FORTY-EIGHTH ANNUAL

COLORADO BUSINESS ECONOMIC OUTLOOK

2013

Leeds School of Business
UNIVERSITY OF COLORADO BOULDER
BUSINESS RESEARCH DIVISION

FORTY-EIGHTH ANNUAL

COLORADO BUSINESS ECONOMIC OUTLOOK 2013

Sponsored by the University of Colorado Boulder, Leeds School of Business

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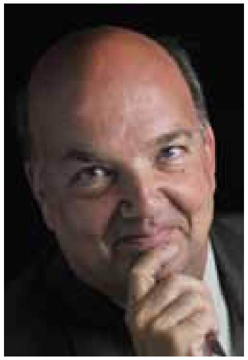
Introduction



The Business Research Division (BRD) in the Leeds School of Business is proud to present our 48th annual Colorado Business Economic Outlook. The 2013 Colorado outlook is a product of partnerships that rely on research conducted by our students and staff, and members of the public and private sectors.

This forecast analyzes changes that have taken place in all economic sectors during the past year, and looks at the opportunities and challenges that will shape the changes in our population, employment, and overall economy for the coming year. The information in this book is initially presented at the forty-eighth annual Colorado Business Economic Outlook Forum in Denver, followed by approximately 50 forecast speeches that are held throughout the state during the year, ranging from presentations to industry associations and nonprofit organizations to the Federal Reserve Bank of Kansas City.

Methodology

We are fortunate to have approximately 100 individuals from the business, education, and government communities who serve on 13 sector estimating groups to create this concensus forecast. These individuals discuss the factors that will affect growth in 2013. The groups convene at a kickoff meeting in September, where members discuss trends and issues that are likely to affect economic growth during the upcoming year. During the second half of September and into October, the committees apply this information to their industry. From this series of meetings, the sector write-ups and forecasts are prepared and submitted to the BRD in early November, when they are edited and published in this book. The following June, the Steering Committee, which is comprised of the sector chairs, meets to review their forecasts and identify factors that will positively or negatively drive change in their industry's economic performance during the second half of the year. These updates are published in the summer issue of our quarterly newsletter, the *Colorado Business Review.*

Related Economic Research

The BRD conducts customized business and economic research that expands the knowledge base of decision makers throughout the state and region. The annual Colorado Business Economic Outlook provides the foundation for all research the BRD conducts within the state. Among the other BRD research tools available to businesses and organizations is the Leeds Business

Confidence Index (LBCI), a forward-looking index that gauges Colorado business leaders' opinions about national and state economic trends and how their industry will perform in the coming quarter, and the *Colorado Business Review*, which explores current topics of importance to the state's economy. Visit leeds.colorado.edu/brd for more information about BRD offerings.

Acknowledgments

We are humbled and thankful to have dedicated partners in producing this forecast. A complete list of committee members appears at the back of this book. Their efforts are very much appreciated. We also thank the staff of the Colorado Department of Local Affairs and the Colorado Department of Labor and Employment who supply us with much of the employment and population data used in the forecast.

Finally, I would like to thank the many Leeds School of Business and CU-Boulder personnel who worked hard at preparing, presenting, and promoting this project. My sincerest thanks go to Brian Lewandowski, Research Associate; Cindy DiPersio, Project Coordinator; Bonnie Beverly, Administrative Assistant; Lynn Reed, Graphic Designer; Kim Warner, Publications Project Manager; and Rebekah Ackerman, Ryan Streit, Sam Wilson, and Emily Zalasky, Student Research Assistants, for their help in assembling and presenting the 2013 Colorado Business Economic Outlook Forum. The assistance provided by Paul Stella, director of Alumni Relations and Communications in the Leeds School, and Elizabeth Lock and Dirk Martin, both with the Office of News Services, is also greatly appreciated.

Colorado Economic Forecast for 2013

The sections that follow provide a summary of 2012, a forecast for 2013, and industry-specific data analysis and insight into the key factors influencing each of the sectors. We believe this information will prove useful in your business and policy decision-making process.

Richard L. Wobbekind

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Executive Director, Business Research Division
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http://leeds.colorado.edu/brd

Celebrating More Than 95 Years of Service to Colorado

Business Research Division

The Business Research Division provides economic and demographic information needed by businesses, governments, and nonprofits. Specializing in economic and fiscal analysis, market research, and custom research projects, the division also produces the longest-running annual forecast of the state's economy, now in its 48th year. Other helpful decision-making tools include the quarterly Leeds Business Leaders Confidence Index, a forward-looking index that gauges Colorado business leaders' opinions about the economy, and the quarterly *Colorado Business Review* newsletter.

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Leeds School of Business
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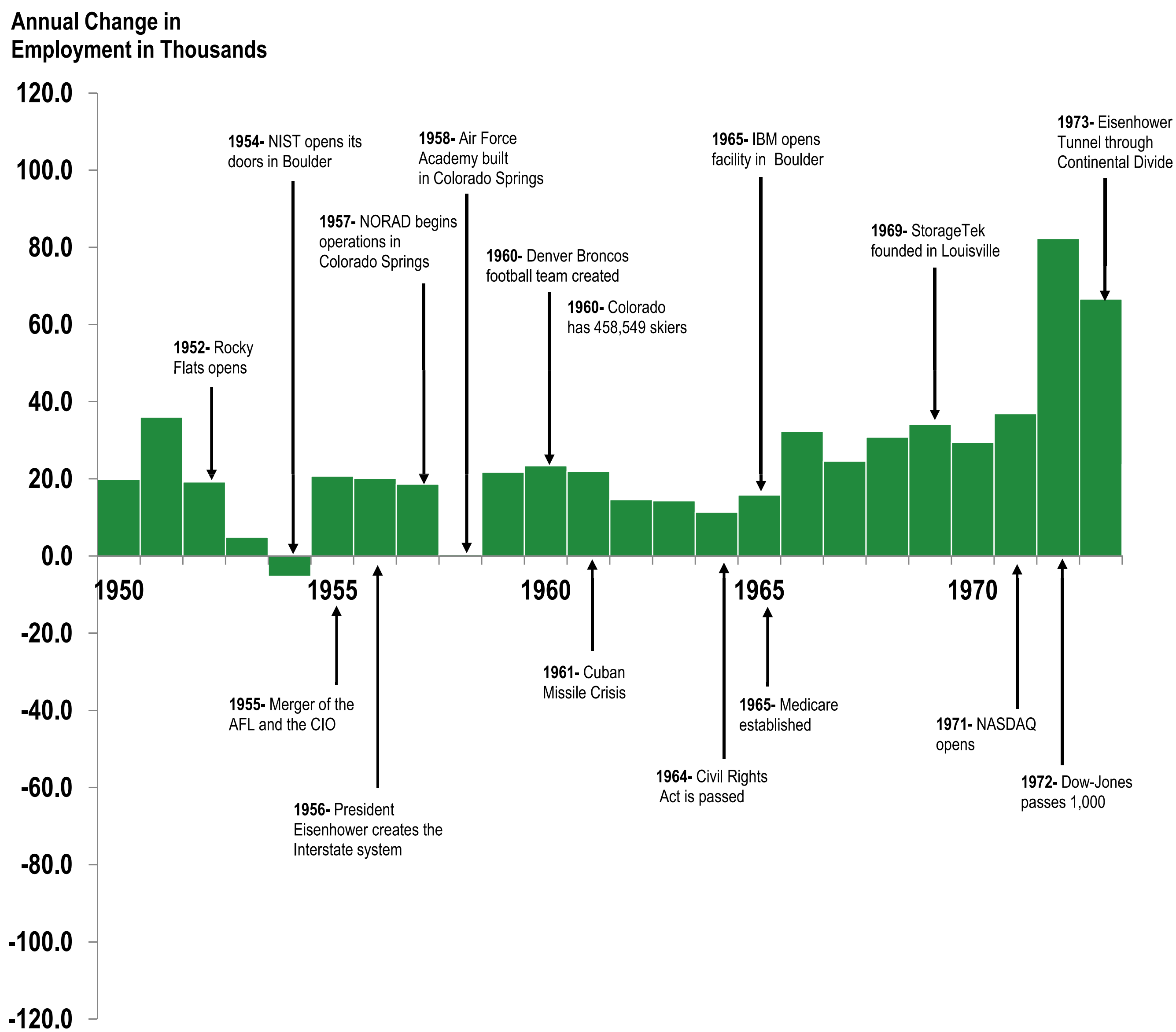
Colorado Then and Now

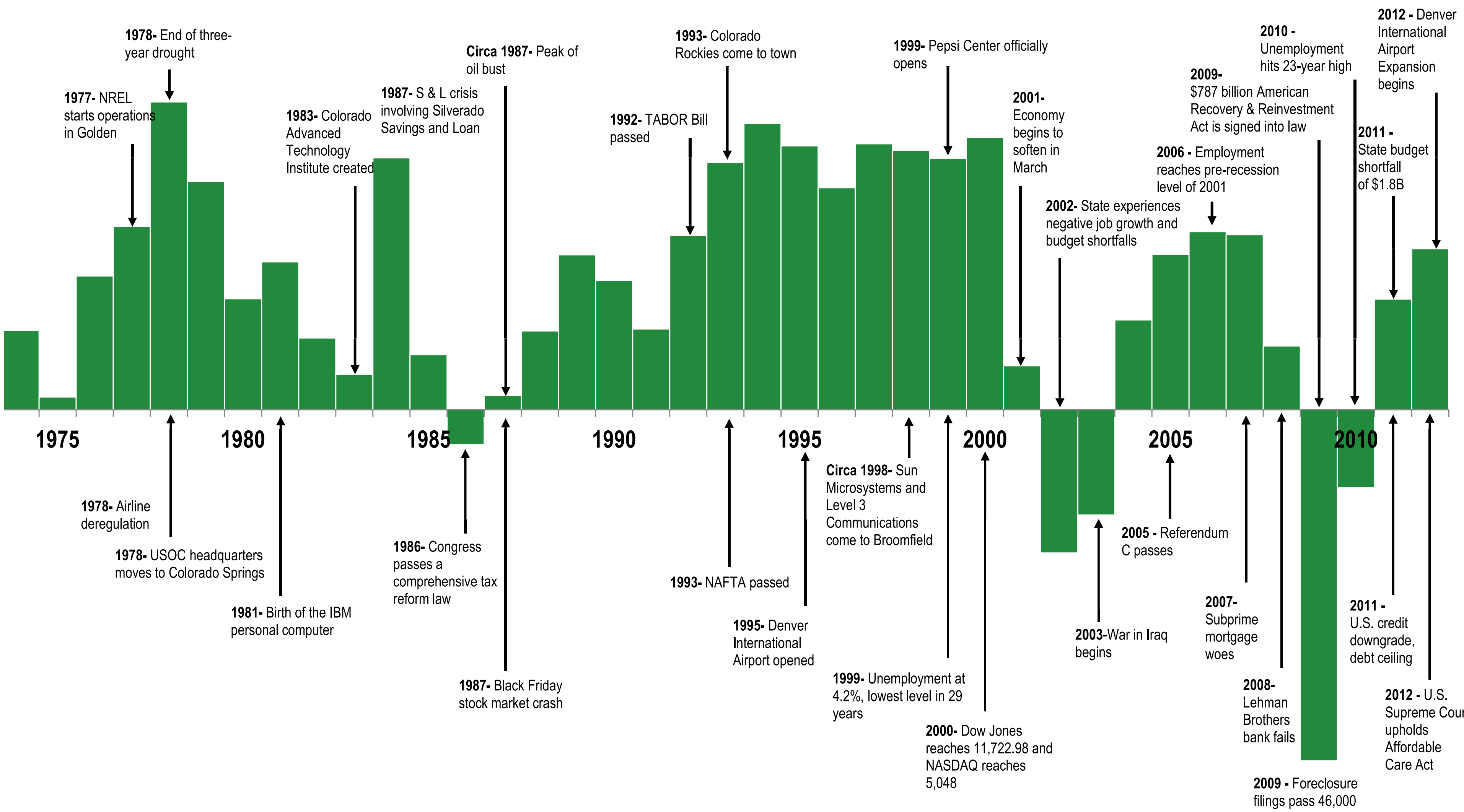
The twenty-first century is still young. America's role as the economic, political, military, and cultural world leader continues to evolve as countless factors complicate our picture of the global environment, from wars and political upheavals, to the steady march of technological innovation and international trade. For Colorado, expanding political clout on the national stage and sustained growth in key high-tech clusters largely characterize the state's position in the broader world economy.

In 1950, the United States was a net exporter of goods. The national population was about 151 million, and approximately 1.3 million people resided in Colorado. The Dow Jones reached a monthly high of 235, and Colorado per capita personal income was $1,512.

Since then, the U.S. population has grown to more than 312 million, and Colorado has more than 5.1 million residents. The United States has a massive trade deficit, the Dow is hovering around 13,000, and Colorado per capital personal income is over $44,000.

The adjacent timeline provides Colorado's annual employment changes expressed in percentages, along with a glimpse of some of the social, economic, educational, and political changes that have occurred since 1950. This timeline emphasizes the importance of learning from the past: a historical perspective of earlier events can help businesses make more effective decisions today and in the future. Colorado events are listed above the line, and national events are listed below.




1978- End of three-year drought
1977- NREL starts operations in Golden
1983- Colorado Advanced Technology Institute created
1987- S & L crisis involving Silverado Savings and Loan
Circa 1987- Peak of oil bust
1992- TABOR Bill passed
1993- Colorado Rockies come to town
1999- Pepsi Center officially opens
2001- Economy begins to soften in March
2002- State experiences negative job growth and budget shortfalls
2006 - Employment reaches pre-recession level of 2001
2009- $787 billion American Recovery & Reinvestment Act is signed into law
2010 - Unemployment hits 23-year high
2011 - State budget shortfall of $1.8B
2012 - Denver International Airport Expansion begins
1975
1980
1985
1990
1995
2000
2005
2010
1978- Airline deregulation
1978- USOC headquarters moves to Colorado Springs
1981- Birth of the IBM personal computer
1986- Congress passes a comprehensive tax reform law
1987- Black Friday stock market crash
1993- NAFTA passed
1995- Denver International Airport opened
Circa 1998- Sun Microsystems and Level 3 Communications come to Broomfield
1999- Unemployment at 4.2%, lowest level in 29 years
2000- Dow Jones reaches 11,722.98 and NASDAQ reaches 5,048
2003-War in Iraq begins
2005 - Referendum C passes
2007- Subprime mortgage woes
2008- Lehman Brothers bank fails
2009 - Foreclosure filings pass 46,000
2011 - U.S. credit downgrade, debt ceiling
2012 - U.S. Supreme Court upholds Affordable Care Act

U.S. Economic Outlook

Three and a half years have passed since the National Bureau of Economic Research officially declared the end of the recession that claimed 3.4% of U.S. GDP, yet the nation continues to experience slow economic growth. Employment is showing year-over-year gains, jobless claims are generally declining, incomes are rising modestly, and GDP numbers point to sustained economic growth.

For many in the United States, however, it still feels very much like the country is rooted in economic uncertainty. The eurozone crisis continues to instill fear in U.S. markets. The nation is adding jobs month-over-month on a slow trajectory of growth. Measures of wealth, including home values and investments, have only recently begun to show encouraging signs of sustainable improvement. Weighing on the minds of business leaders around the country is the impending "fiscal cliff," which would trigger roughly $1.2 trillion in tax hikes and harsh federal spending cuts if Congress fails to act. Hiring has begun to pick up, although employers remain hesitant to make significant investment or hiring decisions until fiscal policy and the general political environment become more stable and predictable.

However, efforts are being made by the private and public sectors to sustain the recovery. Companies are doing what they do best—finding ways to market goods and services even during the most uncertain of times. Consumer-driven firms are taking measures to lure customers back to the market through attractive pricing and payment programs, including layaway, and the 2012 holiday shopping season will be a gauge of strength in consumer spending. Despite the ongoing debt debate in Washington, lawmakers continue to devise plans to spur growth, such as tax and entitlement reform. The Fed also continues to do its part—following three quantitative easing measures, it has now committed to keeping interest rates low for up to another two years.

REAL GROSS DOMESTIC PRODUCT
2004–2013
(In Millions of Chained 2005 Dollars)

Economic Indicator	2004	2005	2006	2007	2008	2009	2010	2011	2012[a]	2013[b]
Real Gross Domestic Product	$12,246.9	$12,623.0	$12,958.5	$13,206.4	$13,161.9	$12,757.9	$13,063.0	$13,299.1	$13,586.6	$13,873.5
Percentage Change	3.5%	3.1%	2.7%	1.9%	-0.3%	-3.1%	2.4%	1.8%	2.2%	2.1%
Fixed Investment	$1,992.5	$2,122.3	$2,172.7	$2,130.6	$1,978.6	$1,602.2	$1,598.7	$1,704.5	$1,846.0	$1,958.3
Percentage Change	7.4%	6.5%	2.4%	-1.9%	-7.1%	-19.0%	-0.2%	6.6%	8.3%	6.1%
Personal Consumption	$8,515.8	$8,803.5	$9,054.5	$9,262.9	$9,211.7	$9,032.6	$9,196.2	$9,428.8	$9,611.7	$9,812.5
Percentage Change	3.3%	3.4%	2.9%	2.3%	-0.6%	-1.9%	1.8%	2.5%	1.9%	2.1%
Government Expenditures	$2,362.0	$2,369.9	$2,402.1	$2,434.2	$2,497.4	$2,589.4	$2,605.8	$2,523.9	$2,488.6	$2,471.1
Percentage Change	1.4%	0.3%	1.4%	1.3%	2.6%	3.7%	0.6%	-3.1%	-1.4%	-0.7%
Net Exports	-$687.9	-$722.7	-$729.4	-$648.8	-$494.8	-$355.2	-$419.7	-$408.0	-$410.2	-$413.0

[a]Estimate. [b]Forecast.

Note: Components do not sum to total since the fixed investment component excludes changes in inventories.

Sources: Bureau of Economic Analysis, Economy.com, National Association for Business Economics, and Colorado Business Economic Outlook Committee.

Looking to 2013, the rate of expansion will be most influenced by employment growth, the European sovereign debt crisis, and federal fiscal policy. With this backdrop, the following sections examine forecasts of output and the key components of GDP.

Total Output

Through Q3 2012, the United States recorded 13 consecutive quarters of GDP growth. The rate of growth for 2011 was 1.8%. While early 2012 exhibited signs of a faltering recovery, the economy stabilized with growth of 2% in Q3. The year should end with growth around 2.2%. While this is less than exuberant, it puts at ease the notion of a second recession (barring the fiscal cliff). Risks remain for the U.S. economy, including the eurozone debt crises or another potential budget and debt standoff in Congress. Growth in 2013 is estimated at 2.1%, barring unforeseen external shocks.

GDP Components

Consumer Spending

The recent recession profoundly affected consumers because of the trifecta of impacts: employment, income, and wealth. Total nonfarm employment peaked in January 2008 (seasonally adjusted) before losing 8.8 million jobs; 4.5 million have since been recovered. Nonfarm total wages dropped $282.9 billion, but have been on the rise since Q2 2010. The Dow Jones Industrial Average decreased 54% from October 2007 to March 2009, but has since increased 95% as of November 2012. Household wealth declined 33% from 2007 to 2009, but has recovered 25%. Postrecession consumer confidence, as measured by the Conference Board, was back to 70.3 in September 2012.

Despite dropping from the 10.1% recorded in October 2009 (seasonally adjusted), the unemployment rate has remained above the long-term historical average. The October 2012 figure stands at 7.9%, but it should continue to decline slowly in 2013. As the economy recovers, workers who had dropped out of the labor force will begin to return, and by nature of the formula, the number of unemployed looking for work will climb. Therefore, high unemployment rates will remain even as employers increase their workforce.

Employment growth is anticipated in every state in 2013. The unemployment rate is expected to remain just under 8%, with full employment still a few years out. Vehicle sales will round out 2012 at 14.3 million, climbing another 4.9% in 2013, to 15 million. This slow but steady improvement will still be well below the 16–17 million units sold annually between 2004 and 2007.

Construction will improve from 750,000 housing starts in 2012 to 910,000 in 2013. This growth is still relatively slow compared to the 2.1 million housing starts in 2005. Given slow job growth, a tighter lending environment, and changing demographics, it will likely be at least a few more years before the United States returns to the long-term average of 1.5 million units.

Through Q3 2012, the United States recorded 13 consecutive quarters of GDP growth.

While households have improved their debt ratios, consumers have demonstrated a return to the market. Retail sales will continue to improve in 2013, while consumer prices will grow 2.2%. The fact that overall inflation remains in check understates the consumer-affecting price changes in some important consumer purchases, primarily food and fuel.

Fixed Investment

Fixed investment includes investment in residential structures, as well as nonresidential structures, equipment, software, and changes in inventory. Excluding changes in inventory, fixed investment is expected to increase 8.3% in 2012 and 6.1% the

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U.S Economic Outlook

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following year. In 2011, about 81.4% of real investment was business related.

Government Expenditures

Approximately 60% of total government expenditures are at the state and local level, roughly 27% are allocated to national defense, and 13% to nondefense programs. With the national debt in the political spotlight, government spending is expected to decline 1.4% in 2012 and 0.7% the following year. The federal budget deficit is projected to remain high, at $1.1 trillion, in 2012 and to decline to $960 billion in 2013.

The debt ceiling alarm bells went off in Washington in 2011, leading to the creation of a super committee that was tasked with cutting $1.5 trillion in U.S. debt over 10 years. Unfortunately, this strategy failed, and as a result, the United States now faces an impending fiscal cliff of huge tax hikes and harsh across-the-board federal spending cuts. While spending cuts and domestic austerity measures may be necessary to help lower the national debt over the long term, such drastic tax increases and spending cuts in the short term could mean a slower overall recovery or even a second recession.

Net Exports

The United States maintains a net deficit on goods and a net surplus on services. Despite the resurgence of the consumer, net exports remain somewhat in check and are expected to decrease slightly in 2012 and 2013. Part of the stabilization in the trade imbalance is the increase in U.S. exports, helped by currency fluctuations. Currencies will surely play a role in U.S. exports in 2013, marked by the fiscal cliff, the euro crisis, and pressure placed on China to depeg from the dollar. Expect net exports of -$410 billion in 2012 and -$413 billion in 2013.

Colorado Economic, Employment, and Population Outlook

State GDP and Income

In 2011, Colorado enjoyed a stronger recovery compared to most of the nation, although growth remains tepid. The state's employment growth ranked 5th in the nation, while per capital personal income ranked 13th and real GDP growth, 14th.

GDP growth was 1.9% in Colorado, compared to 1.8% nationally. Regionally, Colorado ranked near the top, behind Utah and Texas, but ahead of Arizona, New Mexico, Oklahoma, Idaho, Montana, and Wyoming.

Employment growth in Colorado was 1.6% in 2011, compared to 1.2% nationally. While all of the Rocky Mountain states gained employment in 2011, only Utah did so at a higher rate than Colorado. Idaho, New Mexico, Wyoming, Arizona, and Nevada all recorded slower rates of growth than Colorado.

Per capita personal income in Colorado grew 4.6% in 2011, slightly exceeding the national average of 4.5%.

CONSUMER PRICE INDEX, U.S. AND DENVER-BOULDER-GREELEY 2004–2013 (1982–1984=100)

	United States		Denver-Boulder-Greeley	
Year	CPI	CPI Rate	CPI	CPI Rate[a]
2004	188.9	2.7%	187.0	0.1%
2005	195.3	3.4	190.9	2.1
2006	201.6	3.2	197.7	3.6
2007	207.3	2.8	202.0	2.2
2008	215.3	3.8	209.9	3.9
2009	214.5	-0.4	208.5	-0.6
2010	218.1	1.6	212.4	1.9
2011	224.9	3.2	220.3	3.7
2012[b]	229.8	2.2	224.4	1.9
2013[c]	235.0	2.2	229.5	2.3

[a]Consumer Price Index (CPI-U) is not calculated for the state of Colorado. This is the CPI-U for the Denver-Boulder-Greeley CMSA, often used as a proxy for the inflation rate of Colorado (it is calculated semiannually).

[b]Estimated. [c]Forecast.

Sources: Colorado Department of Labor and Employment, Bureau of Labor Statistics, and Colorado Business Economic Outlook Committee.

Inflation

The U.S. city average all items Consumer Price Index for All Urban Consumers (CPI-U) increased 1.6% in 2010, followed by growth of 3.2% in 2011. Inflation is expected to average 2.2% in 2012 and the following year. Core inflation—all items, less food and energy—increased nationally 1.0% in 2010 and 1.7% in 2011.

Inflation is reported by the Bureau of Labor Statistics for the Denver-Boulder-Greeley Consolidated Metropolitan Statistical Area, which is often used as a proxy for Colorado. The state typically tracks closely with national inflation, although prices increased slightly faster than the rest of the nation, at 1.9% in 2010 and 3.7% in 2011. In 2012 and 2013, Colorado prices are expected to rise 1.9% and 2.3%, respectively. Core inflation in the Denver-Boulder-Greeley region increased 1.4% in 2010 and 2.3% in 2011.

Population

Colorado's population as of July 1, 2011, was 5,118,526. This is an increase of 68,809, or 1.4%, compared to one year earlier. Colorado's growth ranked 10th in the nation for absolute change and 5th for percentage change. Population change is the result of natural increase (births minus deaths) and net migration. Over the year, 49% of the population change (33,906) was from natural increase and 51% (34,903) from net migration. As can be expected, much of the state's absolute population growth came from the Metro Denver area, with Denver, Arapahoe, Adams, and Douglas counties accounting for four of the top five fastest-growing counties in terms of absolute change. Regarding percentage change, the Denver Metro area plays a less prominent role, with Costilla County experiencing the fastest growth of 3.7%, with Denver, Rio Blanco, Kiowa, and Broomfield following.

Colorado continues to become more ethnically and racially diverse, especially in young age groups. The white non-Hispanic population is 69.7% of the total population. Colorado's Hispanic population, the state's largest minority group, is 20.9% of the total population. Blacks or African Americans account for 3.8%; Asians, 2.7%; American

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Colorado Economic, Employment, and Population Outlook

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Indians, 0.64%; and those of two or more races, 2%. Change in share of the population remained mostly unchanged between 2010 and 2011. The share of the population by race varies most significantly by age. Hispanics, Blacks, Asians, and other minorities younger than 18 account for 42% of the population, compared to just 15% of the state's population over 65.

The short-run population forecast for Colorado is an increase of 71,000, or 1.4%, in 2012. The population is forecast to grow by 77,500, or 1.5%, in 2013, with another increase of 85,500, or 1.6%, projected for 2014. The 2013 forecast includes 4,000 net migration from the planned move of military troops and their families to Fort Carson in El Paso County following the Base Closure and Realignment Commission (BRAC) plans. Many of these troops may currently be deployed and not yet physically at Fort Carson.

Gross migration to and from Colorado since 1980 has been fairly stable, with gross in-migration fluctuating between 120,000 and 160,000, and gross out-migration varying between 110,000 and 140,000. When thinking about net migration and population change, it is important to note that the net numbers are just the surface of much larger gross numbers. Even during periods of net out-migration for Colorado, well over 100,000 people were moving to the state each year. The states contributing most to Colorado's in-migration include, in order, California, Texas, Florida, Arizona, New Mexico, and Washington. Colorado's in-migration tends to increase when Colorado's unemployment rate is below that of the nation or neighboring states.

Colorado housing units increased by 10,000 from July 2010 to June 2011, while households increased by 27,058. The larger growth in households versus housing units helps to decrease the oversupply of housing units that have been present since the mid-2000s. Estimates indicate that statewide vacancy rates fell from 10.6% to 9.8%.

COMPONENTS OF COLORADO RESIDENT POPULATION, 2004–2013
(In Thousands)

Year	Births (Resident)	Deaths (Resident)	Natural Increase	Net Migration	Population Change	Total[a] Population
2004	68.5	29.0	39.4	14.3	53.7	4,608.8
2005	69.0	29.1	39.9	13.8	53.7	4,662.5
2006	69.5	29.3	40.2	42.9	83.1	4,745.7
2007	70.8	29.7	41.1	35.0	76.1	4,821.8
2008	70.7	31.0	39.7	40.5	80.2	4,901.9
2009	69.1	30.5	38.6	36.3	74.9	4,976.9
2010	67.3	31.4	35.9	37.0	72.9	5,049.7
2011	65.9	32.0	33.9	34.9	68.8	5,118.5
2012[b]	68.5	32.5	36.0	35.0	71.0	5,189.5
2013[c]	69.0	33.5	35.5	42.0	77.5	5,267.0

[a]Due to rounding, the sum of the individual items may not equal the total.

[b]Estimated.

[c]Forecast.

Source: Colorado Department of Local Affairs, State Demography Office (July 1 estimates).

Leeds Business Confidence Index

The Business Research Division produces a quarterly leading indicator that measures the expectations of Colorado business leaders. Now in its 10th year, the Leeds Business Confidence Index (LBCI) asks business leaders about their expectations for the national and state economies, hiring, capital expenditures, sales, and profits. These metrics are reported in an aggregated index, as well as individually.

Looking back at the results for 2012, the forward-looking LBCI showed positive but waning optimism. Expectations turned negative looking forward to Q4 2011, with the index dropping below 50, but very quickly turned strongly positive again for Q1 2012. Since then, the index has continued to reflect tempered optimism among business leaders.

One measure that is consistent is confidence in Colorado's economy outperforming the nation's economy. In the Q4 2012 survey, respondents indicated the greatest inhibitor to economic recovery remains uncertainty regarding politics and federal fiscal policy.

As a supplement to the information gained in this book, business leaders are invited to track the performance of the Colorado economy throughout the year via the LBCI. For additional information about how to participate as a panelist or receive survey results, go to leeds.colorado.edu/brd and select Leeds Business Confidence Index.

Colorado Labor Force and Employment

For 48 years, the Colorado Business Economic Outlook has been compiled by industry leaders in the state, and presented by the Business Research Division (BRD) of the Leeds School of Business at the University of Colorado Boulder. This book presents historical data and forward-looking estimates on employment for each sector of the economy. It also offers discussion on other relevant economic metrics, ranging from sales and cash receipts to building permits and airport enplanements. This section lays the foundation for the each of the NAICS supersectors by providing an overview of labor force and wage and salary employment totals.

Labor Data Sets

The data for this forecast are derived from two U.S. Bureau of Labor Statistics (BLS) sources: Current Employment Statistics (CES) and Local Area Unemployment Statistics (LAUS).

The CES data set is the most frequently cited labor series and is typically used to evaluate sector trends. Compiled from a survey of companies, it includes full-time and part-time workers, temporary workers, employees on paid holiday or sick leave, and those who worked for only part of a pay period. It does not include sole proprietors. CES data for a particular year are revised twice—3 months and 15 months after the end of the year—based on the Quarterly Census of Employment and Wages (QCEW) that all firms are required to submit.

The LAUS labor series provides an estimate of the size of the total labor force and is used to calculate the unemployment rate. The LAUS data consider the labor force as everyone of working age who is actively employed or looking for a job. Students, retirees, stay-at home parents, institutionalized individuals, and discouraged workers are not included in the workforce. This data series, which is more inclusive than the CES data set, is compiled from a survey of households. It includes farm workers, self-employed individuals, and full-time or part-time employees.

Labor Force

Between 2004 and 2007, household employment grew faster than the labor force. As a result, the unemployment rate declined from 5.6% to 3.8%. Colorado's unemployment rate more than doubled by 2009, to 8.1%, reflecting the impact of the recession and decelerating wage and salary employment

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STATE AND NATIONAL ECONOMIC COMPARISON, 2004–2011

	2004	2005	2006	2007	2008	2009	2010	2011
Colorado								
Real GDP ($ billions, chained 2005 dollars)	209.4	217.3	223.2	228.1	231.0	224.6	229.9	234.3
Nominal GDP ($ billions)	201.6	217.3	230.2	242.6	252.5	244.4	253.1	264.3
Total Personal Income ($ billions)	168.6	179.7	194.4	205.2	216.0	204.6	212.5	225.4
Per Capita Personal Income ($)	36,849	38,795	41,181	42,724	44,180	41,154	42,107	44,053
Employment (thousands)[a]	2,179.6	2,226.0	2,279.1	2,331.3	2,350.3	2,245.6	2,222.3	2,255.3
Unemployment Rate (percent)	5.6	5.1	4.3	3.8	4.8	8.1	8.9	8.3
United States								
Real GDP ($ billions, chained 2005 dollars)	12,246.9	12,623.0	12,958.5	13,206.4	13,161.9	12,757.9	13,063.0	13,299.1
Nominal GDP ($ billions)	11,853.3	12,623.0	13,377.2	14,028.7	14,291.5	13,973.7	14,498.9	15,075.7
Total Personal Income ($ billions)	9,937.2	10,485.9	11,268.1	11,912.3	12,460.2	11,867.0	12,321.9	12,947.3
Per Capita Personal Income ($)	33,885	35,426	37,709	39,484	40,914	38,625	39,777	41,492
Employment (thousands)	131,435	133,703	136,086	137,598	136,790	130,807	129,874	131,359
Unemployment Rate (percent)	5.5	5.1	4.6	4.6	5.8	9.3	9.6	8.9

[a] Revised.

Note: Unless noted, figures are not inflation-adjusted.

Sources: Bureau of Labor Statistics and Bureau of Economic Analysis.

Colorado Economic, Employment, and Population Outlook

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growth from the prior years. In 2010, the unemployment rate rose to 8.9% as the state continued to grapple with a declining labor force, increasing number of unemployed, and continuing population growth. The rate declined to 8.3% in 2011 due to stabilization of the labor force and an increase in the number of employed. The unemployment rate is projected trend down to 8.0% in 2012, with the increase in household employment outpacing growth in the labor force, thereby decreasing the number of unemployed. Colorado's unemployment rate is expected to continue to decline in 2013, with the increase in household employment exceeding the growth of the labor force. Although number of unemployed is expected to fall by 11,300, many residents will be enticed to reenter the labor force due to improving labor market conditions.

2011 AVERAGE ANNUAL WAGES BY SECTOR
COLORADO AND UNITED STATES

Sector	Colorado	United States
Agriculture, Forestry, Fishing, Hunting	$29,690	$27,543
Mining	104,898	95,250
Utilities	88,322	90,609
Construction	48,865	50,693
Manufacturing	61,668	59,210
Wholesale Trade	71,428	66,142
Retail Trade	27,113	27,118
Transportation and Warehousing	43,761	45,336
Information	84,138	78,331
Finance and Insurance	74,312	88,292
Real Estate and Rental and Leasing	43,918	45,861
Professional and Technical Services	81,381	79,807
Management of Companies and Enterprises	130,515	103,075
Administrative and Waste Services	34,704	33,864
Educational Services	37,978	43,663
Health Care and Social Assistance	44,852	44,494
Arts, Entertainment, and Recreation	30,734	32,943
Accommodation and Food Services	18,042	17,545
Other Services	33,951	29,916
Government	48,281	49,205
All Industries	$49,082	$48,043

Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

Employment

Economic growth has been moderate in Colorado in 2012, with the state adding nearly 47,900 jobs (2.1%). Incomes rose in the state, real estate prices stabilized, and the value of construction grew year-over-year. New companies were lured to the state, and many more grew organically as demand for goods and services improved. All sectors, save for Information, added jobs in 2012, and this trend will continue in 2013, which calls for growth of 1.8%, or 42,100 jobs.

The 19-month recession that ran from December 2007 to June 2009 devastated the labor market. The nation lost 6.4% of total nonfarm employment from January 2008 to February 2010, when it bottomed out. The nation has spent 32 months rebuilding the employment base—now up 3.4% from the trough, but still 3.2% below peak.

Colorado hit peak employment in April 2009, four months after the nation, but lost employment more precipitously, eventually catching up with the nation's jobs deficit of 6.4% in January 2010. However, Colorado has outperformed the nation in job growth since bottoming out, growing 4.1% in 32 months (with a 2.6% deficit remaining). The combined Denver-Boulder MSAs have performed even better, adding 5.3% since turning the corner in January 2010, with only a 1.2% deficit remaining.

COLORADO RESIDENT LABOR FORCE, 2004–2013
(In Thousands)

Labor Force	2004	2005	2006	2007	2008	2009	2010	2011	2012[a]	2013[b]
Colorado Labor Force	2,535.4	2,588.4	2,655.6	2,685.0	2,732.1	2,736.6	2,725.2	2,723.0	2,730.9	2,776.9
Total Employment	2,393.0	2,455.8	2,541.8	2,583.4	2,601.0	2,514.2	2,481.4	2,497.3	2,513.3	2,570.6
Unemployed	142.5	132.6	113.7	101.6	131.0	222.3	243.8	225.7	217.6	206.3
Unemployment Rate	5.6%	5.1%	4.3%	3.8%	4.8%	8.1%	8.9%	8.3%	8.0%	7.4%

[a]Estimated. [b]Forecast.

Note: There are slight differences between the LAUS data series and the CES employment data series that is used throughout the rest of this book.

Sources: Colorado Department of Labor and Employment (LAUS data) and Colorado Business Economic Outlook Committee.

COLORADO NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT
2004–2013
(In Thousands)

Sector	2004	2005	2006	2007	2008	2009	2010	2011	2012[a]	2013[b]
Natural Resources and Mining	14.4	17.2	21.1	25.2	28.5	24.2	24.4	27.9	30.7	31.7
Construction	151.3	160.0	167.8	167.8	161.8	131.3	115.1	112.2	115.0	121.3
Manufacturing	151.8	150.4	149.1	147.0	144.1	129.6	125.5	129.1	132.1	133.9
Trade, Transportation, and Utilities	406.6	413.0	419.3	429.2	429.3	403.8	397.6	402.3	408.4	414.0
Information	81.2	76.9	75.4	76.4	76.8	74.7	72.0	71.8	69.7	69.1
Financial Activities	154.6	158.5	160.4	159.5	155.6	148.0	144.3	143.8	146.1	148.6
Professional and Business Services	304.1	316.8	331.8	347.9	351.9	330.2	329.4	339.3	353.6	361.0
Educational and Health Services	218.5	224.6	231.2	240.4	250.5	257.2	264.7	273.4	281.5	289.1
Leisure and Hospitality	251.3	257.5	264.9	270.4	272.9	262.4	263.0	271.3	279.0	284.0
Other Services	87.4	88.5	90.8	92.9	94.8	93.7	92.4	93.0	94.9	96.5
Government	358.5	362.6	367.2	374.7	384.1	390.5	393.8	393.5	394.5	398.3
Total[c,d]	2,179.6	2,226.0	2,279.1	2,331.3	2,350.3	2,245.6	2,222.3	2,257.6	2,305.5	2,347.5

[a]Estimated. [b]Forecast.

[c]Nonagricultural self-employed, unpaid family workers, and domestics are excluded from the total.

[d]Due to rounding, the sum of the individual sectors may not equal the total.

Sources: Colorado Department of Labor and Employment (CES Data) and Colorado Business Economic Outlook Committee.

Agriculture

Agriculture Will Continue to be a Key Driver of Economic Growth in 2013

Despite enduring one of the harshest droughts in more than 50 years, Colorado's agriculture industry faired remarkably well in 2012, with net farm income projected at $1.4 billion—a level some $120 million less than year-ago estimates but still the second highest on record. Lower crop yields were mostly offset by higher market prices, especially for corn, hay, and wheat, and although poor pasture and grazing conditions forced ranchers to cull herds and market calves earlier than normal, cattle producers were able to sell into a relatively strong market. Farm and ranch receipts for 2013 are forecast to increase by more than $200 million, to $8.7 billion, largely on the strength of higher prices for fed cattle and calves and continued expansion of Colorado's dairy sector. Grain prices, unless drought conditions persist into 2013, are likely to soften. Nonetheless, increases in top line revenues, coupled with lower costs for livestock feed and crop inputs, will push net farm and ranch income to a record $1.8 billion for 2013.

For the eighth time in the last 10 years, Colorado net farm and ranch income is expected to surpass $1 billion in 2013—a level first exceeded as recently as 2004. These higher net incomes have helped to improve farm and ranch balance sheets, pushing debt-to-equity ratios to their lowest levels in more than 10 years. Higher crop and livestock prices are also being capitalized into land costs. According to a National Agricultural Statistics Service report, the 2012 average value of cropland in Colorado was $1,450 per acre, up 8.2% from 2011 and a 63% increase over the 2004 value of $891 per acre.

COLORADO FARM INCOME AND PRODUCTION EXPENSES
2004–2013
(In Millions of Dollars)

Year	Gross Value of Farm Revenue	Total Farm Production Expenses	Net Farm Income
2004	$6,447.9	$5,120.0	$1,327.9
2005	6,755.7	5,379.9	1,375.8
2006	6,761.5	5,843.9	917.6
2007	7,478.2	6,203.1	1,275.1
2008	7,269.3	6,161.4	1,107.9
2009	6,795.0	6,104.9	690.1
2010	7,178.3	6,008.1	1,170.2
2011	8,411.7	6,742.0	1,669.7
2012[a]	8,445.8	7,000.0	1,445.8
2013[b]	8,674.3	6,850.0	1,824.3

[a]Estimated. [b]Forecast.

Source: Colorado Business Economic Outlook Committee.

Colorado farmers and ranchers are also benefiting significantly from export-driven demand for food and agriculture products. Exports of Colorado food and agriculture products have never been higher and are expected to top $2 billion in 2013. After recording a low-water mark of $256 million in 2004, Colorado exports of beef, beef variety meats, and beef hides have surged and will total nearly $1 billion in 2012. The value of wheat and dairy product exports has also increased significantly in recent years. Top markets for Colorado food and agriculture exports are Canada, Mexico, Japan, South Korea, and China, respectively. These top five markets account for nearly two-thirds of Colorado's total agricultural exports. Ongoing efforts by the U.S. government to expand market access for beef exports to China and Japan, and fresh potato shipments to Mexico hold potential to further boost Colorado exports. Some estimates suggest that an easing of restrictions on fresh potato shipments to Mexico could increase exports from Colorado by as much as $30 million annually.

Livestock Is the Driver of Colorado's Agriculture Industry

It is often said that "livestock is king" in Colorado because livestock, predominantly **cattle and calves**, traditionally accounts for more than 60% of total farm and ranch cash receipts, excluding services and government payments. The year 2012 will be no exception, with cash receipts for all livestock expected to increase by about $100 million over the 2011 level of $4.3 billion, to $4.4 billion. Drought conditions caused poor pasture and grazing conditions in 2012, forcing cattlemen to cull poor performers from their herds and bring more calves to market earlier than normal. Cattle feeders, even though faced with rising feed costs, experienced strong market prices driven largely by steady U.S. and global demand for beef and a shrinking U.S. herd size. Season average prices for fed cattle for 2012 are projected at $122.50 per hundredweight—the highest season average price on record.

Going into 2013, more than 80% of Colorado pastures and rangelands are considered to be very poor to poor. In late 2011, about 40% of pastures and rangelands were considered very poor to poor and the five-year average is closer to only 25%. Clearly, Colorado's ranchers are hopeful that snows and spring rains will improve pasture and rangeland conditions or Colorado could begin to experience broader liquidations of herds. For 2013, fewer than 2 million cattle will be fed in Colorado feedlots, marking a sharp drop-off from the nearly 2.7 million fed in 2000. Season average prices for fed cattle are expected to climb to as high as $130 per hundredweight in 2013 on the basis of strong global demand and a continued shrinking of the U.S. herd. Total cash receipts for cattle and calves will increase to $3.5 billion for 2013, up marginally from the 2012 level of $3.4 billion.

Cash receipts to Colorado's **dairy** producers are expected to decline only slightly in 2012 due to mid-year weakness in fluid milk prices. Still, increases in production helped offset the lower prices received, resulting in total cash receipts of an estimated $585 million. Nationally, the dairy herd size is shrinking, but in Colorado the overall herd is on the rise. The Colorado dairy herd is

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Agriculture

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estimated at 135,000 head and could see an expansion of 12,000–15,000 head by the end of 2013. Dairy prices are projected to increase by as much as 20% in 2013 on the basis of strong exports and increased demand for value-added dairy products like cheese and Greek yogurt. Colorado dairies produced more than 264 million pounds of milk in 2012, up 13 million pounds from the previous year. Cash receipts for dairy products are expected to rise to $680 million in 2013, up by nearly $100 million from 2012.

Sheep and lamb producers, as well as lamb feeders, across Colorado had a difficult 2012. The sector struggled with record heavy slaughter lamb and yearling weights caused by delayed sales early in the season. As prices declined, fewer lambs were sold on the open market, which created an oversupply of lamb for slaughter. As slaughter lambs are typically marketed as yearlings or younger, a stockpile of old animals compounded the problem beyond the impact of increased weights, adding to tonnage in the market. Also, demand softened as customers were quick to identify unfavorable changes in the taste profile of the older lamb being provided to the market. Lamb prices declined dramatically in 2012, hitting $235 per hundredweight in September, down from $375 per hundredweight the previous year. On an annual basis, slaughter lamb prices are forecast to be down about 20% from the record highs of 2011 but still rather strong compared to 2010 and prior years. For 2013, a decline in sheep and lamb numbers will provide some stability to lamb prices; however, the

VALUE ADDED BY COLORADO AGRICULTURAL SECTOR
2004–2013
(In Millions of Dollars)

Year	Livestock	Crops	Total Value of Production	Value of Services and Forestry[a]	Government Payments[b]	Gross Value of Farm Revenue
2004	$4,187.4	$1,395.9	$5,583.3	$643.4	$221.2	$6,447.9
2005	4,129.6	1,511.4	5,641.0	732.7	382.0	6,755.7
2006	4,168.7	1,574.7	5,743.4	773.4	244.7	6,761.5
2007	4,324.0	2,111.6	6,435.6	845.2	197.4	7,478.2
2008	3,892.1	2,231.2	6,123.3	885.0	261.0	7,269.3
2009	3,338.2	2,324.1	5,662.3	940.9	191.8	6,795.0
2010	3,819.4	2,329.4	6,148.8	757.9	271.6	7,178.3
2011	4,298.0	2,828.4	7,126.4	1,049.9	235.4	8,411.7
2012[c]	4,394.8	2,916.0	7,310.8	925.0	210.0	8,445.8
2013[d]	4,630.9	2,868.4	7,499.3	975.0	200.0	8,674.3

[a]Includes sales of forest products, custom feeding fees, custom harvest fees, and other farm income. [b]Includes farm program payments directly to producers. [c]Estimated. [d]Forecast.

Source: Colorado Business Economic Outlook Committee.

still-high cost of feed and the lingering effects of lower consumer demand will limit price increases.

Hog production in Colorado has seen a significant drop over the last decade. From 2002 to 2011, production declined by about 40% from more than 500 million pounds to under 300 million pounds. Into 2013, producers will continue to benefit from sow and feed efficiencies, and hog prices, supported by increases for other proteins, will increase by 2%–3%. Cash receipts are estimated at $235 million, which is $100 million more than for 2009 but $54 million less than the high of $289 million recorded in 2000.

Colorado's **poultry** sector is expected to post a small increase in cash receipts, to $87 million, in 2013. While turkey production and processing in Colorado has virtually disappeared, egg and chicken production remain relatively stable. The advancement of specialty and natural birds, as well as increases in local marketing, appears to be adding incremental growth to the sector.

Market Prices for Crops Continue to be Highly Volatile

Market prices for corn, hay, and wheat all reached unprecedented levels in 2012, mostly because of lower U.S. production and tight reserve stocks. These higher prices helped to largely offset lower, drought-induced yields resulting in a projected increase in total crop cash receipts to $2.92 billion. Of particular note, cash receipts from field crops have more than doubled in the last decade; however, not all of this increase has made its way to the bottom line due to increases in fertilizer, fuel, and seed costs. In general, crop prices are expected to soften into 2013, and with more normal yields, cash receipts will see a modest decline to $2.87 billion.

The widespread hot and dry conditions across Colorado's Eastern Plains had an adverse effect on the 2012 **corn** crop, particularly on dry land plantings. Total corn for grain production is expected to decline by about 20%, to 134 million bushels, with average yields falling by 5 bushels per acre, to 138 bushels per acre. With much of the Corn Belt also suffering from dry conditions, market prices for corn climbed to record prices with a season average price of $7.75 per bushel projected for 2012. To put this into perspective, consider that season average prices for corn, until relatively recently, had hovered between $2 and $3 per bushel. Higher market prices more than offset lower yields, bumping up total cash receipts to corn producers to roughly $1 billion. Demand for corn for cattle feeding and renewable fuels production will remain strong in 2013, and with high market prices, some increase in acres planted to corn is inevitable. Season average prices are

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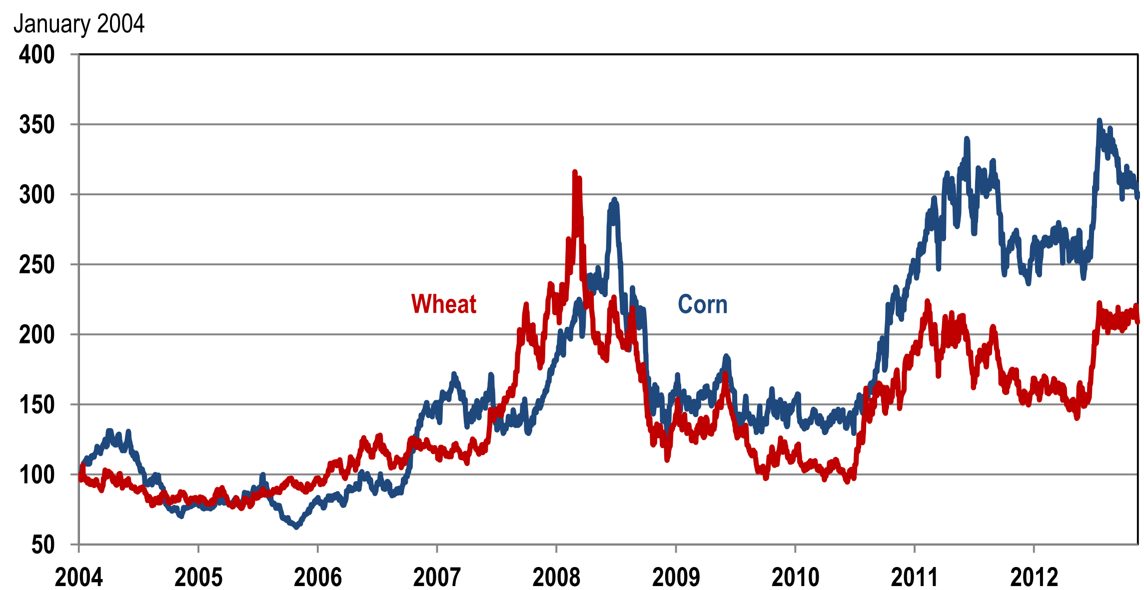
INDEXED COMMODITY PRICES



Sources: Prices from U.S. Department of Agriculture (No. 1 hard red winter—ordinary protein, Kansas City, MO), Bloomberg (USDA Toledo No. 2 Yellow Corn Not on the River Spot Price).

Agriculture

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expected to decline to the $5.50 per bushel level, lowering cash receipts to $970 million for 2013. Corn prices will continue to have a major impact on the profitability of Colorado's livestock sector.

Cash receipts to **wheat** producers are expected to reach an all-time high of $589 million in 2012, with a record-high average season price of $8 per bushel more than making up for production and yield decreases. With average yields falling by about 3 bushels per acre, to 34.3 bushels per acre, total production for 2012 is projected at 75 million bushels, down from 82 million bushels in 2011. Subsoil moisture conditions are currently extremely poor with 92% of acres considered very short or short of subsoil moisture. Nonetheless, more acres are being planted to wheat for 2013, and with yields more in line with five-year averages, production will increase to more than 80 million bushels. Market prices are projected to soften into 2013, with the season average price declining to $7 per bushel. Cash receipts will decline in 2013, to $544 million. Of particular note, researchers are releasing more drought tolerant wheat varieties that could hold great potential for Colorado wheat producers.

Colorado **hay** prices soared again in 2012 in response to supply shortages in drought-affected states and reflecting sharply higher prices for corn and other livestock feedstuffs. Season average prices for 2012 are forecast at $236 per ton, up from $198 per ton just a year earlier. In addition, the growing dairy industry in the state continues to be a key demand driver for high-quality alfalfa hay. Cash receipts for hay reached a record $466 million in 2012, the highest level ever for this crop. Factoring in production that is utilized on-farm, the total value of hay production is estimated at nearly $850 million for 2012, which would make hay second only to corn in terms of market value. A similar number of acres are expected to be harvested for hay in 2013; however, with a little help from Mother Nature, supplies of hay could increase by about 5% in 2013, bringing about a moderation in season average prices to the $200 per ton level.

While **barley** production has been relatively stable across Colorado in recent years, between 8 and 10 million bushels, the crop is of significant importance to Colorado's beer and craft brewing industry. Cash receipts for barley have moved into a higher range of between $30 million and $45 million in the past five years, and this trend is likely to continue into the near future. However, a key to the continued success for barley producers, especially those in the San Luis Valley, is the ability to access irrigation water. Earlier in 2012, groundwater levels in the San Luis Valley aquifer were reported to be at the lowest levels since record keeping started in 1976. Should the aquifer continue to be depleted, producers in the San Luis Valley could come under pressure to reduce barley acres and states outside Colorado would likely gain those acres.

