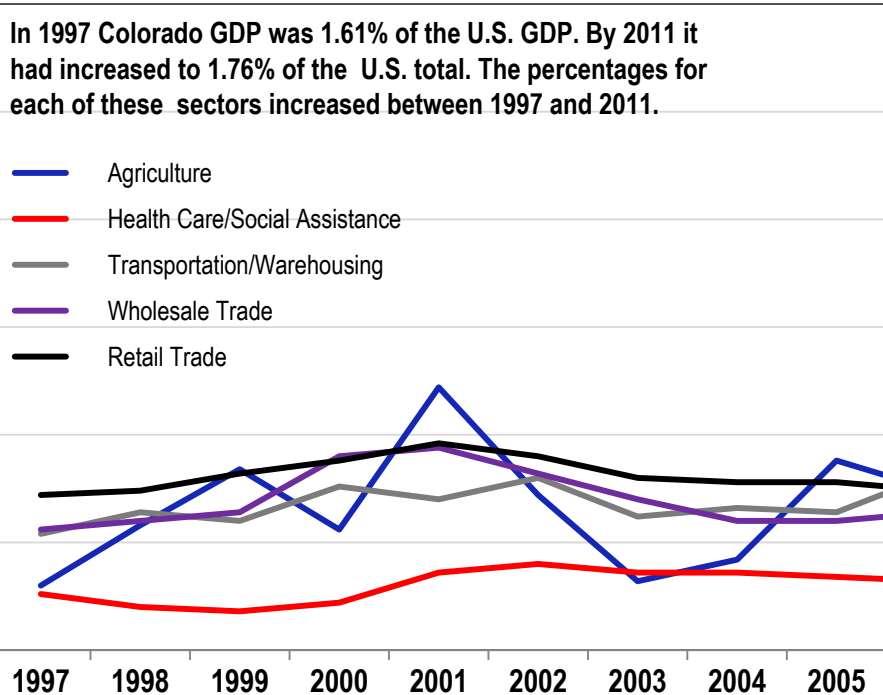
2.25

2.00

1.75

1.50

1.25



Sector Share 1997 and 2011		
Retail Trade	1997	1.61 %
	2011	1.65
Wholesale Trade	1997	1.53
	2011	1.63
Transportation/Warehousing	1997	1.52
	2011	1.57
Health Care/Soc. Asst.	1997	1.38
	2011	1.45
Agriculture	1997	1.40
	2011	1.45

Retail  
Wholesale  
T/W  
Health Care/SA  
Agriculture

Source: Bureau of Economic Analysis.

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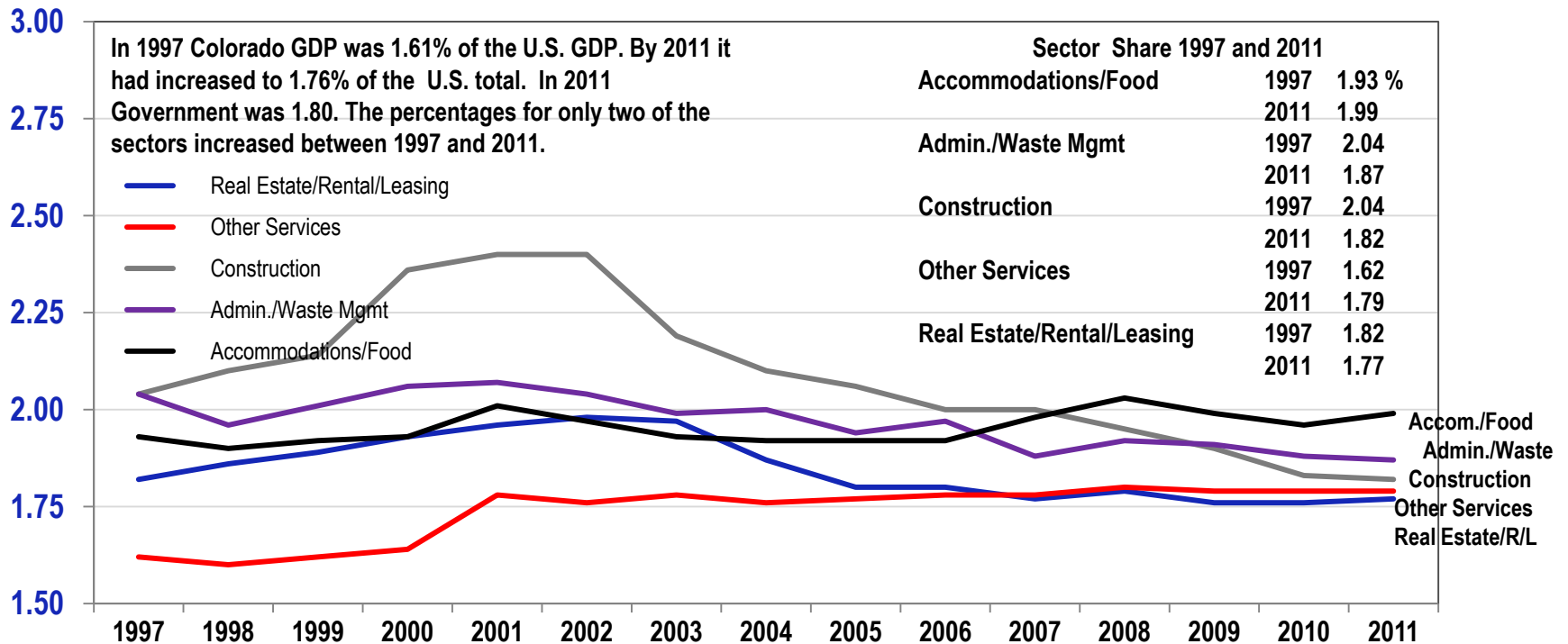
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# State Sectors as a % of U.S. Sector GDP

## 1997 to 2011

State Sector as a Percentage of U.S. Sector GDP – Sectors with High Percentages

Colorado  
as % of U.S.



Source: Bureau of Economic Analysis.

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<http://cber.co>

# State Sectors as a % of U.S. Sector GDP

## 1997 to 2011

State Sector as a Percentage of U.S. Sector GDP – Sectors with Highest Percentages

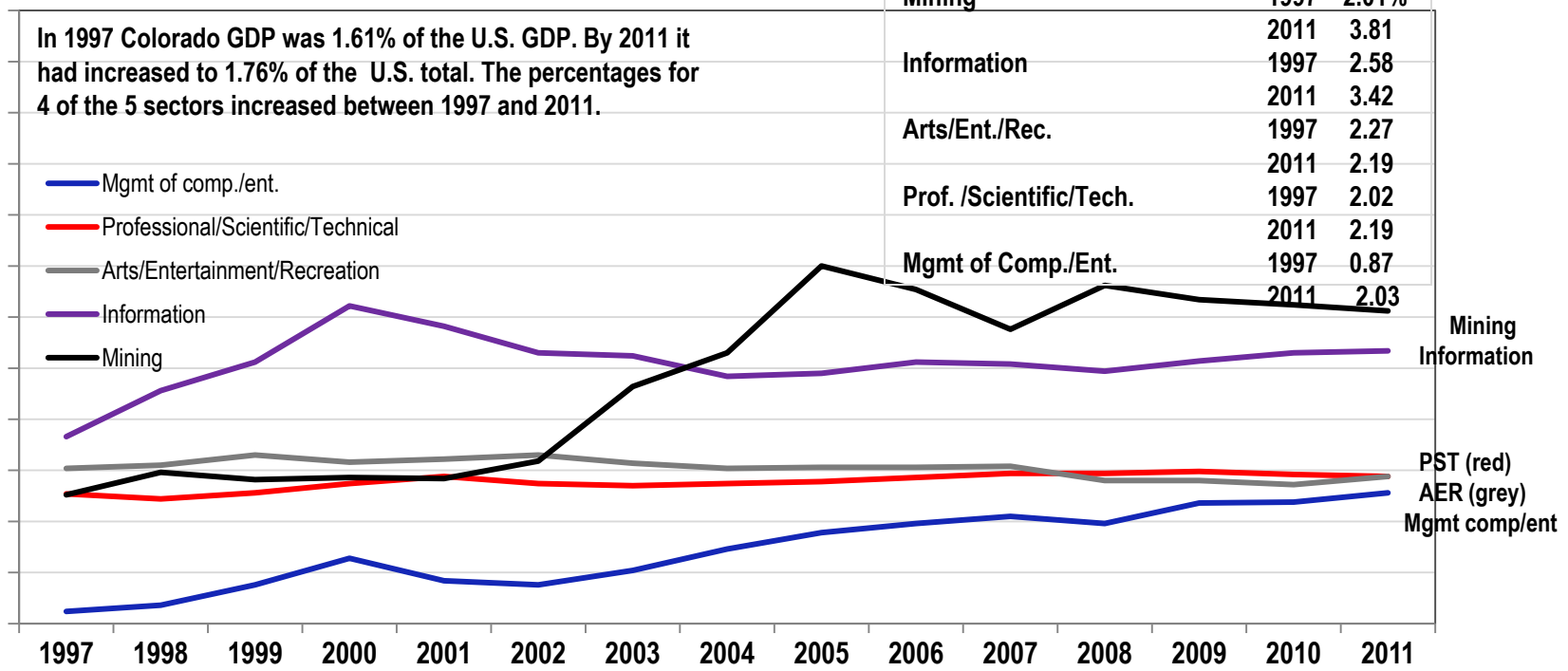
Colorado  
as % of U.S.

6.75  
6.25  
5.75  
5.25  
4.75  
4.25  
3.75  
3.25  
2.75  
2.25  
1.75  
1.25  
0.75

In 1997 Colorado GDP was 1.61% of the U.S. GDP. By 2011 it had increased to 1.76% of the U.S. total. The percentages for 4 of the 5 sectors increased between 1997 and 2011.

- Mgmt of comp./ent.
- Professional/Scientific/Technical
- Arts/Entertainment/Recreation
- Information
- Mining

Sector Share 1997 and 2011		
Mining	1997	2.01%
	2011	3.81
Information	1997	2.58
	2011	3.42
Arts/Ent./Rec.	1997	2.27
	2011	2.19
Prof. /Scientific/Tech.	1997	2.02
	2011	2.19
Mgmt of Comp./Ent.	1997	0.87
	2011	2.03



# ● Annualized Rate of Change Real GDP

## ● 1997 to 2011 and 2007 to 2011

## ● United States (Sum of States) and Colorado

The following five charts compare the annualized rate of change of the real GDP for the United States (sum of states) and Colorado. They show the change from 1997 to 2011 and 2007 to 2011. (They are sorted by both periods for ease in comparison.) For 1997 to 2011, Colorado outperformed the U.S. 2.9% vs. 2.1%. For the shorter period, 2007 to 2011, the state outperformed the nation 0.7% to 0.0%. During both periods, Colorado had a faster rate of growth for both the private and public sectors.

### **U.S. Declining Industries 1997 to 2011**

- Utilities
- Mining
- Other Services-Personal
- Construction

### **Colorado Declining Industries 1997 to 2011**

- Construction

### **U.S. Declining Industries 2007 to 2011**

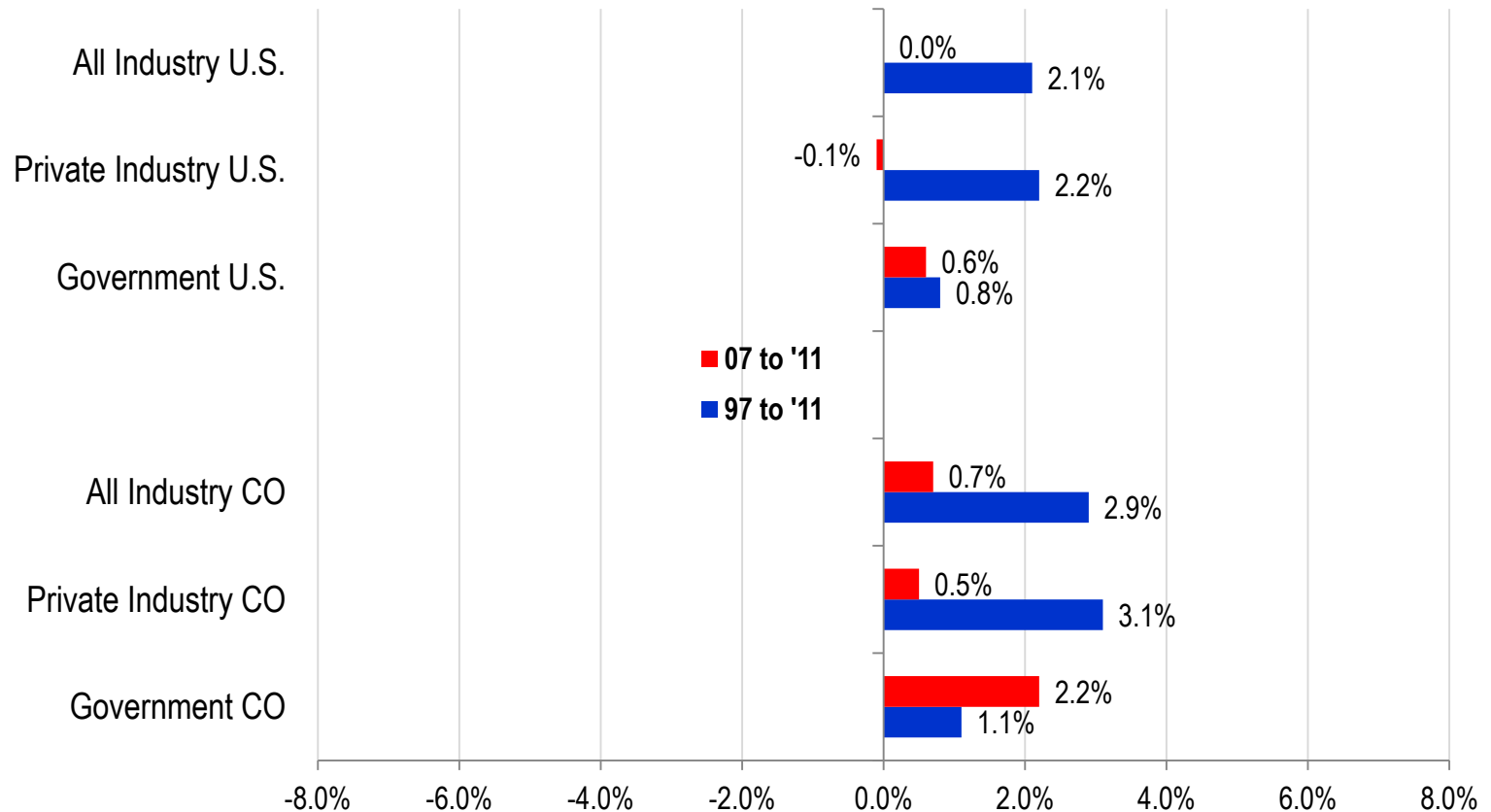
- Arts/Entertainment/Recreation
- Manufacturing
- Mgmt of Companies/Enterprises
- Accommodations/Food
- Real Estate/Rental/Leasing
- Other Services-Personal
- Transportation/Warehousing
- Wholesale Trade
- Utilities
- Construction

