FIFTIETH ANNUAL

COLORADO BUSINESS ECONOMIC OUTLOOK

2015

Leeds School of Business
UNIVERSITY OF COLORADO BOULDER
BUSINESS RESEARCH DIVISION

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

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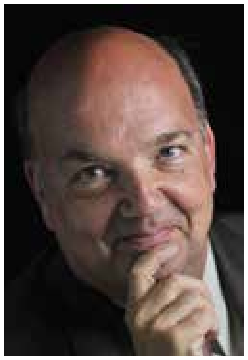
Introduction



The Business Research Division (BRD) in the Leeds School of Business is proud to present our 50th annual Colorado Business Economic Outlook. In commemorating this milestone anniversary, we acknowledge the vision of Dean William Baughn in 1964 of a consensus forecast developed by our College of Business at the time, the business community, and the state government. We celebrate this partnership that relies on research conducted by our students and staff, and members of the public and private sectors in service and outreach to the state of Colorado.

This forecast analyzes changes that have occurred in all economic sectors during the past year, and looks at the opportunities and challenges that will shape population, employment, and the overall economy in the coming year. The information in this book is initially presented at the fiftieth annual Colorado Business Economic Outlook Forum in Denver, followed by roughly 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 Regional Economic Roundtable.

Methodology

We are fortunate to have more than 100 individuals from the business, education, and government communities who serve on 13 sector estimating groups. These 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 made up 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 e-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, 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 population and employment 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, Associate Director; Cindy DiPersio, Project Coordinator; Bonnie Beverly, Administrative Assistant; Lynn Reed, Graphic Designer; Denise Munn, Publications Project Manager; and Brooke Fox, Sam McMeley, Steve Peek, and Emily Zalasky, Student Research Assistants, for their help in assembling and presenting the 2015 Colorado Business Economic Outlook Forum. The assistance provided by Leeds School staff, including Erik Jeffries and Nicole Wal-drip, Marketing and Communciations; Terry Rosson, Administrative Assistant; and Tricia McKean, develop-ment, is greatly appreciated. I also thank Elizabeth Lock, Dirk Martin, and Michael Liguori with the CU-Boulder Strategic Relations.

Colorado Economic Forecast for 2015

The sections that follow provide a summary of 2014, a forecast for 2015, and industry-specific data analysis and insight into the key factors influencing each sector. We believe this information will prove useful in your business and policy decision-making process.

Richard L Wobbekind

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BRD: BUSINESS RESEARCH DIVISION

The Business Research Division conducts economic impact studies and customized research projects that assist companies, associations, nonprofits, and government agencies with making informed business and policy decisions. Among the tools offered are the annual Colorado Business Economic Outlook, which provides a forecast of the state's economy by sector, and the quarterly Leeds Business Confidence Index, which gauges Colorado business leaders' opinions about the economy. The quarterly *Colorado Business Review* e-newsletter offers decision makers in-depth analysis and information about Colorado's economy.

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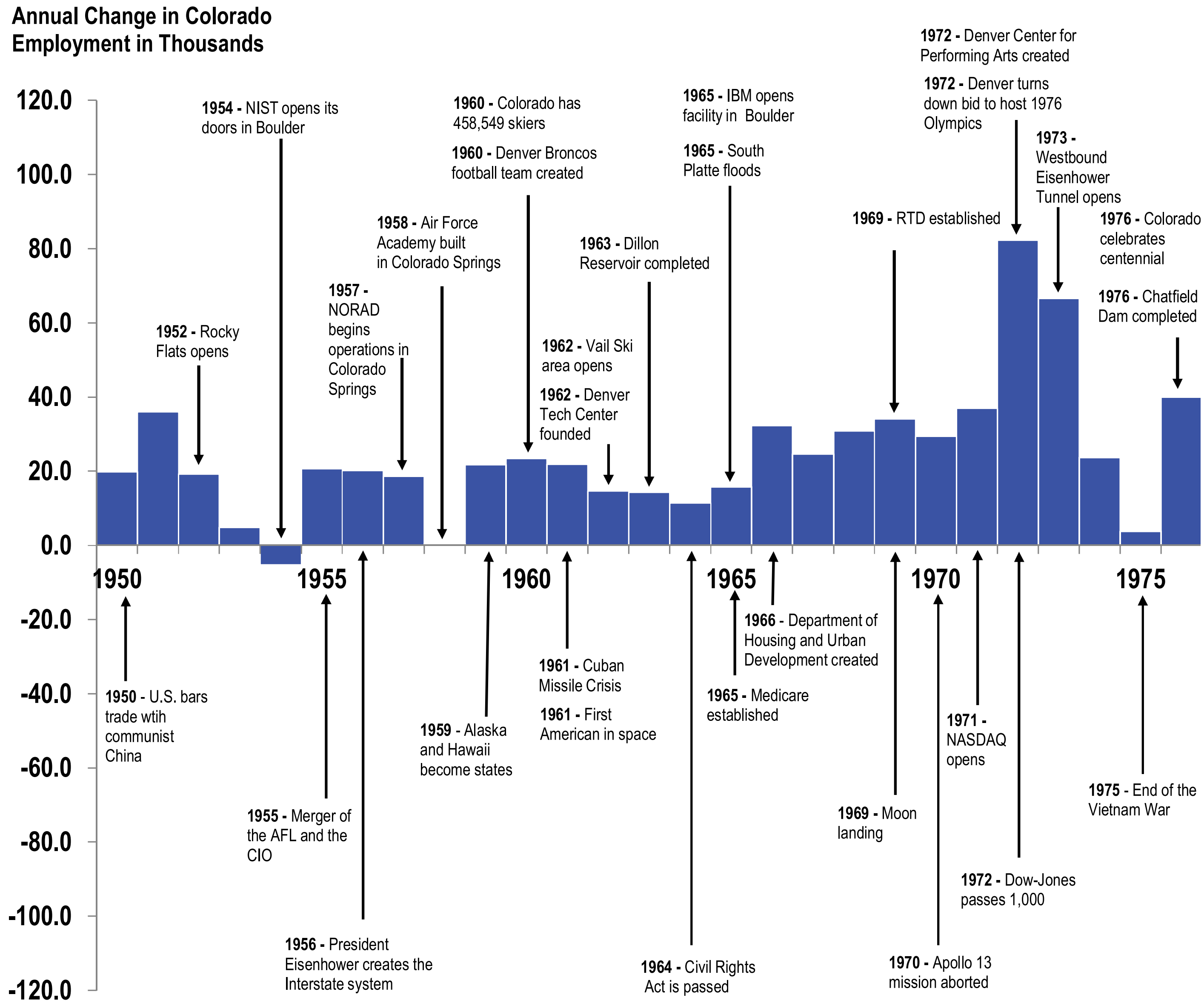
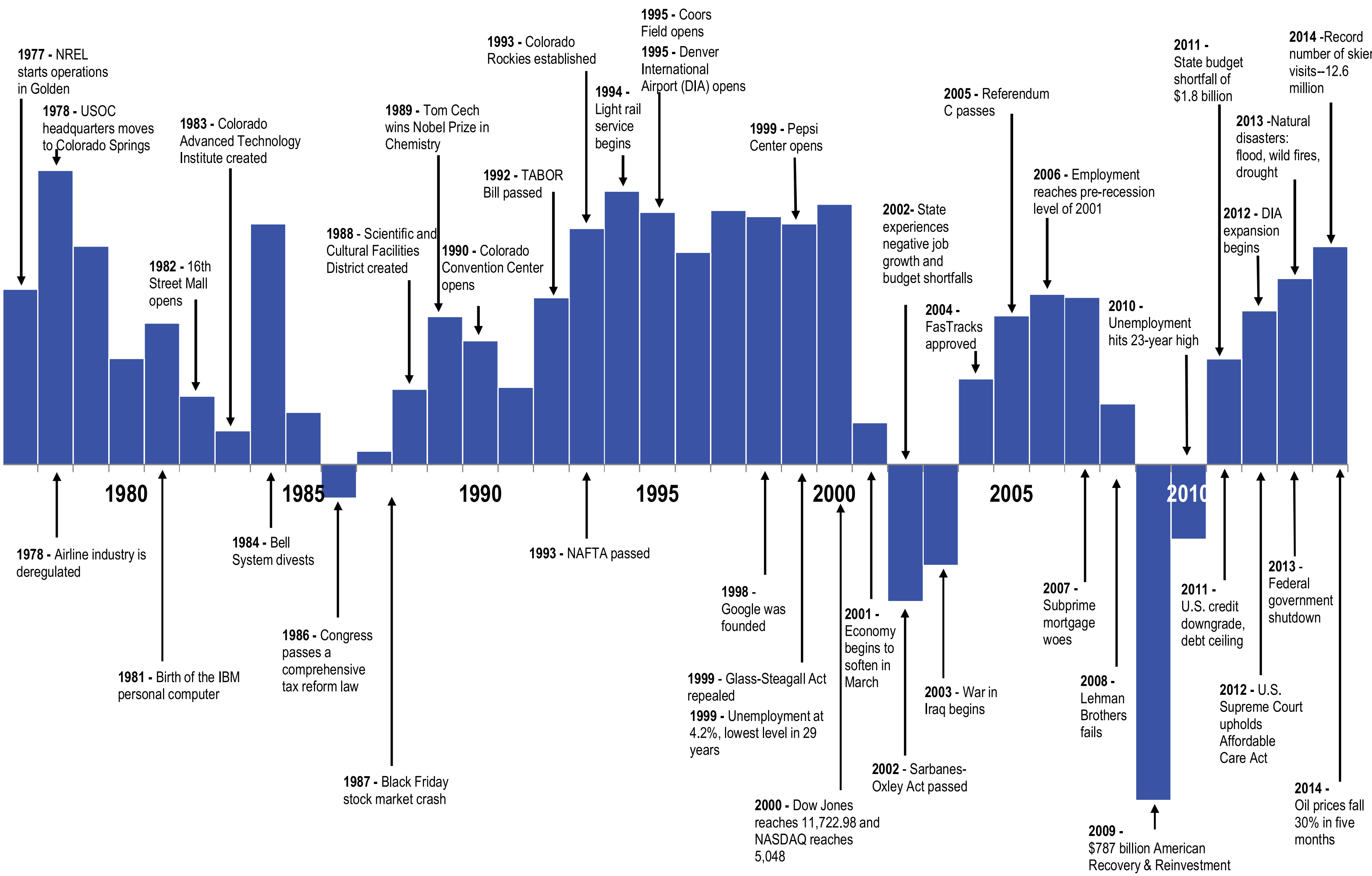
Colorado Then and Now

In 1950 the population of the United States totaled about 151 million people, and approximately 1.3 million people lived in Colorado. At the time, the Dow Jones achieved a monthly high of 235, Colorado per capita personal income was $1,516, and the first modern credit card was created by Frank McNamara. He named the company "Diners Club" because of the 14 restaurants in New York that accepted this form of payment. Over the past 65 years, the U.S. population has grown to about 319 million, with Colorado increasing to 5.3 million. The Dow Jones has passed 17,000, Colorado's per capita personal income has climbed to $46,897, and credit cards are now an integral part of consumer's daily lives.

The nation has experienced monumental events and changes, ranging from advances in technology, growth in international trade, increased political turmoil, and war. Meanwhile, Colorado has experienced consistent growth in key high-technology areas, which it has used to leverage its role in the U.S. economy. Both national and state events have had their own unique impact on the economy—some have left long-lasting impressions while others have proved to be less significant.

This national and state growth has been accompanied by numerous social, economic, educational, and political changes as illustrated in the adjacent timeline. Colorado events are listed above the line; national events are noted below. This timeline provides a glimpse into the past in order to help make better decisions for the future.




1977 - NREL starts operations in Golden
1978 - USOC headquarters moves to Colorado Springs
1983 - Colorado Advanced Technology Institute created
1982 - 16th Street Mall opens
1989 - Tom Cech wins Nobel Prize in Chemistry
1988 - Scientific and Cultural Facilities District created
1990 - Colorado Convention Center opens
1993 - Colorado Rockies established
1992 - TABOR Bill passed
1994 - Light rail service begins
1995 - Coors Field opens
1995 - Denver International Airport (DIA) opens
1999 - Pepsi Center opens
2005 - Referendum C passes
2002- State experiences negative job growth and budget shortfalls
2004 - FasTracks approved
2006 - Employment reaches pre-recession level of 2001
2010 - Unemployment hits 23-year high
2011 - State budget shortfall of $1.8 billion
2013 -Natural disasters: flood, wild fires, drought
2012 - DIA expansion begins
2014 -Record number of skier visits--12.6 million
1980
1985
1990
1995
2000
2005
2010
1978 - Airline industry is deregulated
1981 - Birth of the IBM personal computer
1984 - Bell System divests
1986 - Congress passes a comprehensive tax reform law
1987 - Black Friday stock market crash
1993 - NAFTA passed
1998 - Google was founded
1999 - Glass-Steagall Act repealed
1999 - Unemployment at 4.2%, lowest level in 29 years
2000 - Dow Jones reaches 11,722.98 and NASDAQ reaches 5,048
2001 - Economy begins to soften in March
2002 - Sarbanes-Oxley Act passed
2003 - War in Iraq begins
2007 - Subprime mortgage woes
2008 - Lehman Brothers fails
2009 - $787 billion American Recovery & Reinvestment
2011 - U.S. credit downgrade, debt ceiling
2012 - U.S. Supreme Court upholds Affordable Care Act
2013 - Federal government shutdown
2014 - Oil prices fall 30% in five months

U.S. Economic Outlook

The Great Recession is a half-decade behind us, and the U.S. economy is now firmly in expansion. The U.S. economy grew 2.5% in 2010, 1.6% in 2011, 2.3% in 2012, and 2.2% in 2013. Despite a setback of a 2.1% decline in real gross domestic product (GDP, or the value of goods and services produced) in Q1 2014, growth resumed in Q2 and Q3, expanding 4.6% and 3.9%. Throughout this expansion, macroeconomic forecasts continue to be revised downward in the short term, while robust growth is pushed out for another year. GDP, the total value of goods and services created in the United States, has grown at a compound annual rate of 2.2% since the recession ended compared to 3.2% for the period between 1970 and 2000, and 2.7% from the beginning of 2000 to 2007 leading up to the recession. While we are becoming more resigned to slow economic growth as the norm, there are sufficient data to suggest an improving economy in 2015 with growth expected to exceed 3%. However, there are risks that pose threats to this sustained and stronger growth.

Positive signals include stronger balance sheets, further housing price recovery, and increased business investment. To some extent, the economic uncertainty that persisted following the recession has abated, with increasing consumer confidence and the willingness to move residences, increase spending, and in general take more risks. Two components of the economy targeted by Fed policy are employment and inflation. Employment growth has accelerated, but inflation has remained almost uncomfortably low at times, averaging 2.1% year-over-year since January 2011.

Domestic risks to sustained economic growth domestically include Federal Reserve policies, oil prices, and stock market instability. International risks include slow eurozone economic growth, less robust growth in China, and conflicts in the Middle East. Sequestration is apparent in federal employment and implied in federal contracts. The federal government is running smaller deficits, attributable to both cuts in spending and improved tax collections.

The price for West Texas Intermediate crude oil has dropped by 30% since June and decreased 18.7% compared to mid-November 2013—a boon for consumers through lower gasoline prices but a risk to domestic oil production and a signal that global economic expansion may be slowing. Domestic gasoline prices are nearly 10% below mid-November a year ago, and are at the lowest levels of 2014.

Internationally, the eurozone is emerging from recession and will show growth in 2014, albeit at a much slower pace than previously estimated. China's growth slowed from 10% in 2010 to 7.4% in 2014, and growth is expected to decline further. The country is trying to

REAL GROSS DOMESTIC PRODUCT
2006–2015
(In Millions of Chained 2009 Dollars)

Economic Indicator	2006	2007	2008	2009	2010	2011	2012	2013	2014[a]	2015[b]
Real Gross Domestic Product	$14,613.8	$14,873.7	$14,830.4	$14,418.7	$14,783.8	$15,020.6	$15,369.2	$15,710.30	$16,055.93	$16,553.7
Percentage Change	2.7%	1.8%	-0.3%	-2.8%	2.5%	1.6%	2.3%	2.2%	2.2%	3.1%
Fixed Investment	$2,662.5	$2,609.6	$2,432.6	$2,025.7	$2,056.2	$2,186.7	$2,368.0	$2,479.2	$2,628.0	$2,775.1
Percentage Change	2.0%	-2.0%	-6.8%	-16.7%	1.5%	6.3%	8.3%	4.7%	6.0%	5.6%
Personal Consumption	$9,821.7	$10,041.6	$10,007.2	$9,847.0	$10,036.3	$10,263.5	$10,449.7	$10,699.7	$10,935.1	$11,230.3
Percentage Change	3.0%	2.2%	-0.3%	-1.6%	1.9%	2.3%	1.8%	2.4%	2.2%	2.7%
Government Expenditures	$2,869.3	$2,914.4	$2,994.8	$3,089.1	$3,091.4	$2,997.4	$2,953.9	$2,894.5	$2,891.6	$2,920.2
Percentage Change	1.5%	1.6%	2.8%	3.1%	0.1%	-3.0%	-1.5%	-2.0%	-0.1%	1.0%
Net Exports	-$794.3	-$712.6	-$557.8	-$395.4	-$458.8	-$459.4	-$452.5	-$420.4	-$400.0	-$395.0

[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.

address the growth slowdown with monetary and fiscal stimulus, but if the trend continues it could cause a decline in commodity prices. Middle Eastern conflicts were reignited in 2014 with the rise of ISIS, and uncertainty of future U.S. action in the region is another danger to the domestic economy. Finally, the concerns over the Ebola epidemic that started in West Africa add even more uncertainty to the global outlook and therefore on the U.S. economy.

With this backdrop, the following sections examine forecasts of output and the key components of GDP.

Total Output

The National Bureau of Economic Research (NBER), the organization chartered with dating the recessions, pegged the last recession at 18 months, ending in June 2009—the longest contraction since the Great Depression. U.S. GDP declined in Q1 2008, from Q3 2008 through Q2 2009, in Q1 2011, and in Q1 2014. The worst decline was 8.3% in Q4 2008 during the official recession. Through Q4 2013, the United States recorded 11 consecutive quarters of GDP growth, but Q1 of 2014 saw a 2.1% decrease. Quarters two and three saw stabilizing growth of 4.6% and 3.9%, respectively. The year should end with growth around 2.2%. Growth in 2015 is estimated 3.1%, barring unforeseen external shocks.

Consumer Spending

Personal consumption has increased from 2010 to 2013, with goods outpacing growth in services, 3.4% compared to 1.9% in 2013. Durable goods experienced the steepest decline during the recession, but now exhibits the most robust growth, with growth of 6.1%, 7.3%, and 6.7% from 2011 through 2013. On a quarterly basis, this trend continues to hold with strong gains especially in durable goods, and modest gains in services and nondurables.

This growth is spurred by increased consumer confidence driven by improved employment, income, and wealth. National employment fell 6.3% in 25 months after peaking in January 2008. It took 75 months, but employment has since regained peak employment, and as of October 2014, employment notched 1% above the pre-recession record. Private employment recovered even sooner.

Despite the aggregate improvement in the employment situation, the recovery is not equal nationally. The October labor data show that 22 states have reached new peaks, and 13 more are within 1% of their previous peak. However, 8 states remain more than 3% below their previous peak.

The unemployment rate continues to improve, standing at 5.8% in October 2014—the lowest level since July 2008. Twenty-three states have unemployment rates below 6% and 8 states remain above 7%. While the labor force has been increasing (up 0.3% in 2013 year-to-date in 2014), the labor force participation rate has been on a slow descent since 2000. Unemployment is plaguing age cohorts and educational cohorts differently—the lowest unemployment rates are observed for individuals with a bachelor's degree and higher (3.1% in October 2014) and those between the ages of 45 and 54 (4%).

Personal income increased 5.2% in 2012, 2% in 2013, and 4.1% year-over-year in September 2014. Despite personal income reaching new peaks, per capita personal income has increased at a much slower rate—4.4% in 2012 and 1.3% in 2013. Wage and salary income shows a similar trend—aggregate incomes are at record levels, but average incomes are increasing slowly (2.6% in 2012, 1.1% in 2013, and 1.9% in Q1 2014)—a signal that workers broadly have not shared in the economic recovery.

Data from the Federal Housing Finance Authority show every state recording year-over-year gains in home prices and that 13 states are posting record home prices according to the purchase only index, which helps with homeowner liquidity and labor mobility. Household savings is higher year-to-date in 2014. The S&P 500 reached record high levels in November and up 11.6% for the year.

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U.S Economic Outlook

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Balance sheets continued to improve in Q2 2014, with a financial obligation ratio (financial obligations as a percentage of disposable personal income) of 15.25% in Q2 2014 compared to over 18% in Q4 2007. Consumers have demonstrated a return to the market, with greater levels of consumption and a resumption of growth in revolving credit. Retail sales increased 4.1% in 2013 and growth in 2014 through September is 4% compared to a year ago. The deep discounts that existed for durable goods (e.g., homes and cars) have dissolved as inventory has been absorbed and production comes back in to equilibrium. With the consumer fundamentals in place, growth will continue in 2015, and consumer prices will remain at about 2.1%. The fact that overall inflation remains in check understates the consumer-affecting price changes in some important consumer purchases, primarily food and fuel.

Investment

Residential construction will continue a slow improvement, increasing from about 1 million units in 2014 to 1.2 million in 2015, barring an unusually large reaction to rising mortgage rates. Regional demand and consumer preferences will continue to dictate the type of additions to the housing stock.

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 6% in 2014 and 5.6% in 2015. In 2013, about 80% of fixed investment (excluding inventory) was business related.

Government Expenditures

Real government consumption and investment will fall for the fourth consecutive year in 2014 before increasing slightly in 2015. More than 60% of total government expenditures are at the state and local level, roughly one-quarter are allocated to national defense and 15% to nondefense programs.

Congress is expected to pass an omnibus bill that will shore up the federal budget, giving security to federal agencies, as well as to state and local governments that rely on federal grants. A compromise on the debt ceiling averted a fiscal crisis in 2014, but the short-term increase ensured that the debt ceiling debate will resume in 2015 as this is expected to be a point of contention again. As the federal deficit decreases, the national fiscal situation has to some extent been taken out of the limelight. Real government consumption and investment will decrease 0.1% in 2014, and increase less than 1% in 2015. The deficit peaked at $1.4 trillion in 2009. The federal deficit will decrease to -$480 billion in 2014 and -$440 billion in 2015.

Net Exports

The trade imbalance will continue to be impacted by a rebalancing of global trade impacted by growing U.S. energy output, tenuous global economic growth, and currency fluctuations. The United States maintains a net deficit on goods and a net surplus on services. While the magnitude of the imbalance remains significant, it has been relatively stable over the past few years. Expect net exports to remain above -$400 billion in 2014 and 2015.

Colorado Economic, Employment, and Population Outlook

State GDP and Income

Colorado continued to post faster economic growth than the nation in 2013. Colorado ranked sixth in real GDP growth, behind North Dakota, Wyoming, West Virginia, Oklahoma, and Idaho. Colorado ranked fourth in employment growth, behind only North Dakota, Utah, and California. The notion of an outperforming economy is not new to the state—even viewing longer term growth statistics, Colorado tends to be above the median for growth in GDP, employment, population, and the labor force. However, while per capita personal income and average annual pay remain above the national average, the growth in per capita personal income and the growth in average annual pay are lagging the nation.

Among other accolades, Colorado boasts the second-highest rate of bachelor's degrees according to Census data, Entrepreneur listed Colorado as the second-best place to start a business in 2013, and the U.S. Chamber of Commerce ranked Colorado second in its Innovation and Entrepreneurship Index.

The state is measurably outperforming due to the talented workforce, key infrastructure, diverse industries, and the aggressive efforts by state and local economic development. The Colorado Office of Economic Development and International Trade rolled out the Colorado Blueprint, which focuses on a bottom-up approach to economic development, with attention paid to business retention and acquisition, as well as key industry clusters ranging from aerospace to information. For more information, see www.advancecolorado.com.

Inflation

The U.S. city average all items Consumer Price Index for All Urban Consumers (CPI-U) increased by 2.1% in 2012, followed by growth of 1.5% in 2013. Inflation is expected to average 1.8% in 2014 and 2.1% the following year. Core inflation—all items less food and energy—increased nationally 2.1% in 2012 and 1.8% in 2013.

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STATE AND NATIONAL ECONOMIC COMPARISON, 2004–2013

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Colorado										
Real GDP ($ billions, chained 2009 dollars)	229.2	239.7	244.0	248.9	252.7	248.2	252.0	255.9	263.6	273.7
Nominal GDP ($ billions)	204.4	221.5	232.4	244.3	254.8	248.2	256.6	266.2	278.6	294.4
Total Personal Income ($ billions)	166.6	177.8	191.7	202.6	212.1	206.4	210.5	226.1	240.3	247.1
Per Capita Personal Income ($)	36,421	38,390	40,611	42,174	43,377	41,518	41,689	44,183	46,315	46,897
Employment (thousands)[a]	2,179.6	2,226.0	2,279.1	2,331.3	2,350.3	2,245.6	2,222.3	2,258.6	2,313.0	2,381.1
Unemployment Rate (percent)	5.6	5.1	4.3	3.8	4.8	8.1	9.0	8.5	7.8	6.8
United States										
Real GDP ($ billions, chained 2009 dollars)	13,773.5	14,234.2	14,613.8	14,873.7	14,830.4	14,418.7	14,783.8	15,020.6	15,369.2	15,710.3
Nominal GDP ($ billions)	12,274.9	13,093.7	13,855.9	14,477.6	14,718.6	14,418.7	14,964.4	15,517.9	16,163.2	16,768.1
Total Personal Income ($ billions)	10,043.2	10,609.3	11,389.0	11,994.9	12,429.6	12,087.5	12,429.3	13,202.0	13,887.7	14,166.9
Per Capita Personal Income ($)	34,300	35,888	38,127	39,804	40,873	39,379	40,144	42,332	44,200	44,765
Employment (thousands)	131,749	134,005	136,398	137,936	137,170	131,233	130,275	131,842	134,104	136,368
Unemployment Rate (percent)	5.5	5.1	4.6	4.6	5.8	9.3	9.6	8.9	8.1	7.4

[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

continued from page 9

COLORADO RANK AMONG OTHER STATES

Metric	1-Year	3-Year	5-Year	10-Year
Real GDP Growth	6	8	13	15
Employment Growth	4	4	8	10
Population Growth	3	4	4	7
Personal Income Growth	6	8	12	19
PCPI Growth	28	17	40	40
PCPI	17	16	12	11
Average Annual Pay Growth	43	27	28	31
Average Annual Pay	14	13	11	12
Unemployment Rate	26	29	18	36
Labor Force	22	16	20	9
FHFA Home Price Index	7	10	3	11

Data Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, U.S. Census Bureau, Federal Housing Finance Agency, and the Colorado State Demography Office. BRD calculations. Note: 1-year, 3-year, and 5-year are based on the compound annual growth rate.

Inflation is reported by the Bureau of Labor Statistics for the Denver-Boulder-Greeley combined metropolitan statistical areas, 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 nation, at 2.8% in 2013. In 2014 and 2015, Colorado prices are expected to rise 2.7% and 2.2%, respectively. Core inflation in the Denver-Boulder-Greeley region increased 2% in 2012 and 3.2% in 2013. Shelter prices increased 2.7% in 2012 and 4.5% in 2013.

Population Overview

Total State Change and U.S. Comparison

The July 2013 Colorado population is estimated by the State Demography Office (SDO) to be 5,284,890. This is an increase of 76,386 or 1.5%. Population change is the net result of net migration (those moving in minus those moving out) and natural increase (births minus deaths). Net migration is estimated at 45,275, and natural increase is estimated at 31,111. Colorado was fourth-fastest state in percentage change behind North Dakota, Washington D.C., and Utah. Despite Colorado's relatively fast growth, a total increase of 76,000 is not unusual—population growth since 2006 has averaged more than 75,000 in the state.

Colorado Change by County

Eighty-three percent of Colorado's population lives in the 12 counties that make up the Front Range, 11% live in the 21 counties that encompass the Western Slope, 3% live in the 16 counties that form the Eastern Plains, 2% live in the 9 counties that make up the Central Mountains, and 1% live in the 6 counties that constitute the San Luis Valley.

Colorado's 2013 county population ranges from El Paso, with 655,812, to San Juan, with 687. Twenty-six, or 40%, of Colorado's counties have fewer than 10,000 people. Eleven, or 17%, of the counties have greater than 100,000 residents.

Despite the high population growth ranks nationally, growth throughout the state has been disparate. Forty counties gained and 24 lost population between 2012 and 2013. The table and map show the fastest-growing and fastest-declining counties in total amounts and in percent change between 2012 and 2013. The counties with the largest total growth in absolute terms and in percentage change are along the Front Range. Douglas County has returned to the fastest-growing county in percentage growth. Denver continues to rank in the top five fastest-growing counties for both absolute and percentage change. The North Front Range and Denver Metro Regions lead the state, growing at 1.9%, followed by the South Front Range (El Paso and Pueblo) increasing at 1.2%.

Births and Deaths

Statewide births and deaths between 2012 and 2013 were 64,700 and 33,600, respectively. Eleven counties had natural decline (more deaths than births) between 2012 and 2013. The counties experiencing natural decline are primarily along the Central Mountains and Southeast Colorado. Births in the state have been slowing annually since 2007 but were flat in 2013. The fertility rate has continued to slow since peaking in 2006. There were approximately 6,000 fewer births (an 8% decline) between 2006–07 and 2012–13. The Denver Metro area has had the largest slowing in births in absolute terms but in percentage terms the largest slowing has primarily been in mountain counties. Research shows that during a recession and for several years following, births will slow due to lack of confidence in the economy. Additionally, a statewide health initiative to reduce teen birth rates, which has been in place since 2009, has helped to decrease them by 40%. The recession had little impact on

CONSUMER PRICE INDEX, U.S. AND DENVER-BOULDER-GREELEY 2006–2015 (1982–1984=100)

	United States		Denver-Boulder-Greeley	
Year	CPI	CPI Rate	CPI	CPI Rate[a]
2006	201.6	3.2%	197.7	3.6%
2007	207.3	2.8	202.0	3.6
2008	215.3	3.8	209.9	2.2
2009	214.5	-0.4	208.5	3.9
2010	218.1	1.6	212.4	-0.6
2011	224.9	3.2	220.3	3.7
2012	229.6	2.1	224.6	1.9
2013	233.0	1.5	230.8	2.8
2014[b]	237.2	1.8	237.1	2.7
2015[c]	242.1	2.1	242.4	2.2

[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: Bureau of Labor Statistics, and Colorado Business Economic Outlook Committee.

deaths, and they have steadily increased over time as the state's older population has increased.

Migration

From 2010–2013 a total of 39 counties experienced total net out-migration. However, out migration seems to be slowing. Thirty of the state's 64 counties experienced net out-migration between 2012 and 2013, which is fewer counties than the prior year. The counties are diverse, ranging from mountain counties still struggling with the recession to the Eastern Plains and the San Luis Valley. The out-migration has not been large in numbers; however, in the small counties, a loss of 500 people can be a large share of its total population. The declines in Fremont and Logan were due in part to declines in the prison population.

Gross in-migration to Colorado was estimated at 206,500 and out-migration was 166,300 using the American Community Survey 2013 State to State Migration Flows (not the same source the SDO uses for creating estimates). The top five donor and receiver states and the largest net donor and receiver states are listed in the accompanying table. Four of the top five states receiving Colorado migrants were also top donor states: Texas, California, Arizona, and Florida. In terms of net migrants, three of the top donor states were also top net migrant states (California, Texas, and New York).

Housing Units

Colorado housing units increased by slightly more than 17,000 from July 2012 to June 2013 while households increased by over 29,000. The larger growth in households versus housing units continued to help decrease the oversupply of housing units that have been present since the mid-2000s. Estimates indicate that statewide vacancy rates have fallen from 10.6% in 2010 to 8.4% in 2013.

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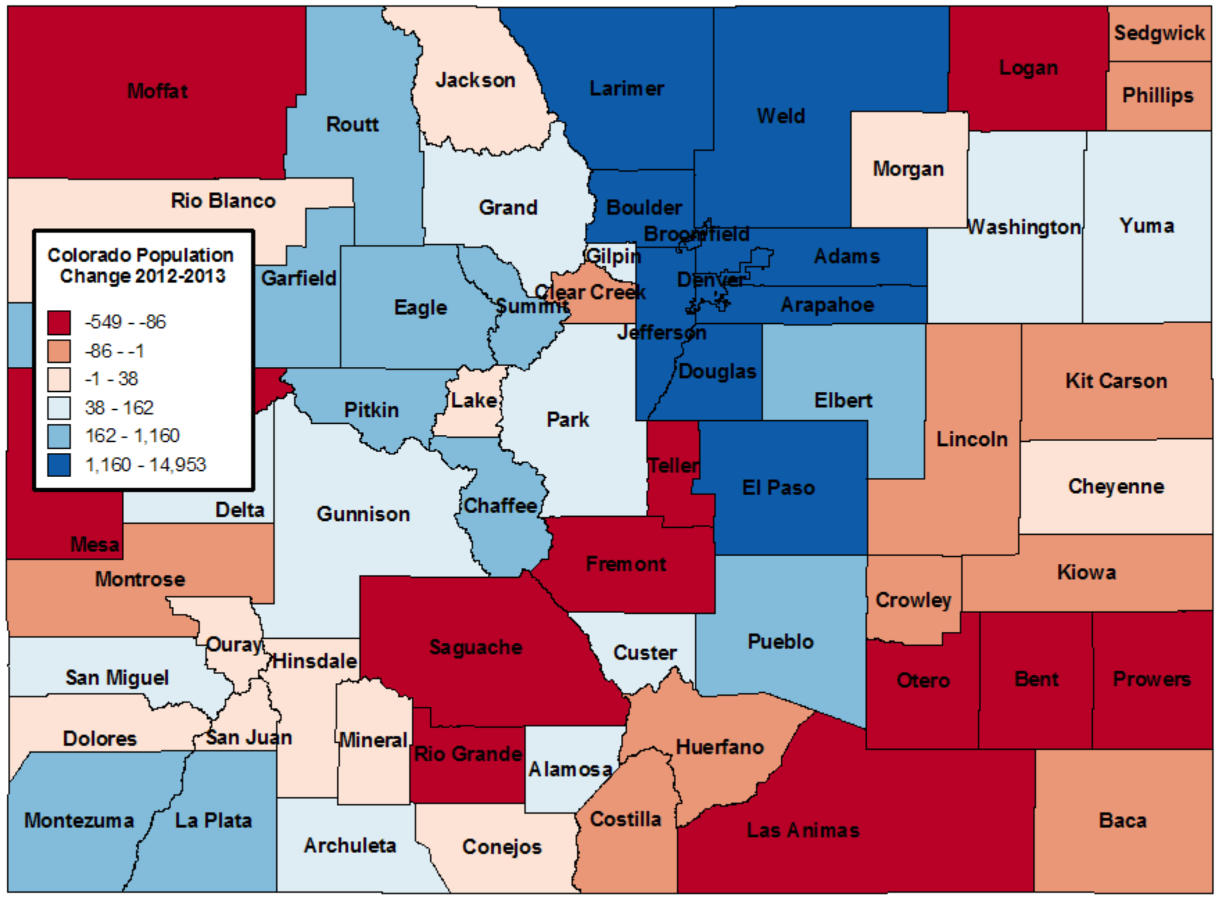
QUOTES FROM THE PAST: 1978

"While the state's population is growing at almost twice the national rate, its population density is less than 40 percent of the national average."

COLORADO POPULATION CHANGE 2012–2013 BY COUNTY



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

Colorado Economic, Employment, and Population Outlook

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COMPONENTS OF COLORADO RESIDENT POPULATION, 2006–2015
(In Thousands)

Year	Births (Resident)	Deaths (Resident)	Natural Increase	Net Migration	Population Change	Total[a] Population
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	33.7	67.7	5,117.4
2012	64.7	32.8	32.0	39.2	71.1	5,188.5
2013	64.7	33.6	31.1	45.3	76.4	5,264.9
2014[b]	66.1	33.8	32.4	53.0	85.4	5,350.2
2015[c]	67.3	34.8	32.6	56.0	88.6	5,438.8

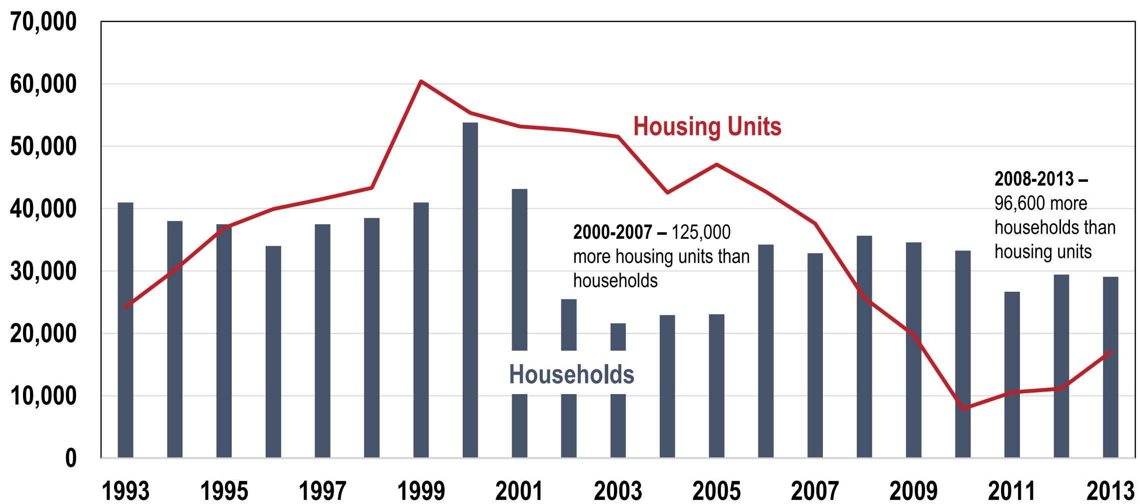
[a]Due to rounding, the sum of the individual items may not equal the total.

[b]Estimated.

[c]Forecast.

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

COLORADO NEW HOUSING UNITS AND NEW HOUSEHOLDS



Source: Colorado State Demography Office. Data as of September 2014.

Population Forecast

The short-run population growth forecast for Colorado is an increase of 85,000, or 1.6%, for 2014; 89,000, or 1.7%, for 2015; and 93,000, or 1.7%, for 2016. The total population is forecast to be 5,440,000 in July 2015. Growth rates of 1.7% are similar to what Colorado experienced prior to the recession. Over the next five years, annual growth rates are forecast to vary from a high of 1.9% per year along the North Front Range to less than 1% on the Eastern Plains. The forecast is for Colorado to reach six million by 2020.

In the longer run, Colorado's population is forecast to grow at a slower rate, age rapidly, and become more racially and ethnically diverse. Colorado is currently growing around 1.6% per year, forecast to increase to 1.7% per year, and then slow to around 1% per year by 2040. Although Colorado's growth rate is forecast to slow, total population change is forecast to increase to approximately 100,000 per year through 2025, then slow to around 75,000 per year by 2040. The Colorado 2013 forecast for 2040 is 7.77 million.

Colorado's 65+ population is forecast to increase from 555,000 to 900,000 between 2010 and 2020. Colorado's median age is expected to continue to increase from 36.1 in 2010 to 38.3 by 2040. The increasing share of the state's older population will be most significant this decade, increasing by 61%. A continued slowing in the labor force growth rate is expected as a result of the shift of population to older age groups with lower participation rates.

Colorado will also become more racially and ethnically diverse by 2040 due to the aging of the more diverse younger population in Colorado. More than 40% of the population under 18 is nonwhite compared to less than 20% for the population over 55. The Hispanic population is forecast to increase 1.5 million, from 20% of the population in 2010 to 33% in 2040.