Corn prices will continue to have a major impact on the profitability of Colorado's livestock sector.

An increase in U.S. **potato** production is wreaking havoc on Colorado's potato producers. Season average prices for 2012 are forecast at $6.50 per hundredweight, a sharp decline from the 2011 season average price of $10.70 per hundredweight. While production has been relatively steady, at around 23 million hundredweight, this drop in market prices will result in a nearly $75 million decline in cash receipts from 2011 to 2012. Look for season average prices to return to about $10 per hundredweight in 2013. Improved access for fresh potato shipments to Mexico could put some additional upward pressure on prices. And as with barley, aquifer levels in the San Luis Valley will be a key determinant to potato plantings going forward.

Other field crops of importance to Colorado include dry beans, millet, onions, sorghum, sugar beets, and sunflowers. These crops are generally expected to remain within yield and price ranges consistent with their five-year averages. Prices for **dry beans** have been strong in recent years but acres continue to shift to corn production. **Onion** acres and prices have both trended downward, consistent with national trends. **Sunflower** prices have trended higher and are supported by pricing for the much larger soy oil complex. The adoption of Roundup Ready **sugar beets** is increasing yields and decreasing the number of acres required to operate the state's only sugar beet processing facility in Fort Morgan at its full capacity.

Colorado's **cantaloupe** industry made a strong comeback in 2012. Although producers planted only 15%–20% of normal acres, the recently formed Rocky Ford Growers Association was able to adopt new food safety procedures and make improvements, helping to restore consumer confidence and sales of the sweet, juicy melons for which Rocky Ford has gained national acclaim. Growers are well positioned to expand production and markets in 2013.

The **fruit** crop production recovered slightly in 2012 from the frost-reduced crop in 2011 that hit the Western Slope. The frost particularly harmed cherries and apples, but also reduced the output of peaches and pears, as well as grapes. Tree fruit growers in Colorado have continued to increase peach orchard planting at the expense of apples and 2012 saw an acceleration of that trend. Apple production for 2012 is estimated at 17.0 million pounds, up from 9 million pounds in 2011. Peach production is expected to reach 15,000 tons in Colorado during 2012, with 12,000 tons produced the previous year. During the first half of the 1990s, the value contributed by apples to the Colorado fruit sector was regularly greater than peaches. Today, peaches now represent about 75% of the total value of the Colorado tree fruit crop annually. The Colorado peach is considered a specialty product so prices do not vary much from season to season. Fortunately, the drought did not hurt the fruit growers in the state as it did the dry land crop growers. The popularity of Colorado peaches with consumers continues to support high prices, so 2013 cash receipts for the fruit sector should remain at the 2012 level of $35.0 million.

Colorado's **greenhouse, floriculture** and **sod** industries had a bumpy ride during 2012. As the Colorado housing market began to show signs of an uptick in the spring, the greenhouse and floriculture industries began to see an increase in sales and more customers making purchases of landscape items. This sales surge was cut short by the extremely hot summer months that stunted sales of landscape products at greenhouses and garden centers across Colorado. The floriculture and greenhouse industry, including sod production, should see a slight increase in sales during 2013 as more new houses are built statewide. Greenhouses are experiencing strong growth in demand for vegetables and nurseries are finding double-digit growth in demand for fruit trees as existing homeowners invest in productive landscaping improvements. Cash receipts for this sector are estimated at $255 million in 2012 and projected to increase to $268 million during 2013. With ongoing drought, this industry is working to incorporate more drought resistant plants that can help reduce water usage by homeowners and commercial users.

Volatile energy and fertilizer markets, as well as prices, will continue to be "wild cards" for Colorado's agricultural economy, which will challenge business planning, risk management, and economic forecasting. Colorado's agriculture sector is among the most diverse in the nation, and Colorado farmers and ranchers have proven to be quite resilient and innovative. Many farmers and ranchers continue diversifying operations and seeking additional sources of revenue to strengthen their businesses. Agritourism continues to expand in the state, with producers inviting the public onto their lands to experience pumpkin patches, corn mazes, bird watching, hunting, fishing and other rural agriculture-related activities. Specialty crops continue to add great value and diversity to the state's agricultural economy. More than 100 wineries all across Colorado are making award-winning wines from grapes grown in the state, and new crops, like hops and lavender, are emerging and finding markets. Colorado also has a thriving and vibrant network of farmer's markets.

The total value of sales of forestry products, services and fees received by Colorado farmers tallies nearly $1 billion annually. Government payments for commodity programs and conservation, and from disaster assistance also bolster farm income and are projected at $200 million for 2013. There is great uncertainty around government payments as existing farm program legislation expired September 30, 2012, and Congress has yet to either extend current legislation or vote on a new farm bill.

As Governor Hickenlooper noted in his 2012 State of the State, "Colorado's agriculture industry is leading the state out of the recession." That was true then and perhaps, even more true looking ahead to 2013 when net farm income is forecast to be record high, at $1.8 billion. The agriculture industry has been able to reduce debt substantially over the past few years, improving farmer/rancher profitability, and setting the stage for future prosperity and capital investment needed for the industry to continue to grow and prosper well into the future.

Natural Resources and Mining

Colorado is an energy- and mineral-rich state. In the U.S. Energy Information Agency's (EIA) recent assessment of 2010 proved reserves, Colorado was ranked 10th for petroleum liquids and 5th for dry natural gas. Colorado continues to be home to all, or part of, *nine* of the largest natural gas fields in the nation and *two* of the largest oil fields, and is the ninth-largest coal producer in the nation. The Henderson Mine is the world's *largest* primary producer of molybdenum. In addition to traditional energy resource development, Colorado is also one of the nation's leading renewable energy states with plans to achieve 30% renewable energy by 2020. This goal will include a portfolio mix of wind, solar, biomass, and hydroelectric energy resources.

Revenues generated by the Natural Resources and Mining industries make this business sector one of the most significant contributors to Colorado's GDP. The value of crude oil increased rapidly in 2012 and is expected to continue climbing in 2013 due to the further development of the Niobrara resource play combined with high oil prices. In fact, the value of Colorado petroleum liquids has surpassed natural gas value for at least part of 2012. Low natural gas prices are affecting not only the pace of drilling, but also how Colorado operators are managing existing well production. Regarding coal, a value increase due to higher prices and production is expected for 2012 and 2013. This increase is partially owing to new coal mines and increased coal exports to Europe—despite new environmental restrictions.

The Natural Resources and Mining industry grew by 10% in 2012, to a total of 30,700 employees. Colorado is expected to add 1,000 jobs in 2013, an increase of 3.3%.

Oil and Gas

Colorado oil and gas activity was mixed in 2012. Continued development of tight oil plays such as the Niobrara, combined with higher oil prices, has

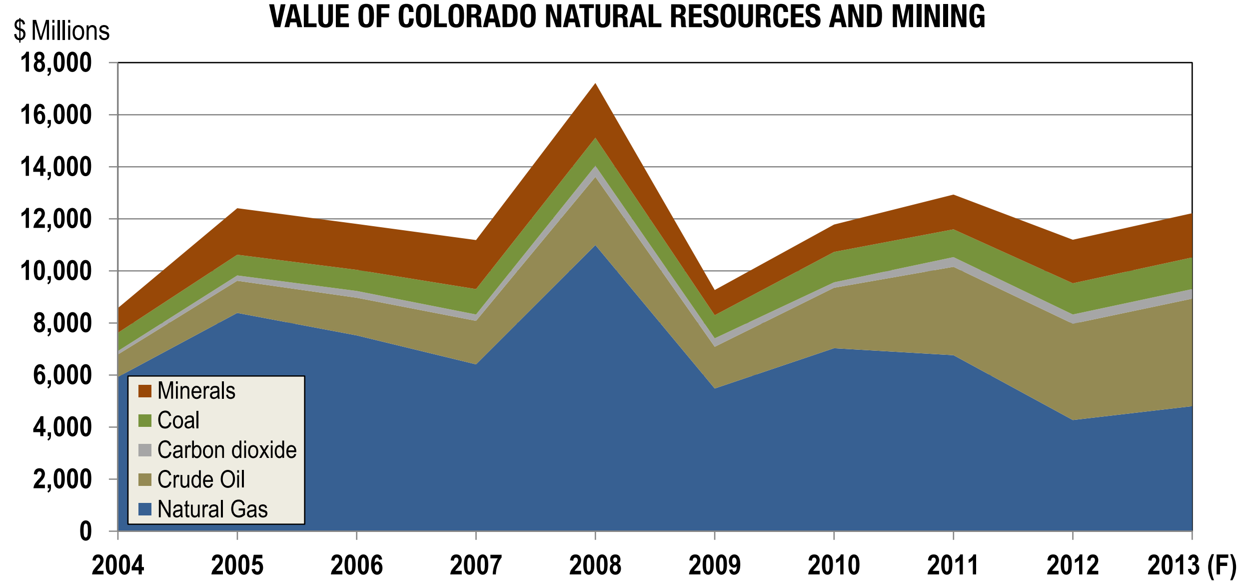
COLORADO NATURAL RESOURCES AND MINING EMPLOYMENT 2004–2013 (In Thousands)

Year	Employment	Percentage Change
2004	14.4	2.3%
2005	17.2	19.4
2006	21.1	22.7
2007	25.2	19.4
2008	28.5	13.1
2009	24.2	-15.1
2010	24.4	0.8
2011	27.9	14.3
2012[a]	30.7	10.0
2013[b]	31.7	3.3

[a]Estimated. [b]Forecast.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

VALUE OF COLORADO NATURAL RESOURCES AND MINING



Sources: Colorado Geological Survey Mineral and Minerals Fuel Activity Reports, Colorado Oil and Gas Conservation Commission, Department of Minerals and Geology, and Colorado Business Economic Outlook Committee.

made crude oil a significant growth resource for the state. This growth, however, has been unevenly offset by low gas prices. Since Colorado produces far more gas than oil, overall value for the industry will decrease by an estimated 20% in 2012.

On a more positive note, 2013 Colorado oil and gas values should increase by more than 11%. This could be substantially higher should regional gas prices rise significantly. Assumptions for growth in 2013 are based on continued rapid development of shale oil plays through further implementation of horizontal drilling and hydraulic fracturing technologies; economic stability at state, national, and international levels; and no significant decrease in natural gas demand. Large operators have indicated a clear intent to increase and continue development of shale oil assets in Colorado. Noble Energy Inc. has spent more than $1 billion in 2012 drilling wells, and has plans for $8 billion more over the next five years. Likewise, Anadarko Petroleum and EOG Resources have large investment plans for the coming several years.

The total revised value of Colorado's oil, gas, and carbon dioxide production in 2011 is $10.5 billion, a 10% increase from the 2010 value of $9.6 billion. The value of oil, gas, and carbon dioxide production for 2012 is projected at $8.3 billion—20.9% less than for 2011. For 2013, the value of Colorado's production is projected at $9.3 billion, an increase of nearly 12%. The nature of the economy in late 2012 and early 2013 will no doubt set a critical tone for fuel demand and pricing for the year.

Oil

For 2011 and 2012, the U.S. petroleum benchmark known as West Texas Intermediate (WTI) fluctuated in a range between $75 and $113 per barrel, with a mean daily spot average of $95 per barrel. Colorado crude oil, typically sold at a discount to WTI due to market demand considerations, had an average weighted price of $88.57 per barrel in

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VALUE OF COLORADO NATURAL RESOURCES AND MINING, 2004–2013
(In Millions of Dollars)

	Oil and Gas Extraction					Mining					
Year	Crude Oil	Natural Gas	Carbon Dioxide	Subtotal	Percent Change	Coal	Minerals	Subtotal	Percent Change	Total	Percent Change
2004	$863	$5,928	$129	$6,921	31.6%	$703	$951	$1,654	24.3%	$8,575	30.1%
2005	1,237	8,386	201	9,823	41.9	796	1,789	2,585	56.3	12,409	44.7
2006	1,446	7,524	258	9,228	-6.1	813	1,762	2,575	-0.4	11,803	-4.9
2007	1,669	6,412	246	8,326	-9.8	974	1,886	2,860	11.1	11,186	-5.2
2008	2,619	10,993	429	14,041	68.6	1,075	2,100	3,175	11.0	17,216	53.9
2009	1,600	5,485	324	7,409	-47.2	887	971	1,858	-41.5	9,267	-46.2
2010	2,323	7,032	208	9,563	29.1	1,203	1,050	2,253	21.3	11,816	27.5
2011	3,395	6,763	369	10,527	10.1	1,209	1,336	2,545	13.0	13,072	10.6
2012[a]	3,698	4,273	353	8,324	-20.9	1,319	1,673	2,992	17.6	11,316	-13.4
2013[b]	4,133	4,802	367	9,302	11.7	1,629	1,700	3,329	11.3	12,631	11.6

[a]Estimated. [b]Forecast.

Sources: Colorado Geological Survey Mineral and Minerals Fuel Activity Reports, Colorado Oil and Gas Conservation Commission, Department of Minerals and Geology, and Colorado Business Economic Outlook Committee.

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2012. This is essentially unchanged from the 2011 Colorado composite price of $87.90. Future energy prices depend on a myriad of factors across multiple scales, including economic recovery, geopolitical situations, technological developments, and new resource discoveries. An estimate of $80–$100 per barrel for 2013 appears reasonable, assuming supply and demand expectations continue on current trends.

The International Energy Agency (IEA) is forecasting 2013 oil demand to be marginally higher than in 2012 due to tight supply offsetting the effect of a still weak global economy. If global economic growth should slow significantly, the Organization of Petroleum Exporting Countries may reduce production to prevent oil from dropping much below $80 per barrel. Both the IEA and the EIA predict that world oil demand will be in the range of 89–90 million barrels per day in 2012, and 90–90.5 million barrels per day by 2013. Consumption in the United States is projected to decrease by 0.28 million barrels per day, to 18.7, in 2012, but is forecast to increase by 0.1 million barrels per day, to 18.8, in 2013—the first annual increase since 2010. For comparison, demand in China will increase 0.75 million barrels per day for 2012 and 2013 combined. In early November, the EIA estimated that the average WTI will be $94.51 per barrel in 2012 and $88.29 per barrel in 2013.

Retail Gasoline

The Colorado average retail price of automotive gasoline through October 2012 was $3.57. This is a modest $0.12 increase over the average 2011 price of $3.45. For 2013, the EIA currently forecasts the national average will be $3.50 per gallon, which translates to approximately $3.38 per gallon for Colorado. Regional prices for diesel (averaging $3.90 for 2011 and 2012) have been consistently

COLORADO PHYSICAL OUTPUT OF FOSSIL FUELS
2004–2013

Year	Coal Millions of Short Tons	Crude Oil Millions of Barrels	Natural Gas Billions of Cubic Feet	Carbon Dioxide Cubic Feet	Index (Base Year: 2004 = 100) Coal	Crude Oil	Natural Gas	Carbon Dioxide
2004	39.8	22.4	1,065	342	100.0	100.0	100.0	100.0
2005	37.8	23.0	1,120	362	95.0	102.6	105.2	105.8
2006	35.5	24.2	1,227	373	89.2	108.2	115.3	109.1
2007	36.1	25.5	1,300	375	90.7	114.1	122.1	109.7
2008	32.3	29.5	1,497	371	81.2	131.8	140.6	108.7
2009	28.6	29.9	1,559	408	71.9	133.8	146.5	119.4
2010	25.2	32.4	1,626	267	63.3	144.7	152.7	78.2
2011	27.0	38.3	1,631	470	67.8	171.3	153.2	137.5
2012[a]	28.6	41.7	1,601	415	71.9	186.7	150.3	121.5
2013[b]	31.5	45.9	1,601	432	79.1	205.3	150.3	126.4

[a]Estimated. [b]Forecast.

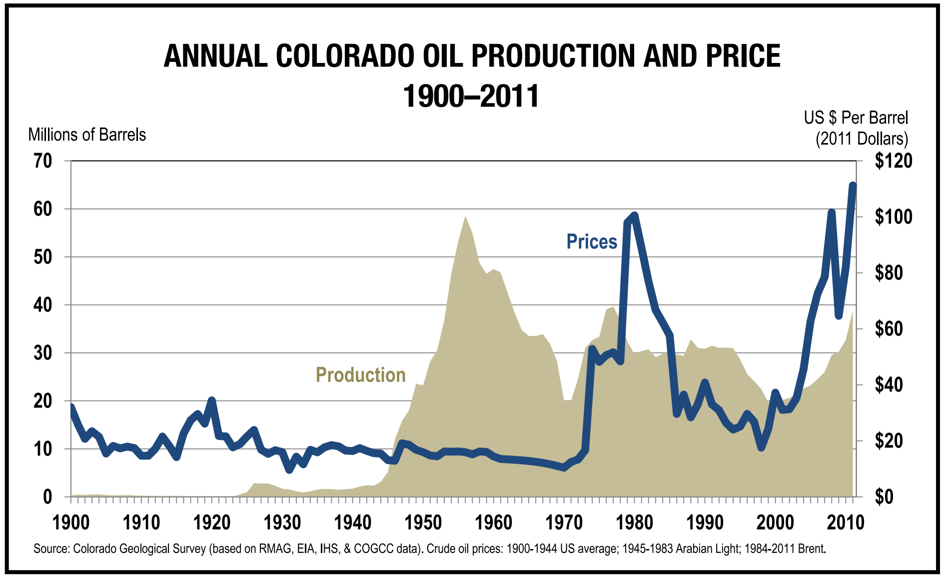
Sources: Colorado Geological Survey Mineral and Minerals Fuel Activity Reports, Colorado Oil and Gas Conservation Commission, Department of Minerals and Geology, and Colorado Business Economic Outlook Committee.

higher than prices for regular gasoline. Low to moderate volatility is expected in crude oil prices in 2013, assuming no major economic upheavals, geopolitical events, or major energy/environmental policy changes. Consequently, expectations are for gasoline to be priced between $3.00 and $4.25 per gallon in Colorado in 2013.

Natural Gas

Forecasts from the EIA suggest that the average American household using natural gas for heating will see a total winter (October through March) price increase of 15% (approximately $89) over 2011–12. More than 50% of all households in the United States depend on natural gas as a primary heating fuel; for the Midwest, this number climbs to more than 70%. This projected increase in average household expenditure will result from a forecasted 1% increase in prices and a 14% increase in consumption. The National Oceanic and Atmospheric Administration (NOAA) estimates that the total heating degree days in 2012–13 winter season will be nearly 18% cooler in the lower-48 states compared to the previous winter. Regionally, however, the Mountain West, including Colorado and Utah, is projected to have above normal temperatures in December, January, and February.

Colorado is a top natural gas-producing state. EIA estimates that conventional and unconventional output from Colorado basins in 2010 accounted for nearly 8% of the annual U.S. natural gas production, maintaining its rank as the 5th-largest gas producing state. The industrial and transportation sectors are the leading natural gas-consuming sectors in the state, each accounting for roughly 29% of the total. Residential gas prices in Colorado for July 2012 were the 10th-lowest in the country.



About 75% of Colorado households use natural gas as their primary energy source for home heating, one of the highest shares in the United States. In 2011, gas producing wells totaled more than 28,000 in Colorado, with a total production of just over 1.6 trillion cubic feet. Colorado is a net exporter of natural gas—66% of its natural gas production is transported to California and Midwest markets. The 1,679-mile Rockies Express Pipeline (REX), which became fully operational in November 2009, moves natural gas from Colorado to eastern Ohio, with a maximum capacity of 1.8 billion cubic feet per day. With recent developments of large gas plays in Pennsylvania and Ohio, a flow reversal along this pipeline is plausible to address supply-demand mismatch.

Carbon Dioxide

Colorado's carbon dioxide production is marketed primarily for enhanced oil recovery (EOR) operations and secondarily for use in the food industry. In 2011, a total of 470 million cubic feet of CO_2 were produced in four counties (Montezuma, Dolores, Huerfano, and Jackson), with the total production value grossly estimated to be around $370 million. For 2012 and 2013, CO_2 production levels and total values are likely to remain flat.

Drilling Permits

The Colorado Oil and Gas Conservation Commission (COGCC) reports 5,996 drilling permits were approved in 2011, representing a 16% increase from the 5,159 permits approved in 2010. For 2012, the commission approved roughly 2,800 permits in the first three quarters and looks to finish the year with approximately 4,500 total approved permits. Nearly half of all permitted wells are located in Weld County.

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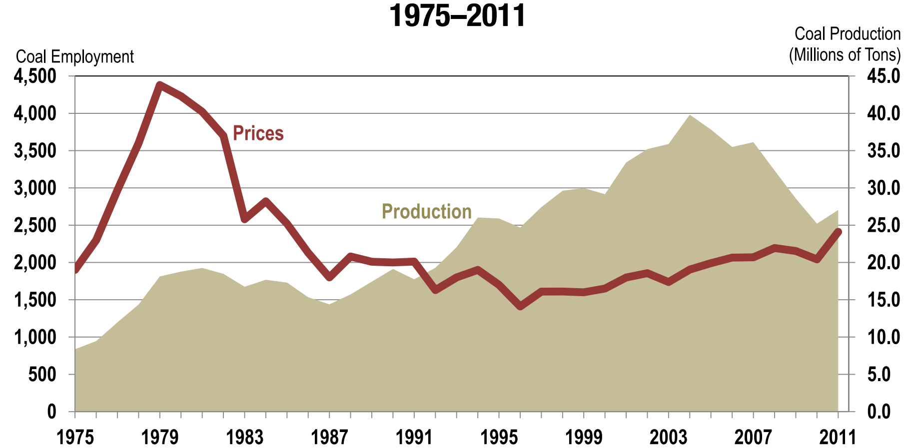
The monthly drill rig count in Colorado reached a peak of 80 in November 2011, before decreasing to between 60 and 70 rigs per month throughout 2012. As of August, the drilling of 1,626 new wells had been initiated in Colorado—a small decrease from 1,700 wells that had been begun drilling by this time last year. More than 60% of these new wells were drilled in Weld County.

Horizontal drilling continues to be a growing part of Colorado's oil and gas activity. In 2010, about 5.6% of all Colorado drilling permits issued were for horizontal wells. In 2011, that number increased to 19.3%. As of the end of September 2012, more than 28% of all Colorado well permits were horizontal. In 2011, approximately 85% of these permits were for locations in Weld County. Through September 2012, 77% of the permitted horizontal wells are located in Weld.



Source: Colorado Division of Reclamation, Mining, and Safety, 2012.

Coal

For only the second time in the past seven years, annual state coal production increased. Beginning in Q4 2011, production from Colorado's 11 coal mines increased 10%, to 27 million tons in 2011 from 25.2 million in 2010. While this was a significant improvement, it was still the second-lowest annual production year since coal production peaked at 39.8 million tons in 2004. Coal must now compete with mandates for renewable energy and the slated closure or conversion of coal-fired plants along the Front Range. New EPA regulations and fuel-switching legislations mandating the conversion of Colorado power plants to natural gas will hinder future production.

While Colorado's active coal mines are mostly located on the Western Slope, a new mine called New Elk opened near Trinidad in 2011. Owned by Cline Mining, the mine was open for one year and produced 350,000 tons of metallurgical coal. This specialty coal is sold to a coking coal facility in Alabama. The mine was running until market pricing forced it to idle in July 2012 when coking coal prices dropped from $180 to $100 per ton.

Mines

In 2011, Colorado coal mines produced bituminous and sub-bituminous coal for electricity generation at power plants, and to a lesser extent, cement and coking operations. Coal was produced in nine Colorado counties: Las Animas, Routt, Moffat, Rio Blanco, Garfield, Delta, Gunnison, Montrose, and La Plata. Routt County has been the leading coal-producing county for years and in 2011 produced more than 7.7 million tons from the Peabody Energy Foidel Creek Mine. In 2012, Peabody Energy opened a new mine, the Sage Creek Mine, also in Routt County. This underground coal mine operates in the same thick coal seam as the nearby Foidel Creek Mine, the Wadge coal seam. Sage Creek is developing into a full-scale mine to replace the Foidel Creek Mine in the future. Bowie Mine #3 in Delta County is back online at full production after many years of engineering problems, and production at the Colowyo surface mine in Moffat County is strong with its new owner Western Fuels Colorado.

Production

Colorado is only 1 of 2 states among the top 10 producers to increase production in 2012. Colorado currently ranks as the ninth-most productive coal mining state, just ahead of North Dakota and Ohio and behind Indiana and Montana. On the basis of DOE–EIA weekly coal production data (through October 10, 2012), the Colorado Geological Survey projects that the state's total coal production by year-end 2012 will be 28.6 million tons, a 5% increase over 2011. This is good news for a state industry that is not following the national trend. Over the past five years U.S. coal production has decreased by 5%, due in part to the resurgent use of low-priced natural gas to generate electricity, a slower economy, and uncertainty over the direction of EPA regulations.

Value

Prices are steady for contract coal. In 2011, the total value of coal sold in Colorado was estimated at $1.21 billion, based on an average coal price of $44.73 per ton. Prices have increased lately; between August 2011 and September 2012 the average price per ton for federal-leased Colorado coal was $46.08. The value of Colorado coal sold during this time was $1.38 billion. Ironically, spot market coal sales during the same time frame dropped 13%, from $41 per ton to $35.60 per ton. The Colorado Geological Survey projects that the year-end value of coal sold in Colorado will be worth $1.32 billion.

Employment

The Colorado Division of Reclamation, Mining and Safety tracks coal production and the employment of coal miners on a monthly basis. In 2011, employment at Colorado's coal mines increased by 370, to a 25-year high of 2,411 coal miners by year-end. This was due in part to the employment of new coal miners at the New Elk Mine in Las Animas County. Since that time, some 300 coal miners have been displaced, and as of August 2012 a total of 2,136 coal miners were employed at the state's coal mines.

Exports

Over 47% of the coal produced in Colorado is shipped by rail or truck to 24 other states, with destinations as far as Florida. The five states that use the most Colorado coal are Kentucky, Alabama, Utah, Tennessee, and Mississippi. About 10% of Colorado coal is exported to Europe and Mexico for steam coal and cement manufacturing, respectively. This increase in the foreign export market is a strong indicator for the Colorado coal industry.

Consumption and Generation

Nearly half of the coal consumed in Colorado comes from Colorado mines, with the remainder from Wyoming. Coal-fired power plants in Colorado consumed 18.4 million tons of coal in 2011, supplying the state with about 68% of its electricity. Electricity generated at Colorado's 12 coal-fired power plants decreased from 2010 to 2011—from 38.6 million megawatt-hours (Mwh) to 36.9 million Mwh total generation. Natural gas consumption increased, with Colorado ranked 21st nationally for energy consumption of coal per capita.

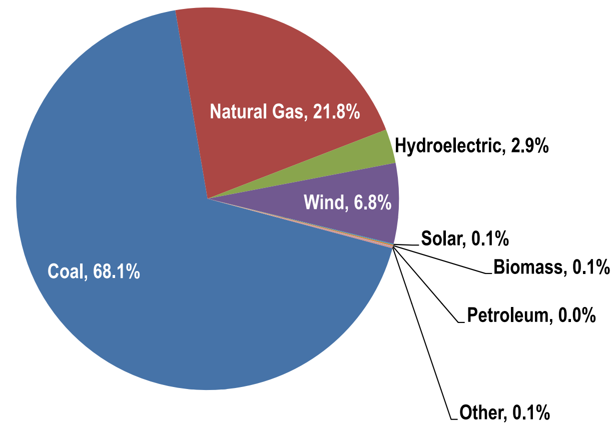
Minerals and Uranium

Colorado's mining sector returned higher value to the state in 2011 compared to the previous year. The Colorado Geological Survey calculated a total value of $1.53 billion for 2011, up 35% from 2010. It is anticipated that the value of mineral materials will remain about the same in 2012.

The price of molybdenum—the largest component of Colorado's mineral production—averaged more than $17 per pound in 2011. The price dropped in 2012, with slowing demand even though production increased. Gold production in 2012 decreased from 2011, but the price of gold significantly increased. Production of industrial minerals (primarily construction materials) has continued to decrease year-over-year, although the sector is predicted to stabilize in 2012.

Production at the Henderson Mine in Clear Creek County maintained a level of 40 million pounds for the year in 2011. The Climax Mine on Fremont Pass, also owned by Climax Molybdenum, a subsidiary of Freeport McMoRan Copper and Gold, Inc., joined the Henderson Mine in active production of molybdenum. The Henderson Mine is currently the largest primary producer of

COLORADO ELECTRIC POWER GENERATION BY SOURCE



Source: U.S. Energy Information Administration, 2010.

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molybdenum in the world, and the Climax Mine is anticipated to take its place as the second largest. More than 500 workers are employed at each facility, including the Henderson Mill in Grand County. Concentrate from the mill is subsequently trucked and shipped to Climax plants in Iowa and the Netherlands, where it is used for a variety of products.

The Henderson Mine plans to meet the same amount in 2012. An additional 20 million pounds is projected from the Climax Mine. The calculations are based on an average price for molybdenum in 2011 of $17.57 per pound. The price decreased in 2012, to around $12 per pound.

The Cripple Creek and Victor Gold of AngloGold Ashanti Corporation experienced another good year at their Cresson Mine buoyed by the rising gold price. The mine produced 265,000 ounces of gold and 107,000 ounces of silver in 2011. The average price of gold in 2010 was $1,370 per ounce, for a total value of their produce of $303 million. Projections for 2012 show an increase in production and a higher gold price—241,000 ounces and $1,750 per ounce, respectively—for a total product value of $422 million. The Cresson Mine employs 499 people in Teller County.

The uranium price dropped as low as $47.75 per pound in 2012. Vanadium—a key coproduct of most Colorado uranium deposits—also dropped to as low as $6 per pound. These low prices have added to the difficulty of initiating mining operations. No uranium or vanadium was produced in Colorado in 2012. A new uranium mill, proposed by Energy Fuels, Inc., in Montrose County, would enhance development possibilities in the southwest part of the state.

VALUE OF COLORADO NONFUEL MINERALS AND URANIUM PRODUCTION 2004–2013 (In Millions of Dollars)

Year	Nonfuel Minerals	Uranium	Total
2004	$949	$2.0	$951
2005	1,782	7.3	1,789
2006	1,762	0.0	1,762
2007	1,886	1.0	1,886
2008	2,084	16.0	2,100
2009	965	6.0	971
2010	1,050	0.0	1,050
2011	1,336	0.0	1,336
2012[a]	1,673	0.0	1,673
2013[b]	1,700	0.0	1,700

[a]Estimated. [b]Forecast.

Source: U.S. Geological Survey, Mineral Survey Reports.

The industrial minerals sector reflects the construction activity in Colorado and correlates directly with that sector. With little housing or major highway construction, the value of these materials decreased again in 2011. The production of construction aggregate, including crushed stone, sand, and gravel, slid 14% in 2011 from 2010, with 31 million metric tons of product at a value of $235 million. Cement production actually increased slightly, as did gypsum, used for wallboard.

Renewables

Colorado's abundance of renewable energy resources includes wind, solar, hydroelectric, geothermal, and biomass resources. These alternative electricity resources accounted for 14% of Colorado's net generation in 2011, an increase of 4% over 2010. Most of the generation comes from wind and hydroelectric resources. In terms of overall renewable energy potential, Colorado ranks third nationally.

Colorado's Renewable Energy Standard requires investor-owned electric utilities to provide 30% of their generation from renewable energy resources by 2020, with 3% coming from distributed generation. This is one of the highest renewable portfolio goals in the nation, and the Colorado Public Utilities Commission states that the existing wind and solar installations have already achieved this electricity goal, mostly by purchases through Xcel Energy. Renewable energy credits are used to credit homeowners and utilities for renewable energy. Colorado's windy plains, high mountains and rivers, active subsurface heat flow, and abundant sunshine give it one of the highest potentials for renewable energy growth in the United States. When compared to other states with renewable resources, though, Colorado's potential for renewable electricity generation is underutilized. Residential electricity rates in Colorado are 12.23 cents per kilowatt hour, which is average for the nation.

Wind Energy

Colorado ranks 11th nationally for overall wind energy potential. The *Denver Business Journal* reports that installed wind power in Colorado grew by more than 26% in 2012. The total capacity for wind power will have increased to 2,272 megawatts (MW) of generating capacity by 2012 year-end, up from 1,300 MW just two years ago. These wind farms cumulatively produced 3.4 million megawatt-hours of electricity in 2011.

Most of these wind stations operate in areas of low economic development, providing local jobs to these rural areas. There are no hard numbers for renewable energy economics, but the industry adds to the economy through new lease payments to landowners, and local income from taxes and wind farm employees (about 300 construction jobs per new project, then operations crews of about 25 per farm).

Two new wind projects are the 50,000-acre Xcel Energy Limon I and Limon II facilities in Lincoln and Elbert counties. According to Xcel Energy, these wind farms are the lowest cost wind energy in Colorado, making this energy now competitive with coal and natural gas. Contract sales at Vestas Wind Energy plants in Brighton and Windsor are down as the company recently decreased its manufacturing workforce from 1,700 to 1,200 employees at four factories. Market demands fluctuate markedly in this industry and Vestas must scale accordingly. The Colorado Energy Office supports small-scale wind projects through its Anemometer Loan Program and the Wind for Schools Program.

Solar Energy

Most of the solar installations in Colorado are driven by utility incentive programs. Xcel Energy has installed more than 11,000 solar photovoltaic (PV) systems in Colorado, and its Solar Rewards Program has paid over $263 million in incentives to its customers. These programs have slowed recently, and new installations have stalled. Colorado's installed photovoltaic capacity of 91 megawatts was the fifth-largest in the United States in 2011. The concentrated mirror project in the San Luis Valley has been operational since April 2012, and another 30 MW of PV systems came online at the same facility in December 2011. Xcel Energy is working on a new concept of community solar gardens in the Denver urban area that may be prototyped in 2013.

In terms of cumulative installed solar electric capacity, Colorado dropped to fifth nationally in 2012. For solar capacity, Colorado has 208 Mw of power installed as of 2012. In addition to utility-scale electricity, much of solar's input is from small-scale or distributed generation types of facilities, such as individual home solar projects that are prevalent throughout Colorado. There are 593 solar PV systems installed in Colorado, ranking fifth in the number of PV systems. The Colorado state capitol is the nation's first LEED Certified Capitol Building with its energy efficient renewable energy sources using solar and, in the future, geothermal energy.

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Hydroelectric Power

Colorado's hydroelectric power has been stable for many years. In 2010, approximately 3% of the state's total electrical output came from 48 hydroelectric generating stations. More than 1,740 thousand megawatt-hours of electricity were generated. Most of these stations are owned by the U.S. Bureau of Reclamation, but some are privately owned or operated by local mountain towns such as Aspen, Telluride, Ouray, and Nederland. This renewable resource provides a constant but seasonably variable source for electricity. The industry employs several hundred individuals for operations and maintenance.

Other Alternative Energy Resources

Solix BioSystems operates test facilities in Durango and Fort Collins. It is working on efficiency improvements for biomass and algae energy. Realistically, large-scale algae production is still in the future. OPX Biotechnologies, based in Boulder, is working on another engineered microbe process licensed from the University of Colorado to refine biomass efficiencies. It was named the Breakout Cleantech Company of the Year in 2011. The economic impact of all biomass is difficult to assess but waste-to-energy programs such as the anaerobic digesters at metropolitan Denver wastewater treatment plants and landfills produced more than 57,000 megawatt-hours of electricity in 2011. Waste Management landfills collect enough biogas now to have an appreciable amount of electricity generation added to the grid. Biodiesel production in Colorado has essentially been discontinued in 2012.

Geothermal energy in Colorado has a significant potential due to high heat flow areas of the state, and Pagosa Springs provides an economic basis by using geothermal heating in many of the town's buildings. No electricity generation is provided by geothermal at this time. Other cities use direct heat, such as the hot springs resort in Glenwood Springs, which uses geothermal steam for heating. Some resorts are using steam for greenhouses and cabin heat. ✤

COLORADO ELECTRIC POWER INDUSTRY GENERATION BY PRIMARY ENERGY SOURCE
2004–2010
(In Millions of Megawatt Hours)

Year	Coal	Natural Gas	Hydroelectric[a]	Wind	Solar	Biomass	Petroleum	Other[b]	Total
2004	35.8	10.7	1.0	0.2	0.000	0.035	0.014	0.002	47.9
2005	35.6	11.9	1.3	0.8	0.000	0.034	0.017	0.002	49.6
2006	36.3	11.9	1.6	0.9	0.000	0.031	0.021	0.003	50.7
2007	35.9	15.0	1.6	1.3	0.002	0.031	0.028	0.043	53.9
2008	34.8	13.5	1.8	3.2	0.018	0.045	0.019	0.033	53.4
2009	31.6	13.8	1.8	3.2	0.026	0.057	0.013	0.053	50.6
2010	34.6	11.1	1.5	3.5	0.042	0.060	0.017	0.070	50.7

[a]Includes pumped storage.

[b]Includes blast furnace gas, propane gas, other manufactured and waste gases derived from fossil fuels, non-biogenic municipal solid waste, batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, tire-derived fuels, and miscellaneous technologies.

Source: U.S. Energy Information Administration.

Construction

Construction finally is catching wind in its sails as activity jumped in 2012 and is expected to rise again in 2013. The committee forecasts the Construction Sector will produce $12.6 billion in 2013, up 42% since 2011. That is still more than 25% below the robust numbers from a decade ago, but the industry no longer appears mired in a sector-specific recession. The number of new multi-family units built will return to historic norms in 2012 and 2013. The biggest surprise is a sharp rise in infrastructure work. Employment will grow in 2012 by 2,800 jobs and by another 6,300 in 2013.

Residential

Single-Family Housing: Solid Improvement with a Cloud of Uncertainty

Single-family permits peaked at more than 40,000 a year in 2005, but activity fell sharply with the recession. Housing starts were up roughly 20% in 2010 but the improvement stalled in 2011 with a slight decline, to 8,723 permits.

Both the 2010 increase and the leveling off in 2011 were influenced by federal homebuyer tax credits, which boosted activity in the first half of 2010, "borrowing" activity from subsequent quarters. In 2012, this unusual tax credit was no longer a factor, so results are very encouraging. New permit activity increased 33% through August 2012, a strong indication that fundamental housing market supply and demand are once again beginning to take hold and drive the industry. The market for new single-family housing is showing evidence of sustained improvement from the dismally low levels of the previous three years (2009–2011).

Government policies continue to influence the housing market. Very strict home loan underwriting policies are suppressing housing demand, with most lenders requiring higher down payments and sterling credit histories. Mortgage lenders anticipate further obstacles to financing home purchases as new federal regulations are developed to conform to Dodd-Frank financial reform. Interest rates for home mortgages are likely to remain near record lows as a result of further quantitative easing by the Fed (QE3) in early September 2012, when it announced the continued purchase of up to $40 billion in mortgage-backed securities per month.

Consumer confidence in the region continues a three-year trend of gradual improvement, influenced by reports from FHFA and S&P/Case-Shiller that home prices have stabilized and even show modest year-over-year increases in most markets.

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VALUE OF CONSTRUCTION IN COLORADO BY TYPE
2004–2013
(In Millions of Dollars)

Year	Residential	Nonresidential	Total Building	Nonbuilding	Total Construction
2004	$8,050.3	$3,291.4	$11,341.7	$1,753.8	$13,095.5
2005	8,803.4	4,221.2	13,024.6	1,787.8	14,812.4
2006	8,708.1	4,641.1	13,349.2	3,446.3	16,795.5
2007	7,417.0	5,259.5	12,676.5	2,003.6	14,680.1
2008	4,041.8	4,116.7	8,158.4	2,542.4	10,700.8
2009	2,501.3	3,126.2	5,627.4	1,648.4	7,275.8
2010	2,903.0	2,967.3	5,870.3	2,214.4	8,084.7
2011[a]	2,903.0	3,763.9	6,666.9	2,275.3	8,942.2
2012[b]	3,806.7	4,050.0	7,856.7	3,400.0	11,256.7
2013[c]	4,813.2	4,200.0	9,013.2	3,600.0	12,613.2

[a]Revised. [b]Estimated. [c]Forecast.

Sources: McGraw-Hill Construction Research and Analytics and the Colorado Business Economic Outlook Committee.

Construction

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While foreclosures undoubtedly continue to be a drag on the market, declines in new filings from the 2009 peak of 46,394 appear to signal that the market is mending. Filings in Q3 2012 were down 11.8% compared to a year earlier, and foreclosure sales decreased 10.6%. Government foreclosure assistance programs helped some homeowners but delayed the inevitable for many others, and lenders are now moving forward with foreclosure actions.

The supply capacity followed housing demand downward and now significantly impairs the responsiveness of the housing industry. Some regional and national builders failed, consolidated, or exited the Colorado market. Numerous small homebuilders went out of business, while survivors face challenges in financing new housing construction. Those survivors gained market share over the past five years and are positioned for the eventual recovery. They have downsized dramatically and charged off the value of high-priced land holdings, and operate only in the best market areas where they can compete with the resale market.

Positive Indicators

Record low mortgage interest rates likely will continue to support housing market demand.

The number of *new* single-family home closings for the Front Range increased by 27% through August 2012 compared with the same period a year earlier.

RESIDENTIAL BUILDING PERMITS BY TYPE 2004–2013

Year	Single Family	Multifamily	Total Housing Units
2004	40,753	5,746	46,499
2005	40,140	5,751	45,891
2006	33,000	7,978	40,978
2007	21,087	9,333	30,420
2008	11,147	7,851	18,998
2009	7,231	2,087	9,318
2010	8,790	2,801	11,591
2011[a]	8,723	4,779	13,502
2012[b]	11,000	8,000	19,000
2013[c]	13,000	11,500	24,500

[a]Revised. [b]Estimated. [c]Forecast.

Sources: U.S. Census Bureau and the Colorado Business Economic Outlook Committee.

Resale housing supply and demand are in approximate balance for the first time in more than 10 years. The 3.0 month supply in the Metro Denver area as of mid-year 2012 was lower than for any mid-year period since 2000.

Both apartment and single-family rental occupancy rates have increased to an approximately balanced level, and some submarkets are experiencing a shortage of rental housing. Continued in-migration is adding to a natural population increase, and foreclosures are forcing previous homeowners into the rental market. As rents rise, home ownership will become a more attractive option for those who can qualify for a loan.

Forecasts

In Colorado, a solid 26% increase is expected, to 11,000 single-family permits. Continued recovery is anticipated in 2013, with 13,000 single-family permits forecast.

The housing downturn has now affected upper-price segments. As a result, the increasing permit value of new homes slowed from the 6% to 10% increases of 2002–2008 to a slight decline in 2009 and a small gain in 2010. A 5.9% increase to an average permit value of $277,200 in 2011 is attributed to a shift to somewhat larger homes compared with the previous two years. The increasing number of permits in 2012 appears to be weighted less to large homes as permit values rose just 1.8% through August. The forecast for calendar year 2012 is a 1.9% increase, to a permit value of $282,500 per unit, followed by a 3% increase in 2013, to $291,000 per unit.

Multifamily Housing

In 2012, multifamily permits reached their highest level since 2007. Expectations are for 8,000 permits in 2012, an increase of 67%. Nearly all of the growth resulted from increased apartment construction in Front Range cities, particularly in the Denver, Boulder, and Colorado Springs metro areas. In most other parts of the state, apartment construction decreased slightly or remained subdued. Condominium construction also remains depressed throughout Colorado. Recent state legislation increased builders' exposure to lawsuits related to potential construction defects, which, in turn, has led almost all developers to stay away from for-sale multifamily.

Rental markets continued to tighten in most areas throughout 2012, with apartment vacancy rates in northern Front Range metro areas averaging 4.6% in Q3 2012, down from a year earlier. Vacancies are a bit higher in Colorado Springs, Pueblo, and Grand Junction, but those markets remain generally balanced, with vacancy rates averaging between 5% and 6%. In most metro areas, average apartment rents were up more than 6% from a year earlier and concessions have declined. In the northern Front Range metro areas concessions have nearly disappeared. Apartment developers have noticed the rental demand. Financing is still a significant hurdle for many projects, but the availability of credit is expected to continue improving. A large number of apartment developments, totaling more than 20,000 units, are in various stages of planning, although not all will proceed.

The committee forecasts multifamily activity to continue its rise in 2013, albeit at a somewhat slower rate. Permits should total approximately 11,500 units, with nearly all of the activity in apartment construction. Demographic and migration trends will keep much of the demand for new construction in northern Front Range metro areas, with an unusually high concentration in the Denver metro area, including the central submarkets near downtown.

Although these areas have seen some production of luxury apartments and condominiums, a number of other factors have led to a decline in the value per unit of multifamily units. These are a decrease in materials costs, reduced building activity in high-cost areas such as mountain resorts, and a trend toward smaller units. The average value per unit declined in 2012, to approximately $87,400. In 2013, the value per unit is expected to increase slightly, averaging about $92,000. With anticipated growth in multifamily permits, the total value of multifamily construction is expected to reach approximately $1.03 billion.

Nonresidential Building: Spotty Improvement

Final 2012 statewide figures are expected to show a solid 7% increase in this sector for 2012 over 2011. Work in this sector includes construction of offices, retail, medical, and institutional facilities, with medical construction leading the pack in 2012. The Denver-Boulder-Aurora markets are anticipated to show an 8% increase over 2011, while Colorado Springs and Fort Collins will likely end the year on a downward trend of 7% and 9%, respectively, below 2011 contract levels.

Colorado nonresidential building is expected to surpass $4 billion in 2012. About $2.74 billion of this figure will be work in the Denver-Boulder-Aurora communities. Work at the Fitzsimons Health Sciences Center saw projects start for the new Veterans Hospital, the Anschutz Medical Campus, and Children's Hospital. Work continues at the replacement St. Joseph's Hospital in Denver as additional work packages were let for bid, and a new medical building for Kaiser Permanente was started in southeast Denver.

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Construction

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Denver continues to receive national attention due to its educated workforce and growing industries such as energy, high tech, financial services, and back-office functions, making it a strong national commercial real estate investment target. Office employment growth has outpaced total employment growth, and more than 20,000 new office jobs have been created since Q4 2009. Denver has enjoyed its 11th-consecutive quarter of positive absorption.

Fourth quarter 2012 private development hinged on politics as the presidential election and tax changes stymied significant real estate investments. There is no speculative new office construction, making renovation projects that reposition existing real estate holdings a very active construction niche. For example, the Wells Fargo Center ("cash register" building) and 1801 California have been sold and reconstruction projects are under way or planned at those sites.

Positive Indicators

Commercial office rents are predicted to improve significantly (30%) over the next several years. Select areas, such as LoDo and Southeast Denver, are forecast to see speculative office building construction in 2013. Financial factors, employment growth, and proximity to transportation all remain positive to support this development.

Other growth factors include some limited transit development along the West Corridor Light Rail, which will open in April 2013, and near the DIA and Gold lines, which are under construction and scheduled for completion in 2016. However, commercial development lags well behind the infrastructure plans. Ongoing improvements are anticipated at the Fort Carson military base in Colorado Springs as base facilities are upgraded to meet the Department of Defense's stringent new sustainability standards. Additional capital construction will result from school bond initiatives approved in the November election.

Forecasts

Denver-Boulder-Aurora are forecast to continue to carry the nonresidential building industry in 2013 and should anchor a 3.7% increase over 2012, leading to a $4.2 billion nonresidential market.

Improvements are expected from private development and health care. Projects planned to start at the University of Colorado campuses (Boulder, Denver, and Colorado Springs) may exceed $300 million. Colorado State University announced planned starts of more than $75 million in 2013. Oil and gas developments and improved municipal tax collections comprise possible sources of funding for other projects. The U.S. Patent and Trademark Office (USPTO) has approved a satellite Denver office, which will occupy the Byron G. Rogers Building in Denver. The General Services Administration will complete building renovations by mid-2013, before the USPTO builds out interior office space. Extensive federal projects, such as work at the Denver Federal Center and in downtown Denver, are not likely for 2013, however.

Denver continues to receive national attention due to its educated workforce and growing industries such as energy, high tech, financial services, and back-office functions, making it a strong national commercial real estate investment target.

Nonbuilding Construction (Infrastructure)

The overwhelming portion of infrastructure spending continues to be from the public sector. Energy infrastructure work accounts for most of private spending. Development of land for commercial and residential markets remains stagnant.

The reader must understand how project statistics are tracked. The total volume of work is recognized when permits are issued because impossibly complex construction schedules prevent concurrent statistics from following actual completions. Therefore, figures in some years soar when large projects start, although the work will be spread out over several years. That circumstance stands out in this year's Regional Transportation District (RTD) work. The experience will be repeated in 2013. Transit projects measuring nearly $2 billion will start in 2012 and 2013, but will create constant work over four years rather than in only one or two years. The work is for the East line out to DIA and the Gold Line (EAGLE) to Arvada. Additionally, work will begin on the remaining $350 million portion of the I-225 light rail line. All three projects are scheduled for completion by 2016. More FasTracks money is being spent on US 36. In addition to RTD's projects, two bus rapid transit projects started in 2012 and will continue into 2013: $65 million in Fort Collins and $48 million in the Roaring Fork Valley.

The Colorado Department of Transportation (CDOT) spent about $400 million in construction in 2011. A modification in policy by the Colorado Transportation Commission will accelerate spending by $100 million in 2013 to build on that base. Among the larger projects starting or continuing in 2013 are the US 36 to Boulder Phase I ($300 million) and Phase II ($110 million P3 project), the 6th Avenue bridges ($110 million), the expansion of I-25 north of Colorado Springs ($60 million), and the I-70 Twin Tunnels ($40 million–$50 million).

At the local level, the city and county share of state gas taxes and related fees will remain flat for the forecasted years. Boulder will see an uptick in infrastructure projects as proceeds from a $49 million capital improvement bond measure are spent over a three-year period. Depending on the outcome of the 2012 fall ballot measures, Aurora, Colorado Springs, Denver, Firestone, and other communities could see an increase in local road and bridge projects in 2013 and beyond. Roads and other infrastructure will see increased activity in support of extractive energy development in Weld County.

A few large water and wastewater projects will continue in 2013, including Colorado Springs Utilities' Southern Delivery System ($550 million from 2010 through 2016), Metro Wastewater Reclamation District's $473 million Northern Treatment Plant, and Denver Water's $120 million in rehabilitation projects. Two other anticipated projects, the Northern Integrated Supply and the Chimney Hollow Reservoir, are beyond this forecast horizon. Increased volume in 2013 on large projects will be partially offset by likely decreases for smaller water and sewer district projects.

CONSTRUCTION EMPLOYMENT
2004–2013
(In Thousands)

Year	Employment	Percentage Change
2004	151.3	0.9%
2005	160.0	5.8
2006	167.8	4.9
2007	167.8	0.0
2008	161.8	-3.6
2009	131.3	-18.9
2010	115.1	-12.3
2011	112.2	-2.5
2012[a]	115.0	2.5
2013[b]	121.3	5.5

[a]Estimated. [b]Forecast.

Sources: U.S. Department of Labor, Colorado Department of Labor and Employment, Bureau of Labor Statistics, and Colorado Business Economic Outlook Committee.

Companies that generate electricity in Colorado are spending more than $1 billion over three to four years on power plant modifications and upgrades. Work in 2012 added an estimated $200 million to infrastructure to conform to the Clean Air–Clean Jobs Act. That pace will pick up in 2013, growing to $400 million. Note that significant spending on transmission lines is not tracked in the Construction Sector.

Altogether, infrastructure starts in 2013 will increase to $3.6 billion.

Self-Employment

A huge proportion of contractors and subcontractors are very small businesses and frequently are temporarily employed craftsmen, moving from job to job. Companies and individuals, in a very entrepreneurial reaction, work more intensively as activity picks up. Only when a more predictable and dependable economic environment presents itself will companies reluctantly add permanent employees. Therefore, expect delay in a surge of hiring to match the increased volume.

Furthermore, tracking of employment statistics in the construction industry is difficult and less certain than in other sectors. Construction is highly seasonal, so a widely accepted smoothing function is applied to construction employment that will frequently skew the calculated numbers. Some "informal" employment will be excluded from the growth, understating the outcome. If volume picks up in building, job growth is greater than when a surge of volume comes from infrastructure development that uses more heavy machinery. The committee estimates an increase in employment of around 2,800 in 2012, followed by a higher increase of 6,300 jobs the following year.

Manufacturing

U.S. economic activity in the Manufacturing Sector expanded in September 2012 following three consecutive months of slight contractions according to the latest Institute for Supply Management's Purchasing Managers Index (PMI). The average PMI for January through September (52.1%) has remained above 50%, indicating expansion in the Manufacturing Sector, with 11 of the 18 manufacturing industries in an expansion mode. Of the component indices, the new orders, employment, and price indices indicated expansion, while the production, backlog of orders, and exports indices showed modest contractions. The employment index in particular has posted 36 consecutive months of expansion.

However, according to the JPMorgan Global Manufacturing Purchasing Managers' Index (PMI), global manufacturing in the third quarter slowed to its lowest level since Q2 2009, although it improved slightly from August to September. The report cited declines in production and new orders, both of which fell for the 4th-consecutive month in September, and new export orders fell for the 5th-consecutive month. Contractions in the third quarter were concentrated in the United States; the eurozone, where index values indicated the 14th-consecutive month of contraction; and Asia, where China's official PMI fell to a six-month low. Despite the overall slowdown, several nations posted job creation in September, including the United States, Japan, Germany, India, Canada, Mexico, and Russia. Indeed, the Deloitte Manufacturing Competitiveness Index ranks the United States 4th in manufacturing competitiveness in 2010, behind China, India, and South Korea.