### **Colorado Declining Industries 2007 to 2011**

- Accommodations/Food
- Utilities
- Arts/Entertainment/Recreation
- Real Estate/Rental/Leasing
- Other Services-Personal
- Wholesale Trade
- Transportation/Warehousing
- Agriculture
- Construction

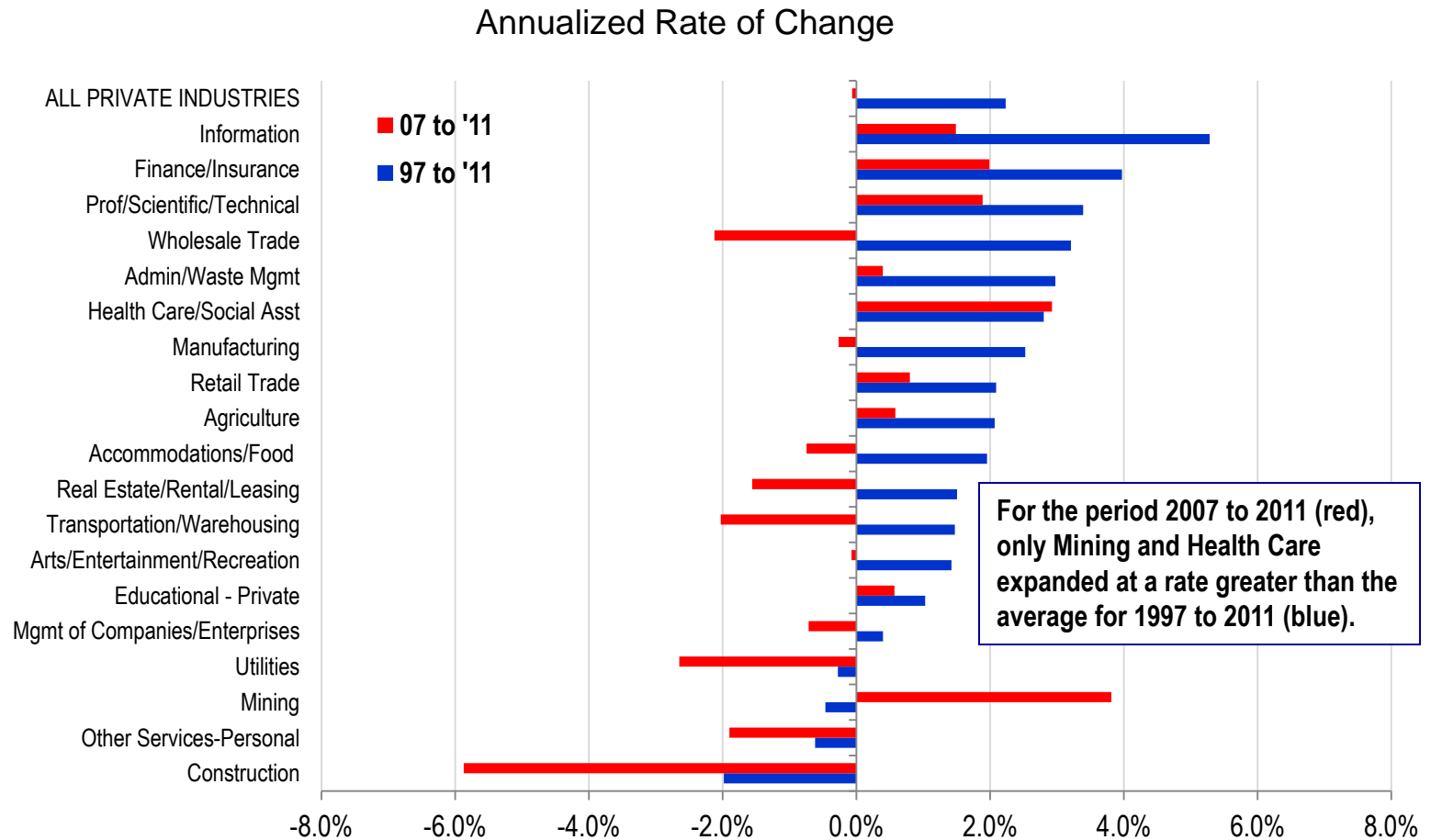
- Annualized Rate of Change Real GDP
- 1997 to 2011 and 2007 to 2011
- United States (Sum of States) and Colorado

Annualized Rate of Change



Source: Bureau of Economic Analysis.  
 Colorado-based Business and Economic Research  
<http://cber.co>

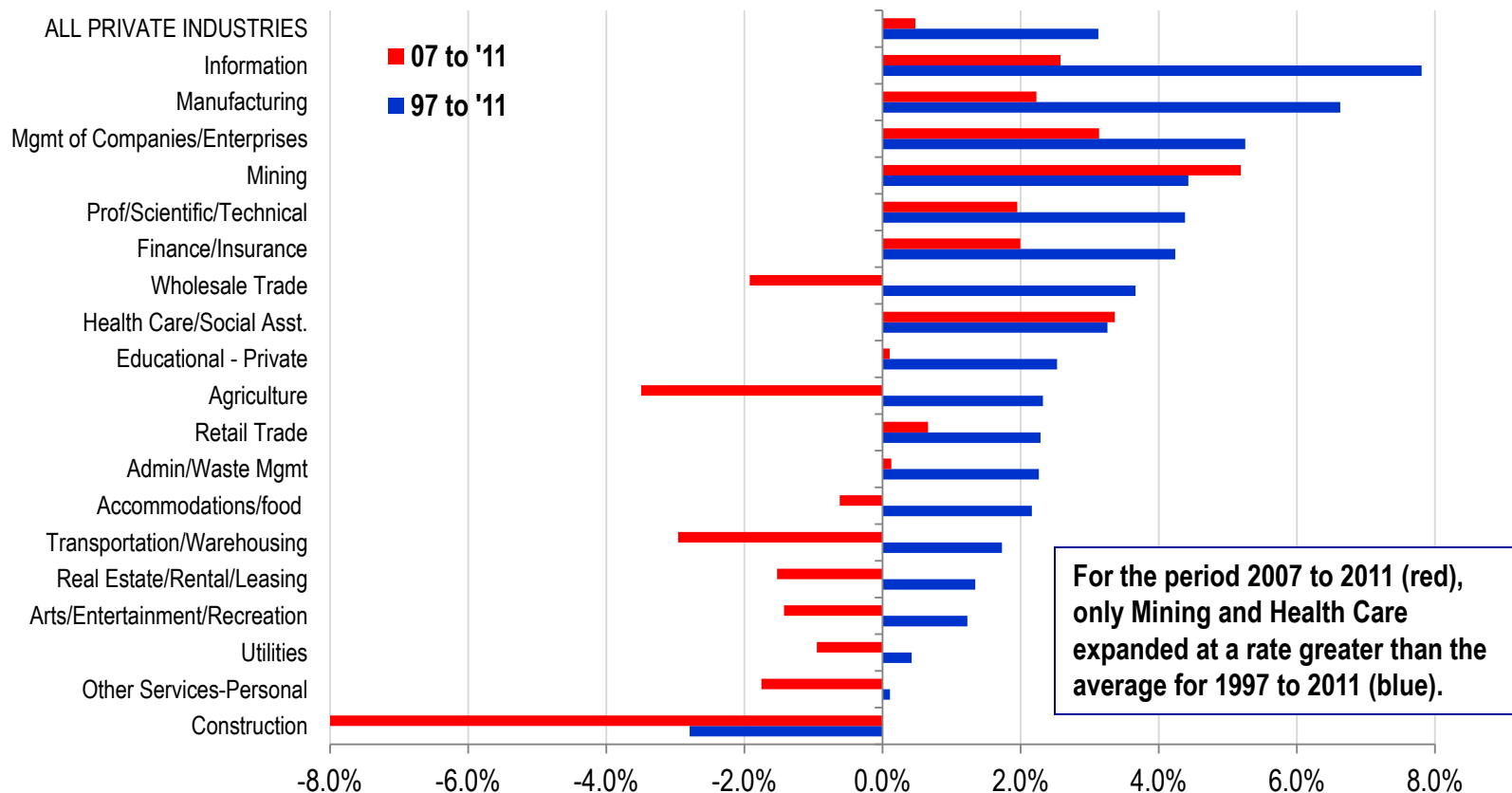
- Annualized Rate of Change Real GDP
- 1997 to 2011 and 2007 to 2011 – Sorted by 1997 to 2011
- United States (Sum of States)





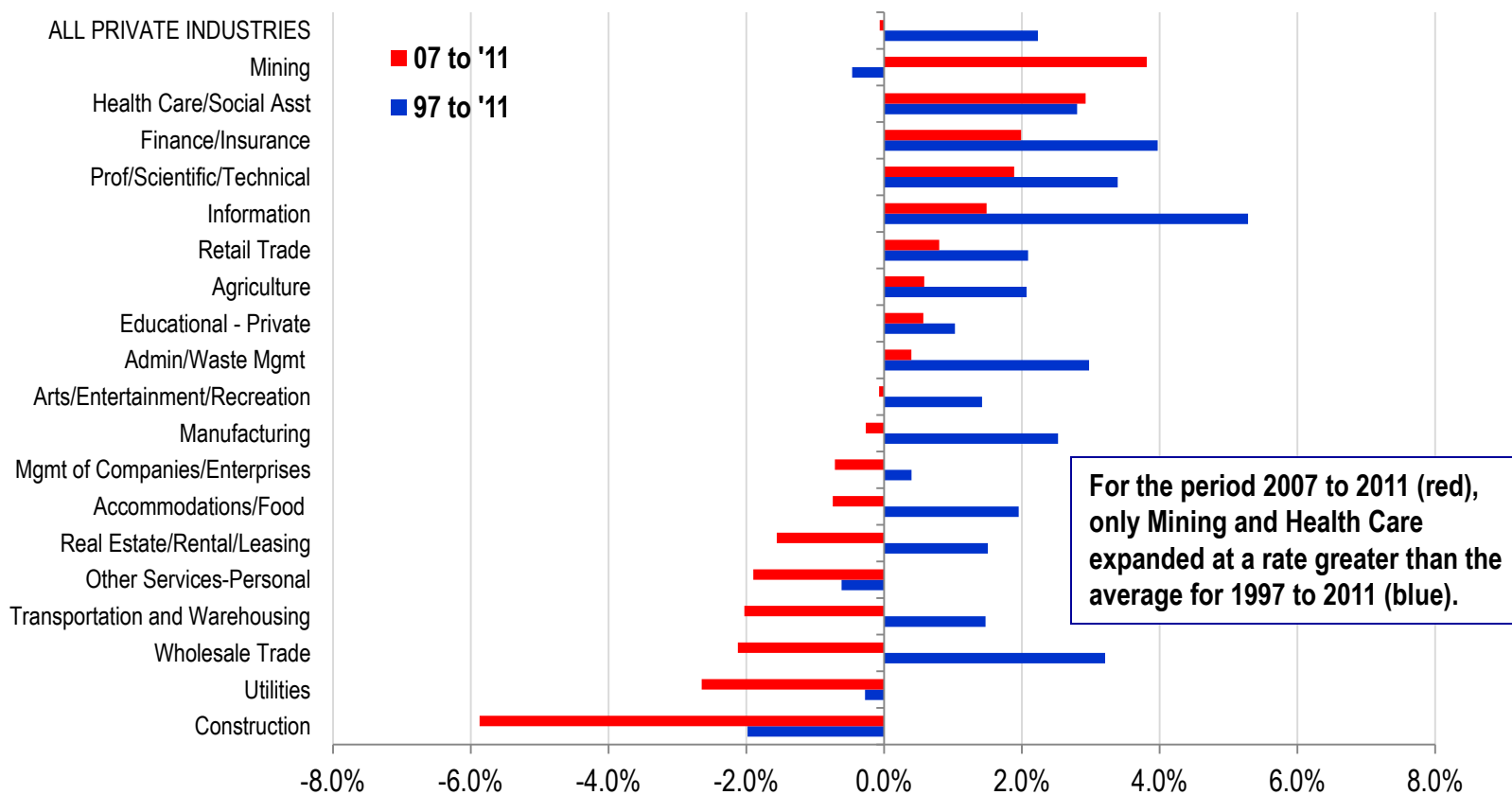
- Annualized Rate of Change Real GDP
- 1997 to 2011 and 2007 to 2011 – Sorted by 1997 to 2011
- Colorado