Leeds Business Confidence Index

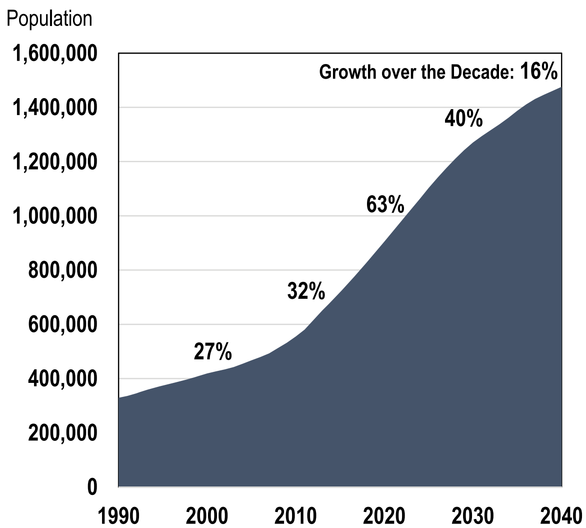
The Business Research Division produces a quarterly leading indicator that measures the expectations of Colorado business leaders. For more than a decade, the Leeds Business Confidence Index (LBCI) has been asking business leaders about their expectations for the national and state economies, hiring, capital expenditures, sales, and profits. These metrics are reported in an aggregated index, as well as individually.

Looking back at the results for 2014, the forward-looking LBCI reflected optimism among Colorado business leaders. The composite index has been positive (50=neutral) for 11 consecutive quarters.

One measure that is consistent is confidence in Colorado's economy outperforming the nation's economy. In the Q4 2014 survey, expectations for sales, profits, hiring, and capital expenditures all remained high. Large firms and young companies tended to be more optimistic than small firms and companies that have been in business longer than 10 years.

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.

FORECAST FOR THE POPULATION 65+ IN COLORADO



Source: Colorado State Demography Office.

Colorado Labor Force and Employment

For 50 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 considers 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.

2013 AVERAGE ANNUAL PAY BY SECTOR COLORADO AND UNITED STATES

Sector	Colorado	United States
Agriculture, Forestry, Fishing, Hunting	$31,029	$29,447
Mining	109,171	98,186
Utilities	87,372	95,157
Construction	51,052	53,181
Manufacturing	62,393	61,102
Wholesale Trade	73,889	68,580
Retail Trade	28,159	28,008
Transportation and Warehousing	48,298	47,444
Information	90,242	86,787
Finance and Insurance	79,231	91,862
Real Estate and Rental and Leasing	49,096	49,282
Professional and Technical Services	84,852	83,429
Mgmt of Companies and Enterprises	124,631	108,895
Administrative and Waste Services	34,521	34,975
Educational Services	38,828	45,424
Health Care and Social Assistance	45,906	44,909
Arts, Entertainment, and Recreation	31,916	33,832
Accommodation and Food Services	18,807	18,174
Other Services	35,327	32,844
Government	49,536	50,380
All Industries	50,873	49,808

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

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Colorado Economic, Employment, and Population Outlook

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Labor Force

Beginning in 2004 and continuing through 2007, Colorado experienced four consecutive years with a falling unemployment rate as household employment growth outpaced the growth in the labor force. This marked the first time in the history of the series dating back to 1976 that the state's unemployment rate declined four straight years. In 2010, three years after the start of the Great Recession, Colorado's unemployment rate reached a record level of 9%, with nearly 250,000 residents unsuccessfully looking for work. The unemployment rate has declined steadily since over the past four years due to slow labor force growth, persistently lower numbers of unemployed, and continuous employment gains. The unemployment rate is projected to fall by 1.2 percentage points, to 5.4%, in 2104 and drop for a record fifth-consecutive year, to 4.6%, in 2015.

Employment

Economic growth accelerated in Colorado in 2014, with the state adding 72,900 jobs (3.1%). Incomes rose in the state, real estate prices rebounded, 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. This trend will continue in 2015, with the state adding 61,300 jobs, or 2.5% growth.

The 19-month recession than ran from December 2007 to June 2009 devastated the labor market. The nation lost 6.3% of total nonfarm employment from January 2008 to February 2010, when it bottomed out. Colorado hit peak employment in May 2008, five months after the nation, but lost employment more precipitously, eventually surpassing the nation's jobs deficit at 6.4% in January 2010. However, Colorado has outperformed the nation in job growth since bottoming out, surpassing the previous peak by 4.2% compared to 0.8% for the nation.

The Importance of New Businesses for Job Growth

New firms are vital for job creation. Data on net job creation by age of business from the U.S. Census Bureau, Business Dynamics Statistics, show that new firms are responsible for almost all net new jobs in the economy every year. Although businesses that are more than one year old employ the greatest proportion of overall workers by far, they do not add as many new jobs to the economy, on average, compared with new firms.

From 1990–2012, the latest data available, new businesses added an average of about 57,000 jobs each year in Colorado based on the Census Bureau's Business Dynamics Statistics. Though some new businesses, and thus the jobs they create, do not survive, the Census data indicate that, on average, about 77% of the jobs created by new businesses over the 1990–2012 period still existed after five years. Also, new businesses that survive add jobs at a more rapid pace than older businesses. Having a constant supply of new businesses in an economy is critical for sustained job growth.

Not only are new firms important for job creation, research also indicates that a large portion of productivity gains in an economy are driven by the displacement of less productive businesses by new businesses. In addition, new firms are responsible for a disproportionate share of the innovations that improve living standards.

Colorado has a higher level of new business activity compared to the nation overall, and many statistics show Colorado among the top states for entrepreneurship. The graph below shows that Colorado had a higher proportion of young firms—firms five years old and under—than others states on average during the 1990–2012 period. Colorado's proportion of young firms was

COLORADO RESIDENT LABOR FORCE, 2006–2015
(Not Seasonally Adjusted) (In Thousands)

Labor Force	2006	2007	2008	2009	2010	2011	2012	2013	2014[a]	2015[b]
Colorado Labor Force	2,655.6	2,685.0	2,731.1	2,731.1	2,722.9	2,725.8	2,746.2	2,754.9	2,820.1	2,885.8
Total Employment	2,541.8	2,583.4	2,599.7	2,512.9	2,478.3	2,493.5	2,531.1	2,568.2	2,667.0	2,753.2
Unemployed	113.7	101.6	131.3	221.6	244.6	232.3	215.1	186.7	153.1	132.6
Unemployment Rate	4.3%	3.8%	4.8%	8.1%	9.0%	8.5%	7.8%	6.8%	5.4%	4.6%

[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.

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

fifth-highest among states over this period. The high percentage of young firms demonstrates that the economy is constantly reinventing itself.

There are several reasons for Colorado's relatively high level of new business formation. The state has an entrepreneurial population and culture, as well as a business climate that supports new businesses. The existence and vitality of networking opportunities for entrepreneurs is one of the most important ingredients for new business activity to occur and sustain itself. Such networks enable entrepreneurs to collaborate, find investors and employees, share information, and learn from others. Coloradans' welcoming and collaborative attitude helps foster such networks of people and institutions throughout the state, a phenomenon that is helping new businesses start and grow.

Because of the importance of new businesses to job creation, the portion of a state's businesses that are young—firms 5 years old and under—correlates strongly (ρ=0.72) with a state's overall job growth. (The correlation analysis excludes North Dakota because of the unique circumstance of its job growth in recent years that makes it an outlier among states.) Therefore, Colorado's higher proportion of young firms is one important factor explaining the state's relatively high overall job growth rate. The scatterplot on page 16 shows the relationship between a state's proportion of young firms and its average job growth during the 1990–2012 period.

Sustained growth in new business formation in Colorado since the Great Recession is resulting in overall job growth in the state. Based on data from the Colorado Department of Labor on businesses that file with the state's unemployment insurance system, the number of new businesses grew 41.5% from the first half of 2010,

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COLORADO NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT
2006–2015
(In Thousands)

Sector	2006	2007	2008	2009	2010	2011	2012[a]	2013[a]	2014[b]	2015[c]
Natural Resources and Mining	21.1	25.2	28.5	24.2	24.4	27.9	30.3	30.5	33.7	36.0
Construction	167.8	167.8	161.8	131.3	115.1	112.5	115.8	126.5	140.0	146.0
Manufacturing	147.2	145.2	142.3	128.0	124.2	128.1	130.9	132.8	136.0	138.2
Trade, Transportation, and Utilities	419.3	429.2	429.3	403.8	397.6	401.7	409.7	419.4	430.2	439.2
Information	75.4	76.4	76.8	74.7	72.0	71.4	69.8	69.8	69.5	69.5
Financial Activities	160.4	159.5	155.6	148.0	144.3	143.9	146.7	150.7	152.6	155.3
Professional and Business Services	333.8	349.7	353.7	331.8	330.8	341.5	356.9	372.9	384.5	397.3
Education and Health Services	231.2	240.4	250.5	257.2	264.7	273.7	282.6	286.8	297.3	306.6
Leisure and Hospitality	264.9	270.4	272.9	262.4	263.0	271.4	279.7	289.8	300.3	311.5
Other Services	90.8	92.9	94.8	93.7	92.4	93.7	96.0	97.7	99.3	100.6
Government	367.2	374.7	384.1	390.5	393.8	392.9	394.8	404.2	410.6	415.1
Total[d,e]	2,279.1	2,331.3	2,350.3	2,245.6	2,222.3	2,258.6	2,313.0	2,381.1	2,454.0	2,515.3

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

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

[e]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.

Colorado Economic, Employment, and Population Outlook

continued from page 15

when about 7,100 new businesses started, to the first half of 2014, when about 10,100 new businesses started (the latest data available at the time of publication). (Generally, every new business with at least one paid employee must file with the state's unemployment insurance system.) The number of new businesses in Colorado grew 5.1% in the first half of 2014 compared to the first half of 2013. New business growth indicates that entrepreneurs in Colorado see increased opportunities and are pursuing more projects, which is leading to new jobs and a broader increase in economic activity.

Many favorable characteristics point to continued growth in new business formation that will help fuel job growth in the state in 2015. Colorado has a diverse mix of industries that produce goods and services that are in high demand in today's economy. This provides business creation opportunities not only from new product ideas, but also from providing products and services to other expanding businesses.

The state's increasing population, including the migration of skilled and entrepreneurial workers, also supports new business formation. Additionally, the pool of resources available to support entrepreneurs to bring their ideas to fruition, such as business funding, managerial talent, and technical expertise, appears poised for more growth as Colorado's economy continues to experience success. The state's growing reputation as place where entrepreneurs can succeed will help attract more resources to support new businesses. Finally, broader and deeper networking activities that are connecting entrepreneurs will help build the resources and support necessary for continued new business formation.

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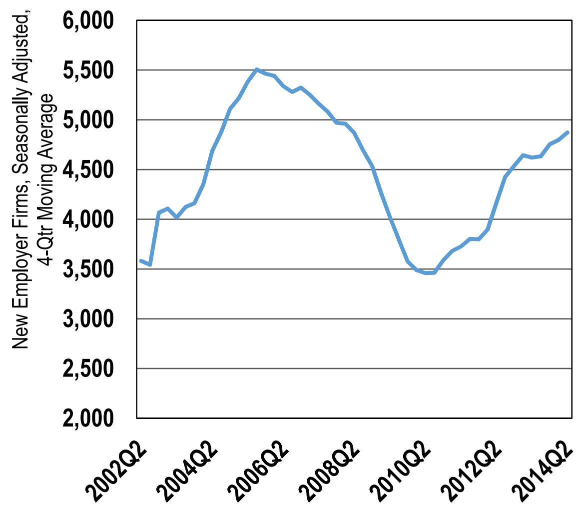
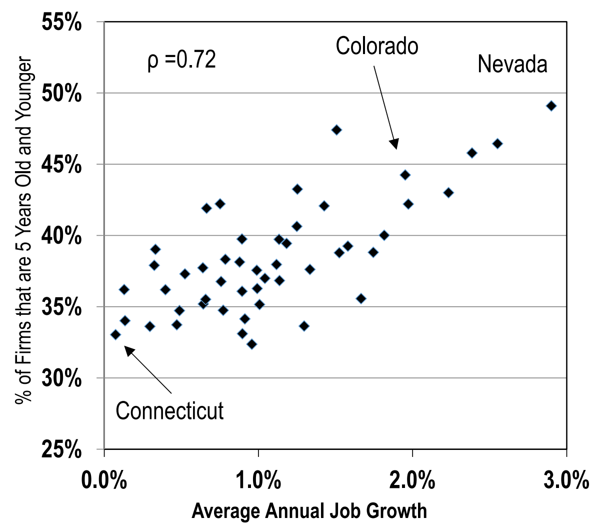
NEW BUSINESS FORMATION IN COLORADO, Q2 2002–Q2 2014



Sources: Colorado Department of Labor and Employment; Governor's Office of State Planning and Budgeting

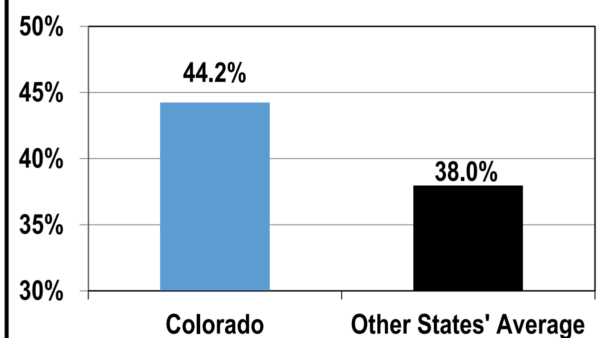
RELATIONSHIP BETWEEN PROPORTION OF NEW AND YOUNG FIRMS IN STATE AND AVERAGE ANNUAL JOB GROWTH, 1990–2012



*Excludes North Dakota because of the unique circumstance of its job growth in recent years.

Sources: U.S. Census Bureau, Business Dynamic Statistics and U.S. Bureau of Labor Statistics.

PERCENT OF ALL FIRMS THAT ARE FIVE YEARS OLD OR YOUNGER, 1990–2012 AVERAGE



Source: U.S. Census Bureau, Business Dynamic Statistics.

Agriculture

Colorado Cattle Lead the Way to Record Farm Income

Net farm and ranch income is estimated at $2.6 billion for 2014, a level nearly double that of 2013 and well above year-ago forecasts. Even with a reduced cattle herd, record-high cattle prices coupled with lower feed costs created greater than expected profitability throughout the entire beef complex. This was especially true for cow-calf producers and feedlot operators. Range and pasture conditions are also very positive for cattle producers. The summer of 2014 is likely to be viewed as the turning point of the cattle cycle with cattlemen able to begin rebuilding herd size. Unfortunately for those cattlemen who were forced to liquidate herds due to drought, today's high cattle prices make it difficult or impossible to reenter the business.

Dairy producers have benefited from record-high milk prices in 2014 that boosted cash receipts to an estimated $815 million, elevating dairy to second in terms of cash receipts. Cattle and calves top the list, at $4.2 billion. These positives helped offset slower growth and declines in profitability across most of Colorado's field crops. While wheat and corn production increased in 2014, prices received by producers were significantly lower than in 2013, and corn, specifically, was near or below the cost of production. Weather also helped improve crop conditions and for the first time in several years, Colorado has no areas in the "extreme" or "exceptional" drought categories.

Going into 2015, Colorado's winter wheat planting conditions were among the best in recent years. Lower wheat prices in 2014 will likely affect wheat acres planted in 2015. Lower margins on corn acres may cause nominal acreage shift away from corn in 2015 to wheat, sunflowers, and possibly dry beans, but will be weather dependent. Expenses for fuel, fertilizer, and seed, which had declined in 2014, are expected to increase only marginally in 2015. Overall net crop revenues are anticipated to be steady to higher in 2015.

Cattle and beef prices for 2015 are forecast to increase on the basis of steady domestic demand and continued export growth, coupled with a tight cattle supply as producers continue to build up herds. Cattle prices are expected to soften beyond 2015 as herd size increases and there is greater competition from other proteins.

The net effect will be that farm and ranch net income for 2015 remains steady at $2.6 billion. Colorado's farm and ranch community has, without question, helped to lead Colorado's economy out of the recession that began in 2008.

COLORADO FARM INCOME AND PRODUCTION EXPENSES 2006–2015 (In Millions of Dollars)

Year	Gross Value of Farm Revenue	Total Farm Production Expenses	Net Farm Income
2006	$6,761.5	$5,843.9	$917.6
2007	7,478.2	6,203.1	1,275.1
2008	7,269.4	6,168.0	1,101.4
2009	6,795.0	6,160.0	635.0
2010	7,190.9	6,052.1	1,138.8
2011	8,475.5	6,739.2	1,736.3
2012	8,641.4	6,888.1	1,753.3
2013	8,120.0	6,750.0	1,370.0
2014[a]	9,116.0	6,500.0	2,616.0
2015[b]	9,231.0	6,600.0	2,631.0

[a]Estimated.

[b]Forecast.

Source: Colorado Business Economic Outlook Agriculture Committee.

Livestock Leads the Way

The **livestock** sector became even more important to Colorado's agriculture economy in 2014, accounting for an estimated 71% of total value of production versus 65% of total value in 2013. Cattle producers enjoyed record high **fed** and **feeder** cattle prices for the fourth year in a row. With the season average for steers and heifers estimated at $155 per hundredweight (cwt), 2014 marked the best year for cattle feeders since 2003. Higher market prices reflect the continued decline in the size of the U.S. herd as well as growth of export markets and the improving U.S. economy supporting high prices in the domestic market.

continued on page 18

Agriculture

continued from page 17

QUOTES FROM THE PAST: 1967

"Looking to 1967, our committee does not think that things can continue to be quite this good. They feel that the number of farms will decline, but that the average size of farms will increase."

Colorado fed cattle sales are projected to continue to drop to new record low territory in 2015, to 1.8 million head—the lowest level in recent history and well below the 2.7 million head marketed in 2000. Prices for steers and heifers are forecast to rise in 2015 to an average of $165 per cwt, pushing cash receipts from cattle and calves to a record-high of $4.5 billion.

Cattle prices are expected to peak in 2015 as lower corn prices, improved hay production, and better grazing conditions in 2014 are encouraging herd rebuilding. Stronger prices in the cattle markets will eventually translate to even higher retail prices, and beef will see much more pressure from lower-priced competing meats, such as chicken and pork, in 2015.

Colorado's **dairy** industry had a record year as well. Butter, cheese, and milk are all at record-high prices. While prices for dairy products climbed, prices for feed decreased, giving dairies an estimated 25% increase in cash receipts over 2013. The year 2015 will see a predicted weakening in prices as global production ramps up to meet demand, but Colorado producers will experience less downward price pressure due to strong local demand.

Prices for Colorado **lamb** increased 20% in 2014 and are expected to continue to rise slightly in 2015. Higher prices for red meat in general are helping to strengthen lamb prices.

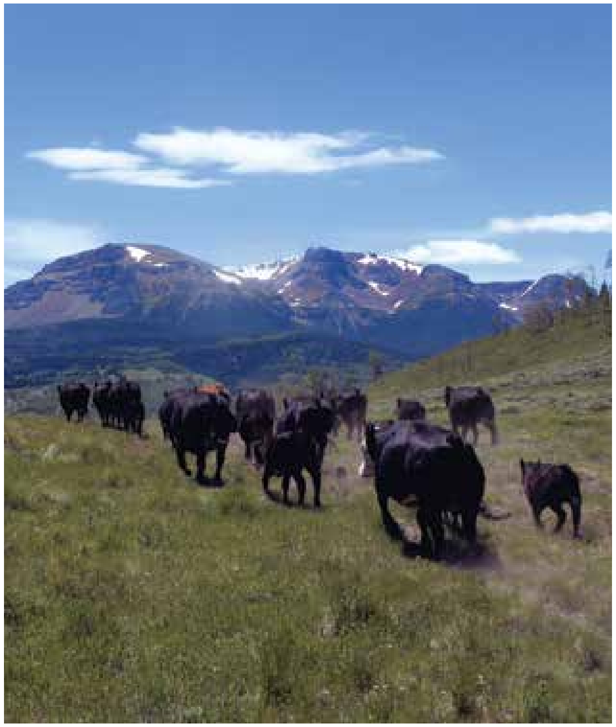
Colorado **pork** producers escaped the effects of porcine epidemic diarrhea virus (PEDV) experienced in other states and had very few losses. Pork exports remained strong, and lower feed costs resulting from the drop in corn prices increased cash receipts in 2014 to an estimated $290 million. Cash receipts for pork are expected to decline somewhat for Colorado in 2015 as corn prices increase and other pork-producing states recover from PEDV.

VALUE ADDED BY COLORADO AGRICULTURAL SECTOR 2006–2015 (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
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	2,231.3	6,123.4	885.0	261.0	7,269.4
2009	3,338.2	2,324.1	5,662.3	940.9	191.8	6,795.0
2010	3,819.4	2,341.0	6,160.4	758.9	271.6	7,190.9
2011	4,301.1	2,881.4	7,182.5	1,057.6	235.4	8,475.5
2012	4,550.2	2,727.5	7,277.7	1,148.0	215.7	8,641.4
2013	4,516.0	2,411.0	6,927.0	975.0	218.0	8,120.0
2014[c]	5,596.0	2,288.0	7,884.0	975.0	257.0	9,116.0
2015[d]	5,723.0	2,308.0	8,031.0	1,000.0	200.0	9,231.0

[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.



Poultry and **egg** production is expected to grow moderately, generating an estimated $120 million in total cash receipts in 2015.

Colorado Crops—High Corn Yields Drop Prices

The price for **corn** continues to influence agriculture across Colorado and the nation. Record U.S. corn production in 2013 and another estimated record crop for 2014 dropped prices from a 2013 season average of $4.65 per bushel to $3.50 per bushel in 2014, well off the record high of $7.05 in 2012 and below the cost of production for many corn farmers. Prices are expected to rebound slightly in 2015.

Lower market prices may have shifted a few acres away from corn in 2014 but because of farmers' rotational plans and improved revenue-protection crop insurance programs in the 2014 Farm Bill, it is unlikely corn will lose many acres in Colorado in 2015.

The corn crop is estimated to be 138 million bushels for 2014, creating cash receipts of $484 million. Corn production for 2015 is projected at 135 million bushels, down about 2% from 2014. Projected slightly higher prices in 2015, combined with fewer acres, will reduce total estimated cash receipts for corn production to $437 million. This is a 53% decrease from the record high $939 million in 2012. Non-irrigated acres usually planted to corn in Colorado may be planted to other late-season crops such as sunflowers, dry beans, and millet if there is sufficient moisture.

Colorado **wheat** producers rebounded in 2014 with sufficient moisture and good growing conditions to produce more than twice the bushels harvested in drought-stricken 2013. Improved yields and more planted acres brought the 2014 crop to an estimated 90 million bushels compared to 42 million bushels in 2013. Wheat acres planted for harvest in 2015 will be reduced to an estimated 2.25 million compared to 2.7 million in 2014, but planting conditions were greatly improved. Reduced acreage is due to crop rotation cycles. Although average prices are expected to decrease from approximately $6.75 per bushel in 2014 to $5.75 per bushel in 2015, total cash receipts from wheat production in 2015 are projected to increase to $509 million. The year 2014 also saw the formation of the flour milling conglomerate Ardent Mills in Colorado, which is expected to increase new product development opportunities for the state's wheat farmers.

Corn and wheat prices may also be affected by transportation problems caused by increasing competition for rail cars from the oil industry.

Hay production is a bright spot for Colorado crops as yields increased while prices declined less than other crops due to demand from drought-stricken regions. Total estimated cash receipts of $453 million rivaled those for corn and wheat. Production increased in 2014 to an estimated 4.1 million tons, and prices remained strong at $210 per ton. Demand from Colorado's dairy industry and large equine industry for high-quality hay will keep prices strong in 2015, with prices projected at $185 per ton and estimated production of 4.2 million tons. This will put cash receipts only marginally lower, at $446 million.

Potato production picked up slightly in 2014 in anticipation of expanded access to the Mexico market beyond the 26-kilometer trade zone along the U.S.-Mexico border. Although Mexico authorized this broader access in May 2014, access was soon suspended by lawsuits in the Mexican courts, which may be resolved in 2015. The San Luis Valley received more moisture in 2014 in rain and runoff, but there are continued concerns about aquifer levels. Season average prices for potatoes are expected to remain at $9.00–$10.00 per cwt for 2015, with cash receipts of $180 million forecast.

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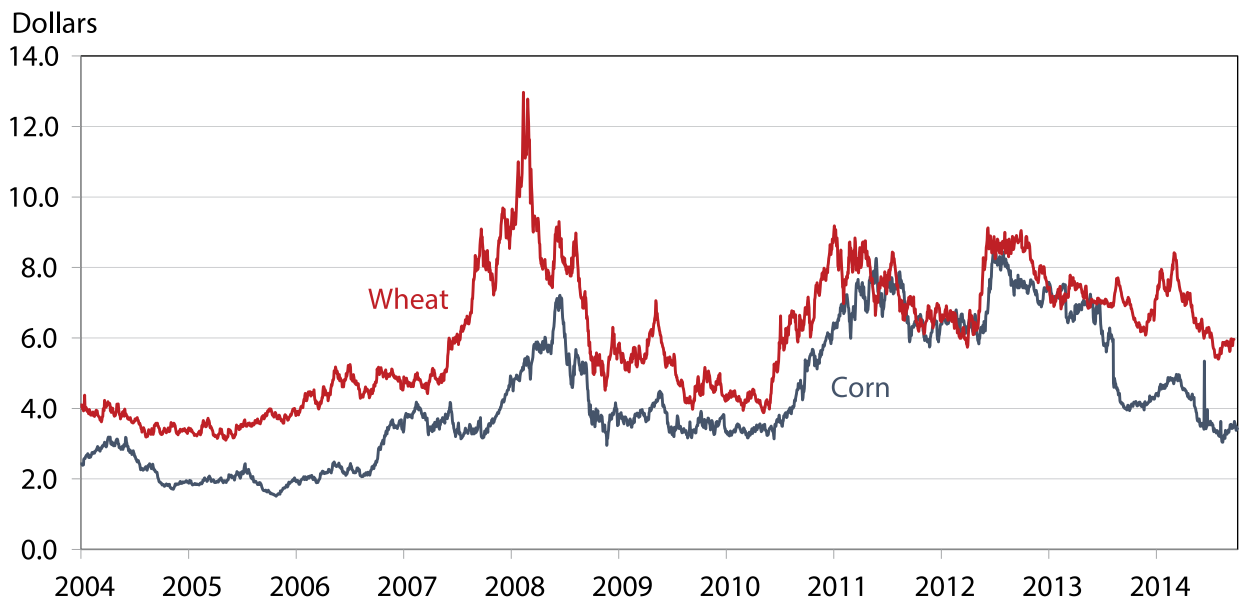
INDEXED COMMODITY PRICES



Agriculture

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Barley prices dropped from $5.73 per bushel in 2013 to $3.75 in 2014 as much of the barley grown was not of malting quality and had to be sold as feed at a lower price.

Dry bean farmers in Colorado stepped up production in 2014 in response to lower corn prices, planting 46,000 acres compared to 39,000 in 2013. This trend is expected to continue in 2015, with increased production also causing a drop in prices from an estimated $35 per cwt in 2014 to $25 per cwt in 2015.

Colorado's **onion** crop decreased in 2014 and is projected to remain steady in 2015. Water and labor issues have been the predominant factors contributing to the decline. Nonetheless, onions remain an important crop, with cash receipts estimated at approximately $30 million annually for 2014 and 2015.

Colorado **sugar beet** numbers have remained stable the last few years as all sugar beet production is contracted to the state's one remaining sugar plant in Fort Morgan.

Sunflower and **millet** acres will potentially continue slight increases as farmers look for alternatives to corn. Sunflower prices are expected to drop as farmers across the United States increase their acres.

Colorado **grape** production suffered setbacks in 2014 with severe winterkill and late frosts. Total grape production is estimated to have been reduced 50%. Grape growers are planting more disease- and cold-resistant grape hybrids and are working with Colorado wineries, now numbering more than 110, to familiarize consumers with these new grape varieties.

Cantaloupe farmers planted 30% more acres of melons this year but saw most of those acres lost to hail. Cantaloupe production will continue to increase, with a 15% increase in planted acres forecast for 2015. Demand for Rocky Ford cantaloupe outstripped supply in 2014 because of hail losses.

Peach production saw an excellent year in 2014, rebounding from frost damage in 2013, and will continue to expand as growers are planting many new young trees. Cash receipts from fruit production, including peaches, apples, and pears, are estimated to increase to about $35 million in 2015 from $32 million in 2014.

Colorado **sweet corn** had an excellent year in 2014 with good production and prices. It should be able to do the same in 2015 with the right weather conditions.

As Colorado housing starts increase, Colorado's **green industry** is predicted to continue to grow in 2015 as landscaping for new construction drives sales of floral, nursery, and sod products. Cash receipts are forecast to increase from $279 million in 2014 to $293 million in 2015.

Cash receipts from **government** payments increased in 2014 because of drought relief payments, covering the previous three years, were made after Congress passed the Farm Bill in February 2014. Government payments are expected to decline slightly in 2015, to $200 million, accounting for 2% of farm income. The decline is partly due to a reduction in Conservation Reserve Program (CRP) payments. New revenue-protection crop insurance programs will benefit Colorado corn farmers.

Total cash receipts to farmers and ranchers are projected to increase into 2015, while expenses are anticipated to increase slightly but still remain lower than in 2011–13. Interest rates remain low, and fuel prices are trending downward. The most significant reduction in expenses will be continued low corn costs for livestock feeders. Lower feed costs will improve margins throughout the livestock complex.

Colorado's agricultural economy bucked the trend and continued to grow through the Great Recession. As the state's economy in general improves, it appears that trend will continue in 2015, with agricultural growth expected to soften after that. The food and agriculture industry remains one of the state's most important economic drivers. According to a study conducted by Colorado State University, *Contribution of Agriculture to the Colorado Economy*, the industry generates $40 billion of economic activity annually and supports more than 170,000 jobs.

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Natural Resources and Mining

Colorado is an energy- and mineral-rich state. In the U.S. Energy Information Agency's (EIA) most recent assessment of 2012 proved reserves, Colorado ranked 8th for petroleum liquids and 4th for expected dry natural gas production. 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. In 2013, Colorado ranked 11th among the states in the production of coal, was a top 5 gold producer, and was first in molybdenum. The Henderson Mine remains the nation'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 developing a portfolio mix of wind, solar, biomass, and hydroelectric energy resources. Colorado law now mandates that investor-owned utilities (IOUs) generate 30% of electricity from renewable energy by 2020. Cooperatives must achieve a 20% standard by that same year.

The Natural Resources and Mining (NRM) industries make a significant contribution to Colorado's GDP and generate some of the highest per worker income levels in the state. Increasing crude oil production, driven by continued development of the Niobrara resource play in the Denver Basin, will push the value (noninflation adjusted) of the NRM Sector to reach an all-time high of $17.2 billion. The annual oil production in 2014 is estimated to have grown 14% from the previous year, and is forecast to grow another 10% in 2015. The state's natural gas production, however, will see a slight decrease in overall output in 2014 and 2015, with prices and market demand still low.

Overall, NRM will add 3,200 jobs in 2014 and 2,300 jobs in 2015.

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QUOTES FROM THE PAST: 1972

> *"The growth in petroleum and natural gas can be traced to new discoveries, notably the Peoria Field in the Julesburg Basin, and the Wattenburg Field, which have attracted new investment funds to Colorado."*

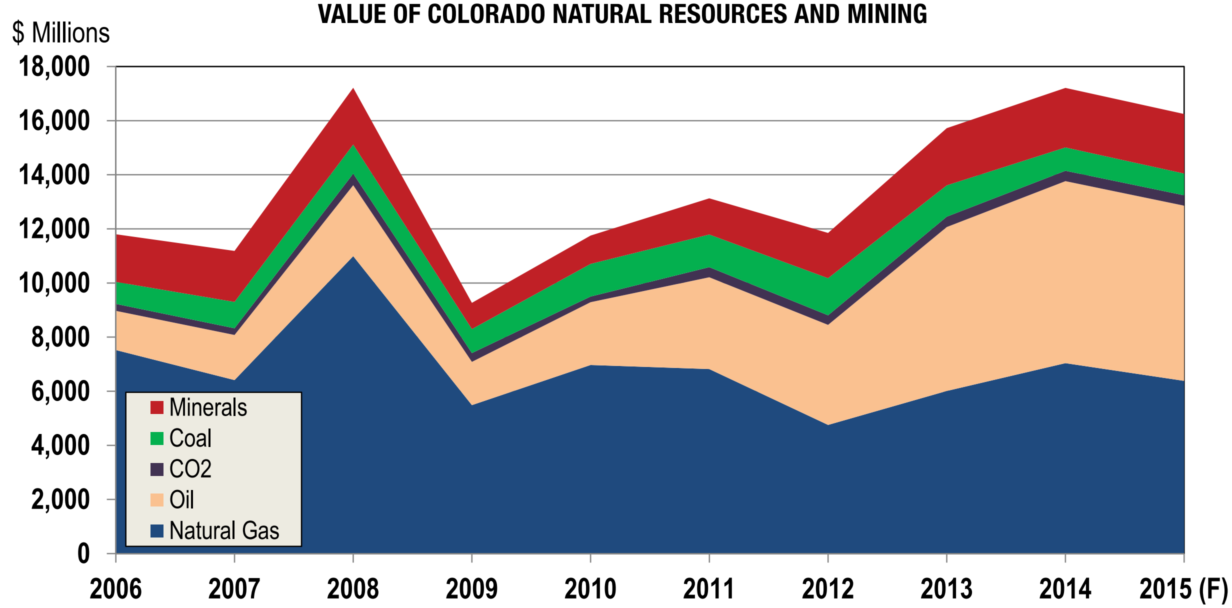
COLORADO NATURAL RESOURCES AND MINING EMPLOYMENT 2006–2015 (In Thousands)

Year	Employment	Percentage Change
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	30.3	8.6
2013	30.5	0.7
2014[a]	33.7	10.5
2015[b]	36.0	6.8

[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.

Natural Resources and Mining

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Oil and Gas

Despite Colorado's significant increase in crude oil production, natural gas is estimated to be the state's singlemost valuable commodity in 2014. Oil's value to the state will be about $6.7 billion in 2014 while natural gas will be just slightly higher, at around $7.0 billion, due almost entirely to higher prices (the 2014 mean has been close to $4.50 per million Btu). Assuming the market remains relatively stable in 2015, Colorado natural gas and crude oil production is expected to provide comparable gross revenues of between $6 and $7 billion each in 2015.

Colorado's rapid development of the Niobrara shale oil play will continue in 2015, utilizing critical horizontal drilling and hydraulic fracturing technologies. Increasing liquids production is dependent on economic stability at the state, national, and international levels, and the assumption is that larger and mid-size operators will move ahead with drilling and development of their shale oil assets in the Denver Basin despite recent softness in the oil markets. Horizontal well down-spacing and extended-reach laterals can be important for infield development.

The total revised value of Colorado's oil, gas, and carbon dioxide production in 2013 is $12.5 billion, a 32.4% increase from the 2012 value of $9.4 billion. The value of oil, gas, and carbon dioxide production for 2014 is projected to be $14.1 billion, 13% higher than 2013 and the highest value ever estimated. For 2015, the value of Colorado's production is estimated to decrease approximately 6%, to about $13.2 billion, due to lower mean oil and gas commodity prices. Of course, much is dependent on political and economic stability nationally and internationally.

Several ballot initiatives were introduced in 2014 that would have increased mandatory setback distances and provide for more local regulation of oil and gas development. With much public, industry, and government attention, a compromise was reached in early August 2014 to keep these initiatives off the ballot by creating a governor-mandated task force to address oil and gas development. The 18-member task force has been directed to make recommendations to the state legislature by late spring 2015 regarding the benefits of oil and gas to the state's economy; the protection of public health, water resources, environment, and wildlife; the

VALUE OF COLORADO NATURAL RESOURCES AND MINING, 2006–2015
(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
2006	$1,446	$7,524	$258	$9,228	-6.1%	$813	$1,762	$2,575	-0.4%	$11,803
2007	1,669	6,412	246	8,326	-9.8	974	1,886	2,860	11.1	11,186
2008	2,619	10,993	475	14,087	69.2	1,075	2,100	3,175	11.0	17,262
2009	1,600	5,461	356	7,417	-47.3	887	971	1,858	-41.5	9,275
2010	2,323	6,998	242	9,563	28.9	1,203	1,050	2,253	21.3	11,816
2011	3,438	6,828	397	10,663	11.5	1,209	1,336	2,545	13.0	13,208
2012	4,278	4,745	381	9,404	-11.8	1,371	1,530	2,901	14.0	12,305
2013	6,057	6,012	384	12,453	32.4	1,157	2,110	3,267	12.6	15,720
2014[a]	6,726	7,037	383	14,146	13.6	864	2,200	3,064	-6.2	17,210
2015[b]	6,472	6,384	383	13,239	-6.4	805	2,200	3,005	-1.9	16,244

[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.

regulatory role of state and local entities; and a climate in Colorado that will encourage responsible oil and gas development.

Oil

In 2014, the U.S. petroleum benchmark known as West Texas Intermediate (WTI) fluctuated between $77 and $107 per barrel, with a mean daily spot average of $98 per barrel as of the end of October. Colorado crude oil, typically sold at a discount to WTI due to market demand considerations, has had an average weighted price of roughly $92 per barrel as of October 2014. This is a modest decrease from the 2013 Colorado composite price of $93 per barrel. Future energy prices are dependent on a myriad of factors across multiple scales, including economic and geopolitical situations, technological developments, and new resource discoveries. Abundant supply driven in large part by the boom in U.S. oil production, and Saudi Arabia's desire to keep market share, points to continued soft oil pricing in 2015. A wide estimate of $75 – $100 per barrel for 2015 appears safe, assuming supply and demand expectations continue on current trends. Colorado production could diminish slightly in 2015 should crude prices drop significantly, but the expectation is for producers to continue their Niobrara shale development under all but the most severe market conditions. The expectation is that the state will have a >10% increase in the annual produced liquid volumes again. In the Denver Basin, the Niobrara shale resource is estimated to contain between 2 and 3.5 billion barrels of oil, only a tiny fraction of which has been exploited.

The International Energy Agency (IEA) is forecasting 2015 oil demand to be only marginally higher than it has been in 2014 due to reduced expectations of economic growth and slowing demand. Assuming the macroeconomic backdrop improves, the world oil demand in 2015 is expected to be between 92.5 and 93.5 million barrels per day. This compares to an estimated demand of 91.4 to 92.4 million barrels per day in 2014. According to the EIA, consumption in the United States is looking to have slightly decreased in 2014, by 0.05 million barrels per day, to 18.91. Demand is expected to increase again, however, in 2015, to 19.1 million barrels per day. EIA currently

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COLORADO PHYSICAL OUTPUT OF FOSSIL FUELS
2006–2015

Year	Coal Millions of Short Tons	Crude Oil Millions of Barrels	Natural Gas Billions of Cubic Feet	Carbon Dioxide Billions of Cubic Feet	Index (Base Year: 2006 = 100) Coal	Crude Oil	Natural Gas	Carbon Dioxide
2006	35.5	24.2	1,227	373	100.0	100.0	100.0	100.0
2007	36.1	25.5	1,300	375	101.7	105.4	105.9	100.6
2008	32.3	29.5	1,497	371	91.0	121.8	122.0	99.6
2009	28.6	29.9	1,553	408	80.6	123.7	126.5	109.4
2010	25.2	32.4	1,616	267	71.0	133.9	131.7	71.7
2011	27.0	38.6	1,647	469	76.1	159.6	134.2	125.8
2012	28.8	48.7	1,650	452	81.1	201.3	134.4	121.2
2013	24.2	64.7	1,563	456	68.2	267.4	127.3	122.3
2014[a]	24.0	73.5	1,517	454	67.6	303.8	123.6	121.8
2015[b]	23.0	80.9	1,502	463	64.8	334.4	122.4	124.2

[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.

Natural Resources and Mining

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estimates that the average WTI will end at $95 per barrel average for the whole of 2014. For 2015, the forecast mean price is $77.75 per barrel—a notable 18% decrease.