Similar to national and global trends, manufacturing activity slowed at a regional level in Q3 2012 even though the outlook among companies remains positive. In September, the monthly

COLORADO MANUFACTURING EMPLOYMENT BY INDUSTRY
2004–2013
(In Thousands)

Industry	2004	2005	2006	2007	2008	2009	2010	2011[a]	2012[b]	2013[c]
Food	17.8	17.1	17.3	17.5	18.3	18.4	18.5	19.4	19.5	19.5
Beverage and Tobacco	5.9	5.7	5.7	5.7	5.6	5.2	5.2	5.4	5.5	5.6
Printing and Related	8.1	8.0	7.8	7.6	7.2	6.1	5.6	5.3	5.1	5.0
Other Nondurables	19.0	19.1	18.7	18.2	17.3	15.5	15.0	15.1	15.3	15.5
Subtotal, Nondurable Goods	50.8	49.9	49.5	49.0	48.4	45.2	44.3	45.2	45.4	45.6
Nonmetallic Minerals	9.1	9.5	9.8	9.8	9.2	7.2	6.8	6.8	6.9	7.1
Fabricated Metals	15.4	14.9	15.0	15.4	15.3	13.1	12.5	13.3	14.1	14.7
Computer and Electronics	31.6	30.1	28.3	26.3	25.5	23.4	22.7	23.3	23.8	23.2
Transportation Equipment	10.0	10.7	10.3	10.2	9.5	9.2	8.8	8.9	9.1	9.2
Other Durables	34.9	35.3	36.2	36.3	36.2	31.5	30.4	31.6	32.8	34.1
Subtotal, Durable Goods	101.0	100.5	99.6	98.0	95.7	84.4	81.2	83.9	86.7	88.3
Total, All Manufacturing	151.8	150.4	149.1	147.0	144.1	129.6	125.5	129.1	132.1	133.9

[a]Revised. [b]Estimated. [c]Forecast.

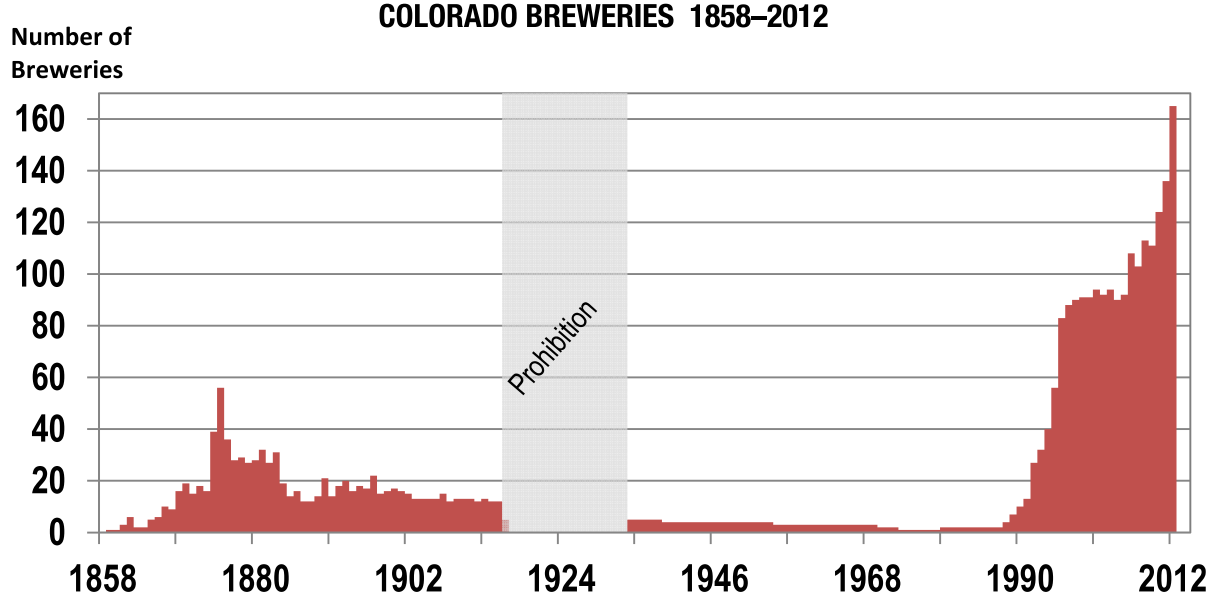
Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

manufacturing survey conducted by the Federal Reserve Bank of Kansas City reported a continued slowdown in manufacturing in the 10th district and the lowest level of activity reported in nine months. Manufacturing activity slowed in most of the durable and nondurable goods industries, except for metal and transportation products. Despite a moderate decline in production expectations, producers anticipate increased activity over the next six months.

Mirroring national and regional activity, the Manufacturing Sector slowed in Colorado in 2012 compared with 2011. Nonetheless, 2012 marks the second consecutive year that the Manufacturing Sector has expanded in the state since 2000. Manufacturing Sector employment in Colorado is on track to grow 1.4% in 2013, adding about 1,800 manufacturing jobs.

In 2011, Manufacturing in Colorado was a $20.6 billion industry, representing 7.8% of the nominal value. Colorado was home to about 5,300 manufacturing establishments employing roughly 129,100 workers in 2011, representing 5.7% of the total employment base in the state. Most of these companies are small businesses. Indeed, nearly 80% of the manufacturing companies employ fewer than 20 workers, whereas only about 30 companies have 500 employees or more. However, manufacturing companies tend to be larger on average than those in other industries as nearly 90% of companies in Colorado have fewer than 20 workers. These numbers only take into account those businesses with employees.

COLORADO BREWERIES 1858–2012



Source: Colorado Brewers Guild.

In addition, another 6,800 manufacturing businesses are classified as "nonemployer businesses," the majority of which represent self-employed individuals. About one-quarter of these businesses fall into the miscellaneous manufacturing category, which includes a diverse range of products, including medical equipment and supplies, jewelry, sporting goods, toys, and office supplies. Fabricated metal manufacturing, food manufacturing, apparel manufacturing, and printing and related support activities round out the five largest nonemployer manufacturing industries. While these nonemployer businesses provide an important entrepreneurial base for the Manufacturing Sector in Colorado, it is important to note that the nonemployer businesses are not included in the employment statistics described in the sections that follow.

Nondurable Goods

About 35% of the employment in the Manufacturing Sector is found in nondurable goods industries, which includes the production of goods that generally last for less than one year. Nondurable goods employment will increase by a slim 0.4% in 2012 and 2013, averaging about 45,400 and 45,600 workers, respectively.

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The largest nondurable goods subsector is food manufacturing. The weak dollar helped increase demand and production as food exports from Colorado increased 24.7%, from $976 million in 2010 to $1,217 million in 2011. This followed a 30.4% gain in 2010. The strong showing in Colorado food exports and improvement in the economy helped employment in the food manufacturing sector increase by 900 jobs in 2011. The opening of the second phase of the Leprino Foods cheese plant in 2012 is expected to create 100 jobs. This expansion, plus improved business activity in this subsector, will help keep employment at 19,500 jobs in 2012 and 2013.

Firms in the beverage subsector produce soft drinks/ice, bottled water, beer, and wine. Most of the subsector is located along the Front Range with three large breweries, one large soft drink manufacturer, and numerous microbreweries. The Western Slope hosts small wineries, mostly in Mesa County. Some improvement in the economy, and the continued popularity and strength in the microbrewery subsector, is expected to foster employment growth in 2012 and 2013. Employment is expected to grow modestly to 5,500 in 2012 and to 5,600 in 2013. Continuing improvement in the economy should support more production and could help boost future employment.

The printing and publishing subsector continues to evolve due to four factors. First, advances in desktop publishing and kiosk/home-based photo-quality printers have reduced the number of limited run print jobs. Second, increased competition among commercial printers for the reduced demand for printing services accelerated the need for technical innovation and increased efficiency. Third, smart phone and tablet computers with real-time access to merchant promotions have reduced printed advertising. Fourth, electronic book publishing is growing rapidly. According to a July 2012 *Forbes* article, e-books captured 6% of all trade publishing ($869 million out of $13.9 billion) in 2010. By 2011, e-books captured 15% of all trade publishing ($2.07 billion out of $13.97 billion). The trends of industry downsizing, desktop publishing, and nonprint media are expected to continue. The printing and publishing subsector is expected to lose 200 jobs in 2012 and 100 jobs in 2013. Additional job losses from multiplier effects can be expected in other sectors, including paper, packaging, transportation, and retail booksellers.

Employment in the other nondurable goods subsectors, including textiles, clothing, paper, petroleum and coal products, chemicals, and plastics and rubber products, increased 1.3% in 2012, driven by growth in the plastics and rubber products subsector. Plastics and rubber products manufacturing is poised to become the largest subsector in other nondurable goods in Colorado within the next few years, having added several hundred employees each year since 2009. Subsector employment is expected to approach a prerecession level by year-end 2013. As plastics and rubber products are a component in many other manufactured items, increased manufacturing activity directly contributes to growth in this subsector.

Strong employment growth in plastics and rubber products will be partially offset by continued contraction in the chemicals subsector. In Colorado, this subsector is comprised mostly of pharmaceutical and other bioscience-related companies. Despite growth in many of the sector's smaller companies, Amgen recently announced it will idle a manufacturing facility in Longmont that will affect nearly 500 jobs in the state. The chemical subsector is expected to decline from 5,600 employees in 2012 to 5,400 employees in 2013. Overall, the outlook for the other nondurable goods industries is positive and is expected to increase from 15,300 workers in 2012 to 15,500 workers in 2013.

Durable Goods

About 65% of the employment in the Manufacturing Sector is found in durable goods industries. Durable goods manufacturing includes the production of goods lasting longer than one year, such as nonmetallic minerals, fabricated metals, computer and electronics, transportation equipment, and other durable goods. Employment in durable goods manufacturing is expected to increase 2.3% in 2012 and is anticipated to gain another 1.8% in 2013, from about 86,700 employees to 88,300.

The nonmetallic minerals subsector is a diverse group that includes pottery, plumbing fixtures, glass products, brick, tile, concrete and stone products, and high-tech porcelain electrical products. Strong export growth through 2011 will increase employment in the subsector by a modest 100 jobs in 2012, to 6,900 workers. Despite exports slowing in 2012, a rebound in construction activity will contribute to a 200-employee expansion in the subsector in 2013. Employment is expected to reach 7,100 employees in 2013.

The fabricated metals subsector provides products and materials for many other industries, everything from steel beams for construction to component parts for a myriad of other products, virtually anything with metal content. The subsector is dominated by small businesses, including the operation of machines, tools, and plating shops. Several of the larger businesses manufacture metal containers. Strong demand for exports and overall growth in the manufacturing sector helped this subsector gain 800 jobs in 2012. Average employment is expected to grow more than 4% in 2013, from 14,100 jobs in 2012 to 14,700 in 2013.

The computer and electronic products manufacturing subsector employs 23,800 individuals in Colorado in about 420 business establishments, making it the largest manufacturing subsector in the state. The subsector represents 18% of all manufacturing employment while wages make up about 28% of wages in the entire manufacturing sector. The average annual pay for computer and electronic product subsector employees is about $95,000, which is roughly 50% higher than manufacturing as a whole and close to twice the average of all industries in Colorado. Computer and electronic products also represent Colorado's largest export, despite the recent decline in the export value of products such as circuits, electronic equipment, and semiconductors.

After adding more than 600 jobs in 2011, a 2.6% increase, computer and electronics product manufacturing is estimated to add 500 jobs in 2012, a gain of 2.1%. The rebound in the subsector has been driven by growth in business investments in technology and the increasingly technological and information intensive worldwide economy. Consumer demand for new and innovative electronic devices, such as smart phones and tablets, also has boosted employment growth. Furthermore, some businesses have discovered it is economically beneficial to have more of their operations in the state rather than overseas.

However, the global economic slowdown, a decrease in business investment, and softening consumer spending on electronic devices are hurting business. Nationally, new orders for computer and electronic manufactured products started to decline in mid-2012, with orders for products produced by electronic instruments and computer chips and other computer and electronic components manufacturers—the state's largest computer and manufacturing employers—exhibiting worse performance than the overall industry. A lackluster global and national economy has dampened export activity from the state and will continue to hurt computer and electronic product manufacturing activity. In 2013, employment in the industry is projected to decline by 600 jobs, or a drop of 2.5%.

The transportation equipment subsector in Colorado is dominated by aerospace companies and includes the manufacture of everything from spacecraft, satellites, and aircraft parts to hybrid-electric buses and mountain bike frames. The

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last decade has been challenging for the subsector in the state, with employment contracting for five consecutive years, from 2005 to 2010, before rebounding slightly in 2011. However, many of the subsector's largest companies have shed workers in the last few years. Several large federal aerospace contracts announced in 2012 bolstered the industry, and employment is expected to grow just 2.2% in 2012, to 9,100 employees.

The manufacture of electric vehicles in the state may contribute to employment gains in the subsector in 2013. Boulder Electric Vehicle sold its first unit in 2012, a fully electric truck. As production ramps up, the company could see employment growth. In addition, the passage of Colorado HB 1258 may boost the market for electric vehicles in the state. Colorado HB 1258 allows private businesses to install electric vehicle charging facilities at their establishments without being regulated like an electric utility, a provision under the former statutes. However, this is a fledgling industry that makes up a tiny percentage of the alternative vehicle market. It remains to be seen whether this industry will take hold in the state as companies are already feeling pressure from Chinese suppliers and manufacturers. In 2013, employment in the transportation equipment subsector is expected to increase by another 100 positions, to 9,200 workers.

The other durable goods subsectors include wood products, primary metals, machinery, electrical equipment and appliances, furniture, and miscellaneous manufacturing. Each of the other durable goods subsectors either expanded or held steady in 2012, adding a combined 1,200 jobs with total employment reaching 32,800 employees. Continued growth is expected in 2013, with employment growing by 4%, to 34,100 employees.

Primary metals employment remained steady in 2012, at 2,300 employees, after two consecutive years of expansion. Growth in the subsector over the past few years has been driven in part by international demand for primary metals products. However, growth in Colorado was moderate compared with growth nationwide. Nationally, the value of U.S. exports of primary metals grew by nearly 90% from 2009 to 2011 compared with a contraction of about 3% in Colorado over the same time. Primary metals exports continue to slow in Colorado, with Q2 2012 year-to-date trade data indicating a 10.4% decline over-the-year from the same quarter of 2011. The slump in export activity will keep primary metals employment in Colorado from growing in 2013.

Wood products manufacturing should begin rebounding from the housing slump in 2013 as the subsector is closely linked to home building and remodeling. Overall, the housing crash and sawmill closures since 2000 cut subsector employment by 50% from 2006 to 2011. With a housing rebound beginning, the subsector should demonstrate improvement with employment growth of approximately 10% in 2013. Unfortunately, the Colorado wood products subsector sources most of the lumber used in manufacturing from out-of-state due to more competitive prices and varieties, limiting the upstream benefits to the Colorado forestry industry in general.

After adding nearly 1,000 jobs from 2010 to 2011, machinery manufacturing employment increased another 4.2% in 2012. Subsector employment increased due to recent large defense and other contracts awarded to companies in the aerospace and aviation industries that utilize inputs produced by machinery manufacturers. Employment was also bolstered by growth in renewable energy, particularly wind turbines, whose components are key products in this subsector.

However, the employment outlook for this subsector is uncertain, especially for wind turbine manufacturing as the wind production tax credit is set to expire at the end of 2012 and the likelihood of renewal is unclear. This has already dampened demand for new orders in the wind energy industry and will negatively affect 2013 employment. Estimated employment for this subsector is 11,200 in 2012. The outlook for 2013 includes more employment growth, albeit at lower levels, reaching 11,500 workers.

The electronic equipment and appliances subsector has grown consistently since 2009 and is expected to add 200 jobs in 2012. The relocation of the headquarters of Arrow Electronics to the Metro Denver area in 2011 encouraged subsector employment growth, and economic development officials have actively engaged Arrow's supplier companies for relocation or expansion in Colorado. Furthermore, several LED lighting companies announced plans for new manufacturing facilities and locations in the state that should boost employment in 2013. Employment is expected to reach 2,400 workers in 2013.

Employment in furniture and related products manufacturing appears to have stabilized in 2012 and should show positive growth in 2013. This mature, cyclical subsector is highly dependent on housing starts, population, consumer lifecycle stage, and income growth. Colorado is home to smaller-scale furniture producers that typically offer more custom upholstery and furniture products and do not effectively compete for the price-conscious consumer. Subsector growth is likely to rely more on new household formation in the mid-to-upper income brackets and trends toward buying local and eco-friendly products. Furniture products made from beetle-kill wood continue to be an opportunity for expansion.

Industries in the miscellaneous manufacturing subsector create a wide range of products that cannot be readily classified elsewhere, from tennis racquets and golf clubs to dolls and jewelry. Miscellaneous manufacturing has experienced modest employment growth over the past several years, adding about 200 jobs each year in 2011 and 2012. Employment will continue to increase in 2013 with the addition of 200 more jobs for total average annual employment of 10,000.

Summary

Following 10 years of employment losses, 2012 marked the second consecutive year of employment growth in the Manufacturing Sector. Employment grew at a 2.3% pace, gaining about 3,000 jobs, and total employment reached 132,100 employees. Employment growth was fueled by the durable goods industries (3.3%), especially the other durable goods subsectors, fabricated metals, and computer and electronic products. Employment in the nondurable goods industries increased in 2012 at a tepid 0.4% pace. Despite slowing activity on a global, national, and regional level, the overall outlook for manufacturing remains positive into 2013. Manufacturing employment in Colorado will expand 1.4% in 2013, gaining 1,800 jobs and reaching 133,900 employees.

A 2012 survey by CoreNet Global, an association of corporate real estate executives, found that 51% of its corporate real estate managers either agreed or strongly agreed that the United States will experience a rebound in domestic manufacturing from offshore locations. On-shoring will likely increase due to changing global cost and supply chain dynamics. Furthermore, ongoing security and quality concerns, as well as rising costs to transport goods and people, may lead to a resurgence in U.S. domestic manufacturing through at least 2020. These trends should also support continued expansion in Colorado's Manufacturing Sector.

Trade, Transportation, and Utilities

The Trade, Transportation, and Utilities Sector is the largest provider of jobs in Colorado. This industry includes wholesale trade, retail trade, utilities, warehousing, and multiple facets of transportation (air, truck, transit, rail, pipeline, etc.). Improving wholesale and retail sales helped increase the number of jobs in the sector by 1.5% in 2012, to a total of 408,400. The sector is expected to grow another 1.4% in 2013, to 414,000 jobs.

Wholesale

Colorado's wholesale trade sector employs more than 90,000 workers. Merchant wholesalers, firms that sell to retail outlets, make up 90% of all jobs. Two-thirds of these are in firms selling durable goods, particularly computers, peripherals and electronic equipment. The largest number of jobs among nondurable wholesalers is with businesses selling groceries and related products. The remaining wholesale employment is in business-to-business sellers, electronic marketers, and agents and brokers. Most wholesale jobs pay well; in 2011 average weekly earnings in the industry were more than 40% above those in the private sector as a whole.

After losing 10,000 jobs during the downturn, Colorado's wholesale trade sector has rebounded. Employment through August 2012 is up almost 3,000 from its low in the spring of 2010. Wholesale employment typically fluctuates widely with the business cycle and, as the economy improves, more jobs can be expected. The sector is expected to add 1,500 jobs in both 2012 and 2013.

WHOLESALE TRADE EMPLOYMENT 2004–2013 (In Thousands)

Year	Wholesale Trade Durable Goods	Wholesale Trade Nondurable Goods	Other Wholesale	Total
2004	51.5	31.9	8.5	91.9
2005	52.4	32.0	9.1	93.5
2006	53.4	32.9	10.1	96.4
2007	54.4	33.7	11.2	99.3
2008	54.8	33.4	11.9	100.1
2009	50.1	31.5	11.7	93.3
2010	48.6	30.7	11.5	90.8
2011	49.0	30.9	12.3	92.2
2012[a]	48.0	31.9	13.8	93.7
2013[b]	47.5	32.6	15.1	95.2

[a]Estimated. [b]Forecast.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Retail

The Colorado Retail Trade Sector currently employs almost one-quarter-million wage and salary workers and roughly 35,000 self-employed proprietors or family workers. It includes several of the state's largest private employers and retail chains such as Walmart and Safeway. Retail jobs run the full spectrum, from entry-level positions for young people beginning their careers all the way up to managers who may oversee dozens of stores. The 2011 average weekly wage in the retail sector was $521 compared with $947 for all private-sector workers.

Recovery from the Great Recession has meant about 6,500 new jobs over the past three years, bringing the workforce to roughly the same level as it was in 2002. The lack of growth in what had previously been one of the largest sources of new jobs can be explained by several factors. A sluggish state economy and flagging sales slowed growth in demand. The weak housing market of the last several years has also contributed to slow sales for furniture, lawn and garden items, home appliances, and the like. The retail sector has consolidated and many stores have closed. Some retailers have introduced productivity-enhancing changes, including supply chain efficiencies in major retailers and increasing use of self-checkouts in supermarkets.

Coloradans currently spend about $70 billion annually at retail establishments. Food and beverage stores and motor vehicle and parts establishments each account for about one-fifth of total sales. Since 2009 sales volume have rebounded, 2012 dollar volume will surpass the previous high reached in 2007. However, when adjusted for inflation and population growth, sales are down more than 10% from their prerecession peak.

Colorado consumer spending in early 2012 was relatively buoyant but state households are still confronting high debt levels, slow wage growth, fears of unemployment, high food and gasoline prices, and concerns about a possible tax increase in 2013. National household debt has fallen over the past three years, with total debt down 6% from its peak, according to the Federal Reserve, but it remains above long-term averages. Mortgage debt has declined significantly, largely due to continuing defaults and limited new mortgage originations rather than paying down existing debt. Credit card and other consumer loans have also been reduced but student loan debt has risen sharply, 48%, according to the Federal Reserve Bank of New York. This is a significant burden for many young households.

Employment prospects are still worrisome for many consumers. The state has been adding jobs but gains have failed to keep pace with population increases, and the unemployment rate remains high.

TRADE, TRANSPORTATION, AND UTILITIES EMPLOYMENT
2004–2013
(In Thousands)

Year	Wholesale Trade	Retail Trade	Total Trade	Transportation and Warehousing	Utilities	Total TTU
2004	91.9	241.3	333.2	65.5	7.9	406.6
2005	93.5	245.8	339.3	65.7	8.0	413.0
2006	96.4	248.3	344.7	66.6	8.0	419.3
2007	99.3	253.5	352.8	68.5	7.9	429.2
2008	100.1	252.6	352.7	68.3	8.2	429.2
2009	93.3	238.3	331.6	63.9	8.4	403.8
2010	90.8	236.9	327.7	61.8	8.2	397.6
2011[a]	92.2	240.0	332.2	62.0	8.1	402.3
2012[b]	93.7	243.4	337.1	63.1	8.2	408.4
2013[c]	95.2	247.8	343.0	62.7	8.3	414.0

[a]Revised. [b]Estimated. [c]Forecast.

Note: Components may not sum to total due to rounding.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

The home is the major asset in most families, and research on consumer spending suggests that the wealth effect from home values is larger than that from other assets. Home prices have stabilized and have even risen somewhat over the past several months, which should provide a fillip to consumer confidence. The S&P/Case-Shiller home price index for Metro Denver rose 5.4% in the year ending July 2012.

Income growth has been modest. State personal income grew 3.1% in the year ending in Q2 2012, roughly keeping pace with increases in population and prices.

Although consumers so far seem oblivious to the pending fiscal cliff, sales may be affected later in the year. According to the Tax Policy Center, 90% of households will see a tax increase in 2013 in the absence of congressional action, and the payroll tax for the average family will rise by $1,000 if the two-year holiday is not extended.

Colorado retail sales through the first seven months of 2012 were up 6.5% from the previous year, a faster pace than the rest of the nation. The motor vehicle and furniture and furnishings categories both saw double-digit gains, which are stronger increases than for the same categories at the national level. This strength in spending for large ticket durables suggests that Colorado consumers are reasonably confident. Electronics and appliance stores posted a decline that may reflect a continuing shift toward online sales in these areas.

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Trade, Transportation, and Utilities

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Internet sales make up an increasing share of retail spending. Department of Commerce statistics suggests that such sales are currently over 5% of the total and are increasing at a rate nearly twice that of overall sales. Due to Colorado's relatively high levels of education and income, the state's proportion is probably greater. Federal legislation subjecting online sales to state and local sales taxes is possible in the near future, facilitating state enforcement of use tax laws and eliminating the current inequity that allows consumers to avoid paying tax on online purchases from out-of-state vendors. Some large online retailers plan to react to losing this advantage by providing same-day delivery to most customers.

The upcoming holiday season is critical for many retailers. The National Retail Federation projects slower national sales growth in the 2012 season than a year earlier. The number of temporary hires for the holiday season is forecast to be about the same as in 2011. Colorado should see a similar pattern. In 2011, November and December sales grew 5.9% from a year earlier. An increase of 5% or so seems likely in 2012.

The outlook for 2013 is fraught with uncertainty. The most likely scenario is one of continued modest growth. Incomes should strengthen, and home prices will rise further. Consumers are becoming more confident; the University of Michigan's October index rose to its highest level since September 2007. However, debt remains a drag on spending, and uncertainty about future taxes may weigh on the minds of potential buyers. The retail

RETAIL SALES, 2004–2013
(In Billions of Dollars)

Year	Motor Vehicle and Parts	General Merchandise	Other Retail	Total Retail Trade Sales[a]	Percentage Change
2004	$14.0	$9.1	$32.8	$55.9	5.9%
2005	13.6	9.8	35.3	58.7	5.0
2006	13.3	10.3	38.2	63.0	7.4
2007	14.1	11.0	42.2	67.3	6.8
2008	12.1	11.3	43.2	66.5	-1.2
2009	10.2	11.0	37.2	58.3	-12.3
2010	11.3	11.1	40.1	62.3	6.9
2011	13.0	11.7	42.2	66.7	7.1
2012[b]	14.6	12.2	44.1	70.9	6.3
2013[c]	15.8	12.6	46.2	74.6	5.2

[a]Motor Vehicle and Parts and General Merchandise are the two largest Retail Trade categories. The total also includes gas stations, food/beverage, building materials/home improvement, furniture, clothing, electronics, and other retail stores. The total does not include food services.
[b]Estimated. [c]Forecast.
Sources: Colorado Department of Revenue and Colorado Business Economic Outlook Committee.

RETAIL TRADE EMPLOYMENT, 2004–2013
(In Thousands)

Year	Motor Vehicle and Parts Dealers	Food and Beverage Stores	General Merchandise Stores	Other Retail	Total
2004	32.4	42.4	45.0	121.5	241.3
2005	32.0	43.9	46.7	123.2	245.8
2006	31.5	44.1	47.6	125.1	248.3
2007	31.8	44.8	50.9	126.0	253.5
2008	31.2	45.9	51.6	123.9	252.6
2009	28.1	44.7	50.7	114.8	238.3
2010	27.9	45.0	50.0	114.0	236.9
2011	28.6	45.2	50.3	115.1	240.0
2012[a]	29.9	46.3	49.8	117.4	243.4
2013[b]	31.2	47.2	50.3	119.1	247.8

[a]Estimated. [b]Forecast.
Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

sales gain in 2013 will be somewhat slower than in 2012, but it will exceed inflation and population growth. Structural changes in the industry make it very unlikely that retail will ever be the force in state job growth that it was in the late twentieth century, but with another year of sales gains, however weak, some additional hiring is expected. The state should add about 3,400 jobs in 2012 and 4,400 in 2013.

Transportation and Warehousing

The Transportation and Warehousing Sector includes air, railroad, and water transportation; trucking; taxi service; urban transit; couriers; warehousing; and pipeline companies. These industries are expected to contribute 63,100 jobs in 2012, dropping slightly to 62,700 in 2013.

Transportation

Colorado Air Transportation

Data from the Bureau of Transportation Statistics show that U.S.-based airlines carried more than 740 million passengers for the 12 months ending July 2012, an increase of less than 1% relative to the same period a year ago. These are the highest figures since the 12 months ending January 2009 and 10% above the low point in October 2009. Over the last 12 months, load factors have reached record levels, in excess of 86%. Five carriers (American Airlines, Delta Airlines, Southwest Airlines, United Airlines, and US Airways) accounted for 71% of revenue passenger-miles.

Airlines depend highly on the health of the economy. Economic activity affects air travel by business and leisure passengers, as well as air freight. Because many costs are fixed, the profitability of individual companies is determined by efficient operations and favorable fuel and labor costs. Small airlines can compete by serving local or regional routes with substantial economic growth.

While airline profits are anticipated to fall in 2012, expectations are for a stronger year in 2013. The International Air Transport Association's (IATA) October 2012 Airline Business Confidence Survey reported a moderate improvement in profitability expectations for 2013. This assumes an easing eurozone debt crisis, declining oil and fuel prices, improved load factors, and modest economic growth

Colorado air transportation jobs are estimated to increase by less than 1% in 2012, followed by 1.5% the following year.

Passenger traffic at the Colorado Springs Airport continues to decline, sliding about 1% in 2012. The airport ranks 94th in the nation.

Denver International Airport

Denver International Airport (DIA) is owned and operated by the City and County of Denver. The city's Department of Aviation employs approximately 1,000 people at the facility.

DIA served more than 52 million passengers in 2011, making it the busiest year in Denver aviation history. This record propelled DIA to rank as the 5th-busiest airport in North America and

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TRANSPORTATION AND WAREHOUSING EMPLOYMENT
2004–2013
(In Thousands)

Year	Truck Transportation	Couriers and Messengers	Warehousing and Storage	Air Transportation	Other Transportation	Total
2004	16.9	9.4	7.5	14.1	17.7	65.5
2005	17.7	9.3	6.9	13.6	18.0	65.7
2006	18.5	9.4	7.2	13.3	18.3	66.6
2007	19.0	9.8	7.2	14.2	18.6	68.5
2008	18.6	9.6	6.8	14.6	18.8	68.3
2009	17.3	8.7	6.6	13.4	17.9	63.9
2010	17.1	8.5	6.2	12.5	17.5	61.8
2011	17.9	8.5	6.2	12.3	17.1	62.0
2012[a]	18.4	8.5	6.1	12.5	17.6	63.1
2013[b]	18.3	8.4	5.9	12.4	17.7	62.7

[a]Estimated. [b]Forecast.

Note: Due to rounding, the sum of the sectors may not equal the total.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Trade, Transportation, and Utilities

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the 11th-busiest in the world. Passenger traffic increased 1.7% in 2011 compared to 2010. Although passenger traffic trended flat throughout most of 2012, slight gains are anticipated in Q4 2012, and DIA is likely to set another all-time passenger traffic record, increasing 0.5% for the year and another 1.7% in 2013.

DIA's largest carrier, United, completed a merger with Continental when the two carriers received a single operating certificate on November 30, 2011. United accounts for nearly 40% of DIA's capacity, and the carrier provides nonstop service to more than 120 destinations from Denver. Denver ranks as the 4th-largest hub in United's network behind Houston, Chicago, and Newark. It is important to note that Denver ranks as the 2nd-largest hub in the carrier's network in terms of domestic destinations served, solidifying both Denver's local market strength and competitive advantage as a central point for transcontinental connecting passengers.

Southwest Airlines is Denver's 2nd-largest carrier, accounting for 26% of capacity. Southwest completed an acquisition of AirTran Airways, and a single operating certificate was issued on March 1, 2012. DIA ranks as the 6th-largest station in the Southwest network, and Southwest now serves more than 50 nonstop destinations from DIA. AirTran remains a wholly owned subsidiary of Southwest, and AirTran initiated its first international service from Denver in April 2012 to Cancun, Mexico. On November 1, 2012, AirTran filed with the U.S. Department of Transportation to initiate service between Denver and Los Cabos, Mexico, and the addition of more international destinations by AirTran (Southwest) is possible in 2013.

Frontier Airlines is DIA's 3rd-largest carrier, accounting for 20% of capacity. Although the carrier remains a wholly owned subsidiary of Indianapolis-based Republic Airways, the parent company publicly stated in early 2012 its intention to spin off Frontier, and the separation is anticipated to occur in the first half of 2013. DIA remains the largest station for Frontier, and the carrier provides service to more than 70 destinations nonstop from its Denver hub. This includes DIA's only service to Central America—Frontier offers flights to Costa Rica (San Jose and Liberia). Frontier initiated service to several new destinations in Denver in 2012, broadening its network to small- and medium-size cities where direct competition is less.

In 2012, three new carriers joined DIA's airline family, bringing the total number of carriers to 16. Spirit Airlines reinitiated service to Denver after an eight-year absence and began flights to five domestic destinations in 2012. Icelandair initiated nonstop service to Reyjkavik, Iceland, in May 2012; the service operates year-round, four days per

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COLORADO AIRPORT STATISTICS
2006–2011
(In Thousands)

Passengers and Cargo	2006	2007	2008	2009	2010	2011
Passengers (in thousands)[a]						
Denver International Airport (DEN)	47,327.0	49,863.4	51,245.3	50,167.4	51,985.0	52,849.0
Colorado Springs Municipal Airport (COS)	1,995.5	2,067.4	1,993.0	1,864.0	1,738.3	1,621.1
Grand Junction Regional (GJT)	319.0	340.9	425.2	457.7	438.7	436.0
Eagle County Regional Airport (EGE)	434.1	463.4	426.0	363.3	402.2	378.6
Aspen-Pitkin County Airport (ASE)	403.3	364.5	426.6	433.7	445.4	442.5
Yampa Valley Airport (HDN)	262.9	279.3	273.2	245.0	220.1	213.1
Durango-La Plata County Airport (DRO)	227.0	232.6	268.7	296.2	327.2	351.3
Montrose Regional Airport (MTJ)	164.6	185.1	171.8	184.4	193.2	174.5
Gunnison-Crested Butte Regional Airport (GUC)	96.1	85.2	72.1	84.3	74.6	73.0
Fort Collins-Loveland Municipal Airport (FNL)	65.7	56.6	62.2	62.2	71.3	90.0
Telluride Regional Airport (TEX)	32.9	32.9	26.7	13.5	18.5	22.0
Cortez Municipal Airport (CEZ)	18.5	20.4	16.8	15.4	12.7	14.0
San Luis Valley Regional/Bergman Field (ALS)	14.4	15.0	14.3	12.6	13.5	14.2
Pueblo Memorial Airport (PUB)	9.9	9.8	8.7	10.4	23.3	44.9
Total Passengers	51,371.0	54,016.5	55,430.6	54,210.1	55,964.0	56,724.2
Cargo, Freight, and Air Mail (in millions of lbs.)						
DIA Freight and Express	580.2	573.9	527.1	468.2	517.7	511.8
DIA Air Mail	41.4	15.5	26.4	26.6	37.5	35.4
DIA Total	621.6	589.4	553.5	494.8	555.2	547.2
Colorado Springs Cargo	32.6	27.0	24.0	23.0	22.3	21.7
Colorado Springs Air Mail	0.0	0.0	0.0	0.0	0.6	0.4
Colorado Springs Total	32.6	27.0	24.0	23.0	22.9	22.1

[a]Passengers include enplanements and deplanements.

Sources: Denver International Airport, Colorado Springs Municipal Airport, Grand Junction Regional Airport, Federal Aviation Administration, and Colorado Business Economic Outlook Committee.

Trade, Transportation, and Utilities

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week, and the frequency is scheduled to increase to six days per week beginning in summer 2013. In addition, Mexican low-cost carrier Volaris will initiate service between Denver and Mexico City in December 2012. Finally, Air Canada, Frontier, United, and Aeromexico also offer nonstop international service from DIA. The expansion of nonstop flights to international destinations remains a high priority for DIA, and new service between DIA and Tokyo's Narita Airport—the first-ever nonstop service between Denver and Asia—will commence on March 31, 2013. The service will be operated by United on Boeing 787 Dreamliner aircraft.

DIA continues work on the South Terminal Redevelopment Program, which includes the construction of a planned 519-room hotel and conference center, an RTD FasTracks commuter rail station, and improvements to the existing concourse baggage and train systems. In addition, the program will incorporate an open-air plaza, complete with new concessions and leasable space that connects the development to the existing Jeppesen Terminal. The project is expected to be completed by 2016.

Motor Freight Transportation and Warehousing

The trucking industry provides over-the-road transportation and delivery of a wide variety of commodities and cargo using motor vehicles. Growth in the trucking industry continues to be constrained by increases in diesel prices and the sluggish economic recovery. In 2013, the trucking industry is expected to decline 0.5% as economic growth continues to be slow. Similarly, couriers, which provide more local transport using cars and bikes, will see a 1.2% decline as the economy is slow and information is increasingly shared electronically. The warehousing and storage industry handles storage and security for others goods and assists in logistics. This industry has been declining over the years, with improvements in inventory management. In 2013, this industry is expected to

COLORADO NATURAL GAS CONSUMPTION
2004–2013
(In Billions of Cubic Feet)

Year	Total Gas Consumption	Percentage Change
2004	440.4	0.9%
2005	470.3	6.8
2006	450.8	-4.1
2007	504.8	12.0
2008	504.8	0.0
2009	523.6	3.7
2010	501.6	-4.2
2011	446.0	-11.1
2012[a]	442.5	-0.8
2013[b]	439.1	-0.8

[a]Estimated. [b]Forecast.

Source: Colorado Business Economic Outlook Committee.

COLORADO ELECTRIC POWER CONSUMPTION
2004–2013
(In Millions of Kilowatt Hours)

Year	Nonresidential	Residential	Total	Percentage Change
2004	31,192	15,532	46,724	0.5%
2005	31,917	16,436	48,353	3.5
2006	32,782	16,952	49,734	2.9
2007	33,665	17,634	51,299	3.1
2008	34,422	17,720	52,142	1.6
2009	33,623	17,412	51,035	-2.1
2010	34,816	18,102	52,918	3.7
2011	35,181	18,277	53,458	1.0
2012[a]	35,485	18,240	53,725	0.5
2013[b]	35,951	18,258	54,209	0.9

[a]Estimated. [b]Forecast.

Sources: *Edison Electrical Institute Statistical Yearbook,* Xcel Energy, and Colorado Business Economic Outlook Committee.

decline further as companies reduce inventories. Finally, Other Transportation includes industries such as rail transportation, water transportation, pipeline services, and transportation of people, including taxi, bus, and charter services. This industry is expected to see modest gains in 2013.

Utilities

In 2012, natural gas rates gradually decreased and, with new domestic reserves and production, some long-term stability in rates compared to the recent past can be expected. As natural gas consumption is largely weather-driven, Colorado utilities, along with utilities across the nation, saw a significant decrease in gas consumption in the first quarter due to record warm weather. A continued slow economy has also contributed to the decrease.

Electric rates were relatively stable across most of Colorado, with some significant increases in the southeastern part of the state as new gas generation plants and transmission infrastructure were brought on line. Renewable energy continues to be added to the generation portfolios as utilities comply with Colorado HB 1001, which requires that investor-owned utilities (IOUs) provide 30% of their energy generation from renewable sources by 2020. Municipal utilities and electric cooperatives also participate in the renewable energy requirements, but to a lesser degree than the IOUs. The lion's share of the renewable generation will be supplied from utility-scale wind resources, with distributed solar generation contributing less than 10% of the renewable requirements.

House Bill 1365, the Clean Air–Clean Jobs Act, requires that IOUs retire, retrofit, or repower their current coal-fired capacity to reduce emissions of nitrogen oxides by the end of 2017. Coal retirements to meet the mandate in HB 1365 will be replaced by natural gas turbines. While this legislation drives modernization of an aging generation infrastructure and improves fuel efficiency and environmental compliance, it is expected to exert an upward pressure on costs in the long term due the capital cost of replacing the coal plants. The expected stability of natural gas cost and the mitigation of risk from future carbon legislation by switching to cleaner fuel provide a hedge against rate volatility.

Energy efficiency mandates, along with a soft economy, continue to be a factor in flat electrical demand in Colorado. While reliance on electricity increases every year due to the proliferation of home and business electronics, much of the increase in demand is offset by efficiency in appliances, motors, and, in particular, efficiencies in the new generation of residential and commercial lighting.

Colorado has maintained competitive electric and natural gas rates while becoming a national leader in clean energy and energy efficiency. It is also working toward incorporating smart grid and smart home technology into the utility model. Colorado electricity consumption was nearly flat in 2012, increasing by just 0.5%, to an estimated 53,725 million kWh in 2012. Colorado natural gas consumption fell by 0.8%, to an estimated 442.5 BCF in 2012.

Information

Overview

In 2012, growth in software publishing and film is being offset by declines in traditional publishing. Although employment declines should moderate in 2013, Information will be the only industry in Colorado that will shed jobs in 2013.

Companies in the Information Supersector communicate and deliver content in a variety of channels or media to diverse audiences. They facilitate daily information and cultural exchanges for personal and professional consumption. This industry is forecast to lose 2,100 jobs in 2012 and another 600 in 2013.

Publishing

As the second-largest information sector, Publishing employed just over 22,500 people in 955 establishments in 2011. The industry includes any firm that issues print or electronic copies of original works for which they own a copyright, excluding Internet firms. Products include software, newspapers, periodicals, books, directories, databases, calendars, and greeting cards. Consumers are demanding, and the publishing industry is increasingly producing, material in formats other than traditional print, such as audio, downloadable files, digital books, smart phone applications, and CD-ROM.

The rise of the Internet and its attendant social media explosion has had industry-changing implications for twentieth-century traditional publishers. With increasingly rapid changes in communications platforms and preferences comes industry convergence among traditional publishers and fragmentation with the rise of electronic blogs and forums. Consumers' preferences are relentlessly moving away from traditional print products toward electronic products and the Internet, rendering many business models for traditional publishers obsolete. Although the state and nation continue to recover from the recession, further consolidation and business failures are expected to persist among some publishing firms. Other firms, however, particularly software and book publishers, are embracing the electronic age and are thriving by providing Internet-related products.

The industry lost 35.3% of its jobs between 2001 and 2010, with 70% of those losses occurring in the software and newspaper publishing sectors. Book publishers have also shed 29.5% of their job base since 2001, but because Colorado's book publishing sector is very small, these losses represent only 3.5% of the jobs lost by the overall publishing industry. Employment in Publishing (excluding Internet) is expected to continue to fall, decreasing 1.8% in 2012 and 0.9% in 2013.

Newspaper Publishers

While newspaper readers had become accustomed to receiving low-cost print information subsidized by advertisers, it is clear that this business model has become obsolete. Circulation of print newspapers and local newspaper advertising revenue are diminishing each year as people increasingly turn to the Internet for news and to post and respond to classified advertisements.

The Internet has caused the dissemination of information to be increasingly fragmented and democratic. A new generation of bloggers hailing from the traditional journalism industry, private firms, nonprofit organizations, and the population at large have harnessed social media to provide diverse and targeted news, sometimes in real time. Consumers have embraced the explosion of information on social media, demanding instant access to news on rapidly changing communication platforms such as smart phones and tablet computers.

Traditional media outlets, including newspapers, televisions, and radio have begun to converge, sharing resources and information both in print and online. *Newsweek* magazine will switch entirely to the online platform and will no longer offer a print edition in 2013; this trend is expected to proliferate among other publications in the future. Growth in advertising is concentrated online, and newspapers have begun to be more creative with online advertising, offering innovative mobile applications to all and incentives and online deals only to their community of subscribers. In addition, newspapers and periodicals have begun to erect full or partial paywalls for access to information online or on mobile devices.

Employment at traditional Colorado newspapers has been declining since 2005. Colorado newspapers employed 3,994 people in 2011 in 152 establishments, down from 7,080 people in 2005. Newspaper employment is expected to continue to lose ground in both 2012 and 2013.

Book Publishers

The U.S. book publishing industry has traditionally been dominated by a handful of large firms, most of which are headquartered on the East Coast. The Internet is causing the industry to undergo significant change. With the rise of Google Books, the Kindle, and the Nook, along with cloud computing, consumers are increasingly demanding access to relatively lower cost digital books.

This has significantly reduced barriers to entry for authors' and small publishers' niche markets. Successful book publishing firms are marketing e-books for every type of platform and have begun to develop a market for "enhanced" e-books that contain videos, interactive graphics, and links to other purchasable resources and services.

Jobs in these firms generally include editors, marketers, production staff, and general administrators. Most authors are freelance workers and are classified in the services industry. Authors who publish their own books have an ever-increasing presence in Colorado and are not represented in these figures. However, small book publishing firms have increasingly begun to collaborate with these authors.

As the trend toward digital publishing intensifies, fewer people will be employed by the traditional book publishing industry, with some of these jobs likely transferred to the software publishing industry. The book publishing industry employed 1,014 people in 2011, down 29.5% since a decade earlier. Employment in Colorado's book publishing industry will continue to fall in 2012 and 2013.

Directory Publishers

Colorado's directory publishers have shed 624 jobs, or 26.9%, since 2006. Consumers increasingly prefer using online directories that can be accessed remotely for free using smart phones and GPS devices, which has affected sales and advertising revenue. Employment in this industry fell significantly in 2011, and is expected to continue to decline in 2012 and 2013.

INFORMATION EMPLOYMENT
2004–2013
(In Thousands)

Year	Publishing	Telecommunications	Other	Total[a]
2004	29.7	32.5	19.0	81.2
2005	29.0	29.3	18.6	76.9
2006	28.5	28.2	18.7	75.4
2007	27.9	30.2	18.3	76.4
2008	26.6	31.0	19.2	76.8
2009	24.1	31.8	18.8	74.7
2010	22.9	30.1	19.0	72.0
2011	22.5	29.6	19.7	71.8
2012[b]	22.1	28.4	19.2	69.7
2013[c]	21.9	27.8	19.4	69.1

[a]Due to rounding, the sum of the individual sectors may not equal the total.
[b]Estimated. [c]Forecast.
Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Software Publishing

Companies in the software publishing industry design and develop; provide documentation for; install; provide support services for; and distribute software. The software publishing industry is broad; its products include: security software; database, storage, and backup software; business analytics and enterprise software; operating systems and productivity software; design, editing, and rendering software; video games; and smartphone apps. In 2011, software publishing companies in Colorado totaled 410, with 12,700 employees.

The innovation and growth from Colorado's software publishing companies address many of the top technology trends, including:

- Growth in the use of mobile devices and the opportunity for value creation from small and inexpensive applications for these devices, such as providing solutions for the growing "bring your own device" challenges facing many businesses today, as well as desktop and mobile convergence.
- Growth of cloud adoption and the application and data integration demanded by this transformation and the need for Internet security services.

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- The continuing need for large firms to improve their efficiency by creating applications that help the firm more centrally organize and manage its operations, supply chain, and customer relations processes.
- The release of big data sets by the federal and state governments to fuel new services.

In 2012, the number of startups in Colorado increased and continued growth is expected in 2013. Most of Colorado's software publishing companies are small startups. Boulder's software publishing startup community has been growing annually, and Denver's startup community has exploded with the inaugural Denver Startup Week, October 22–27, 2012, which engaged more than 3,500 participants across 70+ events in 7 days. Interest is growing in the Fort Collins and Colorado Springs startup communities, helped by efforts of Startup Colorado, part of Startup America. Startups require funding, and a general growth in all forms of access to capital is expected, with positive results anticipated from the new crowd funding options. There are also high expectations for industry growth related to the opening of the U.S. Patent and Trademark Office in Denver in 2013.

After years of contracting, software publishing employment grew 3.3% in 2011. Expect industry growth of 4.1% in 2012 and 3.9% in 2013. Employment data and anecdotal evidence suggest continued growth and entrepreneurship in the state's software publishing industry in 2013, particularly in Boulder and notably expanding to the Denver area.

Employment growth depends on attracting and growing the needed qualified workforce. The solution is multipronged, with high-impact results believed to be achievable through initiatives that connect businesses to students directly and through private software training focused on specific high-demand software skills, such as Ruby or Java. If Colorado successfully grows a large qualified workforce, it would not only satisfy local hiring demand, but it could attract companies outside of Colorado to move or expand their IT job footprint in the state since the demand for software developers is not limited to the Colorado market.

Telecommunications

Information

Telecommunications service revenue continued a rebounded in Q2 2012, with two of the largest telecommunications companies, Comcast and Time Warner, achieving revenue increases of 5.8% and 7.8%, respectively. The economic slump has actually helped to boost revenue for some telecommunications services. Lingering low consumer confidence and small gains in consumer spending have allowed some telecommunications services, such as television, to compete effectively with more expensive forms of entertainment for consumers' time.

In the long term, higher population growth forecasted for the western United States is expected to enlarge the Colorado market for all telecommunications services, attracting more capital investment. In the short term, any local telecommunications growth will probably come from the remaining government commitments aimed at expanding telecommunications infrastructure in rural communities. In 2011, this industry was comprised of 717 firms and 29,600 employees. The telecommunications industry employment in Colorado declined 1.7% in 2011 and 4.1% in 2012. Reluctance to increase capital spending coupled with cost-cutting measures contribute to weakening employment.

Broadband

Businesses are often the largest consumers of telecommunication services. According to a March 2012 survey of 306 businesses by Frost & Sullivan, annual networking and connectivity budgets will be flat overall during 2013, with small businesses more likely than large to increase their operating expenditure budgets. Medium-size businesses' operating expenditures (OPEX) budgets are essentially flat, while large businesses, on average, are expecting a slight decline in their OPEX budgets during 2013.

Second quarter 2012 status reports from Broadband Technology Opportunities Program (BTOP), administered by the National Telecommunications and Information Administration of the Department of Commerce, indicates that the seven projects in Colorado are 46%–91% complete, with the largest project of more than $100 million 46% complete. The impact of BTOP in Colorado will continue into 2013.

The Broadband Initiatives Program (BIP), administered by the Rural Utilities Service of the Department of Agriculture, was awarded to seven projects in Colorado, saving or creating 119 jobs with grants totaling $12.2 million and loans of $13.4 million.

Advertising revenue from Internet ads continues to slide with cost per click revenue for Google declining for the fourth consecutive quarter, with mobile advertising growing from $2.5 billion in 2011 and an annualized run rate of $8 billion in 2012.

Telephone

Convergence with the IT industry is one of the major trends in the telecommunication industry according to Gartner Research. Telecommunications companies are facing challenges to keep growth and profitability in fixed and mobile broadband investments, and to supplement network revenues with additional digital or value-added service revenues. Evidence in support of this trend is CenturyLink's purchase of Savvis in April 2011 and the purchase of Ciber, a global IT company by Savvis in July 2012.

Other funding to improve communication infrastructure in 2012 came from federal grants that were approved in late 2011 to expand emergency communication. The grants aim to allow rural areas to finance technology-enhancing public safety, such as the ability to precisely locate 911 calls.

Television

Nationally, revenue for cable and other subscription broadcasting rose 10.6% year-over-year in Q2 2012. Advertisements make up a significant portion of U.S. television revenue—75% of sales for broadcast programming and 40% for cable. Across the nation, political advertisement revenue is expected to add as much as $3.2 billion in activity for television networks according to the Campaign Media Analysis Group. Colorado, considered a battleground state in the recent election, had ad revenue of $53 million as of October 24, 2012, according to Kantar Media/CMAG.

Ratings, which are important in maintaining advertising revenue, are increasingly connected to online word-of-mouth promotion. A report by NM Incite and Nielson found that social media buzz boosted TV ratings significantly, especially in the 18–34 age demographic, where a 9% increase in buzz raised ratings by 1%. To help maintain ratings, additional synchronized content is pushed via Internet and wireless to enrich the overall viewing experience and foster social engagement.

Federal grants authorized in late 2011 add another dimension to the future of television in Colorado. The grants will inject around $500,000 into efforts by Rocky Mountain Public Broadcasting Network, Inc. to transition rural television stations to digital broadcasting.

Wireless

To boost the competition, construction, and growth of wireless facilities, the Federal Communications Commission (FCC) is beginning to set up bandwidth auctions to favor new construction and expansion and to encourage small bidders. Auction 93, the most recent auction of FM bandwidth, was completed in April 2012, with 56 winning bidders for 93 permits, including 5 permits for Colorado. Winning bidders will receive construction permits that, if completed in an allotted time period, will allow bidders to file for an eight-year license. Industry consolidation, such as the contested merger between AT&T and T-Mobile, and increased productivity due to technological innovation continue to reduce the workforce.

The recently announced purchase of 70% of Sprint by SoftBank may indicate a challenge to the traditional revenue focus for American wireless network providers. SoftBank derives two-thirds of its revenue from data plans, which is about twice as much as U.S. networks. This is a fairly revolutionary idea in the U.S. market, where data are seen as just another service to sell alongside equally important voice and text plans. Even now, free text messages can be sent and voice calls can be made using 3G or 4G data connections. In fact, apps like Apple's FaceTime and Microsoft's Skype allow video calls to be made in real time for free. The core commodity for a forward-thinking mobile network, then, must be the data service.

New mobile broadband applications have served as strong substitutes for communications service providers' (CSPs) traditional core business. Voice over

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IP and social networking services have replaced voice and short message service (SMS) offerings to a great degree. As a result, most CSPs are suffering revenue reductions and average revenue per unit (ARPU) reduction for voice and SMS services.