Annualized Rate of Change



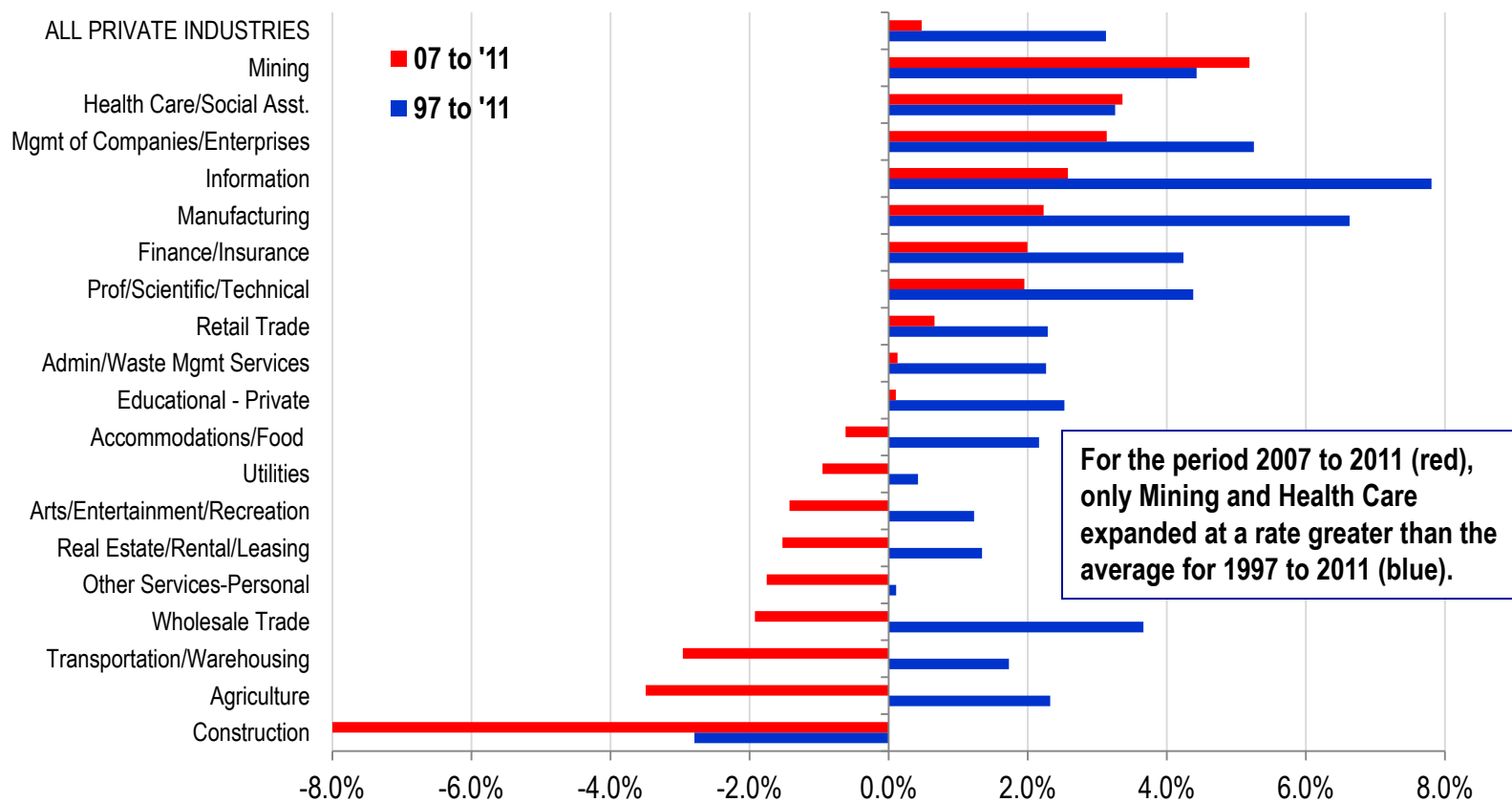
- Annualized Rate of Change Real GDP
- 1997 to 2011 and 2007 to 2011 – Sorted by 2007 to 2011
- United States (Sum of States)

Annualized Rate of Change



- Annualized Rate of Change Real GDP
- 1997 to 2011 and 2007 to 2011 – Sorted by 2007 to 2011
- Colorado

Annualized Rate of Change



Source: Bureau of Economic Analysis.  
 Colorado-based Business and Economic Research  
<http://cber.co>

# ● Historical Real Gross Domestic Product ● Colorado vs. U.S. (Sum of States) ●

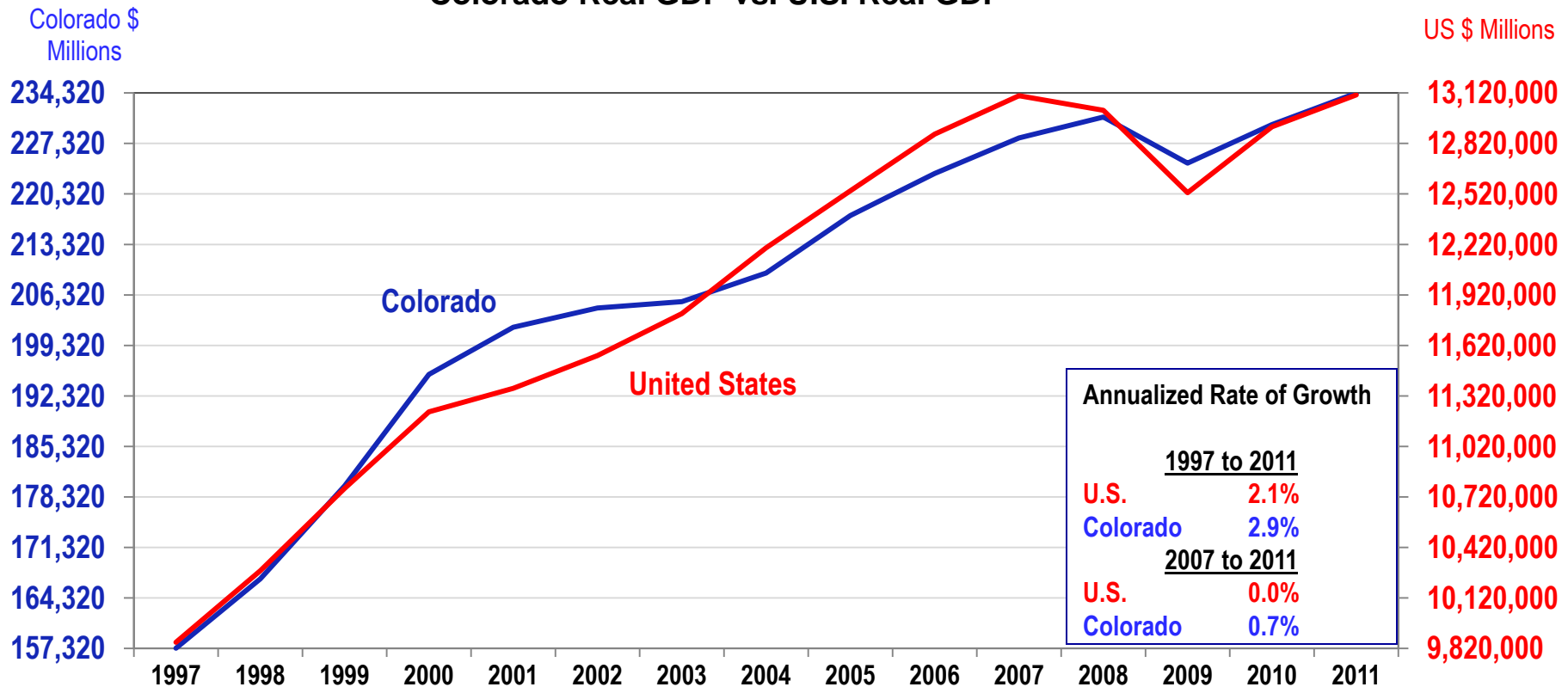
The following three slides show the historical change in Real GDP for Colorado and the U.S. from 1997 to 2011. As well, each slide includes the annualized rate of change from 1997 to 2011 and 2007 to 2011.

Colorado's Real GDP grew at a faster rate than the U.S. Real GDP.

Both the private and public sector real output for Colorado grew at a faster rate than the U.S.

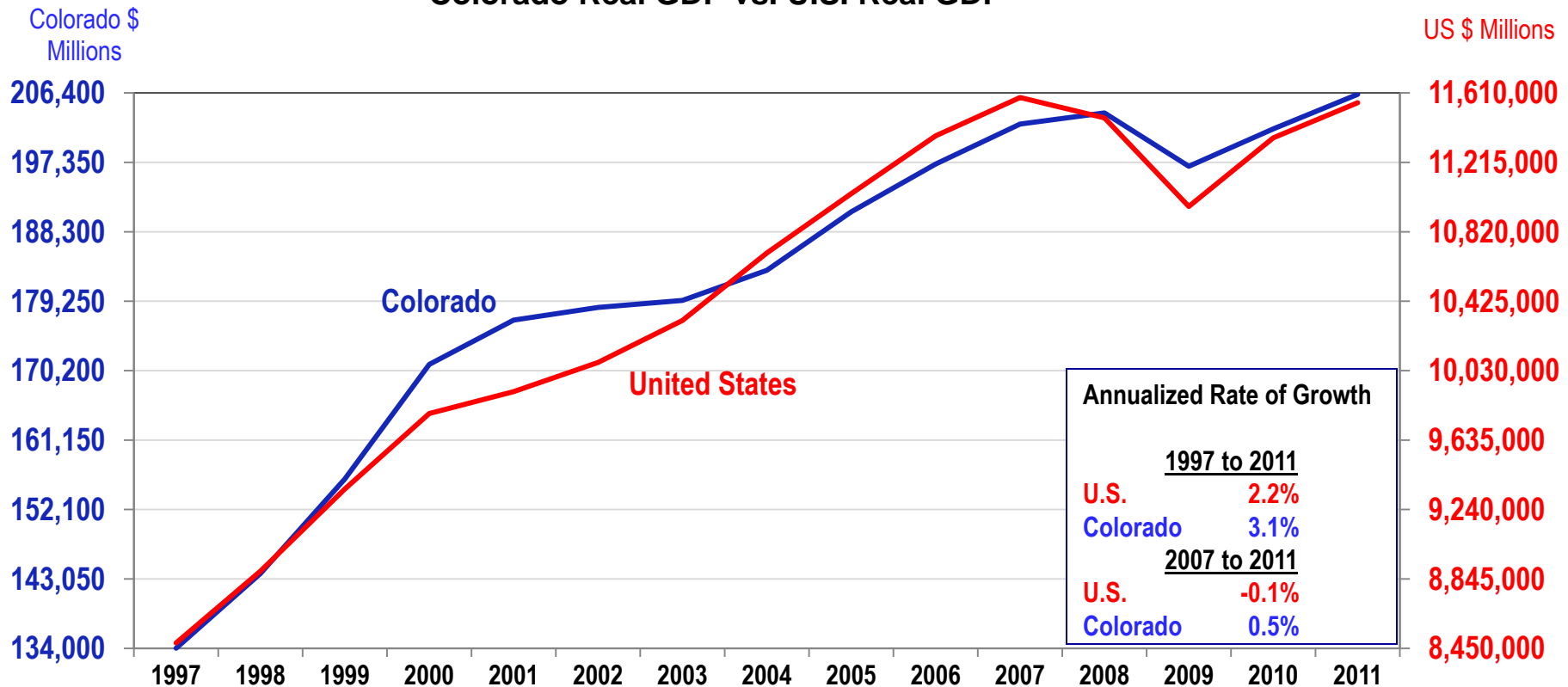
- Total Real Gross Domestic Product
- Colorado vs. U.S. (Sum of States)
- 

Colorado Real GDP vs. U.S. Real GDP



- Total Real Gross Domestic Product – Private Sector
- Colorado vs. U.S. (Sum of States)
- 

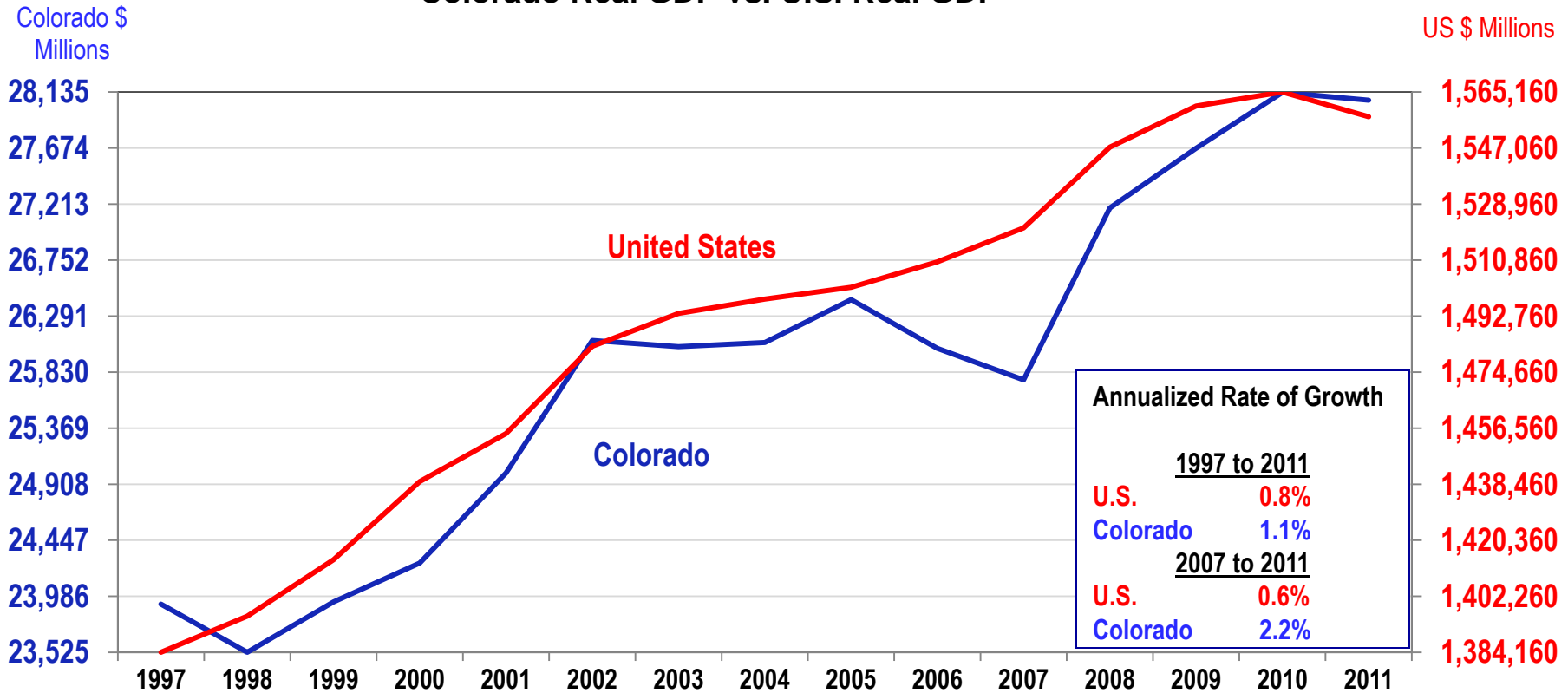
Colorado Real GDP vs. U.S. Real GDP



Source: Bureau of Economic Analysis.  
 Colorado-based Business and Economic Research  
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- Total Real Gross Domestic Product - Government
- Colorado vs. U.S. (Sum of States)
- 

Colorado Real GDP vs. U.S. Real GDP



Source: Bureau of Economic Analysis. Note: Government includes military.