Retail Gasoline

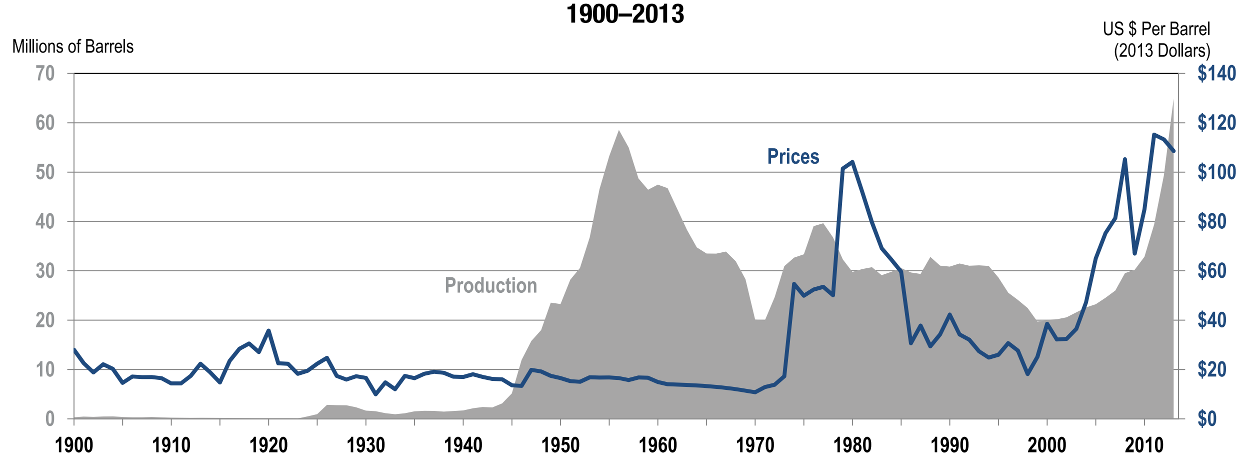
The Colorado average retail price of automotive gasoline at all grades through October 2014 was $3.52, nearly the same average seen in 2012 and 2013. For 2015, the EIA expects the national average for regular grade will be $2.94 per gallon, a decrease attributed almost entirely to lower projected crude oil prices. Regional prices for diesel (averaging $3.90 for 2013) have been consistently higher than prices for regular gasoline. Expectations are for gasoline to be priced between $2.50 and $3.50 per gallon in Colorado in 2015.

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 decrease of 5% (approximately $23) over 2013–14. Just under 50% of all households in the United States depend on natural gas as a primary heating fuel; for Colorado, this percentage climbs to more than 70%. This projected decrease in average household expenditure will result from a return to closer-to-normal temperature levels, although the residential prices are forecast to be higher. The National Oceanic and Atmospheric Administration (NOAA) estimates that the total heating degree days in winter 2014–15 will be 12% fewer than in the previous winter, although in the West there will only be 7% less heating degree days as the region is projected to have a mild winter overall (despite abnormally cold November temperatures).

Colorado is a top natural gas-producing state. EIA estimates that conventional and unconventional output from Colorado basins in 2013 accounted for nearly 5.3% of the annual U.S. natural gas production, dropping its rank to the sixth-largest gas-producing state. The residential sector is the largest natural gas-consuming sector in the state accounting for roughly 29% of the total 468,000 million cubic feet consumed in 2013.

ANNUAL COLORADO OIL PRODUCTION AND PRICE 1900–2013



Source: Colorado Geological Survey (based on RMAG, EIA, IHS, & COGCC data). Crude oil prices: 1900-1944 US average; 1945-1983 Arabian Light; 1984-2013 Brent.

Average residential gas prices in Colorado for 2013 were the second-lowest in the country, at $7.82 per thousand cubic feet. For 2015, Colorado natural gas is likely to continue in the range of $3.50 to $5.50 per thousand cubic feet with 80% confidence. The EIA is currently forecasting the Henry Hub spot price average to be $3.94 per thousand cubic feet in 2015, down from a $4.57 average price in 2014.

In December 2013, active "gas" wells totaled more than 18,000 in Colorado. These wells, with additional gas generated from the state's "oil" wells, produced an estimated 1.56 trillion cubic feet in that year. Due to an increase in gas prices in 2014, Colorado is estimated to see the value of natural gas eclipse crude oil in 2014. If gas prices remain lower (below $4/Mcf) in 2015, oil should regain the position as the state's most valuable single commodity in 2015.

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 2014, just more than 450 million cubic feet of CO2 were produced in four counties (Montezuma, Dolores, Huerfano, and Jackson), with the total production value grossly estimated to be $380 million, the same as for the past few years. For 2015, CO2 production levels are likely to remain the same or increase slightly.

Drilling Permits

The Colorado Oil and Gas Conservation Commission (COGCC) reports 4,025 drilling permits were approved in 2013, representing a 7% increase from the 3,773 permits approved in 2012. For 2014, the commission has approved roughly 3,008 permits as of early October. More than 80% of 2014's permitted wells are located in Weld and Garfield counties.

The weekly active drill rig count in Colorado has averaged 68 rigs per week for 2014. August through October had 75 rigs per week active on average. A total of 1,609 newly drilled wells have been initiated in Colorado in 2014 as of early October. This suggests that the total number of well starts will be similar or slightly greater than the 1,904 wells that were drilled in 2013.

Horizontal drilling and hydraulic stimulation continue to be integral to Colorado's oil and gas activity. In 2010, only 5.6% of all Colorado drilling permits issued were for horizontal wells. In 2014, that number is on track to be greater than 60% of all issued permits. Of the horizontal wells permitted in 2014, 92% have been located in Weld County—the vast majority of these in the Wattenberg field. There have been 1,081 horizontal wells initiated through early October 2014—just over two-thirds of the state's total spud wells.

Coal

Coal mining in Colorado dates back to 1864. Colorado's clean, high-quality coal reserves help utilities meet the stringent requirements of the Clean Air Act. Data provided to the Colorado Mining Association indicate that in 2013 the industry accounted for more than $873 million in sales and, according to the National Mining Association's survey entitled *Economic Contributions of Mining (2012)*, the industry contributes $2.75 billion to Colorado's economy and direct employment (including transportation) of 6,200, and 23,700 jobs in the general economy. Federal royalties on Colorado coal production in fiscal year 2013 amounted to nearly $32 million—about half of which is returned to Colorado to support public education and other activities. Coal mines also paid state royalties and severance and sales taxes of more than $33 million in 2013.

Coal is the fastest-growing major source of electricity worldwide, and sales of Colorado coal outside the United States increased to more than 20% of total production in 2012 but declined in 2013. Domestic sales both within Colorado and to other states have also fallen over the past decade. The state's total production rose from 27 million tons in 2011 to 28.8 million tons in 2012 before dropping to 23.9 million tons in 2013. These are the lowest production levels since the mid-1990s.

Coal must now compete in an environment where government mandates for renewable energy could limit sales in Colorado. The slated closure or conversion to natural gas of nearly 1,000 megawatts (MWs) of electricity currently generated by coal-fired plants along the Front Range will also cause annual production losses of up to 4 million tons. This is due to legislation enacted in 2010. New Environmental Protection Agency regulations will also significantly curtail future production unless they are changed significantly.

Mines

In 2013, 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 eight Colorado counties: Routt, Moffat, Rio Blanco, Garfield, Delta, Gunnison, Montrose, and La Plata. Routt County has been the leading coal-producing county for years while Gunnison County ran a close second in 2013. In 2013 Peabody Energy's Foidel Creek Mine produced 7.2 million tons, making it the highest producing mine in Colorado. In 2011, Peabody Energy initiated development of a new mine, the Sage Creek Mine, also in Routt County, but has delayed production while it evaluates market conditions. The Bowie Mine #2 in Delta County recently announced cutbacks in production and laid off 150 miners due to the cancellation of a contract to supply coal to the Tennessee Valley Authority.

Production

In 2013, Colorado ranked as the 11th-most productive coal mining state. Using the Mine Safety and Health Administration's data for the first three quarters of 2014,

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Natural Resources and Mining

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along with the EIA data, the state's total coal production by year-end 2014 is estimated at 24.0 million tons.

Value

Along with reduced coal sales, the price for contract coal fell in 2013. In 2012, the total value of coal sold in Colorado was estimated at $1.4 billion based on an average coal price of $47.68 per ton. Prices have fallen, and between August 2012 and September 2013 the average price per ton for federal-leased Colorado coal was $42.76. The estimated value of Colorado coal sold during this time was close to $1.0 billion. The estimated value of Colorado coal sold in 2014 is expected to remain close to $1.0 billion. According to a 2013 report prepared by the National Mining Association, the overall economic contribution of coal mining to Colorado is substantial, at nearly $2.8 billion in 2011.

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 was at a 25-year high of 2,411 miners in December. This was due, in part, to the employment of new coal miners at the New Elk mine in Las Animas County. In December 2013, employment slid to 2,047 miners and will decline further due to the Bowie Mine layoffs. According to the Colorado Division of Reclamation Mining and Safety, the number of persons employed at Colorado coal mines was 1,684 at the end of September 2014.

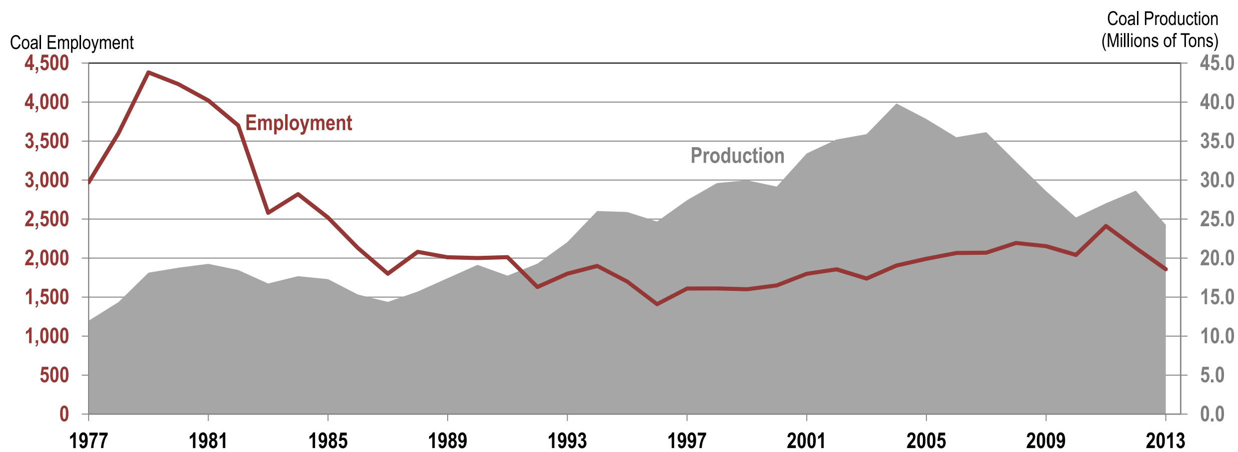
Export Coal

Based on EIA data, between 2009 and 2013, 38% of the coal produced in Colorado has been shipped by rail or truck to power plants in 21 other states, with destinations as far as Florida. In 2013, the five states that use the most Colorado coal were Tennessee, Utah, Kentucky, Mississippi, and Alabama. Sales to Alabama, Kentucky, and Tennessee have fallen significantly as the Tennessee Valley Authority reduced its take of Colorado coal by almost four million tons per year between 2008 and 2013. In addition to the coal shipped to other states, the EIA reports that 6.5 million tons of Colorado coal were exported in 2012.

Consumption and Generation

According to EIA data, 57% of the 18.5 million tons of coal delivered to electric utilities in Colorado in 2008 came from Colorado mines, with the remainder from Wyoming. In 2013, total tons delivered were 18.1 million tons while the percentage that came from Colorado mines fell to 41%. Based on data for the first seven months of 2014, the percentage of coal from Colorado has improved to 46%. Coal-fired power plants in Colorado consumed 19.0 million tons of coal in 2013, supplying the state with 64% of its electricity. Annual electricity generated at Colorado's 12 coal-fired power plants increased by 1.6% from 2011 to 2012 before falling back the same level in 2013 of 34 MWhs. Natural gas consumption for electricity has increased marginally since 2011, whereas wind generated electricity saw a 1.4 MWh generation increase between 2012 and 2013.

ANNUAL COLORADO COAL PRODUCTION AND EMPLOYMENT, 1977–2013



Source: Colorado Division of Reclamation, Mining, and Safety, 2013. Employment totals based on December levels.

Minerals and Uranium

Colorado's mining sector was stable in 2013 compared to the previous year. The total value for 2013 is estimated at $1.5 billion, a 2% decrease from 2012. It is anticipated that the value of mineral materials will increase 5% for 2014 and add an additional 5% in 2015, assuming prices remain stable.

The price of molybdenum—the largest component of Colorado's mineral production—averaged around $11 per pound in 2013 and $9.50 per pound in 2014. Colorado gold production for 2013 was 230,000 ounces, down about 7% from the prior year, while sales value fell by nearly 20% due to lower commodity prices. Production of industrial minerals (primarily construction materials) increased in 2014, and looks to increase further in 2015, correlating with the construction activity in the state.

Colorado ranks first among the states in the production of molybdenum.

Production at the Henderson Mine in Clear Creek County maintained a level of 34 million pounds for the year in 2012. 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 in 2012 producing about 7 million pounds. Total production from both mines, however, increased by nearly 20% to 48.5 million pounds in 2013 and roughly the same this year. The Henderson Mine is currently the largest primary producer of molybdenum in the United States and the Climax Mine is anticipated to become the second largest. Together, these facilities, including the Henderson Mill in Grand County, employ more than 900 workers. 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 Cripple Creek and Victor Gold Mining Company's Cresson Mine, a subsidiary of AngloAshanti North America Inc., produced 230,000 ounces of gold in 2013. Total production value was $409 million in 2012, but dropped in 2013 due to lower production and prices. The Cresson Mine employs 522 people in Teller County and is undergoing a major expansion to extend the mine life.

No uranium or vanadium has been produced in Colorado for the past several years. Energy Fuels, Inc., announced it is in the final stages of its sale of select uranium assets along the Colorado-Utah border, including the planned Pinon Ridge Mill, to a private investor group.

In 2013, Colorado consumed 43 million tons of aggregate, consisting of crushed stone, sand, and gravel. According to the Colorado Stone, Sand & Gravel Association (CSSGA), this volume reflects an increase of approximately 20% over 2012 levels. CSSGA currently estimates the industry's value at $695 million annually. Indications for 2015 suggest a steady increase in production in Colorado with larger gains forecast in the central and northern regions.

VALUE OF COLORADO NONFUEL MINERALS AND URANIUM PRODUCTION 2006–2015 (In Millions of Dollars)

Year	Nonfuel Minerals	Uranium	Total
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	1,530	0.0	1,530
2013	1,500	0.0	1,500
2014[a]	1,571	0.0	1,571
2015[b]	1,650	0.0	1,650

[a]Estimated. [b]Forecast.

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

The industrial minerals sector directly employs 1,600 people across the state and indirectly affects 70,000 employees. The industry contributes approximately $477 million directly to the state economy and $4.4 billion indirectly.

Renewables

Colorado's abundance of renewable energy resources includes wind, solar, hydroelectric, geothermal, and biomass resources. These additional electricity resources accounted for 16.7% of Colorado's net generation in 2013, an increase from the 14.6% generated from these sources in 2012. Most of the generation comes from wind (13.8%) and hydroelectric (2.4%) resources. 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. In terms of overall renewable energy technical potential, the U.S. Department of Energy's National Renewable Energy Laboratory ranked Colorado sixth 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 most ambitious 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 credits.

As of August 2014, residential electricity rates in Colorado were 12.83 cents per kilowatt hour (kWh), which is a 2% increase over the prior year. This is just below the national average at 13.01 cents/kWh, and is the second highest in the eight-state Mountain West Region, which averages 12.33 cents/kWh. Colorado commercial rates are 10.83 cents/kWh, which is below the national average of 11.07 cents and is eclipsed only by New Mexico as being the most costly in the region. Colorado's industrial rate averages 7.71 cents, which tops the national average of 7.38 cents. Averaging across all consumer sectors, Colorado's year-over-year electricity rate increase was 2.1% from August 2013 to 2014.

Wind Energy

Colorado ranks 10th nationally for total MWs installed and 13th for overall wind energy potential. The U.S. Department of Energy estimates that installed wind power in Colorado grew by nearly 80% from 2011 through 2013. Cumulative wind power generating

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Natural Resources and Mining

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capacity has increased by more than a gigawatt during this period, to reach 2,332 MWs. Colorado wind farms cumulatively produced almost 7.4 million MWhs of electricity in 2013.

Most of Colorado's wind stations operate in rural areas with limited economic development opportunities, providing local jobs to hard-pressed areas. While hard numbers regarding the economic impact of renewable energy sources are difficult to come by, the wind industry adds to local economies through new lease payments to landowners, local income from taxes, wages of wind farm employees (about 300 constructions jobs per new project and operations crews of about 25 per farm), and sales and use taxes arising from spending by these workers. According to the American Wind Energy Association, Colorado currently ranks fifth in the nation for wind-related employment.

Colorado also has a significant wind turbine manufacturing presence. According to the U.S. Bureau of Labor Statistics, Colorado's 2012 industry concentration in this manufacturing sector was 2.5 times the national average, with 19 distinct manufacturing facilities located in the state. After a round of Colorado layoffs in 2012, Denmark-based Vestas Wind Systems announced plans in July 2014 to add 800 jobs in Colorado by the end of the year to meet global demand for wind turbines in 2015 and 2016.

Solar Energy

Colorado is a leader in solar energy. 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. In late 2012, the City and County of Denver was the first municipality to be recognized as a "Solar Friendly Community" by the U.S. Department of Energy's SunShot Initiative for posting its solar permitting and inspection requirements online, offering low-cost, same-day permits, streamlining inspections, and providing a variety of educational materials about solar energy to residents.

In terms of cumulative installed solar electric capacity, Colorado ranked eighth nationally at the end of 2013, with 360 MW of installed capacity. Of that power, 55.9 MW was installed that year. According to National Renewable Energy Laboratory's Open PV Project, Colorado has 2,590 individual photovoltaic (PV) installations that generate more than 130 MWs of power.

Xcel energy announced in March 2014 that it plans to buy power from a $220 million utility-scale solar system

COLORADO ELECTRIC POWER INDUSTRY GENERATION BY PRIMARY ENERGY SOURCE
2006–2013
(In Millions of Megawatt Hours)

Year	Coal	Natural Gas	Hydroelectric[a]	Wind	Solar	Biomass	Petroleum	Other[b]	Total
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
2011	34.0	10.2	1.8	5.2	0.105	0.062	0.022	0.063	51.4
2012	34.5	10.5	1.5	6.0	0.165	0.058	0.011	0.055	52.8
2013	34.0	10.7	1.3	7.4	0.199	0.061	0.010	0.053	53.7

[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.

that will be located near the Comanche Generating station in Pueblo. The facility will utilize 450,000 panels to generate 120 MWs—enough power to supply more than 30,000 homes.

Like many states, the rooftop solar community in Colorado has been thriving with installation costs dropping approximately 8% last year and nearly 40% since 2010. In fact, for 2012 and 2013, Colorado had some of the lowest installation costs of anywhere in the nation—$3.70 per watt for a system between 10 and 100 kilowatts. Ongoing currently is a debate about net metering and commercial utility policies that pay the going residential electricity rate of about 11 cents/kWh to rooftop solar customers for excess electricity.

Hydroelectric Power

For the past decade, Colorado's hydroelectric plants have been providing between 2.5% and 3.5% of the state's total electricity. For 2013, 2.4% of the state's total electrical output came from 48 hydroelectric generating stations with around 1.3 MWhs of electricity 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, Nederland, Ouray, and Telluride. This renewable resource provides a constant but seasonably variable source of electricity. The industry employs several hundred individuals for operations and maintenance.

Other Energy Resources

Colorado is a growing hotbed of renewable energy technologies outside the traditional hydro, solar, and wind paradigm. Colorado's first biomass plant in Gypsum began delivering electricity at the end of 2013. Developed by Eagle Valley Clean Energy, the plant is utilizing wood biomass (including beetle-killed trees) to generate more than 10 MWs through heat conversion of water to steam for turbines. Other biomass plants of this type include a 5-MW plant in Pagosa Springs to possibly go online in 2015, and Xcel Energy is exploring options for a 2-MW demonstration plant. Companies such as Solix Biofuels, which is operating test facilities in Durango and Fort Collins, are working on efficiency improvements for biomass and algae energy. Realistically, large-scale algae production, which is being experimented with in other Western states, is still off 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, and was the 2011 Breakout Cleantech Company of the Year.

Regarding geothermal energy, Colorado continues to see significant interest in developing both direct heat and potential power generation resources from high heat flow areas in the state. Pagosa Verde, for example, is proposing a project to soon develop upwards of 12 MWs base-load generation in Pagosa Springs assuming appropriate geothermal conditions. House Bill 14-1222 enacted in summer 2014 provides flexibility in financing for geothermal and other renewable energy projects—a key factor in moving projects like Pagosa Verde's forward. While no electricity generation from geothermal resources is occurring in Colorado presently, many cities and commercial businesses are already using direct heat, such as the hot springs resort in Glenwood Springs and the town of Pagosa Springs.

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Construction

Available statistics on Construction volume will understate the industry's activity by more than $1 billion each year. This forecast includes the expected statistical volumes and explains the higher actual values for 2014 and 2015, particularly in the nonbuilding sector.

Overall, anticipate that Construction activity will be reported at just under $12 billion in 2014, despite an increase in nonresidential building and in both single-family housing and multifamily apartments. The decline is explained by an overstatement of infrastructure volume in 2013 and an understatement of it in 2014.

Total construction activity in 2015 is forecast to increase by $1.4 billion as even more infrastructure work is put in place. Residential permit values are expected to return to higher levels and more units are slated to be built. A surge will also be seen in nonresidential building. The overall increase is likely to be 11.5% and will still understate the volume of work completed by about $1 billion.

Residential

Single-Family Housing

Single-family permits peaked at more than 40,000 a year in 2004 and 2005, followed by four straight years of declines. The trough was in 2009 when the 7,261 permits reported represented just 18% of the totals for the peak years. Following a weak recovery in 2010–2011, single-family permits jumped 45% and 25% in 2012 and 2013, respectively, but the 15,772 permits figure for 2013 was still 60% below the 2004–2005 average. The strong increases slowed through September 2014, with Colorado single-family permits up just 10% compared to 2013. However, Colorado continued to outperform the nation, which saw a fractional decline in single permits through Q3 2014.

Metro Denver and Northern Colorado typically account for about two-thirds of Colorado housing activity. Through the first half of 2014, new housing activity in these areas (sales contracts and closings) increased by only about 5% to 10% compared to 2013.

QUOTES FROM THE PAST: 1985

> *"Mortgage rates will remain in the 13–14 percent range, local housing prices which are 35 percent above the national average, and an overbuilt multi-family housing sector will hinder the residential real estate market in 1985."*

Colorado's housing market improvement cannot be fully attributed to the state's economic recovery. The decline in 30-year mortgage interest rates, from 5.2% to 3.6% from 2010 through mid-2013, made housing more affordable and helped increase sales of both new and existing homes. After 30-year mortgage interest rates increased by 100 basis points during 2013, new home sales in the Metro Denver area once again declined for three straight quarters.

The housing market recovery's reliance on historically low mortgage interest rates is of particular concern as the Federal Reserve ends its quantitative easing policies and moves toward higher interest rates. Home loan underwriting policies also continue to suppress housing demand, with most lenders requiring higher down payments and strong credit.

Through July 2014 consumer confidence in the region continued a four-year trend of slow improvement,

VALUE OF CONSTRUCTION IN COLORADO BY TYPE
2006–2015
(In Millions of Dollars)

Year	Residential	Nonresidential	Total Building	Nonbuilding	Total Construction
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	3,363.1	3,932.1	7,295.2	2,289.2	9,584.4
2012	5,252.6	3,598.7	8,851.3	3,311.8	12,163.1
2013[a]	5,948.6	3,484.0	9,432.6	3,639.4	13,072.0
2014[b]	6,493.3	3,500.0	9,993.3	2,000.0	11,993.3
2015[c]	7,378.0	3,990.0	11,368.0	2,000.0	13,368.0

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

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

undoubtedly influenced by reports of continued home price increases. The S&P/Case-Shiller Home Price Index reported a 6.2% increase in Metro Denver for the 12-month period through September 2014.

Outlook

Colorado's foreclosure rate is on track for 2014 to be the lowest in 20 years, and the resale housing market has been undersupplied in many Colorado market areas since 2013. In Metro Denver/Boulder, the 7,609 resale home listings as of mid-year 2014 represented just a 1.7-month supply. Housing demand has not exceeded supply to this extent for more than 15 years.

Rental occupancy rates have increased to a somewhat balanced level, but some submarkets are experiencing a shortage of rental housing, and continued in-migration is adding to a natural population increase. As a result, pressures are building for rental rate increases that would make home ownership a more attractive housing option for those who can qualify for a loan.

RESIDENTIAL BUILDING PERMITS BY TYPE 2006–2015

Year	Single Family	Multifamily	Total Housing Units
2006	30,365	7,978	38,343
2007	20,516	8,938	29,454
2008	11,147	7,851	18,998
2009	7,261	2,094	9,355
2010	8,790	2,801	11,591
2011	8,723	4,779	13,502
2013	12,617	10,684	23,301
2013[a]	15,772	11,745	27,517
2014[b]	17,350	12,500	29,850
2015[c]	19,500	12,500	32,000

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

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

Forecast

The earlier decline in housing demand significantly impaired the supply capacity of the housing industry. Although homebuilders are opening new projects and new lot development is underway in several submarkets, builders are reporting that shortages of skilled labor are limiting their capacity to meet demand.

The year 2014 will see a moderate increase of about 10%, to 17,350 single-family permits, in Colorado. Continued recovery is anticipated in 2015, with 19,500 single-family permits forecast.

Although housing construction costs have increased approximately 19% since 2008, Colorado's average single-family permit value has increased only 13%. The committee attributes this disparity to a shift in consumer demand toward smaller homes. The forecast for calendar year 2014 is for a stable permit value of $295,000 per unit, followed by an increase of 3% in 2015, to $304,000.

Multifamily Housing

Activity continued upward in 2014, with permits at the highest level since 2002. Expect 12,500 units to be issued permits, a 6% gain from 2013.

Notably, new units were very heavily weighted to apartments rather than for-sale condominiums. A study commissioned by the Denver Regional Council of Governments largely attributed this to Colorado's litigious construction defects environment. Developers of for-sale condos and townhomes report paying $15,000 per unit just for the builder liability portion of their insurance policies.

Nearly 10,000 apartment units will be added to the supply in Colorado in 2014, and another 10,500 units are already under construction for delivery in 2015 and 2016.

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Nearly all of these units are being added in Colorado's Front Range. For the past three years, 97% of multifamily permits have been in the corridor from Colorado Springs north to Fort Collins.

This new development is in response to strong demand for rental housing. The state anticipates net in-migration of 53,000 for 2014 and 56,000 for 2015. Many Gen Xers (age 34-49), who were first-time new homebuyers earlier in this century, are now post-foreclosure renters. Some Gen Ys (or millennials, 33 and under) are in the same situation, but many more are renting while they struggle to find jobs that pay enough and are secure enough to justify homeownership.

As a result, apartment vacancy rates are low, rental rates are increasing, and concessions are very rare. In Metro Denver, Fort Collins/Loveland, and Greeley, vacancy rates below 5% have been the norm for nearly a year and a half. Even in Colorado Springs, Pueblo, and Grand Junction, where demand has been softer, vacancy rates declined to between 5.5% and 7% as of mid-year 2014.

The strong demand has also increased rental rates, in some cases dramatically. As of Q3 2014 in Metro Denver/Boulder, average rents had increased by 9.2% over the previous 12 months, and the median rental rate was 12.3% higher. As of Q2 2014, the 12-month average rent increase was 8.8% in the Fort Collins/Loveland area and 13.5% in Greeley.

Multifamily construction will continue strong in 2015. In addition to the more than 20,000 units completed in 2014 or already under construction, more than 16,000 units are in various stages of planning. Demographic and migration trends support demand for new apartments, but new construction may be reaching the maximum level of production that some markets can absorb. Normal lags between construction starts and occupancy have grown longer because skilled construction labor left during the recession. The committee forecasts 12,500 multifamily permits for 2015, equal to the 2014 forecast. The value per unit is expected to increase, in part because of rising labor and materials costs. After declining for two years, the average value per multifamily unit climbed more than 20% in 2013, to approximately $110,000, and remained flat in 2014. In response to rising construction costs, the value per unit is expected to begin increasing again in 2015, to around $116,000.

Nonresidential Building

This sector of the construction industry tracks activity in new buildings, remodeling, and rehabilitation of existing structures. Included are offices, retail, and medical and industrial buildings, as well as institutional buildings such as colleges, churches, schools, and government buildings.

Continued Improvement

Final 2014 statewide figures are expected to be essentially flat from 2013 activity. Colorado nonresidential building is expected to reach $3.5 billion in 2014. Activity for this subsector in 2015 is forecast to increase 14%, to nearly $4 billion. The Denver-Boulder-Aurora markets have been anchoring new construction demand and reflect the bulk of the activity. Medical and office sectors have shown continuing strength and the promise of increased construction volumes in the years to come.

Denver and the Northern Front Range corridor continue to receive national attention due to the area's educated workforce and growing industries. Energy, high-tech, financial services, and back-office function businesses are raising the national appeal of the region as a strong commercial real estate investment target.

Commercial office rents will continue to increase now that occupancy rates have bottomed out and have started a strong upward trend. Select areas, such as LoDo and Southeast Denver, will see speculative office building construction in 2015. The latest data from CBRE Group Inc. show average lease rates for Denver's central business district at $29.41 per square foot and vacancy rates at 12.7% according to its Q3 2014 MarketView report. The reopening of Denver Union Station as a regional transportation hub and the pending completion of the Regional Transportation District's commuter rail line to Denver International Airport have made LoDo one of the hottest office markets in the country. In downtown Denver, projects planned to start in 2015 include a 21-story office tower at 14th and Lawrence and a 40-story office tower between Lawrence and Larimer on 15th. Increased rental rates in Southeast Denver also will support speculative office building construction starts; three major projects are likely to break ground in 2015. Financial factors, employment growth, and proximity to public transit, particularly light rail, all contribute support to renewed activity.

Following a period of impressive hospital new construction volume, particularly at the Anschutz Medical Campus, as well as a great deal of upgrades and rehabilitations elsewhere, demand has surged for nearby medical office facilities. Dozens of ancillary medical offices are in various stages of proposal and development. This subsector will continue to contribute hundreds of millions of dollars each year during this forecast horizon.

The resort areas have seen the first emerging signs of renewal after a quiescent period following the onset of the last recession. Led by rehabilitation projects, continued improvement in activity is expected, particularly in hospitality and focused along the I-70 corridor.

Redevelopment of the former University Hospital site at 9th Avenue and Colorado Boulevard will begin in 2015. Initial work will include new retail and senior housing. Conventional apartments are already under construction.

The forecast includes $170 million in school construction that will start in 2015 with passage of bond measures in November's elections. The figure rests heavily on expenditures from the Boulder Valley School District measure, which has been called the largest single K–12 bonding in Colorado history.

Industrial development will be driven in large part by the need for marijuana grow houses, although the demand appears relatively satiated for now. That industry still has some consolidation and organizational resolution to go through before the picture for new space becomes clear. Trammell Crow Company announced it will redevelop the old ASARCO site northeast of the intersection of I-70 and I-25. In that area, a million square feet of light industrial and warehouse space is planned, some of which will break ground in 2015.

The healthy upward trend of construction in this sector will occur even without the addition of a couple megaprojects. Colorado State University has indicated that plans are on hold for a new stadium during this forecast period. The much-awaited start of the Gaylord Convention Center is likely to be deferred for at least another year, unless the owner/developer determines the project is viable without $400 million in government subsidies.

Transit development along established light rail lines, which should be leading to robust commercial and multifamily development, has been stymied by fear of construction defects lawsuits.

CONSTRUCTION EMPLOYMENT
2006–2014
(In Thousands)

Year	Employment	Percentage Change
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	112.5	-2.3
2012	115.8	2.9
2013[a]	126.5	9.2
2014[b]	140.0	10.7
2015[c]	146.0	4.3

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

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

Nonbuilding Construction (Infrastructure)

Nonbuilding measures new construction in infrastructure projects. This subsector tracks roads and highways, water and wastewater facilities, power plants, reservoirs, mass transit, and similar projects.

Statistical data collected about this subsector fail to adequately capture the current level of activity due to the role of multiyear megaprojects. It is suggested that readers depend more on industry observations to search for accuracy about the level of activity. The recorded numbers are expected values reported when a project is *started* (permitted). As such, a megaproject valued in the billions of dollars is recorded during year one but construction of such a project typically continues over several years. Since statistical reporting does *not* track work put in place, the data have a tendency to overstate activity during the year that a megaproject has been awarded, then understate activity during the years of actual construction.

As of September, official numbers for 2014 show a precipitous decline of 52%. That's nonsense. Likewise, the officially measured increase of annual activity from 2011 to 2013—$2.3 billion to $3.6 billion—overstated the increase. In reality, the pace of construction for this subsector has been approximately $2.8 billion to $3.1 billion for the past two years and will remain at that high number for at least the next two years, even enjoying a sustainable, continuous increase.

This fact is illustrated by a review of year-to-date "call before you dig" statistics: requests for identifying buried utilities prior to excavation in 2014 are up 11%

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Construction

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compared to 2013 and are on pace to be the busiest year since 2006.

RTD's East and Gold Commuter Rail Lines, which make up the $1.9 billion Eagle Project, were awarded during 2012 and 2013. This two-year spike in awards was further augmented by major Southern Delivery System Project awards during this period. After accounting for the dramatic increase in cumulative award value caused by these megaprojects, the value of nonbuilding projects awarded in 2014 was essentially on par with the volume of awards that Colorado has witnessed since 2010. With no major projects expected to be awarded in either 2014 or 2015, the forecast of the statistics will be about $2 billion each in 2014 and 2015.

Activity in the nonbuilding subsector in 2015 should look pretty similar to 2014. Work on both the Eagle Project and the I-225 Rail Line Project will enter their final full years while construction of the North Metro Rail Line Project to 124th will continue until the end of 2017. Construction of permanent flood repairs in Northern Colorado will occur over the next few years. The Colorado Department of Transportation (CDOT) expects to grow its program by up to 20%, with work continuing on the US 36 Phase 2 and US 6 multiyear projects through 2015. CDOT's next anticipated megaproject, the $1.0–$1.8 billion expansion of I-70 between I-25 and Peña Boulevard, will fall outside this forecast horizon. Boulder Water's capital construction will reportedly grow by $25 million in 2015 in the first year of a $352 million, six-year plan involving 156 projects. Denver Public Works projects in 2015 will include an infusion of $47 million for redevelopment projects in North Denver, including significant work on Brighton Boulevard.

The continued high demand for nonbuilding construction could produce some construction cost inflation. This will be driven by three factors. Profit margins on nonbuilding construction are returning to normal levels after having been reduced throughout the years of the recession, labor costs will go up as the industry wrestles to expand its labor force at a rate that keeps up with demand, and increasingly tighter project schedules will likely result in premiums paid for labor and materials in order to meet deadlines.

Labor Force

When adjusting the value of Construction for when the work is put in place, today's Construction work force is arguably producing more per worker than during the Construction peak a decade ago. Even after adjusting for inflation and accounting for the overstatement of project starts, the Colorado construction workforce will continue to experience labor shortages.

Some of the dynamic originates in the graying of the workforce. While professionals and office workers may be able to extend their careers for many more years, construction work is physically challenging and therefore limiting. Excellent economic conditions with better pay are available in Texas and North Dakota. The pool of traveling laborers, almost all young, fit men, has been attracted to better opportunities in oil and gas development, leaving Colorado short. Another significant dynamic that may be overlooked is the extent to which projects and companies are cannibalizing workers, attracting them away from one project to another with prospects of better pay and conditions. As a result, look for wage increases of 7% or more over the next year.

The industry could support more workers and boost the employment figures above the current levels, but the market has yet to attract, train, and absorb a new cohort. An increase to a seasonally adjusted 140,000 employment level for 2014 and another increase of 6,000 in 2015 is expected.

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Manufacturing

Manufacturing in Colorado is a $20.6 billion industry, representing about 7.5% of the value of all goods and services produced in the state. Colorado was home to nearly 5,400 manufacturing establishments employing roughly 133,500 workers during Q1 2014, representing 6.7% of the total employment base in the state. Most of these companies are small businesses. Indeed, 78% 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 in other industries as nearly 90% of companies in Colorado have fewer than 20 workers.

U.S. economic activity in the Manufacturing Sector expanded in September 2014 for the 16th consecutive month according to the latest Institute for Supply Management's Purchasing Managers Index (PMI). Although the PMI fell 2.4 percentage points, to 56.6%, in September compared with August, a value greater than 50 indicates expansion. Of the 18 manufacturing industries tracked in the index, 15 industries reported growth in manufacturing. Survey respondents stated that business appears to be picking up, shipments are up over-the-year, and demand is strong overall.

Total manufacturing employment in the United States increased 0.7% in 2013 and another 1% through October 2014. Recent trends suggest that some manufacturing industries are reshoring their operations. The offshoring

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QUOTES FROM THE PAST: 1974

"By far the most spectacular growth in 1974 will be in non-electrical machinery where an upward spurt of 12.9 percent is forecast."

COLORADO MANUFACTURING EMPLOYMENT BY INDUSTRY
2006–2015
(In Thousands)

Industry	2006	2007	2008	2009	2010	2011	2012	2013[a]	2014[b]	2015[c]
Food	16.7	17.5	18.3	18.4	18.5	19.4	19.3	19.9	20.4	20.8
Beverage and Tobacco	5.7	5.7	5.6	5.2	5.2	5.4	5.6	5.9	6.1	6.3
Printing and Related	7.8	7.6	7.2	6.1	5.6	5.3	5.3	5.3	5.2	5.2
Other Nondurables	19.3	18.2	17.3	15.5	15.0	15.2	15.5	15.7	15.7	15.8
Subtotal, Nondurable Goods	49.5	49.0	48.4	45.2	44.3	45.3	45.7	46.8	47.4	48.1
Nonmetallic Minerals	9.8	9.8	9.2	7.2	6.8	6.8	6.9	7.3	7.8	8.3
Fabricated Metals	15.0	15.4	15.3	13.1	12.5	13.3	14.1	14.8	15.7	16.2
Computer and Electronics	26.4	24.6	23.7	21.8	21.4	22.1	22.4	21.8	21.1	20.6
Transportation Equipment	10.3	10.2	9.5	9.2	8.8	8.9	8.8	8.8	8.7	8.6
Other Durables	36.2	36.3	36.2	31.5	30.4	31.7	33.1	33.3	35.3	36.4
Subtotal, Durable Goods	97.7	96.2	93.9	82.8	79.9	82.8	85.2	86.0	88.6	90.1
Total, All Manufacturing	147.2	145.2	142.3	128.0	124.2	128.1	130.9	132.8	136.0	138.2

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

Note: There was a reclassification of employees from the Computer and Electronics sector in Manufacturing to the Computer Systems and Design Services sector in Professional and Business Services in 2013.

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

Manufacturing

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trend began around the year 2000 as companies sought to reduce their labor, energy, and transportation costs. Now, some manufacturing industries are discovering that production in the United States makes economic sense once again. Some factors being considered are:

- **Labor Costs:** Even as some manufacturing companies report difficulty in finding U.S. workers who can pass drug tests and have basic math skills, rapidly rising labor costs in many emerging countries may lead to reshoring operations. Products that are made with relatively little labor are more likely to reshore.
- **Energy Costs:** Despite steeply declining natural gas prices and moderately declining coal prices, electricity costs have been rising for industrial users in the United States. This is due to increasing expenditures for renewable power and retrofits to coal-fired plants to meet more stringent EPA emission standards. Industries that benefit from cheap natural gas are more likely to reshore.
- **Transportation Costs:** A long transportation path is associated with goods that travel by ocean vessel, making fast adjustments to production difficult. Reshoring may continue for products that change rapidly, including fashion apparel and technology, whose product value does not justify air freight.
- **Regulatory Environment:** Although land use and environmental rules may be more cumbersome in the United States, the lower level of public-sector corruption in the United States is causing some companies to consider reshoring.
- **Customer Base:** Companies whose domestic markets are growing faster than overseas markets may be more likely to reshore. Even so, companies may prefer to maintain multiple locations to alleviate risk and reach a diverse customer base.