Verizon already has 4G LTE in the major metro areas of Colorado. AT&T is planning two roll outs 4G LTE by the end of 2012 in Denver and Boulder. Sprint plans to consolidate multiple network technologies into one new, seamless network by the end of 2013. T-Mobile is not planning to deploy 4G LTE until 2013, but no specifics have been announced.

The Year Ahead

According to Gartner Research, traditional communications service providers face poor or limited growth in traditional communications services as competition increases—both in traditional transmission services and in over-the-top services. Traditional CSPs need to evolve and find new revenue from connected digital services, ranging from content to new applications.

In 2013, telecommunications employment will continue to decline, despite localized government projects to expand service to rural areas. With a few exceptions, capital investment is expected to remain low in the absence of strong consumer confidence. In particular, the wired communications industry will continue to contract as more consumers meet their needs with bundled services from wireless providers, including voice, television, and Internet.

Other

Film, Television, and Media

In May 2012, Colorado passed a law providing $3 million in content creation incentives for fiscal year (FY) 2012–13. Basically, the law allows for production incentives, with a 20% rebate for films, television, commercials, and games produced in Colorado. Only four months into the program, the increase in inquiries and applications has been palpable. In FY 2011–12, a total of $1.4 million in proven production spend has been incentivized, and so far in the first four months of FY 2012–13, a total of $4.3 million in production spend has been incentivized, approximately triple the work in one-third the time. To date, most of the production is in television-related projects, and we have also attracted a national Coors commercial (although recent commercials appear to depict Colorado, they have been shooting them elsewhere, most recently in the Cascade Mountains of Washington). Universal Sports, a major brand, has also been attracted to Colorado and is moving its headquarters to Denver from Los Angeles to run production from here.

A number of movie projects are circling Colorado, and the outlook for getting one or more is good. The biggest issue is skilled crew. Once the creative decisions are resolved, producers look for two major factors in deciding where to locate a movie shoot: incentives and skilled labor. Clearly, a good incentive will largely disappear if the producer cannot find the skilled labor locally and must import that labor with all the attendant additional cost: airfare, housing, local transportation, per diem, etc.—all things that do not need to be provided to local crew. The Office of Film, Television & Media has done extensive research into Colorado's existing crew base, and it is convinced that it can adequately crew a movie in the $10 million range, but this has not been easy to prove to out-of-state producers who rely on Internet Movie Database (IMDb) to check crew credentials. Since so few movies have been made in Colorado in the past five years, much of the state's skilled crew has been working on commercials, and either has few or very old IMDb credits, which does not inspire confidence in producers.

The challenge for 2013 is to build the state's skilled workforce and to get the word out that Colorado is open for business with incentives that are competitive with neighboring states. Confidence is high that this can be accomplished, and so long as the state keeps the incentives flowing, content creation will build to a significant Colorado business within the next few years.

Broadcasting (except Internet)

The broadcasting subsector includes television and radio broadcasting, as well as cable and other subscription programming. This subsector stabilized in 2011, adding jobs after three years of decline. Averages wages, which are above average for the state, have had four consecutive years of growth. This industry should increase modestly in 2012, linked to election cycle spending, then decline in 2013.

Financial Activities

The Financial Activities Supersector is comprised of two sectors that account for 6.3% of statewide employment: (1) Finance and Insurance, and (2) Real Estate and Rental and Leasing. Beginning in 2006, the Financial Activities industry lost 16,600 jobs, or 10.3%, over five years. The industry turned the corner in 2012, growing by 2,300 jobs, or 1.6%, to total 146,100. Growth is expected to continue in 2013, adding 2,500 jobs for 1.7% growth.

Approximately 46% of the employees in the Finance and Insurance Sector work at credit intermediaries, such as banks, credit unions, and other consumer savings and lending organizations. About 35% of the workers are employed at insurance carriers. The remainder work at securities or investment firms or other miscellaneous finance-related firms.

The Real Estate and Rental and Leasing Sector includes real estate-related payroll jobs and companies that lease anything from real estate to equipment to formal wear.

Finance and Insurance

After five consecutive years of employment decline, employment in the Finance and Insurance Sector totaled 101,300 in 2011. In 2012, Finance and Insurance employment will increase to 102,600, with an additional gain of nearly 2,400 jobs in 2013.

Finance

Financial Markets

As October draws to a close, the Bloomberg Colorado Index is up nearly 5% year-to-date, the Dow Jones Industrial Average is up more than 7% YTD, the S&P 500 is up over 12% year-to-date, and the NASDAQ is up an eye-popping 14%.

Looking at yields, the 10-year U.S. Treasury has traded between a high yield of 2.38%, which occurred on March 19, and a low yield of 1.39%, which occurred on July 24. The 30-year U.S. Treasury has traded between a high yield of 3.48% set on March 19 and a low yield of 2.45% set on July 25. Looking back over the last five years, yields are trading at the low end of the range.

GDP and inflation both were 2% higher year-over-year. Both numbers are pretty friendly, all things considered, with GDP coming in a bit higher than expected and CPI below some of the surge observed in 2011.

In a statement released at the conclusion of its October Federal Open Market Committee (FOMC) meeting, the Federal Reserve mentioned that household spending has advanced while business fixed investment has slowed. Perhaps this is a reflection of consumer deleveraging and the additional discretionary income that comes from refinancing one's home at mortgage rates reminiscent of post-WWII.

The Fed went on to cite its duel mandate of stable prices and maximum employment, and expressed concern that without sufficient policy accommodation economic growth might not be strong enough to generate sustained improvement in the labor market. It also cited concerns about the strains in the global financial markets and the significant downside risk to economic growth. This can be easily interpreted as concern over Europe and the risk of a breaking of the European Union.

With those concerns in mind, the Fed has implemented the third round of quantitative easing, or QE3. It is purchasing $40 billion per month of agency mortgage-backed securities. Factoring

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FINANCIAL ACTIVITIES EMPLOYMENT 2004–2013 (In Thousands)

Year	Finance and Insurance	Real Estate and Rental and Leasing	Total
2004	107.3	47.3	154.6
2005	110.3	48.3	158.5
2006	111.4	49.1	160.4
2007	110.1	49.4	159.5
2008	107.4	48.2	155.6
2009	103.8	44.2	148.0
2010	101.7	42.6	144.3
2011[a]	101.3	42.5	143.8
2012[b]	102.6	43.5	146.1
2013[c]	105.0	43.6	148.6

[a]Revised. [b]Estimated. [c]Forecast.

Note: Due to rounding, the sum of the sectors may not equal the total.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

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in reinvestment and the remainder of Operation Twist, the Fed is increasing its holdings of longer-term securities by some $85 billion each month. Regarding standard monetary policy, the Fed has indicated it will hold the federal funds rate in the 0–0.25% range and that such an accommodative policy stance may be appropriate for a considerable time after the economic recovery begins. It suggests that such accommodation may be warranted at least through mid-2015.

As Bill Gross, who runs the world's biggest mutual fund, said recently, "All of the money being created and freed up is elevating asset prices, but those prices are not causing corporations to invest in future production." He went on to say that lower interest rates are being used "to consume as opposed to invest."

There is a massive amount of money being created and being freed up due to the accommodative monetary policy. However, just as was the case in 2011, it is creating untold distortions. That is why Chairman Bernanke has made numerous entreaties during his congressional testimonies asking for cooperation from the legislative side. Unfortunately, assistance from either side of the aisle has been lacking as partisanship, and perhaps ignorance, has taken precedence. So, as this unprecedented economic accommodation flows into the market, it is inflating asset values, be it equity indices, the debt markets (as risk premiums get squeezed out on the quest for any yield above the "risk free" rate of U.S. Treasuries), or real estate prices (as mortgage rates held below their natural rate serve to put a floor on valuations).

While increased consumption from the consumer side has its benefits, and while the "wealth effect" of a higher stock market aids in consumer confidence, it is not a source of significant high-value job creation. For the Fed to achieve its goal of maximum employment, and for the White House to preside over a healthy economy that creates jobs and the necessary tax revenue that is so desperately needed, business investment and innovation needs to be encouraged. This is necessary for the long-term well-being of the U.S. economy.

We are at a point in history where corporate profits are at an all-time high as a percentage of GDP. However, we are also at a point where wages are at an all-time low as a percentage of GDP. It is tough to sustain a consumption-based economy if wage earners are taking home less than ever before. One might ask how we got here. For quite some time now, the approach by both Congress and the Federal Reserve has been to cut. Every time there has been an economic hiccup, the Fed has had the latitude to cut interest rates because they were at a sufficiently high level that afforded the Fed room

FINANCE AND INSURANCE EMPLOYMENT
2004–2013
(In Thousands)

Year	Credit Intermediation and Related Activities	Securities, Commodities, and Other Activities	Insurance Carriers and Related Activities	Other Finance and Insurance Activities	Total
2004	51.5	13.5	39.5	2.8	107.3
2005	53.3	13.7	40.2	3.1	110.3
2006	53.7	14.6	40.0	3.1	111.4
2007	51.8	15.8	39.2	3.3	110.1
2008	48.6	16.6	38.9	3.3	107.4
2009	46.6	15.5	38.5	3.2	103.8
2010	45.9	15.1	37.7	3.0	101.7
2011[a]	45.0	15.5	37.6	3.2	101.3
2012[b]	46.1	15.6	38.1	2.8	102.6
2013[c]	47.3	15.9	38.8	3.0	105.0

[a]Revised. [b]Estimated. [c]Forecast.

Note: Due to rounding, the sum of the sectors may not equal the total.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

to cut them. This has repeatedly inspired mortgage refinancing that made up for the reduced take home pay of consumers, as well as inflated real estate values. What happens once the floor of interest rates is within arm's reach? Now that the Fed has been engaged in zero interest rate policy, where else is there to go? As for Congress, with each economic hiccup, a cut in taxes—or talk of a cut in taxes—has not been far behind. Certainly, linear logic suggests that anything that puts more dollars into the hands of wage-depleted consumers is a good thing. Much like the Fed over the last several decades, Congress has had room to cut taxes because in 1981 the top tax bracket was 70% for those earning $532,000+ in 2011-adjusted dollars.

While today's top bracket of 35% is a far cry from zero, and there is little argument that the tax code for corporations and individuals alike has become a convoluted abomination subject to manipulation and in need of improvement, one has to ask if cutting, be it taxes or interest rates, is actually fixing anything, or if it is a short-term solution that has run its course? We cannot forget that in 2009 the American Society of Civil Engineers rated the infrastructure of the United States a "D," and every time we are subject to a natural disaster we are reminded of how we have been skating along in a patchwork fashion, nursing our infrastructure beyond its rated life expectancy. Meanwhile, the

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FINANCIAL MARKETS: STOCKS
2003–2012 YTD
(Year-End Close)

	Value				Index (2003=100)			
Year	S&P 500	Dow Jones	NASDAQ	Bloomberg Colorado Index	S&P 500	Dow Jones	NASDAQ	Bloomberg Colorado
2003	1,111.9	10,453.9	2,003.4	237.0	100.0	100.0	100.0	100.0
2004	1,211.9	10,783.0	2,175.4	278.9	109.0	103.1	108.6	117.7
2005	1,248.3	10,717.5	2,205.3	326.0	112.3	102.5	110.1	137.6
2006	1,418.3	12,463.2	2,415.3	382.5	127.6	119.2	120.6	161.4
2007	1,468.4	13,264.8	2,652.3	450.2	132.1	126.9	132.4	190.0
2008	903.3	8,776.4	1,577.0	220.5	81.2	84.0	78.7	93.0
2009	1,115.1	10,428.1	2,269.2	310.3	100.3	99.8	113.3	130.9
2010	1,257.6	11,577.5	2,652.9	468.4	113.1	110.7	132.4	197.6
2011	1,257.6	12,217.6	2,605.2	451.6	113.1	116.9	130.0	190.5
2012[a]	1,359.9	12,588.3	2,853.1	456.0	122.3	120.4	142.4	192.4

[a]Year-to-date value at market close on November 16, 2012.

Sources: Bloomberg, Colorado Business Economic Outlook Committee, and Yahoo! Finance.

The Richard M. Burridge Center for Securities Analysis and Valuation

The mission of the Burridge Center is to help prepare competent, ethical leaders for the financial services industry.

Recent initiatives:

- The Leeds School of Business's undergraduate program in finance was recently recognized by the CFA Institute as incorporating the necessary curriculum to prepare students to pass the CFA exam. This recognition program thereby gives the school three scholarships to award to students who are studying for the exam.
- The Burridge Center provides training and job skills for students as they prepare to interview for careers and transition to the workforce. The center funds the Factset database for class usage, and provides Bloomberg Training programs for students.
- The center is committed to enhancing valuable industry connections for students interested in financial services careers, and works with professionals and organizations in the industry to build richer relationships.

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Leeds School of Business
UNIVERSITY OF COLORADO BOULDER

BURRIDGE CENTER FOR SECURITIES ANALYSIS & VALUATION

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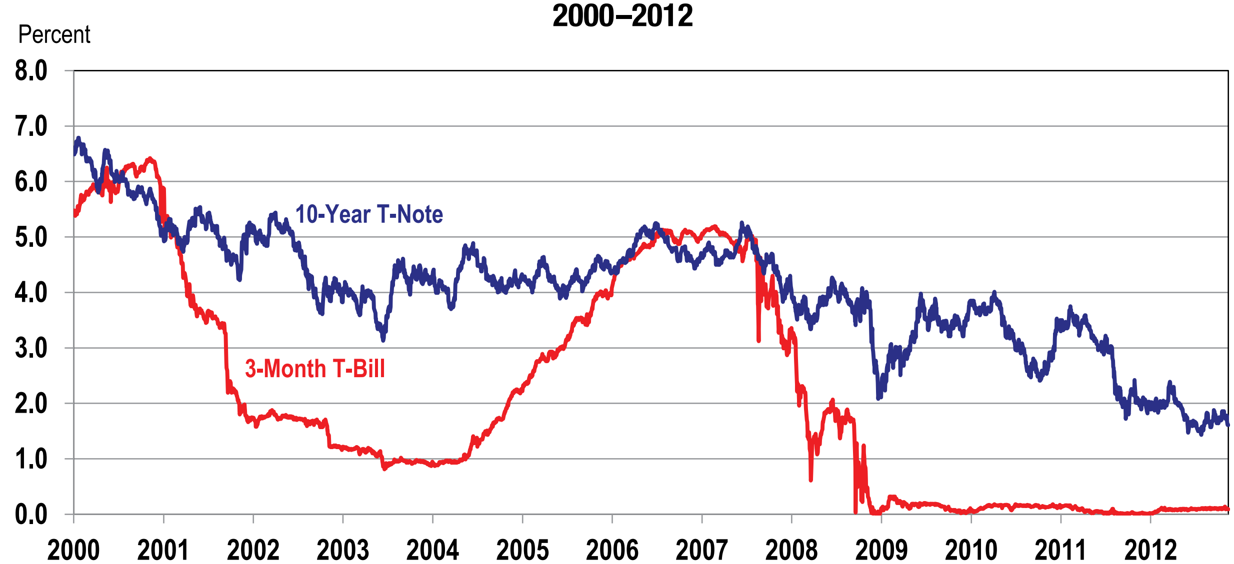
United States has an aging population approaching retirement that will be in need of increased health care services. Couple that with food stamp usage at an all-time high, and we have to start wondering how close we are to being "between a rock and a hard place" that will compel members of Congress to sit down with each other to come up with long-term solutions.

Could that day arrive in 2013? Will the bond vigilantes of the '90s that compelled Congress to focus on the deficit in that era return? Will the harsh attention that has confronted the European Union be turned on us here in the United States? If that were to be the case, then all bets are off. We will undoubtedly be better off in the long run, but in the short run, there will be change, there will be market displacements, and there will be uncertainty.

All of this is conjecture, for these economic challenges, risks, and headwinds have been evident for years. We know we are getting ever closer to a day where long-term issues and long-term solutions will need to be put in place. Today, we have a Federal Reserve and central banks around the world that have exhibited an uncanny knack for walking a tight rope of pragmatism. They have kept the financial markets afloat and functioning, and with sufficient liquidity so as to keep us all away from the abyss and, in so doing, have afforded our elected officials more time to address fundamental issues related to budgets, taxes, and services provided to the electorate.

The year 2013 will undoubtedly bring change, some expected, some unexpected. The fiscal cliff, which relates to budget and tax issues, will likely be postponed until late 2013 or 2014. Legislative change is inherently slow, so barring an unexpected exogenous incident akin to what was seen in 2008, which brought about the TARP legislation, it would seem reasonable to expect 2013 to look similar to the latter half of 2012. One can expect gradual improvement economically at a fundamental level, with modest job creation and economic growth—both of which will chagrin the Fed, which is prepared to keep interest rates low and maintain excess liquidity in the financial markets in the quest for maximum employment regardless of the distortive effects of asset inflation. As such, expect the liquid assets of the financial markets to continue their march higher. Additionally, expect real estate values and the housing market to improve as long as interest rates remain low.

INTEREST RATES
2000–2012



Source: Federal Reserve.

Small Business Lending Trends

Nationally, U.S. Small Business Administration (SBA) guaranteed loans to small businesses were down 11% from fiscal year (FY) 2011 to FY 2012, which ended September 30. Colorado generally followed the national trend with the number of SBA-backed loans declining 8% and volume declining 10%. Many factors contributed to the decrease in SBA-backed lending from a record year in 2011. These factors include temporary fee reduction programs and refinance programs that were part of the federal government's economic recovery plan. SBA lending has returned to more normal levels in 2012, and this trend is expected to continue without much change into 2013.

SBA data reflect only a portion of the most marginal small business lending. It is not in itself a solid foundation from which to forecast future activity. A broader indicator of small business lending trends is the Federal Reserve's July 2012 Senior Loan Officer Opinion Survey on Bank Lending Practices, which shows stable demand for loans from small firms and a reduction in credit standards. If these factors remain in place, modest growth can be expected in overall small business lending in 2013. Another question in the survey points to a reduction in interest rates charged to borrowers. Reducing the cost of funds to small business borrowers will further encourage demand for loans and should help the economy overall. However, lower interest rates could adversely affect the health of banks, some of which are still repairing their balance sheets after the real estate crisis.

Banking

The theme for this year's Colorado banks is that although the worst is likely behind us, the future does not look robust. As for the worst is likely behind us, banks both nationally and in Colorado have continued to see improvements in rebuilding their capital structures. Provisions for loan losses have decreased 26.2% nationally compared to Q2 2011. Colorado banks have seen improvements on two fronts. The ratio of net loan losses to total loans reflect actual problem loans that need to be addressed immediately with bank capital. These loans, as a share of total loans, fell from 0.22% to 0.09% in Q2 2012 compared to a year earlier. The ratio of past due and nonaccrual loans to total loans reflect the potential for problem loan losses that might need to be addressed in the future with bank capital. These loans fell from 4.61% to 2.81% in Q2 compared to a year earlier.

These decreases in problem loans on both a current and estimated future basis allow banks to recognize current profits that increase their capital structure. This is a noticeable difference from prior years when some banks in the middle of the crises and early in the recovery had to reduce their balance sheets by any means, running off high-quality loans to meet ever-changing regulatory ratios. In 2012, fewer Colorado banks had to pursue this strategy.

The net benefit for loan loss reductions were, however, partially offset by reduced loan interest margins. The Federal Reserve's Operation Twist in 2011 flattened the yield curve, which reduced the profits banks earn on traditional spread products. This decrease in net interest margin in Colorado was both less than expected and less than the national average as banks likely reduced their cost of funds. The full effect of Operation Twist will likely be spread over the next few years as outstanding loans continue to be re-priced. This "repricing risk" will likely be a challenge for Colorado banks in the near term.

Reducing the cost of funds to small business borrowers will further encourage demand for loans and should help the economy overall.

There are other items worth noting. First, there were no FDIC bank closures in Colorado in 2012, compared to six closures in 2011. Second, Colorado banks continue to reduce their dependency on brokered deposits, which is a sign of improving financial health. Third, both commercial and industrial loans, as well as commercial real estate loans, as a percentage of risk-based capital, were down in Q2 2012 compared to 2011. Part of this reduction may be attributable to the national trend of businesses reducing both spending and debt in light of economic and fiscal uncertainties surrounding the fiscal cliff. Also consistent with prior years, many Colorado bankers insist that loan demand is anemic among the most credit worthy borrowers with the initial equity required to fund new ventures.

Colorado banks face the following headwinds:

- Colorado community banks are expected to feel more of the pain from lower loan interest margins because of their reliance on traditional spread products and inability to take additional loan underwriting risk with their current high commercial real estate (CRE) exposure. While larger non-Colorado domiciled banks have other diversified revenue streams to help, most

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local community banks do not. Fee income has also declined greatly, largely due to regulation reducing the profitable line of debit and credit card interchange fees.

- While the financial ratios of Colorado banks appear to be improving, they are still behind the national trend given the state's high concentration of community banks and their exposure to CRE. It should be noted that CRE loans backed by income-producing properties fared better than nonincome-producing properties throughout the cycle.
- Despite the recent upward trend in earnings and capital, Colorado community banks are not likely to hire traditional business development officers or loan underwriters as they are more focused on selectively adding loan growth one quality customer at a time. Larger banks doing business in the state of Colorado have been more willing to hire. Finally, while bank lending to small business has improved, it has often been a race among several to the lowest rate and resulted in very little net new business. Often banks are trading business among themselves, frequently resulting in unprofitable loan pricing for the bank and great rates for the borrower.
- Both Colorado and non-Colorado domiciled banks continue to hire and devote resources dedicated to the increased regulatory and compliance burdens discussed below. This will be a problem for Colorado's local community banks as these new compliance burdens are expected to put them in a competitive cost disadvantage compared to the economies of scale their larger out-of-state competitors have.

Finally, as noted in prior years, Colorado's community banks have found it increasingly difficult to raise additional capital. Those that have survived the credit driven recession now have fewer external options to raise the capital needed to grow or rebuild their balance sheets. As regulatory pressures escalate compliance costs, greater asset bases are needed to achieve the return on investment sought by equity holders. With the headwinds noted above, many of Colorado's community banks will need to decide between one of two options: (1) years of slow internal growth through balance sheet management, or (2) sell to a larger bank with existing compliance departments that can recognize the immediate cost savings from the acquisition. The regulatory trend that is fueling consolidation among community banks nationwide and in Colorado should continue and accelerate in 2013.

Dodd-Frank 2012 Update

Passage of the Dodd-Frank Act created the Consumer Financial Protection Bureau and required creation of 398 separate new rules, some of them enormously complex. By the time of this writing in November 2012, deadlines had passed for 237 of those 398, and 133 (33.4%) of the 398 total required rulemakings had been finalized. A total of 132 (33.2%) rulemaking requirements had not yet been proposed.

Concern exists about the pace and complexity of potentially conflicting rules under the Dodd-Frank Act. For example, seven separate rules with substantial impact have been proposed covering real estate lending:

- Qualified Mortgages (QM)
- Qualified Residential Mortgages (QRM)
- RESPA\TILA Reform
- Servicing
- Mortgage Loan Origination Compensation
- Appraisals
- HOEPA Standards for High Cost Loans

Basel III Update

While practically everyone believed the proposed Basel III capital requirements for banks would apply only to the largest global banks for which they were written, U.S. banking regulators in June 2012 shocked the industry by proposing the standards be applied to all banks in the nation. It is widely regarded as reducing available lending and driving up loan rates—injuring businesses, jobs, and consumers. Recent efforts in support of small businesses and jobs would be thwarted by the adverse impact on borrowers and the economy. The banking industry spoke out harshly against the Basel III proposals, arguing they are unbalanced and damaging to businesses and jobs.

The Colorado Bankers Association estimates a required increase in capital in Colorado-based banks of $250 million–$300 million, causing $2.5 billion–$3 billion less in lending in Colorado (a 4.5%–5.5% decrease in total lending). That means less available credit and higher priced loans. (The Fed says required capital in U.S. banks will be increased by $60 billion, thus reducing credit by about $600 billion in the U.S. struggling economy.)

Colorado banks recently increased their capital to historic highs, with total risk-based capital exceeding 16%. The Basel III proposals were crafted for large global banks, not community banks that are unique to the United States. The 500-page draft by the Fed, Comptroller of the Currency, and FDIC requires more capital, adds an extra 2.5% capital buffer, narrows what qualifies as capital, and compounds it via risk-weights for certain loans/assets.

The proposals change the definition of capital, disallowing forms of capital blessed by Congress just two years ago in the Dodd-Frank Act. For community banks, this is very expensive. Risk-weighting will drive how banks lend, incenting banks to focus on certain loans and not others. Example: residential mortgages and industries like home builders could be discouraged by risk-weights up to 200% of normal required capital. Less credit (and liquidity) will be available to small businesses as banks reduce lending to meet higher capital standards.

Lenders facing uncertain rules will be cautious and restrict lending until rules are clear, hurting customers as banks resist growth and expansion until there is certainty. By increasing capital requirements, the proposals discourage lending for acquisitions, development, and construction loans, and certain other short-term loans. Loans for housing will be harder to obtain—for residential mortgages, home construction, and land development, for example. It is believed many smaller banks will exit residential real estate lending. The same bad impact could occur in community development lending, including financing of affordable housing (loans, bonds).

Past-due loans are discouraged with higher required capital, so banks are pressured to be more aggressive in resolving the delinquency as soon as possible instead of working with the borrower to have the loan brought current. Basel III requires banks to build capital at the same time GAAP accounting requires bigger loan loss reserves. The rules' complexity and detail make it expensive for banks to compute and comply, and difficult for investors and others to evaluate the capital condition of banks.

As capital increases, ROI decreases. To attract investors, banks have few tools to increase ROI but to make riskier loans at higher rates. Excessive capital requirements can increase risk in banks. Gains and losses on securities held for sale will impact capital, providing substantial volatility. It also raises concern about a bank's investment in municipal bonds issued by local governmental entities.

As banks find it harder to raise new capital, some banks will be forced to shrink or sell, leading to less credit and/or a more concentrated and ultimately less competitive banking industry.

Colorado banks recently increased their capital to historic highs, with total risk-based capital exceeding 16%.

Many Colorado banks, businesses, and business associations provided written comments critical of the proposals by the October 22, 2012, deadline. All nine members of Colorado's congressional delegation and Governor Hickenlooper have written the regulators urging caution, as well. When this report was written in November 2012, how regulators planned to proceed was uncertain, but both the U.S. Senate Banking Committee and the U.S. House Financial Services Committee had scheduled hearings.

Credit Unions

Against a backdrop of modest and slowing economic growth, slow job gains and cautious consumer confidence, Colorado credit unions reported first half 2012 operating results that show improvement in many key areas. Credit unions are seeing solid operating results with continued improvement in loan growth, asset quality, earnings, and capital ratios.

During Q4 2011, credit unions benefited when several large banks decided to implement a $5 monthly fee on debit cards. The consumer backlash culminated in the creation of Bank Transfer Day on November 5, 2011, which was initiated on Facebook by a 24-year-old woman who was fed up with increasing bank fees. This resulted in nearly 1 million people nationally moving their accounts to a credit union. Colorado membership growth

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continues to expand at just over 2% at the end of Q2 2012.

Colorado's 97 credit unions reported $16.5 billion in total assets at mid-year and membership of more than 1.5 million people, or 29% of the state's population. Credit union savings balances increased by 0.4% (1.8% annualized) in Q2, and loan balances were up 1.8% (7.3% annualized) in the three months ending in June. Credit union asset quality improved with delinquencies at 1% and net charge-offs at 0.5%. Overall, credit unions reported 0.84% return on assets (i.e., net income as a percentage of average assets).

Credit unions continue to lobby in Washington for an increase in their ability to make small business loans. Today, credit union member business lending is capped at 12.25% of the credit union's total assets. Senator Mark Udall (D-CO) is sponsoring a bill that would raise that cap to 27%. If this legislation passes, in Colorado alone it is estimated that in the first year credit unions would loan an additional $317 million to small businesses, which would create 2,769 new jobs. All of this would be at no cost to the taxpayer.

Overall, credit union operating results have generally returned "toward"—though not yet "to"—normal levels. Assuming any nasty effects related to the eurozone crisis and the fiscal cliff can be contained (if not managed), recent trends will likely continue. This suggests that credit union operating results will continue to improve in 2013, with healthy levels of lending, further improvements in asset quality, and solid earnings.

Insurance

Unfortunately, the anticipation of the historical economic upturn in this presidential election year never came to fruition. For nearly 11 months in 2012, the insurance industry faced challenges similar to those faced by most other businesses in the financial services sectors. The profound effects of the U.S. and European debt crises, worldwide catastrophes, uncertainty in the Middle East, a stalled global economy, and the struggles on Wall Street have had negative but expected implications. Then, on October 29, Hurricane Sandy slammed into the Caribbean and the Eastern Seaboard of the United States, causing an estimated 193 deaths and at least $20 billion in damage, with a total claims projections expected to exceed $50 billion when business interruption is included. It is expected that there will be significant additional uncovered losses that were suffered by businesses and homeowners who either declined or were not eligible for flood insurance. The inevitable effects of this disaster will not be realized until the 2013 premium renewal cycle is complete. As of the timing of this writing in November 2012, the total effect is unpredictable.

Hurricane Sandy's effects will be felt across the entire country in some very unique ways. The inventory of used vehicles nationally will be reduced as owners struggle to replace the approximately 250,000–300,000 personal and commercial units that were destroyed as a result of this epic storm. That means that the rest of the country can expect to pay $200-$1,000 more for used cars according to one source.

Credit unions are seeing solid operating results with continued improvement in loan growth, asset quality, earnings, and capital ratios.

There is, however, some good news on the hiring front resulting from this catastrophic event. Unemployed and underemployed individuals from many sectors across the country are flocking to the East Coast. The skill sets related to the repair, replacement, and reconstruction of the affected property will be in high demand. The increase in jobs related to this storm will be felt globally as all products required to return the area to "normal" will be directed to that part of the country.

Overall, the property and casualty (P&C) side of the insurance industry did not experience the anticipated market pricing changes. Normally accepted wisdom had predicted a slight hardening or at least a leveling of P&C pricing in 2012. With investment income continuing to be reduced and significant catastrophic events occurring in late 2012, one could anticipate a market pricing correction in 2013. The magnitude of that market pricing change remains to be seen.

Workers' compensation premiums had already been on the rise according to the Colorado Division of Insurance. That trend is expected to continue as the Department of Regulatory Agencies announced on November 13 that rates will increase an average of 5.2% in 2013. Significant rate increases have been requested by several insurers. Pinnacol Assurance continues to dominate the market for companies with limited or no employees working outside of Colorado. Recently, Pinnacol announced plans to restructure the pricing of certain unprofitable business sectors as its combined loss ratio has steadily risen over the last several years. Additionally, it disclosed plans to cancel unprofitable industry trade association and chamber of commerce programs, especially those that have not added new businesses to their ranks.

Several insurers have indicated interest in competing with Pinnacol for workers' compensation business. Some of the offerings include discounts on premiums when an employer purchases its group health coverage through certain insurance companies, such as Anthem.

Following the presidential election, the employee benefits (EB) industry is now scrambling to prepare for the full implementation of Patient Protection and Affordable Care Act (PPACA) in 2014. Several states had been awaiting the results of the election prior to submitting their plan to participate in either the federal exchange or create a state-based exchange. States were to have submitted their decision for exchange participation by November 16, 2012. Considering several states were in significant likelihood of missing this deadline, Health and Human Services Secretary (HHS) Kathleen Sebelius amended the deadline. Sebelius said she still "wants states to tell HHS their intentions by the original November 16 deadline, but they now have until December 14 to submit blueprints showing how they would operate the exchanges" (Kathryn Mayer, November 12, 2012, "States Get More Time on Exchanges," BenefitsPro.com). The states that want to partner with the federal exchange have until February 15 to submit their strategy.

In 2011 and 2012, health insurers were reeling from the anticipated implementation of minimum medical loss ratios (MLR), which requires carriers to spend certain minimum levels of premium dollars on medical services. These levels are currently set at 85% for large employers and 80% for individual and small group plans. This mandate obviously affects how health plans account for the nonclinical, or fixed, costs embedded in premium dollars, including commissions. In 2012, significant movement was made to have commissions (for agents and brokers) not be included in the MLR. On September 20, the House Energy and Commerce Committee passed HR 1206, excluding commissions. It still needs to be passed by the Senate and signed into law.

The Supreme Court upheld the constitutionality of the individual coverage mandate, but in a twist of legality, the reason the determination was made is due to reclassification of the proposed "nonparticipation penalties" to that of a "tax." This means that every individual in this country is required to carry qualifying health coverage. If individuals do not participate in either an exchange or a private insurance program, they will be subject to a tax penalty.

At a local level, the Colorado Health Benefit Exchange will essentially be a clearinghouse to be accessed by individuals who do not or cannot obtain private insurance on the open market or through their employer. Recently, the Colorado Exchange Commission voted to pay agent commissions in the same method as they are paid through private insurance.

It remains to be seen whether purchasing coverage through the exchange is a cost advantage as plan coverage and cost details are yet to be determined. There still seems to be disagreement on whether an employer would be better off paying the penalty for not providing coverage, forcing employees into the exchanges, or leveraging the perceived competitive hiring advantage by providing a private plan. The latter argument appears to be losing momentum as so many candidates are available for most jobs.

Additional items still due:

<u>2012</u>

- Uniform Explanation of Coverage
- 60-Day Notice of Material Modifications if Not Provided in Uniform Explanation of Coverage
- Reporting the Value of Employer Sponsored Coverage on W-2s (delayed from 2011)

<u>2013</u>

- Employee Notification of Exchanges, Premium Subsidies and Free Choice Vouchers
- FSA Contributions Limited to $2,500 per Year
- Fee for Comparative Effectiveness Research Agency for Fiscal Year 2013

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CU Real Estate Center

Founded in 1999, the University of Colorado Real Estate Center's (CUREC) mission is to develop the next generation of real estate leaders through teaching, research, and industry engagement. Offering a very comprehensive program supporting undergraduates and MBAs, CUREC provides an education founded on academic research and practical applications. Mark your calendars for CUREC's Annual Real Estate Conference on March 7, 2013, at the Sheraton Downtown Denver.

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Leeds School of Business
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CU REAL ESTATE CENTER

2014

- Individual Mandate
- State-based Exchanges for Individuals and Small Groups
- Small Employer Tax Credits Available Only in Exchange
- Free Choice Voucher Required to be Provided to Qualifying Employees
- Elimination of Health Status Rating and Other Rating Factors if Used By An Insurer (Guaranteed Issue)
- Small Group Redefined as 1–100 (in most states)
- Employer Requirement to Offer Minimum Essential Coverage (50 Employees)
- HIPAA Nondiscrimination Rules on Wellness Programs
- 90-Day Limit on Waiting Periods for Coverage
- Employer Reporting Requirements

2018

- 40% Excise Tax on High-Cost "Cadillac" Plans

For additional information and updates about the PPACA, the following websites may be helpful:

- U.S. Department of Health & Human Services: www.hhs.gov
- Healthcare.gov: www.healthcare.gov
- Internal Revenue Service: www.irs.gov/newsroom/article/0,,id=222814,00.html

The 1,100 pages that comprise the PPACA will have to be put in to administrative guidance. Any efforts to change the PPACA will require support from both parties. As the federal government attempts to generate the administrative regulations and tax code, significant modification and clarifying are doomed for legislative gridlock. By the end of 2012, the administration is expected to issue a number of reform-related regulations and other guidance as "interim final rules" allowing for 30-day public comment.

In the years prior to 2014, it is predicted that there will be increased merger and acquisitions (M&A) activity among major insurance companies. The creation of the exchanges, which compete directly with "small group" insurers, will cause insurance companies to either exit or downsize their engagement in this market segment. All of these changes ultimately mean a loss of jobs in the insurance industry across the country. It remains to be seen whether the jobs will shift to the state and federal governments to implement and manage the programs created by the PPACA.

Agents and brokers have also experienced changes due to the downward swing in the market. Organizations that provide consultation in employee benefits are faced with the daunting task of redefining their value proposition in the new world of health care reform. Some experts believe that future modifications of the PPACA legislation will surely target the workers' compensation insurance industry.

Competition in the insurance agency sector continues to be fierce. Brokers and agents grapple with one another to regain lost commission revenue and replace clients who have gone out of business. Competition will continue to escalate as federal and local insurance legislation makes Colorado a target-rich environment for professional employer organizations (PEOs). Many PEOs offer employee benefits, workers' compensation, and retirement programs that compete directly with the products and services delivered by agents and brokers. In addition, as employers look to reduce staff, some of the services delivered by PEOs allow companies to downsize or eliminate staff providing human resources and payroll oversight. However, not all companies are comfortable operating their businesses in a co-employment situation, but for those for whom it may make sense, it can be a viable alternative.

The ultimate effect of all of these significant economic and industry factors is predicted to have continued negative effects on the employment outlook. Fewer insurance company and agency jobs are available than in the past. Some companies in the industry have laid off employees or closed unproductive regional offices. Others have invoked hiring freezes, but very few have been able to boast about creating jobs. Without significant changes to the economy, legislative gridlock, and the PPACA, the hiring future of the industry is not likely to change.

Real Estate and Rental and Leasing

Overall, this sector was impacted by decreases in employment and a strained housing market. Real Estate and Rental and Leasing is expected to end 2012 with 1,000 more jobs, but increase only modestly in 2013.

REAL ESTATE AND RENTAL AND LEASING EMPLOYMENT 2004–2013 (In Thousands)

Year	Real Estate	Rental and Leasing	Total
2004	33.3	14.0	47.3
2005	34.4	13.9	48.3
2006	35.1	14.0	49.1
2007	35.4	14.0	49.4
2008	34.3	13.9	48.2
2009	31.9	12.3	44.2
2010	31.2	11.4	42.6
2011[a]	31.3	11.2	42.5
2012[b]	32.0	11.5	43.5
2013[c]	32.2	11.4	43.6

[a]Revised. [b]Estimated. [c]Forecast.

Note: Due to rounding, the sum of the sectors may not equal the total.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Real Estate

Commercial Real Estate

Colorado ranks in the top 10 nationally for job growth, successfully adding jobs in most industry sectors. In October 2012, the seasonally adjusted unemployment rate nationally was 7.8%, compared to 8% in Colorado. The not seasonally adjusted rate for Colorado and Denver was 7.4%. The state has pursued a corporate headquarter relocation strategy, attracting notable companies such as DaVita and Arrow Electronics. Colorado is quickly exiting the Great Recession by promoting business friendly policies. Economic momentum drives CRE activity.

Metro Denver has been named a top 20 real estate market to watch in 2013, according to PricewaterhouseCoopers, as a result of a healthy economy and diverse employment base. New census data show Denver is the third-most popular destination for young adults 25–29, who seek opportunities in the high-tech and energy sectors. According to a Q3 2012 report from Pinnacle Real Estate Advisors, the *office* market continued its recovery due to limited supply and increasing demand. Overall office vacancy was 12.5%, with the Southeast Suburban submarket posting the strongest performance and lease rates rising slightly, to $20.37 per square foot (psf).

Metro *industrial* market is picking up steam and posting positive absorption. Overall industrial vacancy decreased to 7.8%, with the Central and East submarkets experiencing brisk activity and lease rates increasing slightly, to $5.96 psf.

Metro *retail* market has again reversed course, with absorption on pace to outperform 2011, driven by solid growth in the grocery sector. Retail vacancy fell to 7% from 8.1%, with the greatest activity in locations with good demographics and healthy anchors, and lease rates increasing slightly, to

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$14.54 psf. Expect a gain in speculative and build-to-suit projects in select Metro locations, driven by tightening supply and rising rents.

Northern Colorado, and Fort Collins in particular, is in the national spotlight, gaining the attraction of national investors due to a low unemployment rate (5.8%), expanding university enrollment, and a diverse economy with jobs in health care, education, energy, technology, and retail trade. Weld County tax coffers are ballooning from the influx of oil and gas companies streaming into the area. Chris Doyle with The Group Inc. reported commercial vacancy rates for industrial, retail, and office, respectively, in June 2012 were 4%, 8%, 8% in Fort Collins; 18%, 10%, 9% in Greeley; and 16%, 5%, 11% in Loveland. When compared to July 2011, vacancies in industrial, retail, and office, respectively, were 5%, 8%, 10% in Fort Collins; 8%, 11%, 7% in Greeley; and 16%, 6%, 11% in Loveland. For the past 40 years, Northern Colorado has ranked among the top job-producing communities in the country, and the next decade should be even brighter. Good jobs and a vibrant economy are driving CRE activity.

Southern Colorado's long-term economic prospects are suspect, with looming military spending cuts (sequestration) and the tax cut expiration (fiscal cliff). Losses in the area's employment base from manufacturing, construction, and information technology were replaced with lower-paying jobs in health care, tourism, and other services. This trend will continue to slow the local economy. Sierra Commercial Real Estate notes that Q3 2012 vacancies and rents were generally flat from year-end 2011. Office vacancy was unchanged, at 16.60%, but rents increased $0.09 psf, to $11.12 psf. The key for the office sector remains employment growth. Industrial vacancy was unchanged at 10.34%, but rents fell $0.13 psf, to $5.91 psf. Industrial real estate needs the manufacturing sector to recover, which is being helped by new policies and laws that slowed the emigration of jobs overseas. Retail vacancy increased to 11%, and rents declined $0.23 psf, to $12.47 psf. Downward pressure on lease rates is subsiding with older centers poised to outperform newer counterparts, due to a move by retailers back to older, more central neighborhoods. Expect flat to decreasing CRE activity in 2013.

Western Slope natural gas prices have not fully recovered since 2008, while more oil rich formations, such as Niobrara in Weld County, are attracting outside investment. Commercial construction is flat, and businesses are more interested in survival than expansion. Still, Mesa County has fended off the Great Recession and is working hard to recruit new companies to the Grand Valley. Through Q3 2012, the Heritage Title Company reports year-over-year real estate transactions are up 12%, to 2,573, and total dollar volume is up 12.7%, to $502.9 million. The median price of a Grand Junction area home has risen from $152,250 in January to $170,000 in September. One reason for the activity is the record low interest rates, but also a 13.5% decrease in completed foreclosures. Phil Castle, editor of the *Business Times*, notes that a broader economic recovery with sustained job growth is ultimately needed to promote commercial activity on the Western Slope.

Colorado's job growth has been slow but steady throughout 2012. Efforts to attract high-quality, private-sector industries are producing results, ranking Colorado nationally in the upper echelon of states generating employment growth. CRE activity is a direct result of a healthy economy that is able to absorb a diverse employment base. Experts project the federal government impasse on taxes and the budget will be resolved, and the economy will heal. As it does, expect Colorado's CRE markets to continue making slow but steady gains, too.

Residential Real Estate

Colorado's residential market fared better than average in 2012. In addition to low mortgage rates, stronger than average employment growth and consumer confidence levels in Colorado supported increased sales activity. The construction pipeline is active particularly in the multifamily segment in urban markets but signs of life in the single-family market are also starting to show, pointing to increased activity in 2013. Foreclosures and real estate owned property continue to hold down price appreciation in some Colorado markets.

For-Sale Existing

The existing housing market is in recovery mode across the nation. Despite a slip in total sales from August to September in 2012, the pace of total existing home sales is up 11% through the first three quarters of the year. National Association of Realtors (NAR) chief economist Lawrence Yun says the country is "…experiencing a genuine recovery." The glut of listed inventory levels is down 20% from this time in 2011, and the median home price is up 11.3%. Existing homes sales in the West region are 0.9% ahead of September 2011, while the median home price is up 18.4% over the same month in 2011.

Colorado's housing market out-performed much of the nation in 2012 and will continue to experience positive market conditions in 2013. The state ranks ninth in the nation for home price appreciation as measured by the Federal Housing Finance Agency in Q2 2012. The quarterly index measures repeat sales price changes on the same properties.

Metro Denver's resale market rebounded in 2012 and is outpacing the nation in home sales, according to NAR. Metro Denver has seen between a 10% and 12% gain in year-over-year home sales in 2012 compared to the national average of 8%.

The latest Metrolist data reveal a 17.9% increase in sales from August 2011 to August 2012, along with a 20.5% increase in home sales under contract. Upward pressure on home prices from decreased inventory, low interest rates, and strengthening sales activity has pushed the average sales price up from 9.8% in August 2012 compared to a year earlier.

The latest S&P/Case-Shiller Home Price Index revealed an increase in Denver area home prices from June to July 2012. Out of 20 in the index, 16 cities, including Denver, posted over-the-year gains in July 2012.

Increased migration is a contributing factor to the strength of Metro Denver's housing market as the region was named a top migration destination for people between 25 and 34. Increased migration, decreased inventory levels, and inadequate supply coming online prompted NAR economist Lawrence Yun to recently warn of an impending market imbalance in Metro Denver. In fact, select markets in Metro Denver have shifted from a buyer's market to a seller's market in 2012 due to the trifecta of rising home prices, low inventory, and multiple offers. The Stapleton neighborhood is the 9th best-selling master-planned community in the United States in 2012, according Metrostudy, up from 15th a year earlier.

The luxury home market, or homes prices above $1 million, in the Denver area experienced both price gains and increased sales activity in 2012. Through September, total sales volume increased 22.7%, along with a 20.3% increase in transactions, according to Kentwood Real Estate. Suburban neighborhoods are seeing softer price increases, and brokers point to the bargains available for fueling the luxury market.

Signature homes, homes priced between $750,000 and $999,999 in Metro Denver year-to-date Q3, increased 29.3%, which also corresponded with a 27.3% price increase, according to Gary Bauer, a Denver independent real estate consultant. This category is tracked because many would have been priced at more than $1 million at the top of the market.

The most active price range of home sales through August 2012 is the $200,000–$299,999 range, which accounted for nearly one-third of all Metro Denver closings. This segment saw a 29.1% increase in closings compared to the same eight-month period last year through August.

There is less than a week of inventory at the low end of the market, which is considered homes priced under $100,000. Investor demand may have driven prices up—a sign of recovery or stronger

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market. Through the first eight months of 2012, there were 35% fewer closings at this level than during the same time a year earlier.

According to Land Title's September 2012 analysis of El Paso County, the existing residential market has increased 10.7% in sales from September to September, or a 7.4% increase on a year-to-date basis. The average home price increased 3.8% month-over-month.

As of mid-year, 7,177 units were under construction and 8,238 were in the planning pipeline in Metro Denver, according to Pierce-Eislen's Q2 report. This represents a three-year supply, although it is starting from a low base. Significant projects in the works are around Union Station; downtown Denver, particularly the Lodo and Highlands neighborhoods; and along RTD rail lines.

Land Title's analysis of Colorado's high country markets suggests generally improving conditions with increased sales activity and limited new development, although bank sales are holding down price appreciation. Gross monetary volume in Grand County was up an impressive 35% in August 2012 on a year-to-date basis, while the number of transactions grew 18%. Bank sales accounted for 16.2% of all sales in Grand County through August. Eagle County activity is up 16% through August and 18% in monetary terms, led specifically by the Eagle and Gypsum areas. Pitkin County declined 7% year-to-date in total sales volume through August, to $777.8 million, and slid 11.5% in transactions. Bank sales in Pitkin County account for only 3.8% of the total sales volume and 6% of the transactions through the first eight months of 2012. August was the best month so far in 2012 in Summit County, and Breckenridge held the top spot for transactions and sales volume, representing more than one-third of the county. Vacant land is gaining value but bank sales are holding down prices. Year-to-date transactions through August 2012 are up 6%, while gross monetary volume is up 4%.

New Home Activity

Home builders nationwide are increasingly optimistic. The National Association of Home Builders Sentiment Index rose for the seventh consecutive month in October, to 46—the highest index since June 2006. Analysts expect the new home market to post improvements during the remainder of 2012, although tight credit markets and the rising cost of materials will restrict gains.

The optimism is further expressed in the Census Bureau's report that housing starts were up 15% in September 2012 from a year earlier, the fastest rate increase since July 2008. The West and South regions led on a percentage basis, with 20.1% and 19.9% gains, respectively, from September to September. The Midwest saw a modest 6.7% increase, while housing starts in the Northeast region declined 5.1%. The West region also led on a year-to-date basis with an impressive 30.4% increase.

According to data from the U.S. Census Bureau, building permit activity was up significantly in the first nine months of 2012 compared to the same period a year earlier in Colorado (61%) and in the Denver-Aurora-Broomfield metropolitan area (104%). Detached homes accounted for 60% of statewide permits and 45% of Denver-Aurora-Broomfield metropolitan area permits. Despite significant increases, building activity is not yet approaching peak levels.

The Genesis Group mid-year forecast shows 5,500 new production homes sales for 2012 or a 33% increase from the low levels of 2009–11. The increasing trend is projected to continue to 7,000 new production homes in 2013. The heightened activity in land sales throughout 2012 supports this projection. The Genesis Group forecasts residential building permits in Metro Denver will increase for the fourth-consecutive year, rising to 10,500 units, which is 1,000 units more than in 2008. The highest year on record was 29,038 units in 2000.

Data released by the Census Bureau show that more than one-third of all single-family building permits issued in Colorado through the first three quarters of 2012 are in Douglas and El Paso counties. The Southern Colorado Economic Forum is forecasting a 6.5% gain in single-family building permits in El Paso County in 2013 after posting an estimated increase of 47.4% in 2012. Housing starts in Northern Colorado are up more than 50% so far in 2012.

Significant multifamily new construction is in the pipeline particularly in Denver, prompted by low vacancy rates and rising rents. Almost half of the multifamily permits issued through September of 2012 are in Denver, according the Census Bureau.

As of mid-year 2012, a total of 7,177 units were under construction and 8,238 were in the planning pipeline in Metro Denver, according to Pierce-Eislen's latest report. This represents a three-year supply, although it is starting from a low base. Significant projects in the works are around Union Station, downtown Denver (particularly the Lodo and Highlands neighborhoods), and along RTD rail lines.

Foreclosures

Foreclosure activity eased in 2012 at the national level, with foreclosure filings falling 16% from September 2011 to September 2012. September recorded the lowest level of filing activity since July 2007. A closer look at the trend reveals varying improvements on a state by state basis, depending on the state's judicial process. Some states are struggling with significant backlogs.

A report by the New York Federal Reserve places Colorado in the middle of the pack, at 23rd, for bank-owned inventory levels. Total bank-owned inventory in Colorado, as of June 2012, was 8,596 properties. Colorado ranked 8th in the number of foreclosure filings in September, according to RealtyTrac.

The Colorado Division of Housing reported fewer foreclosure sales in Q3 2012 compared to a year earlier based on data from Colorado public trustees. Foreclosure filings and foreclosure sales decreased, 11.8% and 10.6%, respectively. Foreclosure filings and sales in the seven-county Metro Denver region posted decreases in Q3, falling 11.5% and 14.2%, respectively.

Rental Market

Colorado's rental market improved in 2012. The statewide vacancy rate dipped down to 4.9% in Q2 2012, which is the lowest on record since the Colorado Multi-Family Housing Vacancy & Rental Survey was first published in Q3 2001. The statewide vacancy rate has generally fallen since hitting 9.1% in Q2 2009. Rents have increased steadily for the past 10 quarters in Colorado. The average rental rate increased $65 from a year earlier, to $942 in Q2 2012.

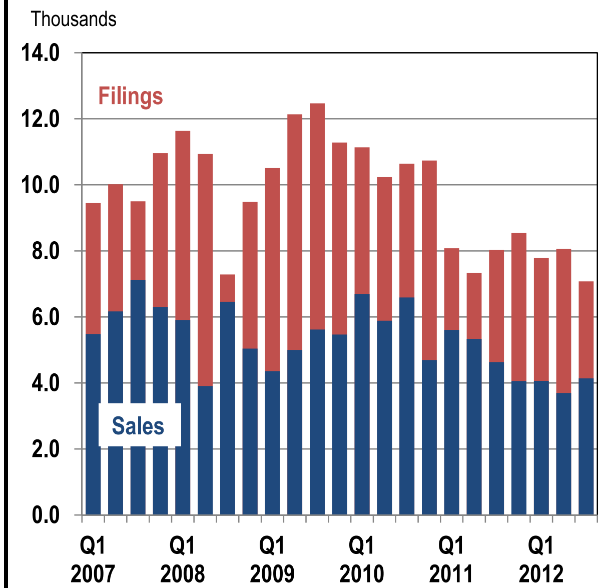
Vacancy rates in 2012 varied for the following metropolitan areas surveyed but were all lower than they were relative to a year earlier: Colorado Springs (6%), Fort Collins/Loveland (3.5%), Grand Junction (5.5%), Greeley (5.4%), and Pueblo (4.3%).

The rental market in the Metro Denver area tightened further in 2012, with record low vacancy rates and rising rents. The third quarter vacancy rate of 4.3% was the lowest quarterly rate in 12 years. The third quarter average rental of $986 was 5.2% higher than a year earlier. Rent growth reached an 11-year high in Q2 2012. The average rental rate in Denver is up 9.6%, according to the Denver Metro Apartment Vacancy and Rent Survey.

Apartment Insights third quarter 2012 report revealed a strengthening apartment market in Colorado Springs, with vacancy rates dropping to 5.8% and rental rates increasing 3% from 2011, to $757. Conservative levels of new development are occurring, which is notably led by local developers and management as opposed to out-of-state firms.