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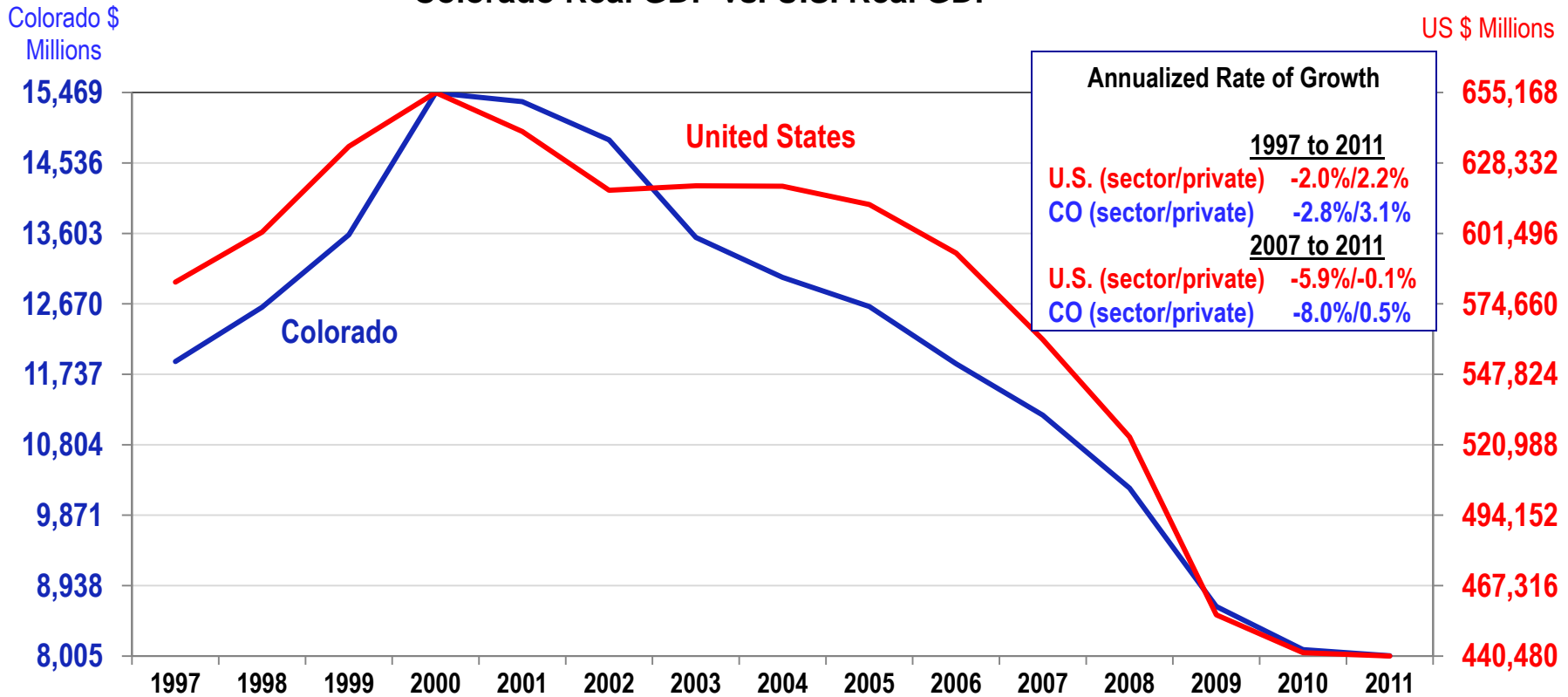
# ● Historical Real Gross Domestic Product ● Colorado vs. U.S. (Sum of States) ●

These slides include the sectors that showed a negative annualized rate of real output growth for the U.S. from 1997 to 2011 (Construction, Utilities, Mining, Construction, and Administrative/Waste Management). Construction is the only sector that posted a decline in Colorado. The sectors are sorted (low to high) by the rate of U.S. growth from 1997 to 2011.



- Total Real Gross Domestic Product
- Construction
- Colorado vs. U.S. (Sum of States)

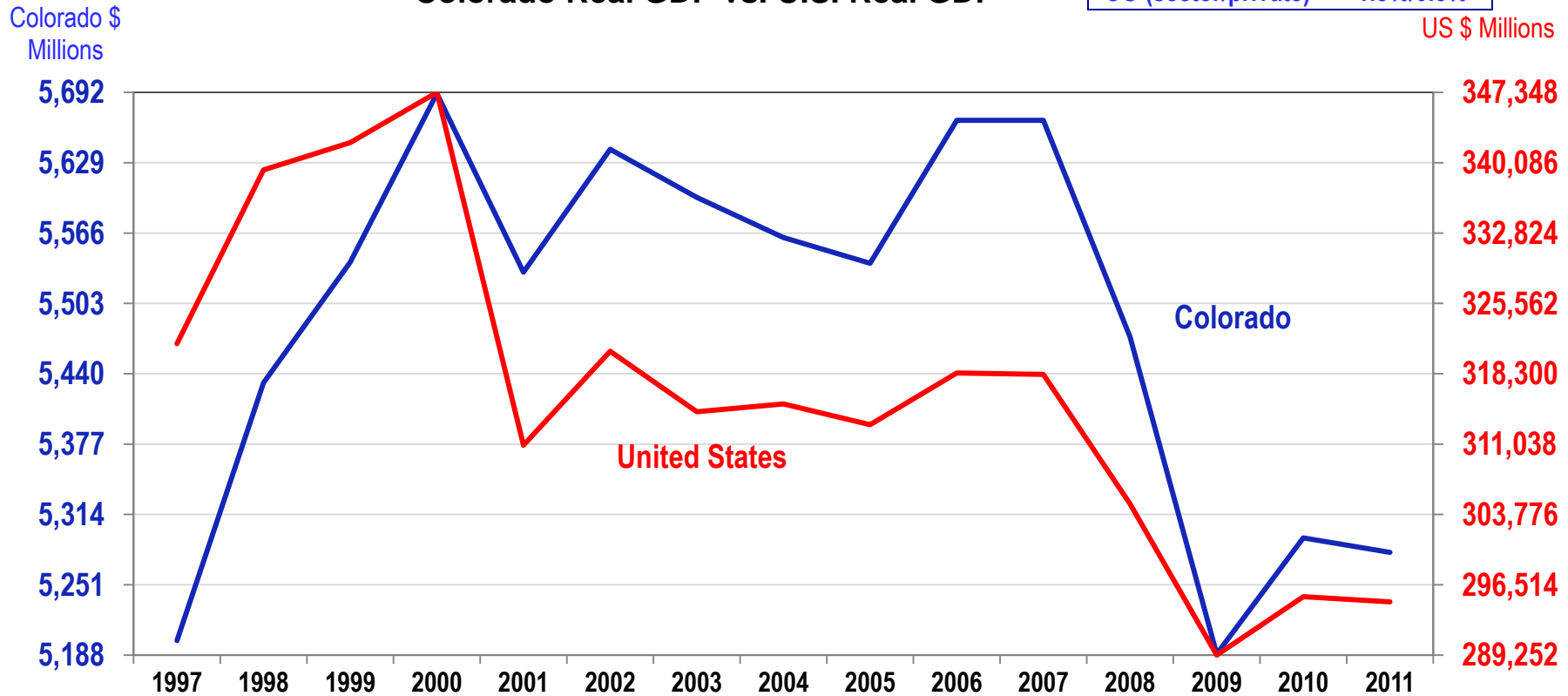
Colorado Real GDP vs. U.S. Real GDP



- Total Real Gross Domestic Product
- Other Services
- Colorado vs. U.S. (Sum of States)

Annualized Rate of Growth	
<u>1997 to 2011</u>	
U.S. (sector/private)	-0.6%/2.2%
CO (sector/private)	0.1%/3.1%
<u>2007 to 2011</u>	
U.S. (sector/private)	-1.9%/-0.1%
CO (sector/private)	-1.8%/0.5%

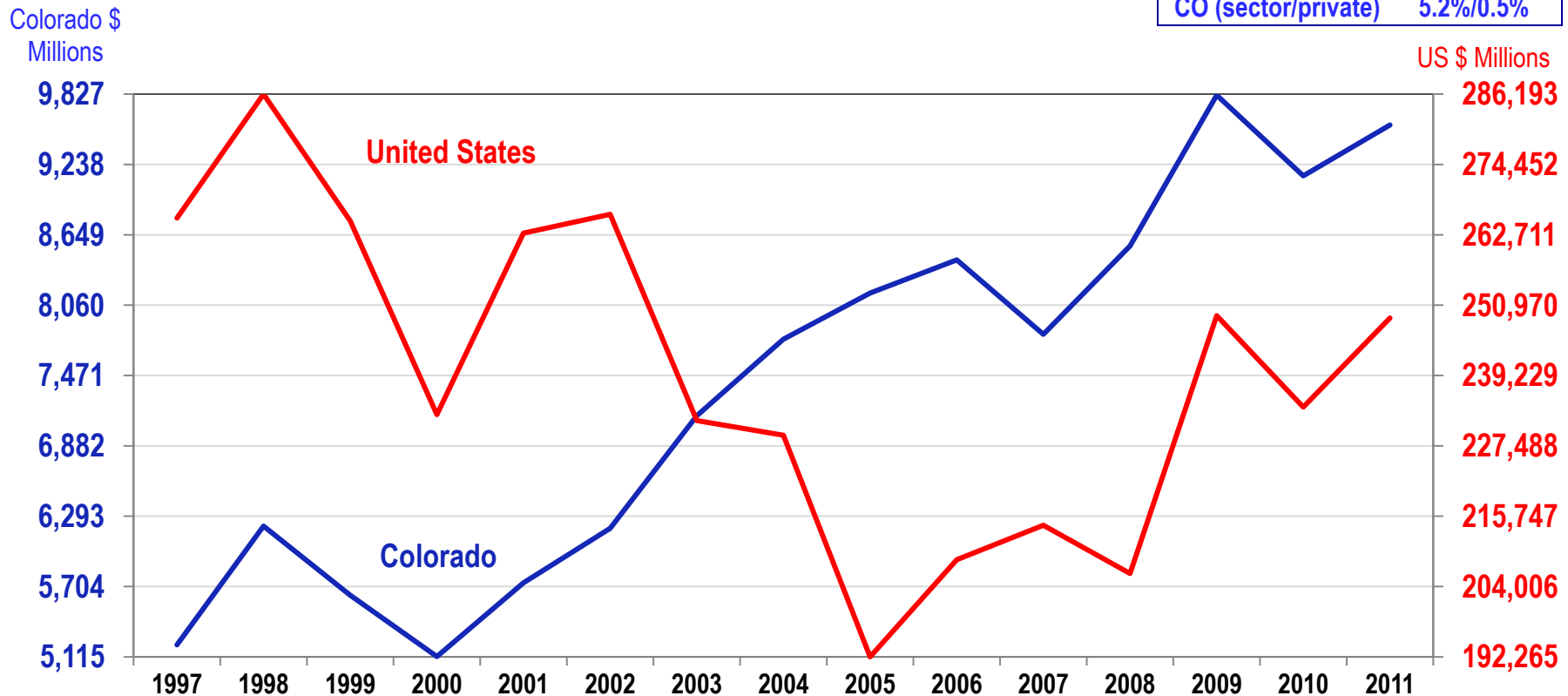
Colorado Real GDP vs. U.S. Real GDP



- Total Real Gross Domestic Product
- Mining
- Colorado vs. U.S. (Sum of States)

Annualized Rate of Growth	
<u>1997 to 2011</u>	
U.S. (sector/private)	-0.5%/2.2%
CO (sector/private)	4.4%/3.1%
<u>2007 to 2011</u>	
U.S. (sector/private)	3.8%/-0.1%
CO (sector/private)	5.2%/0.5%

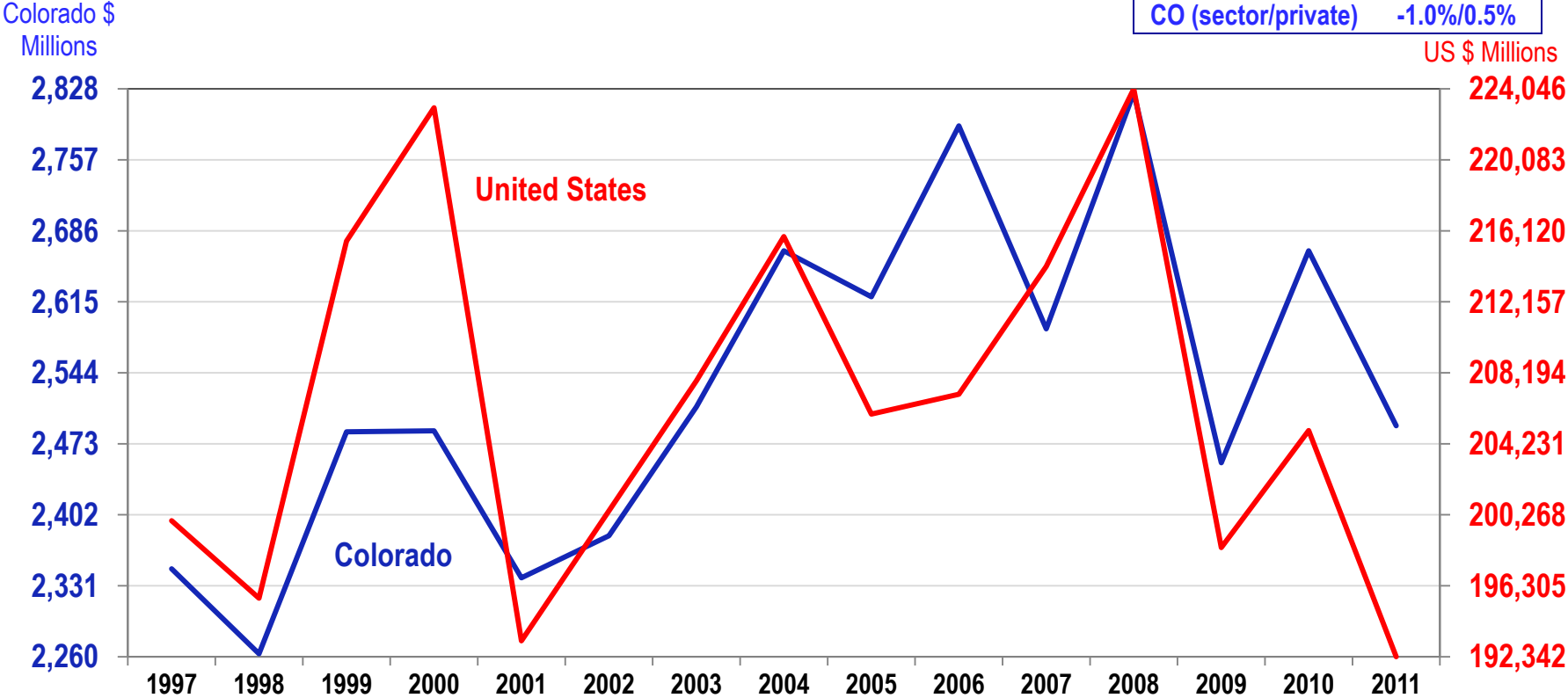
Colorado Real GDP vs. U.S. Real GDP



- Total Real Gross Domestic Product
- Utilities
- Colorado vs. U.S. (Sum of States)