Employment in the Manufacturing Sector in Colorado expanded in 2011 through 2013. These 3 consecutive years of growth were in stark contrast to the 10 consecutive years of decline that occurred from 2001 through 2010. Looking ahead, the outlook for the Manufacturing Sector remains positive in both 2014 and 2015 due to the reasons discussed in the following sections.

Nondurable Goods

About 35% of Manufacturing employment is found in the nondurable goods industries, which include the production of goods that generally last for less than one year. Nondurable goods employment increased by 1.3% in 2014 and is expected to post a larger increase of 1.5% in 2015, averaging about 48,100 workers for the year.

The largest nondurable goods subsector is food manufacturing. Colorado food manufacturers process meat, grains, sugar, milk, cheese, and other dairy products and produce candies, baked products, tortillas, burritos, coffee, and animal feeds. The Colorado Department of Agriculture reports that farmers, ranchers, and food processors in the state grow, produce, and process more than $15 billion in products each year. Beyond the large food manufacturers, Colorado is home to many boutique manufacturers making specialty products. Colorado food and kindred product exports totaled over $1.4 billion in 2013 and are expected to grow in 2014. Canada and Mexico are major purchasers of Colorado-produced food products. The improved outlook for exports, combined with more stable domestic growth, should increase business activity in this subsector. Employment is expected to increase by 500 jobs in 2014 and by another 400 jobs in 2015, reaching total employment of 20,800 workers.

Firms in the beverage subsector produce soft drinks, ice, bottled water, beer, wine, and liquor. Numerous small wineries are located along the Western Slope of the state, primarily in Mesa County. Most of the subsector's employment is located along the Front Range, with three large breweries, one large soft drink manufacturer, and numerous microbreweries. According to the Brewers Association, Colorado ranks fourth in the country for the number of craft breweries. The state produced 1.4 million barrels of craft brew, the third-highest production in the country in 2013. Improvement in the economy should support more production, and the continued popularity and strength in the microbrewery and spirts subsector will support employment growth in 2014 and 2015. Employment in the beverage subsector is expected to increase by about 200 workers in both 2014 and 2015, reaching 6,300 workers.

Employment in the printing and related products subsector has declined or remained flat every year since at least 2001, driven by the increasing use of e-media. The U.S. Bureau of Labor Statistics projects that employment in the printing industry in Colorado will decline by 23% from 2013 through 2023, or about 2.3% per year. E-books continue to capture a larger share of all book revenues. E-book sales were relatively flat, at about $3 billion, in 2013 while total revenue from print and digital declined 2%, to $14.6 billion. E-book revenues are now more than 20% of total revenues according to a report by the Association of American Publishers and the Book Industry Study Group.

Traditional magazine circulation is also declining. The Alliance for Audited Media reported a drop of 1.7% in overall magazine circulation in 2013. Newsstand circulation was particularly hard hit with a decrease of 11.1%. Newspaper readership and circulation continues to slide in the United States as more people choose to obtain their news electronically. The decline in readership affects advertising expenditures for traditional print media as more advertisers switch to digital and social media.

Regional shifts in economic and demographic market shares will slow the decline in printing and publishing employment in Colorado for 2014 and 2015. Employment is expected to fall by 100 in 2014, to 5,200 and remain unchanged, at 5,200, in 2015. Additional job losses from multiplier effects can be expected in other sectors including paper, packaging, transportation, and retail booksellers.

The other nondurable goods subsector includes textiles, textile products, clothing, paper, petroleum and coal products, chemicals, and plastics and rubber products.

Other nondurable goods employment should continue modest growth, to 15,800 jobs in 2015, consistent with the annual average increase of about 150 workers each year since 2010. Most subsectors are expected to stabilize with overall economic growth in the state and nation countering increased imports.

Apparel manufacturing and chemical products are driving overall growth in other nondurables. There are approximately 60 apparel manufacturers in the state reporting good growth opportunities as it becomes chic to "buy American" and as small-scale specialty outdoor apparel producers benefit from the Colorado image. Furthermore, direct internet sales are mitigating the challenge for small manufacturers of accessing distribution channels. The industry's problem, like much of the manufacturing sector in general, is finding labor with appropriate skill sets—in this case sewing, cutting, and pattern making. With the movement of this industry overseas in recent decades, workers with these skills are aging, and few younger workers are trained in these operations.

Pharmaceutical and related biotechnology drug companies, which dominate chemical employment, have experienced a lull as more drug patents expire and production has shifted toward generics and imports. This negative

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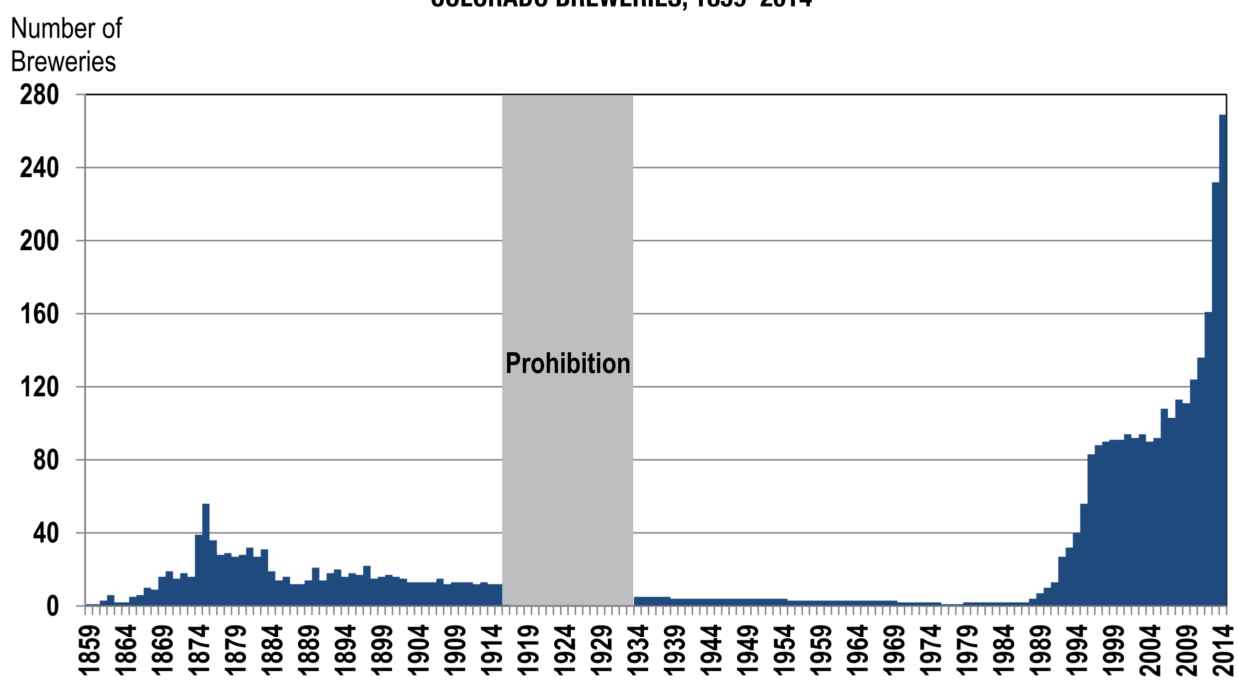
COLORADO BREWERIES, 1859–2014



Source: Colorado Brewers Guild. Total of 269 breweries as of September 3, 2014.

Manufacturing

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employment influence has been offset by retail marijuana legalization and an increase in cannabis-product manufacturers.

Durable Goods

Durable goods industries represent about 65% of the employment in the Manufacturing Sector. 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 goods. Durable goods employment is expected to increase 3% in 2014 and 1.7% in 2015, representing the addition of 4,100 workers over the two years.

Companies in the nonmetallic minerals subsector are engaged in a diverse set of activities from pottery to sophisticated porcelain electrical products. Since the majority of jobs in this subsector are found in plumbing fixtures, glass products, and concrete and stone products, employment tends to track closely with construction activity. Continued residential, office, industrial, and infrastructure development will have a positive influence on job growth during the forecast horizon. Nonmetallic mineral product manufacturing will add about 500 jobs each year in 2014 and 2015, reaching 8,300 positions.

The fabricated metals subsector is the third-largest manufacturing subsector in Colorado in terms of jobs, employing about 15,700 workers in over 850 establishments in 2014. Companies in the subsector make a large array of products, ranging from metal containers and structural components to other metal parts used in construction and industry. Despite a decrease in exports due to the sluggish global economy, strength in domestic demand will offset that loss so that employment gains in the sector should continue into 2015. A key challenge in this subsector is the availability of labor. The subsector employs tool and die makers, welders, and other precision craft workers that are in short supply. Employment is expected to average 16,200 in 2015, an increase of 500 jobs over 2014.

The computer and electronic products subsector involves the highly specialized production of electronic instruments, semiconductors and electronic components, and computer and peripheral equipment. Computer and electronic products manufacturing was Colorado's largest manufacturing subsector in 2014 in terms of employment. Computer and electronic products were also the state's largest export, representing nearly one-fourth of Colorado's exports in 2013, or about $2.1 billion. Furthermore, the subsector represented nearly 26% of the Manufacturing Sector's contribution to state GDP in 2012.

The computer and electronic products manufacturing subsector is closely tied with the aerospace industry in the state. Aerospace companies in Colorado have faced several headwinds in recent years, including the Budget Control Act of 2011, which continues to affect defense contracts, and increasing global competition. Other significant industries in the subsector are semiconductor and communication equipment manufacturers. Both of these industries have declined significantly over the past 10 years. In particular, semiconductor and other electronic component manufacturing fell more than 37%, from 8,360 employees in 2004 to 5,250 employees in 2013. Similarly, communications equipment manufacturing employment declined 37.5%, from 2,740 employees in 2004 to 1,710 employees in 2013.

Employment in the computer and electronic products manufacturing subsector increased in only 2 of the past 13 years, in 2011 and 2012. Employment declines will likely continue in 2014 and 2015 as the number of establishments in the state decreases and existing businesses consolidate and restructure. The industries in the subsector will confront pressures from uncertain federal contracts, global competition, and increased capitalization that will drive productivity but not necessarily employment. Jobs will decrease from about 21,800 employees in 2013 to 20,600 employees in 2015, dropping the subsector to the second largest, behind food manufacturing.

Large aerospace companies dominate the transportation equipment subsector, which includes the manufacture of everything from spacecraft, satellites, launch pads, and aircraft parts to electric vehicles and mountain bike frames. Declines in defense spending and government contracts continue to be a challenge for the aerospace subsector. Although space flight and space operations remain important parts of the Colorado manufacturing economy, aerospace in 2015 will continue to grow at a slight pace, if at all.

Small companies in the subsector may experience modest job growth. The largest number of small to medium companies in this sector are in motor vehicle parts, trailers, golf carts, and "other," which in Colorado includes the growing market of specialty bicycles and bicycle parts. Many of these businesses are labor-intensive, and growth can be slowed by a shortage of workers, as in many of the manufacturing subsectors in the state. As gains in small transportation equipment manufacturing are offset by losses in aerospace, employment in the subsector is expected to decline slightly, from 8,800 workers in 2013 to 8,600 workers in 2015.

The other durable goods subsectors include wood products, primary metals, machinery, electrical equipment and appliances, furniture, and miscellaneous manufacturing. All six of the other durable goods subsectors are expected to expand in 2014 and 2015, with employment increasing by 3,100 workers during the two years, to 36,400.

Employment in the wood products subsector has been on the rebound since 2012. Wages have also grown steadily in this subsector, rising by 9.5% in 2013. Building activity and housing sales across Colorado are expected to help push employment to 3,300 employees in 2014 and 3,500 in 2015.

Colorado's primary metals industry employed about 2,400 workers in 2013. The state had about 50 establishments making various metal products using iron, steel, and aluminum. Growth in a key customer of this subsector, the oil and gas industry, resulted in steady employment gains over the past several years. The same growth trend is expected in 2014 and 2015 as the subsector adds a total of 300 jobs during the two years.

Machinery manufacturing is defined by products that apply mechanical force and includes wind turbines, jet engine turbine controls, compressors, and other manufacturers in the state, and represents about 8% of the manufacturing workforce. As would be expected in a state with large agricultural and energy economies, this subsector is dominated by farm equipment, oil and gas equipment, and food product machinery. Tracking with many manufacturing sectors in Colorado, most companies have fewer than 100 employees, with many in the 10–50 employee range. This size makes for slower growth in times of increasing demand as the pool of qualified workers generally lags demand, especially in areas that require machining and metal-working skills.

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Manufacturing

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Included in this sector are the wind-energy equipment manufacturers, which is dominated by one major international player, Vestas. Wind energy employment has been volatile in the last few years as tax credits have expired and been renewed on a year-to-year basis. Employment in the subsector increased by 900 workers in 2014, driven by new orders for wind energy equipment. Given the continued high demand for oil and gas exploration and related services, the growth in the food industry, and growth in wind energy equipment manufacturing, this sector will likely expand by an additional 100 workers in 2015.

Companies in the electrical equipment, appliances, and components subsector manufacture diverse products, including lighting and fixtures, motors and generators, electric power equipment, batteries, wiring, cable, and other communications equipment. The subsector has a relatively small employment base in Colorado, averaging about 2,250 employees in 2013. However, employment in the sector has consistently increased since 2009 and has recently reached levels not posted since the early 2000s.

The electrical equipment, appliances, and components subsector is influenced by construction activity that has increased significantly, especially along the Front Range. In addition, demand for electrical equipment and appliances appears to remain strong based on indicators such as exports, which are up 12.6% year-to-date in 2014 compared with 2013. Employment gains for individual industries within the subsector are broad based. The subsector's largest industry group, electrical equipment, has increased by 65% since 2009. This group includes power and distribution equipment, motors and generators, switchgear and switchboard apparatus, and relay and industrial controls. In 2014, the subsector is expected to increase by 200 jobs, to 2,400 employees. In 2015, it will add another 200 jobs to total 2,600 employees.

Employment in the furniture and related products subsector was hard-hit during the recession, but has been growing faster than pre-recessionary levels since 2012. Growth in housing starts, population, and personal income are expected to push employment up by 500 jobs during 2014 and 2015.

Industries in the miscellaneous manufacturing subsector create a wide range of products not readily classified elsewhere, from tennis racquets and golf clubs to dolls and jewelry. This sector also includes medical device manufacturers in the state. Total employment in miscellaneous manufacturing stood at about 10,100 employees in 2013 and is expected to add about 200 jobs per year in 2014 and 2015.

Summary

Manufacturing is vital to a strong Colorado economy, with the sector accounting for 93% of the state's exports in 2013. Many Colorado manufacturers are highly innovative and use advanced processes to produce their goods. In particular, the Colorado economy benefits from the level of advanced manufacturing occurring throughout the state. Advanced manufacturing is the integration of high-tech processes, machinery, and materials, and includes companies that may utilize or create innovative technologies to improve product manufacturing; manufacture technologically complex products with high levels of design; or develop efficient, productive, highly integrated, and tightly controlled production process technologies.

A vital component to advanced manufacturing is a highly skilled workforce. Although not without its challenges, the state's entrepreneurial ecosystem and talented workforce create a premier hub for advanced manufacturing companies. The productivity of the workforce is reflected in an average annual wage for manufacturing employees in Colorado that is 43% higher than the average annual wage for all industries.

Manufacturing companies in Colorado can tap into several different resources and organizations designed to help them with their expansion plans. First, the Colorado Advanced Manufacturing Alliance includes industry members and leaders in government and education who work to increase the global competitiveness of advanced manufacturing in Colorado. Second, Manufacturer's Edge is a statewide manufacturing assistance center that encourages the competitiveness of Colorado manufacturers through on-site technical assistance and support, and collaboration-focused industry programs. Third, the AI Accelerator Programs promote growth and sustainability in Colorado's advanced industries through public-private partnerships, strong infrastructure, and early capital. As part of the statewide strategy to support the advanced industries in their various phases of growth, the Colorado Office of Economic Development and International Trade offers four types of grants and two global business programs. Grants are available for Proof of Concept, Early-Stage Capital & Retention, Infrastructure Funding, and AI Exports. A network of consultants and export training programs are also available as part of the AI Global Business Programs to support these industries as they strive for worldwide markets.

Following job losses throughout the 2000 decade, expected expansion in the Manufacturing Sector in 2014 and 2015 will result in five consecutive years of growth. Employment is estimated to increase 2.4% in 2014 with the addition of 3,200 jobs. Significant growth in other durable goods and fabricated metals will offset losses in computer and electronics, transportation equipment, and printing and related products. The sector is expected to continue expanding in 2015, albeit at a slightly slower pace. About 2,200 jobs will be added, a 1.6% growth rate, consisting of an additional 1,500 durable goods jobs and 700 jobs in the nondurable goods subsectors.

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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.). More than one-sixth of Colorado workers are included in this industry. Improving wholesale and retail sales helped increase the number of jobs in the sector by 2.6% in 2014, to a total of 430,200. The sector is expected to grow another 2.1% in 2015, to total 439,200 jobs.

QUOTES FROM THE PAST: 1967

"Although in terms of employment, it is only about half of the rail and motor freight segment of the industry, the air transportation industry is growing at a more rapid pace... The number of commercial airline passengers jumped by an estimated 23% in 1966."

Wholesale Trade

Wholesale Trade growth remains solid, although employment growth has leveled off. In Colorado Wholesale Trade employs almost 100,000 workers. Many of the state's wholesale businesses are elements of large manufacturing firms. Merchant wholesalers, firms that sell to retail outlets, account for nearly 85,000 of the sector's jobs. More than 50,000 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.

The Wholesale Trade Sector is expected to add 2,000 jobs in 2014 and another 1,900 in 2015.

WHOLESALE TRADE EMPLOYMENT
2006–2015
(In Thousands)

Year	Wholesale Trade Durable Goods	Wholesale Trade Nondurable Goods	Other Wholesale	Total
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	49.4	31.0	11.5	91.9
2012	51.0	31.8	11.3	94.1
2013	53.3	32.8	10.3	96.4
2014[a]	55.5	33.9	9.0	98.4
2015[b]	56.8	34.6	9.0	100.3

[a]Estimated. [b]Forecast.

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

Retail Trade

The retail outlook remains bright with sales up a hefty 8.7% in 2014, a real gain as the Denver-Boulder-Greeley CPI-U rose 2.7% annually. Growth was fueled by solid job gains, including drilling activity in Weld County, a robust housing market, strong tourism activity, and healthier household balance sheets. Robust sales gains should continue in 2015, helped by low interest rates and fuel prices. Lower gasoline prices mean more funds available for discretionary purchases. A possible slowing of the housing recovery and uncertainty about the still-fragile economic recovery may restrain growth.

The Colorado Retail Trade Sector currently employs slightly more than one-quarter million wage and salary workers and roughly 36,000 self-employed proprietors or family workers. It includes several national retail chains such as Walmart and Safeway that are the state's largest employers. Retail jobs cover the full spectrum of jobs—from entry-level positions for young people beginning their careers to managers who oversee dozens of stores. The workforce includes a large number of part-time positions. The composition of the workforce results in a relatively low average salary; in 2012 the average annual wage was almost $28,000 compared with $51,000 for all private-sector workers. More than 20,000 jobs have been added since 2010, pushing employment above its pre-recession peak.

Coloradans currently spend nearly $80 billion annually at retail establishments. Food and beverage stores and motor vehicle and parts establishments each account for about one-fifth of total sales. Current dollar sales volume

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Trade, Transportation, and Utilities

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TRADE, TRANSPORTATION, AND UTILITIES EMPLOYMENT
2006–2015
(In Thousands)

Year	Wholesale Trade	Retail Trade	Total Trade	Transportation and Warehousing	Utilities	Total TTU
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	429.3
2009	93.3	238.3	331.6	63.9	8.4	403.8
2010	90.8	236.9	327.7	61.7	8.2	397.6
2011	91.9	239.9	331.8	61.8	8.1	401.7
2012	94.1	243.7	338.0	63.9	8.0	409.7
2013[a]	96.4	249.1	345.5	66.1	7.8	419.4
2014[b]	98.4	255.8	354.2	68.2	7.8	430.2
2015[c]	100.3	262.5	362.8	68.8	7.7	439.2

[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.

is up nearly 20% from the previous high reached in 2007, boosted by strong population growth and inflation. Sales have been especially strong in the northern Front Range and mountain regions while somewhat sluggish in the southern portions of the state. This trend should continue into 2015. Low financing costs have stimulated motor vehicles sales, and auto sales are expected to remain robust in 2015. Electronics and appliance store sales rebounded in 2014 and are expected to remain solid in 2015. Construction activity spurred increases in building materials and the furniture and furnishings category in 2014. This category will likely slow in 2015 along with a cooling housing market.

Consumer spending is always sensitive to conditions in the housing market. The home is the major asset of most families, and research on consumer spending suggests that the wealth effect from home values is larger than that from other assets. New home owners are also likely to purchase appliances, furnishings, and fixtures. The strong housing markets in Metro Denver and in the mountain areas has made Colorado consumers more willing to spend as well as more able to finance such outlays. The S&P Case-Shiller home price index for Metro Denver continues to push to all-time highs, up 30% since March 2011—outpacing the national index over the same period.

The outlook for 2015 is optimistic. Both sales and employment should increase, although a slowing housing sector will likely dampen growth. Sales are expected to increase 7% in 2015, slightly lower than growth in 2014. The retail sector is expected to add 6,700 jobs in 2015. Risks to this forecast lie in the overall performance of the economy. If job gains slow significantly or income growth fails to improve, spending will suffer.

Transportation and Warehousing

Transportation

Colorado Air Transportation

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 52.5 million passengers in 2013, which led DIA to rank as the 5th-busiest airport in North America and the 15th-busiest in the world. Passenger traffic decreased by 1.1% in 2013 compared to 2012. This decrease was anticipated and primarily driven by capacity reductions by Frontier Airlines. DIA's passenger traffic was up 2.3% year-to-date in September 2014 and is on pace to set an all-time record in 2014.

DIA's largest carrier, United, accounts for more than 40% of DIA's passengers. The carrier provides nonstop service to more than 130 destinations from Denver. Denver ranks as the fourth-largest hub in United's network,

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RETAIL SALES, 2006–2015
(In Billions of Dollars)

Year	Motor Vehicle and Parts	General Merchandise	Other Retail	Total Retail Trade Sales[a]	Percentage Change
2006	$13.3	$10.3	$39.4	$63.0	7.4%
2007	14.1	11.0	42.1	67.3	6.8
2008	12.1	11.3	43.1	66.5	-1.1
2009	10.2	11.0	37.1	58.3	-12.3
2010	11.3	11.1	39.9	62.3	6.9
2011	13.0	11.7	42.0	66.7	7.1
2012	14.4	12.2	44.1	70.7	6.0
2013	15.6	12.4	46.0	74.0	4.6
2014[b]	17.1	12.7	50.1	79.9	8.0
2015[c]	18.5	12.9	54.1	85.5	7.0

[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, 2006–2015
(In Thousands)

Year	Motor Vehicle and Parts Dealers	Food and Beverage Stores	General Merchandise Stores	Other Retail	Total
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	45.1	50.7	115.5	239.9
2012	29.8	46.1	50.6	117.2	243.7
2013	30.1	48.0	50.0	121.0	249.1
2014[a]	31.0	49.9	50.1	124.7	255.8
2015[b]	32.0	50.9	50.1	129.4	262.5

[a]Estimated. [b]Forecast.

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

Trade, Transportation, and Utilities

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behind Houston, Chicago, and Newark. It is important to note that Denver is the second-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. In December 2014, United will introduce daily nonstop service to Panama City, Panama using a 118-seat Boeing 737-700.

Southwest Airlines ranks as Denver's second-largest carrier, accounting for 25% of DIA's passengers. DIA ranks as the fourth-largest station in the Southwest network in terms of capacity, and Southwest now serves nearly 60 nonstop destinations from DIA. To accommodate the airline's growth in Denver, five new gates on Concourse C were completed in November 2014. The integration of AirTran into Southwest will be completed by the end of 2014.

TRANSPORTATION AND WAREHOUSING EMPLOYMENT
2006–2015
(In Thousands)

Year	Truck Transportation	Couriers and Messengers	Warehousing and Storage	Air Transportation	Other Transportation	Total
2006	18.4	9.4	7.2	13.3	18.2	66.6
2007	19.0	9.7	7.0	14.2	18.3	68.5
2008	18.6	9.5	6.8	14.6	18.7	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	61.7
2011	17.9	8.5	6.2	12.3	16.9	61.8
2012	18.7	8.6	6.2	13.0	16.4	63.9
2013	19.3	8.9	6.2	14.1	17.6	66.1
2014[a]	20.1	9.2	6.4	14.4	18.1	68.2
2015[b]	20.4	9.2	6.4	14.3	18.5	68.8

[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.

Frontier Airlines ranks as DIA's third-largest carrier, accounting for 19% of DIA's passengers. In late 2013, Indigo Partners purchased Frontier Airlines from Republic Airways and began transforming the airline to an ultra-low-cost carrier (ULCC) business model. Frontier's capacity cuts at DIA leveled off through most of 2014 but more cuts will begin in late 2014 as the carrier diversifies its operations outside of Denver to adjust its business model. Although some destinations will be cut from its Denver hub, DIA will remain the largest station in Frontier's network. Indigo Partners, a private equity firm with a history of acquiring and investing in airlines, previously purchased Spirit Airlines and led Spirit's transformation into one of the industry's leading ULCCs. The firm also currently maintains ownership stakes in Volaris, a ULCC based in Mexico. Spirit and Volaris continue to be among the newest and fastest-growing carriers to operate flights out of DIA.

In 2014, DIA added two new international destinations, bringing the total number of international destinations served nonstop to 24. In July 2014, Volaris initiated once weekly service to both Guadalajara, Mexico, and Chihuahua, Mexico. Additionally, Icelandair, which launched nonstop service between Denver and Reykjavik in May 2012 at a service level of four days per week, increased the service to daily in the popular summer travel season. In October 2014, British Airways announced its daily London/Heathrow service would benefit from a capacity increase of more than 20% beginning in March 2015; this will be achieved through a 747 aircraft operating between Denver and London. Air Canada, Aeromexico, Lufthansa, Frontier, Southwest, and United also offer nonstop international service from DIA. International passenger traffic growth at DIA continued to surge in 2014, recording an increase of 15% for the year-to-date period September

2014. The expansion of nonstop flights to international destinations remains a high priority for DIA.

DIA continues work on the Hotel and Transit Center Project that 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 $700 million 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. In 2014, the American Trucking Associations, along with the IHS Global Insight, projected that overall freight tonnage will grow an estimated 23.5% by 2025. In nominal terms, this means freight tonnage will increase from 14 billion tons in 2013 to about 17.3 billion tons in 2025. Nevertheless, while freight volume is growing, the industry is currently experiencing driver shortages that are anticipated to continue. Driver turnover, which often determines the driver shortage, rose 11% in Q2 2014, marking the highest turnover numbers since Q3 2012. Overall, though, the trucking industry continues to remain the dominant mode of freight transportation, collecting 81.2% of all freight revenue in 2013.

Other transportation providers, including couriers, which provide more local transport using cars and bikes, saw a 3.5% increase in 2013, and growth remained strong in early 2014. Likewise, taxi and limousine service climbed 2% in 2013, despite industry disruptions by companies like Uber.

Utilities

Colorado natural gas rates gradually rose with higher wholesale prices in 2014. Natural gas production dipped slightly despite an increase in pricing. Continued economic improvement has helped offset weaker natural gas heating use, resulting in flat retail natural gas consumption in Colorado compared to 2013.

Electricity rates have risen slightly in the state in 2014 with higher fuel costs and higher costs to support changes in utility infrastructure. Renewable energy continues to be added to the generation portfolios as utilities comply with Colorado HB 10-1001, 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.

Colorado utilities have continued with retirements of coal generating facilities to meet the mandates of the Clean Air-Clean Jobs Act. The replacement of these facilities will exert upward pressure on rates due to the high cost of replacement generation. The length of time required for construction, in addition to relatively low natural gas prices have, helped to mitigate rates. Rate increases are expected for the next few years as these construction costs are recovered in rates.

Energy efficiency mandates continue to be a factor in flat electrical demand in Colorado. Continued advances in efficient products for home and commercial use continue to offset the natural growth in demand. In addition, more municipalities are mandating green building standards in their communities.

Energy efficiency mandates also impact the demand for natural gas in Colorado. State-directed demand side management programs provide energy audits; rebates

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Trade, Transportation, and Utilities

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COLORADO AIRPORT STATISTICS
2007–2014
(In Thousands)

Passengers and Cargo	2007	2008	2009	2010	2011	2012	2013	2014[a]
Passengers (in thousands)[b]								
Denver International Airport (DEN)	49,863.4	51,245.3	50,167.4	51,985.0	52,849.0	53,156.3	52,556.4	53,765.2
Colorado Springs Municipal Airport (COS)	2,067.4	1,993.0	1,864.0	1,738.3	1,621.1	1,639.1	1,299.7	1,104.8
Grand Junction Regional (GJT)	340.9	425.2	457.7	443.7	444.2	439.3	422.2	432.3
Eagle County Regional Airport (EGE)	463.4	426.0	363.3	402.2	378.6	335.8	334.3	347.7
Aspen-Pitkin County Airport (ASE)	364.5	426.6	433.7	445.4	442.5	429.8	413.4	432.4
Yampa Valley Airport (HDN)	279.3	273.2	245.0	220.1	213.1	119.9	183.6	185.0
Durango-La Plata County Airport (DRO)	232.6	268.7	296.2	327.2	351.3	373.1	385.6	398.5
Montrose Regional Airport (MTJ)	185.1	171.8	184.4	193.2	174.5	150.6	169.2	186.1
Gunnison-Crested Butte Regional Airport (GUC)	85.2	72.1	84.3	74.6	73.0	62.4	61.6	63.4
Fort Collins-Loveland Municipal Airport (FNL)	56.6	62.2	62.2	71.3	90.0	69.6	5.5	5.7
Telluride Regional Airport (TEX)	32.9	26.7	13.5	18.5	22.0	15.7	12.9	13.3
Cortez Municipal Airport (CEZ)	20.4	16.8	15.4	12.7	14.0	15.1	16.4	17.1
San Luis Valley Regional/Bergman Field (ALS)	15.0	14.3	12.6	13.5	14.2	13.9	14.0	14.4
Pueblo Memorial Airport (PUB)	9.8	8.7	10.4	23.3	44.9	19.6	13.5	13.8
Total Passengers	54,016.5	55,430.6	54,210.1	55,969.0	56,732.4	56,840.2	55,888.2	56,979.5
Cargo, Freight, and Air Mail (in millions of lbs.)								
DIA Freight and Express	573.9	527.1	468.2	517.7	511.8	488.1	470.1	481.1
DIA Air Mail	15.5	26.4	26.6	37.5	35.4	33.7	28.8	29.7
DIA Total	589.4	553.5	494.8	555.2	547.2	521.8	498.9	510.8
Colorado Springs Cargo	27.0	24.0	23.0	22.3	21.7	23.8	23.0	23.5
Colorado Springs Air Mail	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colorado Springs Total	27.0	24.0	23.0	22.3	21.7	23.8	23.0	23.5

[a]Estimated. [b]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.

for new, energy efficiency appliances and heat-saving measures such as additional insulation and weather sealing; and free kits offered to consumers that contain items such as low-flow shower heads and weather stripping for windows. These mechanisms continue to push consumption down.

Colorado natural gas consumption was stable in 2014, at an estimated 495.9 BCF. Lower summer temperatures and conservation efforts dropped residential and commercial electricity consumption by 0.5% in 2014, to an estimated 53,597 million kWh. ✤

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COLORADO NATURAL GAS CONSUMPTION
2006–2015
(In Billions of Cubic Feet)

Year	Total Gas Consumption	Percentage Change
2006	450.8	-4.1%
2007	504.8	12.0
2008	504.8	0.0
2009	523.7	3.7
2010	501.4	-4.3
2011	466.7	-6.9
2012	443.4	-5.0
2013	495.9	11.8
2014[a]	495.9	0.0
2015[b]	480.4	-3.1

[a]Estimated. [b]Forecast.

Source: Colorado Business Economic Outlook Committee.

COLORADO ELECTRIC POWER CONSUMPTION
2006–2015
(In Millions of Kilowatt Hours)

Year	Nonresidential	Residential	Total	Percentage Change
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	35,465	18,220	53,685	0.4
2013	35,301	18,570	53,871	0.3
2014[a]	35,449	18,148	53,597	-0.5
2015[b]	35,745	18,347	54,092	0.9

[a]Estimated. [b]Forecast.

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

Information

Overview

Companies in the Information Supersector are responsible for the creation, distribution, and transmission of information. In 2013, the Information industry added jobs, with growth in film, telecom, broadcasting, and data processing more than offsetting declines in publishing. In 2014, the industry is expected to shed 300 jobs, with most of the losses recorded in the publishing sector (including software publishing). Employment in the Information Sector is expected to remain flat in 2015.

Publishing

As the second-largest Information Sector, publishing employed close to 20,600 people in 893 establishments in 2013. 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. The publishing industry continues to meet increasing consumer demand for new electronic and Internet-based products, such as audio, downloadable files, digital books, and mobile device applications.

The rise of the Internet and its attendant social media explosion has had industry-changing implications for the publishing industry. With increasingly rapid changes in communications platforms and preferences come 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.

The industry lost 41% of its jobs between 2001 and 2013, with almost 70% of those losses occurring in the software and newspaper publishing sectors. Book publishers have also shed 34.4% of their job base since 2001, but because Colorado's book publishing sector is very small, this decline represents only 1.7% of the jobs lost by the overall publishing industry. After falling 5% in 2013, employment in publishing (excluding Internet) is expected to continue to fall 4.9% in 2014 and 4% in 2015.

QUOTES FROM THE PAST: 1984

> *"The printing and publishing industry continues to exhibit steady growth, adding 1,100 jobs or 6.1% during 1983."*

Newspaper Publishers

The newspaper industry's long-run structural shift to a mobile digital platform has left its infancy and begun to mature. The majority of both content and advertising are now online and accessed by mobile devices, such as smartphones and tablets. According to the Newspaper Association of America, 164 million people, or 80% of U.S. adults, accessed news online in August 2014, up 18% from the summer of 2013. More than half of those who did so accessed news via mobile devices. The traditional model, which provided low-cost print information subsidized by advertisers, has been obsolete for several years.

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 general population has harnessed social media to provide diverse, targeted, and sometimes real-time news. Consumers have embraced this explosion of information on social media, demanding instant access to news on rapidly changing communication platforms. Traditional media outlets, including newspapers, televisions, and radio, continue to converge, sharing resources and information both in print and online.

The industry's revenue structure is likewise evolving toward digital sources. While total revenue decreased 2.6% in 2013, revenue from digital sources increased 5.8%. After several years of decline, total circulation revenue rose 5% in 2012 and 3.7% in 2013. While print-only circulation fell 20% in 2013, digital-only circulation revenue increased 47%, and revenue from bundles of print and digital circulation climbed 108%.

Advertising revenue continued its long-run decline, decreasing 6.5% in 2013. Digital advertising, however, rose 1.5% in 2013. Newspapers have become creative with online advertising, offering innovative mobile applications to all, and incentives and online deals to only their community of subscribers. Newspaper print advertising declined 8.6%.

The industry continued to develop new sources of revenue in 2013 that harness their readership network and infrastructure to provide new services to their local business communities. Newspapers have gained revenue from helping local businesses market their products digitally and connecting businesses directly to potential consumers. Newspapers have also reported revenue from commercial printing and delivery services.

Employment at traditional Colorado newspapers has been declining since 2005. Colorado newspapers employed 3,430 people in 2013 in 149 establishments, down from 7,080 people in 181 establishments in 2005. Newspaper employment is expected to continue fall in both 2014 and 2015.

Book Publishers

The Internet continues to transform the book publishing industry. Previously, the U.S. book publishing industry was dominated by a handful of large firms, primarily located on the East Coast, that controlled which books went to print and provided a one-stop set of services including editing, production, marketing, and distribution. Access to online markets is more and more chipping away at this model, significantly reducing barriers to entry for authors' and small publishers' niche markets, increasingly unbundling the services required to publish a book, and providing new forums for social interaction among authors, readers, and publishers. Crowdfunding sites, such as Unbound and Pubslush, have further reduced authors' barriers to entry, eliminating the need to seek funding from traditional book publishing firms altogether. According to Bowker, about 25% of books that received an ISBN in 2012 were self-published.

The rise of e-books and distributors such as Amazon has altered the way books are published and distributed. Nevertheless, successful book publishing firms market both e-books and traditional print books. According to the Pew Research Center, the number of Americans who read e-books increased from 17% in 2012 to 28% in 2014. They attribute this, however, to an increase during the same time period in the number of people who own either an e-reader or tablet from just under 20% to 50%. Sales of e-books have slowed considerably. The Association of American Publishers reports that, after increasing 43% in 2011, e-book sales were flat in 2012 before increasing only 2.2% in 2013. Meanwhile, sales of traditional print books have remained stable and continue to dominate the market. According to PricewaterhouseCoopers, e-books accounted for about 30% of consumer book sales in the United States during 2013.

Jobs in traditional publishing 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, both small and large book publishing firms actively collaborate with these authors.

As the evolution in the book publishing industry intensifies, further consolidation and business failures will continue to reduce employment in the traditional book publishing industry into the foreseeable future. The book publishing industry employed 944 people in 2013, down 6.4% in 2012 and 34.4% since 2001. Employment in Colorado's book publishing industry will continue to decline in 2014 and 2015.

INFORMATION EMPLOYMENT
2006–2015
(In Thousands)

Year	Publishing	Telecommunications	Other	Total[a]
2006	28.5	28.2	18.7	75.4
2007	27.9	29.4	19.1	76.4
2008	26.6	29.3	20.9	76.8
2009	24.1	30.2	20.4	74.7
2010	22.9	28.5	20.6	72.0
2011	22.5	28.0	20.9	71.4
2012	21.6	27.2	21.0	69.8
2013	20.5	27.4	21.9	69.8
2014[b]	19.8	27.6	22.1	69.5
2015[c]	19.0	28.0	22.5	69.5

[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.

Directory Publishers

Employment in Colorado's directory publishers has decreased by 776 jobs, or almost 30%, since 2006. Consumers increasingly prefer using online directories that can be accessed remotely for free using smartphones and GSP devices, which has affected sales and advertising revenue. Employment in this industry fell 2.8% in 2013 and is expected to continue to tumble in 2014 and in 2015.

Software Publishing

Companies in the software publishing industry design/develop; provide documentation for; install; provide support services for' and distribute software. (Note: Some additional employment is likely captured in the closely related custom computer programming services sector in Professional and Business Services.) The software publishing industry controls a large reach. Its products include business analytics and enterprise software; database, storage, and backup software; design, editing and rendering software; operating systems and productivity software; security software; smartphone apps; and video games. In 2013, software publishing companies totaled 392 with 11,900 employees. This represents a year-over-year decline in total companies of 1.3% and a decline of 3.6% in employees.

This decrease can be explained, in part, by shifting technology trends that shape the future of the software

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publishing sector at large. The sector is moving away from traditional packaged and published software toward the integration of applications and data to the cloud. This comes from large companies that understand the benefits that integrated systems can provide for efficiency metrics related to operations, supply chain, customer relations, and even their own central organization. Moreover, a demand for applications and system software to connect to the Internet and interact with both mobile devices and tablets has become an important area for innovation as both technologies grow. These developing trends have led to increases in cyber security and its rising complexities, as well as open source software and the reusable content that allows software development to occur more efficiently and at a faster pace. On the entertainment side, video gaming continues to grow in both online and on the mobile platform.

Colorado is well on the forefront of global technology trends. This is due, in large part, to the strong startup community within Colorado. Forbes ranked Colorado as the second-best place in the United States to launch a startup, and the Kauffman Foundation ranks the state as having the sixth-highest rate of tech business formation. The Denver Startup Week event continues to grow, with 180 sessions and 10,000 registrants in 2014.