Significant new supply coming online in 2012 and 2013 will soften the upward pressure on rents, while loosening the pressure on suppressed vacancy rates.

COLORADO FORECLOSURES FILINGS AND SALES



Source: Colorado Division of Housing.

Rental and Leasing

Given that NAICS categories are defined by process, Rental and Leasing is one of the more diverse sectors in the NAICS structure. It includes an array of companies tied together by their renting/leasing function, but that are otherwise unrelated. The sector lost 20% of employment between 2007 and 2011. The sector recorded modest growth of 300 jobs in 2012.

Professional and Business Services

Overview

Colorado's continuing advantages across the competitive Professional and Business Services (PBS) sectors include a highly educated workforce, entrepreneur-friendly environment, increasingly diverse industries, and a high quality of life. Bureau of Economic Analysis data on GDP show that Professional Scientific and Technical Services (PST) accounted for 9.7% of Colorado real GDP in 2011. The PBS Supersector constitutes 14.7% of real GDP. Interestingly, the market share of PBS has grown from 12.7% in 2000 to 14.7% in 2011. The market share for PST has grown from 7.9% in 2000 to 9.7% in 2011.

Wells Fargo reports that

> professional and business services have added the largest absolute number of jobs over the past year. This industry—which includes everything from management jobs at corporate and regional headquarters to accounting, advertising, and engineering—has added 9,900 positions in the past year, accounting for more 21% of the jobs created statewide. Within this industry, employment services, which includes temporary help services, has added the largest number of jobs, adding 4,000 positions in the past year. The heavier reliance on temporary positions also carries some negatives however, as it suggests, companies remain hesitant to commit to permanent hires.

In 2011, the PBS Supersector led job growth in the state, with 9,900 jobs. Projections through 2012 show PBS way in front of any other industry, adding 14,300 workers.

In 2011, two announcements provided promise of increasing employment for the PBS Supersector: the Gaylord Hotel complex in Aurora near DIA and General Electric's plans to locate a thin-film solar manufacturing plant also in Aurora. These projects would have added jobs to the Architecture and Engineering subsectors first, then the Construction Sector followed by tourism employment. Unfortunately, both have been delayed and may be ultimately abandoned. Despite this, PBS employment is expected to grow by 4.2% in 2012, tempering to 2.1% growth the following year.

News regarding PBS companies is mixed. Developments include the following:

- The Lockheed Martin team developing the U.S. Air Force's next generation Global Positioning System III satellites has delivered the first spacecraft's propulsion core module to the company's Denver-area GPS Processing Facility. The world's largest defense contractor plans to issue layoff notices in anticipation of across-the-board defense spending cuts set to begin January 2.
- CH2M Hill has announced that its global workforce will be reduced by up to 1,350 workers in late 2012 through a combination of voluntary and involuntary separations. CH2M Hill plays a major role in managing and delivering some of the most challenging and complex projects in the world, including Panama Canal Expansion, Emirates Nuclear Energy Program, UK Crossrail, the London Olympics, and the Mumbai Airport Expansion.
- DigitalGlobe's very public back-and-forth with its biggest rival, Virginia-based GeoEye, resulted in the Longmont company buying out its competitor for about $453 million in a cash and stock deal in July. Subject to regulatory approval, that deal is expected to close in Q1 2013. GeoEye provides services that DigitalGlobe does not, so this represents not only an addition to DigitalGlobe's capacity, but a business enhancement.
- Oracle's revenue dropped about 2%, to $8.18 billion, below the $8.41 billion expected on Wall Street. Analysts say that Oracle's customers are cutting their spending on IT support costs, while shifting to data analytics. This is happening worldwide, not just in Colorado, and it may indicate a future decline in IT spending.

Professional and Business Services is comprised of three distinct subsectors. Professional, Scientific, and Technical Services accounts for 50.3% of industry employment, made up of accountants, architects, engineers, scientists, consultants, and advertisers. Management of Companies and Enterprises is 8.9% of total industry employment, comprised of company headquarters and companies that manage other businesses. Administrative and Support and Waste Management and Remediation Services is 40.7% of industry employment, and includes waste collection, waste treatment, employment services (temp agencies), and building services. These three sectors are all expected to continue robust growth in 2013.

Professional, Scientific, and Technical Services

Without the plant and equipment or the burdensome regulatory compliance requirements seen in some industries, Professional, Scientific, and Technical Services firms enjoy lower start-up costs, with talent-based business models using consultants, architects, lawyers, and engineers.

Cooperation between corporations and educational institutions in the state continues with the opening of the Northrop Grumman Science Center in Colorado Springs. This center fosters an introduction to space exploration through the science, technology, engineering, and mathematics (STEM) education program. The Space Foundation manages this unique facility, along with the annual National Space Symposium.

The scientific and technical community has also been energized with the Federal Aviation Association (FAA) grant to assess the feasibility of developing a spaceport at Front Range Airport, east of Aurora. A spaceport would give industrial access to space but, more interestingly, would shorten flights around the world to an afternoon. You could ski Colorado powder in the morning and have dinner in Paris that evening. In the near future, space travel may be in the transportation section of this book.

The national laboratories in Colorado expect to grow with research in solar, wind, and geothermal energy. The National Renewable Energy Laboratory (NREL) held an Industry Growth Forum in October 2012, giving companies an opportunity to demonstrate clean energy methods. Industry outreach and government small business set-asides continue to create opportunities for Colorado companies. Small business grants awarded in 2012 include Aqwest LLC for geothermal heat energy recovery and ION Engineering LLC for polymer membranes that capture CO_2.

Legal Services

Broadly speaking, Legal Services continues to avoid significant economic impacts from the downturn. Despite considerable structural change within the industry, it has shown negative growth only once in the past 20 years.

A recent article in the *Economist* magazine (May 2, 2012) highlighted that, "The number of students taking the law-school entrance exam took an unusual dive this year. Though the legal job market has been terrible for several years, those who do score a job (and especially a partnership) find themselves richly rewarded." One consequence of the legal job market over the recent years has put

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**TOTAL PROFESSIONAL AND BUSINESS SERVICES SUPERSECTOR EMPLOYMENT
2004–2013
(In Thousands)**

Year	Professional, Scientific, and Technical Services	Management of Companies and Enterprises	Administrative and Support and Waste Management Services	Total[a]
2004	148.1	24.5	131.6	304.1
2005	156.0	25.3	135.5	316.8
2006	162.8	27.2	141.9	331.8
2007	170.3	28.4	149.3	347.9
2008	176.7	28.9	146.4	351.9
2009	169.7	28.5	132.0	330.2
2010	167.2	29.0	133.3	329.4
2011	172.1	29.9	137.3	339.3
2012[b]	178.0	31.6	144.0	353.6
2013[c]	183.4	33.2	144.4	361.0

[a]Due to rounding, the sum of the individual items may not equal the total. [b]Estimated. [c]Forecast.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Professional and Business Services

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quality associate attorneys with only two to three years of legal experience in very short supply.

Sweeping changes in technology have thrust law firms squarely into the spotlight of global competition and into the twenty-first century. Long-term law firm partnerships are now face-to-face with globally traded companies, putting tremendous pressure on smaller firms.

Continued threats include legal process outsourcing (LPO) firms that may be located anywhere in the world. In fact, the *New York Times* reported that LPOs often hire lawyers from temporary legal services firms or recruit them directly out of law school. The pay is often comparable to lawyers' salaries in smaller cities. The jobs can come with other benefits, like equity stakes in the company and management opportunities that might not be widely available at conventional law firms. They often operate online with overnight turnaround in many cases.

In Colorado, several of the large law firms have indicated that they expect overall demand for legal services to remain about the same in 2013 as in 2012. Some specialty practice areas have been hit hard over the recent years, such as those providing legal services to the construction industry. Corporate legal services have seen steady growth in 2012. Continued strategic hires are anticipated in 2013. Mergers and acquisitions activity has picked up in 2012 and is expected to continue in 2013.

The PBS Committee expects Legal Services to grow 1.2% and 1.4% in 2012 and 2013, respectively.

Architectural, Engineering, and Related Services

After a couple years of declining employment, this subsector finally experienced growth of 1.5% in 2011. Much stronger growth was anticipated for 2012; however, several large projects that would have needed architect and engineer design services were delayed. These projects include the Gaylord Hotel complex, the National Western Complex, and General Electric's solar plant. Even so, the growth for this subsector is expected to be near 3.5% in 2012 and about 2.4% in 2013. In spite of the delays or cancellations of these large projects, a number of smaller projects have kept engineers and architects busy.

Mergers and acquisitions have kicked into high gear for this subsector. One large Colorado-based engineering company, MACTEC, was acquired by AMEC, based in the United Kingdom. A good number of small firms have been acquired by larger out-of-state firms for strategic reasons of diversifying geographically and combining core technical skills. These mergers and acquisitions have led to less hiring overall, with some minor reductions in force to eliminate duplicate positions.

Long-term law firm partnerships are now face-to-face with globally traded companies, putting tremendous pressure on smaller firms.

The global slowdown is also affecting the employment of firms that are based in Colorado. Several large engineering firms have decreased their Colorado employment due to the fewer number of projects they perform. Large infrastructure projects in London, Panama, the Middle East, South America, and Asia are not as common as a few years ago. When these projects finish, another similar-size project is often not ready for that workforce.

Residential and commercial building growth continues to be slow, with the exception of apartment buildings. The high demand and short supply of apartments in the Denver area started a couple of years ago and continues in 2012, with many projects now in construction.

Most of the transportation infrastructure projects designed in 2011 are being constructed in 2012. A better year for transportation infrastructure design projects from state and local agencies is expected in 2013. In July 2012, Congress passed a multi-year transportation funding bill, MAP-21, which will keep federal transportation appropriations at current levels until September 30, 2014. Unfortunately, the rate of deterioration of the nation's roads, highways, and bridges continues to accelerate faster than what is spent on repair and replacement projects.

PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES SECTOR EMPLOYMENT
2004–2013
(In Thousands)

Year	Legal Services	Architectural and Engineering Services	Computer Systems Design Services	Management, Scientific, and Technical Consulting Services	Other	Total[a]
2004	16.6	36.8	34.1	13.7	46.9	148.1
2005	17.2	39.0	35.7	15.1	49.0	156.0
2006	17.4	41.1	37.1	16.0	51.2	162.8
2007	17.9	43.3	39.3	16.4	53.4	170.3
2008	18.1	44.8	41.3	17.4	55.1	176.7
2009	17.8	41.5	40.2	16.9	53.3	169.7
2010	17.8	39.0	40.0	17.6	52.8	167.2
2011	18.4	39.6	41.6	18.5	54.0	172.1
2012[b]	18.5	41.0	42.8	19.2	56.5	178.0
2013[c]	18.8	42.0	43.7	19.8	59.1	183.4

[a]Due to rounding, the sum of the individual items may not equal the total. [b]Estimated. [c]Forecast.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Federal spending on military and other projects is expected to remain steady on the construction side. Sequestration looms on January 2, 2013. Future projects may be delayed or abandoned.

Increased revenues are forecast for public agencies for the next couple of years. However, the list of demands for that additional revenue also continues to grow. Public agencies are looking at ballot initiatives either for keeping excess revenue above TABOR limits or for bonding for specific projects.

Computer Systems Design and Related Services

Computer system design growth has been spurred by cyber security, social networks, e-commerce, and cloud computing. The annual e-Commerce Summit at the Colorado Convention Center included more than 200 vendors and close to 5,000 attendees. The fast-paced use of phones, tablets, and laptops for shopping, socializing, and information sharing creates the need for complex computer systems. The backbone of these networks is created by companies such as Software AG, Rally Software, and NextGen. The demand for highly skilled information technology professions is expected to grow.

Management, Scientific, and Technical Consulting Services

This is a broad sector that provides a range of specialty and general services. The growth in demand for some management consulting services softened

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in 2012 compared to the previous year. Yet, the reluctance of organizations to commit to in-house, full-time hires has continued to support overall demand for many of these service areas. Some consulting firms have hiring freezes in place with the exception of strategic hires or those hires filling immediate client needs. The committee expects the level of hiring to gradually improve over the course of 2013.

This sector should grow by 4% in 2012 and 3% in 2013.

Management of Companies and Enterprises

This is a diverse sector because the components are a truly mixed bag. Companies in this sector manage other businesses and include: Arrow Electronics, the state's largest Fortune 500 Company; Vail Resorts; Echostar; Quiznos; Johns Manville; Texas Roadhouse Management Corporation; Sports Authority; Encana Oil and Gas; and many others. The companies that appear in this PBS Sector are regional or home administrative offices, whereas the nonadministrative operating units of these companies are classified in another NAICS sector. For example, Texas Roadhouse restaurant employees are included in food service.

The sector comprises about 2% of Colorado's GDP and is typified best by its great diversity. It has generally produced modest job growth. More than 17,000 new jobs in this sector have been added since 1990, although much of that was due to the run-up in housing. Colorado has continued to make gains in acquiring company headquarters, with future prospects appearing bright as well.

Skier visits to Colorado fell almost 10% in the 2011–12 (largely snowless) season, continuing the pullback in the industry. However, despite the decline, the Colorado ski industry is still the largest in the nation. Planning on a return to more typical weather patterns, Vail Resorts expects $260 million–$270 million in earnings in fiscal 2013, a 27%–32% increase compared to earnings in fiscal 2012.

Dish Network is currently waiting for the FCC nod to launch a nationwide high-speed wireless broadband network to offer mobile Internet and phone services to its customers. If the company gets the green light from FCC to use its airwaves, then the company can offer a unique quad-play bundled service of satellite TV, satellite Internet, mobile Internet, and mobile phone services.

The committee believes the sector will grow 5.7% in 2012 and 5.1% in 2013.

Administrative and Support and Waste Management and Remediation Services

This sector holds 40% of PBS employment. One interesting trend is the number of dumpsters for commercial projects, which has increased significantly in 2012. This could be attributed to growth in commercial space being refinished for new tenants, which is also reflected in the increase in employment of the Services to Buildings and Dwellings subsector. However, tenant rental demand for commercial office space has started to slow in Q4 2012.

During 2011 the waste management industry saw a steady but small increase in volume of material handled as commercial redevelopment began to rebound. Analysis has shown waste handling to be a trailing indicator of overall economic activity as homeowners, businesses, and institutions increase their purchases of equipment, hire more workers, and serve more customers—all of which increases trash and recyclable material. The relatively low cost of landfilling in Colorado also has kept the industry competitive, while additional technology improvements and safety protocols continue to change the requirements for capital and human resources investments.

Employment Services

The Employment Services industry continues to recover from the downturn. Often a leading indicator of full-time employment growth or contraction, this sector saw 139% growth in the '90s, from 22,800 in 1990 to 54,500 in 2000, but lost more than 30% in the recent downturn. The industry bounced up 10% in 2011.

ADMINISTRATIVE AND SUPPORT AND WASTE MANAGEMENT AND REMEDIATION SERVICES SECTOR EMPLOYMENT
2004–2013
(In Thousands)

Year	Employment Services	Services to Buildings and Dwellings	Business Support Services	Other	Total[a]
2004	38.5	36.9	16.7	39.5	131.6
2005	40.2	37.9	17.9	39.5	135.5
2006	42.6	39.0	19.8	40.5	141.9
2007	44.0	40.3	22.4	42.6	149.3
2008	40.1	40.6	23.7	42.0	146.4
2009	30.0	38.0	24.1	39.9	132.0
2010	33.7	36.8	23.9	38.9	133.3
2011	37.0	37.2	23.5	39.6	137.3
2012[b]	40.4	39.2	22.9	41.5	144.0
2013[c]	41.3	40.3	23.2	39.6	144.4

[a]Due to rounding, the sum of the individual items may not equal the total. [b]Estimated. [c]Forecast.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Nationally, the U.S. Labor Department reports the number of jobs advertised rose nearly 2%, to 3.2 million in September 2012. This is the highest since April, when temporary census hiring inflated that month's figure. Job openings at private companies rose slightly, to 2.85 million, the highest in 21 months. Even with the increases, the number of available jobs is far below the 4.4 million advertised in December 2007, when the recession began. Private-sector layoffs, meanwhile, dropped sharply to 1.6 million in August, the lowest in more than four years. The Conference Board's Help Wanted Online indicates 4.7 million ads and 5.7 million unemployed. It is the job of firms in the Employment Services subsector to put these two together.

The *Denver Post* reported that Colorado business conditions improved in October 2012, based on a monthly survey of supply managers in the state by the Goss Business Conditions Index. The overall index for October was 56.7, advancing from September's 53.3. An index value greater than 50 indicates economic expansion, while a value less than 50 indicates contraction. The report showed new orders at 51.1, production or sales at 54, delivery lead time at 50.1, inventories at 52.1, and employment at 75.9. This much higher value for employment underpins emerging confidence that growth will be sustainable across most temporary employment sectors. In this context, the committee projects continued but slower growth in Colorado of 9.2% in 2012 and 2.2% in 2013.

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The Leeds Business Confidence Index says, "Looking ahead to Q4 2012, month-over-month employment figures and jobless claims are pointing to a slowly improving labor market. However, drags on the economy persist—the European debt crisis, the rate of employment growth, and the resolution of the federal debt."

Business Support Services

Business Support Services includes establishments engaged in performing activities that are ongoing routine business support functions that businesses and organizations traditionally do for themselves. This sector grew dramatically during the housing bubble, and has yet to recover from the downturn. It is a relatively small sector, employing about 23,000 people in Colorado.

In the Business Support Services Sector, the expansion of the Internet and social media has led to a changing category of services. These business-to-business services manage the Internet and social media presence of client businesses. An example is provided by Ecosphere Technologies, an Internet marketing firm that provides social media marketing.

Another Internet marketing firm is Advantage Sales and Marketing (ASM). ASM provides customized sales and marketing solutions, including retail merchandising and marketing services, client and customer events management, publications, and assisted-selling services.

In particular, more computer and telecommunication functions are leaving the desktop and the back office and heading to "the cloud." These Internet-based applications may reside on servers anywhere in the world. As a result, specialized firms manage these cloud services. Services include everything from payroll processing to call routing. For example, automated call distribution systems place incoming calls into a queue based on the reason for the call. Call takers are logged into queues according to their skill set. As soon as an appropriate call taker becomes available, the caller and call taker are instantly connected. Entire company communication systems are now hosted on the Web.

Services to Buildings and Dwellings

Services to Buildings and Dwellings is a relatively nonvolatile sector. This is, in part, because buildings need basic maintenance even if they are unoccupied. This category grew steadily during the 1990s and even through the high-tech bust. However, the housing recession had negative effects as about 10% of jobs disappeared during the Great Recession. Growth returned in 2011, ending the year with 37,200 employees.

An example firm in this category is ABM Janitorial Services. ABM provides the building maintenance, electrical and lighting maintenance, electrical testing, energy, HVAC, janitorial, landscape and grounds maintenance, repair services, parking, transportation, and security services. ABM began in 1909 as a small window washing company in San Francisco with 1 employee. ABM now employs nearly 100,000 people worldwide.

Summary

While the election is behind us, uncertainty remains with the fiscal cliff and sequestration on the horizon. This is causing many businesses to take a "wait and see" position.

The PBS Sector depends on businesses outsourcing. Even firms in the PBS Sector outsource their noncore business responsibilities to other firms in the PBS Sector, such as a smaller engineering firm needing to outsource accounting and legal services in order to complete their business responsibilities. In times of uncertainty, businesses do cut back on services they outsource.

Highly skilled and educated graduates are necessary for several subsectors to provide services for their clients. The cost of college education has increased significantly more than other personal costs. Since 1978, the average cost of a college education has increased 1,120%, almost double the rate of medical care costs and more than five times the rate of inflation since 1978. This is of particular concern for the professions in the PBS Sector. These firms need highly educated graduates for maintaining their workforce and to replace retiring baby boomers.

Education and Health Services

The Education and Health Services Supersector includes private-sector educational and health care companies and organizations. Nearly 88% of industry employment is comprised of Health Care and Social Assistance, while 12% is related to private education. Education and Health Care added 8,100 jobs in 2012, with growth of 3%. While Educational Services recorded the higher growth rate (4.5%), the sheer size of the health care sector lent to overall robust growth. Employment is expected to see continued growth of 2.7% in 2013, ending the year with 289,100 jobs.

Educational Services (Private)

In 2011, private-sector educational services consisted of 2,321 organizations and 33,500 employees. This includes educational institutions that can be classified as private not-for-profit, private for-profit, religious exempt, and private occupational, as well as private companies delivering training and development and other ancillary and support services.

Public education is detailed in the state and local government section of this book. Public elementary and secondary educators are in local government; public higher education is in state government.

Employment numbers for the private education sector for 2012 were volatile, demonstrating the seasonal impacts of the industry. The effect of several factors will result in 2012 final employment increasing by 1,500 jobs, to 35,000. Growth will continue into 2013, with 800 more jobs added for the year.

Positive Employment Growth Factors

The education sector has a tendency to be countercyclical relative to the economy; the growth in this sector during the last two economic downturns supports this theory. A report by the Babson Survey Research Group (BSRG) in 2011 revealed the following:

- Nearly one-half of private-sector colleges and universities report that the economic downturn increased demand for face-to-face courses and programs.
- Three-quarters of private-sector colleges and universities have seen increased demand for online courses and programs due to the economic downturn.
- Nearly three-quarters of private-sector institutions report increases in the number of applications for financial aid, but the rate is lower than at other types of institutions.
- Nearly one-half of private-sector institutions report their budgets have increased year-over-year, a higher rate than reported by other types of institutions.

A September 2012 report (Equity Research, *Education and Training*) from BMO Capital Markets Corporation (BMO) indicated that growth in for-profit education revenues had slowed but is expected to increase at a compound annual rate of 4.1% per year over the next five years.

Concerns that May Limit Employment Growth

- The *Denver Post* reported (October 17, 2012) that the University of Phoenix, one of the larger private-sector employers in Colorado, was closing 115 brick-and-mortar campuses nationwide and that 5 of those are in Colorado. These are 5 of their smallest campuses, and the closings will occur over time, with impacts spread out over 2013 and 2014.
- BSRG describes the environment as a "disruptive" one, with pressure on higher education to cut costs, and thus decrease employment. Technology is widely believed to be the key to doing so. Online programs and other educational supporting software systems will play an important role, providing efficiencies that will allow schools to grow while maintaining cost levels.
- Changes in federal regulations in 2010 created an uneven playing field, putting the for-profits at a disadvantage. The environment is one where "private-sector colleges and universities expect greater potential for negative impact from the new rulings, with one-third saying the new rulings will have a negative impact on their enrollments" (BSRG 2011).
- The uncertainty in the current environment is constraining most spending and decision making, limiting growth, and in some cases, continuing to put downward pressure on spending (BMO 2012).

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Education and Health Services

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While revenue growth is expected to continue, businesses in this sector will also face increasing cost challenges due to the economy and legislative pressures. Business can be expected to increasingly rely on technologies that provide efficiencies to keep costs, and employment, to a minimum.

Description of the Private Education Sector

The state's private postsecondary institutions account for approximately one-third of all postsecondary enrollments. The largest employers in the private education services subsector come from private postsecondary education. Among Colorado's largest private nonprofit schools are the University of Denver, Regis College, and Colorado College. The University of Phoenix remains the largest for-profit institution.

The for-profit sector has been the fastest-growing group in the education sector. Contributions to Colorado's employment growth have come from many schools, including Arizona-based University of Phoenix, which has locations in Colorado; Jones International University, a 100% online university founded and based in Colorado; and the recent newcomer to Colorado, Bridgepoint Education's Ashford University.

The employment growth in the private education sector is driven by both business demand or continuing education programs and consumer demand for training that improves quality of life. In the corporate and business sector, skill development of employees through learning curricula continues to play a critical role in developing competitive competencies of businesses, especially in the high-tech and consulting arenas. Corporations consider reinvestment in their employees a required business development function. Furthermore, certification within specific industries drives both corporate and consumer consumption of learning in order to remain competitive.

Ancillary and support services in the education area include businesses such as Education Support Management (ESM, a Xerox company). ESM has become the premier provider of admissions support for the education industry, employing more than 800 people.

Online learning delivery continues to be an integral component of every educational offering, even within the traditional K–12 sector. Colorado is home to paraeducation organizations such as Pearson Learning Technologies Group (LTG), located primarily in Colorado, which doubled in size in 2012 and looks to continue a strong hiring trend in 2013. Other software businesses in the learning and education delivery sector in Colorado include Disney's Kerpoof and Knowledge Factor. As education companies like this continue to create more content, learning technologies, and educational analytics opportunities, Colorado is positioned to be a strong player in eLearning.

Education is on the precipice of significant transformation and reform. As scholars such as Christensen, Johnson, and Horn explain, "by 2019, 50% of all high school classes will be taken online" (2008, *Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns*). This kind of heavy reliance on technology both requires more strategic thought specific to pedagogy, as well as instructional design, but also provides tremendous opportunities for data-driven education. When this "big-data" can provide at-risk reports on behaviors such as dropped classes within a week of course starts, an understanding of how students learn best, and the development of courses that are tailored to student needs in real-time, personalized learning is very close becoming reality. Add to this more connection tools (such as Google Glasses), better learning technologies (like Head Magnet, a software that helps a student remember), gamified content that allows for better metrics and motivation, and faster bandwidth, many believe that the next education revolution is just around the corner.

One such possible disruptive innovation that could drive the revolution is the development of Massive Open Online Courses (MOOCs), which are bringing content from the most prestigious universities (Harvard, MIT, Stanford) through such new businesses as Coursera, EdX, Udacity, and iTunes U. MOOCs are being discussed and strategized at almost every higher education institution, both private and public. The idea of tens, if not hundreds, of thousands of students taking online courses could prove to be a change agent as the next iteration of MOOCs is created. Some ideas for this new model include a global experience with a local flavor, which means the inclusion of local faculty, regardless of whether the course is created at Harvard or Colorado State. However, the business model is not yet clear, nor is the possible impact on employment levels.

Colorado has the potential to continue to expand its presence and play in the online digitization and gamification of education given the state's high-tech innovation community and its history and engagement in private education.

Health Services

Colorado has not been immune to the nation's recent economic downturn, sometimes referred to as the Great Recession. Yet, health care employment has grown each year, regardless of the factors driving other economic sectors as it reflects a demand for services that is less elastic than other economic goods and services. In fact, the Health Care and Social Assistance Sector has grown at nearly twice the rate of total employment in Colorado since 1990. Now, the sector comprises 1-in-12 jobs in Colorado and contributes 6.1% of Colorado's GDP. The sector is expected to end 2012 with 246,500 jobs, or 2.8% growth over 2011. Growth will continue at 2.8% in 2013, adding 6,800 jobs. Continued growth in this sector is expected based on four trends: an aging population, a population that increasingly suffers from obesity and chronic diseases, an expansion of persons eligible to receive health insurance as a result of state and federal expansions, and a realignment of the delivery systems.

The Health Care Environment

Passage of the Patient Protection and Affordable Care Act (PPACA) in 2010 created an environment of disruptive innovation in the health care sector unlike any since the landmark passage of the Medicare and Medicaid legislation in 1966. Untold changes (both anticipated and unanticipated) to the delivery and financing systems for both public and private sectors will impact access, delivery systems, and cost of care. But will it impact the workforce? And if so, how?

Even before passage of the PPACA, shortages in the health care workforce and increases in the demand for health care services were hallmarks of this sector report each year. Workforce changes over the next decade will predominantly reflect these underlying demand factors more than any directives to workforce in the PPACA legislation. The training timeline for new practitioners is slow and will not necessarily be more reactive to newly eligible consumers in 2014.

If the PPACA provisions are largely unchanged as a result of the November election, implementation of the existing act will have broad implications to the U.S. workforce in many other ways. For example, deferred rates of retirement have been cited as one reason that the supply of health care professionals, particularly nurses and doctors, has not diminished as quickly as forecasted. Beginning in 2014, many sectors may well be influenced by the number of persons who now retire as the economy becomes stronger, investment portfolios recover,

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COLORADO EDUCATION AND HEALTH SERVICES EMPLOYMENT
2004–2013
(In Thousands)

Year	Educational Services	Health Care and Social Assistance	Total
2004	26.1	192.4	218.5
2005	27.5	197.1	224.6
2006	28.6	202.6	231.2
2007	29.6	210.9	240.4
2008	30.6	219.9	250.5
2009	31.3	226.0	257.2
2010	32.3	232.4	264.7
2011[a]	33.5	239.9	273.4
2012[b]	35.0	246.5	281.5
2013[c]	35.8	253.3	289.1

[a]Revised. [b]Estimated. [c]Forecast.

Note: Due to rounding, the sum of the individual sectors may not equal the total.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Education and Health Services

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and the PPACA guarantees issuance of health insurance to all applicants regardless of preexisting medical conditions. Another broad economic impact will be to employer costs of labor for retail, hospitality, and seasonal workers as the PPACA will mandate "pay or play" insurance coverage for workers who work more than 30 hours per week. Many employers in these sectors have not provided health insurance coverage in the past. Two divergent scenarios may emerge: either many of these employers will reduce hours for part-time workers and will need to increase the number of persons employed, or they may offer insurance coverage to these workers and may employ fewer persons as the cost of labor is now greater.

The Health Care Workforce

One way to define the health care workforce is the "primary care" practitioners. This workforce includes primary care physicians; physician assistants (PAs); and advanced practice nurses (APNs), such as nurse practitioners (NPs). They render direct care in noninstitutional settings. Of the licensed and active physicians in Colorado, it is estimated that around 3,262 physicians practice primary care in the state (29%), along with 995 NPs (65%) and 785 PAs (43%) (Colorado Health Institute, "A Half Million Newly Insured: Is Colorado Ready? An Analysis of Primary Care Workforce Needs After Health Care Reform").

The Colorado Health Institute estimates that Colorado will need approximately 83–141 new physicians, NPs, and PAs in 2016 to meet the increased primary care needs of the estimated nearly 510,000 Coloradans who will become newly insured through the PPACA rules.

Colorado, like most states, has an uneven distribution of primary care providers, who tend to be more plentiful in urban and resort areas. Approximately one-third of Colorado physicians are expected to reach retirement age in the next 10 years.

Nurses and Physician Assistants

Registered nurses (RNs) work in a wide range of clinical settings and make up the largest professional degree category in the health care sector—RNs alone hold almost four times as many jobs as physicians, according to the Bureau of Labor Statistics (*Occupational Outlook Handbook*, 2010–11 ed.). While the RN category is one of the occupations expected to experience significant growth in the future, the current workforce is also aging. In 2008, approximately one-third of RNs were at or near retirement age (55 years of age or older). Forecasts of the timing and extent of an RN shortage vary, but recent national supply and demand analyses predict a deficiency beginning in 2018 that could grow to a shortage of about 260,000 RNs by 2025 (Buerhaus, Auerbach, and Staiger [2009], "The Recent Surge in Nurse Employment: Causes and Implications," *Health Affairs* online, 28 [4]). In spite of this predicted shortage, the recent recession appears to have caused a temporary reduction in the number of available RN vacancies, perhaps due to cuts to nursing staff and delayed retirements.

The NP category is the fastest growing of the primary care provider occupations nationally, but, like physicians and RNs, they are aging as well. Almost 40% of NPs are 55 or older. In contrast, nearly half of the population received their education in the last 10 years, likely associated with the growing popularity of this occupation.

Other Direct Care Providers

Besides nurses, the majority of other employment in the health care workforce is comprised of direct care providers: namely medical assistants, nursing assistants, home health aides, and personal care aides. Nationally, these professions account for one of the largest and fastest-growing segments of the economy. The growth rate for direct care workers is forecast to grow by 35% by 2018. Provisions of the PPACA include grants to states for training, recruitment, and retention, as well as new databases to track employment and other workforce issues.

A Personal Care Attendants Workforce Advisory Panel has been established to advise the Congress about the needed numbers of workers, salary and benefits, and access to services.

According to the Paraprofessional Healthcare Institute, the current Colorado direct care workforce is approximately 44,000 workers. The estimates shown in the table on page 80 for each occupation may heavily undercount independent providers hired directly by households. In Colorado, from 2009 to 2019, the demand for personal care aide and nursing aide positions is expected to climb by 44% and 22%, respectively. Direct care workers employed in home and community-based settings are a growing segment of Colorado's workforce in both size and significance.

Health care support occupations include such allied health jobs as radiology technologists, laboratory technicians, and respiratory technicians, among others. Many of the persons trained in these fields are trained in Colorado community colleges. In fact, 6,860 (about 52%) of all associate degrees conferred in 2010–11 were health care related. The colleges are projecting growth in these occupations to be 34.5% between 2010 and 2020.

HEALTH CARE AND SOCIAL ASSISTANCE EMPLOYMENT, 2004–2013
(In Thousands)

Year	Ambulatory Care	Hospitals	Nursing Care	Social Assistance	Total[a]
2004	78.7	48.1	34.3	31.3	192.4
2005	80.7	49.1	35.1	32.3	197.1
2006	83.1	50.1	35.7	33.7	202.6
2007	86.7	52.0	36.5	35.6	210.9
2008	90.5	53.7	37.7	38.0	219.9
2009	93.3	54.9	39.1	38.7	226.0
2010	96.8	55.7	39.3	40.5	232.4
2011	101.1	56.2	40.2	42.3	239.9
2012[b]	105.4	56.9	41.0	43.2	246.5
2013[c]	109.8	57.8	41.8	43.9	253.3

[a]Due to rounding, the sum of the individual items may not equal the total.

[b]Estimated. [c]Forecast.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Employment by Hospitals and Community Health Clinics

Hospitals employ a highly diverse workforce consisting of individuals with a broad spectrum of education background and skill level. *Examining the Impacts of Hospitals on Colorado's Economy,* published by the Regional Economics Institute at Colorado State University and the Colorado Hospital Association in 2011, notes that Colorado's general medical and surgical hospitals employed approximately 71,700 workers in 2010. According to the same report, statewide hospital employment has grown an average of 3% annually since 2007.

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In the current environment, recruitment and retention of the right composition of health care professionals is key to building an efficient and effective health care delivery system. Workforce recruitment will need to address personnel shortages in sectors defined by practice type, as well as by geography, in order to ensure adequate coverage of rural areas. More than half of Colorado's hospitals are in rural or "frontier" counties. In 13 of Colorado's counties, health care sector employment, mostly driven by hospitals, ranges from one in six jobs to one in four jobs.

There are 15 community health clinics in more than 130 locations in Colorado. In 2011, they served about 500,000 patients and anticipate assisting even more when coverage expansion occurs in 2014. To assist these new patients, they have announced that they will try to add about 5,000 new positions to the current employment of 3,300 persons.

2011 COLORADO DIRECT CARE WORKFORCE

Occupation	Total Employment
Nursing Aides, Orderlies, and Attendants	18,370
Home Health Aides	13,710
Personal Care Aides	12,090
Total[a]	44,170

[a]Excludes independent providers. Data are not available.

Sources: PHI National and Bureau of Labor Statistics, Occupational Employment Statistics.

Training the Future Workforce

Colorado has a number of professional schools for training health care providers, and two of the largest education providers are located in metropolitan Denver (although the physical address is Aurora). The University of Colorado Denver (CU Denver) is an academic medical center (AMC). AMCs offer training programs, research, and patient-care delivery options, such as inpatient and outpatient care services. Currently, the University of Colorado Medical School graduates approximately 140 medical students per year. In addition, CU Denver has schools for dental medicine, nursing, pharmacy, and public health. Other professionals, including dieticians, dental hygienists, physical therapists, and physician assistants, are also trained at the Aurora campus. Regis University has schools of nursing, pharmacy, and physical therapy, along with health care ethics and health-science administration departments. Rocky Vista University College of Osteopathic Medicine opened its doors in Parker in 2008 and is expecting its first graduating class of about 38 physicians in 2012. The University of Denver is exploring the feasibility of opening a medical school, and an additional training venue by the university in an adjunct school in Colorado Springs is also contemplated.

A large number of qualified nursing school applicants are turned away every year as the number and size of nursing programs do not keep pace with demand. In the 2008–09 academic year, Colorado's nursing schools declined more than 3,500 qualified applications due to limited institutional capacity. The average age of Colorado's nurse faculty is 50; by the 2014–15 academic year, nursing education programs can expect at least one-quarter of their current faculty will have retired. This also affects the opportunities for clinical rotations. In the 2008–09 academic year, 20 clinical rotations were canceled due to an inability to fill instructor positions. (Data in this paragraph from the Colorado Health Institute [April 2011], "2009–10 Colorado Nurse Faculty Supply and Demand Study: Survey Findings.")

COLORADO CHILDREN'S HEALTH PLAN *PLUS* AND MEDICAID CASELOAD 2007–2013

Year	Caseload[a]
FY 2007-08	451,327
FY 2008-09	500,329
FY 2009-10	568,475
FY 2010-11	628,788
FY 2011-12	692,896
FY 2012-13[b]	756,375

[a]Medicaid and Children's Health Plan Plus combined. [b]Forecast.

Source: Colorado Joint Budget Committee FY 2012-13 appropriations report.

Health Care Reform

Key provisions of the PPACA include:

- An expansion of Medicaid eligibility to all individuals and families with incomes up to 133% of the federal poverty level (FPL) (note that this is an option for the state to adopt or not);

- Insurance reforms that include prohibiting the denial of insurance for individuals with preexisting health conditions;
- Incentives for small employers to provide affordable health insurance to their employees and penalties for large employers who do not;
- An individual mandate that requires most citizens and legal residents to obtain health insurance and penalties for those who do not;
- A state-based health insurance exchange that will serve as a marketplace for businesses and consumers to review, compare, and purchase health insurance; and
- Subsidies to help individuals and families with incomes between 134% and 400% of FPL purchase insurance on the state health insurance exchange. These subsidies will limit family expenditures for health insurance premiums to between 2% and 9.5% of taxable income.

Based on full implementation of federal and state policy changes, an analysis conducted by Dr. Jonathan Gruber for the Colorado Health Benefit Exchange estimated that, in 2016, a total of 510,000 of the nearly 900,000 uninsured Coloradans will be insured once state and federal policy changes are fully implemented. Around 130,000 of the newly insured Coloradans will enroll in public programs, while 380,000 newly insured are likely to gain access in the private market.

Enrollment in Public Programs

Enrollment in the state's public insurance programs—Medicaid and the Child Health Plan *Plus* (CHP+)—rose by approximately 53% between FY 2007–08 and FY 2011–12. The Colorado Department of Health Care Policy and Financing (HCPF) projected that the Medicaid and CHP+ combined caseload would reach almost 700,000 Coloradans by the end of FY 2011–12.

Reasons for this growth include:

- The weak economic environment has fostered record enrollment in Colorado's Medicaid and CHP+ programs as families whose income has declined have often found themselves or their children newly eligible for public programs;
- Nonprofit organizations and the Ritter administration developed outreach activities aimed at promoting public awareness of the Medicaid program and implemented a number of programmatic changes to streamline enrollment in the last two years;
- The expansion of the Colorado Medicaid program in 2009; and

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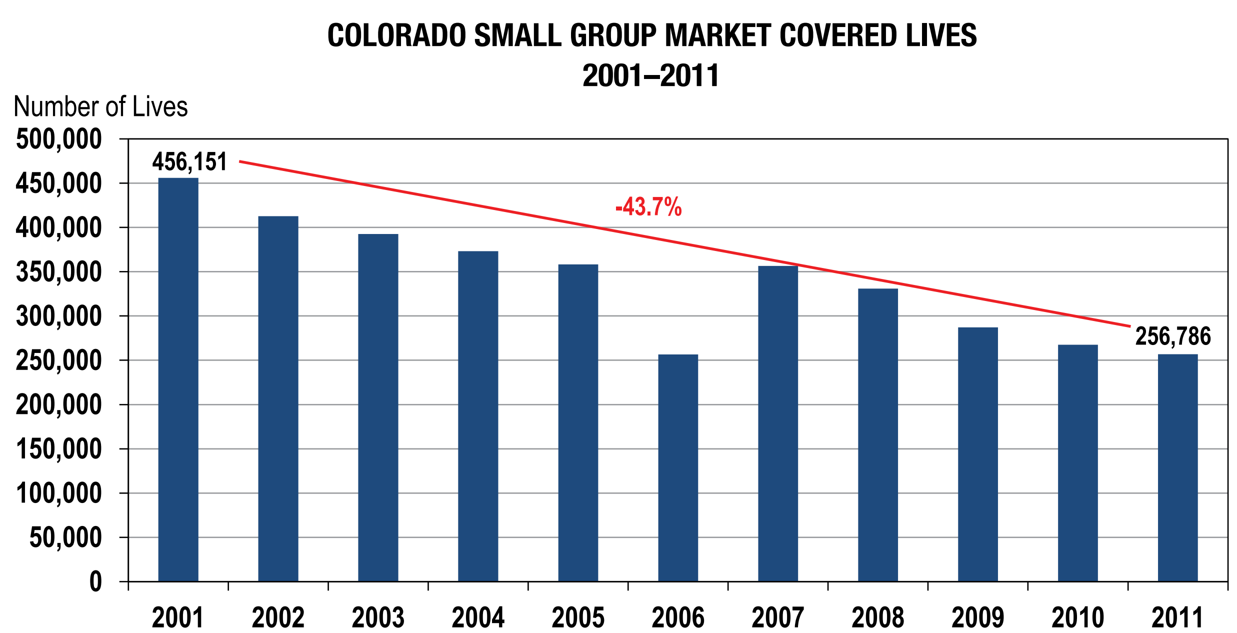
- In 2010, provisions of the Colorado Health Care Affordability Act (HB09-1293) began to be phased in, increasing the number of children and parents eligible for Medicaid and CHP+.

Continued Erosion of Employee Wages from Premium Increases

According to a recent study in *Health Affairs*, the annual income for a family of four in the United States from 1999 to 2009 increased from $76,000 to $99,000 (adjusted). However, all of this revenue amounts to an increase of only about $95 per month as the remainder was entirely offset by spending on health care (Auerbach and Kellermann [September 2011], "A Decade of Health Care Cost Growth has Wiped Out Real Income Gains for an Average U.S. Family," *Health Affairs*, 30). The component costs were reflected in growth in premiums (from $490 to $1,115), out-of-pocket spending on health care (from $135 to $235), and health care related taxes ($345 to $440). If health care inflation had tracked with the rate of general inflation, the family would have had $545 additional income per month.



Source: Colorado Department of Regulatory Affairs, 2011 Colorado Small Group Market Activity Report.

Continued Erosion of Coverage by Private Insurers

A slow economic recovery means that 8% of Coloradans continued to be without work as of September 2012, compared to 8.2% at the same time in 2011. Not reflected in this percentage are Coloradans who are not considered part of the labor force because they may have become discouraged and ceased looking for employment. The loss of jobs is associated with the loss of employer-sponsored health insurance (ESI) as the number of Coloradans (and their dependents) covered by ESI dropped from 57.3% in 2009 to 55.4% in 2010 (U.S. Census Bureau, "American Factfinder: Table B27004: Employer-based Health Insurance," 2009 and 2010 American Community Survey).

In addition to workers who lost their jobs (and thus lost their coverage) are those whose firms may have decided to drop coverage for employees because of increasing health care costs. Between 2008 and 2010, the percentage of working Coloradans covered by ESI dropped 1.8 percentage points, a statistically significant decrease that mirrors the national trend. Many employers are finding it increasingly difficult to keep up with the escalating costs of covering their employees. Between 2008 and 2010, health insurance premiums among private-sector workers enrolled in their employer's plan rose 7.6% on average for an individual and 12.1% for a family. In 2010, the average cost of an employer-sponsored policy in Colorado was $4,630 for an individual and $13,393 for a family, but costs are higher for small group coverage (U.S. Department of Health and Human

Services, "Medical Expenditure Panel Survey: Tables X.C and X.D: Premium distributions [in dollars] for private-sector employees enrolled in individual/family coverage by State, United States, 2008 and 2010").

Colorado Small Group Market

The impact of rising health care costs on small group (50 or fewer employees) employers remains especially challenging. The 2011 Colorado Division of Insurance's survey of the small group market reports that the number of individuals (covered lives) able to receive health plan coverage by their small group employer has decreased 52% since 2000. This decline continues to signal the difficulty small businesses have with the availability of coverage due to costs.

The number of covered lives continues to decrease 4% from 2010 (267,411 to 256,786). This is a slower decline than years past. Not surprising, the number of small group employers participating has also dropped by 7% from 2010 (33,734) to 2011 (31,524). Small businesses that offer health insurance continue to reduce their health care costs by shifting to multi-option plans and increasing premium contributions to their employees. In a reversal from prior years, a larger number of small businesses with 6–50 employees offer insurance, while businesses with fewer than 5 employees that offer insurance continues to decline. It is estimated that 30% of small group employers in 2011 had coverage terminated due to nonpayment of premiums.

Eight insurance carriers out of the current 14 cover at least 1,500 lives in the small group market. The top 3 carriers have an 83% market share or 211,000 covered lives, a 3-point percentage gain over 2010 despite an increase of less than 1,000 covered lives from 2010. They are UnitedHealthCare Insurance (82,136 lives), Kaiser Foundation Health Plan (70,727 lives), and Anthem Blue Cross Blue Shield (58,011 lives).

Small group employers surveyed by the Colorado Division of Insurance suggest that 60% of small businesses shop for insurance every year and continue to see a decrease in the number of affordable health care options (May 2011, *Colorado Small Group Market Activity and Rating Flexibility Report)*. Small group employers rank price, benefits, and co-pays and deductibles as the most important features when selecting a carrier and plan design.

Provisions in the PPACA call for states to establish a Small Business Health Options Program, referred to as a "SHOP Exchange," beginning in 2014. Through the Colorado State Exchange, small group employers will have the opportunity to purchase high-quality, affordable insurance plans. Plans offered in the state exchange must include a minimum set of health care services and products called essential health benefits (EHB). These EHB cover 10 categories of services. Insurers have the opportunity to limit scope and duration of these services but must eliminate annual or lifetime dollar limits.

... [a] survey of the small group market reports that the number of individuals (covered lives) able to receive health plan coverage by their small group employer has decreased 52% since 2000.

The Colorado State Exchange will compete with insurance offered in the outside market. It is anticipated that a well-designed and implemented state exchange marketplace will provide small group employers premium relief through pooling of small businesses buying power, portability of health coverage to reduce employee recruitment barriers, ease of comparative shopping, and the reduction of administrating health benefits.

Industry Trends

The industry is undergoing a number of changes in Colorado. Hospitals have consolidated ownership, such as the $1.4 billion buyout by the HCA-HealthONE Hospitals of the 40% stake owned by the Colorado Health Foundation. Mergers, under the form of operating agreements, have been concluded between the University of Colorado Hospital and the Poudre Health System and Memorial Hospital in Colorado Springs. In addition, hospitals have been acquiring physician practices in a manner reminiscent of the activity in the early 1990s. Physician practices are continuing to be acquired by hospital systems, including Poudre Health System, Exempla, and Centura.

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Part of these changes have been linked to the PPACA legislation. A key tenant of health reform is reducing growth in federal health care spending. Reductions will be in the form of lower payments, as well as in changes in the way health care providers are paid. In addition, the Budget Control Act of 2011 will likely result in additional cuts to Medicare spending and could possibly result in cuts in federal contributions to state Medicaid plans as well. Medicare and Medicaid patients account for nearly 50% of hospital volumes and 30% of hospital net revenue. Clearly, reductions in Medicare and Medicaid spending will have a significant impact on Colorado's hospitals in coming years.

Incentives will be offered for good outcomes and disincentives for adverse outcomes. There will be no payment for "rework" (e.g., excessive readmissions, hospital acquired infections, or certain medication errors). Hospitals will be required to better coordinate with all providers involved in patient care, including physicians, post-acute care providers, and home health providers, for example, to ensure optimal outcomes for acute care episodes. Consequently, hospitals are looking at a number of strategies to better coordinate care, eliminate avoidable complications, increase efficiencies, and reduce costs.

Multiplier Effect and Driver of Employment and Dollars in Other Sectors of the Colorado Economy

Examining the Impacts of Hospitals on Colorado's Economy notes that in 2009 hospitals accounted for $9.8 billion in output, which represents about 2% of the state's total output. Taking into account that the economic activity of hospitals contributes to economic activity in other sectors of the economy (the multiplier effect), the report notes that hospitals directly and indirectly generate $18.8 billion in output, which translates into 133,100 jobs with average employee compensation of slightly more than $55,700.

Over the past few years, construction of new hospitals had been one bright spot in the otherwise ailing Construction Sector. Exempla Healthcare has nearly completed a $623 million renovation project to replace its aging St. Joseph Hospital on the old Children's Hospital site. Glenwood Springs is also completing a new expansion featuring a new 160,000-square-foot, $29 million expansion that includes an updated cancer center, as well as new emergency, radiology, and family birthplace departments. Other health care facilities, such as the $18 million Gardens on Quail Street in Arvada, are being built to serve patients with Alzheimer's and other memory impairing conditions. Construction at the Castle Rock Adventist Health Campus, the St. Anthony Medical Buildings (in Lakewood), expansion of the Boulder Community Hospital, a new Rangely District Hospital, and a major new Kaiser facility are all in various stages of planning and build-out.

Significant information technology investment within and on behalf of the health care sector is occurring with the development of the Colorado Healthcare Benefits Exchange. It is an electronic "marketplace" where individuals and small businesses will be able to access and purchase health insurance. The State of Colorado received federal funding of nearly $1 million in 2010 to facilitate the planning of the Colorado Exchange. The exchange was awarded a $17.9 million grant in February 2012 from the U.S. Department of Health and Human Services (HHS) to support planning activities, including the initial acquisition of technology services to begin building the online shopping portal. In August, the exchange applied for a second grant of $43 million to support technology development, staff, and operations between October 2012 and July 2013. HHS approved that grant on September 27, 2012. The exchange will request additional grant support to fund activities after July 2013 through the initial phase of operation. The exchange is required to be self-financing in 2015.

Controlling health care costs and finding value in health care will be of increasing interest for policymakers as state and national health reform represents a significant increase in coverage among uninsured Americans. Moreover, having health insurance does not guarantee that an individual will have *access* to needed health care. The health care sector is expected to continue adding workers to meet this demand.

Leisure and Hospitality

Overview

This section reviews trends in key sectors that are the primary economic drivers of tourism in Colorado: conventions and meetings, hotels, restaurants, gaming, ski, and outdoor recreation. The analysis discusses the infrastructure, events, and marketing activities that have shaped the industry over 2012 and looks ahead to the challenges and opportunities that will steer future growth. The Leisure and Hospitality Supersector includes performing arts, entertainment, sports, recreation, accommodations, and food services used by Colorado residents, tourists, and business travelers.

The tourism industry is a vital economic generator for the United States. Without the $118 billion in tax revenue generated annually, each domestic household would pay $1,000 more in taxes. In Colorado, tourism also plays a pivotal role in the state's economy. Tourism is the second-largest industry in Colorado and supports more than 137,000 jobs across the state. In 2011, Colorado attracted a record 57.9 million visitors for an economic impact of $15.9 billion in spending. Visitors to Colorado pay approximately $879 million a year in taxes, which saves every Colorado household from paying an additional tax burden of approximately $458 a year.

The Leisure and Hospitality industry accounts for more than 12% of employment in Colorado. The industry was one of the first to add jobs following the recession. The industry added 7,700 jobs in 2012. The 2013 forecast calls for 5,000 additional jobs, mostly in the Accommodation and Food Services Sector.

National Trends in the Tourism Industry

During the Global Tourism Outlook Conference sponsored by the Travel and Tourism Research Association in late October 2012, Adam Sacks of Tourism Economics stated that in spite of the health of the national economy, soft recovery, looming U.S. fiscal cliff, eurozone financial issues, and sovereign debt problems, there are seven reasons for being cautiously optimistic about U.S. tourism industry growth in 2013:

- Cash position—currently 12% of GDP is held in cash,
- Housing is showing signs of improvement,
- The price of money is at an all-time low,
- Labor market indicators are strong,
- U.S. competitiveness is improving and is now the best in more than 30 years,
- Emerging markets will drive global growth, and
- The travel industry has been a star performer in the recovery.