Annualized Rate of Growth	
<u>1997 to 2011</u>	
U.S. (sector/private)	-0.3%/2.2%
CO (sector/private)	4.0%/3.1%
<u>2007 to 2011</u>	
U.S. (sector/private)	-2.6%/-0.1%
CO (sector/private)	-1.0%/0.5%

Colorado Real GDP vs. U.S. Real GDP



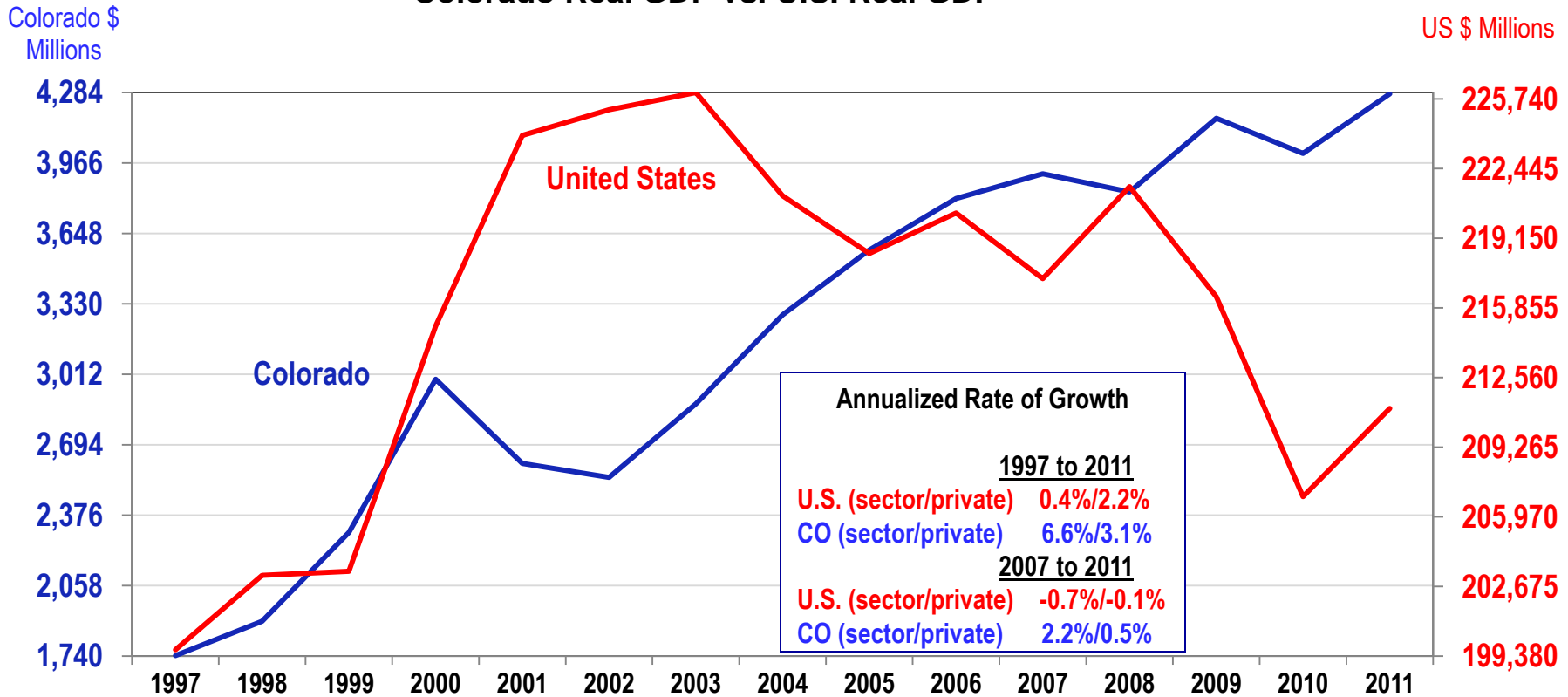
Source: Bureau of Economic Analysis.  
 Colorado-based Business and Economic Research  
<http://cber.co>

# ● Historical Real Gross Domestic Product ● Colorado vs. U.S. (Sum of States)

The following slides are for the sectors that showed a positive annualized rate of output growth for the U.S. and Colorado from 1997 to 2011. Colorado outperformed the nation in all sectors except Transportation/Warehousing, Real Estate/Rental/Leasing, Administrative/Waste Management, and Arts/Entertainment/Recreation. The sectors are sorted (low to high) by the rate of U.S. growth from 1997 to 2011.

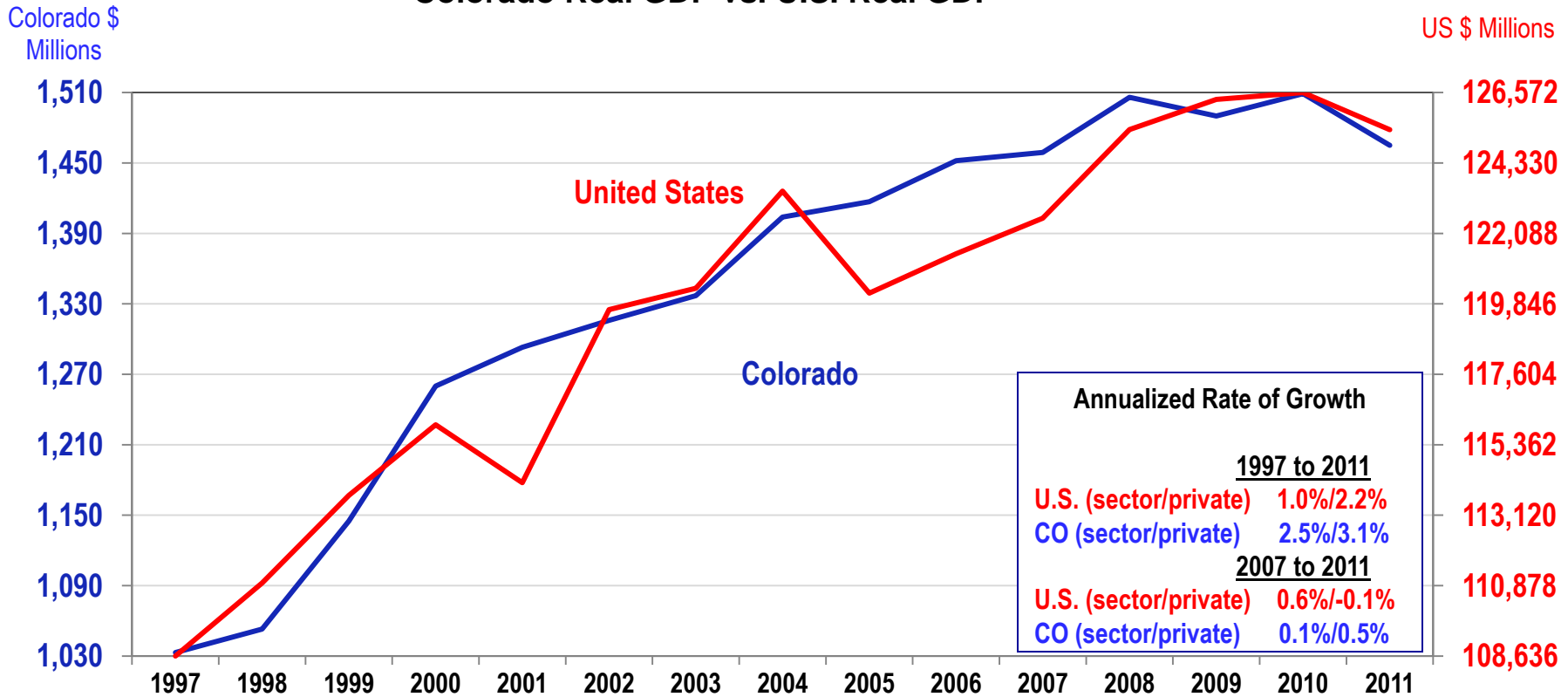
- Total Real Gross Domestic Product
- Management of Companies and Enterprises
- Colorado vs. U.S. (Sum of States)

Colorado Real GDP vs. U.S. Real GDP



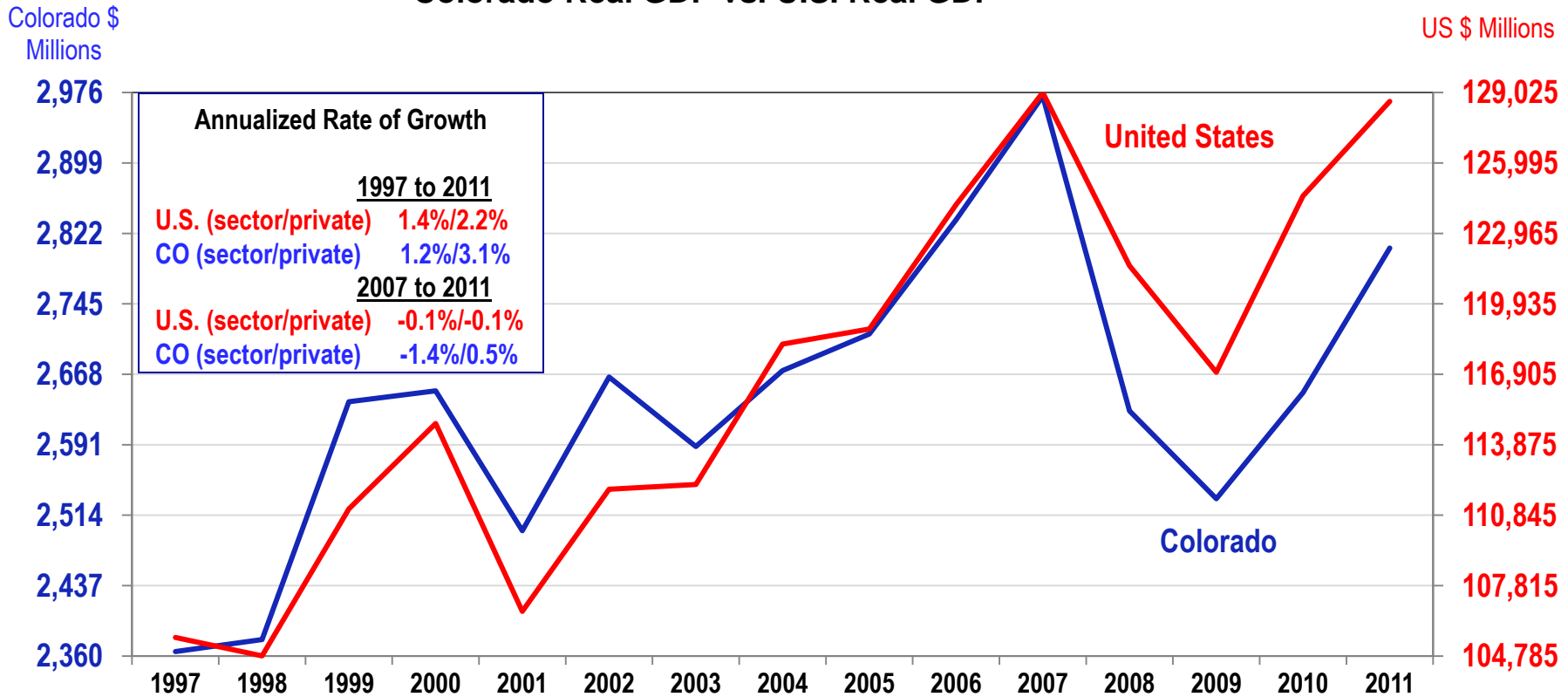
- Total Real Gross Domestic Product
- Educational Services - Private
- Colorado vs. U.S. (Sum of States)

Colorado Real GDP vs. U.S. Real GDP



- Total Real Gross Domestic Product
- Arts, Entertainment, and Recreation
- Colorado vs. U.S. (Sum of States)