While Colorado is doing well in terms of entrepreneurship, workforce development trends show companies are having difficulties finding local talent to fill roles in the IT and software development industries specifically. This shortage is being addressed in a range of ways. There are several active federal grants in Colorado that focus on workforce development, including the Youth Career Connect, Investing in Innovation, H1B, Race to the Top, Ready to Work, and the reformulated Workforce Investment and Opportunity Act. At the primary education level, the need for improvement has been identified in the disciplines of science, technology, engineering, and math (STEM). In response, the Colorado STEM Education Roadmap was created to strengthen career and college readiness locally. In addition, at the secondary education level this shortage has led to many innovative new educational/training opportunities. Among these are CU's new Bachelor of Arts in computer science degree program in the College of Arts and Sciences and the creation of STEM centers at both CU-Boulder and the University of Denver.

Employment growth in the software publishing sector depends on attracting and growing the needed workforce. To do this, multipronged initiatives that directly connect businesses to students to attract workers are believed to be the solution. Moreover, private software training focused on specific high-demand software skills will further needed employment growth. Finally, by growing a large, qualified workforce, Colorado will not only satisfy local hiring demand, but also draw companies outside of the state.

Telecommunications

A vast amount of activity is driving change in Colorado's telecommunications industry. Policy makers have struggled to keep up with transformations in broadband internet access, cable television, and telephone technologies since the passage of the Telecommunications Act in 1996. Furthermore, the repercussions of deregulation of the industry before effective competition had emerged in the market continue to drive up prices for consumers and hinder local companies from entering it. On the other hand, the big data revolution has created tremendous opportunity for growth in the industry, with services like cloud computing helping companies reduce spending on technology infrastructure and maximize productivity. As the potential for information sharing surges, so do calls for stronger laws and technology protections. Colorado's Telecommunications reform package in early 2014 set out to capture these rapid changes in the industry and update several-decade old statues. In May 2014, Governor Hickenlooper signed four bills into law, including House Bill (HB) 14-1327, which provides businesses a rebate of sales tax and use taxes paid on rural broadband technology; HB 14-1328, which created a broadband fund for grants to private companies that develop high-speed Internet access in rural areas of the state; and HB 14-1329, which prevents the state from regulating voice over IP (VoIP) and other Internet-based services.

The $45 billion cable merger between Comcast and Time Warner announced in February 2014 was threatened by President Obama's call in November for the Federal Communications Commission (FCC) to create a new set of rules to protect net neutrality. Supporters of this utility-style regulation want to prevent Internet service providers (ISPs) from thwarting development and innovation in the online marketplace. Furthermore, the widening gap between adjusted share prices of Comcast and Time Warner (hovering around 10% in November) highlights the uncertainty in the market.

Telecommunications industry employment in Colorado grew in 2013, expanding by 0.8% after an 8.5% decline in 2012. In 2013, the industry had an annual average of 27,349 employees across the state (a gain of 228 jobs year-over-year). The number of firms remained unchanged from 2012, at 692. In Q1 2014, employment rose 1.3% over Q1 2013, to 27,466 employees. In the same period, the number of firms fell from 702 to 691.

Broadband

Broadband has emerged as a critical component of economic development. Economic research shows the introduction of broadband services boost employment growth, reduce unemployment rates, and help attract and retain high value-added firms and workers. These positive impacts are particularly large in rural or isolated areas, in industries such as financial services, utilities, professional and business services, as well as industries and occupations with a high concentration of college-educated workers.

Broadband provision in Colorado communities located outside the Front Range presents unique challenges. More than 86% of the state's population lives in urban areas on just 1.5% of state land, leaving the rest of the state with population densities akin to sparsely populated Wyoming. Colorado's mountainous and rugged terrain is also extremely challenging to broadband infrastructure projects, which are reliant on a large population to offset the costs of upfront investments. State legislation, such as Senate Bill 05-152 that was intended to proscribe unfair competition between publically and privately provided broadband, has presented barriers to broadband efforts in rural parts of the state.

Efforts to improve communication infrastructure for families in rural and low-income communities continue to expand in Colorado. After a 2008 broadband survey of Colorado's K–12 school districts ranked the state 42nd in the nation in broadband connectivity and revealed market forces would not be able to drive technological investment in these communities, the Centennial Board of Cooperative Educational Services (CBOCES) developed the Educational Access Gateway Learning Environment Network, or EAGLE-Net, as a cost-sharing consortium for the state.

In 2009, CBOCES began connecting the 78 underserved school districts to internet services, and in September 2010, received a $100.6 million grant to continue expanding broadband infrastructure. A Q3 2013 project update indicates they have established a total of 742 new network miles in Colorado. Accomplishments for Q3 2013 include 74 newly constructed fiber miles in the San Luis Valley and southwest areas of the state, as well as the establishment of connections for 3 new conditional access interface servers (CAIs). The program's goal for the establishment of 1,070 new network miles is expected to be met by December 31, 2014.

Additionally, expanding broadband provision is a key focus of Colorado economic development, information technology, and local government capacity-building efforts. When the state was creating the Colorado Blueprint, local communities were asked about the keys for economic growth. Improved broadband access and capacity was laid out as an indispensable feature. To that end, Colorado is developing and implementing a program to help local regions assess their current broadband environment and plan for future expansion.

Through the Governor's Office of Economic Development and International Trade, Office of Information Technology, and the Department of Local Affairs, the State is helping local communities identify and anticipate present and future broadband requirements and devise community-specific solutions. Additionally, passage of Colorado House Bill 14-1328 appropriated state monies for grants to incentivize broadband in unserved areas of Colorado; however, during the November 2014 elections several local communities opted out of the restrictions Senate Bill 05-152 presents to local government infrastructure projects.

Increased business activity and business investment are also driving performance in this sector, with businesses often the largest consumers of telecommunication services. Colorado ranked fourth in employment creation for 2013, with its vibrant mentoring network, relatively low costs of doing business, competitive tax structure, and growth in venture capital investments continuing to drive business activity across the state.

Google has worked to offset declines in cost per click revenue through a multi-platform marketing campaign that combines desktop, laptop, and mobile device campaigns. With over half of web traffic coming from mobile devices, this enhanced ability to display ads across screens of different sizes has significantly contributed growth in ad volume growth for the company. Google estimates that approximately 29% of its total value comes from its mobile search ads division, which dominates 90% of the mobile search engine market.

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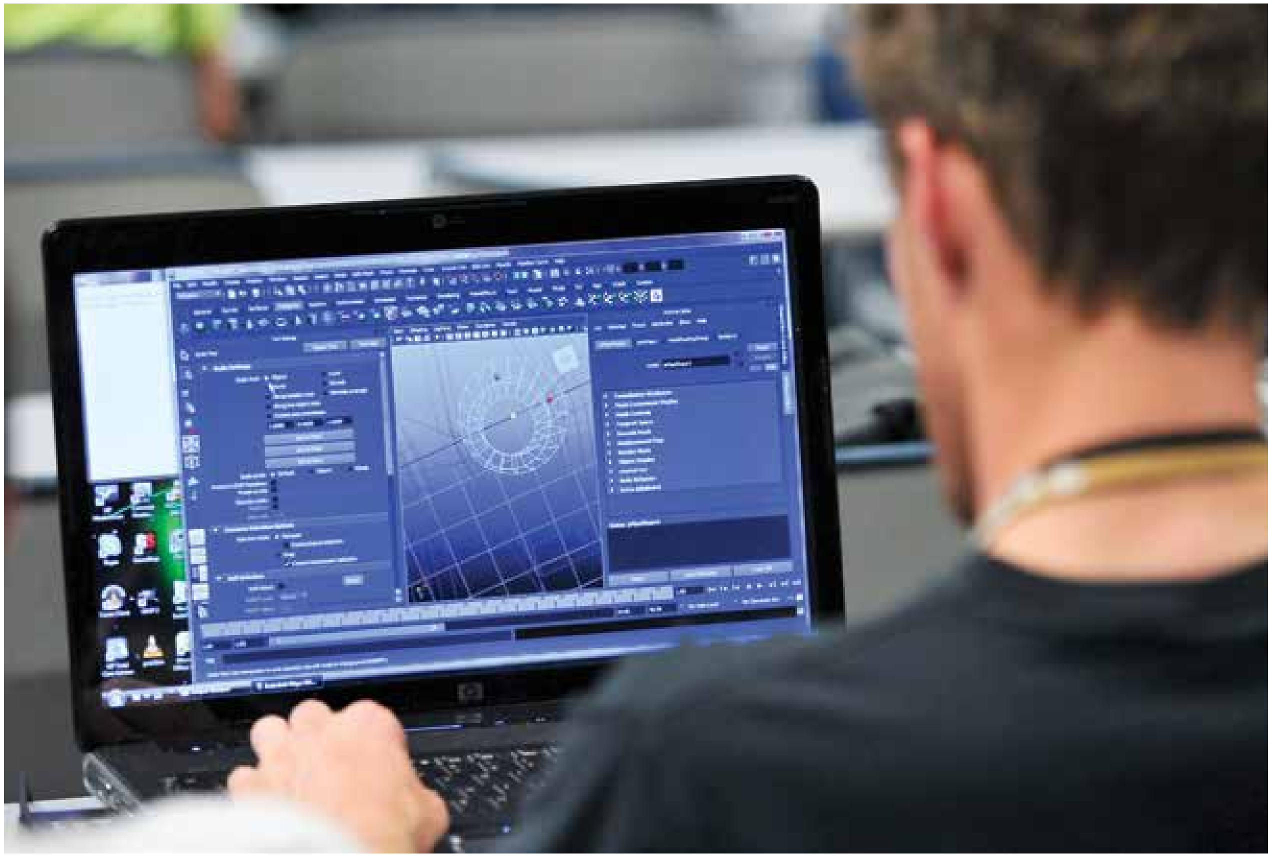
Telephone

Enhanced telephone system solutions over the past two decades have widened citizens' access to telecommunication devices. In 2000, the development of IP-Relay afforded individuals who are deaf, hard of hearing, or speech-disabled to send messages from a text telephone to a typical mobile device. Before this, these citizens could only send messages to other text telephones. On November 14, 2014, Sprint will become the sole provider of IP-Relay.

Other efforts to improve communication infrastructure in Colorado have come from federal grants to expand emergency communication capabilities. In 2010, the Adams County Communications Center was awarded a $12.1 million grant to deploy a 700 MHz interoperable wireless broadband network for approximately 2,000 first responders in 15 service agencies within Adams County and airport service areas. A Q2 2014 update indicates the project is 80% completed, with approximately 40% of the fiber optic work finished and six long-term evolution (LTE) sites brought onto the network.



Television

Changes in the way Americans watch television have spurred fluctuations in U.S. cable subscription activity. In 2013, the number of Americans who paid for TV through cable, satellite, or fiber services dropped by more than a quarter million for the year. However, Q1 2014 recorded the lowest number of losses since Q1 2011, with pay TV subscriptions falling 132,330 from January to March. While some believe pay TV is past its prime, new technologies like high definition, online, mobile, and multicasting are helping develop alternative revenue streams for cable companies. Experts suggest that over the next 10 years growth in the cable industry will depend more on up-selling existing customers than on adding basic subscriptions. Comcast's success with its Xfinity entertainment operating system is proof of this, with the company adding 24,000 new subscribers in Q1 2014.

By 2017, residential revenue per subscriber is expected to increase to $143 a month, reflecting a 64% increase over 2006. Contending against online-streaming services that start at $10 a month from places like Netflix and Amazon, the industry continues to look for ways to mitigate losses as more Americans to transition away from pay TV. In February 2014, Comcast struck a deal with Netflix to provide enhanced delivery of shows, and secure their position as an intermediary between viewers and video creators. On the other hand, wireless companies that have become pay TV providers, like AT&T and Verizon, continue to draw in would-be cable subscribers and lessen cable's overall role in the pay TV market.

Wireless

As more consumers are looking to enhance their wireless capabilities with bandwidth-intensive devices, providers are trying to expand their spectrum holdings to accommodate increased usage. The resurgence of spectrum auctions, as a result of Congress' approval of the Middle Class Tax Relief Job Creation Act of 2012, will boost competition, construction, and growth of wireless facilities. However, FCC chairman, Tom Wheeler, decided to push the TV spectrum auction to mid-2015, taking heed of the software and system failures that occurred during the launch of the health insurance exchange website, HealthCare.Gov.

Challenges persist for communications service providers as new mobile broadband applications dominate the market and voice-based revenue continues to fall. In order to retain existing customers and attract new ones, communication service providers (CSPs) are being forced to seek out new revenue streams. Big data initiatives are at the forefront of this transformation, including the development of location-based services, customized marketing campaigns, social media and sales insights, and new fraud detection models. The Director of Technology Development at Sprint, Von McConnell sums it up well: "If telco's became nothing more than a dumb pipe, we could make a living just out of analytics."

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. The law allows for production incentives, with a 20% rebate for films, television, commercials, and video games produced in Colorado. Since the incentive began, the increase in inquiries and applications has been palpable. From the program's inception in May 2012 to October 2014, a total of $10 million was awarded to productions to incentivize a total of $64.5 million in production spend. The program will generate more than $7 million in revenue above that awarded for the state and create 1,800 jobs for Coloradans.

The 20% incentive program has attracted several feature films, including Quentin Tarantino's highly anticipated new film The Hateful Eight (production begins in winter 2015–16); the action-packed international hit Fast & Furious 7; a low-budget thriller starring Kevin Bacon entitled Cop Car; Dear Eleanor, directed by Kevin Connelly and starring Jessica Alba; and Christmastime, a family friendly Christmas film directed by Michael Landon Jr. In addition to narrative features, five documentaries have been incentivized, all of which are helmed by Colorado directors. Several reality shows have been incentivized, including six different shows for Discovery Communications and two locally produced reality series airing on the Weather Channel and the Outdoor Channel. Colorado continues to be a hub of commercial production and has incentivized big brands such as Coors Brewing Company and Hyundai Motors.

Colorado has a substantial crew base, many of whom worked on major feature films and television shows in Colorado during the 1990s. Thanks to recently incentivized production in the state, a new, younger crew population is gaining the experience and education necessary to thrive in the industry. Anecdotally, producers who have worked in the state were so pleased that several have elected to return with new projects.

In FY 2014–15, the Colorado Office of Film Television & Media was allocated $5 million for incentives. This dramatic increase in funding reflects the success of the program thus far, and confidence is high that the legislature will continue to fund the program. As long as the state keeps the incentives flowing, content creation will build to a significant Colorado business within the next few years. Colorado is open for business and the word is out, but more funding is required to accommodate the influx of inquiries.

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Financial Activities

The Financial Activities Supersector consists of two sectors that make up 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 16,500 jobs, or 10.3% over five years before bottoming out in 2011. The industry grew 1.9% in 2012 and 2.7% in 2013. Growth continued, albeit at a slower rate, in 2014, up 1.3%. The industry will add jobs overall in 2015, growing 1.8% on the foundation of an improving overall economy that supports more banking, insurance, and real estate employment.

Approximately 44% 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 37% 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.

QUOTES FROM THE PAST: 1983

"The most interesting question facing financial institutions in 1983 is the form and impact of the new money instrument authorized by the Garn bill, which will enable them to compete with money market funds."

Finance and Insurance

Finance and Insurance will grow by 0.7% in 2014 and 1.3% in 2015.

Capital Markets

After posting impressive gains in 2013, the equity capital markets were more restrained in 2014—perhaps

FINANCIAL ACTIVITIES EMPLOYMENT
2006–2015
(In Thousands)

Year	Finance and Insurance	Real Estate and Rental and Leasing	Total
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	101.4	42.5	143.9
2012	103.4	43.2	146.7
2013[a]	106.7	44.0	150.7
2014[b]	107.4	45.2	152.6
2015[c]	108.8	46.5	155.3

[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.

FINANCE AND INSURANCE EMPLOYMENT
2006–2015
(In Thousands)

Year	Credit Intermediation and Related Activities	Securities, Commodities, and Other Activities	Insurance Carriers and Related Activities	Other Finance and Insurance Activities	Total
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	44.9	15.5	37.9	3.1	101.4
2012	45.7	15.6	39.0	3.3	103.4
2013[a]	47.5	19.1	39.8	0.3	106.7
2014[b]	47.8	19.3	40.0	0.3	107.4
2015[c]	48.4	19.5	40.9	0.3	108.8

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

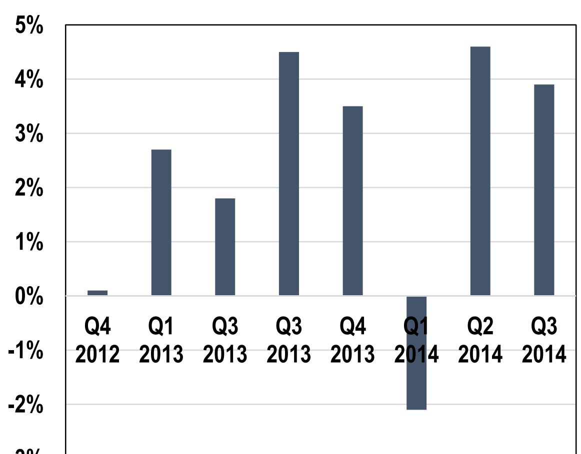
Note: There was a reclassification of employees from the Other Finance and Insurance Activities sector the Securities, Commodities, and Other Activities sector in 2013.

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

reflecting a contraction in Q1 when GDP shrank -2.1% before returning to a positive track in Q2 and Q3. Not to mention a market that has been preparing for the conclusion of the Federal Reserve's quantitative easing program.

The dip in output in Q1 2014 might have been influenced by the rapid run-up in interest rates that was witnessed late in 2013. This run-up was in response to comments from then Federal Reserve Chairman Bernanke to Congress on May 22, 2013, that a step-down in quantitative easing could come soon. That sent the yield on the 10-year treasury rocketing higher, peaking at 3.029%, up from a low yield in 2013 of 1.626%. The yield on the 10-year treasury entered 2014 above 3%. However, the yield declined throughout Q1 2014 and entered Q2 2014 at 2.75%. As of November 10, 2014, the yield of the 10-year treasury is 2.35% and has been as low as 2.14% in 2014.

QUARTERLY U.S. REAL GDP GROWTH



Source: Bureau of Economic Analysis.

At the Fed's October 2014 Federal Open Market Committee (FOMC) meeting the committee did opt to conclude quantitative easing and emphasized that future changes in monetary policy will be driven by the economic data. Much like the Federal Reserve's dual mandate of economic growth (jobs) and price stability (inflation), the capital markets are driven by those two items as well. Is there growth? Is there inflation?

Given the perceived economic sensitivity to 10-year treasury rates and concerns expressed by the Fed and by capital markets participants in 2014 regarding a slowdown in global growth, it bears taking a closer look at factors that the Fed watches in regard to monetary policy. September core personal consumption expenditure (PCE), the Fed's preferred inflation measure, was reported at 1.5%, below the stated target of 2%. Given that inflation has remained below 2% into the conclusion of quantitative easing, one must consider how low inflation might have dipped had it not been for quantitative easing and where it may be headed now that the Fed's third round of quantitative easing has concluded. It would seem that the specter of deflation continues to be lurking nearby. In Germany, Europe's largest economy, inflation was last reported at 0.8%, and the European Central Bank has begun to embark upon its version of quantitative easing. Likewise, the Bank of Japan announced on October 31, 2014, that it was going to inject another 80 trillion yen into the Japanese economy via quantitative easing. Japan is finally seeing signs of inflation, with CPI running above 3% in the second half of 2014. In recent years, and after numerous stimulus programs, Japan's inflation rate was in fact a deflation rate as its inflation measure was routinely negative. It seems that as the United States is completing its stimulus program the baton is being taken up by other central banks.

When looking at possible trajectories for interest rates, one must consider the flow of capital globally as money seeks a low risk return. If we take a walk around the world and look at the yields available in the government bonds of various countries, we find that the United States' interest rates are considerably higher than those of other developed economies. The difference is even more dramatic when one takes into account the size of the U.S. economy and its credit rating versus, for example, Ireland whose credit rating is only Baa1 compared to the United States, which is Aaa. It is this attractive differential that may lure global capital and help to inhibit any rise in U.S. interest rates.

As for growth, while GDP has recovered from the Q1 2014 dip, the United States continues to advance at a very modest pace. Job creation has been steady, but the labor participation rate continues to remain at lows not seen since the 1970s. As such, it would seem that the Fed may not be compelled to tamper with monetary policy further until well into 2015. The Federal Funds futures now suggest near 50:50 odds of policy tightening in March/

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INTEREST RATES BY COUNTRY AND BOND RATINGS

Country	2 Year	10 Year	Moody's Rating
USA	0.49%	2.34%	Aaa
Germany	-0.06	0.84	Aaa
Japan	0.03	0.45	Aa3
Slovakia	0.21	1.47	A2
Portugal	0.89	3.22	Ba1
Italy	0.7	2.35	Baa2
Ireland	0.08	1.71	Baa1
Greece	NA	8.05	Caa1
Spain	0.55	2.08	Baa2

Note: Interest rates and ratings are as of October 31, 2014.

Source: Bloomberg.

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April 2015, with odds of tightening rising higher in June 2015.

Looking at Colorado's public companies, specifically those with a market capitalization of $100 million or more, the performance of Colorado stocks in aggregate led some of the major indices in the first half of 2014. However, as the price of oil dropped below $100 per barrel in Q3 and below $85 per barrel in Q4, Colorado's oil and gas company stocks were punished. In fact, oil and gas companies represent approximately 20% of the larger public companies headquartered in Colorado. As oil has declined to three-year lows, the energy complex has dragged the aggregate performance of Colorado stocks down. The aggregate is just starting to recover and return to positive returns for 2014, led by the performance of companies like DaVita and Apartment Investment & Management Company. This is both a testament to the diversity of Colorado's economy, as well as a reminder that Colorado is center stage and dependent on the energy renaissance that the United States has been enjoying.

Looking to 2015, the capital markets, both equities and bonds, are apt to become more volatile in response to economic data. The Federal Reserve has expressed a desire to remove the punch bowl of easy monetary policy while expressing an acceptance of moderately higher inflation to ensure a sustainable economic recovery. Consequently, the Fed will continue to walk an economic tightrope with every utterance holding the potential to drive an exaggerated market reaction similar to what was seen in late 2013. Meanwhile, the current low price of oil itself acts as a stimulus for consumers, freeing up discretionary income. This should contribute to some positive economic momentum as 2015 begins. Provided oil does not fall materially further, Colorado should be firing on all cylinders and a driver of the national economy.

FINANCIAL MARKETS: STOCKS
2005–2014 YTD
(Year-End Close)

	Index				Annual Percent Change			
Year[a]	S&P 500	Dow Jones	NASDAQ	Russell 2000	S&P 500	Dow Jones	NASDAQ	Russell 2000
2005	1,248.3	10,717.5	2,205.3	673.22	3.0%	-0.6%	1.4%	3.3%
2006	1,418.3	12,463.2	2,415.3	787.66	13.6	16.3	9.5	17.0
2007	1,468.4	13,264.8	2,652.3	766.03	3.5	6.4	9.8	-2.7
2008	903.3	8,776.4	1,577.0	499.45	-38.5	-33.8	-40.5	-34.8
2009	1,115.1	10,428.1	2,269.2	625.39	23.5	18.8	43.9	25.2
2010	1,257.6	11,577.5	2,652.9	783.65	12.8	11.0	16.9	25.3
2011	1,257.6	12,217.6	2,605.2	740.92	0.0	5.5	-1.8	-5.5
2012	1,426.2	13,104.1	3,019.5	849.35	13.4	7.3	15.9	14.6
2013	1,804.2	16,057.8	3,990.6	1,163.6	26.5	22.5	32.2	37.0
2014	2,038.3	17,612.2	4,675.1	1,186.5	13.0	9.7	17.2	2.0

[a]Indices represent year-end values, except 2014, which is the value at market close on November 13, 2014.

Source: Bloomberg.

Commercial Banking

Banks in Colorado are seeing some light at the end of the tunnel after a tough six years, but myriad obstacles remain ahead on the tracks.

The current makeup of banks operating in Colorado consists of roughly 55% of deposits residing in the four largest banks. In this context, deposits can serve as a rough proxy for loans, too. Conversely, community banks with less than $100 million face a situation where those 67 banks (44% of all banks doing business in Colorado) collectively hold $3.6 billion in deposits (3.4% of the industry total). Again, deposits can serve as a rough proxy for loans.

Capital and Earnings

The year 2014 saw continued improvements in banks' capital structures. Loan portfolios have continued to improve as nonperforming loans declined, but intense competition has limited interest income. Banks boosted lending to small businesses and further reduced their dependency on brokered deposits.

However, banks continue with capital challenges. Loan reserves have rebounded and are stable but industry consolidation often requires new outside capital, which is expensive to raise for community banks.

Bank regulators continue to increase capital requirements, often under the guise of "best practices," and noncompliance with these best practices results in regulatory consequences. Concern has grown that capital requirements that are too high increase risk in a bank as management strives to produce the ROI demanded by shareholders. A common source of earnings is higher risk lending.

Loan Demand

Many Colorado bankers continue to insist that loan demand is weak, especially among the most creditworthy borrowers with equity to fund new ventures. While bank lenders to small business are busy, it is often a race among several banks to the lowest rate and results 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. Colorado's banks also are expected to continue feeling much of the pain because they rely heavily on traditional yield spread products and have limited ability to take loan underwriting risk (limited by commercial real estate exposure) or pursue other diversified revenue sources. Fee income has declined greatly due to competitive pressure and price fixing by the federal government in the formerly profitable line of debit and credit card interchange fees. Fee income from various sources will continue to deteriorate.

Regulation

Banks continue to grapple with ever-changing and ever-growing regulations that increase the pressure to raise capital. Regulatory burdens are escalating compliance costs. Those greater costs must be spread over a larger asset base to achieve the needed return on investment in order to attract capital. That needed larger asset size and the cost, difficulty, and even inability to raise capital are fueling consolidation among community banks nationwide and in Colorado. When faced with the need for greater size and challenges in raising capital, the only viable option for some community banks is to sell. This trend is expected to continue past 2014.

Last—and most important—the Dodd-Frank Act (DFA) has left banks in an environment full of uncertainty as rulemaking by the Consumer Financial Protection Bureau is incomplete and ongoing. Enforcement by "zero tolerance" bank regulators results in extreme compliance caution by banks. Now regulatory risk outweighs credit risk for banks. Customers are "protected" to the point of losing access to credit since the cost and complexity of regulation incents the bank to either discontinue that type of lending or tighten underwriting to the point marginal customers are excluded from credit or priced out of it. As detailed below under qualified mortgages, other customers often lose access to credit.

Under the new rules it is harder for certain customer groups to find loans they need. For example, 6,000 pages of new mortgage rules were put into effect by the Consumer Financial Protection Bureau (CFBP) in January 2014. A full 4,000 pages were effective then, and 1,900 pages of Truth in Lending Act and Real Estate Settlement Procedures Act (TILA-RESPA) reform real estate disclosures go into effect in August 2015. The scope and complexity requires expensive personnel and procedures to comply with the requirements and that precludes smaller banks that can spread that cost only over a small book of loans. Thus, it is unprofitable, and the bank often decides to discontinue mortgage lending—not due to credit risk but due to regulatory compliance risk. The government—not the market—is choosing winners and losers.

Smaller community banks often are forced to buy others to grow larger to get the necessary scale or exit the business by selling to another institution.

Regulation Impact on Lending

Lenders facing uncertain rules are cautious and restrict lending until rules and resulting risks are clear, hurting customers. Similar negative impacts could occur in community development lending, including financing of affordable housing (loans, bonds).

Dodd-Frank 2014 Update

Passage of the 2,300-page DFA in 2010 created the Consumer Financial Protection Bureau and required creation

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BURRIDGE CENTER FOR FINANCE

The Burridge Center supports the educational and research objectives of the Leeds School's Finance Division, developing and supporting programs, resources, and events that enhance the student experience.

CENTER HIGHLIGHTS

- Financial Lab enables students to learn on the same computer systems used by finance professionals such as Bloomberg and more;
- Finance Treks bring finance students to New York City to visit Wall Street firms. Trips to other financial centers are planned, including Denver, Chicago and San Francisco, where alumni and friends of the school support the Treks with site visits and alumni events;
- The Burridge Center's annual conference encourages interaction among students, faculty, and the financial community, sharing the latest in research and practice.

The Burridge Center plans to offer additional programs, including training for the CFA professional credential program and the CFA Research Challenge, as well as sponsoring/preparing more students for trading competitions.

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of 398 separate new rules, some of them enormously complex. By the time of this writing in November 2014, the DFA rulemaking had these results:

- 398 rules required
- 220 (55.3%) have been finalized
- 95 (23.9%) have not yet been proposed
- the 398 rules easily will exceed 20,000 pages of new regulations

There is concern about the pace and complexity of potentially conflicting rules under the DFA. For example, seven separate rules with substantial impact have been proposed covering real estate lending:

- Qualified Mortgages (QM) and Ability to Repay (ATR)
- Qualified Residential Mortgages (QRM)
- TILA-RESPA Reform
- Servicing
- Mortgage Loan Origination Compensation
- Appraisals
- HOEPA Standards for High Cost Loans

Qualified Mortgages

Implementation of the QM and other real estate rules stemming from the DFA went into effect in January 2014. Changes to QM throughout 2012 and 2013 (many sought by the industry) forced restarts in software design, delaying the products on which some banks depend—and pushing back tedious work that banks had to complete after receipt of the software, such as software customization, changes in internal policies and procedures, legal and compliance review, and staff training.

Software issues raised concerns about compliance, and, in an unforgiving regulatory environment, some banks often are opting not to make mortgage loans after the implementation date. Adding to that, the litigation risks imposed by new standards in the DFA have added a new, larger area of risk analysis that plays in to whether or not some smaller banks will continue in mortgage lending.

When banks exit the mortgage business and their customers find an alternative lender at a larger institution, often all of the customer's business flows to the new lender—increasing pressure on smaller institutions.

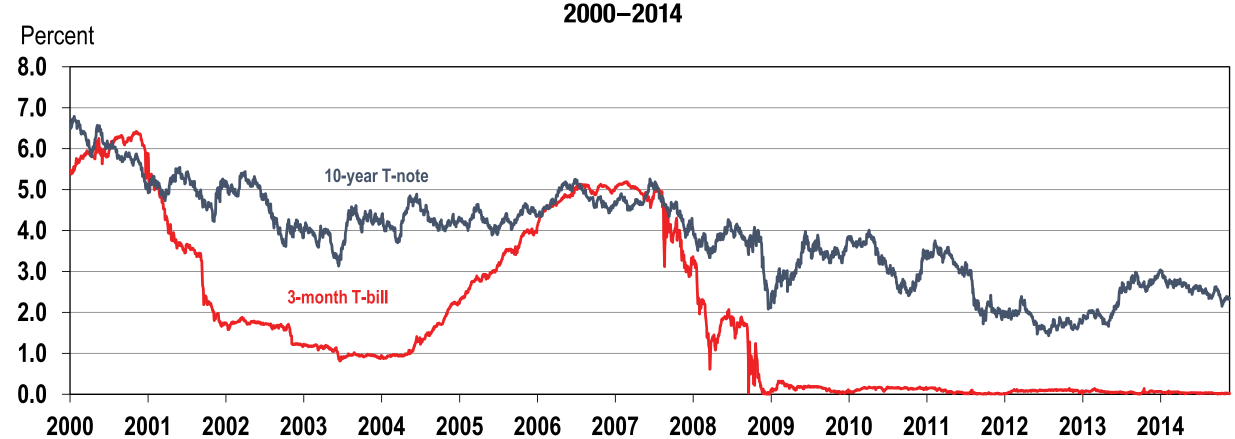
The Colorado Bankers Association (CBA), working with an alliance of other state banking associations and the American Bankers Association, is seeking to address the problem of mortgage loan access with a pair of legislative proposals.

H.R. 2673, introduced by Rep. Andy Barr (R-KY), would deem any loan made by a lender and held in that lender's portfolio as compliant with ATR and QM requirements under the DFA. Banks have 100% of the repayment risk for loans held in portfolio, and the secondary market has no risk since the loans are never sold by the originator. Portfolio loans are, by their very nature, loans that can be repaid; the bank with 100% of the risk would not make them otherwise, and prudent regulators require solid repayment ability for bank safety and soundness reasons. Critically, this change greatly helps customers hurt by existing restrictions. Banks report daily on the inability to make loans to creditworthy customers but who do not meet ATR and/or QM requirements.

These include low income individuals who do not meet debt-to-income requirements, small business owners, and small professional firms with fluctuating income who have great difficulty (and delay, frustration, and expense) in meeting the requirement for income verification by a third party. It also includes rural residents for whom there are few or no alternative lenders if a local community bank no longer makes mortgage loans due to compliance and risk management issues. H.R. 2673 is a solution to fine-tune the DFA that will help these customer groups without imposing additional challenges for borrowers and lenders in the lending process. The bill has broad support in the U.S. House and among the Colorado members of Congress, but the Senate majority leader has barred consideration of any such bill. The results of the 2014 election are expected to change that to a more likely outcome.

A second proposal, H.R. 4521, the Community Institution Mortgage Relief Act of 2014, introduced by Rep.

INTEREST RATES 2000–2014



Source: Federal Reserve. Data through November 20, 2014.

Blaine Luetkemeyer (R-MO), would exempt from the escrow requirements imposed under DFA those loans held by small creditors with less than $10 billion in assets. It expands the CFPB's "small servicer" exemption to include servicers that annually service 20,000 or fewer mortgage loans. These important exemptions recognize the strong history of small institutions in providing high-quality mortgage servicing, even with their limited staff and resources. Given their track record, small servicers should be incentivized to continue to service mortgage loans. Unfortunately, existing regulations have the opposite effect. The existing escrow rules, it is believed, are driving small creditors from the mortgage market because it is difficult or impossible for them to provide cost effective escrow services.

Furthermore, many mortgage customers prefer to pay tax and insurance bills on their own and not establish escrow accounts. Without this legislation, customers of smaller institutions will face higher costs to offset the cost of compliance for a service which they do not in some cases even want. Worse, some customers will face fewer credit choices as small local lenders choose to exit the mortgage market rather than incur the added staffing and technical expenses of adding escrow services.

Highly Capitalized Banks

Another proposal that regulators are considering is an exemption from extensive, expensive, and tedious capital calculations for those banks that are very highly capitalized. Using a 14% risk-based capital level, the proposal says any bank that meets or exceeds that level does not have to spend the time and money to do the extensive capital calculations. There are just under 7,000 banks in the United States, and more than 4,000 of them meet this definition of 14%. This demonstrates the solid capital condition of U.S. banks.

Marijuana Banking in Colorado

No discussion of banking in Colorado in 2014 would be complete without addressing banking of marijuana businesses. While marijuana businesses are legal in Colorado, federal rules continue to preclude banks from serving these businesses. Guidance issued by the Department of Justice and Financial Crimes Enforcement Network (FinCEN) in February 2014 makes it absolutely clear banks can be prosecuted for serving marijuana businesses, imposes new Bank Secrecy Act reporting requirements on banks, and requires banks to perform extensive due diligence.

It is CBA's understanding that bank regulators are permitting financial institutions to service the marijuana industry if the financial institution is in compliance with the February FinCEN guidance.

Any institution serving the industry would be doing so at its own risk. Even if bank regulators are permitting the activity, the federal law has not changed and could be enforced, meaning prosecuted, at any time.

An act of Congress is the only true and lasting solution to the issue of conflicting state and federal laws. H.R. 2652 by Rep. Ed Perlmutter and others could accomplish a solution by prohibiting federal regulators from punishing any bank servicing marijuana businesses in states where it has been legalized and regulated.

It is important that this issue be resolved because it is only a matter of time before something goes wrong at one of these cash-heavy businesses. These businesses and their customers deserve to conduct themselves like another legal business. Finally, Colorado cannot effectively tax or regulate an industry for which it cannot follow the money.

Headwinds

Colorado banks will continue to face the following headwinds:

- Continued tight loan interest margins resulting from intense competition will continue to limit earnings. While larger non-Colorado domiciled banks have other diversified revenue streams to help, most local community banks do not.
- Despite improved earnings and capital, 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.
- Both Colorado and non-Colorado domiciled banks continue to hire and devote resources dedicated to the increased regulatory and compliance burdens, and to greater IT needs. This will be a problem for community banks as these new compliance burdens cannot be spread over a large asset base. Thus industry consolidation is significantly being substantially driven by government policy (extremely detailed regulation) and not only by market forces. For all banks, though, the weight of federal regulation has greatly increased expense and opened new risks—such as regulation and litigation risks based on provisions of the DFA and its rules.

Finally, for many of the state's community banks that came through the crisis but must face these headwinds, they may need to choose between years of slow growth, being acquired by a better capitalized bank (often larger) with the compliance and IT resources to address today's burden, or raising their own capital to enable purchases of other banks to attain the needed mass to compete effectively.

Small Business Administration

U.S. Small Business Administration (SBA) guaranteed loans make up a tiny fraction of all small business lending in Colorado. Because they are made to the most marginal small business borrowers, they are a bellwether for economic growth in general. The SBA provides partial guarantees to lenders to encourage them to make loans that would otherwise be too risky. Borrowers pay an SBA guarantee fee that acts as an insurance premium, offsetting the potential loss resulting from default.

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A variety of factors go into the decision to an SBA loan, including the availability of conventional credit products, perceived risk, and the specific terms available under the various SBA programs. Therefore, a rise or fall in SBA loans is not a perfect indicator of economic activity, but it is one piece of the puzzle.

Comparing the 12-month period ended September 30, 2014, the dollar value of loans made under the 7(a) general business loan program were up 17.5%. Volume increased from $452.4 million to $531.2 million, with average loan size increasing $12,589, to $417,960.

Credit Unions

Mid-year 2014 financial and operating data reflect continued improvement in Colorado credit union operating results. The state's credit unions reported robust membership growth, higher loan growth, improved asset quality, strong earnings, and record-high capital ratios.

Recent credit union successes broadly reflect substantial improvement in the Colorado economy.

Total credit union memberships in Colorado increased by 31,200 in the first half of 2014, finishing at 1.57 million. The annualized 4.2% increase in memberships is higher than the 3.8% full-year 2013 increase and is the fastest percentage increase recorded in the state in nearly two decades (i.e., since the 4.7% increase in 1996). The membership growth rate remains substantially higher than the state's 1.5% population growth as reported by the U.S. Census Bureau.

Aggregate credit union assets in the state's 91 credit unions increased from just under $18 billion at the start of 2014, to $18.3 billion at mid-year, an 8.2% annualized advance over the six-month period.

Colorado credit unions reported a big jump in second quarter loans as the start of the summer buying season pulled more of the state's consumers into auto dealerships and other retail outlets while many opened their wallets as they headed on vacations. In the year ending June 2014, Colorado credit union loan portfolios grew by 12.3%—their fastest increase in 14 years.

Faster loan growth was accompanied by slower savings growth, which led to an increase in the aggregate loan-to-savings ratio. Even so, the mid-year 73% loan-to-savings ratio means that the state's credit unions have ample levels of liquidity.

Interest rate risk exposure, while manageable, remains high by historical standards.

The combination of slower asset growth and high earnings that continue to increase pushed the aggregate Colorado credit union net worth ratio up to 11.3%, its highest level in modern history.

Looking forward, stronger operating results are expected as the economy continues to improve and as more Colorado consumers discover the significant financial and nonfinancial benefits of member-owned financial cooperatives.

The U.S. economy grew at a 3.5% annualized rate in Q3 2014 according to the Bureau of Economic Analysis. Overall economic growth has equaled or exceeded that rate of increase in four of the past five quarters. These readings are well above long-run average rates of growth.

With an improving job market, increasing incomes, lower debt burdens, and improving asset prices (which historically produce wealth-effect spending), the future looks bright. Inflation pressures are virtually nonexistent, which should keep the Federal Reserve on the sidelines at least until mid-year 2015.

Status and Outlook

These capital and regulatory forces further pressure industry consolidation.

With mounting compliance and IT challenges and ever-increasing regulatory burdens and litigation (and other) risks, significant pressure exists for smaller banks to find a niche where they can prosper or become part of a larger organization.