Consequently, Tourism Economics is forecasting 2.1% growth in 2012 and slower growth of 1.6% in 2013. Other tourism experts expressed similar views, forecasting flat growth in 2013, limited to 1%–2%. Domestic leisure travel is expected to increase nationwide by only 1.5% in 2012 and

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LEISURE AND HOSPITALITY EMPLOYMENT 2004–2013 (In Thousands)

Year	Arts, Entertainment, and Recreation	Accommodation	Food Services	Total Accommodation and Food Services[a]	Total Leisure and Hospitality[a]
2004	42.2	39.1	170.0	209.1	251.3
2005	43.3	39.8	174.4	214.2	257.5
2006	44.1	41.1	179.8	220.9	264.9
2007	44.6	41.7	184.1	225.8	270.4
2008	45.7	42.3	184.9	227.3	272.9
2009	44.6	39.9	178.0	217.9	262.4
2010	44.7	39.5	178.8	218.3	263.0
2011	45.6	41.2	184.6	225.7	271.3
2012[b]	47.0	43.9	188.1	232.0	279.0
2013[c]	47.9	45.7	190.4	236.1	284.0

[a]Due to rounding, the sum of the individual items may not equal the total. [b]Estimated. [c]Forecast.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Leisure and Hospitality

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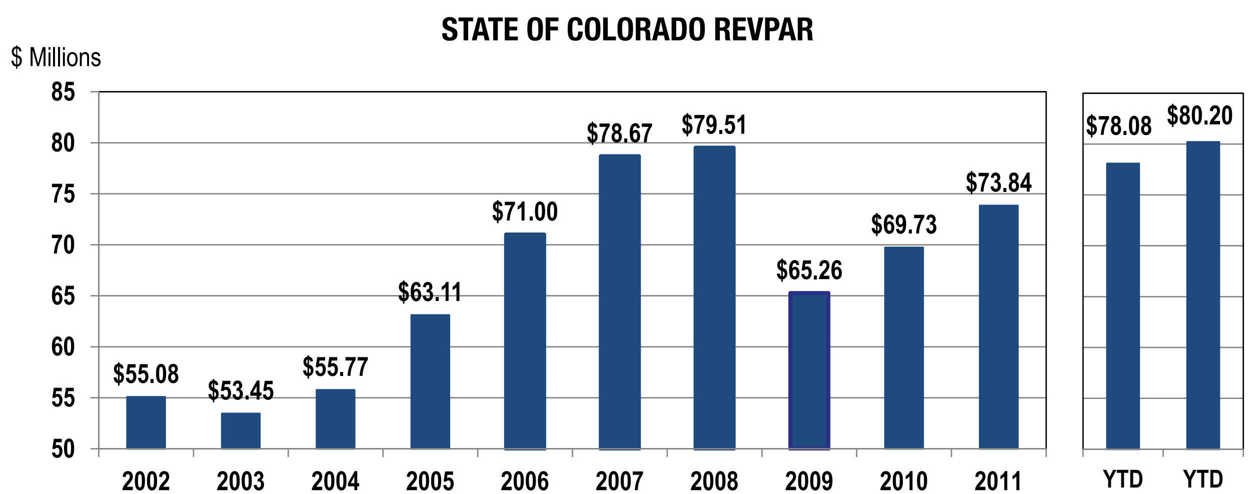
1.8% in 2013. Mark Brown of the U.S. Office of Travel and Tourism Industries reported international tourism is one of the bright spots. International visitor forecasts show 2012 is expected to record a 5.4% increase in visitors over 2011, and 2013 is anticipated to increase 4.7% over 2012. These projections are all subject to change given the ongoing uncertainty among consumers and the volatility of the global economy.

The national and statewide hotel economies continue to recover from the dark days of 2008 and 2009, concurrent with the ongoing national economic recovery. In the global environment, the U.S. recovery has been dragged down by issues in southern Europe and China, which have hurt international tourism, but the in-shore recovery has enabled the hotel business to recover at encouraging rates.

Colorado's hotel business has historically lagged the nation. However, Colorado's revenue per available room (RevPAR), calculated by multiplying a hotel's average daily room rate by its occupancy rate (an indicator of total hotel revenues) has consistently outperformed the nation with a significant assistance from high average rates in the state's resorts. The chart on this page shows the long-term trend in RevPAR.

National and local projections indicate that hotel demand will continue climbing, although at more humble rates than in 2010 through 2012. Hotel supply growth will continue at rates of less than 1% annually, primarily due to market uncertainty. The good news is that as occupancies climb to more respectable levels, discounted groups booked in the low occupancy years clear the ledgers, and hopefully better snowfall hits the resorts, opportunities for strong average rate growth will develop. The expected rate growth will be aided by several emerging trends, including more rapid traveler growth in upper income demographics and an increasing tendency for travelers to pay for quality.



Source: Rocky Mountain Lodging Report.

Colorado Tourism Overview

Colorado's tourism industry is cautiously optimistic about the economic outlook for 2013. Despite challenges in 2012—extreme weather conditions resulting in a poor ski season and fires along the Front Range, and a sluggish economy—Colorado's tourism industry has navigated these hardships and has succeeded in building infrastructure to grow the industry. Below is a brief summary of opportunities for Colorado tourism that bode well for the state's economy and industry growth.

- International Flight Expansion:
  - Icelandair is surpassing its projections for load capacity and is expanding its flights from four to six nonstops weekly.
  - Beginning December 8, 2012, Volaris Air will be running two weekly nonstops from Denver International Airport (DIA) to Mexico City, which should have a positive impact on travel numbers from Mexico. On March 31, 2013, United will begin daily nonstops to Tokyo from Denver. It is anticipated that this flight will provide a funnel directly into Colorado from all of Asia and have a positive effect on leisure travel numbers.
- *International Visitors and Brand USA:* The State Department has been working to reduce

obstacles to travelers into the United States from several countries, most notably China and Brazil. These actions, in concert with the international marketing being undertaken by the new Brand USA, should benefit foreign travel into the United States, and Colorado is expected to get its share of this increase.

- *Ski Industry Recovery:* As Colorado approaches the winter ski season, the ski industry is experiencing slow season-pass sales, which may reflect consumer reluctance to purchase passes after last year's poor snow season. The ski industry does not feel that consumers are having an adverse reaction to pricing due to the state of the economy. Furthermore, the ski industry is also optimistic about the 2012–13 ski season as Colorado has never had two back-to-back winters of record-low snowfall. If the season's snowfall proves to be average, the industry should experience a flat trend line, and if snowfall is above average, the industry may fare better.
- *Forest Fires*: The 2012 forest fires in Colorado affected visitation numbers in cities north and south of Denver. The quick action of the response teams and the high weather temperatures across the country may have avoided longer-term negative impacts on Denver and Colorado's appeal as a summer vacation destination.
- *New Colorado Advertising Campaign:* In April, the Colorado Tourism Office (CTO, the official marketing entity for tourism in Colorado) rolled out a new ad campaign, "Come to Life."

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COLORADO LODGING AND HOSPITALITY FORECASTS

	2012			2013		
	Occupancy	Average Daily Rate	RevPAR	Occupancy	Average Daily Rate	RevPAR
Denver Metro Area						
Downtown	71%	$147.50	$104.17	71%	$151.19	$107.34
Airport/East	66%	81.50	53.72	66%	83.54	55.13
West	62%	86.50	53.88	63%	90.83	57.22
North	65%	85.50	55.47	65%	88.49	57.52
South	67%	86.25	58.08	68%	89.70	60.55
Subtotal	67%	102.17	68.28	67%	105.36	70.69
Percentage Change	*2.0%*	*2.3%*	*4.3%*	*0.4%*	*3.1%*	*3.5%*
Total Colorado Springs	57%	95.80	54.14	57%	97.24	55.43
Percentage Change	*-2.5%*	*0.7%*	*-1.8%*	*0.9%*	*1.5%*	*2.4%*
Resorts						
Vail/Beaver Creek	53%	285.00	152.02	54%	296.40	158.57
Aspen/Snowmass	51%	287.00	147.37	52%	301.35	155.20
Steamboat Springs	51%	114.00	57.93	51%	115.71	59.01
Other	51%	167.50	84.76	51%	175.88	89.70
Subtotal	51%	212.66	109.50	52%	221.91	114.85
Percentage Change	*4.3%*	*4.6%*	*9.1%*	*0.5%*	*4.3%*	*4.9%*
Other Colorado Cities						
Boulder/Longmont	65%	121.25	78.52	65%	126.10	81.97
Fort Collins/Loveland	58%	90.50	52.75	59%	95.48	55.85
Durango	57%	109.00	62.42	58%	110.64	63.62
Glenwood Springs	54%	89.25	48.19	55%	92.37	50.34
Grand Junction	57%	80.25	46.11	58%	81.86	47.07
Other Colorado areas	57%	90.81	51.95	57%	94.29	54.07
Colorado Total	59.7%	$112.50	$67.19	60%	$116.44	$69.86
Percentage Change	*2.4%*	*3.1%*	*5.5%*	*0.5%*	*3.5%*	*4.0%*

Sources: STR Analytics (www.STRanalytics.com), and Colorado Business Economic Outlook Committee.

Leisure and Hospitality

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Early research indicates that the campaign is being well-received in the primary markets of Dallas, Chicago, and Phoenix. Though some local areas in the state were affected by wildfires at the peak of their seasons, those were relatively isolated instances, and overall, most mountain areas of the state were reporting double-digit increases in reservations and occupancy. The CTO cannot determine if this is attributable to its ad campaign or the summer heat wave that gripped the nation. Cool mountain breezes sounded pretty good to Midwesterners when the thermometer hit a record-high of 107 degrees in St. Louis in July. The CTO believes visitor growth is attributed to both the heat wave and the “hot ads” about Colorado hitting the Midwest and South.

The CTO is optimistic that the travel numbers in Colorado will continue to set record numbers in the summer of 2013. Gasoline prices and wildfires may dampen this prediction, but absent those elements, the CTO has a positive outlook about the 2013 summer travel season in Colorado, given the rising visibility of the state as an attractive travel destination.

Tourism and Conventions in Denver

Denver set all new tourism records in 2011, with a record 13.2 million overnight visitors, up 4% over 12.7 million in 2010. The increase came from marketable visitors (up 4%) and business travelers (up 17%). (Marketable visitors are those who could travel anywhere and are influenced by marketing and chose to visit Denver.) The number of people visiting friends and relatives in Denver in 2011 was flat compared to 2010. Both business travelers and marketable visitors spend more money per day than all other visitor segments.

Tourism spending in Denver also set a record with $3.3 billion spent by overnight visitors, up 10% from the $3 billion in 2010. The strong gain was attributable largely to the increased number of marketable visitors and business travelers. This was the seventh-straight year that Denver has seen an increase in marketable visitors, which are the number one target area of all the bureau’s tourism marketing efforts. Tourism supports nearly 50,000 jobs in the Denver Metro area.

It appears that 2012 is again poised to be one of the stronger years for Denver’s convention and tourism industry, built on the momentum achieved in the record-breaking 2011. According to Smith Travel Research (STR), Denver has been one of the top cities in the nation for increased RevPAR for the metro hotel market going into and coming out of the recession, and is now settling in with more modest annual growth. The positive performance of Denver’s tourism industry and potential for growth in 2013 is directly reflected in positive trends in RevPAR and lodger’s tax, conventions/events, and Denver’s hotel supply.

According to the September–November 2011 edition of PKF and STR Analytics (www.STRanalytics.com) projections, Denver occupancy in 2012 was expected to rise by 2.2%, with a 7.4% increase in RevPAR. This is slower than the 7.6% and 10.4% RevPAR growth coming out of the recession in 2011 and 2010, respectively. Through three quarters of 2012, RevPAR growth in Denver is currently 4.2% compared to the national average of 6.9%, and is forecasted to end the year up approximately 6.8%. According to PKF and STR Analytics, 2013 occupancy gains will be just under 1%, with continued average daily rate (ADR) growth of 7.8% and ending the year with an 8.5% RevPAR growth.

Denver lodger's tax collection for the first three quarters of 2012 rose more than 3% relative to the corresponding period in 2011. In 2011, Denver saw a record hotel total tax collection of $76.9 million, up 13% from 2010. Some of the increase can be attributed to new hotel supply. Adding to the growth in overall hotel tax collections in 2011 was the fact that downtown Denver's RevPAR and occupancy and average room rates all registered increases in 2011 over 2010, setting the best numbers since 2008.

Challenges in Denver's Tourism Industry

- *Gasoline Prices*—Gasoline prices continued to fluctuate in 2012. Since Denver is one of the most isolated cities in North America, gasoline prices have a big effect on tourism.
- *Increasingly Competitive Tourism Market*—Globalism has increased destination choices. Today, Denver does not just compete with San Diego for visitors, it competes with Tuscany, South Africa, and every far corner of the globe. Vacation time continues to shrink as Americans have officially become the hardest-working industrial nation on earth, spending more time on the job and taking less vacation than any other major nation. Travel has become more difficult due to heightened security, the reduced number of flights, and new airline restrictions. The average time a tourist spends in Denver fell from 4 nights in 2010 to 3.3 nights in 2011, matching the national average. Again, it will take more visitors just to maintain the same economic impact in 2013.
- *Market Cannibalization*—Throughout 2011 and early 2012, Gaylord hotels had received tax incentive offers of $878 million over 30 years from Aurora and the State of Colorado. While its planned reorganization makes it unlikely the company will go ahead with building a 1,500-room hotel with half the convention and meeting space of the Colorado Convention Center, some studies show that if this hotel is built, it will have a negative impact on existing Denver hotels and convention business.
- *Amendment 64: Legalization of Marijuana*—In November 2012, Colorado passed Amendment 64, which changes the Colorado Constitution to allow adults over 21 years of age to possess up to an ounce of marijuana for recreational use. The potential implications of this law on Denver's tourism environment are largely uncertain as the amendment conflicts directly with federal law and could be challenged in the U.S. Supreme Court. Denver's tourism industry will monitor Amendment 64 as it is vetted by state and federal authorities and will work to mitigate any negative impact the law may have on Denver's brand and visitors' experience.

Opportunities for Denver's Tourism Industry

There were many encouraging developments in 2012 and several are on tap for 2013 that will position Denver well.

- DIA is actively working to increase international air service. Denver currently enjoys nonstop service to numerous destinations in Canada and Mexico/Central America, as well as daily flights to London, England; Frankfurt, Germany; and Reykjavík, Iceland. Icelandair, with connecting service to more than 20 European cities, began year-round, nonstop service from Denver to Reykjavik in May 2012. In addition, Volaris is starting nonstop flights between Denver and Mexico City in December 2012, and daily direct service to Tokyo will start with United in March 2013.
- DIA's passenger traffic continued to grow in 2011, making it the busiest year in the airport's 17-year history. More than 52.8 million passengers traveled through Denver in 2011, a 1.7% increase over the 52 million passengers in 2010. It is the 4th-consecutive year that more than 50 million passengers have traveled through Denver annually.
- DIA's year-to-date traffic total is essentially flat in 2012, with 35.8 million passengers traveling through the airport through August, a 0.1% increase over the same timeframe in 2011.
- DIA remains the 5th-busiest airport in the U.S. and 11th-busiest in the world, with nearly 1,700

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daily nonstops to more than 175 worldwide destinations and serving the 3rd-most destinations of U.S. airports.

- DIA's South Terminal Redevelopment Program will transform the airport into an intermodal transportation hub. When completed in 2016, the program's three major elements—rail access to downtown Denver's Union Station, an on-site Westin Hotel, and an outdoor plaza—will elevate DIA to one of the world's premier airports.
- Additional positive press was garnered by DIA, which was named the nation's best airport for the 7th-consecutive year by *Business Traveler* magazine. Average domestic airfares to Denver decreased 21.5% from 2000–11, the 4th-largest decrease in the nation, according to a U.S. Bureau of Transportation Report released April 2012.
- The West Rail Line a 12.1-mile light rail transit corridor between Denver Union Station and Golden is scheduled for completion in April 2013. The West Rail Line travels through a series of parks in Denver on the east end of the alignment to the Jefferson County Government Center on the western end of the project.
- Blockbuster shows, including *Becoming Van Gogh* and *Yves Saint Laurent: The Retrospective* at the Denver Art Museum; *A Day in Pompeii* at the Denver Museum of Nature & Science; the 100th anniversary of the Titanic sinking at the Molly Brown House Museum; *Kizuna: West Meets East* at the Denver Botanic Gardens; and many others give Denver a temporary tourism boost, especially in regional tourism.
- Toyota Elephant Passage at the Denver Zoo opened June 2012. The Denver Zoo's new $50 million Toyota Elephant Passage is a landmark exhibit that occupies 10 acres on the southern edge of the zoo, making it the largest new exhibit in the zoo's 100-year history. In June 2012, Denver Zoo achieved LEED Platinum certification, the highest level, from the U.S. Green Building Certification Institute for the construction of the Toyota Elephant Passage. The passage is the first large animal exhibit complex in the country to achieve the certification.
- Down the street from the recently opened Clyfford Still Museum, the new $100 million History Colorado Center opened April 2012. Visitors enter by walking on a gigantic map of Colorado, where they can push a Jules Verne-like time machine that tells the history of various towns in the state as the machine is placed over "hot spots" on the floor. Colorado's colorful history, from 10,000 years ago to the present, comes to life in this fully interactive museum.
- The Wild Walkway at the Wild Animal Sanctuary opened May 2012. The 720-acre Wild Animal Sanctuary is the largest carnivore sanctuary in the Western Hemisphere, with more than 290 lions, tigers, bears, and wolves, including 70 tigers and some 30 lions that were recently rescued from circuses in Bolivia.
- The American Museum of Western Art opened in May 2012, fresh on the heels of the opening of the Clyfford Still Museum. Housed in the historic Navarre building, the museum showcases the extraordinary Anschutz Collection—more than 650 paintings and drawings by over 180 artists spanning 200 years of American history.
- The first presidential debate was held at the University of Denver on October 3, 2012. This was the first presidential debate held in Colorado and the only debate held west of the Mississippi River in 2012. Once again, Denver was on the world stage as approximately 3,000 national and international media were in attendance. Nearly 60 million viewers watched the debate, giving the Mile High City great exposure.
- Denver successfully hosted the NCAA Women's Final Four basketball championship in 2012, increasing the city's reputation of hosting world-class sporting events. Denver will host the women's golf Solheim Cup in 2013 and the Men's Lacrosse World Championships in July 2014, bringing the world spotlight to the city.
- The USA Pro Cycling Challenge held its second successful professional cycling event that drew more than 1 million fans and produced $99.6 million of economic impact to the state in August 2012. For seven consecutive days, 135 of the world's top athletes raced 683-miles, through 12 Colorado towns and across the majestic Rockies, reaching higher altitudes than any race in history. As a virtual postcard for Colorado, the 2012 race received 25 hours of national television coverage on NBC and Versus, in addition to airing in more than 160 countries and territories internationally.

Denver Hotel Supply

Denver recently opened nearly 800 new hotel rooms in downtown, including a 403-room Embassy Suites; 239-room Four Seasons, and a 150-room Springhill Suites by Marriott on the Metropolitan State University of Denver campus. This hotel is part of the university's hospitality program, making it one of only ten hotel training centers in the nation and the only one in an urban setting.

More hotels are set to open in 2012 and beyond. Among them are:

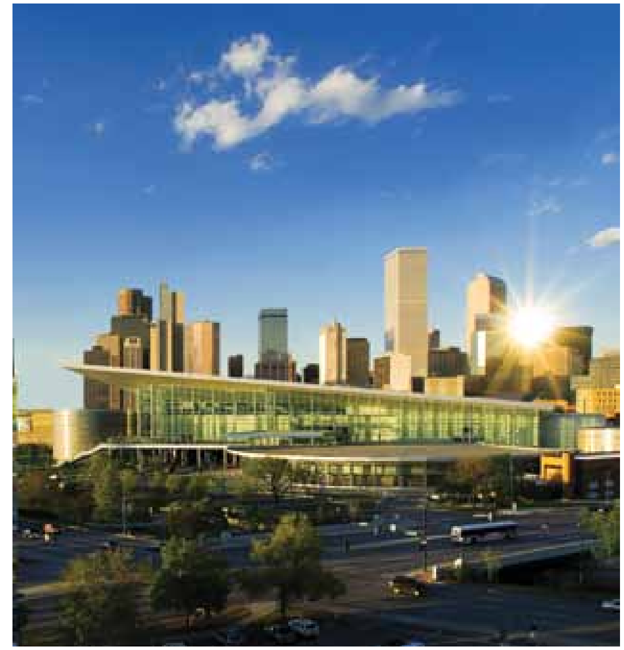
- A 302-room Homewood Suites/Hampton Inn and Suites is scheduled to open in May 2013 in downtown Denver.
- A 230-room Marriott Renaissance will open in late 2013 in the former Colorado National Bank Building. Built in 1915, the building is one of the most beautiful and historic in downtown Denver.
- A 130-room hotel will be built as part of the Union Station redevelopment. The hotel, set to open in spring of 2014, will be affiliated with the Oxford Hotel across the street. The station is being transformed to house shopping and restaurants, and will serve as a transportation hub for light rail coming from the south (already in place), from the west (opening in April 2013), and from DIA (opening in 2016).
- A 500-room Westin Hotel is under construction to open in 2015 as part of the South Concourse of DIA. The hotel will have its own commuter rail station, making it just 35 minutes from downtown Denver by train.

Denver's Convention Industry

With economic growth less than robust in 2012, meeting planners are settling in to what they believe to be the new normal. According to the March 2012 Professional Convention Management Association (PCMA) 21st Annual Meetings Market Survey, expectations for 2012 were more tepid than a year earlier. Planners projected smaller increases in both budgets and attendance. The majority of meeting professionals said that they expect no change in 2013.

National competition for meeting business is fierce as more cities expand their convention centers, build new hotels, and offer competitive rates in an attempt to attract a meetings market that is stagnant and has seen no growth in a decade. Anaheim, Baltimore, San Diego, Los Angeles, San Jose, Miami, Nashville, and Boston are either planning or have center expansions underway. Philadelphia, Phoenix, and Indianapolis have opened new expansions in the last 18 months. There has also been a recent increase in 1,000-plus-room headquarter hotels being built in Dallas, San Antonio, San Diego, Indianapolis, Las Vegas, Houston, Boston, Austin, and Phoenix. These additions only heighten competition in an already inventory-heavy convention market.

According to the Center for Exhibition Industry Research (CEIR) Census Study, 2000–2010 is being termed the "lost decade" since the demand side remained relatively flat during this period.



CEIR quotes that since the demand side remained relatively flat during the period, the gains made by new facilities came at the expense of existing facilities. On a positive note for Denver, the CEIR Census Study indicates that the city is getting its market share as it ranks 13th in the country for the number of exhibitions, tied with Boston.

The 2012 convention calendar was very strong and is on pace to be Denver's 4th-best year, just behind 2008, 2010, and 2011:

- In 2012, a total of 93 groups used the Colorado Convention Center, 13% more than 2011. However, the groups were smaller in size, representing 10% less total room nights and

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approximately the same number of delegates. The total number of center and noncenter business in 2012 was 562 meetings, representing 369,527 delegates, generating $647.3 million of direct economic impact. Currently, convention center business for 2013 is tracking 7% higher than 2012.

- Future demand continues to look encouraging. In 2012, hotel and nonconvention center groups booked into future years by VISIT DENVER added another 496 meetings with more than 282,965 delegates, contributing over $478 million in direct economic impact to the city.
- Denver continued to win accolades in 2012 as customers ranked the city in the top echelon as a meeting destination, according to the most recent Watkins and the Metropoll studies. Both independent biennial studies report on planners' perceptions regarding 46 cities and convention bureaus and about important industry topics as perceived by meeting planners.
  - The Metropoll results, which include both corporate and association meeting planners who organize large national meetings for 300 people or more, showed that Denver has moved from being ranked as the 14th-best convention destination in the nation four years ago to the 5th-best.
  - The Watkins survey of 730 citywide participants, representing 650 unique companies and/or associations, is one of the most prestigious and respected meeting planner studies in the nation. In the study, Denver ranked as the 4th-best convention city out of all 46 cities based on total scores for all questions. Denver was also one of only two cities to rank in the top ten cities in all six study areas: hotels, great all around convention city, safe and secure, superior convention facilities, easy accessibility within the city, and superior convention and visitor bureau (CVB).

Denver's Marketing Campaign Highlights Destinations and Events

In 2012, VISIT DENVER launched a $3 million consumer advertising campaign marketing the Mile High City as a summer tourism destination. Built around the theme, "Truth or Dare Denver," the new campaign and website introduces visitors to aspects of Denver they may not know. The integrated marketing campaign uses television, magazine, newspaper, radio, billboard, transit, and Internet advertising, pairing "truths" about Denver, facts about the city already well-known, with an equal number of "dares," facets of the city that are less familiar, giving visitors a new perspective on the Mile High City.

In 2013, VISIT DENVER will use a combination of destination appeal (brand), major attractions, short-term exhibits/holiday weekends, and value messages to appeal to visitors. Denver's tourism amenities will continue to appeal to visitors with the new Toyota Elephant Passage at the Denver Zoo and History Colorado Center, both of which opened in 2012. A variety of major exhibitions will also generate strong interest in Denver, including exhibitions by Georgia O'Keeffe and Nick Cave at the Denver Art Museum; the *Mammoths & Mastodons* exhibit, and the *Mythbusters: The Explosive Exhibit* at the Denver Museum of Nature & Science; and the world premier of *Sense & Sensibility: The Musical* at Denver Center for Performing Arts. Arts and culture will also be on display at Denver Day of Rock over Memorial Day weekend, while the Biennial of the Americas will present the art and ideas of the Western Hemisphere from July through October. Finally, Denver's sports culture will be featured during the running of the unique Colfax Marathon, the Rock n' Roll Marathon, the Solheim Cup (international women's professional golf), and the third USA Pro Cycling Challenge professional cycling race.

VISIT DENVER's Denver Restaurant Week celebrates the Mile High City's increasingly popular and sophisticated dining culture. The event in 2012 was again the largest in the nation, with 339 participating restaurants that served a record 404,400 meals, up 12% over the 360,480 total meals served a year earlier.

Tourism continued strong in 2012, with many accolades in support of Denver's brand as a young, active city at the base of the Rocky Mountains.

- *Food + Wine* magazine recognized Denver as one of the healthiest cities to visit in the nation
- MSN.com ranked Denver the No. 6 best city in America
- *USA Today* named Denver the No. 2 top beer city in the world (behind Munich)

- Sherman's Travel placed Denver as one of the top 10 cities for cycling
- CBS News ranked Denver No. 5 in its "best city to stay young" list
- *Forbes* named Lower Highlands (LoHi) as "one of America's Hippest Hipster Neighborhoods"
- The Huffington Post and Jetsetter.com stated that Denver is the No. 6 destination in the world to visit in 2012

Destination Marketing Organizations across Colorado

The destinations around Colorado are made up of micro-climates and micro-economies that are marketed by CVBs, chambers of commerce, and resort associations that are generally referred to as destination marketing organizations (DMOs).

Tourism Industry Association of Colorado (TIAC): TIAC is a nonprofit association of Colorado tourism-related organizations and associations uniting diverse segments of the industry into one unified voice. Its membership includes associations representing restaurants, lodging, dude ranches, bureaus, the gaming industry, the ski industry, outdoor and cultural attractions, retail, river outfitters, campgrounds, and others. TIAC relies on these associations and organizations to take its message and spread it to thousands of businesses across the state, all with an interest in a vibrant tourism industry.

The Colorado Association of Destination Marketing Organizations (CADMO): CADMO is a statewide membership association designed to foster the growth of the convention and tourism industry in Colorado by cooperating in the exchange of useful information between members, increasing awareness of legislative action, developing unifying public relations activities, providing valuable educational opportunities, and maintaining high standards of professionalism and expertise.

The Mission of DMOs

DMOs sell to groups year-round and plan regional events to promote tourism activity in their destinations. These groups can be meeting planners, sports and event competitions, or bus tour groups. Other DMOs around the state are destination tourism towns, focusing on developing a strong summer event-calendar, then marketing the events to draw visitors to their destination.

DMO Funding

There are several DMO funding models and no two are exactly alike. Some DMOs are funded by city sales taxes; others are a mixture of sales taxes and membership. One has a strong membership and receives city sales taxes for specific services provided. The City of Boulder reported that in 2012, its budget was almost doubled due to a hotel tax increase in 2010. The funds are being used for more group sales efforts.

Many cities rely on city sales taxes, and the cities that have proven a strong return on investment have continued to receive the committed funding. A few destinations found that during the recent recession cities in their area needed to use tourism-related dollars to pay for critical services.

Many destinations reported in 2012 that hotel occupancies rose or held steady and hotel room rates experienced a solid increase. In 2012, forest fires affected occupancy rates in Colorado Springs, Estes Park, and Fort Collins. DMOs launched additional advertising programs to combat the negative impact of the press coverage of the fires.

In 2013, it is expected that DMOs will continue to ratchet-up their events and marketing efforts to drive visitors to their destinations. Grand Junction and Vail, for example, reported they are adding additional summer events and capitalizing on keystone community events. A strong public relations and social media message will be consistent from Boulder, Grand Junction and Colorado Springs. Buying traditional print media will remain part of the marketing strategy for many destinations. The economy remains a concern for those destinations that are not gateway cities, and DMOs play an important role in offsetting economic lag in rural areas.

Casinos and Gaming

Colorado's casino and gaming industry experienced marginal growth through late 2011 and 2012 due to the continuing economic recession, the residual impact of the 2008 casino-wide smoking ban, and a market saturation in the three gaming towns that has resulted in cannibalization of existing markets rather than growth of new gaming patrons. The Black Hawk and Central City markets have seen slight growth due to new

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casinos opening in Central City and Ameristar's Hotel and Spa. Recent changes in ownership for the Riviera Casino, Fitzgeralds Casino and Mardi Gras, and Golden Gates and Golden Gulch Casinos will result in various remodeling and renovation activity that may also reinvigorate the Black Hawk market. The Cripple Creek market has been flat since 2002, and the Wildwood Casino's opening in 2009 did not increase the Cripple Creek gaming market as originally anticipated. The Cripple Creek gaming market was also negatively impacted by the Waldo Canyon fire during the summer of 2012, with an estimated a loss of $1.8 million in gross gaming revenue. During calendar years 2008–11, the industry experienced an average of $6.3 million in collective losses.

Nonetheless, since the industry is taxed on gross revenues rather than net revenues, the industry continues to honor its commitment to the recipients of gaming tax revenues, such as the state's historic preservation program and the community college network, which both continue to receive significant revenues. These gaming tax revenues help bolster their budgets and maintain their commitments to preserving Colorado landmarks, as well as assuring students a quality higher education. The gaming tax also continues to fund the entire tourism promotion budget for the CTO, which in previous years has been an average of $15 million, but most recently has been reduced to $13 million due to the state's budget shortfall.

For the fiscal year (FY) ending in June 2012, Colorado casino adjusted gross proceeds (AGP), which is defined as the amount wagered by bettors less payout from the casinos, were $759.6 million and gaming taxes paid to the state were $102.1 million. This reflects an increase of 0.7% in AGP over the FY 2011 AGP of $754.1 million and a 2.5% decline in gaming taxes over the FY 2011 taxes of $104.8 million.

Black Hawk continues to dominate the Colorado casino sector with 18 casinos, approximately 8,600 gaming devices, and about 73% of the industry's AGP. Cripple Creek has 15 casinos, roughly 4,000 gaming devices, and 18% of AGP, while Central City has 8 casinos, 2,400 devices, and about 9% of AGP.

Although the gaming industry experienced a very modest recovery from the recession, it remains threatened by the Colorado legislature's continued attempts to expand gaming to the Front Range of Colorado by authorizing video lottery terminals, keno machines, or instant racing machines at racetracks and other locations. In addition, the U.S. Department of Interior has relaxed its rules regarding off-reservation gaming, which may generate interest among tribes without recognized reservations in Colorado to "reservation shop" for casino ventures in Colorado. Currently, developers are considering Native American gaming ventures in both Dinosaur and Hayden, Colorado. However, several major hurdles must be met at the federal level before these projects can proceed. In

COLORADO CASINOS
2004–2013 CALENDAR YEAR

Year	Colorado Casinos Open	Colorado Devices (000s)	Adjusted Gross Proceeds[a] (In Millions) Black Hawk	Central City	Cripple Creek	Total[b]
2004	45	15.7	$524.0	$53.2	$148.7	$725.9
2005	47	16.4	531.9	72.6	151.0	755.5
2006	46	17.1	554.5	74.5	153.1	646.1
2007	43	16.8	581.4	79.8	155.0	816.1
2008	41	16.8	514.8	66.5	140.9	722.2
2009	40	16.1	530.0	64.3	140.4	734.7
2010	39	15.4	559.4	65.7	134.4	759.6
2011	39	14.7	550.9	67.8	131.4	750.1
2012[c]	37	14.4	556.1	72.1	131.3	759.6
2013[d]	37	14.4	559.1	69.6	132.5	761.2

[a]AGP calculated on an annual basis, hence different from the state fiscal year. [b]Due to rounding, the sum of the individual AGPs may not equal the total. [c]Estimated. [d]Forecast. Sources: Colorado Division of Gaming and Colorado Business Economic Outlook Committee.

addition, the industry's annual polling on these types of gaming expansions continue to reflect that 75% of state voters oppose casinos located outside the historic towns of Black Hawk, Central City, and Cripple Creek. The Internet gaming debate continues at the federal level and may impact the brick and mortar casinos depending on what form iGaming takes in future congressional action.

Colorado Restaurant Industry Outlook

Driven by the continued economic recovery and consumers' pent-up demand for the food, service, and social oasis outlet that restaurants provide, Colorado's restaurant industry is projected to expand in 2013. According to the National Restaurant Association's Restaurant Industry forecast, total restaurant-industry sales in Colorado are projected to surpass $9 billion in 2013.

To be successful in today's challenging and competitive business environment, restaurant operators need to understand what motivates consumers to choose one restaurant over another. Even during good economic times, one size does not fit all. Restaurant operators are well aware that they have to tailor their food, service, and marketing to the kind of consumer they want to reach.

Today's restaurant customers are hungry for the latest trends and eager to test their knowledge about food and beverages. Restaurateurs who update their menus to reflect the latest taste sensations—while keeping their regulars happy—will have an edge over their competitors.

Nine out of 10 operators in both full-service and limited-service segments said their customers are more knowledgeable and sophisticated about food and beverages than ever, prompting restaurateurs to incorporate new items. According to the National Restaurant Association's 2013 restaurant trends survey, 9 out of 10 restaurant operators said they added new food and beverage items in 2012 and a similar proportion plan to do so in 2013.

The top-10 menu trends for 2012 were locally sourced meats and seafood, locally grown produce, healthy kids' meals, hyper-local items, sustainability as a culinary theme, children's nutrition as a culinary theme, gluten-free/food-allergy-conscious items, locally produced wine and beer, sustainable seafood, and whole-grain items in kids' meals.

Regardless of the economic challenges and their impact on restaurant behavior in the current environment, the most positive news is that the vast majority of consumers across all categories have positive feelings about the restaurant industry. According the National Restaurant Association's 2012 national household survey, 93% of adults said they enjoy going to restaurants.

Tourism is an important driver of business across all of the major restaurant segments in the nation. According to the National Restaurant Association's 2011 restaurant trends survey, travelers and tourists represent an average of 30% of sales for fine-dining operators, approximately 24% of sales for family-dining and casual-dining operators, and about 15% of sales for quick-service and fast-casual operators.

The good news for restaurant operators is that international tourism to the United States hit a record high in 2012, and is expected to continue growing in the years ahead. The Office of Travel and Tourism Industries within the U.S. Department of Commerce expects more than 4% annual growth in international visitors during the next several years, which would result in more than 76 million international visitors to the United States by 2016.

Looking ahead to 2013, the continued growth in the restaurant industry will be fueled by an improving economic environment in Colorado. Jobs give households the income necessary to boost restaurant spending, and they also create the need for convenience that the restaurant industry provides in their daily lives.

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Parks and Outdoor Recreation

Colorado has a renowned outdoor recreation system that includes four premier national parks, five national monuments, a national historic site, and a national recreation area. Rocky Mountain National Park, Mesa Verde National Park, the Great Sand Dunes National Park and Preserve, and the Black Canyon of the Gunnison National Park anchor Colorado's outdoor recreation system, and receive more than 5 million visitors annually. In 2010, national parks around the United States had an overall economic impact of roughly 260,000 jobs, $9.8 billion in labor income, and $16.6 billion in value added. Colorado, specifically, enjoyed nearly $300 million in spending from nonlocal visitors, which directly supported more than 6,000 jobs in the state. In 2012, visits to Colorado's national parks are estimated to exceed 5.9 million, and an increase of 2.1%, to 6 million visitors, is forecast for 2013.

The state's outdoor recreation system also includes national forests and Bureau of Land Management lands; state, county, and city parks; and open-space areas. Historically, these areas have attracted more visitors than the state's national parks, bringing in more than 11 million visitors each year.

As the economy recovers, the outdoor recreation industry will continue to benefit from consumers' interest in finding affordable ways to relax and spend time with family. Outdoor recreation visitation in Colorado is thus poised for small, positive growth in 2013.

COLORADO NATIONAL PARK SERVICE VISITS
2004–2013
(In Thousands)

Parks	2004	2005	2006	2007	2008	2009	2010	2011	2012[a]	2013[b]
Bent's Old Fort NHS	31.0	27.8	26.5	24.0	25.0	28.1	29.1	26.8	25.0	25.3
Sand Creek Massacre NHS[c]	--	--	--	--	--	--	4.1	3.9	4.0	4.1
Black Canyon of the Gunnison NP	175.6	180.8	160.5	219.6	160.2	171.5	176.3	168.3	178.4	182.0
Colorado NM	352.6	347.1	332.7	395.3	391.0	400.3	433.6	435.5	476.9	486.5
Curecanti NRA	1,006.1	882.8	936.4	964.6	1,007.4	953.2	969.5	924.5	864.7	873.3
Dinosaur NM[d]	240.7	266.8	206.1	170.9	201.7	203.9	197.8	213.6	306.2	297.0
Florissant Fossil Beds NM	61.3	59.5	56.1	56.0	57.0	64.3	65.4	61.3	62.8	64.3
Great Sand Dunes NP	267.2	279.6	258.7	285.1	273.9	290.0	283.3	280.1	253.5	229.4
Hovenweep NM[d]	11.8	11.7	11.6	11.6	25.4	27.9	27.4	25.9	26.7	27.6
Mesa Verde NP	446.8	498.3	557.2	541.1	551.4	550.4	559.7	572.3	475.3	527.5
Rocky Mountain NP	2,781.9	2,798.4	2,743.7	2,895.4	2,757.4	2,822.3	2,955.8	3,176.9	3,253.1	3,331.0
Total Visitors to Parks and Sites[e]	5,375.0	5,352.8	5,289.5	5,563.6	5,450.5	5,511.6	5,702.1	5,889.1	5,926.4	6,047.9

[a]Estimated. [b]Forecast. [c]Sand Creek Massacre NHS was dedicated as an official park unit in April 2007. [d]Dinosaur NM and Hovenweep NM cross into Utah, but the number of visitors reported in this table is only for the Colorado portion of the parks. [e]Due to rounding, the sum of the individual items may not equal the total. Note: Yucca House National Monument does not report visitations, therefore it is not included. Definition: NHS = national historic site, NP = national park, NM = national monument, and NRA = national recreation area. Sources: National Park Service Visitor Use Statistics and Colorado Business Economic Outlook Committee.

Skiing Industry

After an excellent 2010-11 ski season driven by heavy snowfall in Colorado, the ski industry expected that the 2011–12 season would be even better. However, snowfalls were significantly lower than anticipated and skier visits fell 9.8%. Skier visits totaled 11.01 million, down about 1.2 million from the 12.2 million visits recorded in 2010-11.

Colorado's Western Slope experienced its third-driest and seventh-warmest winter in records going back to 1895. Precipitation on the Western Slope in the 2011–12 season was 43% below average and down every month of the winter. In Colorado, March 2012 was the driest in more than 100 years and the second-warmest March on record. Melanie Mills, president and CEO of Colorado Ski Country USA (CSCUSA), notes, "Fortunately, seasons such as the 2011–12 have proved to be historically rare and the ski industry has exhibited a remarkable ability to bounce back after poor snow years in the past."

Colorado fared better than the nation as the National Ski Areas Association announced U.S. ski areas recorded an estimated 51 million skier and snowboarder visits during the 2011–12 season, down 15.7%. Thus, the U.S. ski industry experienced its most challenging season in 2011–12 since 1991–92, when 50.8 million visits were recorded. Nationally, the 2011–12 season was the worst showing in more than 20 years and the first time that skier visits fell in every snow region of the country.

Colorado is the gold-standard for destination ski resort experiences, and Colorado resorts are continually making improvements to deliver the best experience. For the 2012–13 ski season, CSCUSA resorts are dedicated to maintaining Colorado as the top ski vacation destination, including exceeding guest expectations for services, amenities, and resort facilities. Resorts are enhancing their profiles for the 2012–13 season, adding new infrastructure components that will make visitors' time on the slopes more efficient and rewarding. Improved snowmaking and maintenance at a number of resorts is calculated to enhance skiing and riding, while developments, such as new restaurants, increased terrain, and additional built-in activities, will supplement the overall guest experience. These capabilities, along with numerous other additions and renovations, will usher in a new era of guest service and maintain Colorado's position as the nation's leading state for winter activities.

COLORADO SKIER VISITS
2003–2013
(In Millions)

Season	Total
2003-04	11.25
2004-05	11.81
2005-06	12.53
2006-07	12.56
2007-08	12.54
2008-09	11.85
2009-10	11.85
2010-11	12.20
2011-12[a]	11.01
2012-13[b]	11.64

[a]Revised. [b]Forecast.

Sources: Colorado Ski Country USA and Colorado Business Economic Outlook Committee.

The ski resorts have done their part to ensure a successful season. Now it is up to Mother Nature to provide abundant snow conditions. With good snowfall, 2012–13 skier visits should bounce back from the previous season's levels. It is projected that resorts will recover more than half of the visits lost in 2011–12, resulting in a forecast of 11.64 million skier visits for the 2012–13 season.

Mountain Lodging

The mountain lodging subsector of Leisure and Hospitality will see a 1%–2% gain in occupancy and a 1%–2% increase in rates for 2013. A demand increase is expected in peak season, and a good snow season could drive demand even higher. If 2012 was dominated by any single issue, it was the weather. The lowest snow totals in Colorado history kept skiers at home and demand sunk across all sectors. The greatest challenge to the mountain lodging subsector is the lack of total demand in the state as a result of the recession and many years of inventory growth.

Looking at a stratified market—budget, mid-level, and luxury—the budget, or discounted, products are leading increases in occupancy as buyer search for "deals" across all markets. This deal shopping mentality is affecting the entire market bottom-up. Mid-market providers must drop their rates

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Leisure and Hospitality

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to compete for the buyers in the budget category in an effort to increase occupancy. Meanwhile, the luxury brands are lowering rates to grab market share by taking it from the mid-level properties. This squeezing of the mid-level puts strong downward pressure on the overall market and makes raising rates very difficult.

Looking to 2013, buyers are reacting to 2012's low snow totals by sitting on the sidelines, waiting for a better indication of the snow situation. This "wait and see mentality" is contributing to an already short booking window and putting even greater pressure on lodging to discount further.

Despite the pricing pressures across the market, the volume in the luxury segment has increased. This strengthens the committee's belief that the luxury products will lead a "top down" recovery in the mountain lodging segment. As the overall economy recovers, financial institutions, incentive programs, and individual incomes are growing. This is starting to create a stable market where rates are increasing as demand is filling the available inventory. A continued increase in the luxury sector will take pricing pressure off the mid-market and eventually normal market conditions will return.

Ongoing Challenges for Colorado's Tourism Industry

Colorado's tourism industry faces several threats to its long-term growth and stability. Unpredictable challenges—natural disasters, public tragedies, adverse legislation, an increasingly competitive international tourism market and other

events—require the industry to be flexible and work collectively to mitigate the impact on Colorado's viability in the international tourism market. While Colorado's tourism industry cannot predict the new challenges it will face in a given year, it is tracking a number of unresolved issues that pose an ongoing threat to the industry's ability to grow and strengthen the state's economy:

- *Funding for the CTO*: Each year, the budget for the CTO must be approved by the Joint Budget Committee (JBC) and the Colorado General Assembly. Under the pressure of budget shortfalls, the JBC has been forced to decrease state tourism funding, and under some circumstances have attempted to eliminate the tourism budget entirely. Although Colorado's tourism industry has successfully demonstrated the positive ROI for tourism funding to the state legislature, the industry is at risk every year of losing marketing dollars that help keep Colorado as a competitive tourism destination.
- *Perception of Colorado as a Safe and Desirable Destination*: Over the last two years, Colorado has received critical media coverage around tragedies, social issues, natural disasters, and controversial legislation. From forest fires and the heart-breaking Aurora tragedy to questions about homelessness on the 16th Street Mall, Colorado's image as a safe and attractive destination may be adversely affected by media coverage. Colorado's tourism industry must be diligent in promoting the state's best attributes and defending its reputation as an attractive destination that offers access to the beautiful Rocky Mountains, as well as a strong culture, arts, restaurant, and sports scene for all ages.
- *Avoidance of Lodger's Tax by Online Travel Companies*: A national trend has emerged among some online travel companies (OTC) that is becoming troubling to municipalities across the country. Several OTCs are avoiding full payment of lodger's tax to municipalities through online bookings. This practice is diverting millions of dollars in tax revenues from local governments and has set-off a rash of lawsuits across the country against several OTCs. The City and County of Denver is currently embroiled in one such legal action. In some cases, municipalities have succeeded in their legal action, forcing OTCs to settle the outstanding taxes. The success of some municipalities to recover these revenues through a legal remedy has pushed OTCs to seek a lodger's tax loophole through Congressional action in recent years. Though OTCs have not been successful in driving loophole legislation in Congress as of late 2012, Colorado's tourism industry will continue to monitor this issue in the event that future legislation surfaces.

Other Services

The Other Services Supersector comprises establishments that provide services not specifically categorized elsewhere in the classification system. As a result, the three sectors under this category are highly fragmented and diverse. Car washes, beauty salons, religious organizations, funeral homes, grantmaking foundations, and labor unions are some examples of the type of industries in this supersector. Industry growth is influenced by the demography of the population and disposable income. In 2011, Colorado total employment for this supersector was 93,000, a 0.6% increase from the previous year. It is expected to end 2012 with 94,900 (2%) jobs and add another 1,600 in 2013, a 1.7% gain. The improvement is mainly attributable to an increase in demand for personal and auto repair services.

Repair and Maintenance Services

The Repair and Maintenance Services Sector encompasses businesses that provide repair and maintenance services for automotive, commercial machinery, electronic equipment, and household goods. It has been negatively impacted by the slow growth of the economy as many consumers and businesses have been delaying repairs. In some cases, firms and households are replacing vehicles or business machinery with newer models because of the availability of cheap credit. In addition, businesses within this sector continue to face competition from larger retail firms that offer the same services but are outside this category, like Best Buy and Walmart. However, the sector is expected to end 2012 with 21,800 total jobs, a slight increase from the previous year. Recent data show people are holding on to their vehicles longer with greater focus on service and maintenance; therefore, the sector will add 500 jobs in 2013.

OTHER SERVICES EMPLOYMENT, 2004–2013
(In Thousands)

Year	Repair and Maintenance Services	Personal and Laundry Services	Religious, Grantmaking, Civic, Professional, and Similar Organizations	Total
2004	22.7	21.5	43.2	87.4
2005	22.7	21.9	44.0	88.5
2006	22.6	22.3	45.9	90.8
2007	22.7	23.0	47.3	92.9
2008	22.7	23.6	48.6	94.8
2009	21.5	22.6	49.6	93.7
2010	21.4	22.2	48.9	92.4
2011[a]	21.4	22.7	49.0	93.0
2012[b]	21.8	23.2	49.9	94.9
2013[c]	22.3	23.8	50.4	96.5

[a]Revised. [b]Estimated. [c]Forecast.

Note: Due to rounding, the sum of the individual items may not equal the total.

Sources: Colorado Department of Labor and Employment, and Colorado Business Economic Outlook Committee.

Personal and Laundry Services

The Personal and Laundry Services Sector includes diverse firms that provide services such as hair, nail, and skin care; death care (i.e., funeral homes and cemeteries); dry cleaning (including coin-operated); pet care (except veterinary); photofinishing; and parking lots. Industry growth for this sector is based on changes in population and income. The sector grew 4.1% in 2011 after experiencing two consecutive years of decline. The sector is expected to continue to improve in 2012 and 2013. The increase in demand for rentals and apartment living, and an aging population, provide an expanding customer base for many of these services.

Personal and Laundry Services is expected to end 2012 with 23,200 total jobs, a 2.2% increase over 2011. The sector will add 600 jobs in 2013.

Religious, Grantmaking, Civic, Professional, and Similar Organizations

The Religious, Grantmaking, Civic, Professional, and Similar Organizations Sector is the largest industry in Other Services, employing more than 50% of the supersector's workforce. The sector contains organizations that provide religious and grantmaking services. In addition, social advocacy and political organizations are also categorized in this sector. In 2011, it added 1,100 jobs, a 0.2% gain from the previous year. Employment growth in 2012 has been strong, but is anticipated to slow as political organizations reduce their staff after the election. The sector is expected to grow by 1%, or 500 new jobs, in 2013.

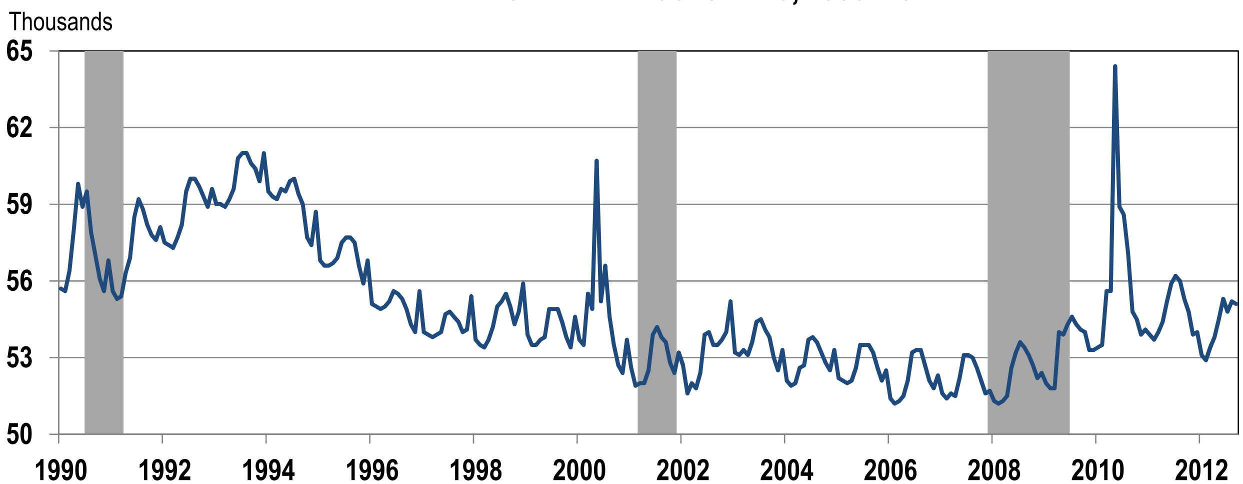
Government

Behind only the Trade, Transportation, and Utilities Supersector, Government is the second-largest provider of jobs in the Colorado economy. This supersector includes federal, state, and local workers and encompasses services ranging from public safety and community development to national security, education, and program administration.

In 2011, total Government employment in Colorado was 393,500, representing 62% local government (including K–12 education), 24% state government (including higher education), and 14% federal government. Even though Government growth declined 0.1% in 2011, it has proven to be quite stable and rather resilient to economic fluctuations compared to other supersectors. In fact, Government growth increased an average annual compound rate of 1.6% between 2000 and 2010; private industry recorded flat growth. The sectors within the supersector also proved rather stable, although varied slightly. Both federal and state employment experienced fluctuations over the last decade, with local government growing over the entire period. Additionally, employment in federal and local employment declined in 2011, while employment at state higher education institutions boosted overall state employment. As the economy gradually improves, growth in the number of state workers will continue. Government employment in Colorado is expected to increase 0.2%, to 394,500, in 2012 and then rise 1%, to 398,300, in 2013.

Employment in the state's government sectors is driven by a variety of factors. Federal employment can be impacted by changes in the budgets of federal agencies, the political environment, and funding levels for institutions and laboratories. Recently, budget cuts in federal programs, increased emphasis to trim payrolls, and ongoing consolidations at federal agencies, including the U.S. Postal Service, will hinder federal employment growth. State employment is propelled by healthy growth in income and sales taxes, which are positively correlated. Indeed, revenue collections are slowly improving, but are still below the levels needed to replace federal programs that have been cut, as well as address increased demand for state services. Counties and many special districts in the state depend primarily on property tax collections and fees, but declining revenues and slow growth in tax revenues continue to pose challenges for all municipalities.

FEDERAL EMPLOYMENT IN COLORADO, 1990–2012



Sources: Bureau of Labor Statistics, Current Employment Statistics (not seasonally adjusted). Data through September 2012. Shading represents recessions.

Federal Government

Federal government employment peaked in Colorado in May 2010 with a record number of federal jobs in the state, boosted by temporary U.S. census hiring. Despite this, Colorado has generally experienced moderate contractions in the federal sector, mirroring nationwide trends. As the federal government faces continued pressures to cut spending and to address the ballooning federal deficit, cuts and program consolidations in federal agencies have resulted in a decrease in personnel. Given that further cuts and consolidations are expected, federal government employment in Colorado is expected to decrease 1.1% and 0.4% in 2012 and 2013, respectively, for total employment of 54,100.

Federal government employment in Colorado accounts for 14% of all government employment. The state's largest federal government employers—the Department of Defense and the U.S. Postal Office—represent 40% of the state's total federal employment. Department of Defense employment grew 9% from 11,200 workers in fiscal year (FY) 2011 to 12,300 workers in FY 2012. The increase in demand for information technology systems, security and medical support for the military, and military-to-civilians conversion programs have led to increases in the department's workforce over the last few years. Also, high-profile deals have boosted hiring in large and small aerospace companies in Colorado. However, the department is also facing budgetary pressures like all federal agencies and proposed cuts in the department's civilian workforce could erase past years' employment growth.