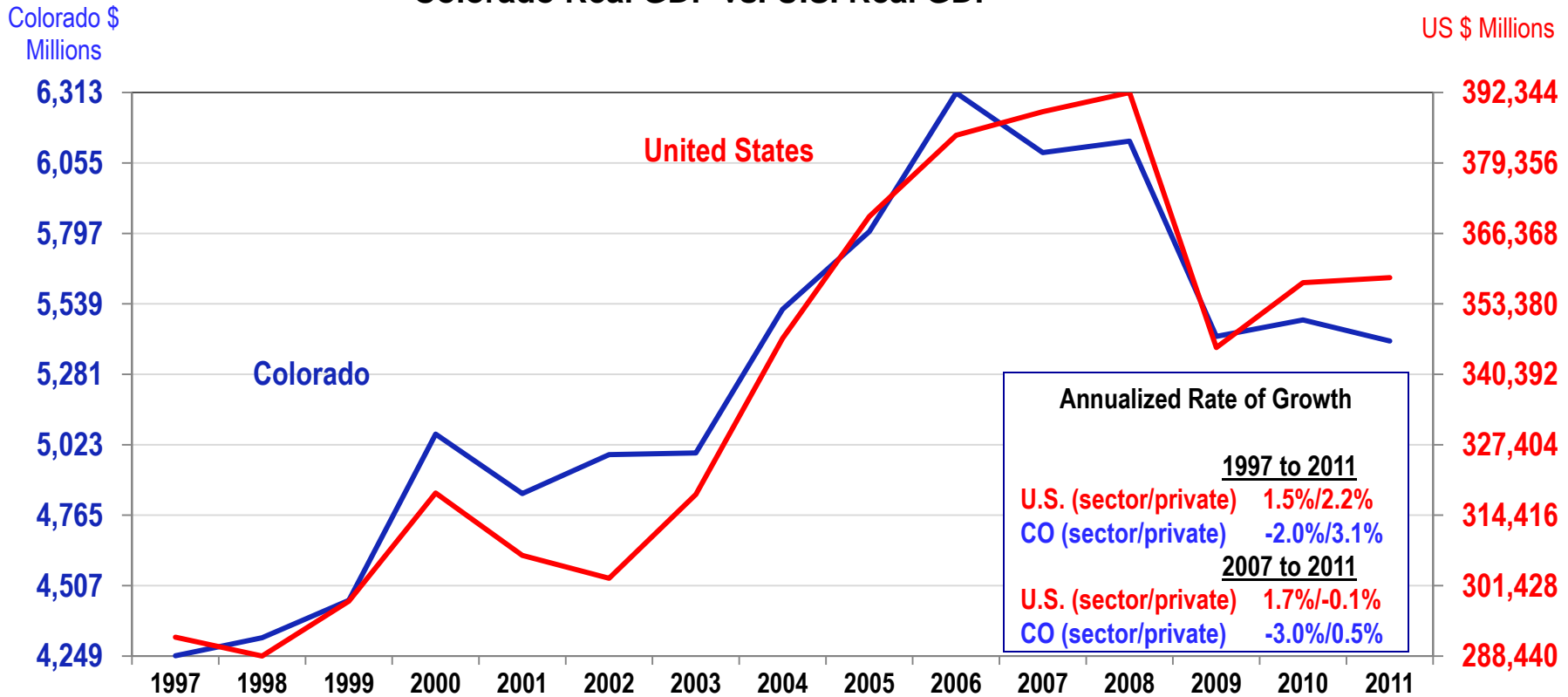
Colorado Real GDP vs. U.S. Real GDP





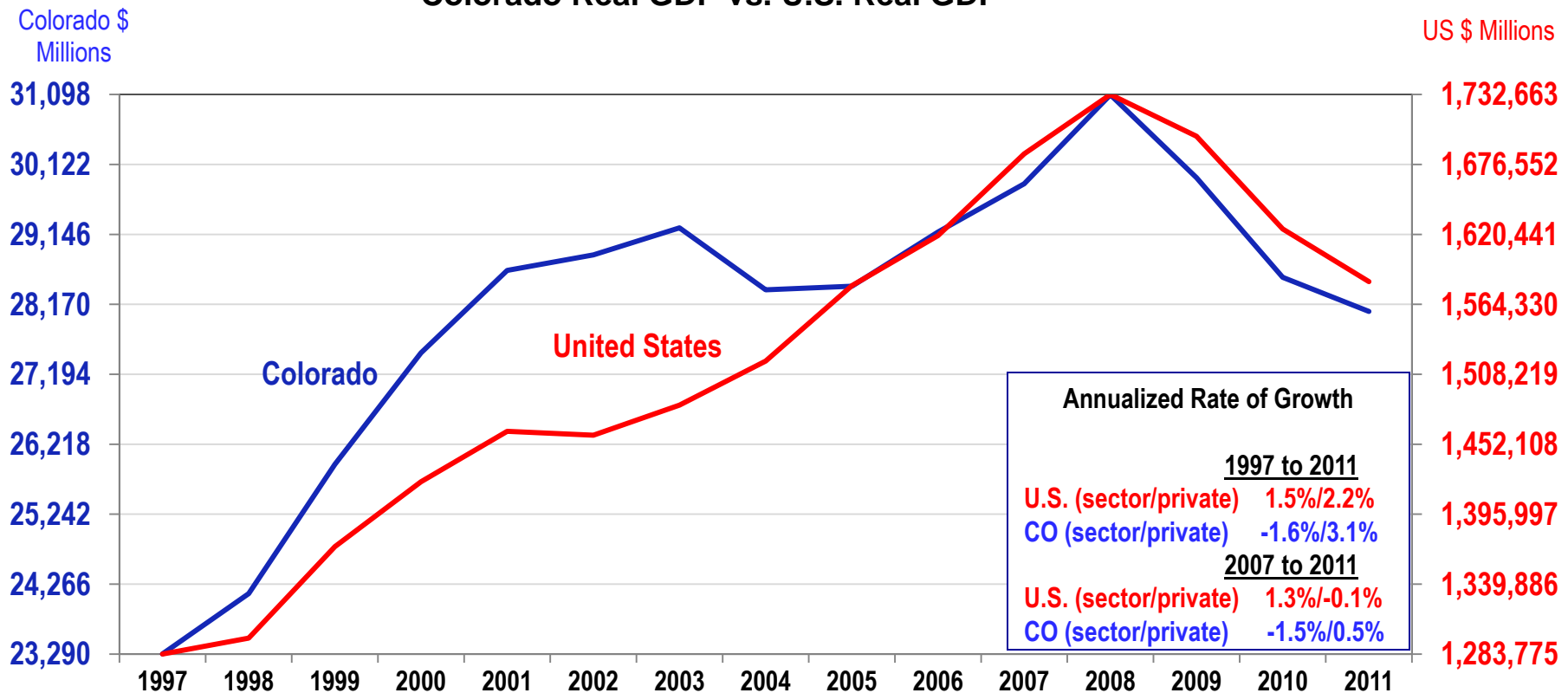
- Total Real Gross Domestic Product
- Transportation and Warehousing
- Colorado vs. U.S. (Sum of States)

Colorado Real GDP vs. U.S. Real GDP



- Total Real Gross Domestic Product
- Real Estate and Rental and Leasing
- Colorado vs. U.S. (Sum of States)

Colorado Real GDP vs. U.S. Real GDP



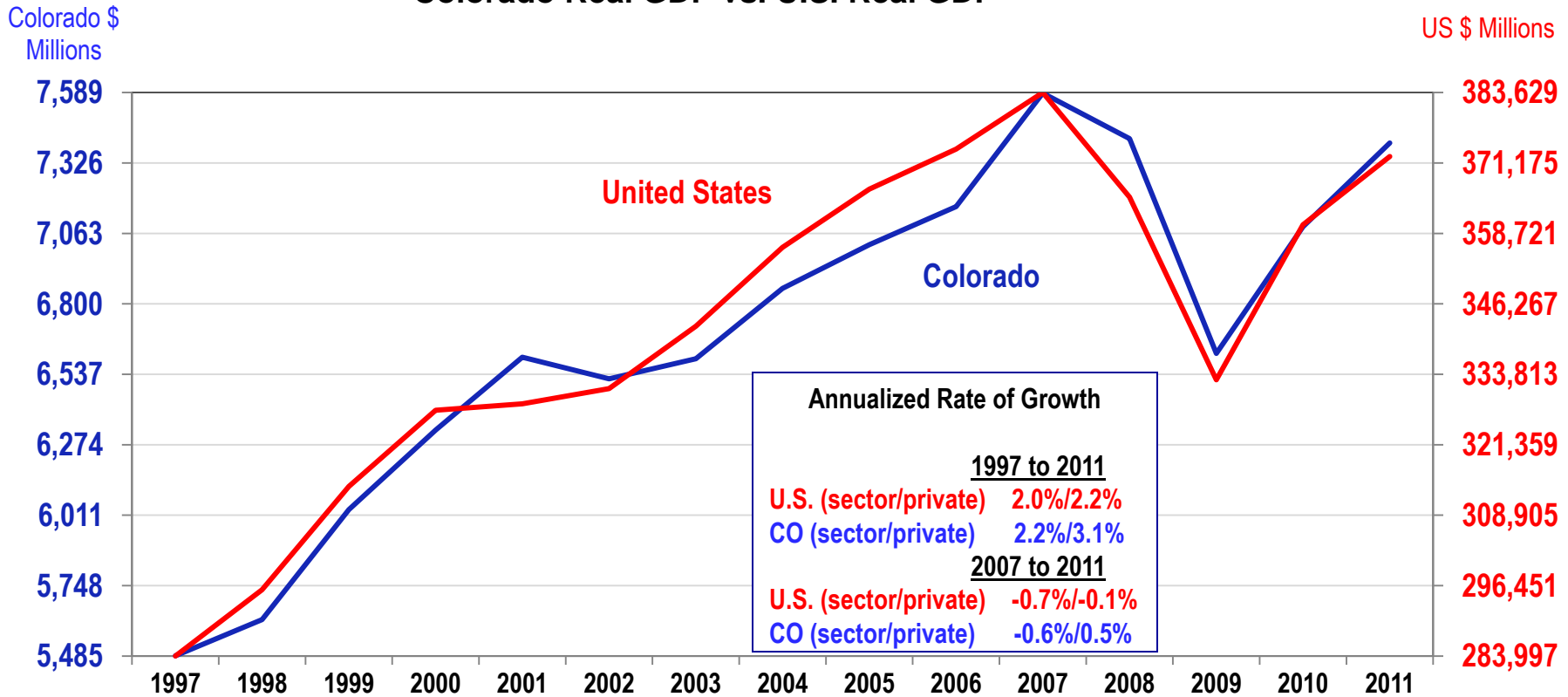
Source: Bureau of Economic Analysis.

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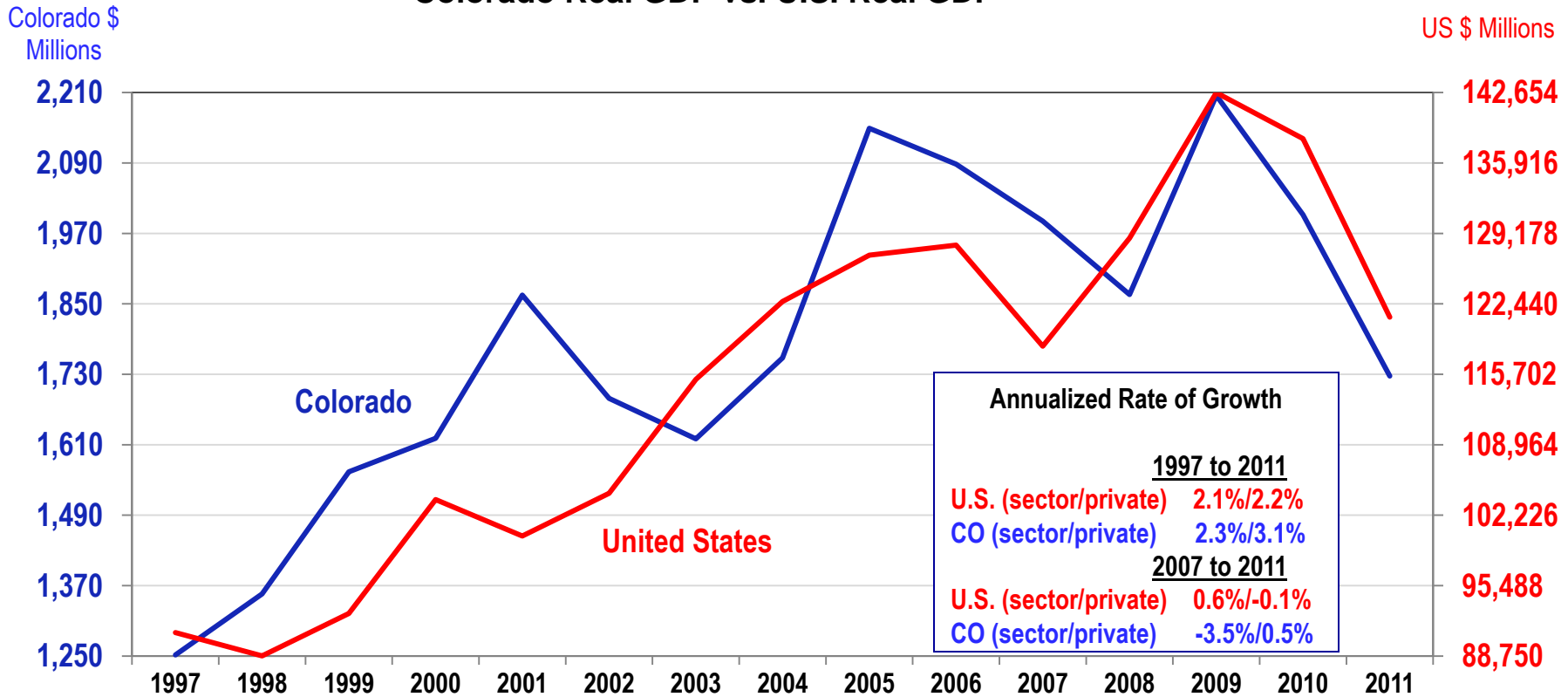
- Total Real Gross Domestic Product
- Accommodation and Food Services
- Colorado vs. U.S. (Sum of States)

Colorado Real GDP vs. U.S. Real GDP



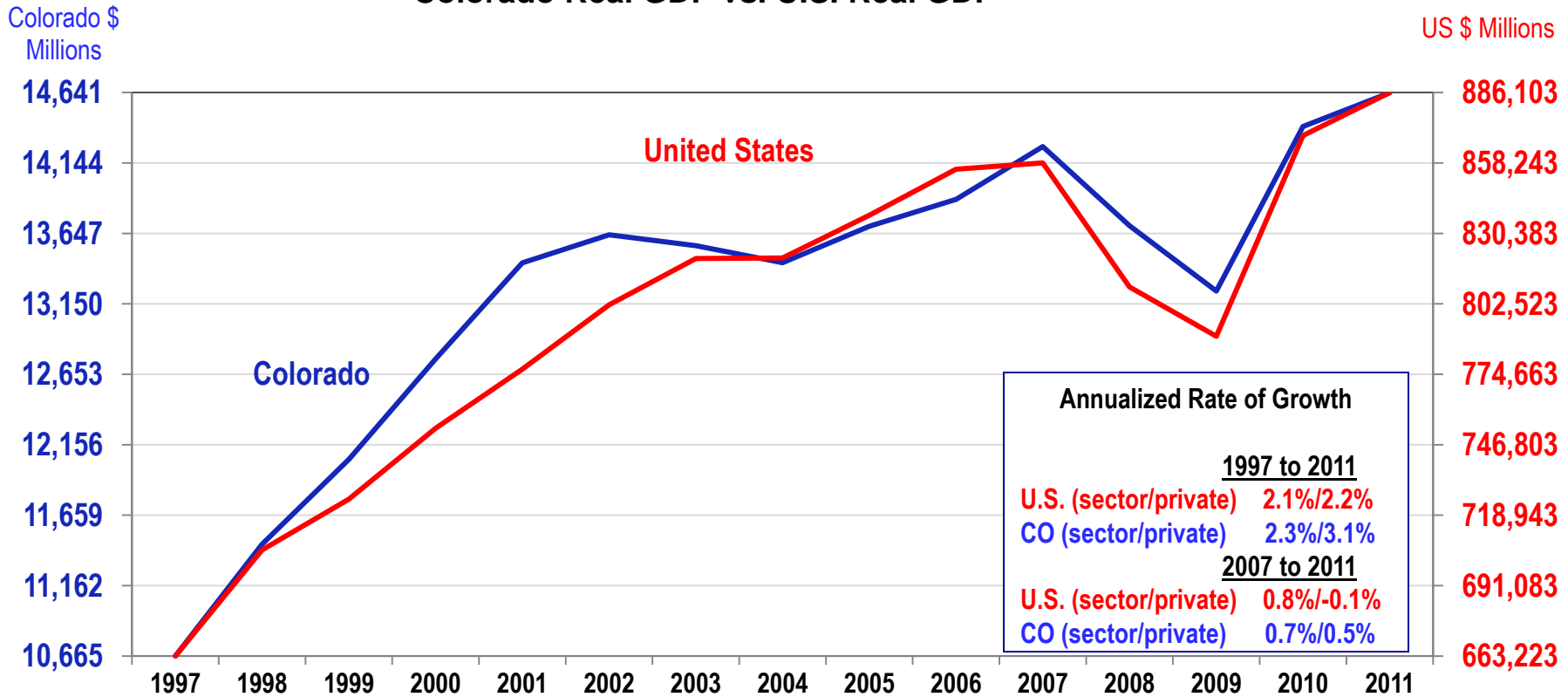
- Total Real Gross Domestic Product
- Agriculture
- Colorado vs. U.S. (Sum of States)