Despite rhetoric by national political leaders that is community-bank friendly, the federal government is prompting this industry consolidation, and abandoning the dual banking system by its pervasive preemption of state law. Regulators are single-minded and minutely focused on assuring bank safety and soundness and compliance regardless of impact on banks' customers. Banks are struggling under the smothering weight of laws and regulations, but remain focused on securing a strong economy and banking environment for their customers.

Insurance

Despite downward hiring trends in most other financial sectors, the insurance industry has experienced some economic bolstering and moderate job growth in 2014. The jobs outlook for 2015 remains the same as experienced in 2014 with a modest uptick. The Insurance Sector as a whole is expected to experience an increase in employment, but most of that increase in Colorado is due to greater volume as the state's population continues to grow and also due to the creation of new roles to support the Patient Protection and Affordable Care Act (PPACA).

Premium increases in 2015 for the property and casualty (P&C) industry in Colorado may be significant, primarily due to the hail, wildfire, and flood losses in 2013. However, the health and benefits (H&B) side of the business continues to feel the significant increase in costs associated with the roll out of the PPACA. The full effects may likely not be felt until 2016 or beyond as additional deadlines within the legislation are implemented.

Personal lines P&C has experienced growth as the economic upturn has increased insurable property values and consumers are buying new cars, toys, and second homes in record numbers. Combined with the organic and transplant growth in population in Colorado, this will continue to precipitate the construction of more new housing, thus increasing the total dollars being spent on premiums. This will also create the need for more employees to sell and service those policies.

The direct writers, including All State, State Farm, American Family, Nationwide, and Farmers Insurance, continue to dominate the personal lines marketplace and are opening new agencies and policy service centers in Colorado on a continuous basis. They are constantly recruiting locally and nationally for agents and service/support positions to be based in Colorado.

Commercial P&C has felt a temporary hardening or steadying in the market. Premiums are increasing mainly due to increases in property values, sales figures, and payroll, which are factors multiplied by the rate to establish the annual premium. In addition, there is a record number of business startups and an increasing number of businesses are attracted to Colorado due to state and local economic development efforts. Couple that with the high incidence of hail, wind, fire, and flood claims, increased rates and growing premium volumes are being predicted for the next several years.

Employment in the commercial insurance sector is on the upswing as the increase in new businesses causes an increase in the number of policies that will need to be serviced by the insurers. The largest Colorado-based commercial insurance company and the state's largest writer of workers' compensation (WC) insurance, Pinnacol Assurance, has had relatively flat employment as it continues to plot its future course. Speculation still exists that it is on the path to become a private company. Recent changes in leadership have brought significant changes but the effects of these changes have yet to be realized.

Employee Benefits

Even after four years of employer implementation of the PPACA, the biggest and most challenging compliance items for health and benefits plans—the employer mandate and high-cost excise tax—are still to come. However, on October 31, 2014, regulators announced an indefinite delay on enforcement of the November 5, 2014, Health Plan Identifier (HPID) requirements. As a result, self-funded health, dental, and vision plans are not required to apply for an HPID.

This segment of the insurance industry will continue to experience slight growth in employment in 2015 as the hiring to staff the public and private exchanges, accountable care organizations (ACOs), and Medicaid occurred prior to implementation of PPACA legislation.

Premium increases are predicted in 2015 for group and individual health plans as the legislated changes in underwriting, rating, and mandated coverage are now fully realized through increased claims utilization. According to Connect for Health Colorado, "more than 305,000 Coloradans signed up or were approved for health insurance" through its website. Of those, more than 127,000 signed up for private health insurance, with 120,000 individuals signing up for Medicare or Medicaid, which was 30% greater than expected.

Physician hiring continues to be problematic for the health care industry, which has not been able to keep pace with demand. A total of 5,400 more physicians are retiring each year than graduate from medical school. The looming "provider shortage" has created opportunities and strategies in the insurance industry to provide efficient, high-quality, and cost-effective medical services and advice.

Major PPACA items still pending include:

2015

- Large employer reporting requirements commonly known as the employer mandate goes into effect. Delayed from original 2014 effective date.
- Definition of small group redefined as 1–100 (in most states)

2018

- 40% excise tax on high-cost "cadillac" plans

As brokers and consultants become more familiar with PPACA, they have cited some interesting scenarios.

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FHFA HOME PRICE INDEX

	Compound Annual Growth Rate			
Colorado MSA	1 Year	3 Year	5 Year	10 Year
Boulder, CO	9.6%	5.7%	2.6%	2.3%
Colorado Springs, CO	4.1	2.9	0.2	1.1
Denver-Aurora-Lakewood, CO	11.9	7.5	3.2	1.9
Fort Collins, CO	9.0	5.4	2.6	1.7
Grand Junction, CO	2.7	1.8	-3.7	1.7
Greeley, CO	9.0	5.4	2.0	0.2
Pueblo, CO	-0.6	-0.4	-1.6	-0.4
Colorado	9.5	5.8	1.9	1.7

Data Source: Federal Housing Finance Agency, All Transactions Index (NSA), through Q2 2014.

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Most economic circumstances created by PPACA are still to be determined. The major questions are: Will the large "employer mandate" cause financial challenge for low income and low margin industries? These types of industries have not traditionally provided benefits to their employees. What will be the economic effects of new penalties and potential assessments associated with PPACA? How will PPACA be funded if enrollment targets and implementation are less than expected?

Life, Disability, and Accident

While this segment of the individual and group insurance marketplace has not been affected as much as health insurance, it has felt change nonetheless. Premiums have been steady or slightly declining as we become a safer and longer living society. There has been a shift in coverage points as employers cut back on their employee benefit budgets and reduce the number of ancillary benefit offerings. This causes employees to purchase these coverages directly or on a voluntary, employee payroll deduction basis.

Insurance Agents, Brokers and Consultants

Once again, many insurance agency mergers and acquisitions occurred in 2014. This trend is expected to continue in 2015. Many agents and agencies have had to refocus or reinvent themselves in order to continue to deliver a high level of service to their clients. The addition of value-added services, such as risk management, safety, loss control, and ergonomics on the P&C side, along with payroll, human resources consulting, and wellness on the employee benefits segment of the business, has led to increased hiring for many agencies. However, most hiring is limited to these nontraditional service areas. Agents have had to bolster their expertise in partial self-funded medical plans, private exchanges, and professional employer organizations (PEOs). These strategies represent areas of relative safe harbor from PPACA for qualifying employers and will be areas of greater emphasis going forward.

Ultimately, in 2015, look for the entire insurance industry to have rising premiums, increased revenues, and modest gains in employment within specific segments. While some organizations grapple with the unknowns of changing market conditions and the future of PPACA legislation, it has also caused a very static industry to look for new revenue streams. The industry will continue to experience increasing profits and provide steady job growth.

Real Estate and Rental and Leasing

The Real Estate and Rental and Leasing Sector will grow 2.7% in 2014 and accelerate to 2.9% in 2015.

Real Estate

Commercial Real Estate

The latest Gallup-Healthway Well-Being Index of 2013 ranked Colorado is the seventh-happiest state in the country based on factors such as physical and emotional health, work environment, and access to essential services. A combination of employment, affordability, and lifestyle are attracting millennials and young families to relocate to Colorado. A thriving and diverse economic base, including agriculture, alternative energy, aerospace, and health care, has driven down the state's unemployment rate to 4.7% as of September 2014 whereas the nation's rate is 6.1%. The commercial real estate (CRE) industry is a direct beneficiary of this positive economic activity.

Metro Denver job growth surpasses the state and the nation according to the Metro Denver Economic Development Corporation (EDC). The EDC estimates the region's annual job growth rate is 3.2% compared with 3% for Colorado and 1.8% nationally. Denver's real estate market is booming and attracting more people. In Q3 2014, apartment vacancies in the metro area dropped a full percentage point, to 3.9%, over the previous quarter while rents rose quarterly. According to Cushman & Wakefield, overall office vacancy in Q3 2014 declined to 12.6% from 13.6% in Q3 2013 as businesses expand and employment gains in the Professional and Business Services Sector drives demand. Overall industrial vacancy decreased to 4.2% from 4.9% the previous year. Economic expansion increases competition for limited available space. In fact, little new commercial product has been developed in past years, and market rates now justify new construction. Denver's economic momentum is attracting jobs and population, driving vacancies down and rents up. Expect more speculative and build-to-suit projects in select Metro locations driven by tightening supply and rising rents.

Northern Colorado has one of the strongest economies in the state, much to do with the region's energy activity. Weld County alone produced 52.6 million barrels of oil

REAL ESTATE AND RENTAL AND LEASING EMPLOYMENT 2006–2015 (In Thousands)

Year	Real Estate	Rental and Leasing	Total
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	31.1	11.4	42.5
2012	31.7	11.7	43.2
2013[a]	32.6	12.2	44.0
2014[b]	32.8	12.4	45.2
2015[c]	33.7	12.8	46.5

[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.

in 2013. Greeley is at the heart of an oil and gas boom, which is creating substantial energy- and construction-related jobs. Ongoing exploration and a lack of commercial building space will drive demand for new development. The Group Inc. reported commercial vacancy rates for industrial, retail, and office in June 2014 were 3.5%, 6.3%, and 4.8%, respectively, in Fort Collins; 7.5%, 6%, and 5.6%, respectively, in Greeley; and 11.8%, 4.1%, and 8.1%, respectively, in Loveland. When compared to June 2013, vacancy in industrial, retail, and office were 4%, 5%, and 7%, respectively, in Fort Collins; 18%, 7%, and 8% in Greeley; and 14%, 4%, and 8%, respectively, in Loveland. The Group Inc. projects vacancy rates will continue to improve in all markets. Expect CRE activity to remain vibrant in 2015.

Southern Colorado's economy is largely defined by two main employers, defense and high-technology, as noted by REIS, Inc. Defense-related business and payrolls account for more than one-fourth of the Pikes Peak region economic activity. To illustrate the region's reliance on defense, the Colorado Springs Regional Business Alliance found that the military and aerospace industries have an economic impact of $12.6 billion annually, or $0.44 for every $1.00 generated in the region. Economic development groups have worked to diversify the region's economy. Primarily customer service and call centers are among the area's fastest-growing industries. Employment gains have also come from Education and Health Services; Mining, Logging, and Construction; Financial Activities; and Manufacturing. REIS, Inc. notes that several years with no new office development has allowed demand to slowly diminish vacancy. In Q2 2014 commercial vacancies decreased to 18.6% from 20% the prior year, yet rent growth remained uneven and weak overall. The key for the office sector remains employment growth. The retail segment has made meager gains, with overall vacancy at 15.5%, down 10 basis points from year prior, while asking rents were mostly flat at $14.02 per square foot (psf). Barring changes at the national level, slow expansion seems the likely scenario for Southern Colorado. Expect only anemic gains in CRE activity for 2015.

The **Western Slope** continues to feel the effects of the Great Recession and growing dominance of energy exploration in the Niobrara. While many skilled workers have left the area, some gas companies, like WPX Energy, have increased investment in natural gas personnel and equipment. Through Q3 2014, Heritage Title Company reports year-over-year real estate transactions have held steady, although the dollar volume has increased by as much as 5%, to $611 million. The median price of a Grand Junction area home has risen to $178,000 in September 2014 from $168,000 in September 2013. On an equally positive note, completed foreclosures decreased 29% through Q3 2014 compared to Q3 2013. The sale of natural gas on the international market could dramatically impact the Western Slope economy. In the interim, however, the area's reliance on the depressed energy sector will continue to be a drag CRE activity.

Colorado's diverse economy provided good insulation against the debilitating effects of the Great Recession, and today the state is near the top of the country in terms of economic performance. All corners of Colorado benefit from this economic engine, and CRE markets are experiencing generally tightening vacancies and rising rents. CRE fundamentals will continue improvement in 2015.

Residential Real Estate

The continued residential recovery in 2014 was most evident by price appreciation—both in for-sale and rental product —across the United States. New construction continues. Although the pace of multifamily still leads nationally, single-family construction is outpacing multifamily growth in Colorado. Colorado's strong population growth and the continued economic recovery supported broad-based fundamental improvement in the state's residential real estate sector as low interest rates accommodated for-sale purchases and policy, along with a growing preference for rentership, aided the rental sector.

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Financial Activities

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Colorado was the fourth-fastest growing state in 2013 according to the U.S. Census Bureau. A study by demographer William Frey ranked the Metro Denver region second for the in-migration of millennials (ages 25–34) and fifth for the in-migration of seniors (ages 55+). Population growth creates demand for both for-sale and for-rent housing but two factors have recently enhanced demand for for-rent housing in Colorado: construction defect laws hindering condominium and townhome development, and a growing preference by households to rent instead of own.

A statewide construction defect law has hindered condominium development in recent years, leaving households with fewer tenure options. Relief may be in the near term, though, if the City of Lakewood serves as an example to other jurisdictions. The City of Lakewood passed an ordinance effective November 2014 that encourages alternative dispute resolution between home owner associations and builders, in addition to requiring consent from the majority of homeowners before a claim can be filed. It also provides builders the opportunity to remedy defects upon notice before a claim is filed.

The other demand boost for multifamily construction is a longer term social trend showing a growing preference for households to rent instead of own. The homeownership share of households in the United States has been falling steadily for a decade, standing at 64.4% as of Q3 2014, which is the lowest rate since 1995. Meanwhile, the number of renter households has been expanding. A recent Pew Research Center study found that the share of never-married Americans is at a historic high (one in five adults 25 years and older) and that adults are getting married later in life—both of which support renter demand. In fact, Pew estimates that when today's young adults reach their mid-40s to mid-50s about one-quarter of them will have never been married.

For-Sale Existing

U.S. existing home sales recorded the fastest pace so far in 2014 in September according to preliminary data from the National Association of Realtors (NAR). As of September, sales of existing homes increased 2.4% to a seasonally adjusted annual pace of 5.2 million homes from August, although total sales were down 1.7% year-over-year. All four regions saw an uptick in the pace of home sales from August to September with the exception of the Midwest. On the other hand, all regions recorded a slower pace of sales in September from a year earlier with the exception of the South. The West region posted a 7.1% increase in the annualized pace of home sales from 1.12 million in August to 1.2 million in September, but the September sales pace was down 4% year-over-year. Inventory across the United States is up 6% over-the-year and currently represents a 5.3-month supply. The median existing home price in September of $209,700 is 5.6% higher than a year earlier and marks the 31st-consecutive year-over-over gain. However, the median home price has fallen on a month-to-month basis since reaching $222,000 in June. All regions reported between 4% and 5.1% home price appreciation from June 2013, led by the South.

Denver Metro—Existing home sales in Metro Denver weakened slightly in 2014 compared to the year prior according to the Metro Denver Association of Realtors, with a 2.3% decline in sales through the first three quarters of 2014 compared to 2013. Inventory levels are down 27% for both single-family attached and detached product over the same period, so that the total number of unsold homes on the market in September 2014 was less than half the five-year-ago average of 16,454 homes. Prices, on the other hand, have risen throughout 2014 for single-family detached homes and condominiums, standing at 7.7% and 12.6%, respectively, above year-to-date averages from 2013. The median sales prices for a single-family home registered $310,000 as of September and $180,000 for a condominium.

NAR estimates the median single-family home price in the Denver-Aurora Metropolitan Statistical Area at $316,300 in Q2 2014, up 10.4% on a year-to-date basis compared to a 6.2% increase at the national level, to $212,400. In absolute terms, the median price is nearly $100,000 higher than five years ago. Boulder single-family prices are up 5.9% through Q2 2014, reaching $448,800, which is also more than $100,000 over the 2009 median price. By comparison, the U.S. Q2 2014 median home price of $212,400 has increased roughly $40,000 over the past five years.

The latest S&P/Case-Shiller home price index reveals Denver home prices are increasing faster than several peer markets but also decelerating after the summer months. The Denver home price index posted a 0.5% month-over-month increase in August or more than twice the rate for the 20-city composite index that features the 20-largest metropolitan markets. Compared to a year ago, Denver home prices are up 6.3% versus to 5.6% national appreciation.

Fort Collins—Similar to the Denver Metro, Fort Collins has seen slower sales activity but upward pressure on prices. A report from the Fort Collins Board of Realtors reveals a 3.9% decline in year-to-date single-family home sales through September 2014. Single-family home prices increased 6.7% over the same period, and the current median price is $276,560. On the other hand, sales activity is on the rise for single-family attached homes and condominiums in Fort Collins, according to 3.5% year-to-date increase in sales along with average home prices rising 7.6% through the first nine months of the year. The median single-family attached home price is $180,000.

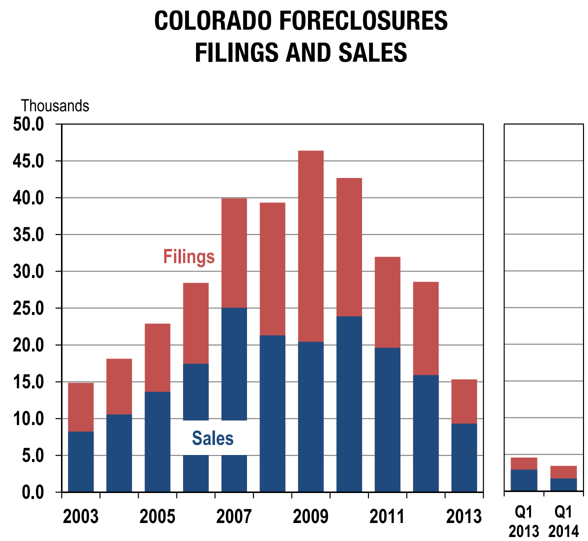
Colorado Springs—Existing single-family home sales in Colorado Springs are up a modest 1.5% through October 2014 on a year-to-date basis according to the Pikes Peak Association of Realtors. This includes both single-family attached and detached homes. The average sales price for single-family homes increased 3.6% on a year-to-date basis, and the median home price is just below $225,000.

High Country—Land Title Guarantee Company data indicate further recovery in the existing home market in Colorado's high county (Eagle, Garfield, Grand, Pitkin, Routt, San Miguel, and Summit counties) as seen in increased sales activity and price appreciation. Year-to-date transaction volume of $4.3 billion is up 19.6% through Q3 2014. All counties are reporting increased sales, including gains of 20% or more in San Miguel, Eagle, Garfield, and Grand counties. All counties reported an increase in the median residential sales price on a year-to-date basis, led by respective gains of 18.1%, 14%, and 13.7% in Garfield, San Miguel, and Pitkin counties. Median home prices in the high country as of Q3 2014 range from $245,000 in Grand County to $1.2 million in Pitkin County.

New Home Activity

The national residential market is gradually recovering post the Great Recession, and steady momentum suggests 2015 will see continued positive activity. Data for new home sales from the U.S. Census Bureau revealed an annualized pace of 467,000 home sales in September 2014, which was 17% above the same time the previous year. All U.S. regions reported year-over-year gains, led by a 20% increase in the Northeast region, a 19.1% increase in the West region, and an 18.6% gain in the South. The Midwest recorded a weaker 6.7% year-over-year increase in sales. New home permits were up 3.8% in September 2014 compared to a year earlier according to seasonally adjusted data from the U.S. Census Bureau, and the 1.03 million permits filed in September were also up 2.8% from the month prior. Multifamily permits accounted for the bulk of the overall increase, with single-family permits down 17.2% in September year-over-year. The Northeast and West posted year-over-year increases in total permits in September while the South and Midwest saw declines.

Looking ahead, U.S. home builders are moderately optimistic about further residential recovery based on continued low interest rates despite the end of quantitative easing, strong job growth, and pent-up demand.



Source: Colorado Division of Housing, 1st Quarter 2013 and 2014 Foreclosure Reports (Pages 4 and 5).

While the consensus expectation is that interest rates will rise in 2015, it is also expected that they will rise slowly and modestly.

The National Association of Home Builders/Wells Fargo Sentiment Index slipped to 54 in October from 59 in September after four consecutive monthly increases. The index measures current sales conditions, sales expectations for the next six months, and prospective buyer traffic. Index values in the mid-50s are consistent with a steady but tempered recovery.

At the state level, Colorado new home permits are up 9.5% year-to-date through September 2014 according to the U.S. Census Bureau. Nearly 22,500 permits for residential product have been issued year-to-date in September 2014 of which 13,800 are single-family attached and detached homes. On a year-to-date basis, single-family home permits are up 9.8% compared to a 7.6% increase in multifamily permits. Furthermore, residential building permits in Metro Denver grew 6.6% on a year-to-date basis through Q3 2014, led by increases in single-family attached and detached product. Multifamily permits were off 3.7% year-to-date through September after a 27% surge in multifamily permits between 2012 and 2013.

Foreclosures

U.S. foreclosure activity has remained muted compared to the surge in the prior decade and continues to show general improvement in 2014 despite modest and occasional month-over-month increases. Just below 1.05 million homes were in some stage of foreclosure (including default, auction, or bank-owned) in September, which was 9% below the month prior and the lowest monthly filing total in 98 months according to RealtyTrac. The pace of national foreclosures was down 16% in Q3 2014 compared to the prior year, and RealtyTrac's Vice President Daren Blomquist stated that overall activity was generally back to pre-housing bubble levels. The sustained pullback in foreclosures has aided home price appreciation since 2013 throughout the United States.

Colorado has a below-average foreclosure rate of 0.05% compared to 0.08% at the national level as September, also according to RealtyTrac. It reports that 1 of every 2,116 homes in Colorado is in foreclosure as of September 2014. The highest foreclosure rates in Colorado are in Fremont, Gilpin, Garfield, Mesa, and Pueblo counties.

Data for the Metro Denver region from the Colorado Division of Housing and public trustees indicate a 33.9% decline in initial foreclosure filings in 2014 through September compared to the same period in 2013. All seven Metro Denver counties are reporting declines on a year-to-date basis, led by Douglas and Broomfield counties. Through third quarter, only Arapahoe County posted more than 1,000 initial foreclosure filings.

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Financial Activities

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Rental and Leasing

Rental Market

Colorado's multifamily sector experienced strong demand in 2014 that pushed average rents higher and kept vacancy rates low according to a joint report by the Colorado Division of Housing, Apartment Realty Advisors, and Pierce-Eislen that covers Metro Denver, Colorado Springs, Fort Collins/Loveland, Grand Junction, and Pueblo. The average vacancy rate in Q2 2014 was 4.8%, up 30 basis points from the previous year but still below what is considered to be the equilibrium rate of 5%. In fact, statewide vacancy has stayed below 6% for four years. The average apartment rent in Colorado was $1,065 in Q2 2014, up $87 or 8.9% from Q2 2013.

Colorado markets reported the healthiest vacancy rates in metropolitan regions compared to softer market conditions in more rural locations such as southeastern Colorado, Sterling, and Alamosa. In Colorado Springs, average vacancy ticked up just 10 basis points, to 5.5%, in Q2 2014, while Pueblo saw a decline from 11.1% to 6.6% compared to the prior year. The market is very tight in Colorado's northern Front Range partly due to the growing oil and gas employment base. Greeley's still low vacancy of 4.1% is up from 2.2% over the past four quarters ending Q2 2014, and the Fort Collins' 2.8% vacancy rate is down from 5.2% in Q2 2013. Grand Junction's vacancy is at 6.9%, down dramatically from 10.6% at this time last year.

Most major markets saw rent appreciation on average over the past 12 months with the exception of several smaller markets in the high country and the Western Slope. The average monthly rental rate across all unit types increased 13.5% in Greeley, to $813; 8.8% in Fort Collins/Loveland, to $1,085; 6.2% in Colorado Springs to $861; and 3.7% in Pueblo, to $593.

Strong job growth, millennial in-migration, and a return to the urban core drove rental demand in the Denver Metro market in 2014, in addition to constrained condominium construction. The Denver Metro average vacancy rate for stabilized properties (50+ units) fell to the lowest level in 14 years in Q3 2014, 3.9%, according to Apartment Insights as the market steadily absorbed new product delivery to date. As of Q3 2014, a total of 13,192 units are in lease-up compared to 7,447 units a year ago, but in late 2015, the number of units in lease-up will be between 15,000 and 20,000 given the pipeline. Rents increased on average a notable 10.7% from Q3 2013, to $1,169 per unit, in Q4 2014. All submarkets tracked by Apartments Insights reported both quarter-over-quarter and year-over-year gains in Q3 2014. The Central Business District (CBD) achieved the highest rent across the region in Q3 2014, of $1,700 per unit per month, but saw only 4.7% annual growth or less than half the rate of the metro wide increase.

The apartment pipeline of 40,000 units, including both under construction and planned projects, represents about 19% of existing inventory in Denver and is spread among submarkets. However, the share of apartments constructed in Denver's CBD versus the rest of the region is rising as millennials, in particular, seek an urban lifestyle. In the 1990s, the CBD claimed 5% of all apartment units constructed in Metro Denver. The CBD's share grew to 12% in the 2000s and 19% between 2010 and 2014. Looking ahead, 26% of planned apartments in Metro Denver are located in the CBD. The growing pipeline will temper rent growth in 2015 while overall vacancy increases moderately.

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Professional and Business Services

The Professional and Business Services (PBS) industry is an agglomeration of services sectors that includes Professional, Scientific, and Technical Services, Management of Companies and Enterprises, and Administrative and Support and Waste Management and Remediation Services. This industry tends to pay higher than average wages in Colorado, outperforms overall employment growth in the state, and lends to the advanced industries boasted by Colorado.

After adding 16,000 jobs in 2013, PBS continued to grow, with an estimated 11,600 jobs added in 2014 (4.5% growth) and 12,800 jobs added in 2015 (3.3% growth).

The following discussion will focus on prerequisites for strong growth in PBS employment and in Employment Services—a leading indicator of employment.

Prerequisites for Industry Growth

Three prerequisites for growth in this sector are education, funding, and connectivity.

Higher Education

Colorado is known for attracting highly educated workers, and 57% of its 2012 high school graduating class went on to enroll in a postsecondary institution immediately after graduation. Denver-Aurora-Broomfield was recently named by the *Washington Post* as the top spot in the country for bringing in college-educated workers despite the state ranking 49th in the country for per capita state and local support for higher education operating expenses according to the National Center for Higher Education Management Systems. The ranking was compiled with data from the U.S. Census Bureau, which also placed Colorado 12th for student debt as a percentage of cost of living, 7th for proportion of students with debt, 20th in average student debt, 17th for the unemployment rate of people ages 25–34, and 22nd for percent of student loans in past-due or default status.

Programs that focus on education beyond high school are important for establishing pipelines for technical workforces. Innovative programs, such as the CDHE's Colorado Completes! and the U.S. Department of Labor's Ready to Work Partnership grants, one of which was given to the Denver Office of Economic Development's Technology Employment in Colorado Partnership (TEP-P), are crucial for providing staffing agencies access to a pool of trained Colorado candidates.

Funding

The Colorado Office of Economic Development and International Trade (OEDIT) announced in October the most recent grantees of the Advanced Industry Accelerator Grant Program. A total of almost $2 million is being awarded for both Proof-of-Concept and Early Stage Capital and Retention grants that will support several key industries in Colorado's economy. Proof-of-concept grants are open to Colorado research universities; federal labs located in Colorado; and other private, nonprofit, and for-profit labs with valid technology transfer offices. Proof-of-concept grants are for pre-commercialization research and commercialization preparation.

A federal budget deal passed in January 2014 puts $2.7 billion into Colorado space projects. Fresh funding from the bipartisan bill includes $1.2 billion for the Orion deep space capsule that Jefferson County-based Lockheed Martin Space Systems is developing for NASA and more than $824 million toward a weather tracking satellite system being led locally by Ball Aerospace and Technologies Corp. and Raytheon Corp.

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QUOTES FROM THE PAST: 1984

"...employment in business services has shown substantial gains this year which should continue into 1984. Buoyed by recovery, business services such as advertising, photocopy, personnel, building maintenance and data processing are experiencing increased demand."

Colorado's Bioscience Industry

With more than 600 companies and 28,000 direct and 122,000 indirect employees, the bioscience industry plays a significant role in Colorado's economy. The bioscience industry comprises companies that research, develop, and commercialize biotechnology, medical device, diagnostic, and ag-bio products. With an increase in acquisitions in the biotechnology sector and large pharmaceutical companies divesting of local manufacturing facilities to contact organizations, growth from 2007–2012 declined 1.9%. The biotech sector recorded slow growth of 1.7% in 2013. The medical device and diagnostic sectors have seen substantial growth in the 18–23% range, primarily driven by company expansions and product launches. The lesser known sector, but gaining significant strength in the state, is the ag bio community, which saw a 28% gain in employment between 2007 and 2012. Continued growth is anticipated for this emerging cluster, as well as the industry as a whole.

Professional and Business Services

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NASA's Commercial Crew Program, which has funded about half the development of the Dream Chaser spacecraft being built by Louisville-based Sierra Nevada Corp. Space Systems, received $696 million in the budget deal.

Another project—Cosmic-2, a joint U.S.-Taiwan effort to put 12 small weather satellites into orbit in two rocket launches by 2018—received $2 million in funding. The compromise bill that funds space programs formally sets new budgets for federal agencies for the first time in several years. Previous years' spending had been by Congressional resolutions extending previous years' budgets, making new contracts and new programs in aerospace unpredictable.

Funding for space research is necessary for keeping satellite equipment at full operating capability. For the Joint Polar Satellite System, being built primarily by Ball Aerospace in Boulder and Raytheon in Aurora, the difficulty planning for spending on the project delayed hiring and pushed back the development of the satellites. The National Oceanic and Atmospheric Administration worried the situation could hurt its ability to track severe storms after 2016 if existing satellites function only as long as their expected lifespans.

As reported by PRNewswire, a recent report conducted by the Leeds School of Business for CO-LABS, a consortium organized to establish Colorado as a global leader in research, technology, and their commercialization underscores the importance of sustained funding for research at the federal laboratories and the resulting impact on the economy. The study indicated that the total economic impact of the state's federally funded laboratories in FY 2011 and FY 2012 was $2.3 billion and directly employed nearly 8,000 people.

"Colorado's federal labs help foster the innovation that fuels our state and the nation's economy," Colorado Governor John Hickenlooper said. "Leveraging the labs' research and technology with the state's innovative entrepreneurial spirit creates a strong foundation for Colorado's business ecosystem. We are proud of the extraordinary advancements coming from the research in Colorado and will continue to support our federal laboratories and their world-class workforce."

The report, which analyzed data from a majority of Colorado's 30 federally funded laboratories, supports statistical data from national surveys on the importance of funding innovation in the United States.

According to the Federal Laboratory Consortium for Technology Transfer, Colorado ranks fourth in the number of laboratories and seventh in the number of federal laboratories per capita. Even though other states have larger federal facilities that account for more in economic output, what sets Colorado apart is the number and diversity of its federally funded laboratories.

Several of the state's laboratories, including JILA, NCAR, and the Energy Department's National Renewable Energy Laboratory (NREL), work collaboratively with industry researchers and support startup companies by offering access to their scientists and facilities. For example, through its annual industry growth forums, NREL has provided an opportunity for 30 cleantech startup companies to present their business cases to an expert panel of investors and energy executives. To date, participating companies have raised more than $4 billion in growth financing.

Connectivity: Megabit "Fiberhood" from CenturyLink

CenturyLink Inc. is moving to win the 2014 Internet speed wars in Denver, unveiling one gigabit per second residential service in some Denver neighborhoods. A gigabit per second is equal to 1,000 megabits per second (mbps) or 10 times faster than the highest speed that has been previously offered for residential and small business accounts. It should allow high volume data transfers and media downloads to take seconds, not minutes. The new fiber-to-the-home service will become more broadly available across Denver in 2015.

Entrepreneurs are expected to be some of the biggest winners in CenturyLink's decision to launch the one gigabit-per-second residential and business Internet service in Denver. Scott Russell, vice president and general manager for CenturyLink in Denver, said "It's going to generate jobs, it's going to generate interest in coming to Denver and it's going to spur continued growth for the city." Boulder venture capitalist Brad Feld saw the fast, affordable Internet access as a catalyst for software startups and bought a house in the "fiberhood." He recruited five startups to work from it; it was one of a dozen or more startup houses established near downtown Denver.

For businesses not in the software field, Russell said upload and download speeds of 1 gigabit will make small business cloud-computing services more dynamic and capable. Part of the excitement surrounding the faster speeds is that no one knows what new technologies it will make possible. CenturyLink is also debuting fiber-to-the-home gigabit service in 12 other U.S. cities. According to Russell, "Fast speeds will boost the potential of smart homes, a growing range of Internet-connected devices, online video and other technologies."

Professional, Scientific, and Technical Services

The Professional, Scientific, and Technical Services (PST) sector comprises establishments that provide services that require high levels of expertise and training that include legal advice, engineering, computer and design services, and advertising services among many others. As of October 2014, the sector accounted for 43.4% of PBS employment. The average annual wage for this sector was 67% higher than the state average in 2013. The PST Sector will add 6,700 jobs in 2014 and 7,100 jobs in 2015.

Legal Services

The Legal Services profession continues to evolve as mid-large firms increase their international services capability in support of globalization trends and the need to leverage the latest technology.

As cited by the Capgemini and RBS World Payments Report 2014, the number of global e-commerce transactions is anticipated to reach 34.8 billion in 2014. Mobile payments are expected to increase 60.8% in the period 2011–2015, to 47 billion transactions. This explosive growth in global trade is making its mark on the legal profession.

According to Robert Half, widespread availability of mobile applications and cloud computing is enabling law firms to deliver legal services more effectively and efficiently than ever before. This has opened the door to development of cloud-based law practices where legal services are delivered to clients virtually without the need for brick and mortar establishments.

Moreover, the number of social media applications for marketing promotion purposes is also increasing. These applications also provide discovery support for some legal matters.

Although many lawyers have yet to employ social media professionally, they are increasingly in the minority. According to a 2013 American Bar Association technology survey, 81% of U.S. attorneys report using social networks for professional purposes, with 98% using LinkedIn, 33% using Facebook, 19% using Twitter, and 27% maintaining a blog. The only surprising thing about these numbers is that it took so long for use of social media to reach these levels; as recently as 2010 only 17% of firms reported maintaining a presence on social media.

The growth in legal process outsourcing (LPO) firms continues. These firms, which now represent more than a $1 billion industry, may be located anywhere in the world. LPOs outsource anything from discovery to document review to patent searches. Firms and companies appear to be finding great efficiencies, the most obvious being cost savings. However, with those savings come other opportunities as well as risks for companies and firms. Many LPOs now operate online with overnight turnaround in many cases.

Specialization in the profession has always been the norm. Colorado is now seeing the development of some new service areas, such as marijuana-related law and legal hemp services.

TOTAL PROFESSIONAL AND BUSINESS SERVICES SUPERSECTOR EMPLOYMENT
2006–2015
(In Thousands)

Year	Professional, Scientific, and Technical Services	Management of Companies and Enterprises	Administrative and Support and Waste Management and Remediation Services	Total[a]
2006	165.2	27.2	141.4	333.8
2007	172.6	28.4	148.8	349.7
2008	178.9	28.9	145.9	353.7
2009	171.7	28.5	131.5	331.8
2010	169.0	29.0	132.8	330.8
2011	173.7	30.2	137.5	341.5
2012	180.2	32.3	144.4	356.9
2013	189.1	34.5	149.3	372.9
2014[b]	195.8	35.2	153.5	384.5
2015[c]	202.9	36.0	158.4	397.3

[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.

Overall most legal firms are expecting flat to steady growth in demand for their services. This is coupled with the continued expectation of a steadily improving state and national economic picture. According to Law Week Online, Colorado firms anticipate ongoing growth, attributed to the improving economy and successful summer clerk programs. Law firms cite a need to expand to areas outside their core practice areas. Intellectual property, regulatory compliance, real estate, and construction are all cited as key growth areas. Robert Half indicates that starting legal salaries are anticipated to rise on average 2.3% in 2015.

Since 1997, the Legal Services subsector lost jobs in only one year, but the sector faces employment declines in 2014, particularly due to decreasing real estate transactions. Otherwise, this subsector has exhibited steady job growth. This growth has occurred in spite of a couple of negative impacts. Since 2008, several large legal firms with attorneys numbering in the thousands have either seen large reductions in staff or have gone bankrupt. Supreme Court decisions that have ruled against large class-action suits have also negatively affected this profession. The *Denver Business Journal* reported that only 4 firms have more than 100 attorneys, with most firms employing 20–50 attorneys. Only 3 of the top 52 listed

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Professional and Business Services

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PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES SECTOR EMPLOYMENT
2006–2015
(In Thousands)

Year	Legal Services	Architectural and Engineering Services	Computer Systems Design Services	Management, Scientific, and Technical Consulting Services	Other	Total[a]
2006	17.4	41.1	39.0	16.6	51.1	165.2
2007	17.9	43.3	41.1	16.9	53.4	172.6
2008	18.1	44.8	43.1	17.9	55.0	178.9
2009	17.8	41.5	41.7	17.3	53.4	171.7
2010	17.8	39.0	41.3	18.0	52.9	169.0
2011	18.3	39.2	43.0	19.4	53.8	173.7
2012	18.8	40.4	45.3	20.6	55.1	180.2
2013	19.4	42.2	47.9	22.4	57.2	189.1
2014[b]	19.1	44.0	50.4	23.7	58.6	195.8
2015[c]	19.1	45.6	52.9	24.6	60.7	202.9

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

Note: There was a reclassification of employees from the Computer and Electronics sector in Manufacturing to the Computer Systems and Design Services sector in Professional and Business Services in 2013.

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

Colorado law firms indicate they are a branch of a very large firm in another state.

Architectural, Engineering, and Related Services

Architectural, Engineering, and Related Services continued moderate growth in 2014, marking four consecutive years of gains postrecession. The subsector will add jobs in 2015.

Federal appropriation for highways and bridges has been steady with the latest transportation bill called MAP-21.This bill sunset in October 2014, and with only a 27-month life, has not provided the long-term funding needed for several large multiyear projects. To complement MAP-21, the Colorado Department of Transportation (CDOT) has implemented the Responsible Acceleration of Maintenance and Partnership (RAMP) program totaling about $1.5 billion over the next five years. This will provide for multiyear funding of several large projects, such as widening of I-25 from the Longmont exit to Fort Collins, halting the deterioration of highways around the state, bolstering bridges and culverts, and improving rock-slide prevention. This has resulted in job growth of engineering companies.

There are shortages of engineers with specific highway and bridge design skills. Many firms are looking outside of Colorado for talent or are having design performed outside of the state.

The September 2013 floods increased the demand for architects and engineers to redesign the damaged infrastructure and buildings lost, adding to the infrastructure needs caused by forest fires. The design and rebuilding continues. It is expected that the emergency funds that the local municipal and county agencies are using to redesign and rebuild may affect their budgets down the road.

Several large projects are ongoing with the continuing expansion of DIA. RTD's FasTracks projects added the North Line in 2014 as an Eagle P3 project. CDOT FASTER and RAMP projects continue, and the US 36 Corridor expansion commenced in 2014.

Private financing is being used to update and increase a number of college dormitory buildings. Many universities are finding that privately funded new dormitory projects are easier to administer and can pay off the design and construction costs from students' room and board fees.

With the increase in jobs in many parts of the state, tax receipts have increased for several public agencies. They are expected to increase their outlays for roads, bridges, water, wastewater, and other public services as populations grow and increase demand for local services.

The construction of residential housing and commercial office buildings and warehouses continues at a frantic pace to keep up with demand. Apartments are being designed and built all over the metro area instead of condominiums. Construction defects legislation has resulted in fewer developers and contractors building residential and mixed commercial-residential multifamily buildings. The rate of new multifamily starts was as high as 26% in 2007 and has dropped to 2% recently due to this legislation. A bill tackling the issue of construction defects was introduced in the 2014 Colorado General Assembly (SB14-220)with Denver area mayors and business leaders looking for measures that would reform the current laws. While this bill was defeated, it is anticipated that a construction defects bill will be reintroduced in 2015. If reform does happen, it is anticipated that the need for design and construction of these multifamily buildings will increase along with Transit Oriented Development (TOD) buildings, which are located near public transit stations.

Computer Systems Design and Related Services

The Computer Systems Design subsector has benefited from increased investments in information security, social networks, and mobile and cloud computing. Businesses within this subsector create software, design computer systems, integrate technologies, and manage computer systems. One complementary sector is the Software Publishing found in the Information report.