On the other hand, Colorado's U.S. Postal Service employment fell 14% between FY 2011 and 2012, to 8,700 workers. The U.S. Postal Service continues to fight shrinking revenues due to declining mail volumes and burgeoning costs of benefits. Indeed, measures to address the agency's underlying financial woes range from closures of post offices and reduced hours of operation to early retirement planning and even buyouts for postal workers.

Colorado has one of the highest per capita concentrations of federally funded science and research centers in the nation. The state is home to 24 federally funded research labs in a range of fields, including renewable energy, natural resource management, telecommunications, space physics, materials science, earth science, and weather. The latest study by the Business Research Division, conducted in 2011, shows federal laboratories and their university affiliates contributed $1.2 billion in FY 2009 and $1.5 billion in FY 2010, and accounted for more than 16,000 direct and indirect jobs.

In the effort to address federal government spending and the persistent federal deficit, it is important to note that in coming years, government consolidations and program cuts will likely continue in order to maintain an efficient and accountable Government Sector.

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GOVERNMENT EMPLOYMENT IN COLORADO
2004–2013
(In Thousands)

Government Sector	2004	2005	2006	2007	2008	2009	2010	2011[a]	2012[b]	2013[c]
Local General	108.4	109.9	112.8	115.4	118.9	119.2	117.9	115.4	114.7	115.4
Local Education	115.8	117.7	119.8	122.4	125.1	127.1	126.8	127.8	128.7	130.6
Total Local	224.2	227.6	232.6	237.8	244.0	246.3	244.7	243.2	243.4	246.0
State General	29.7	30.0	30.3	31.3	32.4	32.6	32.7	33.2	33.1	33.2
State Education	51.8	52.3	52.2	53.4	55.4	58.1	60.3	62.2	63.7	65.0
Total State	81.5	82.3	82.5	84.7	87.8	90.7	93.0	95.4	96.8	98.2
Total Federal	52.9	52.7	52.2	52.1	52.4	53.5	56.2	54.9	54.3	54.1
Total Government	358.5	362.6	367.2	374.7	384.1	390.5	393.8	393.5	394.5	398.3

[a]Revised. [b]Estimated. [c]Forecast.

Note: Due to rounding, the sum of the individual components of government may not equal the total.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committee.

Government

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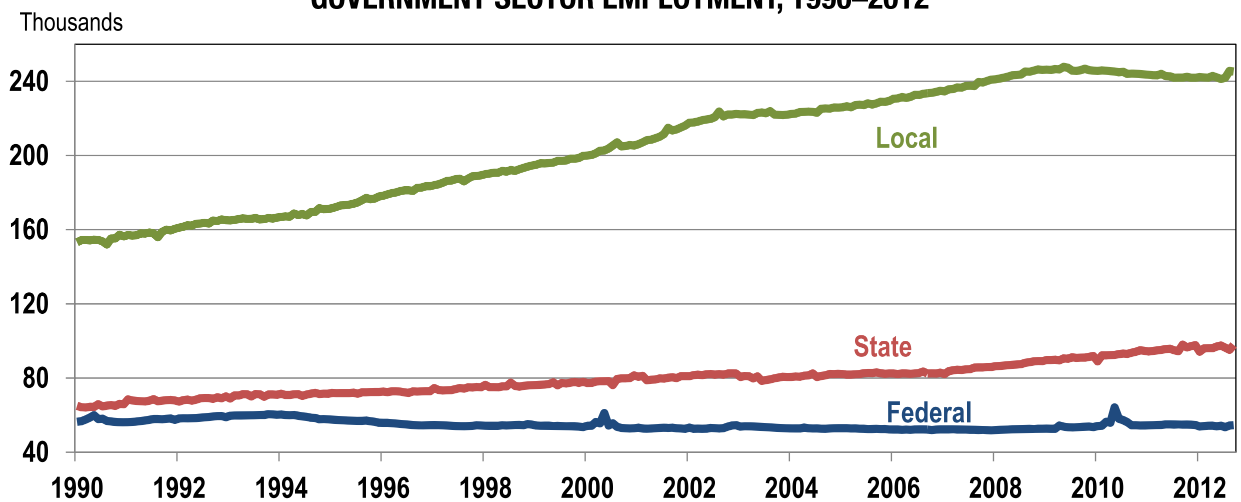
State Government

As the economy slowly recovers, the revenue pressures faced by state government have subsided. In fact, the state government ended FY 2012 with a budget surplus of more than $580 million. The size of the surplus was partially the result of stronger than expected revenues from corporate income taxes, as well as income tax revenue from capital gains that were generated by the rebound in the stock market and in anticipation of higher federal tax rates on such gains that are scheduled to take effect in 2013.

The state government has added a modest number of jobs each year since 2003 and employment remained stable both during and since the economic downturn. The state government addressed employee costs among falling revenue during the downturn by limiting employee benefits and pay increases, imposing limited furlough days, and capitalizing on efficiency gains by limiting hiring and replacement of retired employees. Because this strategy allowed the state government to maintain roughly consistent employment, there is no need to fill a great number of vacant positions in the wake of the economic downturn. Still, increased state revenue has allowed the addition of employees to support certain programs, and state government employment grew 2.6% in 2011.

Because the economy has not shown strong fundamental improvement, the relative strength in revenue growth for the state government over the past two fiscal years is not expected to continue in FY 2013 and FY 2014. Thus, significant expansion of the state government's workforce is not expected. Policymakers have taken a prudent approach to budgeting due to continued uncertainty in the economy and downside risks. This will result in a slight reduction of state government employment in 2012 and very modest growth in 2013 as the state does not replace workers at the same rate that they retire or change employers. State government employment, excluding higher education, is expected to end 2012 down 0.4%, with 33,100 jobs, then increase 0.5% in 2013, to 33,200 jobs. The demand for many state services, including Medicaid and unemployment, meanwhile, climbed as a result of the economic downturn. For example, hiring rose at a number of these state agencies, among those the Department of Health and Human Services and the Department of Regulatory Agencies, the latter of which increased hiring to accommodate the growing requests for permits.

GOVERNMENT SECTOR EMPLOYMENT, 1990–2012



Source: Bureau of Labor Statistics, Current Employment Statistics (seasonally adjusted). Data through September 2012.

Higher Education

Employment in Colorado's higher education sector has accounted for two-thirds of the total state of Colorado government employment and sustained total state employment throughout the recent recession and recovery. In 2012, employment in the state's higher education sector will increase 2.4% while total state employment will climb 1.4%. State higher education employment is anticipated to increase 2% in 2013.

Higher education enrollment, a leading indicator of state higher education employment, grew at a rapid rate during the recession as workers returned to school. Concurrently, state higher education employment grew, albeit at a much slower rate given budgetary constraints, to meet the demands of the increased enrollment. The current stabilization in the enrollment growth rate is due to individuals staying in the labor market as the economy improves and the graduation of the cohort of students from the peak of the recession.

During the economic recovery, universities tended to hire adjunct faculty with lower salaries and benefit costs in lieu of full-time faculty and researchers. However, HigherEdJobs's *Higher Education Employment Report* indicates that colleges and universities, now more confident about funding, have renewed emphasis on hiring full-time faculty over part-time faculty. For the nation as a whole, job ads for full-time faculty jumped 18.3% during Q2 2012, while posts for part-time faculty increased 1.3%. Findings on advertised job postings in higher education are based on posting data from a cohort of roughly 700 U.S. colleges and universities that continually subscribed to the HigherEdJobs unlimited posting plan for four years or more. The institutions included in the report paid a flat fee for unlimited advertising and, consequently, have no financial deterrent to discourage them from posting any job opening on HigherEdJobs.

In Colorado, higher education includes 28 public institutions, more than 335 private occupational schools, over 103 degree-granting private colleges and religious training institutions, and 3 technical schools. In fall 2011, a total of 258,014 students were enrolled in Colorado's public institutions. Additionally, the 45,763 degrees or certificates awarded in these institutions during the 2010–11 academic year represented a 5.7% increase over the prior year. Of programs completed during that semester, 47.3% were bachelor's degrees, followed by 19.5% for certificates, 15.3% for associate degrees, 14.4% for master's degrees, and 3.6% for doctorates or specialist programs.

The top 10 declared areas of study for degree seeking undergraduate students included business and marketing, engineering, bioscience, social sciences, visual and performing arts, health professions, psychology, liberal arts and sciences, communication and journalism, and multi-interdisciplinary studies.

According to the U.S. Census Bureau's 2011 American Community Survey, Colorado ranks third, behind Massachusetts and Maryland, in the percentage of residents with a bachelor's degree. The 2011 survey shows 36.7% of Colorado residents have earned a bachelor's degree or higher.

Local Government

General

More than 3,000 local governments in Colorado provide a variety of services through counties, school districts, special districts, cities, and towns. Their powers and duties are defined by state law and range in authority from overseeing K–12 education, maintaining park programs, public safety and judicial functions, and land use regulation. Local governments generally derive their revenues from property taxes, sales and use taxes, fees, and intergovernmental sources.

The state and federal government transfer various revenues to local governments, such as state-collected highway revenues derived from gas tax and motor vehicle registration fees for counties and municipalities. A state-run lottery returns net proceeds back to parks and recreation districts for open space and recreation improvements. The most significant state-funded program, the School Finance Act, annually appropriates state revenues to public school districts. The majority of revenue available to local governments is collected in Colorado through local property and sales and use taxes. Though the availability of federal and state grant funding continues to decline, local governments in Colorado apply for grants if the program's purpose and conditions fit local government needs and priorities.

Throughout and after the economic downtown, local governments reduced staffing levels, resulting in a downward trend in local government employment statewide. An October 2011 report released by the U.S. Bureau of Labor Statistics revealed local government employment had fallen by 535,000 nationally since September 2008. This rate of job losses slowed and then stabilized during 2012. Local governments remain cautious as they approach the 2013 calendar year.

According to the Colorado Municipal League's *State of Our Cities and Towns* published in early 2012, declining revenues or slow growth in tax revenue were cited as two of the top three challenges for all municipalities. An updated review of

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Government

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the report was performed in the summer of 2012, and revealed that municipal finance officers expectations for revenues was split into nearly thirds. Roughly, one-third each believed their fiscal situation was declining, staying the same, or improving slightly. Entering 2013, cities and towns say they will continue to be cautious and will not fill vacant positions until there is a clear upturn in revenues.

Property tax collections are a primary source of revenue for counties and many special districts in Colorado. Changes to the assessed valuation of property can increase or decrease the revenues raised from each jurisdiction's property taxes. Discussions with various entities across the state indicate that property tax valuations have stabilized during 2012. However, increases in assessed values have varied significantly among taxing jurisdictions. If voters in taxing entities have not removed revenue growth limitations applicable under the Taxpayer Bill of Rights (TABOR), the entities may have trouble regaining the property tax amounts lost during the recent economic downturn. For agencies that depend on property tax collections, early indications point to an increase in filling positions that have remained vacant the past several years. While the positions were authorized during the downturn, they were not filled due to a lack of funding. As the economy begins to show signs of a sustained improvement, some of these vacant positions will be selectively filled to meet the increasing workload. In some cases, the positions are only being filled on a one- or two-year basis to maintain flexibility in case the economy slows down once again.

Combining the trends for all agency types, local noneducation government employment in Colorado will remain flat in 2012 and increase 0.6% in 2013.

Education

Enrollment and funding are two key determinants of growth in local government educational services employment. The main cost pressures have eased and enrollment is expected to grow, signaling moderate employment growth in local government educational services.

According to the Colorado Department of Education, statewide K–12 enrollment has increased every year since 1989 and grew 1.3% between the 2010–11 and 2011–12 school years.

With this growth, public school students in the state totaled 854,265. The Colorado Legislative Council forecasts enrollment growth of 1.2% in the 2012–13 school year and 1.3% in the 2013–14 school year. Furthermore, the Colorado State Demography Office forecasts slower growth in the number of school age children in the state. Public school enrollment growth may be accelerating at a faster rate than the number of school age children because more students are attending public schools rather than private schools. This may be the result of improving public schools or from economic pressures making private school tuition less affordable.

Online public school enrollment increased by 6.4% between the 2010–11 and 2011–12 school years, a much faster rate than the overall growth in public school students. Online school enrollment is now 16,221 students, about 1.9% of total public school students.

The cost pressures from the past few years are easing on school districts. Schools are funded by local school districts through property taxes and the state general fund. The state provides about 64% of school funding and the remainder is funded through property taxes and other local revenue sources.

The Public School Finance Act provides the state share of school funding, and the state increased its share of funding by 1% in 2012. This reflects an increase due to more students rather than a per pupil increase in state funding. As the economy improves and state tax revenue grows, more revenue will be available to fund state priorities, including education. If federal funding is reduced to the state, then some of the increased state tax revenue may be used to backfill existing programs rather than increasing funding to education.

On the local side, property values have stabilized, which will create growth in property tax revenue. Residential property values have declined in the past two revaluation cycles to reflect the poor real estate market. Home values have started to appreciate and commercial and other classes of property are starting to grow along with the rest of the economy. This increase in the tax base will allow school districts to collect more property tax revenue.

Statewide, local education employment is expected to grow 1.5% in 2013, to 130,600 employees.

International Trade

Export Performance in 2012

Colorado's merchandise and commodities exports experienced strong growth in 2012. For the first eight months of 2012, Colorado exports increased 11%, higher than the national export growth rate of 5.5%. Even though exports of Colorado products were up double-digits in 2012 through August year-over-year, lower demand from European countries as a result of the debt crisis is anticipated to slow export growth through the remainder of the year to approximately 7%. Exports to Europe made up 23% of total Colorado exports in 2011.

Despite growth rates that exceed the national average, Colorado still only ranks 36th among U.S. states in dollar value of merchandise and commodities exports. Top exporting states are Texas, California, New York, Washington, and Illinois. These states traditionally have been strong manufacturing states, in addition to being major U.S. ports. Services, which make up a large proportion of Colorado's economy, are not reflected in this ranking.

Canada and Mexico maintained their positions as the top two export markets for Colorado in the first eight months of 2012. Exports to Canada increased significantly for the first time in three years, with a 23% gain from August 2011 to August 2012. During the same period, exports to Mexico climbed 16%. Colorado's third-largest export market, China, grew at 5%, while exports to Japan, Colorado's fourth-largest export market, increased approximately 15%. Germany and the Netherlands, the top European markets for Colorado exports, experienced declines of 12% and 19%, respectively.

Colorado's product or commodity export strengths in 2012 include beef, medical equipment, orthopedic appliances, and engines and motors. Agricultural exports grew approximately 16% for the first seven months of 2012 and remain an important export for the state. The largest export growth category was engines and motors, which increased 1,275%, to $216 million. The majority of this product category was exported to Canada. Electronic integrated circuits and automatic data processing equipment decreased after a rebound in 2011.

World Trade and Global Output Forecasts

Global economic activity is expected to continue to grow, but at a slower pace through the end of 2012 and into 2013 when compared to the 4% rate of 2011. The continued slowdown in Europe and a moderation of growth in China is offset by growth in other developing countries such as India, Indonesia, and Mexico. According to the International Monetary Fund's (IMF) April 2012 World Economic Outlook, world output had been projected to grow around 3.5% in 2012 and then increase slightly, to around 4% in 2013. Since then, the IMF has released two downward revisions and now projects overall growth to be 3.3% and 3.6%, respectively. Output in developing countries anticipated to grow just over 5% in 2012 and around 5.5% in 2013. Output of the advanced economies is expected to grow by just 1.3% in 2012 and about 1.5% in 2013. World trade volume of goods and services is expected to climb by approximately 3.2% in 2012 and less than 5% in 2013, slower than the 12.8% gain experienced in 2010 and 5.8% in 2011.

The European sovereign debt and banking crisis continues to act as a drag on economic growth, not only in Europe but in countries across the globe. The crisis has dampened global trade as a result of lower demand from European countries. Additionally, contagion of the crisis to the financial sectors of other countries remains a significant risk, although promising steps have been taken to stabilize the financial markets in Europe. The European Central Bank has injected more than

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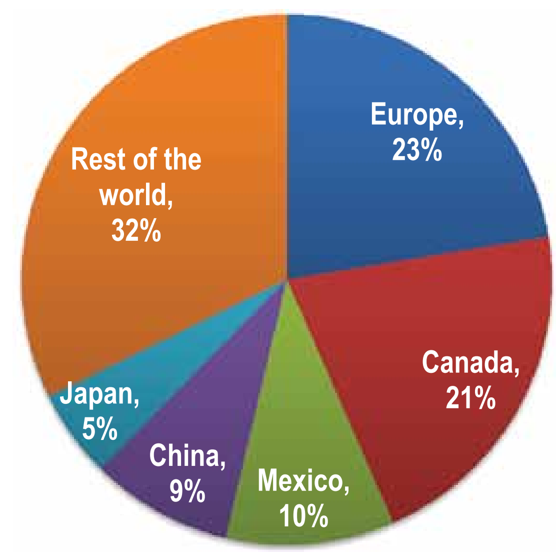
COLORADO EXPORT MARKETS, 2011



Source: World Institute for Strategic Economic Research.

International Trade

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€1 trillion ($1.3 trillion) into the system, Spain's need for a bailout remains a question mark, and European bank shares have risen in value. Nonetheless, most southern-tier European countries remain in recession, with GDP contracting in Greece, Italy, and Spain, and much of the rest of Europe is in a slow recovery at best. The likelihood of a eurozone-wide recession is now about 85% according to the IMF. The eurozone as a whole is experiencing rising unemployment and declining manufacturing output. The unemployment rate has risen to 11.4% overall, and in Spain and Greece the youth unemployment rate has climbed to more than 50%. The effect of the debt crisis is expected to weigh on the world economy for years to come, according to the World Bank's Chief Economist Kaushik Basu. Outside of the eurozone, overleveraging of public sector debt in the United States, Japan, and the United Kingdom also threatens growth prospects in the near term.

While many advanced countries are facing recession or slow growth amid financial troubles, some of the largest developing country economies, such as China and India, are still acting as a world output engine. But with past growth at such high levels, inflationary pressures have been mounting in these countries, leading to policies that aim to cool overheating and limit growth. China and India are likely to see slowdowns from the double-digit growth in 2011 to rates of around 8% and 6% in 2013, respectively.

U.S. trade policies are expected to play a role in influencing trade in the coming year. It is expected that the U.S. president will pursue policies that encourage both more domestic manufacturing and exports, and freer-floating exchange rates abroad—particularly for China. Should additional talks on the EU–US Free Trade Agreement and the Trans Pacific Partnership yield agreements, it would result in an expansion of trade opportunities for the United States. The risk of increased trade friction with China remains a real possibility. Should barriers to trade increase, the result will be both lower imports and exports between the United States and China. Overall growth in the U.S. economy is forecast by the IMF to be around 2.5% in 2013, reflecting a continued weak but improving housing market, high unemployment, tight lending policies, and a slowdown in other parts of the world. The likelihood of increased taxes and decreased government spending in the United States, however, could push that figure significantly lower.

The value of the U.S. dollar also affects the imports and exports of the nation and of Colorado. A weak dollar encourages more exports and fewer imports. Currently, the trade weighted value of the U.S. dollar is close to the 1997 benchmark of 100 and about where it was when the financial crisis began with Lehman's Brothers collapse in September 2008. Since then, the value increased in late 2008 and early 2009 by about 15%, but then began retreating as the first round of quantitative easing kicked in and the revival of investor confidence in the U.S. economy began. Since then, it has fluctuated in a narrow band of plus or minus 5%. As long as the financial crisis in Europe remains unresolved, it can be expected that the flight to quality of U.S. bonds will continue, and the dollar will remain close to its current strength, offsetting the downward pressure exerted by quantitative easing. A weaker dollar should help with continued export gains.

USD/EURO FOREIGN EXCHANGE RATE

Source: Federal Reserve Board.

The chart shows the value of the euro in U.S dollars since September 2009. It reflects a recent strengthening of the euro as hopes for avoiding further bank bailouts in Europe grow.

Colorado Export Forecast

Colorado manufactured exports and commodities are projected to grow 8% in 2013, to $8.4 billion

VALUE OF COLORADO EXPORTS
2004–2013
(In Millions of Dollars)

Year	Total Exports	Percentage Change
2004	$6,659.8	9.4%
2005	6,773.3	1.7
2006	7,954.7	17.4
2007	7,352.2	-7.6
2008	7,712.6	4.9
2009	5,867.2	-23.9
2010	6,726.7	14.6
2011	7,332.5	9.0
2012[a]	7,845.7	7.0
2013[b]	8,473.3	8.0

[a]Estimate. [b]Forecast.

Sources: World Institute for Strategic Economic Research (WISERTrade) and Colorado Business Economic Outlook Committee.

in sales. According to the U.S. Department of Commerce's formula of one job created for every $165,000 in exports, this equates to approximately 50,900 jobs depending on exports in the state of Colorado.

Factors that will contribute to the Colorado export growth include the value of the U.S. dollar that is expected to remain weak relative to other foreign currencies, which will reduce the price of Colorado goods compared to similar goods produced in other countries. Slower export demand from Europe will be offset some by the rising growth in exports to NAFTA neighbors and developing countries. The drought in the United States may impact agricultural export revenue, but by how much is hard to say. The tighter supply of grains, and the resulting higher price of feed, is driving up beef and poultry costs, though not to the point that international buyers are seeking alternative sources. If the export control reform, launched by the Obama administration in 2010, is implemented, Colorado will be positioned to see a significant increase in exports from the high-value aerospace and commercial satellite sectors.

Colorado Imports Forecast

In 2011, Colorado's imports were up 3% over 2010, totaling $11.7 billion. Approximately 22%, or $2.6 billion, of this total was fuel and oil from Canada. Imports in 2011 are growing at a much slower rate than the previous year, which showed a 32% increase. This can be attributed to a declining value of the U.S. dollar relative to other foreign currencies, as well as to a shift in public policy to rely on domestic supply of fuel and oil. Now that the United States has achieved the ranking of being the leading producer of oil, imports will hold steady or possibly even decline some in 2012 and 2013. Industrial machinery and electronics imports are continuing to grow at 53% and 33%, respectively, over the past year, predominantly from China, Colorado's second-largest source of imports after Canada, but the value of these goods is significantly lower than fuel and oil. Colorado's top exports are also in the sectors of electronics and industrial machinery, demonstrating the creation of value-added jobs, adding services or other technical support to components and unfinished products. Since exports are continuing to grow and imports are stabilizing, Colorado's trade deficit will continue to become more balanced.

Growing Opportunities for Colorado Exporters: Brazil, Canada, China, Mexico, India, Japan, Russia, and Turkey

Brazil

The IMF estimates that Brazil's economy will grow 4% in 2013, which is an increase over the projected 1.8% growth rate for 2012. The main threat to the growth of Brazil's economy is an increasing inflation rate. In 2011, Colorado manufacturers experienced a 14.6% decrease in sales, but sales through August for 2012 rose 41%. The top sector continues to be industrial machinery. Although sales fell roughly 40% in 2011, they are back up by 87% in the first eight months of 2012. Medical and optical instruments grew 19% in 2011, totaling roughly $29 million and are up 3% in 2012. As the host nation of the upcoming FIFA World Cup in 2014 and the Olympics in 2016, Brazil is expected to invest heavily in new infrastructure, and this presents great opportunities for Colorado exporters in such areas as aerospace and aviation, information and communications technologies, construction, engineering, and renewable energy technologies.

Canada

Canada's economy is expected to grow 1.8% in 2012 and will likely increase slightly above 2% in 2013. According to the Bank of Canada, elevated

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global uncertainty is holding back global economic growth. However, while Canada's economy is being affected by the global angst, their public finances remain sound. Monetary policy is clear and credible, and the financial system has strengthened.

Canada remains Colorado's number one export market, where top sectors include:

- Engines and motors up significantly over 2011, to more than $190 million in the first eight months of 2012;
- Meat of bovine and swine, down 2% over 2011 numbers; and
- Petroleum gases, up 37%, to more than $42 million.

Best opportunities for Colorado companies are in the agricultural, automotive, aerospace, and clean energy sectors.

TOP 20 COLORADO EXPORTS
2010–2012 YTD
(In Millions of Dollars)

Description	2010	2011	Aug 2012 YTD
Optic, Photo Etc, Medic Or Surgical Instruments Etc	$1,097	$1,308	$908
Industrial Machinery, including Computers	1,002	1,129	1,010
Electric Machinery Etc; Sound Equip; Tv Equip; Pts	955	1,108	738
Meat And Edible Meat Offal	654	798	599
Photographic Or Cinematographic Goods	303	260	194
Raw Hides and Skins (no Furskins) and Leather	188	229	138
Aircraft, Spacecraft and Parts thereof	245	215	125
Plastics And Articles thereof	159	184	124
Articles of Iron or Steel	114	171	135
Mineral Fuel, Oil Etc.; Bitumin Subst; Mineral Wax	248	159	144
Ores, Slag and Ash	154	148	78
Organic Chemicals	300	141	96
Aluminum and Articles thereof	114	129	72
Vehicles, Except Railway Or Tramway, And Parts Etc	85	125	77
Pharmaceutical Products	113	91	86
Art of Stone, Plaster, Cement, Asbestos, Mica Etc.	31	76	38
Dairy Prods; Birds Eggs; Honey; Ed Animal Pr Nesoi	33	65	43
Miscellaneous Chemical Products	59	64	53
Printed Books, Newspapers Etc; Manuscripts Etc	55	48	35
Nat Etc Pearls, Prec Etc Stones, Pr Met Etc; Coin	27	15	35
Total Top 20 Commodities	5,936	6,463	4,728
All Others	790	869	630
Total All Commodities	$6,726	$7,332	$5,358

Source: World Institute for Strategic Economic Research (WISERTrade).

China

The IMF forecasts that China's economy will grow 8.2% in 2013. In 2011, Colorado manufacturers increased sales to China by 13.7%, totaling roughly $635.4 million. Due to the strong push for cleaner energy by the Chinese government in its 12th Five-Year Plan, Colorado companies offering clean energy products and services should continue to see positive growth in sales into China in 2013 and beyond. Conversely, a government-led push to have Chinese companies create higher value-added goods may lead to new competition for many Colorado companies in other technology and machinery sectors in 2013. The influence of this effort may already be visible in the decreased growth rate in the sale of electrical machinery and industrial machinery, including computers, over the last 2.5 years.

However, sales to China by various sectors in Colorado have increased significantly over the last 2.5 years. Aluminum waste and scrap increased 48% in 2011, totaling $62 million, but were down more than 25% through August, totaling roughly $33.3 million. Raw hides and skins of bovine or equine animals increased 33% in 2011, totaling $77.8 million, and were up 26% through August 2012 for a total of $62.7 million. Instruments for physical and chemical analysis totaled $36.7 million in 2011, a gain of 27.5%, but slid 1.2% between August 2011 and August 2012. While copper waste and scrap rose 47% in 2011, for a total of $47.2 million, these figures fell roughly 13% from August 2011 to August 2012, totaling approximately $27.8 million. Medical, surgical, dental, and veterinary instruments increased roughly 22% in 2011 for a total of more than $33 million. As of August 2012, this sector increased over 33%, accumulating $29 million.

India

According to the IMF, India's economy in 2013 should experience growth of 6%. Robust growth rates are a common theme among many developing countries in Asia, which continue to experience higher economic growth rates than any other region in the world. In 2011, Colorado manufacturers increased sales to India more than 16.5%, totaling almost $119 million, while overall sales through August 2012 were down over 5%. These numbers are reflected in the IMF World Economic Outlook that projects India's growth will dip below 5% in 2012. Thus, Colorado manufacturers have experienced considerable ebbs and flows in sales over the past few years.

A variety of sectors in Colorado have done well in the Indian market through August 2012. Sales of photo films in rolls sensitized, unexposed, grew 72% through August 2012 for a total of more than $12 million. Sales of medical, surgical, dental, and

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MAJOR DESTINATIONS FOR COLORADO EXPORTS OF MANUFACTURED GOODS, MINERALS, AND AGRICULTURAL PRODUCTS
2008–2011
(In Millions of Dollars)

Country	2008	2009	2010	2011	2011 Percentage of Total
Canada	$2,191	$1,772	$1,659	$1,540	21.0%
Mexico	961	583	589	755	10.2
China	508	439	558	635	8.6
Japan	336	275	318	393	5.3
Netherlands	404	174	331	316	4.3
Germany	283	220	320	314	4.3
United Kingdom	231	141	212	247	3.3
Switzerland	157	159	185	241	3.3
Republic of Korea	174	122	200	225	3.0
Philippines	220	150	210	222	3.0
Malaysia	185	179	175	208	2.8
Taiwan	130	108	156	180	2.4
Australia	162	128	160	178	2.4
Hong Kong	123	121	139	173	2.3
France	198	93	121	141	1.9
Belgium	179	145	140	131	1.8
India	100	94	102	119	1.6
Brazil	118	81	123	105	1.4
Chile	32	26	29	42	0.5
Singapore	120	87	100	104	1.4
Total Top 20 Countries	6,812	5,097	5,827	6,269	64.0
All Other Countries	900	770	899	1,066	15.2
Total All Countries	$7,712	$5,867	$6,726	$7,335	100.0%

Sources: Foreign Trade Division of the U.S. Census Bureau and World Institute for Strategic Economic Research (WISERTrade).

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veterinary instruments climbed 88% through August 2012, totaling $2.1 million. Sales of pumps for liquids, liquid elevators, and parts were up 104% through August 2012 after growing 48% in 2011, totaling $3.2 million. Industrial machinery, including computers, continues a steady growth pattern, expanding 71% and 52% in 2011 and 2012, respectively. This industry alone accounts for one-third of Colorado's manufactured sales to India through August 2012, totaling $26.2 million.

Japan

The IMF estimates that Japan's economy will grow 1.2% in 2013, nearly half of the 2.2% growth predicted for 2012. In 2011, Colorado manufacturers increased their sales to Japan by 23.5% for a total of $393 million, gaining 14.7% between August 2011 and August 2012. The agricultural and biomedical sectors have proved to be among the top performers in the Japanese market over the last 2.5 years. The meat industry realized increases in sales, rising 14% in 2010, 10% in 2011, and 53% between August 2011 and August 2012, reaching almost $133 million. Medical, surgical, dental, and veterinary instruments experienced notable gains, rising 2% in 2010, 38% in 2011, and 41.4% between August 2011 and August 2012, totaling $20.8 million.

Mexico

The IMF estimates that Mexico's economy will grow 3.5% in 2013. This slowdown in growth has been smaller and more recent, although experts warn that unless Mexico taps into its network of free trade agreements by trading with other emerging economies, its economy will forever remain at the mercy of the United States.

Mexico was second only to Canada in terms of total dollar revenue generated from the purchase of Colorado exports. In 2011, Mexico purchased roughly $755 million of Colorado-made products. While primary sectors included meat products, photographic or cinematographic goods, and industrial machinery (including computers), the cleantech sector continues to see growth and offers a number of opportunities for Colorado companies ranging from clean energy technologies to water-related products and services. Environmental product exports were up by 196% in 2011 and are continuing to increase in 2012, by 49%.

Russia

The IMF forecasts that Russia's economy will grow nearly 4% in 2013. As of August 2012, Colorado exports to Russia totaled roughly $56 million, a 21% increase from August 2011. Russia's formal

AGRICULTURAL EXPORTS FROM THE STATE OF COLORADO
FISCAL YEARS 2009–2013
(In Millions of Dollars)

Product	2009	2010	2011	2012[a]	2013[b]
Live Animals	$0.9	$1.1	$1.4	$1.0	$1.0
Meat and Products	561.9	675.4	824.1	974.5	1,014.7
Wheat and Grains	248.7	374.1	580.3	453.7	596.5
Hides and Furs	109.4	189.3	230.1	206.7	206.7
Dairy Products	34.9	48.7	81.3	119.6	116.2
Fruits and Vegetables	15.7	13.2	16.9	19.5	21.4
Processed Foods	48.3	57.3	75.0	86.4	89.2
Wood Products	11.8	11.5	15.7	18.3	18.5
Misc. Seeds/Plants	17.8	19.6	16.5	15.1	15.2
Total	$1,049.4	$1,390.2	$1,841.3	$1,894.8	$2,079.4

[a]Estimated 2012 projection based on Global Trade Information Services YTD Trends.

[b]2013 Forecast based on USDA ERS Outlook for U.S. Agricultural Trade.

Sources: Export statistics from World Trade Atlas and USDA export data (all based on U.S. Census Records), and Colorado Business Economic Outlook Committee.

entry into the World Trade Organization (WTO) on August 23, 2012, made it the largest economy to join the Geneva-based organization since China joined in 2001. Though Russia's entry will likely have a less dramatic effect than China's entry, the United States expects to narrow its current trade deficit with Russia significantly for two primary reasons. First, U.S. exports of goods, particularly industrial equipment, and services to Russia—which totaled about $11 billion in 2011—is predicted to double over the next five to six years. Second, U.S. imports from Russia consist primarily of oil and uranium, which are resources unaffected by the WTO status.

As of August 2012, Colorado exports to Russia had increased 27% overall since the previous year. Colorado's top exports to Russia include meats (particularly of bovine animals), which totaled approximately $37 million in August 2012 and accounted for 66% of total Colorado exports to Russia. Second, medical and surgical instrument exports increased more than 22% over 2011, totaling almost $6 million. Third, after decreasing during the start of the downturn in 2009, industrial machinery (including computers) have since rebounded, climbing over 123% between August 2011 and August 2012.

Turkey

The IMF reported that Turkey's real GDP will grow 3% in 2012 and 4% in 2013. Turkey's economy was one of the world's fastest-growing in 2011, with GDP expanding 8.5%. This growth is contributable to the Turkish government's release of massive amounts of credit in order to jump-start expansionary policies. The Medium-Term Economic Program from 2013–2015 is projected to raise Turkey's GDP growth rate to 7%. This program is expected to help boost Colorado exports to Turkey beginning in 2013 and continuing over the next half decade.

Colorado's top exports to Turkey include carpets and other flooring material, which were down 8% in 2011 but have since rebounded by almost 200% as of August 2012, totaling $2.1 million, and sheep and lamb skins, which rose 37% in 2011 and a further 67% by August 2012, for a total of $900 million. This significant growth is a testament to the resilience of the Turkish economy, especially in the midst of the European debt crisis.

COLORADO'S TOP AGRICULTURAL EXPORTS REGIONAL DESTINATIONS 2009–2011 (In Millions of Dollars)

Region	Exports 2009	Exports 2010	Exports 2011
Canada	$277.5	$302.4	$374.5
Mexico	239.9	260.9	329.9
Japan	156.9	178.3	218.3
Korea	51.1	97.3	128.2
China	66.8	86.3	127.5

Sources: Wiser Trade Atlas and USDA Export data (all based on the U.S. Census records of exports).

Agricultural Exports

Colorado's agricultural exports reached $1.84 billion in 2011, increasing 32% over 2010 with shipments to 120 countries. Colorado's largest agricultural commodity export increases include wheat, meat products, hides, and dairy products. In addition, processed foods and wood products experienced 31% and 36% increases, respectively, in 2011 over 2010. Global markets for Colorado's agricultural production is increasing sales of Colorado's agricultural production and processing.

Colorado's 2012 agricultural exports will increase 2.9% over 2011 levels. Colorado's slower export growth can be specifically attributed to lower production and market prices for wheat. The state's agricultural exports (excluding wheat) grew an additional 24% in the first eight months of 2012. However, this growth could not compensate for reduced state production, global market prices, and market demand. As 60%–80% of all Colorado wheat is exported each year, the world price trends and wheat production within Colorado inevitably impact annual total agricultural exports.

The U.S. Department of Agriculture has forecast 2013 national export growth in core Colorado commodities, including wheat and beef. Wheat exports are projected to increase significantly in 2013, provided moisture in Colorado produces a successful harvest. The continuing efforts to increase Colorado and U.S. beef access in key global markets, including Japan and China, also presents contingent export growth. The United

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States is seeking (1) the ability to export a broader range of beef products to Japan, which limits the import of beef products, and (2) basic market access in China, which continues to ban all U.S. beef. If negotiators successfully open these markets, the Colorado beef industry could experience increased exports not currently reflected in the 2013 projection.

Colorado's Top Agricultural Export Markets for 2011

Colorado's top five markets continue to purchase 64% of Colorado's total agricultural exports. In 2011, agricultural exports to Canada increased $72 million, to $374 million. This growth in Canada reflects increased imports of Colorado beef products and a variety of processed foods. Colorado's agricultural exports to Mexico, including dairy products, corn, wheat, and beef, rose 27%, to $69 million. The Chinese market experienced the third-greatest increase for Colorado agricultural exports, increasing $41 million and reflecting increased imports of hides, wheat, and wood pulp. Colorado agricultural exports to Japan increased $40 million, reflecting increased imports of beef and wheat. Colorado agricultural exports to Korea climbed $31 million, reflecting increased imports of beef, hides, and wheat.

Top Export Markets for Colorado's Edible Meat Products

Colorado's largest agricultural sector is beef and meat products (including pork and lamb). The export of these products represents a core growth

COLORADO'S EDIBLE MEAT EXPORTS
REGIONAL DESTINATIONS
2009–2011
(In Millions of Dollars)

	Exports		
Region	2009	2010	2011
Canada	$156.0	$177.1	$227.3
Mexico	149.5	135.5	140.6
Japan	86.0	107.6	131.8
Republic of Korea	27.7	58.1	76.6
Russia	2.1	26.4	38.1
Egypt	1.0	12.0	23.9
Hong Kong	4.3	12.5	21.2
Taiwan	6.4	15.2	17.6
Vietnam	10.1	7.9	15.3
Chile	0.0	0.0	3.1
All other	2.7	9.2	16.5
Total	$445.7	$561.3	$712.0

Source: World Institute for Strategic Economic Research (WISERTrade).

opportunity for Colorado and U.S. producers. According to the U.S. Meat Export Federation, for the first time since 2003, the United States regained its top position as the largest beef and beef variety meat exporter in the world, closely followed by Australia and Brazil. Tight global supplies of beef contributed to higher prices around the world as global demand for beef continued to grow. The relatively weak U.S. dollar helped offset high U.S. beef prices, increasing U.S. beef competiveness. The share of U.S. beef production exported is estimated to increase from 14% U.S. production to 16% as early as 2015.

Colorado's 2012 Agricultural Export Forecast

Colorado's 2012 exports are expected to grow only 2.9% over 2011, due to reduced production and export of wheat. Colorado's agricultural exports are projected to increase another 9.7% in 2013 as most agricultural sectors continue to increase exports. Colorado and U.S. meat exports will reach an all-time record, exceeding $1 billion in export revenues for Colorado meat in 2013. Wheat exports will also rise, according to USDA projected global demands.

Trade agreements and bilateral negotiations will continue to be a factor in agricultural export expansion. The Korean Free Trade Agreement will reduce import duties on beef products over the next 15 years, at 2.7% per year, which will advance Colorado beef exports to Korea. Mexico's recent increase of the range of allowable beef products for import from the United States has strengthened beef exports to Mexico. Last, the United States and Japan are currently in negotiations for increased product access. Opening global markets to beef imports will remain a key factor in increasing exports of beef from Colorado.

The United States is currently working to expand access to the Mexican market for fresh potatoes, which will provide new markets for Colorado's largest produce crop. Colorado's lamb industry has also begun to export. Lamb exports from Colorado grew three-fold in 2011 from 2010, with markets in Canada, Mexico, Hong Kong, and Singapore reaching $1.5 million, which is up from just $222,000 in 2009. Lamb continues to be limited in some markets due to the market access issues that will require U.S. government negotiations for full market access.

Service Exports

The United States leads the world as the premier producer and exporter of services. Based on the economic makeup of Colorado, the Brookings Institute regards the state as a leader in service exports, estimating that 2010 service exports from the state totaled $9.4 billion (latest data available). Leading categories of service exports include travel and tourism ($2.7 billion), business services ($2.5 billion), royalties ($1.7 billion), financial services ($886 million), and telecom services ($530 million). Service exports are more difficult to track by state; however, based on Brookings Institute estimates and using the Department of Commerce's export formula for job creation and retention, nearly 60,000 jobs depend on service exports in Colorado.

International Visitors to Colorado

International tourism to the United States is up over 2012 estimates, with the U.S. Travel Association forecasting an increase in international visitors and related expenditures approaching 5.6% and 7.8%, respectively, by 2014. In line with this positive trend, the U.S. Department of Commerce projects international travel to the United States will continue in the 4%–5% growth range through 2016. Visitor volume is expected to grow nearly 4.4% in 2013 over 2012 figures, reaching 68 million visitors who stay one or more nights in the United States.

According to the current forecast, the United States is projected to see a 4% average annual growth rate in visitor volume through 2016. By 2016, international visitors are expected to total more than 76 million, an increase of 14 million people and 23% real growth from 2011.

Colorado grew from 1.3% of the total number of international visitors to the United States in 2010 to 1.6% in 2011, an increase of 23%. The Colorado Tourism Office expects to see solid growth in international visitation for the next several years with the addition of nonstop flights to Iceland and Mexico from DIA in 2012 and the new nonstop flight to Tokyo launching in March 2013.

Forecast Highlights by Region to the United States

North America

The top two markets generating visitors to the United States, Canada and Mexico, are projected to increase in 2013 by 4% and 2%, respectively, and 10% and 6%, respectively, from 2013 to 2016. Canada's annual growth is expected to break volume records each year from 2013 to 2016, and Mexico's growth will establish new records beginning in 2016. *Stats Canada's* numbers show an 8% increase in Canadian visitation to Colorado in 2011 and an anticipated 8.6% increase in 2012.

South America

The number of visitors from leading South American markets is projected to climb by an average of 10% in 2013, the second-largest growth rate of any region, and the area should remain a leader in growth for the next several years. It is estimated that by 2016 South America will generate more than 800,000 more visitors by volume than current figures, an increase of over 19%. Brazil remains the largest source market in the region at nearly double the portion of visitors from Argentina, the next largest South American source of visitors to the United States. By 2016, it is projected the United States could host upward of 2.5 million Brazilian visitors, a gain of more than 30% from 2012 figures. Argentina is forecast to post a 9% gain in 2013, with volumes continuing to increase through 2016. Colombia should have steady growth over the forecast period (4%–5%), and volumes from Venezuela will continue to increase through 2016.

Europe

The number of visitors from Europe is expected to consistently rise about 2.5% per year on average from 2013 through 2016. The top European markets for growth are Switzerland and Sweden, at 4%–5% per year through 2014. The top markets by volume, the United Kingdom and Germany, anticipate modest growth, in the 1%–3% range annually. After declining in 2011 and 2012, the Irish market is expected to grow in the 1%–2% range annually through 2016. While the current credit crisis in Europe continues to unfold, the tourism market is forecast to maintain modest, yet positive growth figures.

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Asia-Pacific

The top Asian markets for inbound U.S. tourism are Japan, South Korea, China, and India. Combined, they are projected to generate a visitor increase of more than 10% in 2013. After smaller gains in 2011 and 2012, the region is projected to have the highest growth rate of any other region over the next four years for a combined increase of 36% from 2013 to 2016. After contracting in 2011, the Japanese market should grow steadily at around 2% year-over-year. China will continue to be the growth leader in all markets, averaging over 22% in each year through 2016, representing a 43% gain in total volume growth from 2013 to 2016. Australia will continue to dominate the South Pacific region and is expected to rise between 6% and 8% annually from 2013 through 2016.

Trends in International Students in Colorado

During the 2011–12 academic year, Colorado institutions of higher education enrolled 8,445 international students, an increase of 9.8% over the previous academic year, according to the Institute of International Education's annual *Open Doors Report on International Educational Exchange.*

The state's rate of increase from the previous year continued the upward trend from the past five years and again was higher than the 5.7% increase in international students enrolled in U.S. higher education institutions as a whole.

International students in Colorado in 2011–12 reached almost every corner of the state, with the highest number enrolled at the University of Colorado Boulder, the University of Denver, Colorado State University, the University of Colorado Denver, and the University of Northern Colorado. The leading countries of origin for international students in Colorado were China (25% of total); Saudi Arabia (13.7%); India (8.9%), and South Korea (5.1%).

International students' expenditures in Colorado totaled an estimated $253.5 million for 2011–12, according to an economic impact analysis conducted annually by the organization NAFSA: Association of International Educators. This figure takes into account tuition, fees, and living expenses and subtracts U.S. support provided to students.

Colorado institutions of higher education are placing an increasing emphasis on recruiting international students, both for the cultural diversity they bring to campuses and the tuition dollars they contribute. A new statewide initiative that involves all of the state's public and a number of its private institutions, StudyColorado, is gearing up to market Colorado as an education destination for international students. Numbers of international students in Colorado are expected to continue to rise due to StudyColorado's efforts, as well as overall trends in student mobility and individual efforts by the institutions.

The number of Colorado students studying abroad has continued to increase as well, with students eager to prepare themselves for the increasingly globalized, knowledge-based economy that is coming to characterize the state. In 2010–11 (the most recent year for which reliable data are available), 4,745 students enrolled in Colorado institutions opted to study outside the United States. This represents a 6.2% increase over the prior academic year, compared to a 1.3% gain for the United States as a whole.

INTERNATIONAL STUDENT ENROLLMENT AT SELECT COLORADO INSTITUTIONS

Institution	2008-09	2009-10	2010-11	2011-12	Percentage Change
University of Colorado Boulder	1,341	1,360	1,553	1,681	8.2%
University of Denver	919	1,081	1,250	1,430	14.4
Colorado State University	984	1,127	1,216	1,352	11.2
University of Colorado Denver	729	734	940	1,116	18.7
Colorado School of Mines	511	523	570	652	14.4

Sources: Institute of International Education and Colorado School of Mines.

Summary

Job growth accelerated in Colorado in 2012, with the state adding 47,900 jobs, a gain of 2.1%. This leaves the state with a jobs deficit of 2.3% from the April 2009 peak employment. The consensus of the 2013 estimating committees is that employment growth will continue in 2013, with the state adding another 42,100 new jobs, leaving the jobs deficit at 0.6%.

Over the past 10 years, goods-producing industries lost a net 59,300 jobs, while services-producing industry gained 180,500 jobs. Both goods- and services-producing sectors are anticipated to add workers in 2013.

The three goods-producing sectors will increase their employment base next year:

Construction—Perhaps one of the greatest casualties of the recession, this industry is exhibiting strong year-over-year growth in permits, construction values, and employment. Total value of Construction will rise 12.1% in 2013, to $12.6 billion. The largest increase will be attributable to residential construction, growing more than $1 billion in 2013. Total housing permits are expected to rise to 24,500, with the 28.9% growth marked by year-over-year gains in both single-family and multifamily units.

Manufacturing—Following a decade of decline, Manufacturing employment is expected to increase for the third consecutive year, ending 2012 with 1,800 more jobs (1.4%). This growth will be mostly in the Other Durable Goods Sector and in Fabricated Metals. The exporting of manufactured goods will also rise in 2013.

ESTIMATED NET JOBS CREATED IN NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT SECTORS 2002–2013 (In Thousands)

Sector	2002-2012[a]	2011[a]	2012[b]	2013[c]
Natural Resources and Mining	17.8	3.5	2.8	1.0
Construction	-45.4	-2.9	2.8	6.3
Manufacturing	-31.7	3.6	3.0	1.8
Total Goods Producing	*-59.3*	*4.2*	*8.6*	*9.1*
Trade, Transportation, and Utilities	-3.7	4.7	6.1	5.6
Information	-23.2	-0.2	-2.1	-0.6
Financial Activities	-3.4	-0.5	2.3	2.5
Professional and Business Services	57.4	9.9	14.3	7.4
Education and Health Services	73.0	8.7	8.1	7.6
Leisure and Hospitality	32.0	8.3	7.7	5.0
Other Services	9.3	0.6	1.9	1.6
Government	39.1	-0.3	1.0	3.8
Total Services Producing	*180.5*	*31.2*	*39.3*	*32.9*
Total Jobs Created[c]	121.2	35.4	47.9	42.1

[a]Estimated. [b]Forecast.

[c]Due to rounding, the sum of the individual sectors may not equal the total.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committees.

Natural Resources and Mining—Colorado has abundant natural resources, ranging from coal and natural gas to molybdenum and uranium. In 2012, Natural Resources and Mining employment hit the highest level since the 1980s, mostly attributable to new resource extraction along the Niobrara formation. In 2013, the value of production is anticipated to increase for oil, natural gas, carbon dioxide, coal, minerals, and uranium. This will translate to modest employment growth of 3.3%, to 31,700.

The outlook for services employment shows growth in all sectors but Information in both 2012 and 2013:

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Education and Health Services—Private education and health care services are expected to add 7,600 jobs in 2013, demonstrating resilience both during and after the recession. Most of the growth has been in health care, driven by population growth and demographic shifts.

Professional Business Services—Employment in this sector will increase by 7,400 jobs in 2013, building on gains in the Professional, Scientific, and Technical Services subsectors related to Colorado's high-tech industries and research institutions. One point of caution is the potential cursory effects of severe cuts in federal spending on research.

Trade, Transportation, and Public Utilities—TTU employment is anticipated to increase by 5,600 due to growth in wholesale and retail trade. Transportation and Warehousing employment will pull back in 2012, and Utilities will record a very slight increase. It is projected that Denver International Airport will record another record year, with 53 million passengers. Retail sales are anticipated to increase 5.2% in 2013, following 6.3% growth in 2012.

Leisure and Hospitality—Despite a number of setbacks in 2012 (e.g., fires, drought), the Leisure and Hospitality industry added 7,700 jobs. The 2013 forecast calls for 5,000 additional jobs, mostly in the Accommodation and Food Services sectors. This forecast rests on a number of assumptions, including average snowfall and reasonable gasoline prices.

Government—Government is expected to add jobs in 2013, but not at all levels. Even without automatic sequestration, federal government employment is expected to fall by 200 jobs in

2013. State government finances are anticipated to rebound (nominally) to prerecession levels in 2013, but the demands for those funds is ever greater as many education, infrastructure, and social assistance programs were severely cut over the past four years. State government is expected to increase by 1,400 jobs, with 89% of employment growth concentrated in higher education, which is trying to keep pace with growth in enrollment. Local government will add 2,600 jobs, with 73% of growth in local (K-12) education.

Financial Activities—After five consecutive years of employment losses, the Financial Activities Sector added 2,300 jobs (1.6%) in 2012. Growth will continue in 2013, with the sector adding 2,500 jobs, although it will be subdued by increased financial regulation and tepid economic growth impacting lending.

Information—The job losses that precipitated in 2012 were partially attributable to decreasing employment in the telecom sector. This decline is linked to the merger between CenturyLink and Qwest that led to much of the Qwest building being vacant. While both Broadcasting and Publishing benefited from the costly national and local elections, the Publishing Sector continues to reel from changing economies, causing consolidation and content sharing. Software is generally outperforming the Information Sector, with the lack of talent one constraining factor.

The following observations summarize the assumptions and thoughts of committee members for 2013:

International and National

- The fiscal cliff and the European debt crisis are creating great uncertainty in the markets and carry recessionary risks.
- Barring the fiscal cliff, U.S. GDP growth will exceed 2% in 2013.
- Europe will continue to be embroiled in a debt crisis that places some countries in recession.
- On a trade-weighted basis, the value of the U.S. dollar is expected to remain weak relative to other foreign currencies.
- The federal deficit will decline to below $1 trillion.
- Inflation will continue in check for another year, and interest rates will remain at historically low levels.
- Monetary accommodation will continue at least into 2014.