Colorado Real GDP vs. U.S. Real GDP



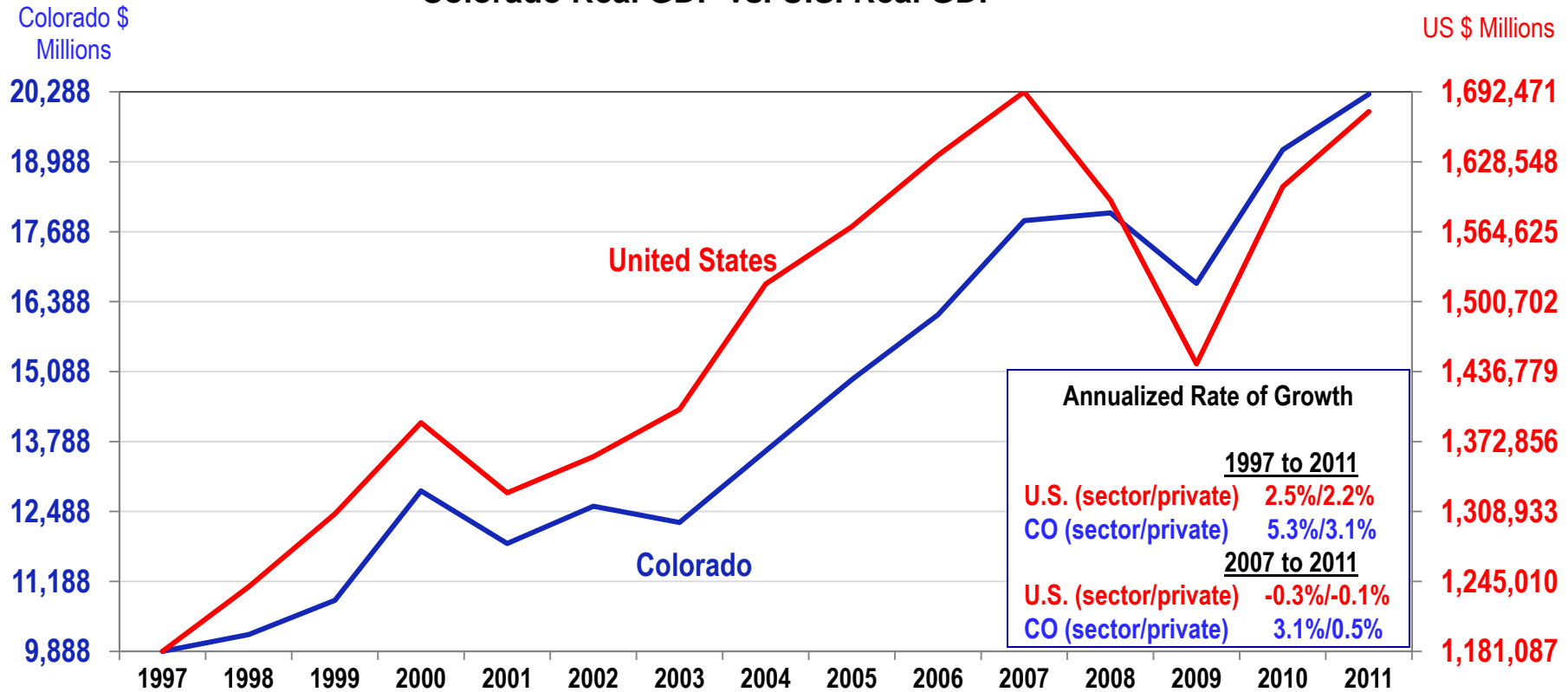
- Total Real Gross Domestic Product
- Retail Trade
- Colorado vs. U.S. (Sum of States)

Colorado Real GDP vs. U.S. Real GDP



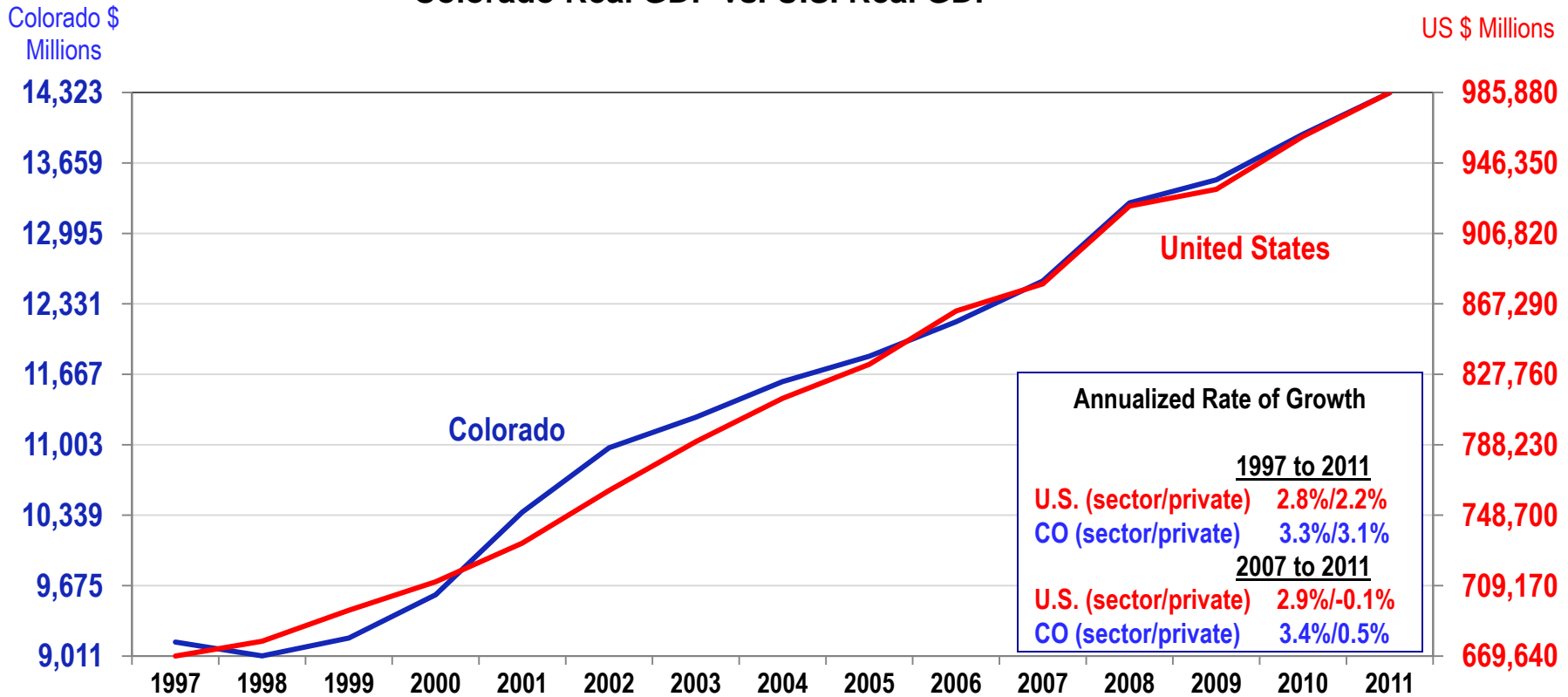
- Total Real Gross Domestic Product
- Manufacturing
- Colorado vs. U.S. (Sum of States)

Colorado Real GDP vs. U.S. Real GDP



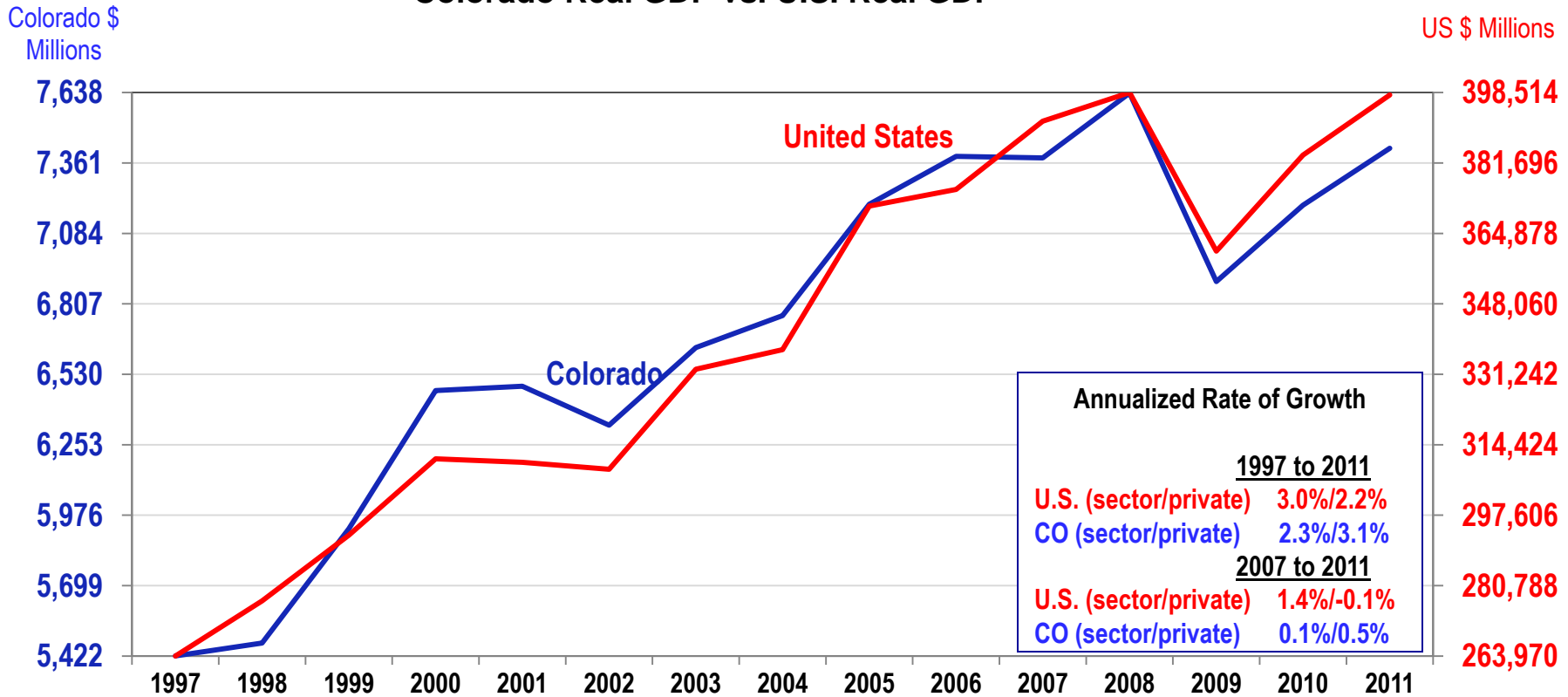
- Total Real Gross Domestic Product
- Health Care and Social Assistance
- Colorado vs. U.S. (Sum of States)

Colorado Real GDP vs. U.S. Real GDP



- Total Real Gross Domestic Product
- Administrative and Waste Management Services
- Colorado vs. U.S. (Sum of States)