Sector employment grew 16% between 2010 and 2013, and average growth in 2014 has exceeded 4%. Demand for highly skilled information technology (IT) workers is expected to grow with information security, cloud computing, and software app development.

Management, Scientific, and Technical Consulting Services

Developing new technologies in Colorado is a natural fit for a variety of reasons: the state is consistently ranked as one of the top locations for startups and has maintained a ranking in the top five states for venture capital as a percent of state GDP. Indeed, it is now home to one of four satellite offices for the U.S. Patent and Trademark Office. Opened in June 2014, a report by the Metro Denver Economic Development Corp. and members of the Colorado business community estimated the satellite office in Denver will bring hundreds of direct jobs and even more indirect jobs, as well economic activity worth about $440 million over its first five years of operation.

According to the *Denver Business Journal*, Colorado recorded 20 venture capital deals valued at $136.6 million in Q3 2014 compared with 22 deals valued at $114.4 million in Q2 2014. "The industry that really knocked it out of the park this [third] quarter was the software industry," said Keith Parsons, a partner at Pricewaterhouse-Coopers' Denver office. "It was a very good trend that we're also seeing nationally." Colorado software companies tallied $53.4 million in VC funding in the third quarter, the most of any industry according to the report.

A variety of general contractors typically use a disproportionate level of professional, scientific, and consulting services—including planners, surveyors, managers, inspectors, and many others.

The Hotel and Transit Center at DIA currently underway is expected to make significant progress in 2015. When finished, the project will add a Westin hotel and conference center, a public transit center with attached commuter rail station, a centralized pickup/drop off for RTD buses, and a commercial plaza area—all of which are expected to enhance the airport's competitive standing as a global airport.

These projects continue to generate hundreds of open and active engineering positions as of the fall 2014. Around 60% of these jobs start at more than $50,000 (even with little experience) while the remainder are over $70,000.

ADMINISTRATIVE AND SUPPORT AND WASTE MANAGEMENT AND REMEDIATION SERVICES
SECTOR EMPLOYMENT
2006–2015
(In Thousands)

Year	Employment Services	Services to Buildings and Dwellings	Business Support Services	Other	Total[a]
2006	42.6	39.0	19.2	40.5	141.4
2007	44.0	40.3	22.7	41.8	148.8
2008	40.1	40.6	24.9	40.3	145.9
2009	30.0	38.0	25.2	38.4	131.5
2010	33.7	36.8	25.0	37.3	132.8
2011	37.0	37.0	24.9	38.6	137.5
2012	40.7	38.1	26.7	39.4	144.4
2013	42.8	39.4	28.6	38.6	149.3
2014[b]	47.0	40.0	27.7	38.8	153.5
2015[c]	50.2	40.8	28.1	39.3	158.4

[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.

Management of Companies and Enterprises

One of the most diverse PBS sectors is Management of Companies and Enterprises, which includes a very broad cross-section of company headquarters and regional offices for businesses. Many of these businesses are company headquarters. The sector continues to represent about 2% of Colorado's economy and has generally produced modest job growth over the last few years. Fortunately, Colorado has continued to make gains in acquiring company headquarters, with future

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prospects appearing bright as well. Companies in this sector manage other businesses and include Vail Resorts, Sports Authority, Comcast, MDC Holdings, and Prologis. Growth in 2015 will be driven by the continuation of company headquarter acquisition, a trend that has become apparent in previous years.

The PBS Committee expects Management of Companies and Enterprises to grow 2% and 2.3% in 2014 and 2015, respectively.

Administrative and Support and Waste Management and Remediation Services

This sector comprises establishments meant to perform routine support activities for the day-to-day operations of other organizations. This category includes office administration, hiring and placing personnel, cleaning, document preparation and clerical services, and waste disposal, among others. The average annual wages for this sector are significantly lower than the state average: $34,521 in 2013 compared to the statewide average of $50,873 for the same year. Expectations are for this sector to add 4,200 jobs in 2014 and 4,900 jobs in 2015.

Employment Services

Labor statistics show the number of workers provided by temporary agencies has more than doubled since 1990. The Government Accountability Office reports that contingent workers, such as freelancers, contractors, consultants, and temporary workers, now account for about one-third of the U.S. workforce. This rise in the number of temporary and contract work shows that many employers are not willing to hire for the long run. This explains why the number of temporary workers has jumped more than 50% nationally since the recession ended five years ago according to an Associated Press report.

It is well known that Americans are dropping out of the workforce. According to the Liberty Foundation, as of August 2014 labor force participation stood at a 1970s' level of 67.8%. The Congressional Budget Office attributes about half of the decline to a rapidly graying population and individuals going back to school, raising children, and taking disability. This trend is likely to continue, benefiting the employment services sector as companies replace the full-time positions lost during the

Colorado's Aerospace Industry

The Colorado Space Coalition indicates that Colorado has more than 169,000 jobs in the space industry. The military facilities, corporate enterprises, small businesses, and academic scientists partner successfully to create a robust space economy that grows every year. The exciting projects include Sierra Nevada's Dream Chaser, Ball Aerospace's Global Precipitation Imager, Lockheed Martin's Orion space capsule, Raytheon's Joint Polar Satellite System, United Launch Alliance's Atlas V rocket, and CU's Mars Atmosphere and Volatile Evolution Mission (MAVEN).

The Orion spacecraft developed by Lockheed Martin and NASA moved closer to a maiden voyage. The capsule was recently splash-down tested off the coast of San Diego and has an initial test flight planned for December 2014. The spacecraft's unique launch safety system includes technology to save the crew in the event of an aborted launch. Lockheed Martin has been consolidating its space business to the Denver area.

The Mars satellite know as MAVEN that launched on November 18, 2013, successfully entered orbit on September 21, 2014. University of Colorado's LASP Lab has been a key partner in the development and execution of this exploration mission. The success of MAVEN shows the synergy between academics (CU), commercial (Lockheed Martin), and government (NASA) in Colorado. This synergy creates additional science and engineering jobs and spurs additional small business opportunities.

The government funding cutbacks have created opportunities for Colorado's small businesses. If a small or medium-size business can provide needed services and products at a cheaper cost, they win proposals. Smaller companies have lower overhead rates and more flexibility with schedules. They may be Colorado's secret weapon in building a defense subcontractor workforce.

The Colorado Space Grant Consortium continued its growth in 2014. The group is funded by NASA and involves 16 educational institutions in Colorado. Students get hands on experience and gain knowledge working with NASA scientists and aerospace engineers. STEM (science, technology, engineering and mathematics) programs in Colorado schools continue to appeal to young students. Today's STEM student is tomorrow's satellite engineer.

The Advanced Industries (AI) Accelerator Program sponsored by the Colorado Office of Economic Development and International Trade is preparing the next round of grant distributions. In June 2014, the program awarded 12 grants for a total of $1,583,244.

If you are looking for a new adventure, Colorado's space economy is one small step away.

recession with more specialized part-time or contingent resources.

Colorado ranks 4th among all states in jobs created, according to the U.S. Bureau of Labor Statistics. However, in recent years, service jobs accounted for most employment gains. Colorado reported the 15th-lowest unemployment rate of all states (5.1%), the lowest rate since September 2008.

Colorado's online help-wanted ad supply-demand ratio in September 2014 was 1.1 compared to the national ratio of 1.84, signaling better job availability in the state than most other places. The supply/demand rate is the number of unemployed persons divided by the number of total ads.

Manpower's Employment Outlook Survey shows employers expect "strong fourth quarter results in construction, durable goods manufacturing, transportation and utilities, wholesale and retail trade, information, and financial activities. In metro Denver, employers in professional and business services plan to reduce staffing, while hiring in nondurable goods manufacturing, other services and government is expected to remain unchanged."

Staffing Industry Analysts (SIA) indicates in its September 2014 forecast report that 2015 is projected to be another solid year for the U.S. IT temporary staffing industry. Nationally, the IT staffing market is expected to grow 7% in 2015 to a market size of $27.8 billion. Colorado's IT staffing market is anticipated to be on pace with this trend.

Nationally, SIA expects deepening adoption of temporary workers in both professional and industrial occupations. Utilization of temporary workers in both health care and construction in Colorado is below the national average, which should help facilitate future growth in those markets. The number of positions in health care, construction (which cannot be offshored) educational services, and professional and business services is expected to expand significantly. Declines nationally are expected in manufacturing, utilities, and the federal government.

SIA reported in April that the temporary penetration rate had doubled since 1990, to 2.1%, indicating a record level of acceptance and adoption of temporary staffing in the U.S. workforce. The temporary help penetration rate is the number of temporary agency workers as a percentage of all workers. The penetration rate for contingent IT workers is expected to reach 20% in two years. This helped fuel their expectation for an 8% growth rate for the IT staffing segment in 2015.

Cybersecurity job postings increased 74% between 2007 and 2013, more than two times faster than all IT jobs. Information security analysts, system analysts, application developers, business systems developers, and support specialists account for 70% of the projected 17.6% growth in IT occupations between 2012 and 2022 according to SIA. The industry sectors with the greatest demand for cybersecurity professionals are professional services, manufacturing and defense, finance and insurance, information, and health care. Keith Waddell, CEO of Robert Half, commented to StaffingIndustry.com, "At the moment, demand isn't the problem. The problem is getting the candidates. The demand for skilled talent continues to outpace the supply in many of our specialty areas. The skill sets that are the tightest from a supply standpoint are in the technology segment, the applications developers, and the database developers. It's the higher-level development side of technology."

The direct staffing company TrueBridge Resources conducted a research survey of clients in the Denver area in 2014. That survey revealed that more than 85% of Denver hiring executives reported seeing continued value in the hiring of contract workers.

In this tight labor market for select industries, qualified candidates are being solicited and lured to other firms, even when they are happily employed, according to a recent survey by TEKsystems. Employers would be wise to lean on unique benefit offerings to differentiate themselves with candidates who may be entertaining multiple job offers. In addition, employers should be more open to relocating highly skilled job candidates from outside the local area than maybe they have historically been.

The survey showed that Denver hiring executives indicated that job roles related to IT security, business analysis, finance leadership, and compensation analysis were more difficult to fill than others. Conversely, job roles in IT support, general accounting, and marketing communications were generally seen as easier to fill. This sentiment seems to support other research that illustrates difficulty in hiring for more specialized skill sets compared with more broad and general skill sets.

SIA research for the U.S. temporary help services market predicts a compound annual growth rate of 4.6% between now and 2022. Underlying this research is the expectation of continued shifts away from the use of independent contractors due to misclassification enforcement. In terms of legislation, states, including Colorado, have already begun passing laws creating a "presumptive employee status." Forbes.com says "determining who is an employee is a fact-intensive minefield. It always has been."

The Impact of Affordable Care on the Employment Services Sector

The employer mandate provision of the Patient Protection and Affordable Care Act (PPACA) requires employers with 50 or more full-time or full-time equivalent employees to provide health care insurance to their full-time employees. W-2 contractors who are on a firm's payroll count toward the 50-employee threshold but "independent contractors" are excluded, so this provision has been a concern for many recruiters who do a healthy contracting business.

Small businesses, including staffing agencies, have several ways to get their workforce under the 50-employee limit. These include reducing workers' hours to part-time, laying off workers, closing their doors or simply "going protean." Going protean is a term coined by veteran Silicon Valley journalist Michael S. Malone in his book

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The Future Arrived Yesterday, which describes arguably a better strategy for many businesses. It involves replacing employees with corporations. As small enterprises approach 50 employees, look for a significant number of them to concentrate on growing revenues without growing employees. Instead of writing job descriptions and managing employees these new corporations will write contracts and scope-of-work documents. Any substitute, Paul Christiansen writes in the *Wall Street Journal*, is a time bomb because the government will pressure a firm to turn any so-called 1099 contractors into employees. Small businesses will go protean by offering current employees contracts for doing their work as a corporate entity instead of as an employee. This concept has been used successfully in large corporations like Intel, Microsoft, and IBM and now will appeal to much smaller companies.

In an essay published on Fast Company's website, Ted Elliot, CEO of Jobscience, says while hiring is up in financial services, legal, oil and gas, education, and IT nationally, there's "also a growing gap between haves and have-nots when it comes to employment which staffing agencies must learn to address." He goes on to say that many employers are no longer willing to commit to full-time employees and would much rather fill positions with contractors through a staffing agency and that jobseekers feel the same way: they prefer to work as consultants and freelancers so they are not so dependent on the success of a single entity.

Wages will likely pick up more quickly in 2015, accelerating until annual gains hit 4% by January 2017. For many employers, this is a bitter pill to swallow, especially if productivity growth does not keep pace; however, for the overall economy, this will be a plus. In this long, sluggish economic expansion, where it has taken a full six years to recover jobs lost in the recession, wage and income gains have been missing.

Services to Buildings and Dwellings

Just a couple of years ago this subsector was recording high vacancy rates that led to employment consolidation and layoffs. Now these buildings are leased up, and more warehouses are being designed and built. Office building vacancy rates in both downtown and in the Tech Center are very low again as demonstrated by increasing lease rates. The demand for maintenance for these buildings is stimulating increased job growth in this subsector. Many open spaces and even older building pads are being scraped and renewed.

Waste Management and Remediation Services

The waste handling services industry, waste collection accounts for about half of industry revenue, while treatment and disposal services and remediation services each account for less than one-sixth of revenue according to a Hoovers industry report.

In Colorado, Waste Management and Remediation Services will see a fifth-straight year of employment gains as these services are a trailing indicator of overall population growth and, to a certain extent, of new and replacement (infill) commercial development. This could be as high as 3.5%. In portions of the Front Range the continued demolition, clean up, and subsequent new building due to the 2013 floods will provide additional jobs and revenue that would otherwise be expected due to the statewide pace of economic growth. Industry consolidation among major players has slowed and regional haulers are adding slightly more staff as recycling, composting, and more sophisticated customer-service protocols are evolving.

Summary

Concerns remain about the timing of the next economic slowdown due to the hot housing market, the increasing debts of private citizens and the federal government, and the anticipated increase in the federal deficit starting in 2016 due to the Affordable Care Act, Medicare, Medicaid, Social Security, and other entitlement costs. The boom in residential housing and apartments should begin to catch up with demand in 2015. Building typically continues despite softening demand, leading to oversupply in the market. More young people will be saddled with student loan debt that will make it hard for them to afford an owner-occupied home. That will be one factor that will reduce demand. For the generation in 30s and 40s, their ability to afford the next step up in housing will be a challenge. Due to the cost of initial permits and tap fees, most single family homes being built start in the $400,000s and may be too expensive for them to afford when they need more room due to an increase in family size. Combine these factors with the anticipated significant increase in health care costs and entitlements in 2016, less disposable income will be available for consumption.

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Education and Health Services

The Education and Health Services Supersector includes private-sector education, as well as four health care and social assistance sectors: ambulatory care, nursing, hospitals, and social assistance. This industry represents almost one of every eight jobs in the state of Colorado. Nearly 88% of industry employment is made up of Health Care and Social Assistance, while slightly more than 12% is related to private education. Education and Health Care added 10,500 jobs in 2014, with growth of 3.7%. Employment in 2015 is projected to increase by 9,300 jobs (3.1%) in 2015.

QUOTES FROM THE PAST: 1986

"Government payment for services becomes more restrictive with the phasing in of the diagnosis related group as the basis for payment, some facilities are affiliating with large health care corporations, converting to other uses, and cutting less profitable programs.…The shifting from inpatient care will continue, and the resulting growth in outpatient services will absorb some of those no longer needed to staff inpatient facilities."

Educational Services (Private)

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. Private-sector educational services can be classified as private not-for-profit, private for-profit, religious exempt, and private occupational, as well as private companies delivering training, development, and other ancillary and support services. Employment numbers for the private education sector for 2014 showed marginal growth of 1,200 jobs over 2013, totaling 37,100 for the year. The sector is projected to see marginal growth in 2015, adding only 400 additional jobs in 2015.

COLORADO EDUCATION AND HEALTH SERVICES EMPLOYMENT
2006–2015
(In Thousands)

Year	Educational Services	Health Care and Social Assistance	Total
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	33.7	239.9	273.7
2012	35.4	247.2	282.6
2013[a]	35.9	250.8	286.8
2014[b]	37.1	260.2	297.3
2015[c]	37.5	269.1	306.6

[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.

Economic contributions from this sector are substantial. A study released in March 2014 by the Association of Private Sector Colleges and Universities (APSCU) detailed the economic impact of private-sector colleges and universities in the United States. They account for nearly 250,000 jobs in the nation with a total economic impact of more than $47 billion. In Colorado, private sector institutions have a $1.2 billion total economic impact on the state, produce $271 million in wages, and generate $50 million in state and local taxes. The education sector is typically countercyclical relative to the economy; the growth in this sector during the last two economic downturns supports this theory. As such, as the economy continues to improve, for-profit education revenues are expected to increase at a slower rate over the next five years and employment growth in this sector will continue to be flat or modest at best.

Concerns that May Limit Employment Growth

Driving the cautious optimism are several hurdles, including the following:

- Reported enrollments are down across the private-college sector, with declines of 20–40% being reported during 2012, 2013, and into 2014.
  - The *Denver Post* reported (October 17, 2012) that the University of Phoenix, one of the larger

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private-sector employers in Colorado, was closing 115 brick-and-mortar campuses nationwide and that 5 of those were in Colorado. These 5 are among their smallest campuses, and the closings would transpire over time, with impacts spread over 2013 and 2014. These closures have occurred, and in 2014 the University of Phoenix has its smallest footprint in Colorado in the last decade.

- Closures related to legal difficulties will also limit growth.
  - Following an investigation by the U.S. Department of Education, Corinthian Colleges is closing down and/or selling off 85 campuses in the United States, including three Everest College campuses in Colorado.

While revenue growth in parts of this sector, mainly in the supporting services side, is expected to continue modestly, for-profit colleges will continue to face increasing cost challenges due to economic and legislative pressures. Business can be expected to increasingly rely on technologies that provide efficiencies to keep costs and employment to a minimum. Overall employment will be flat or up only modestly 2015.

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 more prominent private nonprofit schools are the University of Denver, Regis College, and Colorado College.

The for-profit sector had been the fastest-growing group in the education sector, but has had setbacks in the last three years. Contributions to Colorado's employment have come from many schools. A total of 103 (up from 99 in 2013) private accredited colleges are listed on the Colorado Department of Higher Education website, and 354 (up from 343 in 2013) schools are registered with the Colorado Department of Private Occupational Schools.

Colorado-based private accredited colleges include Jones International University, a 100% online university founded in Colorado, as well as Alta Colleges, which is a privately held for-profit education company based in Denver. Private occupational schools include Denver-based Bel-Rea Institute. Among out-of-state organizations with campuses in Colorado are private accredited colleges such as Arizona-based University of Phoenix, which has three locations in Colorado. An example of a private occupational school is the Colorado holdings of Education Affiliates (a Maryland-based company), which includes the Denver School of Nursing (DSN) and Fortis College Online.

Employment in the private education sector is driven by both business demand for 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. In the recent environment, many schools have experienced declining enrollments and thus jobs, while increased demand in specific skill areas such as nursing has resulted in modest growth for schools such as DSN.

Colorado is also home to para-education organizations such as Pearson Learning Technologies Group (LTG), located primarily in Colorado, which doubled in size in 2012, has shown modest growth in 2013 and 2014, and should see more growth in 2015. Other software businesses in the learning and education delivery sector in Colorado include Disney's Kerpoof and Knowledge Factor. As education companies such as these continue to create more content, learning technologies, and educational analytics opportunities, Colorado is positioned to be a strong player in eLearning. However, there are setbacks. In 2014, Disney closed the Kerpoof business, eliminating 700 jobs nationally, including those in its Boulder office.

Education is in the midst 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 requires more strategic thought specific to pedagogy, as well as instructional design. It also provides tremendous opportunities for data-driven education. When this "big-data" can provide reports on at-risk 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.

Another major, disruptive innovation that could drive cheaper education in a personalized fashion is the development of open educational resources (OEC), with the most familiar being massive open online courses (MOOCs). These are bringing content from prestigious universities (Harvard, MIT, and Stanford) through such for-profit businesses as Coursera, EdX, and Udacity. 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 at a local university. The business model is not yet clear, nor is the possible impact on employment levels.

In addition, campuses across the world are seeing students embracing portable devices such as tablets and smartphones, and campuses are racing to keep up with the bring-your-own-device (BYOD) movement. It is so easy for students to carry tablets from class to class, seamlessly accessing their textbooks and other course materials as needed, that schools and universities are rethinking the need for computer labs and even personal laptops. The convergence of the post-recession economy, combined with an ever-increasing presence of learning curriculum through OECs and other online learning environments, and the expansion of the BYOD movement by students and campuses, creates a new paradigm for both public and private educational offerings. Agility and responsiveness to Generation C (Connection) in educational curricula that provide the best ROI to the student will likely be the winner in creating valuable personalized education. With Colorado's high-tech innovation community and its history and engagement in private education, the state has the potential to continue to expand its presence and play in the online digitization and gamification of education. However, the last three years has only seen modest growth in this sector.

Health Services

The Health Care and Social Assistance Sector employs nearly one in nine employees in Colorado. The sector is expected to grow 3.7% in 2014 and 3.4% in 2015. This employment sector comprises four subsectors: ambulatory care; hospitals; nursing and residential facilities; and social assistance. Colorado has a larger percentage of employees in the ambulatory care and hospitals subsectors and a lower percentage in the nursing and residential facilities and social assistance subsectors compared to the nation.

The average annual wage for employees in this sector in 2013 was $45,906, which is about 10% below the overall annual average wage in Colorado. The top three counties with the highest health care sector weekly average wages are Pitkin, Eagle, and Denver.

The subsector wages fall into two distinct categories. The ambulatory care and hospitals subsectors, which account for 68% of employees, averaged $56,636, while the remaining employees in nursing and residential facilities and social assistance averaged $26,097. Hence, the Health Care and Social Assistance sector has a sharp dichotomy of wages.

Health Care and Social Assistance employment continues to grow each year. Since 2004, the sector added more than 70,000 jobs. Growth is expected to continue in 2015, with an additional 8,900 jobs. It is unlikely that the overall 2014 growth rate for this sector will continue at this pace into 2015 and beyond.

Continued sustainable growth in this sector is expected from four trends: an aging population, a population that increasingly suffers from obesity and chronic diseases, growth in the number of persons eligible to receive health insurance as a result of state and federal expansions, and the realignment of the care delivery systems. The call for affordable health care, supported by consumer-driven expectations of the industry, will most likely temper overall robust growth that was seen in 2014.

The Health Care Workforce Environment

In 2014, the health care sector experienced the first-year implementation of the expansion of health care coverage through the passage of the Patient Protection and Affordable Care Act (PPACA). Colorado was one of 17 states that built its own health care market exchange and, along with 28 states, also expanded Medicaid eligibility to support PPACA objectives. By expanding Medicaid and providing small businesses, individuals, and families access to competitively priced health care coverage, it was anticipated Colorado's Health Care and Social Assistance Sector would be among the first sectors in the state's economy to register increased growth to meet this new

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demand. More than 148,000 Coloradans are enrolling in small group and individual health insurance through the state's online Marketplace. This, along with a surge in Medicaid enrollment, an improving economy, and an aging population, is bringing many changes to the access, delivery, and financing of the health care environment. As purchasers and consumers of health care pressure the industry for improved health care quality at lower costs, the health care workforce is experiencing an unprecedented accelerated pace of change.

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 year after year. Changes in the skilled clinical workforce 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 the newly eligible consumers. The demand for health care services offers opportunities for new entries into this sector to supply needed services, such as retail health clinics, and challenges for policymakers as how to best ensure that the right care at the right time in the right setting by the right type of care provider is available and delivered.

Colorado will face a rapidly increasing demand for health care workers during the next two decades fueled by the state's significantly expanding retiree population and by the more than 900,000 people over 65. In addition, direct care providers, such as nurses—of which an estimated 32% are currently over 55—will transition from providing care to consuming health care during this time period.

The trend of increasing professional workers, such as physicians, registered nurses, and mental health professionals, is expected to continue. An emphasis on expanded primary care will increase job opportunities for physician extenders, including nurses and physician assistants (PAs). But the most dramatic growth is expected in jobs for the frontline workforce. This increase will accelerate the need for continued and sustained investment in the skills and career development of frontline workers by their employers.

Frontline workers are needed to support innovative ways to deliver care as the emphasis shifts to keeping people well rather than taking care of the sick. This includes investing in workers who do not necessarily have a college degree or higher. These frontline workers are critical as they deliver care, such as taking vital signs; enter information into electronic medical records; and help patients with appointments, care coordination, home health, and assisted living.

As the dynamics of the health care industry evolve, all staff, including frontline workers, will need to build and implement essential skills such as teamwork, communication, problem solving, critical thinking, and information know-how. At all levels of the workforce and the entities where they practice, the ability to coach patients to manage their health care, coordinate patient care, and assist consumers of health to navigate the complexities of the health care system will continue. Investment in these efforts will enable the adoption of innovative models of care that provide higher quality at lower costs.

Physician practice patterns are also experiencing a changing landscape reflected by the number of doctors choosing employment (e.g., hospitals) over private practice. This trend has been underway since the early 1990s but has accelerated in recent years. Cost reductions, improved productivity, better quality reporting, greater provider integration, and increased referrals are key objectives in the current wave of hospital-physician alignment.

Last, the shift to consumer-driven health care requires significant investments in information technology and

HEALTH CARE AND SOCIAL ASSISTANCE EMPLOYMENT, 2006–2015
(In Thousands)

Year	Ambulatory Care	Hospitals	Nursing Care	Social Assistance	Total[a]
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	56.5	40.3	42.1	239.9
2012	104.6	57.9	40.8	44.0	247.2
2013	107.1	55.8	41.1	46.9	250.8
2014[b]	112.2	57.3	41.4	49.3	260.2
2015[c]	115.8	59.4	42.2	51.7	269.1

[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.

data interpretation. As the use of business intelligence and analytics enables support for improved health decision making, health care organizations will continue investing in technology. The enhanced use of analytics will improve population health management by allowing the identification of care gaps, and clinical and financial trends.

The Health Care Workforce

Primary care providers—physicians, PAs, and advanced practice registered nurses (APRNs, including nurse practitioners [NPs])—are the foundation of the health care workforce.

Colorado has enough primary care clinicians overall according to a study by the Colorado Health Institute. But a number of rural, mountain, and underserved urban areas are struggling to attract and retain an adequate supply of providers.

About 3,400 primary care physicians are licensed to practice in Colorado, along with 3,200 NPs and approximately 1,000 PAs across all specialty areas. The state's 57,835 registered nurses (RNs) make up the largest part of the health care workforce, supplementing primary care providers and helping to cover gaps in health care delivery.

The need for primary care is accelerating, fueled by demographic shifts and policy decisions. The baby boom generation is becoming the "senior tsunami" as it ages into retirement years. Colorado's 65+ population is anticipated to number 1.3 million by 2030, three times its size in 2000. Moreover, hundreds of thousands of Coloradans are gaining health insurance as a result of the PPACA and Colorado's decision to expand eligibility for the Medicaid public insurance program.

Colorado leaders are working creatively to meet the challenges presented by the growing need for health care. Providers are integrating physical and behavioral health in primary care practices and other locations. Discussions are underway to ensure that the state's providers are allowed to practice in ways that most effectively address the needs of patients. Momentum is building around telehealth, the use of technology to connect providers with patients in new ways.

Physicians

Analyzing data from the Department of Regulatory Affairs, Colorado ranks well in national benchmarks in the ratio of physicians to population, with 14,822 active, licensed physicians across all specialties in 2014, or 267.3 physicians for every 100,000 residents. The national average, according to the American Association of Medical Colleges, is 260.5 physicians for every 100,000 people.

Colorado also has an enviable rate of primary care physicians. For family medicine, internal medicine, general practitioners, and pediatric doctors, the ratio is 94.6 for every 100,000 people, slightly higher than the national rate of 90.1 primary care physicians per 100,000. This translates to an average panel size of 1,873 patients for each full-time primary care physician. Experts view a panel size of 1,900 residents for each full-time primary care physician as reasonable (*Colorado's Primary Care Workforce: A Study of Regional Disparities*, February 2014, Colorado Health Institute).

Like most states, Colorado's primary care physicians are concentrated in urban and resort settings, leaving some rural areas underserved. The number of residents relative to primary care physicians can be nearly four times as high in rural areas as in urban areas. For example, Denver County has 1,348 residents for each full-time practicing primary care physician while rural Cheyenne, Elbert, Kit Carson, and Lincoln counties have 5,636 residents for each full-time primary care physician.

Maintaining a healthy primary care physician workforce is challenging, since many primary care physicians are reaching retirement age and new physicians tend to opt for more lucrative specialties.

Between 2008 and 2013, approximately 100 new primary care physicians began practicing in Colorado. But the percentage of all physicians who deliver primary care decreased from 30.5% to 28%. The Robert Graham Center, which conducts research and analysis in family medicine and primary care, estimates that Colorado will require an additional 1,773 primary care physicians by 2030 compared with the numbers practicing in 2010.

Nurse Practitioners

NPs represent the fastest-growing segment of the primary care workforce, both in Colorado and nationwide. The number of actively licensed NPs in Colorado has increased from 2,433 in 2008 to 3,142 in 2014 while the broader category of APRNs has increased nearly 80% over the past 14 years, from 2,549 in 2000 to 4,572 in 2013.

NPs complete advanced coursework and clinical education beyond the general RN requirements, which qualifies them to diagnose medical ailments, order treatments, provide referrals for medical conditions, and prescribe medications within their scope of practice.

APRNs with a prescriptive authority license more than tripled, from 750 to 2,347, between 2000 and 2013. Prescriptive authority enables APRNs to prescribe drugs, devices, and medical services without a collaborative arrangement with a physician.

Colorado requires APRNs to obtain 3,600 hours of post-graduate prescribing experience under the mentorship of a physician prior to independently prescribing. Colorado's 3,600-hour mandate is higher than the requirements of other states. Among the other Western states that allow independent prescribing by APRNs, New Mexico—where APRNs must complete 400 hours—is the only other state in the region with a post-graduation training mandate. A Colorado state-authorized panel of nurses and physicians is reviewing the requirements and is likely to recommend

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changes, including a reduction in the required number of hours.

The proportion of APRNs who hold a prescriptive license increased consistently between 2000 and 2011, reaching a high of nearly 77% before dropping slightly to 73.4% in 2013. On average, the state grants 161 new prescriptive authority licenses to APRNs every year.

Physician Assistants

PAs make up a smaller but important segment of the health care workforce. Colorado has 2,411 PAs licensed to practice, and the number is growing. These professionals are supervised by a physician, provide some of the same services as physicians, but are paid less, which has implications for lowering costs across health care delivery systems (*Healthy Economy, Healthy Colorado: A Strategic Plan for Colorado's Health and Wellness Industry*, December 2013, Colorado Health Institute).

The ratio of PA full-time equivalents (FTEs) to physician FTEs is relatively high. While there is some regional variation, the ratio of one PA (or NP) for every two full-time primary care physicians is almost uniform across the state. Every region in Colorado has at least one PA or NP providing care for every four primary care physicians.

Registered Nurses

Colorado has 57,835 RNs, or 108 RNs for each 100,000 residents. Registered nurses make up the highest proportion of health care professionals in the state. However, the current population of RNs is aging. According to a study by Nursing Solutions, Inc., an estimated 32% of Colorado's RNs are at least 55, approaching retirement in the next decade. The Colorado Department of Labor and Employment projects the need for an additional 13,327 RNs by 2023.

Other Health Care Providers

The number of Colorado seniors age 65 and older is projected to increase more than 60% between 2010 and 2020—a growth rate that is expected to continue for decades. Many seniors will develop disabilities and chronic conditions, with 70% needing long-term services and supports (LTSS) at some point (*Community Living Advisory Group Report – Final Recommendations*, Community Living Advisory Group, September 2014, Colorado Department of Health Care Policy and Financing).

This trend points to a need for more LTSS direct care providers, including medical assistants, nursing assistants, home health aides, and personal care aides.

The Paraprofessional Healthcare Institute estimates approximately 46,793 people are in Colorado's direct care workforce, employed either in home, community-based, or residential care settings. To meet demand for LTSS, the number of workers in 2020 will need to be 30% higher than the 2010 workforce nationally. This growth has already begun, but the huge demand for direct care workers expected over the next few years presents recruitment and retention challenges, particularly since many of these jobs are low paying. Nursing assistants, medical assistants, and personal care aides often earn just a few dollars above the state minimum wage in Colorado.

Oral Health Care Providers

Colorado has 3,880 licensed dentists, but only one in three private practice dentists accepts Medicaid insurance, largely because of low payment rates and administrative requirements. This has implications for the state's 1.2 million Medicaid clients, who now have dental benefits.

Colorado's dentists are supported by other oral health workers, including hygienists, dental assistants, and nondental providers. Colorado's 3,566 registered dental hygienists can provide preventive services without the supervision of a dentist. This ability to practice independently enables dental hygienists to perform a range of services, including the application of dental sealants and topical fluorides, increasing access to preventive oral health care in a cost-effective manner. Colorado is looking for other opportunities to increase access to dental services by integrating oral and physical health, including sharing locations and creating community-centered preventive services.

Dental assistants support the oral health workforce under dentist supervision. Because they are unlicensed, there is little data on how many work in Colorado. Furthermore, nondental providers, such as primary care providers with additional dental training, provide preventative oral health services.

Mental Health Workers

Colorado's behavioral health workforce has grown in recent years. The number of psychologists increased from 1,957 in 2008 to 2,357 in 2014 while the rate relative to the population remained steady, with four psychologists per 100,000 Colorado residents. The number of clinical social workers rose from 3,251 in 2008 to 3,926 in 2014 while the rate remained consistent at 7 per 100,000 residents. Modest growth has been recorded in other behavioral health occupations, including psychiatrists, licensed marriage and family therapists, licensed professional counselors, and licensed or certified addiction counselors.

Even so, there is unfilled demand for behavioral health practitioners, particularly psychiatrists and other prescribers; specialists who focus on children, minorities, and non-English speakers; and behavioral health practitioners who serve in rural settings. A large segment of behavioral health practitioners in Colorado are not trained in substance use disorder, and few practitioners are familiar with the specific requirements for children's mental health interventions. A survey of school-based health centers conducted by the Colorado Health Institute in 2013 found a need for expanded behavioral health services in Colorado schools.

Integration of Physical and Behavioral Health

In an effort to make behavioral health services widely available, Colorado is focused on integrating behavioral and physical health, with an emphasis on caring for the whole person. In a bid for federal funding to help accelerate this vision, Colorado has applied for a State Innovation Model (SIM) grant. The goal is to improve the health of Coloradans by providing access to integrated primary care and behavioral health services in coordinated community systems. These systems will have value-based payment structures and will be available to 80% of the state's residents by the year 2019.

Rural Health Workforce

Statewide data indicating a generally adequate health care workforce mask the need for more providers in rural or underserved urban areas. Nine regions of the state lack adequate primary care capacity according to a Colorado Health Institute study, which estimates that these nine regions collectively require an additional 258 full-time primary care physicians to bring the ratio of primary care physicians to residents down to the accepted patient panel benchmark of 1,900:1.

Hospitals and Community Health Clinics

The Colorado Hospital Association (CHA) reports there are more than 100 hospitals and health systems in Colorado offering a wide range of services. More than half of Colorado's hospitals are in rural or "frontier" counties. In 13 of Colorado's 64 counties, health care sector employment, mostly driven by hospitals, ranges from one in six jobs to one in four jobs.

- Colorado hospitals provide care to more than 555,000 inpatients and 9 million outpatients each year.
- Colorado hospitals are major economic and employment contributors to the state, injecting more than $18 billion into the economy each year.
- Colorado hospitals provide jobs and benefits for more than 85,000 Colorado workers.

A recent report from the Colorado Hospital Association (CHA) titled *Examining the Impacts of Hospitals on the Colorado Economy* found the following:

- Colorado hospitals contributed $18.8 billion to the Colorado economy in 2010, which includes calculations for compensation, facilities, spin-off jobs, and other parameters. This figure represents 4.2% of the state's entire economic output.
- Colorado hospitals directly employed 71,700 people in 2010, and spending by both hospitals and their employees helped create another 61,400 Colorado jobs. In rural parts of the state, hospitals are often the largest employers in communities.
- During the recent recession (2007–09), Colorado's hospitals did not experience the job losses that affected many other industries.
- Average annual employee compensation at Colorado hospitals is fair and competitive.
- Hospitals provide a variety of stable job opportunities to workers regardless of education level—from physicians with graduate degrees and advanced training to service and maintenance workers with high school diplomas.

CHA's Center for Health Information and Data Analytics released a study in June 2014 that shows hospitals in states that chose to expand Medicaid under the PPACA saw significantly more Medicaid patients and a related reduction in self-pay and charity care cases, whereas hospitals in states that chose not to expand Medicaid experienced no changes outside normal variation in Medicaid volume or self-pay and charity care cases.

Colorado's Safety Net Centers

As of 2014, 10 of Colorado's community health centers have received PPACA New Access Point grants that support new sites that operate full time providing comprehensive primary care services, oral health care, and behavioral health care to underserved and vulnerable populations. Coloradans most likely to use the safety net are low-income, uninsured, or underinsured, as well as those with public health insurance. While some Colorado communities have multiple safety net clinics, others have none.

Individual Market (Connect for Health Colorado)

Colorado's uninsured rate has dropped an estimated 7.5%, from 16.5% before the 2014 PPACA open enrollment period to 9% after open enrollment (John S. Kiernan, Evolution Finance, Inc.; data compiled from the Kaiser Family Foundation, the Centers for Medicare and Medicaid Services, the Department of Health and Human Services, and the U.S. Census Bureau). Colorado's uninsured rate is below the national average, which a Gallup-Healthways poll and the Urban Institute's Health Reform Monitoring Survey place in the 13 to 15% range. The decline in Colorado's uninsured rate is attributable to enrollment in qualified health plans and the state's decision to expand Medicaid.

At the beginning of the open enrollment period, the Kaiser Family Foundation estimated Connect for Health's market size to include 501,000 Coloradans. Based on that estimate, 29% of eligible consumers took advantage of the state marketplace.

Experts anticipate that overall health care insurance premiums will rise a modest 3 to 5% in 2015, on average, slightly higher than the previous year but lower than typical recent increases. The Colorado Division of Insurance (DOI) released the final 2015 approved individual and small group rates. According to the DOI press release, the overall individual and small group market rate increases are expected to be minimal, at approximately 1%. Specifically individual plans are expected to increase by an average of 0.7% while small group plans are expected to receive an average premium increase of 2.5%. Premiums will rise modestly on average while federal subsidies for individual plans will decrease as the benchmark Silver-level plan (second-lowest cost) experienced a reduction in premium price from 2014 levels.

One of the insurers participating in Colorado's marketplace is Colorado Health Insurance Cooperative.

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The nonprofit is a newly formed Consumer Operated and Oriented Plan (CO-OP) (see Centers for Medicare & Medicaid Services, cms.gov, for more information), founded through a $72.3 million federal loan. CO-OPs are intended to increase competition in the individual and small-group insurance markets while providing consumers with affordable, high-quality options. Colorado is one of 22 states that is home to a PPACA CO-OP.

Medicaid Expansion

Colorado opted to increase eligibility for the Medicaid public insurance program as part of the PPACA. With more than 1.2 million Medicaid clients, questions have arisen about whether there are enough providers accepting Medicaid insurance to care for the newly insured Coloradans.

Concerns about the capacity of the Medicaid workforce existed even before the expansion. Approximately one-quarter (24.6%) of Medicaid clients were unable to get an appointment as soon as one was needed compared with 14.3% of those who are commercially insured according to the 2013 Colorado Health Access Survey.

Hospitals in states that chose to expand Medicaid eligibility have reported sustained growth in the proportion of Medicaid volume. Self-pay proportions in these same hospitals has declined over the same time period. Additionally, the proportion and total volume of charges from commercial and other payers in hospitals in expansion states declined.