Colorado

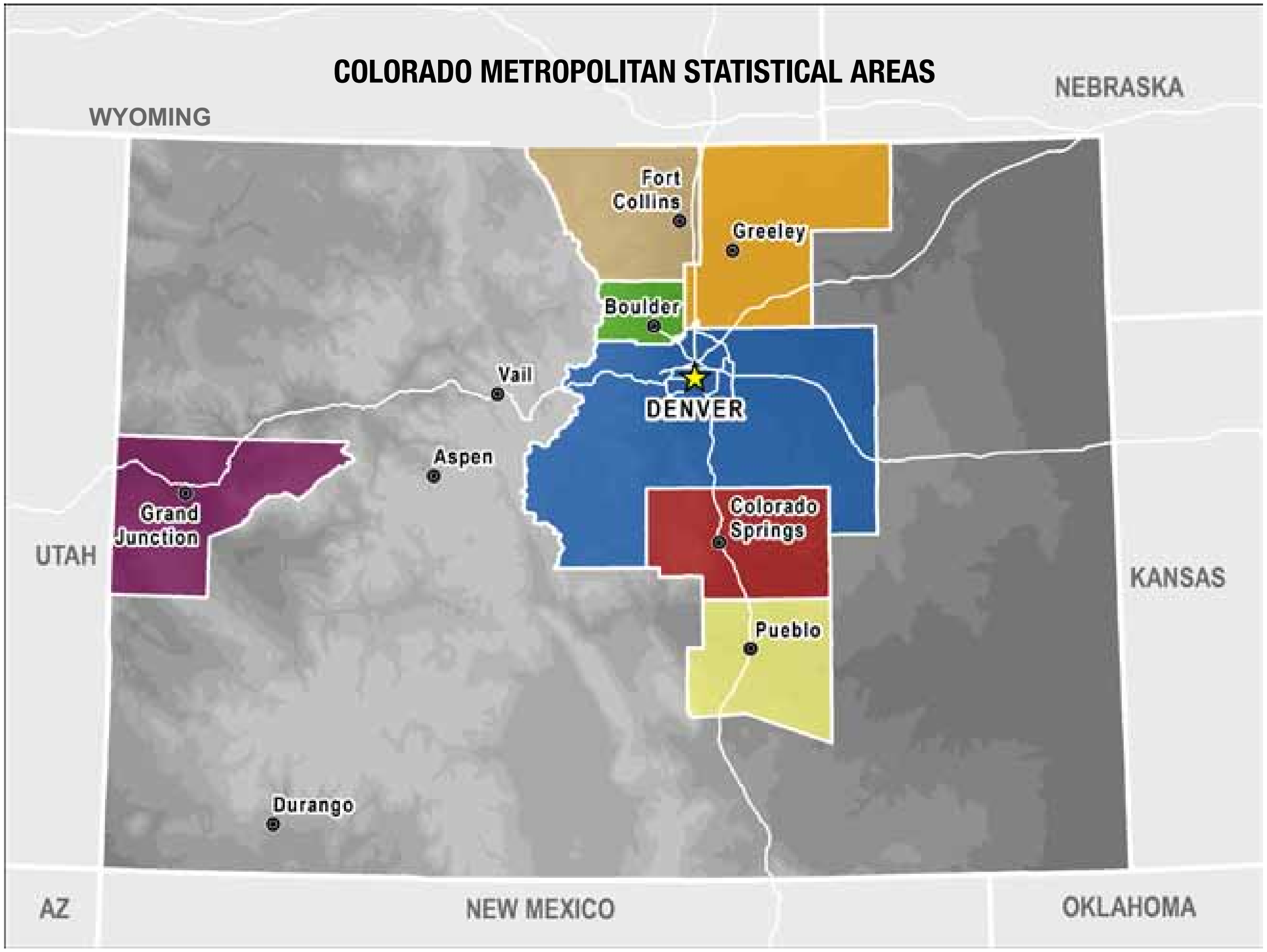
- Colorado will place in the top 10 states for employment growth in 2013.
- High commodity prices and an easing drought will lead to near-record farm income.
- State and local governments will continue to rebound from budget strife, slowly restoring some of the critical cuts made during the past four years.
- Home prices will continue to improve in Colorado, as will the foreclosure situation.
- Colorado will continue to be a popular place to live, with projected population growth of 1.5% and the state's 23rd-consecutive year of net in-migration.
- Colorado will sustain an unemployment rate under 8%.

With a talented workforce, high-tech (but diversified) economy, relatively low costs of doing business, global economic access, and superior quality of life, Colorado is poised for long-term economic growth. ✤

Around the Region

Along with Colorado, the neighboring states of Arizona, Kansas, Montana, Nebraska, New Mexico, Utah, and Wyoming comprise the western region of the United States. This section compares economic activity in 2010, as measured by total employment, employment growth, unemployment rate, average annual pay, and GDP, in these states and their top metropolitan statistical areas (MSAs).

The recent recession caused every state in the region to suffer negative employment growth rates that overwhelmed gains from earlier in the past decade (2001–10). Montana, Nebraska, Utah, and Colorado experienced the smallest declines over that period, with compound annual growth rates (CAGR) of -0.03%, -0.05%, -0.09%, and -0.11%, respectively. New Mexico (-0.13%), Wyoming (-0.13%), Kansas (-0.16%), and Arizona (-0.20%) lagged even further behind the rest of the region. Regarding MSAs, Pueblo was the only one in the region that did not experience negative growth, with a CAGR of zero. Lincoln followed close behind, with a CAGR of only -0.02%, while Fort-Collins-Loveland came in a close third, at -0.03%.



These states all suffered dramatic losses in employment in recent years, but the percentage changes in employment from 2009 to 2010 indicate that employment declines have leveled off. Arizona experienced the greatest percentage decrease in employment, 2.1%, while the rest of the western region fell between 0.4% and 1.5%. As these states began their recovery along with the rest of the nation, every state, with the exception of Wyoming, enjoyed positive GDP growth from 2009 to 2010. While Wyoming's state GDP fell 0.3%, Kansas and Nebraska's grew 2.1% and 1.9%, respectively. New Mexico and Utah followed close behind with 1.7% growth each, and Colorado lagged slightly, at 1.4%.

In 2009, Colorado's $47,868 average annual earnings surpassed all others in the region, including Arizona, at $43,299. Boulder and Denver have maintained their top place, with above-average annual pay levels exceeding $50,000. This far surpasses other MSAs in the region, which fall within the $39,000–$45,000 range.

COLORADO METROPOLITAN STATISTICAL AREAS (MSA)

MSAs	Sept. 2012 Total Employees (In Thousands)	Employment CAGR Sept. 2002 - Sept. 2012	Employment Percentage Change Sept. 2011 - Sept. 2012	September 2012 Unemployment Rate[a]	2011 Average Annual Pay	2010 GDP (Millions of Chained 2005 Dollars)	Real GDP Percentage Change 2009-10
Boulder	168.1	0.5%	3.1%	5.7%	$55,357	$17,047	4.0%
Colorado Springs	245.5	-0.1	-1.7	8.7	43,349	24,016	3.5
Denver-Aurora-Broomfield	1,244.0	0.6	2.5	7.4	54,278	144,931	1.3
Fort Collins-Loveland	140.0	1.1	2.7	5.8	42,101	10,521	2.9
Grand Junction	62.9	1.8	4.1	8.1	39,190	4,253	-3.3
Greeley	84.1	1.7	4.3	7.9	40,639	6,530	1.9
Pueblo	58.9	0.8	0.0	10.1	36,374	3,706	0.8

REGIONAL METROPOLITAN STATISTICAL AREAS (MSA)

MSAs	Sept. 2012 Total Employees (In Thousands)	Employment CAGR Sept. 2002 - Sept. 2012	Employment Percentage Change Sept. 2011 - Sept. 2012	September 2012 Unemployment Rate[a]	2011 Average Annual Pay	2010 GDP (Millions of Chained 2005 Dollars)	Real GDP Percentage Change 2009-10
Albuquerque	368.8	0.1%	-0.7%	6.4%	$41,367	$35,483	1.7%
Cheyenne	45.5	1.4	1.8	5.2	40,235	4,648	-0.1
Kansas City	991.5	0.4	0.1	6.1	45,993	96,039	1.5
Lincoln	176.8	0.7	2.0	3.0	38,104	12,760	1.2
Phoenix-Mesa-Glendale	1,769.4	1.0	2.7	6.9	46,690	173,371	0.7
Salt Lake City	644.3	1.4	2.8	4.6	44,538	60,157	1.9
Tucson	355.3	0.4	-0.3	7.0	41,357	28,558	0.2
Wichita	288.1	-0.1	1.5	6.2	41,860	23,453	-0.4

REGIONAL STATES

States	Sept. 2012 Total Employees (In Thousands)	Employment CAGR Sept. 2002 - Sept. 2012	Employment Percentage Change Sept. 2011 - Sept. 2012	September 2012 Unemployment Rate[a]	2011 Average Annual Pay	2011 GDP (Millions of Chained 2005 Dollars)	Real GDP Percentage Change 2010-11
Colorado	2,300.2	0.5%	1.6%	7.4%	$49,082	$234,308	1.9%
Arizona	2,469.5	0.9	2.2	8.0	44,581	227,098	1.5
Kansas	1,348.1	0.1	0.8	5.3	39,989	113,367	0.5
Montana	434.2	0.9	1.9	5.1	35,791	31,983	0.0
Nebraska	958.3	0.6	1.3	3.4	38,269	79,889	0.1
New Mexico	794.6	0.3	-1.3	6.0	40,032	70,497	0.2
Utah	1,238.6	1.5	1.6	4.7	40,279	108,329	2.0
Wyoming	289.0	1.5	1.0	4.4	43,394	31,542	-1.2

Sources: Bureau of Economic Analysis, Colorado Department of Labor and Employment, and Bureau of Labor Statistics (CES, QCEW, and LAUS data). [a]Not seasonally adjusted. Unless noted, all data is seasonally adjusted. State level GDP is available for 2011, while MSA GDP is available for 2010.

Boulder County

The Boulder County economy continues to improve and outperform the state and national economy in many areas. While continued growth is expected in 2013, any significant reduction in federal research funding would have a significant negative impact, affecting federally funded research labs and the university, as well as numerous businesses that depend on federal research contracts, Small Business Innovation Research (SBIR) grants, and other funding programs to develop and refine new technologies.

Boulder County's diverse economy is supported by a high concentration of businesses in a number of emerging industries, visionary entrepreneurs, a well-educated and highly skilled workforce, a world-class research university, and several major federal labs.

The area continues to receive national recognition for its business climate and lifestyle. In 2012, Richard Florida named Boulder America's Most Creative City, *USA Today* ranked Boulder #9 among Top Cities for Technology Start-Ups, and the city was recognized in several national rankings on health and happiness. In 2011, Louisville was ranked #1 on *Money* magazine's Best Places to Live list.

Population, Employment, and Wages—Boulder County has continued to experience steady population growth, above-average growth in employment and income, and below-average unemployment. Year-to-year comparisons show the seasonally adjusted total nonfarm employment rose 3.1% between September 2011 and 2012 compared to an increased of 1.6% for Colorado and 1.4% for the nation. The area's large concentration of jobs in sectors with higher-than-average wages contributes to above-average incomes for area residents (Boulder 2011 median household income, $65,571; Colorado, $56,345; United States, $51,484). In September 2012, the not seasonally adjusted Boulder County unemployment rate was 5.7% compared to 7.4% for the state and a national rate of 7.6%.

Real Estate—Commercial vacancy rates decreased and residential real estate sales and average home values increased in Boulder County from Q2 2011 to the same period in 2012. Year-to-year comparisons of the office vacancy rate for the Boulder-Longmont market decreased from 14.1% in Q2 2011 to 13% in Q2 2012. During the same period, the industrial vacancy rate in the area fell from 11.7% to 11.3%, and the retail vacancy rate declined from 8.8% to 7.2%.

Residential real estate activity improved over 2012. The number of single-family homes sold in Boulder County for the 12 months ending in September 2012 was 18% higher than the same period in 2011. The Federal Housing Finance Agency house price index for Boulder County increased 1.5% from midyear 2011 to 2012. During the same period, the house price index for Colorado increased 4.8%, and the national index grew 3%.

Financial Services and Venture Capital Investment—Boulder County has 31 FDIC-insured financial institutions with 108 offices and $6.8 billion in deposits, representing 6.8% of the state total. From midyear 2011 to midyear 2012, deposits in Boulder County's institutions rose $121 million or 1.8% compared to an increase of $460 million, or 7.4%, from midyear 2010 to 2011. By comparison, deposits held by Colorado institutions increased 3.3% during the same period.

Venture capital (VC) investment in Colorado companies has continued to rebound and the high concentration of advanced technology and entrepreneurial activity in the Boulder area continues to help fuel VC investment in Boulder County companies. According to the PwC/NVCA MoneyTree Report, $76 million of VC funding was received by Boulder County companies during Q3 2012, representing 42% of the state total.

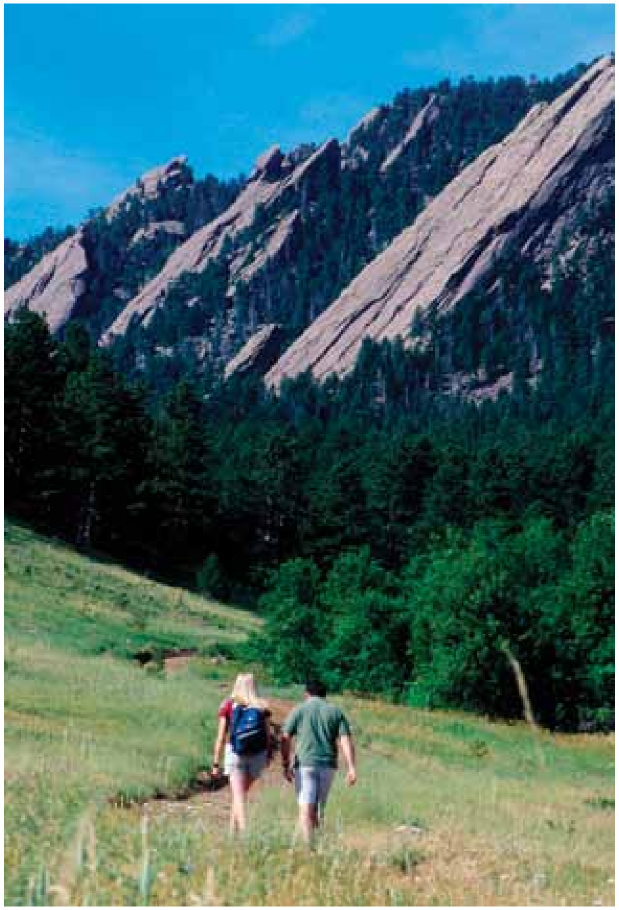
Leading Industries—A high concentration of companies and employment in growing industry clusters—including aerospace, biotechnology, clean tech, information technology, natural and organic products, outdoor products and recreation, and tourism—along with the facilities, programs, suppliers, and workforce that support the growth of those industries, continue to benefit Boulder County's economy.

Aerospace—Boulder County has a high concentration of aerospace employment and several aerospace companies are headquartered in Boulder County, including Ball Aerospace and DigitalGlobe. Several federally funded labs in the area conduct research in space, including the Laboratory for Atmospheric and Space Physics (LASP), the National Oceanic and Atmospheric Administration (NOAA), and the University Corporation for Atmospheric Research (UCAR). Boulder-based eSpace: The Center for Space Entrepreneurship, a joint venture of the University of Colorado and Sierra Nevada's SpaceDev, assists in creating new aerospace companies. The University of Colorado Boulder, a member of the Universities Space Research Program, offers nationally recognized aerospace academic programs and receives major funding from NASA.

Biotechnology—Boulder County has a high concentration of companies and employment in the biotechnology, pharmaceuticals, and medical devices industry clusters. Major employers include Covidien, Amgen, and Array BioPharma. The University of Colorado Boulder has a distinguished record in biotechnology research that has attracted major research funding and generated numerous startups. In 2012, the Jennie Smoly Caruthers Biotechnology Building, a world-class research facility opened on CU-Boulder's east campus. The building is home to the Biofrontiers Institute, headed by Nobel laureate Dr. Tom Cech, and provides a unique environment designed to facilitate interdisciplinary research and expand Colorado's leadership in biotechnology.

Cleantech—Boulder County continues to experience growth in the renewable energy and energy research industry. This development is supported by the federal labs, the University of Colorado's Renewable and Sustainable Energy Initiative, and businesses, including GE Energy Control Solutions, Tendril Networks, Siemens, juwi Solar, and juwi Wind.

Information Technology—Boulder County has a long history of involvement in the information technology cluster and a high concentration of employment in software, data storage, and web-based services. Major employers include IBM, Seagate, Intrado, Google, HP, Microsoft, Rally Software, and Markit On Demand. The Boulder area is also home to TechStars, a successful mentorship and seed-funding program, and continues to be one of the hottest markets for tech startups.



Natural and Organic Products—Many leaders in the natural and organic products cluster got their start in Boulder, and the area remains important in the growth of the industry. Area companies include Celestial Seasonings, Rudi's Organic Bakery, Justin's Nut Butter, Eco-Products, EVOL Foods, and Pangea Organics. New natural and organic products companies continue to be launched in the Boulder area.

Outdoor Products and Recreation—Boulder is recognized as a center for the growing outdoor recreation industry and is home to the Outdoor Industry Association and the International Mountain Bicycling Association. The Boulder area has a high concentration of manufacturers, distributors, retailers, marketing and media companies, and medical and other services providers focused on the industry. Local companies include Spyder Active Sports, GoLite, Newton Running, and Sea to Summit.

Tourism—The Boulder area continues to be a popular destination that receives national media attention for its recreational and cultural amenities, and impressive array of shopping and dining choices. In 2012, Boulder County tourism benefited from high profile events, including the USA Pro Cycling Challenge bike race and Boulder's recognition as one of nation's "foodiest" cities and best vacation destinations.

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Kit Carson County

The major force driving the economy in Kit Carson County and most of the counties in Eastern Colorado is agriculture. Indeed, Kit Carson County is typically the number one county in wheat production in Colorado. Tourism is also important as the Colorado Welcome Center in Burlington is usually the second-highest entry point into Colorado via vehicle.

The population of Burlington continues to increase at a very slow rate. At the same time, the projected population of Kit Carson County is declining.

The farmers throughout Eastern Colorado had exceptional years in 2010 and 2011. Yields were substantially above average, and in 2011, the commodities market almost doubled, providing a high income for all of those involved in farming. Above-average precipitation and high prices combined for an outstanding 2011.

In 2012, the area was hit hard by a drought that cut yields dramatically. A vast majority of the dry land crops were destroyed and produced very little, if any, revenue. The irrigated crops declined in yields; however, a decent crop was still produced. With the increase in commodity prices, irrigated crops still had an above average year.

Tourism is extremely important to the local economy. Although it is certainly way behind agriculture, it has provided a more stable economy.

Employment—In 2011, there were 287 firms and 2,967 nonfarm wage and salary jobs in Kit Carson County. However, farm and sole proprietor employment represents significant employment in the county, accounting for roughly 38% of total employment not captured in the nonfarm wage and salary tally. The Kit Carson County unemployment rate was 4.1% in September 2012 (not seasonally adjusted) compared to 4.6% a year earlier.

Over the last several years, unemployment in this area has been considerably below the Colorado and national average. To cite an example: The Corrections Corporation of America, which has a private prison in Burlington, is always looking for people to fill correctional officer jobs. Approximately 200 workers on the payroll are needed in order to meet Colorado Department of Corrections standards.

Bank deposits in the area are at or near record highs. This can be attributed to the excellent years farmers have recently had.

On the down side, many jobs in the area pay minimum wage. For Burlington and Kit Carson County to continue to grow at a modest rate, additional jobs for skilled and semi-skilled individuals are needed.

Income for workers in most of Eastern Colorado has remained fairly flat.

If the drought is broken, Burlington and most of the counties in Eastern Colorado should have a good-to-excellent year in 2013. If the drought persists, things could reverse very quickly.

Residents of this area live and die economically by two things: adequate moisture and good-to-high commodity prices.

La Plata County

The Office of Business and Economic Research (OBER) at the School of Business at Fort Lewis College measures and reports on economic activity in La Plata County. The La Plata County economy is highly seasonal and is related to tourism and construction's impact on the local economy. Although there is significant winter tourism associated with winter sports, most La Plata County tourism occurs during the summer. This summer concentration causes a third quarter seasonal upswing in economic indicators, such as retail sales and employment, each year.

The presence of Fort Lewis College, Walmart, Mercury Systems, and Mercy Medical Center in La Plata County provides some stability to the local economy, particularly in labor markets. The local economy had been steadily becoming less volatile over the past 20 years until the Great Recession of 2007-2009. The impact of the student population has declined since 2002, when the student body peaked at 4,347 students, although enrollment has increased slightly over the past three years. Fall enrollment in 2012 stands at 3,856 students. Over the past 10 years or so, there has been a push to attract new and dynamic private companies—"growth companies"—that pay higher-than-average wages and are expected to continue to bring higher value-added employment and greater stability to the regional economy.

Employment, Unemployment, and Inflation—For the 12 months August 2011 to August 2012, La Plata County's unemployment rate continued to decline, falling 0.7% points from the same period a year earlier and remaining close to 2% below Colorado and the nation as a whole.

In August 2011, the La Plata County labor force was 31,692 (12-month moving average), or about 4.9% higher compared to the same period in the previous year. Labor force growth was positive in January 2011 for the first time since October 2008. However, the employment-population ratio in La Plata County has yet to return to prerecession levels.

Local inflation rates, calculated using a price index constructed by the OBER, shows that inflation has remained moderate through Q2 2012, aided by moderate increases in the rental market. Low interest rates and falling housing prices have led to negative monthly mortgage payment growth, helping keep inflation rates low.

Income—Per capita income in La Plata County has improved over the last few years, both absolutely and relative to Colorado per capita personal income. Personal per capita income in 2011 (most recent data available) was $40,673 in La Plata County, a decline of 0.6% from 2010, yet it remains the highest in the Region 9 counties. Additionally, while the state grew an average of 2.6% during the Q1 2001–Q1 2012 period, La Plata County total wages increased an average of 4.4% over the same period, and average weekly wages rose 3.5% compared to the state average of 2.5%.

In the immediate aftermath of the beginning of the Great Recession, total income in La Plata continued to climb for two quarters before falling 4% of prerecession levels in Q3 2009. Since then, county income has increased and as of Q1 2012 is about 1% above prerecession levels.

In Q1 2012, the largest share of private income was attributed to service providers—Retail, Transportation, and Utilities—which accounted for about 21.8% of total private income in La Plata County, down 0.2% from the same period a year earlier. For the five-year period 2007–2012, sector income shares remained fairly constant, with the exception of Natural Resources, which lost about 1%. The other two dominant sectors in the economy, Construction and Education and Health, remained steady. Construction stayed at 11.6% of total income, and Education and Health fell 0.1%, to 18.8%. Leisure and Hospitality gained 0.1%, to 8.9% of total income.

Government income as a share of total county income has remained nearly constant, at 25%. Regional seasonal cycles in local government have been offset, in part, by income from state government sources. Since 2002 the federal government's share of total government income has gradually fallen, from about 15% to 10%.

In the first year of the recession, La Plata County experienced negative federal income growth, but this was balanced by positive growth in state and local income. It should be noted that was before the America Recovery and Reinvestment Act redistributed federal funding to state and local governments. State government income growth in

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Q1 2012 was positive after being negative the previous three years.

Tourism—Though the economy has become diversified, tourism continues to play a significant, though declining, role in La Plata County. Leisure and Hospitality accounts for about 9% of total income. Data through the September 2012 reveal the effects the Great Recession has had on the regional economy. Visits to Mesa Verde are down almost 17% in 2012 compared to a year earlier. Although Mesa Verde National Park is in Montezuma County, many tourists who visit the park stay in La Plata County during their time in the area. On other hand, airline enplanements were up 4.9% from the previous year. Passengers on the Durango & Silverton Narrow Gauge Railroad increased 0.2% over the same period. The OBER Tourism Index shows overall long-term tourism trends continue to rise, up 13% from the beginning of the recession in December 2007. Finally, retail taxes are up 15% year-over-year in the 12 months leading up to March 2012.

Real Estate and Banking—Like many Colorado resort communities, La Plata County's economy is closely tied to real estate. Using the second quarter as representative of the overall housing market, the 2012 median inflation-adjusted home price in La Plata County combined is up approximately 19% from 2011, though this is about 13% lower than the peak in 2008.

Total Q2 2012 sales are almost 21% higher relative to the previous year, a sign that the housing market is starting to clear as owners accept lower prices. Currently, about 0.11% of homes are in foreclosure, compared to a Colorado state average of 0.17% and a national average of 0.14%.

The OBER tracks bank deposits at five local and regional banks. Between 2009 and 2011, bank assets, defined as net loans and leases, experienced negative growth; however, in Q1 2012 assets grew 4.6%. Total deposits—bank liabilities—declined in 2010, but have since seen two years of positive growth.

Recent and Future Trends—The La Plata economy, like the rest of the state and nation, is rebounding. Indeed, it appears that economic trends are moving almost concurrently with the overall economy. The falling unemployment rate is beginning to firm up the labor market. Despite La Plata economy's propensity to lag the rest of the country, the OBER believes the local economy will begin to see signs of a decent recovery. Rising demand for construction and real estate will slowly provide a foundation for relatively good growth. The OBER also foresees continued levels of underemployment, which is similar to other resort communities that rely on seasonal construction jobs and low value-added service jobs.

Historically, the local economy has been closely tied to national unemployment, with up to two years of lags, given both a decline in uncertainty and planning horizons for tourism. The continued strengthening of the U.S. economy should provide some support for the local economy. However, there is a caveat: the effects of the national economy are not symmetric. Declines in the national economy tend to have a statistically significant impact on local economic growth, while the impacts of an improving economy are less so.

Mesa County

Mesa County is on the western border of Colorado and is the 11th-most populous of Colorado's 64 counties. The county was named for the many large mesas in the area, including the Grand Mesa. In 2011, the county population totaled 147,083. The county seat is Grand Junction, and the Grand Junction Metropolitan Statistical Area comprises Mesa County.

Given that Mesa County is a large regional hub on the Western Slope of Colorado, where 67% of all Western Slope natural gas workers live, natural gas prices and price contracts greatly affect the county. Although there is not much oil or gas extraction in the county, energy and energy services industries remain critical factors to the Mesa economy and are typically some of the largest employers. Health care is another significant industry in Mesa County. It has become known as a great area to retire because of its mild climate, exceptional health care, and low cost of living. This has been a major factor in the growth of the health care industry in the Grand Valley.

Signs of economic recovery have been slow but 2012 has seen some positive increases, specifically in home prices, home sales, and the increase in employment. The labor force and number of jobs have gradually been building back up to levels that were seen in 2008 and 2009.

Colorado Mesa University (CMU) is expanding and adding more academic programs, focusing on energy research and development. Additionally, it has added a doctorate in nursing to continue to supply nurses and nurse practitioners to the region. CMU has established an Unconventional Energy Center within the Redifer Institute. Through two separate endowment committees, Applied Research and Workforce Development and Curriculum Enhancement, the center will manage a $3.2 million endowment focused on furthering each of these strategies.

Employment—The Mesa County labor force has been showing signs of improvement since hitting postrecession lows in 2011. The September 2012 labor force reached 82,041, a 2% year-over-year increase. The unemployment rate increased at the beginning of 2012 but dropped toward the end of the year, to 8.1% by August. The highest level of unemployment was 9.6% in January 2012 (not seasonally adjusted). The county's unemployment rate continues to be higher than the state's. Estimated employment in 2012 for Grand Junction MSA is 64,567, with an annual growth rate of 0.9%. In 2013, employment in Grand Junction MSA will be an estimated 65,115.

The largest employer in Mesa County is St. Mary's Hospital, with more than 1,500 employees. The medical device and health care industry is expecting to see an increase in the employment due to aging baby boomers. In Mesa County, the health care industry will be looking to hire more doctors, nurses, and support staff in 2013. As well, medical device companies are anticipating to hire more engineers, computer numerical control operators, and programmers.

The aviation and aerospace industry is growing in Mesa County because of the type of airspace and land available for business expansions near the regional airport. This industry also has plans to boost employment, looking to hire more employees with manufacturing and precision machining skills.

Wages—Average annual wages increased 0.3% in Q1 2012, to $41,548, positive news for the local labor force. This is the fourth-consecutive year-over-year increase in the county. It is projected that wages will continue to increase due to gains in the quality of students graduating from CMU. This will affect businesses as they will need to increase wages in order to compete for this skilled workforce.

Real Estate—Mesa County saw housing prices drop to their lowest in February 2012, at $152,000, but have been increasing, to an average price of $180,000, at the end of 2012. Foreclosure rates are still high in Mesa County. According to Advanced Title Company, housing inventory is becoming scarce in the lower prices ranges, particularly for homes under $200,000. Inventory remains favorable for buyers in the upper price ranges, while improving overall to a more balanced market between seller and buyers. When the unemployment rate drops and demand for housing improves, Mesa County should see strong growth in inventory available for sale. The high level of single-family foreclosures reported in the first and second quarters of 2012 will slow some of the progress being made in the real estate market.

Taxes—Sales tax revenues have increased 4.6% in 2012 compared to 2011. Use tax revenues have decreased slightly in 2012 relative to 2011. Overall tax revenue collected by the City of Grand Junction is up by 2.3%, with the city collecting $37.3 million compared to $36.4 million in 2011.

Tourism—Tourism is a big industry in Mesa County, in large part due to the natural environment. The Grand Valley offers a wide variety of wineries, vineyards, agri-tours, biking, hiking, camping, and fishing activities. Lodging tax revenues increased 7.7% in 2012 compared to 2011 and climbed 6.8% over 2010.

Individual Business Sectors—Five target industry sectors in the Grand Valley have been identified as areas for growth for economic development and primary jobs. These include: health care and medical device manufacturing; aviation and aerospace; energy and energy services; outdoor recreation manufacturing; and IT and professional services, such as call centers and data centers.

Manufacturing

***Medical Devices*—**This industry sector is in a holding pattern as it waits to see the impact of health care reform and the medical device tax. Looking long term, an increase is projected due in large part to a growing (and aging) population. As the industry ramps up volume, it will automate processes, including more robotics and camera systems, to gain capacity, run rate improvements, have better yields, and so forth.

In Mesa County, the medical devices industry is affected more by foreign competition than by regional or national competition due to the relative strength of the U.S. economy compared to foreign economies. Furthermore, currency exchange rates

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affect this industry's ability to compete, mostly with the euro.

A weak or unstable economy will lessen investment in R&D in the medical device manufacturing industry. Much of its growth has been, and will continue to be, dependent on R&D and new products. It has become more difficult to manage exchange rates in a fluctuating economy.

Health care reform will push the medical devices industry to seek lower cost solutions. This could be an opportunity to look for new partners and new solutions. Medicare reimbursements affect the industry. Medicare reimbursement rates influence the amount insurance companies will reimburse hospitals and doctors, which in turn affects what medical device companies can charge.

Aviation and Aerospace—Government funding for the Department of Defense and the FAA impacts this industry and will continue to affect major decisions that companies within this industry make. Increased costs of any kind are damaging to growth potential. Although markets are expanding globally for this sector, among the challenges it faces are health care reform, energy costs, and regulation. The industry must invest in technology in order to compete in the global market.

Offshore competition is increasing at a fierce rate for the aerospace industry. What they wouldn't dream of outsourcing 10 years ago is now common in places like Poland, Turkey, Korea, and China as these countries began competing strongly for this valuable industry. Many publicly traded companies are investing in infrastructure (buildings, manufacturing capability, etc). New aerospace and aviation jobs follow these infrastructure investments.

Retail—While the retail industry typically has seasonal employment and plans to ramp up for the holiday, it is not anticipating a need to increase employment much more in 2013. Soft skills are necessary for the retail industry. In 2012, many training programs and classes were offered to teach workers these skills.

Gasoline and transportation costs are an issue in the retail industry. The cost to get products to stores has continued to climb and that increase has been pushed on to the customer. The retail industry is continuing to expand in Mesa County due to increases in population growth.

Energy—The exploration and production of natural gas and oil in Mesa County has seen a slight drop from previous years due to the current low price of natural gas, drop in demand, and oversupply. Permits totaled 306 in 2010, dropped to 127 in 2011, but rebounded to 136 through October 10, 2012 (compared to 501 in 2008). That said, oil and gas service companies in Mesa County are expanding to support oil and gas extraction operations regionally and nationally. In 2010, the energy sector employed 3,464 employees compared to its current level of 5,337 employees—an increase of 54%. The Colorado Oil and Gas Association reports the oil and gas industry contributed more than $1.8 million in severance taxes in 2012 to Mesa County, which is an 8.5% increase over 2011.

This industry sector plans on maintaining current production and employment levels for 2012. Finding qualified workers is not an obstacle for this industry in Mesa County due to the abundant training programs and classes for energy industry jobs. The industry is impacted by changes in federal government programs, specifically for the renewable energy sector and the tax rebates they receive. Compressed natural gas (CNG) is a sector of the energy industry that could see dramatic growth in 2013 and 2014 due to more car manufacturers producing more CNG vehicles. Currently, Mesa County has one CNG station. The City of Grand Junction has a fleet of vehicles using CNG. Western Colorado Community College has classes devoted to CNG, which include how to convert gasoline engines into CNG engines.

Summary—Mesa County continues to see signs of a recovery through the growth of its industries, an increasing annual wage rate, and population growth. The decrease in unemployment is a good sign for county residents and helps to build confidence. Mesa County will grow and change along with the region and the state as the country continues to recover from the recession.

Northern Colorado

At long last, a true economic recovery seems to be taking hold in Northern Colorado. Over the past six months, job growth from the previous year in Larimer and Weld County's growth has averaged about 2.2%. This is in line with the annual growth rate for the two years preceding the Great Recession.

In the September 2012 jobs report, total employment in Larimer County stood at an all-time high of 140,000. This is up 7,800 from three years earlier, when the local economy was bottoming out. Almost half of those jobs were added over the past 12 months.

The story rings true in Weld County, as well. In September 2012, the Current Employment Statistics report shows the county is home to 84,100 jobs. This is 3,500 more (4.3%) than a year earlier. The county has experienced year-over-year job growth since mid-2010.

While the regional economy is trending upward, progress remains slow for many local jobseekers. Larimer County's unemployment rate stood at 5.8% in September. Although well below both the state and national rates, it is 2.5 percentage points higher than it was at the start of the recession. Nearly 5,000 more people are out of work today in Larimer County than five years ago.

Weld County's unemployment picture is even more troublesome. In September 2012, the county's unemployment rate was 7.9%. Although down significantly from the 11% rate in early 2010, unemployment remains well above the 4.4% rate at the start of the recession. Like Larimer County, Weld has about 5,000 more unemployed residents than five years ago.

Despite stubbornly high unemployment, other indicators point to a sustained recovery. According to the Federal Housing Finance Agency, home prices increased during the first six months of 2012 for both counties. With positive year-to-year growth over four of the past five quarters, Larimer County has seemingly put an end to its housing slump. Recovery in Weld's housing market is a bit more precarious. Although county housing prices have increased over the past six months, gains have been relatively modest to the precipitous fall they took from 2006 through early 2011.

Data from the region's major cities have also provided reason for optimism. In Fort Collins, city data shows that taxable retail sales continue to grow, with August 2012 sales up 4.3% over the year. In Loveland, year-to-date sales tax revenue has climbed 6%. And in Greeley, sales and use tax revenue is up 8% from the previous year.

So what is driving the recovery? In Weld County, it is a return to basics, with oil and gas exploration and development fueling much of the recent job growth. Food processing is a second strong sector, with Leprino Foods—the world's largest maker of mozzarella cheese—joining JBS Swift as an important presence in Greeley.

In Larimer County, Professional and Business Services (+2,100 jobs) and Education and Health Services (+600 jobs) are among the leading job generators over the past 12 months.

The region's clean energy sector took several hits, however, in 2012. International wind power giant Vestas has laid off workers across Colorado in light of reduced demand and uncertainty about the extension of federal renewable energy production tax credits. Abound Solar shuttered its facilities in Frederick, Fort Collins, and Loveland, laying off more than 400 workers.

That's a lot of numbers. The question is what do they mean.

The basic story is that the regional economy is growing at a "reasonable" rate—one at least as good as the performance over the first part of the millennium. Yet local growth has been substantially less than the 1990s experience, when the labor market was fueled by a booming tech sector and rapid population growth.

The trouble with growing at a "reasonable" rate is that the regional job market is still well below where it would be if the economy were working at its potential. Too many people are unemployed or underemployed. From the macroeconomic perspective, this means inefficiency. From the microeconomic perspective, this means families are struggling.

Much of the problem stems from the fact that the economy fell so far. Only recently has the region made up for the significant job losses incurred in 2008 and 2009. When it takes two years to make up for jobs lost in one year, it is hard to get back to "normal."

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And that raises another interesting question—just what is normal, anyway?

On the eve of the Great Recession, the unemployment rates for Larimer and Weld counties were 3.4% and 4.1%, respectively. At the dawn of the millennium, they were both about 3%. By January 2010, Larimer County's unemployment rate climbed to 8.4%, while Weld's reached 11%.

Looking forward, by the end of 2013 Larimer's unemployment rate will likely sit near 4.2%. In Weld, unemployment could dip to 6%. Then again, it might not. And that, in the view of some, will be the new normal. Not really all that much different, is it?

Pueblo County

Introduction—Of the 14 Colorado planning and management regions, Region 7 is the only one that consists of a single county, Pueblo. With a land area of 2,400 square miles, Pueblo County ranks 13th-largest of the 64 Colorado counties. Of the planning and management regions, it ranks the smallest in geographic size. In terms of total population, Region 7 is the 5th-largest of the 14 regions, according to the 2010 census. The 2000 census recorded 141,472 Pueblo County residents, growing to 159,063 in 2010—a 1.2% compound annual growth rate—and ranking 8th among regions. Pueblo County has an estimated 2011 population of 160,393.

Jobs and the Economy—On the basis of September 2012 data, Pueblo County's unemployment rate (not seasonally adjusted) stood at 10.1%, compared to 9.9% a year earlier. Total nonfarm wage and salary employment (seasonally adjusted) in the county totaled 58,900 in September 2012, the same level as a year earlier, but 3.3% higher than the trough following the recession.

Examining the trends of job growth by business sector reveals several interesting developments. The major industry sector showing the largest percentage job gain for September 2012 relative to September 2010 was Manufacturing (7.3%), followed by Professional and Business Services (7%), and Construction (6.2%). The startup of the Vestas wind turbine tower manufacturing facility in Pueblo contributed to growth in manufacturing jobs during the period, although recent layoffs at the plant cloud the outlook for continued growth for at least the short term. Apparently, the latest numbers from the Bureau of Labor Statistics do not reflect these losses. Evraz-NA, the parent company of Rocky Mountain Steel Mills, has seen a 9.8% gain in employment for Q3 2012 compared a year earlier. The plant currently employs more than 1,200 workers and is Pueblo's largest manufacturing employer. Total manufacturing employment grew by 300 jobs during September 2012 relative to the corresponding month in 2010. The imminent loss of several hundred construction jobs associated with completion of the weapons disposal plant at the Pueblo Chemical Depot does not bode well for the Construction Sector.

Impacts of the Recession—It may be worthwhile to compare briefly the similarities and differences between the current "recession" in Pueblo and the nightmare one that gripped Pueblo in the early 1980s. Both are similar to the extent that they have had a major impact on individuals and families, not only where (or whether or not) they work, but how they spend their disposable income and where they choose to live. A depressed housing market characterizes both periods. The differences, though, probably outweigh the similarities. The unemployment rate during the recession 20 years ago was much higher than now. In 1982, it registered 16.6%; in 1983, 14%. These are the annual averages. The current downturn has been the result of many different causes. The early 1980s version was due to Pueblo having an industrial base that was heavily concentrated in the steel producing sector and the collapse in demand for this product. From 1981 to 1984, the employment of CF&I, Pueblo's largest employer, shrank from a prerecession value of 5,520 to 2,258 in 1984. Pueblo's economic base is much more diversified now, so the impacts of a downturn are spread more evenly through it. One of the most dramatic differences between the Pueblo of 1982 and the current Pueblo is shown by comparing data on net migration. In 1982, annual net migration stood at -1,962 persons; in 1983, -1,246 persons. Contrast this with the two-year period of July 2009–July 2011, where preliminary data reveal a net in-migration of 2,326 persons. In other words, in the earlier period, more people left Pueblo than moved to it; in the later one, more moved to Pueblo than left. As a final note of comparison; however, Pueblo was able to recover rather quickly from the shock of the 1980s recession. Pueblo's economic development efforts led to its first major success with the recruitment of Sperry (defense-related electronics manufacturing), which ultimately brought more than 1,000 jobs to the community. This was quickly followed by a string of other successes. Unfortunately, the current downturn seems like a bad cold—not too severe, but just doesn't seem to end.

Housing—New residential construction in Pueblo has seen a slight upturn in 2012. Through September 30, 2012, new single-family dwelling permits in Pueblo County stood at 133, compared to 97 for the same period in 2011. However, a government-funded program to construct low-moderate income homes on the City of Pueblo's east side accounts for 29 of the 2012 year-to-date units. So if these units are not counted, market-based housing starts for the first nine months of the year are nearly comparable to last year's figure. Multifamily activity has been negligible for the past several years. However, a Denver developer, Hampton Partners, recently announced plans to construct an upscale apartment complex to be located on Pueblo's north side. The $12 million complex will consist of 92 units incorporated in five three-story complexes. The outlook for improvement in the residential building sector for at least the near-term is showing some positive signs.

The National Association of Home Builders/Wells Fargo Housing Market Index has increased for the past six months. It grew from 40 in September 2012 to 41 in October, the highest level since June 2006. If the trend continues, this may translate into increased demand for new homes in the Pueblo market. Sales of existing homes show a slight increase relative to 2011. According to statistics prepared by the Pueblo Association of Realtors, a total of 1,330 residential units were sold during the first nine months of 2012, representing a total value of $161.9 million. For the first nine months of 2011, a total of 1,293 homes were sold, with a total valuation of $153.1 million. The respective growth rates for units sold and dollar value of sales for this interval are 2.9% and 5.8%, respectively. However, data compiled by the Pueblo County Public Trustee's office through the first three quarters of 2012 show a total of 901 home mortgage foreclosure filings, compared to 876 for the corresponding three quarters of 2011—a 2.9% increase.

Pueblo has a very low housing cost relative to many other Colorado communities. Median sales price for existing Pueblo single-family homes is $120,909, according to second quarter, 2012 data compiled by the Colorado Association of Realtors. This is 60.5% of the corresponding Colorado statewide value of $200,000, and 9.1% of the Telluride figure of $1.3 million! Apartment rents are similarly low, with an overall median of $545, according to the Colorado Division of Housing's multifamily vacancy survey for the second quarter of the year. For Q2 2011, the median value was $483. A decrease in the vacancy rate for apartments from 9.6% to 4.2% has resulted in a moderate upward pressure on rental prices. Pueblo County has a high rate of home ownership, 67.1% of all occupied units, according to the 2010 census. However, the housing stock is showing its age. A comparison of American Community Survey one-year data for 2011 reveal that units built prior to 1940 account for 18.9% of all units—more than twice the State of Colorado value (8.7%). The City of Pueblo value is even higher—23.8% of which were constructed prior to 1940.

Clean Energy—It was with great disappointment that the Pueblo community learned of the announced layoffs at Vestas Towers. Uncertainty about Congressional approval of the production tax credit (PTC) is reflected in the anticipated cutback in demand for wind towers. The exact number of workers affected remains uncertain, but it is believed to be at least 90. As of Q2 2012, the Pueblo plant employed more than 450 workers. At its peak capacity, the plant is capable of producing over 1,300 towers a year. Vestas represents one of Pueblo's recent economic success stories since it commenced operation two years ago.

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New Projects—Several large-scale public sector projects have contributed to the favorable job picture of the Construction Sector for the past year. Probably most notable of these is the $52 million Pueblo County Judicial Building. Groundbreaking for the five-story, 173,000-square-foot facility occurred on February 1, 2012. Many downtown Pueblo merchants are enthusiastic about the secondary economic benefits of the project. Construction peaked during summer 2012, with more than 400 workers on site.

Pueblo's City Hall/Memorial Auditorium complex is currently undergoing a massive renovation. The City Hall portion of the project is slated to cost $6.7 million and will provide new city council chambers and modern office complexes for city administrative functions. Memorial Hall is one of Pueblo's historic gems. In the nearly 100 years of its existence, many internationally acclaimed performers have appeared there. On an historic note, in 1919, President Woodrow Wilson delivered his last public speech in Memorial Auditorium to gain support for the League of Nations. The auditorium renovation phase of the project is slated to cost $10.5 million and will include extensive remodeling of the theater's interior, stage, mechanical, and climate control functions, and improvement of the Grand Avenue access to the facility. The entire renovated complex is scheduled for completion in May 2013.

Other Developments—In April 2012, Rocla Concrete Tie, a company that manufactures concrete railroad ties, announced that it will be relocating its manufacturing operations to Pueblo from Denver to make space for RTD's expanded light rail network. Rocla also has manufacturing facilities in Texas and Delaware. The City of Pueblo offered the company a $2.4 million incentive to relocate. Most of the money will be used to construct a rail siding adjacent to the plant. It will be constructing a 100,000-square-foot facility at an estimated cost of $20 million. Construction is on schedule, with the plant slated to become operational by the end of the year. Located in Pueblo's new south side industrial park near the Vestas Towers facility, it plans to hire 85–125 workers initially.

Groundbreaking took place on September 27 for Pueblo's newest manufacturer, pewag, an Austrian maker of tire chains. The plant initially plans to employ 55 workers when its 55,000-square-foot Pueblo facility is completed in 2014. With a Russian-owned steel mill, Danish-owned wind turbine tower manufacturing plant, and now an Austrian tire chain manufacturer, Pueblo may be on its way to becoming a multinational industrial location!

Great plans are in store for Pueblo's Historic Arkansas Riverwalk Project (HARP). On November 8, 2012, according to the Pueblo Chieftain newspaper, the State Economic Development Commission approved the City of Pueblo's ambitious plan to construct more than $100 million in additions over the next 15 years. The state agency also allowed HARP to use up to $45 million in state sales tax collections under the approved timetable—triple the original approved amount. Phase One of the project, beginning in 2014, calls for expansion of the Pueblo Convention Center and location of a second hotel within the HARP vicinity. Expansion of the Convention Center will include a multi-use arena for the first-ever PBR University bull riding school. Phase Two, commencing in 2018, entails improvements to the Riverwalk, including construction of a Gateway Center. Phase Three, slated to begin in 2025, proposes building a swim complex and indoor water park. A future expansion of the HARP channel is also envisioned. Associated with the project is the development of retail and other commercial space and a possible apartment complex. Pueblo and Aurora are beneficiaries of the state's recently enacted regional tourism grants, which help finance tourism-related projects.

The Army has announced that it will be opening the Gate 19 access to Fort Carson in fall 2012. The gate, which is located near Fountain, will relieve congestion at the Gate 20 access point and should provide improved access for Fort Carson personnel who commute from the base to Pueblo. Opening of Gate 19 has been a long-time goal of Pueblo business leaders. Fort Carson currently has active troop strength of about 26,000. Approximately 5,000 civilians, including construction personnel, are employed at the base. In 2010, over 5,400 workers in El Paso County resided in Pueblo County. This represents 2.8% of El Paso County's employed workforce.

Southern Colorado

Employment and Wages—The Southern Colorado economy is recovering very slowly from the Great Recession. El Paso County private sector job figures from the Quarterly Census of Employment and Wages (QCEW) increased by 1.5%, or 3,042, in 2011. The gain was the first after a loss of jobs in each of the past three years. Thirteen sectors saw job growth in 2011, with significant job increases in Health Care (1,426); Accommodation and Food Services (1,178); Retail (848); and Arts, Entertainment, and Recreation (322).

Job losses took place in eight sectors. Significant declines took place in Wholesale (-1,080), Administrative and Waste Services (-532), Professional and Technical Services (-409), Construction (-407), and Other Services (-118).

Echoing the weak job market is an unemployment rate that averaged 9.2% in 2011. The unemployment rate in 2012 trended up to 9.8% by July 2012 (not seasonally adjusted). The job market is expected to remain weak in the next 6-12 months. Some improvement in construction activity should lead more jobs in this sector.

Primary or cluster industry employment continues to decline as a percent of total employment in the county. Renewed effort needs to be made to define new and emerging clusters in the region in order to diversify the economy as it was in 2000-01. This will be a challenging task in a period of low job creation. Communities around the nation compete vigorously for jobs, often offering very attractive incentives to convince companies to relocate. Colorado Springs has few incentives to offer.

The military presence and military employment has been a bright spot in the local economy for many years but it is now threatened by sequestration of the federal budget. This impasse, if not resolved, has the potential to dramatically affect military- and defense-related private sector employment in the region over the next several years.

Average QCEW wages in El Paso County climbed from $42,989 in 2010 to $43,628 in 2011, an increase of 1.5%. The average wage in the county is 11.1% below the state average of $49,088. High-paying sectors include Mining ($80,184), which currently has low employment but the potential to grow in the areas of oil and gas drilling, Manufacturing ($58,240), and Wholesale Trade ($57,200).

Residential Construction and Commercial Real Estate Activity—Residential building rebounded strongly in the last half of 2011 and year-to-date August 2012. A total of 1,476 single-family building permits were issued through August 2012. Another 106 townhome permits were pulled through August. While these numbers are not as impressive as the heydays of 2004 and 2005, they show a good deal of improvement over 2009 when only 1,307 single-family homes and townhomes were built for the full year and only 30 multifamily units were constructed. The Southern Colorado Economic Forum forecasts 2,300 single-family homes and townhomes will be constructed in 2012 (a 47.4% increase over 2011) and another 2,450 units in 2013 (up 6.5%). This forecast may be conservative depending on how quickly homeowners in the Mountain Shadows subdivision, which was devastated in the Waldo Canyon fire, are able to resolve insurance claims and decide on rebuilding the homes that were destroyed.

Multifamily construction is showing its strongest year since 2002 when 1,917 units were built. Interest in multifamily projects is being propelled by the low 6.3% vacancy rate and an average countywide rent of $770 per month. Through August 2012, permits for 29 projects and 597 units were pulled. Multifamily permits are expected to end the year at 750 units, with a forecast for another 800 units in 2013. Permit values per unit are averaging $125,123 through August 2012.

Home sales were strong in 2012. Buyers took advantage of historically low mortgage rates and attractive prices. The average sales price of a home is expected to rise to $232,000 in the Pikes Peak region in 2012, which would be a 10.1% gain from $210,688 in 2011. The median price of a single-family home is anticipated to increase to $205,000 in 2012, compared to $185,000 in 2011. Low mortgage interest rates should help to improve the market even more in 2013, with sales near 9,200 and median home sale prices near $215,000.

Some areas of the country are reporting a lack of inventory of existing homes on the market, which is causing prices to increase. Much of the inventory at the lower end of the market is being purchased

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by investors taking advantage of low mortgage interest rates. These properties are being repaired and then either flipped or rented. The local market is most likely benefiting from some of this activity.

The increase in residential real estate activity has helped to further reduce the rate of foreclosure. Foreclosures fell 11.8% in 2011, to 3,620. This is the second year foreclosures have declined. Foreclosures totaled 1,777 through June 2012, and it is estimated that they will decrease, to 3,500, for all of 2012. The forum forecasts that foreclosures will continue to decline, to about 3,100, in 2013.

The commercial real estate market is not showing the same return to health. The current all office vacancy rate stands at 14.9%, with average triple net lease rates at $10.27 per square foot as reported by Turner Commercial Research. Hoff & Leigh reports a similar overall vacancy rate of 14.4%, with an average asking rate of $11.04 per square foot. The vacancy rate is slightly since December 2011, while the average rent is virtually unchanged.

According to Hoff & Leigh, asking rents for office space vary from $9.24 in the northwest section of the city to $13.81 in the downtown core. Evidence suggests landlords are willing to negotiate on leases. The actual lease rate may be as much as 25–40% below the posted rates. Vacancy rates are the highest in the southeast of the city, at 22.3%, and lowest in the west, at 5.1%.

The industrial vacancy rate increased by the end of June 2012, to 9.8% from 9.2% at year-end 2011. Average rents have declined from $6.17 at the end of 2011 to $6.09 at the end of June 2012, according to Turner Commercial Research. Hoff & Leigh report the lowest asking rates in the south of the city, at $5.83 per square foot, and the highest rate, at $8.09, in the north of the city. Vacancy rates are above 10% in many sections of the city. The exception is in eastern Colorado Springs, where the vacancy rate is currently in the 5% range.

Shopping center vacancy rates increased from 11.5% at the end of December 2011 to 12% in June 2012. Average rents have declined about $0.25 per square foot from $12.72 at the end of December 2011 to $12.46 in June 2012, according to Turner Commercial Research. Hoff & Leigh reports second quarter vacancy rates are highest in the southeast of the city, at 16.9%, and lowest in the western and northern areas of the city and county. Hoff & Leigh report 70% of the total retail vacancy space is located in the central and southeast submarkets of the city. These are areas of the city that are ripe for redevelopment.

Wholesale and Retail—Wholesale sales declined 18.3% in El Paso County in 2011, to $3.6 billion from $4.5 billion in 2010. El Paso County wholesale sales have declined in each of the past three years. Employment in this sector has also dropped, from 5,780 in 2010 to 4,700 in 2011.

Retail sales increased 8.5%, or $1 billion, to $13.8 billion in 2011. A strong showing in motor vehicle sales and parts helped propel this increase. Electronic appliances, furniture and home furnishings; clothing accessories, health and personal care, hobby, books and music; and food and beverages sales all increased. In contrast, retail trade sales declined in general merchandise, building materials, and nonstore retailers. Employment in the Retail Trade Sector increased from 28,470 in 2010 to 29,218 in 2011, or 2.6%.

The City of Colorado Springs benefits from strong and growing taxable retail sales since more than 50 of the city's budget dollars come from these collections. City sales and use tax collections increased a healthy 5.4%, or $6.25 million, from $115.61 million in 2010, to $121.85 million in 2011. Sales and use tax collections are expected to increase 5.1% in 2012 and another 4% the following year. Sales tax collections in 2013 could be stronger if a large number of homeowners in Mountain Shadows rebuild and restock their homes. Sales and use tax collections would weaken if the country is thrown into a recession by a sequestration of the federal budget.

A number of factors will affect retail sales in 2013. If Congress is unable to resolve the budget impasse and the federal expenditures are reduced, there will be a reduction of military expenditures in the region, as well as a host of federal transfer payments. These drops in federal expenditures would negatively affect retail sales. Furthermore, if the fiscal cliff causes a recession in 2013, more people will be without jobs or on reduced employment, causing a decline in retail sales activity. On the other hand, the rebuilding and restocking of homes in Mountain Shadows could have a positive effect on local retail sales in 2013. At the time of this writing, it is too early to forecast the impact a surge of building and restocking could have on retail activity in 2013. ✤

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