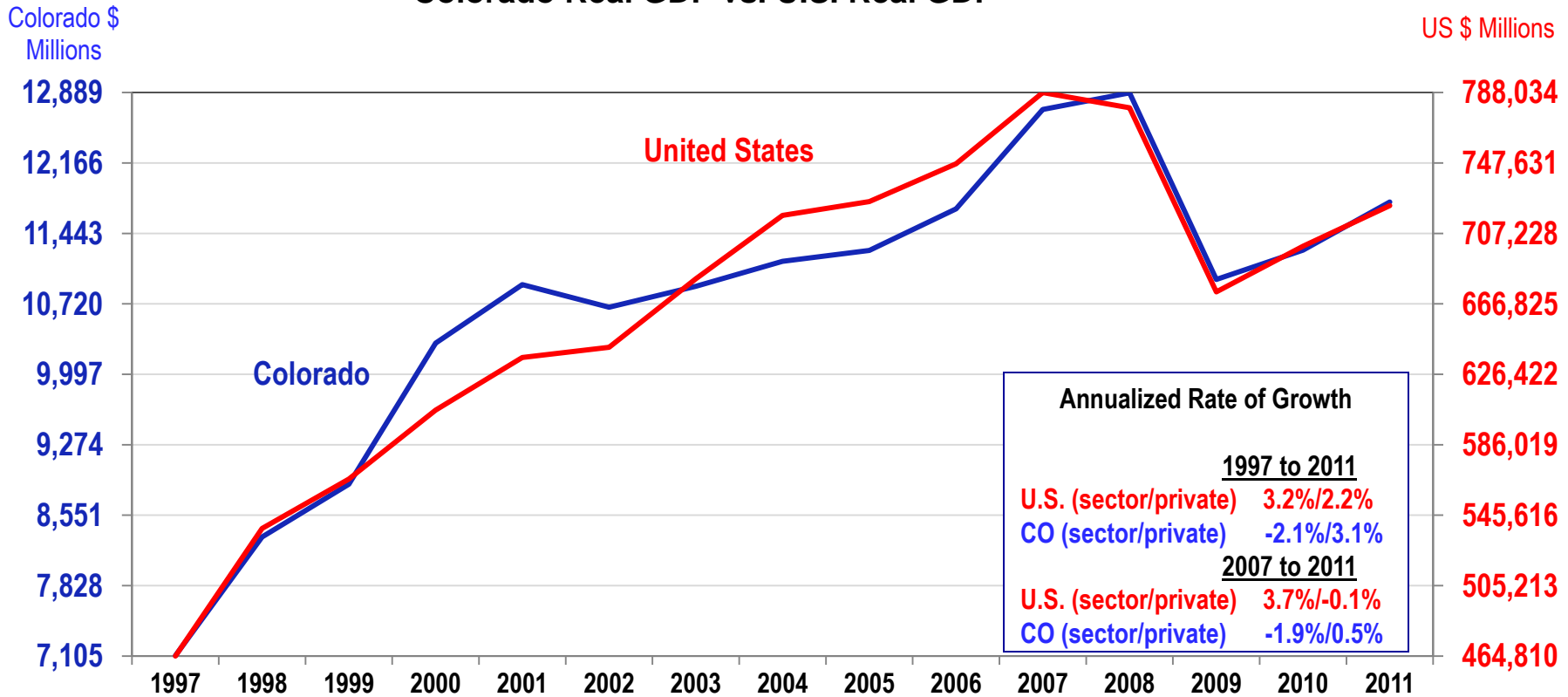
Colorado Real GDP vs. U.S. Real GDP





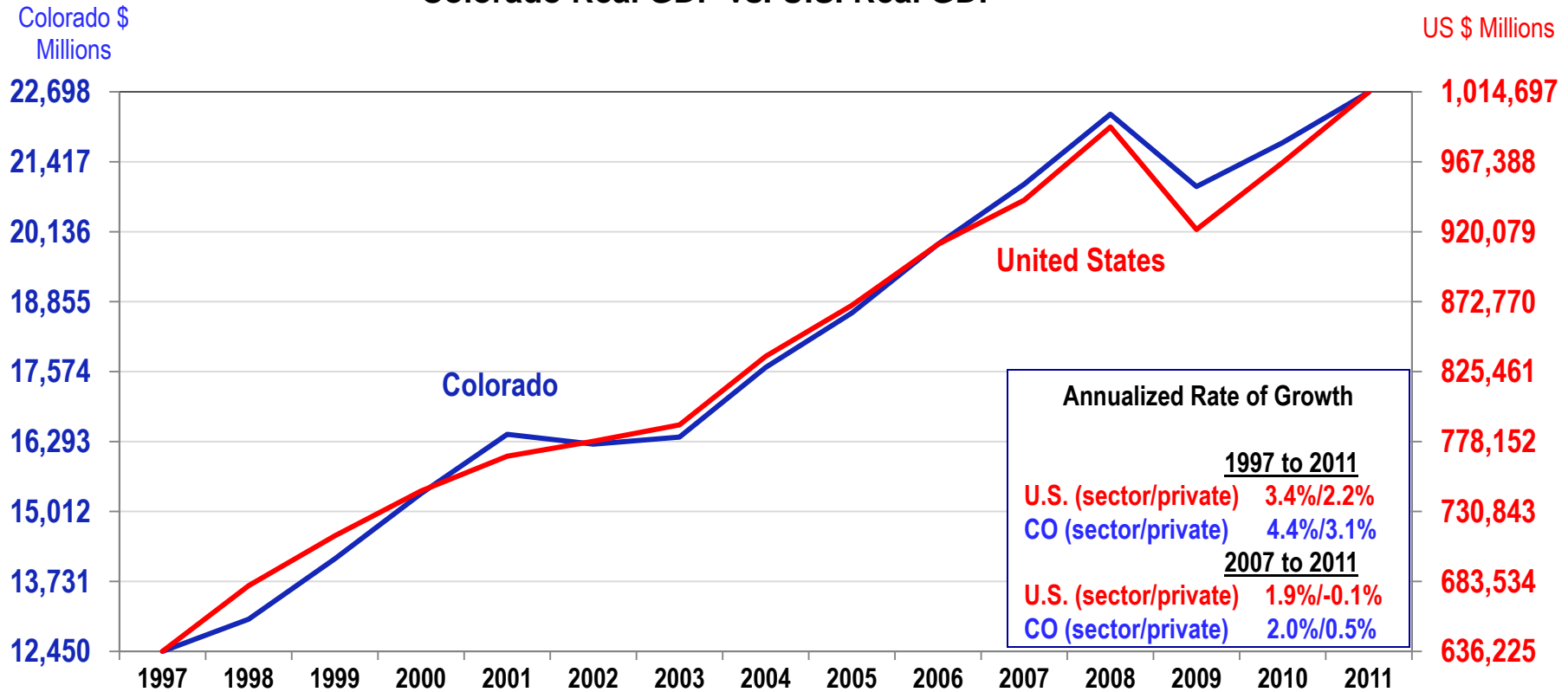
- Total Real Gross Domestic Product
- Wholesale Trade
- Colorado vs. U.S. (Sum of States)

Colorado Real GDP vs. U.S. Real GDP



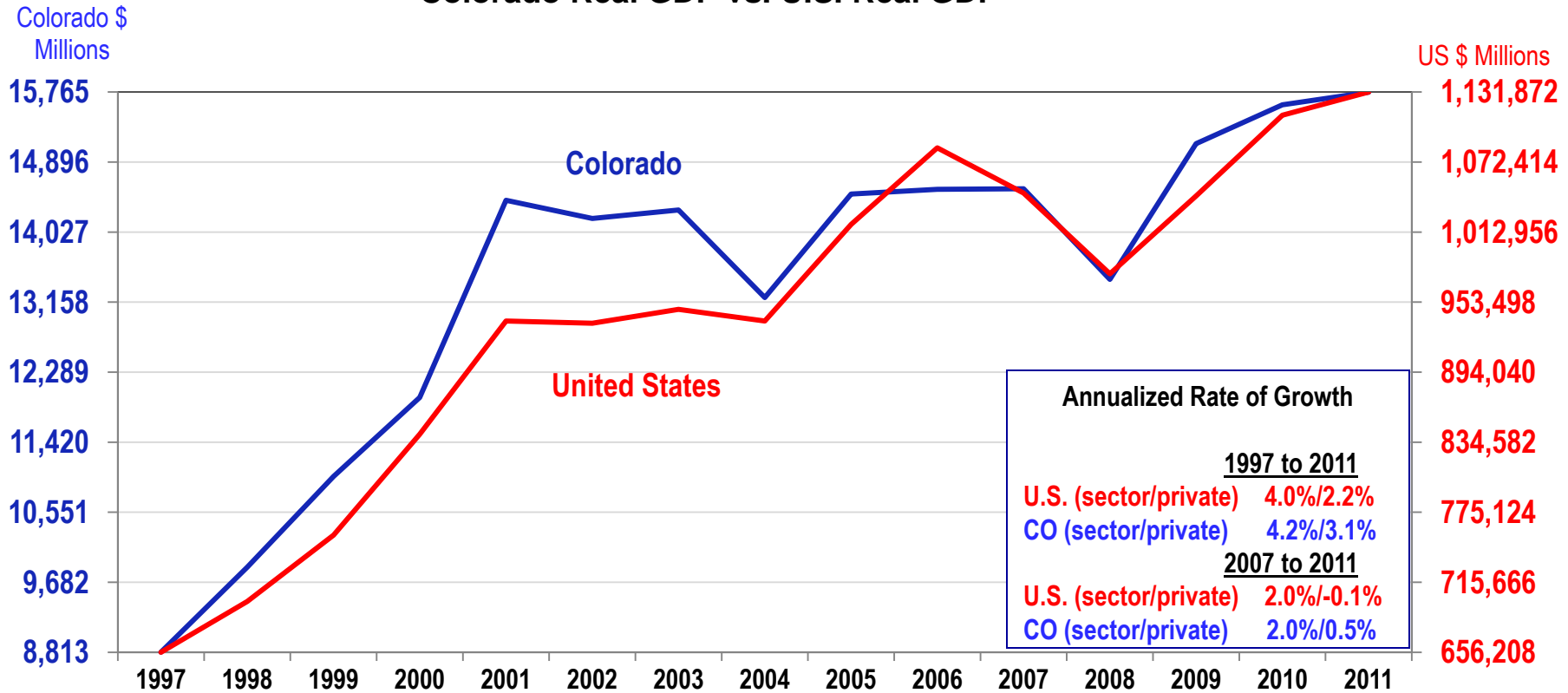
- Total Real Gross Domestic Product
- Professional, Scientific, and Technical
- Colorado vs. U.S. (Sum of States)

Colorado Real GDP vs. U.S. Real GDP



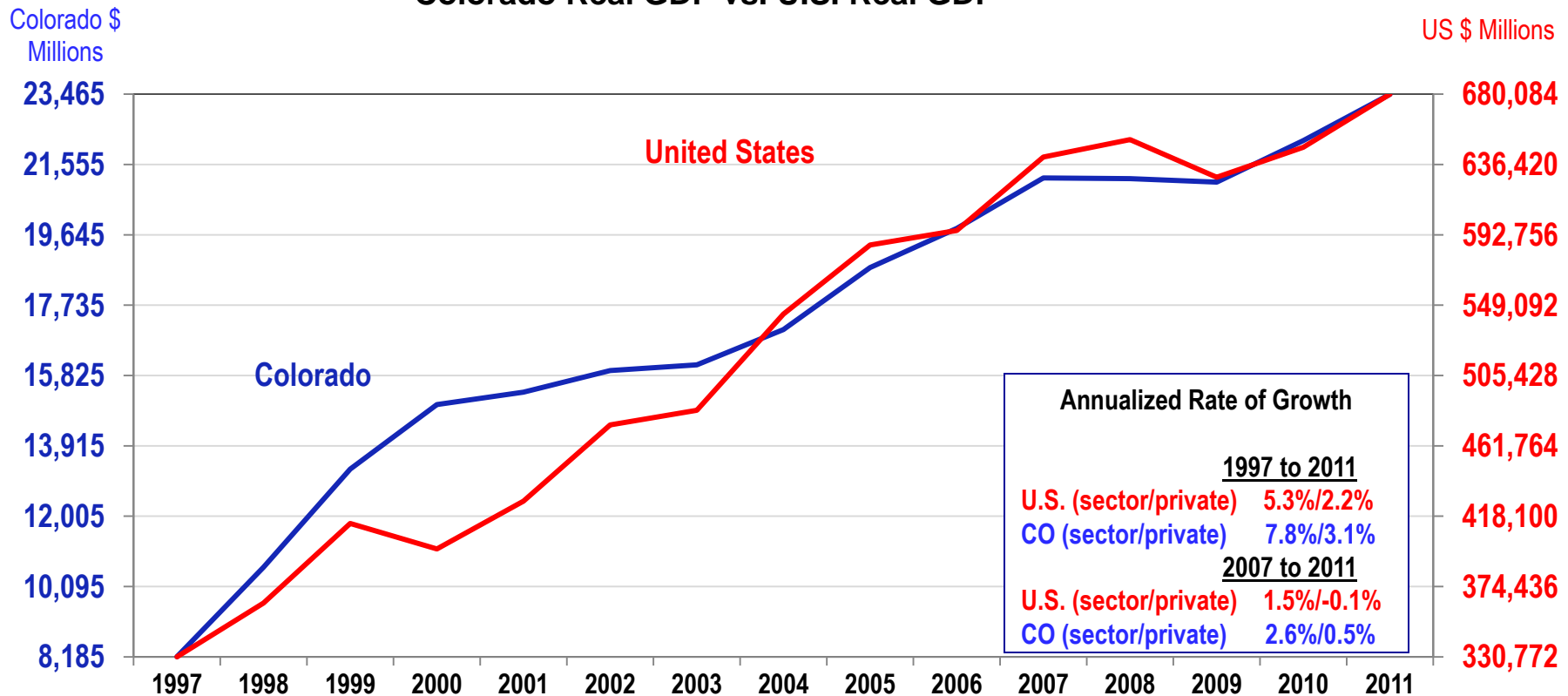
- Total Real Gross Domestic Product
- Finance and Insurance
- Colorado vs. U.S. (Sum of States)

Colorado Real GDP vs. U.S. Real GDP



- Total Real Gross Domestic Product
- Information
- Colorado vs. U.S. (Sum of States)

Colorado Real GDP vs. U.S. Real GDP





# Summary of Analysis

Key points from this analysis follow:

- From 1997 to 2011 and 2007 to 2011 Colorado output expanded at a faster rate than the nation.
- In terms of value, Colorado's dominant sectors are
  - Government
  - Real Estate/Rental/Leasing
  - Professional/Scientific/Technical
  - Information
  - Manufacturing
  - Finance/Insurance
  - Health Care/Social Assistance.
- Only four sectors recorded a negative annualized rate of growth in output for the U.S. from 1997 to 2011 are:
  - Construction
  - Utilities
  - Mining
  - Administrative/Waste Management.

Construction is the only sector that posted a decline in Colorado.

# Summary of Analysis (continued)

Other key points from this analysis follow:

- Of the 20 sectors, 16 increased their share of the national GDP between 1997 and 2011. Only 4 sectors had declining share:
  - Real Estate/Rental/Leasing decreased from 1.82% to 1.77%.
  - Construction decreased from 2.04% to 1.82%.
  - Administrative/Waste Management decreased from 2.04% to 1.87%.
  - Arts, Entertainment, and Recreation decreased from 2.27% to 2.19%.The decline for all four sectors has been occurring for over a decade.
- From 2007 to 2011 Health Care and Mining grew at a faster annualized rate than for the period 1997 to 2011.
- The sectors with the weakest share are:
  - Finance/Insurance
  - Utilities
  - Educational Services-Private
  - Manufacturing
- The sectors with the strongest share are:
  - Mining
  - Information
  - Arts/Entertainment/Recreation.
  - Professional /Scientific/Technical.
  - Mgmt of Companies/Enterprises



# Conclusions

All industries are important to the economy for different reasons; however, public and private leaders (government and education officials, economic developers, workforce development, business executives) should understand the importance the following sectors play in the growth of the Colorado economy.

- Colorado's high-tech cluster has been a driving force in its economy for the past two decades. It is comprised of companies from the Professional/Scientific/Technical, Manufacturing, and Information sectors.
- The Management of Companies and Enterprises sector is a small, but powerful sector that includes corporate headquarters located in the downtown Denver, the 36 corridor, and the Denver Tech Center.
- Despite booms and busts, the Extractive Industries are a critical part of the state economy, benefitting both the rural and urban regions.

Each of these sectors posted solid output gains between 2007 and 2011 and even stronger gains for the period 1997 to 2011. These sectors contain a number of primary jobs, or jobs that create jobs in other areas.

It will also be imperative for Colorado to have a significantly expanded Financial sector to support the growth of key industries.

Growth of the Colorado economy will be dictated in part by the ability of public and private leaders to support job and output growth in these areas.



## Analysis of Colorado Gross Domestic Product 1997 Through 2011

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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