The vast majority of new Medicaid enrollees in Colorado are adults without dependent children. Medicaid patients being seen in Colorado hospitals are presenting more complicated conditions and thus need more resources. According to the Colorado Health Association, trends are more pronounced, to date, than the national trend, particularly in the decline in commercial charges through quarters 1 and 2 of 2014.

The Colorado Health Institute's Health Access Surveys provide a detailed look at Colorado's health landscape. According to the 2013 survey,

- The most common reason for not having health insurance is that it costs too much.
- A total of 14.3%, or 741,000 Coloradans (1 in 7 residents), do not have health insurance.
- Just over 38% of Coloradans do not have dental insurance.
- Citing cost, 12.3% did not seek needed doctor's care and 19.3% did not seek dental care.
- A total of 46.7% say they have gone without health insurance for more than five years; 10% have never had health insurance.
- Twenty percent of uninsured adults between the ages of 35 and 54 said they do not know how to obtain insurance.

Other Trends

Effect of Rising Health Premiums on Wages and Employment

A broad economic impact for employer labor costs, especially for retail, hospitality, and seasonal workers, is the PPACA-mandated "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. Due to this rule, two divergent scenarios will emerge: either employers will reduce hours for part-time workers and increase the number of persons employed, or they may offer insurance coverage to these workers and employ fewer persons as the cost of labor is now greater. The business impact, not yet understood, varies with each company depending on the size of its workforce, its industry sector, and the type of insurance it has (or does not have) provided in the past.

Health insurance premiums continue to increase faster than wages, impacting both the workers and their employers. Worker contributions increased 81% between 2004 and 2014, growing from $2,661 to $4,823, while employer contributions increased 77% during the same time, rising from $7,289 to $12,011, according to the Kaiser Family Foundation's Employer's Health Benefits 2014 Annual Survey. The survey compares worker and employer contributions to premiums.

The percentage of a premium's cost in Colorado for an individual increased from 13.2% to 17.4% of the average single person's income from 2003 to 2011, according to the most recent data available for Colorado (*State Trends in Premiums and Deductibles, 2003–2011: Eroding Protection and Rising Costs Underscore Need for Action*, the Commonwealth Fund, December 12, 2012).

A growing phenomena is the accelerated increase of employers turning to private exchanges to provide health coverage to their employees. Employer-sponsored insurance covers nearly 149 million people, or 56% of the U.S. non-elderly population. Experts suggest that the private exchange market in 2018 may approach 40 million lives. Characteristics of private exchanges include the offering of their own set of health plans; a PPACA compliant environment; and employers providing employees a fixed amount of money, called *defined contribution*, to spend on health benefits within the exchange. This environment is different from the traditional approach where the employer pays a portion of the employee-selected health plan option. A private exchange enables employers to shift responsibilities to the employee and perhaps cap the amount of its contribution, thereby limiting the employer's risk to rising health care costs. Employees are able to shop in this environment and choose the right type of coverage and benefits specifically for them.

Information Transparency: Colorado All Payer Claims Database

A tenet of health care reform efforts is the ability for consumers of health care to have access to transparent information. Data transparency enables consumers to make informed health care purchasing decisions, along with advancing health system measurement and improvement activities. The Center for Improving Value in Health Care (CIVHC), a not-for-profit private organization, was created to support a Colorado legislatively mandated statewide database that collects claims information from private insurance companies and public payers (e.g., Medicaid).

Price information that is derived from the All Payer Claims Database (APCD) is displayed on the Colorado Medical Price Compare website. Coloradans have access to selected hospital services, and future information releases include comparative information on ambulatory surgery centers, outpatient services, and imaging services. Even though APCD is mandated by the state legislature, it receives no state funding but relies on grant and foundation support. This creates tension between how best to approach future revenue opportunities as consumer-facing online reporting requires significant resource investment for development, implementation, and ongoing maintenance.

Transparency of health information collected through the APCD will enable consumers, health care delivery systems, and payers improve the health of all Coloradans by achieving the Triple Aim of PPACA: better health, better health care, and lower costs.

Pharmacy

Specialty therapeutic drugs are expected to increase their market share in the coming years, with the oncology class increasing to about 14% of market, multiple sclerosis class growing between 4 and 6%, and immunology drugs expanding between 6 and 15% by 2018 (*Informed Trends*, Catamaran, 2014). It will be incumbent upon health care systems and payers to develop strategies to evaluate the scientific evidence of all of these drugs and to evaluate the reliability and the cost-effectiveness of them.

Rising opioid (or prescription painkillers) utilization has both positive and negative implications. Americans who abuse opioids cost the economy through lost workplace productivity, health care treatment, and criminal justice expenses. Prescribed effectively and administered properly, opioids offer significant pain relief. According to the Centers for Disease Control and Prevention, 22,114 deaths occurred relating to pharmaceutical overdose in 2012; a total of 16,007 (72%) involved opioid analgesics.

Medication adherence, or lack thereof, continues to challenge the successful treatment of chronic disease in many patients. It is estimated that 20 to 50% of patients are nonadherent in their medication therapy. According to the IMS Institute for Healthcare Informatics, health care costs incurred from improper and unnecessary use of medicines exceeded $200 billion in 2012.

Oncology drugs agents that received FDA-approved labeling in 2013 specifically target patients and cancer cells. Costs of these agents for 28 days of therapy range from $6,200 to $12,300. Clinics and nonfederal hospitals have experienced increased pharmaceutical spending from 2012–2013. Notable drug expenditures have been recognized for vaccines, including influenza. Drug expenditures are shifting away from clinics and hospitals to outpatient clinics, retail pharmacies, and mail-order pharmacies.

With the upward climb in drug spending and new drug approvals, fewer generics available due to fewer patent expirations, significant changes in national health and medication policies (PPACA, Medicare, and the federal 340B Drug Pricing Program), and increased regulatory scrutiny, the increase in pharmaceutical expenses is anticipated to continue.

Conclusion

Controlling health care costs and finding value in health care continue to be of increasing interest for policymakers as state and national health reform represents a significant advancement in the number of covered lives among uninsured Americans. In 2014, the Colorado General Assembly created a three-year commission to analyze the drivers of the high cost of medical care and to provide recommendations to the governor and legislature on how best to address controlling cost and improving quality.

Having health insurance does not guarantee that an individual will have access to needed health care. Recruitment and retention of the right composition of health care professionals is key in 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. Steering new health care workers into high-need positions presents a special challenge. Potential shortages will require continually reassessing what level of health professional is best suited for particular tasks. It will be important to understand the proper and appropriate roles for the full spectrum of health care workers.

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Leisure and Hospitality

Overview

This report reviews trends in key sectors that are the primary economic drivers for the robust and dynamic tourism sector in Colorado: conventions and meetings, hotels, restaurants, gaming, ski, and outdoor recreation. The analysis reviews the infrastructure, events, and marketing activities that have shaped the industry in 2014 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 Leisure and Hospitality industry accounts for nearly one in eight jobs in Colorado. The industry was one of the first to add jobs following the recession, and 2014 marks five years of consecutive employment growth. Leisure and Hospitality grew by 3.6% in 2013, and the 2014 estimate is on pace for approximately 10,500 more jobs in the sector. Looking forward, the 2015 forecast projects an additional 11,200 jobs, or 3.7% growth. Growth is expected to be moderate in both subsectors. Arts, Entertainment, and Recreation is expected to grow 3.4% in 2014 and 4.1% in 2015 while Accommodation and Food Services will grow by 3.7% each year.

National Trends in the Tourism Industry

At the Travel and Tourism Research Association's annual Travel Outlook Forum held in Atlanta on October 20–22, 2014, Adam Sacks, president of Tourism Economics, reported the U.S. economy will accelerate with GDP increasing moderately in 2015. He sees services and manufacturing growing; labor market dynamics improving; consumers feeling more optimistic with rising wealth, households shedding debt, and earnings rising that support consumer spending; and encouraging leading indicators. The question marks are housing, the increasingly weak global economy, and the significant confidence problem that may be created by Ebola. In 2014, the travel sector significantly outperformed the rest of the economy. For example, room demand growth was 4% while GDP was just over 2%. Typically, these economic markers grow at the same rate. It is expected that 2015 will be a good year for travel but growth will be a little slower than the robust growth recorded in 2014.

Other highlights include:

- Ron Kurtz, president at the American Affluence Research Center, forecasts increased travel spending by affluent travelers.
- The U.S. Department of Commerce, National Travel and Tourism Office, projects strong growth in international travel to the United States through 2019. Visitor volume in 2014 is expected to increase 5.9% and reach 73.9 million visitors. The forecast calls for the nation to see 3.3 to 5.9% annual growth rates in visitor volume over the 2014–2019 timeframe. By 2019 this growth would produce 88.3 million visitors, a 27% increase.

QUOTES FROM THE PAST: 1971

> *"It is estimated that each tourist coming to Colorado by automobile spends $52 in the State… Estimates indicate that each air tourist spends $132 in Colorado."*

LEISURE AND HOSPITALITY EMPLOYMENT
2006–2015
(In Thousands)

Year	Arts, Entertainment, and Recreation	Accommodation	Food Services	Total Accommodation and Food Services[a]	Total Leisure and Hospitality[a]
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	41.0	184.8	225.8	271.4
2012	46.5	41.8	191.4	233.2	279.7
2013	47.1	42.7	200.1	242.7	289.8
2014[b]	48.7	43.5	208.1	251.6	300.3
2015[c]	50.7	44.4	216.4	260.8	311.5

[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.

- The outlook for air travel is impacted by the continued consolidation of U.S. carriers resulting in four carriers accounting for 87% of capacity. A challenge is that airports do not have the capacity to add new carriers and domestic air activity is largely in the low-cost segment. Current capacity has been flat resulting in rising revenues and record profits after decades of losses. It is estimated that domestic capacity in 2015 will increase 2.1% (less than GDP growth) while international capacity is forecast to increase 3.7%.
- The cruise sector will continue to have strong growth. Another 20 ships will join the Cruise Lines International Association (CLIA) global fleet (more than 52,000 beds) between 2015 and 2018.
- Following a great year in 2014, STR's hotel industry 2015 forecast expects supply to grow 1.3%, demand 2.1%, occupancy 0.7%, average daily rate (ADR) 4.4%, and revenue per available room (RevPar) 5.2%. Denver's RevPar is expected to increase by 5 to 10%.

Tourism in Colorado

There are two basic tenets in marketing destinations at the state level. First, it is really difficult to get people to visit places they do not want to go. And second, you can be guaranteed one thing: if you do not invite people, they will not come.

Colorado is in the enviable position of being one of the top "aspirational destinations" in the country, with nearly one in four Americans indicating they were interested in visiting the state in 2013. Colorado is truly a destination that people want to visit. As reported in the *Portrait of American Travelers* (MMGY Global/Harrison Group, 2014), people ranked Colorado high among all 50 states, behind only California (46%), Florida (41%), Hawaii (39%), and New York (29%) when asked, "Where do you want to visit?". Furthermore, this list of top aspirational destinations clearly defines Colorado's competitive set; it is not among other western states but is broader domestically. In fact, the percentages of people indicating that they were interested in visiting other western states include: Washington, Arizona, Nevada (18% each), Oregon (12%), New Mexico (10%), Wyoming and Utah (8% each), and Idaho (6%).

Highlights

With the above indicators in mind, Colorado's tourism industry has experienced three consecutive years of record-setting performance according to Longwoods International's 2013 Colorado Visitor Study. Among the records set are overall visitation, overnight trips, and visitor spending. Total trips in 2013 jumped to 64.6 million, a 7.3% increase over 2012 and the highest total ever reported. Surpassing 30 million for the first time, overnight trips in 2013 were up 5% compared to 2012, totaling 31 million stays. Furthermore, according to *Colorado Travel Impacts Study 1996–2013* conducted by Dean Runyan Associates, visitor spending totaled a record $17.3 billion, up 5% over 2012, with commercial lodging generating about 60% of all spending. In addition, a total of $976 million in state and local taxes were created in 2013 from visitor spending, up 6.3% over 2012, which equates to approximately $497 in tax revenue per household in the state.

In addition, the Colorado Tourism Office's (CTO) marketing efforts have generated the highest number of incremental trips, visitor spending, and return on investment (ROI).

- The 2013 marketing effort generated over 2 million incremental trips and $2.6 billion in visitor spending.
- Every dollar invested returned $344 in visitor spending.
- This equates to approximately a $25/$1 ROI in state and local taxes for each marketing dollar invested.
- These ROI figures represent the highest totals for any of Strategic Marketing Research Insights (SMARI) clients in 2013—and the highest totals the firm has seen in in recent years.

In terms of the future, the CTO will continue all of the same research efforts that have helped shape its marketing campaigns and report results. Anecdotally, informal queries of the industry by CTO board and committee members and others indicate that visitation statewide during summer 2014 surpassed that of 2013.

Challenges

"Inviting people" is the main purpose of any state-level destination marketing program. This positions and maintains Colorado as a preferred vacation destination on consumer "shopping lists," and is accomplished by creating as many "ad aware households" nationally as possible within a given budget. Even with CTO's great success over the past three years, Colorado's marketing campaign reaches only about 37% of domestic households (44 million of 119 million), highlighting the fact that deeper household penetration nationally should be an important goal. However, that will require more marketing resources—including a larger budget.

In fact, Colorado's $17 million marketing budget is dwarfed by those of the other "aspirational states." According to the Survey of U.S. Tourism Office Budgets by the U.S. Travel Association, budget estimates for California, Florida, Hawaii, and New York are $74 million, $75 million, $75 million, and $60 million, respectively. The importance of factoring in Colorado's top ranking as an aspirational destination is driven home by the fact that Michigan, with an annual budget in excess of $30 million and probably the most touted state tourism marketing effort in the past five years, is mentioned as a place they would like to visit by only 8% of people.

The significant difference between these budgets and Colorado's marketing resources could be a major factor in what the *Portrait of American Travelers* terms the *opportunity gap*—the difference between those interested in visiting a state in 2013 and those who actually visited in 2014. Colorado has the second-largest opportunity gap of any of the aspirational destinations. Of the 23% of people saying they were interested in visiting Colorado, only 9% actually visited in 2014. Arguably, Colorado's

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comparatively modest marketing budget, resulting in national household penetration of only 37%, is a major contributor to the state's significant opportunity gap.

Tourism and Conventions in Denver, 2013–14

Denver had its best tourism year ever in 2013, and trends show that 2014 is on pace to exceed records once again.

Marketing and public opinion research firm Longwoods International indicated that in 2013 Denver had a record 14 million overnight visitors, an increase of 3% from 2012. Travel spending grew 12%, to a record $4 billion. Much of the increase was driven by an unprecedented 13% climb in "marketable" visitors—those travelers who could travel anywhere but were convinced to come to Denver by marketing efforts.

Denver set a new record for lodging tax collections in 2013, with a total of $63.5 million generated, up 9.5% from 2012. Through the end of August 2014, lodger's tax collections in Denver were up 21.9%. Since 2005, when Denver voters approved an increase in the lodger's tax would to go toward tourism marketing, Denver has seen a 48% increase in leisure visitors. Over the same time period, the rest of the nation has seen only a 15% increase in tourism.

Denver also had a very strong year in 2013 for both conventions held and future bookings. A total of 628 meetings came to the city, attracting 385,292 delegates who spent $665 million. In terms of future bookings, 2013 was the fourth-best year, with 674 definite meetings added to the books, representing 397,277 attendees and $681 million in future spending.

Helped by a strong convention calendar, great snow in the mountains, a summer free of fires and floods, and two Denver Broncos playoff games in a traditionally slow period, the first three quarters of 2014 were very strong in Denver, with hotel occupancies, average room rate, and revenue per available room (RevPar) all increasing over 2013. Like much of the world's travel industry,

Denver is subject to increased competition and a fluctuating world economy that could impact the industry's performance at any time. Other unknown factors, such as natural disasters and the future potential impact from the full implementation of Amendment 64 (recreational marijuana), can also have an unexpected impact. However, Denver is experiencing an unprecedented period of great tourism growth.

Highlights

Some of the top Denver convention and tourism industry stories for 2013–14 include:

- The city's tourism product continues to expand. The 230-room Marriott Renaissance City Center opened in May 2014, and was followed by the 112-room Crawford at Denver Union Station in July 2014.
- A feasibility study conducted by Strategic Advisory Group (SAG) also found that Denver continues to have an excellent reputation as a convention destination and that the Colorado Convention Center is being booked to near capacity. The study made four recommendations to sustain this level of activity for the next 25 years. Those recommendations will be discussed later in this report.

- New exhibitions, such as Maya: Hidden Worlds Revealed at the Denver Museum of Nature & Science, Chihuly at Denver Botanic Gardens, and Brilliant: Cartier in the 20th Century at the Denver Art Museum, all help increase tourist visits as did major sporting events such as the 2014 World Lacrosse Championships and the 2014 BMW Championship golf tournament.
- Denver International Airport (DIA) continues to set records with nearly 52.6 million passengers using the facility in 2013—the sixth-consecutive year with more than 50 million passengers. DIA continues to add international routes, including a new direct flight to Panama City, Panama, beginning in December 2014 that follows the successful introduction of recent new international nonstops to Iceland, Tokyo, and Mexico City.
- Other enhancements to the Denver tourism infrastructure and appeal in 2014 include:
  - The billion-dollar restoration of Union Station, and its transformation into a transportation, retail, dining and entertainment center, helps to further revitalize Lower Downtown while becoming a major tourism attraction in its own right. In 2016, Union Station will become the grand portal into Denver with the opening of commuter rail service to DIA.
  - Denver's continues to be a leader in repurposing old buildings, like transforming the Colorado National Bank building into the Renaissance Hotel and converting an old iron works building into The Source.
  - The addition of the Rooftop in 2014 in Coors Field was an immediately successful outdoor bar capable of holding 4,000 fans.
  - Denver's convention facilities received outstanding reviews in the both the 2014 Watkins and 2013 DestinationMAP (D-MAP) national studies of meeting planners. Both studies clearly place Denver as one of the top 10 convention destinations in the nation, served by one of the top 10 convention bureaus.

Challenges

At the same time Denver is enjoying these successes, competition for tourism and convention business is increasing. New convention facilities were recently completed or just announced for Nashville, Seattle, Boston, Los Angeles, Anaheim, and San Antonio while the demand for meetings has remained essentially flat.

- The SAG Feasibility Study concluded that to be competitive in the future, all of the facilities at the National Western Stock Show Complex will need to be replaced. It also concluded that to stay competitive, the Colorado Convention Center will need refurbishment, possibly including a new 50,000-square foot ballroom, an additional 25,000 square feet of meeting rooms, and improved high-tech capabilities.
- Denver continues to add small, luxury boutique hotels downtown that add rooms and character to the hotel package but do not necessarily add room blocks for citywide conventions. This was a principal observation of the SAG Feasibility Study, which suggested that future hotel development be located as close to the Colorado Convention Center as possible.
- Denver's sports facilities are aging. Coors Field is the fourth-oldest baseball stadium in its league, and the Pepsi Center dates back to 1999.
- The sale of retail marijuana started on January 1, 2014. This was the first time that any city in the world had offered recreational marijuana for legal sale to anyone over 21. It is inconclusive at this time what impact, if any, the legalization of marijuana will have on Denver's tourism and convention image. However, the city and state have received great praise for the way in which the rollout and new laws were implemented.

DENVER HOTEL SUPPLY
2007–2015
(In Thousands)

Year	Rooms Available	New Rooms Added	Room Nights Available	Supply Growth
2007	39,276	1,085	14,137,000	2.5%
2008	39,997	721	14,467,000	2.3
2009	40,320	323	14,658,000	1.3
2010	41,006	686	14,842,000	1.3
2011	41,768	762	15,107,000	1.8
2012	42,206	435	15,325,000	1.4
2013	42,956	750	15,542,000	1.4
2014[a]	44,231	1,275	15,912,000	2.4
2015[b]	45,581	1,367	16,395,000	3.0

[a]Estimated. [b]Forecast.

Sources: Robert Benton, ISHC President, Trends in the Denver Metropolitan Area Lodging Market.

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All conventions that have met in Denver since legalization occurred have declared it a nonissue. In fact, some convention groups have found legalization a bonus to their meeting, leading to discussions on this subject.

- Traditional media continues to fragment, making the job of promoting Denver in the press that much more challenging. There are now more than 10,000 travel blogs and 50 million travel videos on YouTube, along with a variety of social media channels.

Denver Hotel Supply

New and under construction hotels continue to add to Denver's lodging package for leisure and convention visitors.

Recently opened:

- The 230-room Marriott Renaissance Denver City Center opened in the May 2014 in the historic Colorado National Bank Building.
- The 112-room Crawford Hotel opened in Union Station in July 2014. The hotel shares meeting space and a spa with the Oxford Hotel across the street.

Under construction:

- A 150-room Aloft Hotel is under construction in downtown Denver one block from the convention center and is scheduled to open in November 2014.
- The 165-room ART Hotel will open in February 2015 next to the Denver Art Museum and will feature its own art collection and curator.
- A dual-brand HYATT House/Hyatt Place with a combined 346 rooms will open at 14th and Glenarm in 2015.
- A 200-room Kimpton is under construction adjacent to Union Station.
- The 500-room Westin Hotel at DIA will open in 2015.

DENVER HOTEL REVENUE
2009–2015
(In Thousands)

Year	Occupancy Rate	Percent Change	Average Daily Rate	Percent Change	Revenue per Available Room	Percent Change
2009	57.5%	-8.5%	$93.22	-12.0%	$53.58	-19.5%
2010	62.7	9.2	94.24	1.1	59.13	10.4
2011	65.2	4.0	97.50	3.5	63.60	7.6
2012	66.9	2.6	100.42	3.0	67.23	5.7
2013	70.8	5.7	103.15	2.7	73.01	8.6
2014[a]	72.6	2.5	110.23	6.9	79.98	9.6
2015[b]	73.9	1.8	118.39	7.4	87.48	9.4

[a]Estimated. [b]Forecast.

Source: PKF Hospitality Research LLC June-August 2014.

Denver Transportation

Denver International Airport

DIA remains the 5th-busiest airport in the United States and 15th busiest in the world, with nearly 1,600 daily nonstops to more than 180 worldwide destinations. It serves the second-most domestic destinations of any U.S. airport. Air traffic at DIA was down slightly in 2013, serving nearly 52.6 million passengers, the sixth-consecutive year with more than 50 million passengers. DIA set a record for the busiest April in its 19-year history in April 2014. The number of passengers traveling on international flights increased by 24% from April 2013 to April 2014. International passenger counts have continued to show steady growth at DIA as overall international traffic increased 23% through the first four months of 2014 compared to the same timeframe in 2013.

DIA is actively working to increase international air service. Denver currently enjoys nonstop service to Canada and Mexico/Central America, as well as daily flights to London, Frankfurt, and Reykjavík, Iceland, and Tokyo. A new nonstop to Panama City, Panama, launches in December 2014.

Regional Transportation District

FasTracks is a multibillion dollar transit plan to build 122 miles of new commuter rail and light rail, 18 miles of bus rapid transit, and 21,000 new parking spaces at light rail and bus stations. Downtown Denver's Union Station will become a hub for rail lines that will branch out to all parts of the metro region. Currently, RTD has 81 miles of rail and bus rapid transit in, or soon-to-be-in, construction, and has invested $4.7 billion in the region.

Current progress includes:

- The East Rail Line is a 22.8-mile commuter rail transit corridor between Denver's Union Station and DIA is under construction, scheduled for completion in 2016. It will take 35 minutes to get from the airport to the revitalized Union Station terminal.
- Work has also begun on the Gold Line to Arvada and Wheat Ridge, the first segment of the Northwest Rail Line to south Westminster, the I-225 Line through Aurora, and the U.S. 36 Express Lanes partnership between RTD and the Colorado Department of Transportation.

Skiing Industry

According to the National Ski Areas Association (NSAA), the United States recorded 56.2 million downhill skier and snowboarder visits during the 2013–14 season, down from 56.6 million visits during the 2012–13 season, primarily because of a lack of snow in California and the Pacific Northwest.

By contrast, Colorado's 25 major ski areas vaulted to a record 12.6 million skier/snowboarder visits in the 2013–14 winter season. Visits were up 10.3% from the drought-impacted 2012–13 season, and were up 0.5% from the previous record in the 2006–07 season. Colorado resorts benefited from good, consistent snow conditions, as well as a steadily improving state and national economy and robust travel sector generally. Strong season pass sales, a distinct snow advantage relative to the West Coast (that experienced unusually poor snow in winter 2013–14), and excitement regarding the 2014 Olympics, among other factors, likely contributed to the gains. Visits were up among both in-state visitors and the economically important out-of-state/international visitor segment.

Colorado continued to maintain its dominance as the leading skiing destination in the United States in 2013–14, capturing 22.4% of total U.S. resort skier visits, far ahead of the next closest state (California, at an unusually low 7.9% share, impacted by poor snow). Colorado was home to 8 of the country's 10 most-visited ski resorts in 2013–14, and has 11 of the 20 top-rated ski resorts in western North America (as ranked by the 2015 *SKI Magazine Resort Guide*).

The Colorado ski industry, like the North American resort industry generally, has been characterized by relatively flat to modest visitation growth over the past 10 seasons, with snow conditions and the economy having an important influence on visits and revenues year-to-year. While Colorado maintains a preeminent position within the skiing industry, competition from ski resorts in other states and from other vacation and leisure options continues to intensify, as do concerns about congestion and travel delays along the I-70 corridor.

With record visitation in 2013–14, Colorado resorts have strong momentum going into the 2014–15 ski season. Additionally, resorts are likely to benefit from a relatively strong, improving macroeconomic environment (an important influence on visitation, visitor mix, and spend per visitor). Early indicators of business volumes are favorable, including announcements of strong preseason pass sales from leading ski resort companies, and strong lodging bookings for the upcoming winter as reported by the lodging tracking firm DestiMetrics. Weather remains less predictable as the National Oceanic and Atmospheric Administration's October 16, 2014, climate outlook anticipates that a large part of Colorado has "equal chances" for above-, near-, and below-normal precipitation and temperatures for the December 2014–February 2015 period (i.e., current climate signals are not strong enough to make a prediction of likely trends). It is also unclear if Colorado will enjoy a snow/weather advantage or disadvantage relative to its competitors, such as Utah, California, and Wyoming.

Not only was skier traffic high in the winter of 2013–14 but visitors spent more than ever. Taxable sales and sales tax revenues from resort communities like Steamboat Springs, Vail, Aspen, Breckenridge, Crested Butte,

COLORADO SKIER VISITS
2005–2014
(In Millions)

Season	Total
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	11.01
2012-13	11.45
2013-14[a]	12.60

[a]Revised.

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

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Telluride, and Winter Park all climbed between November 2013 and March 2014. For most resort communities, the 2013–14 winter surpassed previous records set in the pre-recession 2006–07 and 2007–08 seasons.

- Aspen taxable sales for the 2013–14 winter climbed 9% over 2012–13 and 8.1% over the previous highpoint set in 2007–08.
- Breckenridge enjoyed an 11.1% increase in taxable sales in the winter of 2013–14 over 2012–13, its previous record for in-town spending.
- Crested Butte saw a 6.5% increase in taxable sales for the 2013–14 season and also surpassed its 2007–08 highpoint by 7.6%.
- Steamboat Springs' taxable sales climbed 7.8% in the winter of 2013–14 over the previous season, but remained 5.7% below the city's all-time highest taxable sales mark in 2007–08.
- Telluride saw a whopping 21.1% increase in taxable sales for the 2013–14 ski season, setting a record.
- Vail's taxable sales climbed 5.2% during the 2013–14 ski season, setting a new high.
- Winter Park also set a record for the 2013–14 season, with taxable sales increasing 3.2%.

Assuming that Colorado experiences average (or even slightly subpar) snow and weather conditions, Colorado's ski resorts and related businesses should be poised for another strong performance in the 2014–15 season, particularly from a revenues standpoint, given the favorable economic conditions and early momentum. With a positive or very positive snow season, Colorado could be positioned to break its visitation record for a second straight season.

Summer Tourism in Ski Towns

Most ski towns heralded the 2013–14 ski season as a record, and the summer of 2014 in the high country was pacing for best-ever status through August. With increased summer activity at ski areas and aggressive marketing by resort communities, most of Colorado's high country celebrated record summer traffic and spending in 2014. The 2011 Ski Area Recreational Opportunity Enhancement Act, which amends the National Forest Ski Area Permit Act of 1986 to allow for more recreational uses on public land, is expected to lead to additional summer growth as resorts pursue new opportunities under the act.

Aspen, Crested Butte, Glenwood Springs, Breckenridge, Frisco, Snowmass Village, Steamboat Springs, Telluride, Vail, and Winter Park all saw taxable sales grow in June, July, and August. Pending September revenues, most of those towns will mark 2014 as the busiest summer in their community's history. Through August 2014, those 10 mountain communities were collectively pacing 8.6% ahead of the same eight months through 2013.

Mountain Lodging

Colorado's mountain destination resort communities experienced continued long-term recovery and growth over the course of 2014, with both winter and summer months maintaining patterns that have been apparent for several years now. Destination marketing organizations, town governments, and mountain operators have deftly adapted lessons from the recession to the current, more robust marketplace, attracting guests with value-add propositions while maintaining steady growth in room and retail rates. While winter season remains the driving force behind overall revenue in the mountains, with lodging rates 50 – 300% higher than during summer months, summer is the season of opportunity, and Colorado resorts are now wrapping up their third consecutive record-breaking summer in terms of both occupancy and revenue.

Overall, aggregate room occupancy at 13 Colorado mountain resort towns for 2014, including the projected October–December data, is gaining 7.1% compared to the same period in 2013 and is expected to finish up approximately 7.5% by New Year's Eve. Occupancy will gain in all 12 months in 2014, with double-digit increases in five of those months. Revenue during this same period is also growing by a more dramatic 13.6%, with double-digit gains in an impressive 11 of 12 months. Revenue will finish 2014 up approximately 13.9%.

While the economic recovery is certainly playing a part in the successes at mountain destination resorts, weather is the trump card that makes or breaks the revenue-intensive winter season. Good snowfall in the Rockies in November 2013 through April 2014 attracted not only the faithful locals and usual long-distance visitation, but was likely also supported by bleed from the Far West resorts, which continue to suffer through poor snow conditions due to the ongoing drought.

The summer months of May to October, though less impacted by weather, benefited from an absence of high-exposure wildfires and floods in 2014. But the primary benefit continues to come from a renewed focus on summer visitation by the marketers charged with attracting guests to their communities. "Destination magnets," such as special events of both a participatory and spectator nature, are attracting record visitation and overnight stays during this season and presenting the ski industry with the welcome challenge of adapting to a new season.

The year 2015 holds many promises for mountain destinations, not least of which is the promise of their ongoing dependency on the weather that ultimately defines the high-revenue winter product. While mountain towns have become adept at branding themselves outside of their traditional market, and as a result attracting visitation irrespective of snowfall, revenue gains will undeniably be won on the back of good snow. Assuming all things being equal meteorologically, the winter months are expected to gain moderately from 2014, particularly if snow comes early. Summer 2015 will see the ongoing maturation of the warm-weather product as communities refine their approach to summer. Additionally, newly relaxed regulations from the U.S. Forest Service around how mountains resorts can use the land on which they reside during non-ski months, are presenting a wide variety of options to drive summer visitation from May–October that did not exist before. With three consecutive years of record-setting summers behind us, it feels brash to predict another for 2015, but the opportunity for growth and the attention summer is getting from towns and their marketing organizations leads the Leisure and Hospitality Committee to expect a fourth year of record revenue in 2015, barring a dramatic and sweeping game-changer in either the economy or the environment.

Parks and Outdoor Recreation

Millions of people each year, both residents and out-of-state visitors, take advantage of Colorado's extraordinary outdoor recreation opportunities. Colorado offers the outdoor enthusiast a variety of recreational pursuits including hiking, fishing, birding, camping, climbing, hunting, mountain biking, motorized trails, boating and skiing to name a few.

Outdoor recreation represents a significant portion of the Colorado economy. According to Southwick Associates' *The Economic Contributions of Outdoor Recreation in Colorado: A Regional and County-level Analysis*, published in 2014, the total economic output associated with outdoor recreation in Colorado was $34.5 billion, contributing $19.9 billion to Colorado's GDP. This economic activity supports more than 313,000 jobs, representing 13.2% of the entire labor force in Colorado, and produces $12.4 billion in salaries and wages. Most (75%) of the outdoor recreation in the state takes place in the North Central, Metro, and Northwest regions of Colorado (2014 SCORP [Colorado Statewide Comprehensive Outdoor Recreation Plan], Colorado Parks and Wildlife).

OUTDOOR RECREATION ECONOMIC IMPACT 2014

Year	Total Economic Output[a] (Millions)	Jobs
All Outdoor Recreation Activities	$34,515	313,000
Fishing	1,916	16,413
Hunting	919	10,882
Wildlife Watching	2,280	19,541

[a]This includes all direct and indirect/induced impacts.

Source: Southwick Associates, *The Economic Contributions of Outdoor Recreation in Colorado: A Regional and County-level Analysis,* 2014.

Public land constitutes more than 45% of Colorado and accounts for the majority of outdoor recreation. The Colorado Division of Parks and Wildlife (CPW) manages 42 state parks, over 300 state wildlife areas, and more than 900 species of wildlife; stocks millions of fish; and registers thousands of boats, snowmobiles, and off-highway vehicles. This is done without any general fund tax dollars.

State parks receive almost 12 million visitors per year. In Colorado, the National Park Service manages four

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COLORADO PUBLIC LAND VISITS
2006–2015
(In Thousands)

	2006	2007	2008	2009	2010	2011	2012	2013	2014[a]	2015[b]
Colorado State Parks[c]	11,400.0	11,300.0	11,800.0	12,000.0	12,300.0	12,300.0	12,200.0	11,500.0	11,900.0	12,233.3
National Parks and Sites										
Bent's Old Fort NHS	26.5	24.0	25.0	28.1	29.1	26.8	25.8	23.3	22.2	23.9
Sand Creek Massacre NHS[d]					4.1	3.9	4.4	4.8	5.6	5.7
Black Canyon of the Gunnison NP	160.5	219.6	160.2	171.5	176.3	168.3	192.6	175.9	182.0	179.2
Colorado NM	332.7	395.3	391.0	400.3	433.6	435.5	454.5	409.4	397.3	448.1
Curecanti NRA	936.4	964.6	1,007.4	953.2	969.5	924.5	862.6	814.2	898.9	873.0
Dinosaur NM[e]	206.1	170.9	149.3	150.9	146.4	158.0	224.1	203.1	190.0	172.4
Florissant Fossil Beds NM	56.1	56.0	57.0	64.3	65.4	61.3	62.6	58.0	58.1	61.4
Great Sand Dunes NP	258.7	285.1	273.9	290.0	283.3	280.1	254.7	242.8	250.6	255.9
Hovenweep NM[e]	11.6	11.6	11.2	12.3	12.1	11.4	11.7	11.0	11.4	11.4
Mesa Verde NP	557.2	541.1	551.4	550.4	559.7	572.3	488.9	460.2	477.7	490.6
Rocky Mountain NP	2,743.7	2,895.4	2,757.4	2,822.3	2,955.8	3,176.9	3,229.6	2,991.1	3,343.2	3,294.6
Total Visitors to Parks and Sites	5,289.5	5,563.6	5,383.8	5,443.3	5,635.3	5,819.0	5,811.5	5,393.8	5,837.0	5,816.2
Bureau of Land Management	5,775.0	5,516.0	6,000.0	5,576.0	6,448.0	6,844.0	7,310.0	6,963.0	7,290.0	7,499.7
National Forest[f]	24,000.0	24,000.0	24,000.0	24,000.0	27,000.0	27,000.0	27,000.0	27,000.0	27,000.0	27,000.0
Total Public Land Visitation[g]	51,754.0	51,943.2	52,567.6	52,462.6	57,018.6	57,782.0	58,133.2	56,250.4	57,863.9	58,365.5

[a]Estimated. [b]Forecast. [c]42 state parks managed by Colorado Parks and Wildlife. [d]Sand Creek Massacre NHS was dedicated as an official park unit in April 2007.
[e]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.
[f]Yearly visitor numbers were not available; reported numbers based on limited data.
[g]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.

premier national parks, five national monuments, a national historic site, and a national recreation area. These National Park lands receive more than 5.5 million visitors per year. Additionally, Bureau of Land Management lands record 7 million visitors a year, and Forest Service lands receive more than 25 million visitors per year (skiing accounts for 8.5 million visits), with the White River National Forest accounting for nearly half of all National Forest visits in Colorado.

Wildlife-related recreation continues to be an important part of the state's economy, especially in rural communities, contributing more than $5.1 billion in total economic impact supporting more than 46,000 jobs. Angling remains a popular pastime in Colorado and is often seen as a gateway to other outdoor activities, including boating, hiking, and hunting (SCORP 2014). The number of people fishing has been stable to slightly increasing over the last several years, and the growth rate should continue for 2015. More than 1.1 million people participated in wildlife watching within the state in 2013 (SCORP 2014). Trends show continued growth in wildlife viewing.

Resident and nonresident big game hunters collectively contribute more than $600 million to Colorado's economy annually but hunting in Colorado has been slowly declining for several years. Although this decline follows national trends, the reasons for Colorado's decline are complex. As big game populations reach population objectives, CPW issues fewer licenses. However, the numbers of hunters applying for big game hunting licenses in the annual draw/lottery are increasing slightly, indicating that the demand to hunt in Colorado is greater than the supply.

The outdoor recreation industry will continue to see growth over the next few years. Rocky Mountain National Park will be celebrating its centennial during 2015. The following year, 2016, will see the centennial of the National Park Service as a whole. Both these events should draw increased visitation not only to Rocky Mountain National Park and all National Park System lands but also to Colorado state parks, local parks, open spaces, and public land in general as the outdoors are highlighted and celebrated during the centennial events. As both individuals and families look for affordable and healthy ways to spend their leisure time, the outdoor recreation industry will see an increase in visitor participation.

Casinos

Colorado's casino and gaming industry has had only marginal growth through late 2012 and 2013 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 rebranding and remodeling of several Black Hawk casinos and Ameri-Star's Hotel and Spa. However, 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. Local fires and flooding during 2012 and 2013 in the Manitou Springs and Woodland Park areas adversely impacted travel to Cripple Creek casinos, and during most of the summer months of 2013 road construction along Highway 24 also affected casino visitation. During calendar years 2008–10, the industry experienced an average of $11 million in collective losses. During calendar years 2011–13,

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COLORADO CASINOS
CALENDAR YEAR 2006–2015

			Adjusted Gross Proceeds[a] (In Millions)			
Year	Casinos Open	Devices (Thousands)	Black Hawk	Central City	Cripple Creek	Total[b]
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	40	15.4	559.4	65.7	134.4	759.6
2011	39	14.7	550.8	67.8	131.4	750.1
2012	41	14.9	558.5	74.5	133.1	766.2
2013	40	14.6	553.0	67.5	128.0	748.7
2014[c]	38	14.2	556.3	62.5	133.0	751.8
2015[d]	38	14.2	562.3	64.7	132.0	759.0

[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.

Leisure and Hospitality

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the industry saw a collective net profit of $83.4 million, a jump primarily attributed to the recovery from the recession and growth in the Black Hawk market with the addition of hotel rooms, parking, and other amenities.

Since the industry is taxed on gross revenues rather than net revenues, it 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 continue to receive significant revenues. These gaming tax revenues help bolster budgets and maintain 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 was set by the Joint Budget Committee in 2012 to a fixed amount of $15 million annually rather than a graduated percentage previously.

For the fiscal year (FY) ending June 2014, Colorado casino adjusted gross proceeds (AGP), which is defined as the amount wagered by bettors less payout from the casinos, were $740.6 million and gaming taxes paid to the state were $104.8 million. This reflects a decrease of 2.8% in AGP over FY 2013 AGP of $761.4 million and a slight increase of 0.67% in gaming taxes over the fiscal year 2013 taxes of $104.1 million.

Black Hawk continues to dominate the Colorado casino sector, with 18 casinos, approximately 8,500 gaming devices, and about 73% of the industry's AGP. Cripple Creek has 14 casinos, roughly 3,900 gaming devices, and 18% of AGP, while Central City has 6 casinos, 1,900 devices, and about 9% of AGP.

While the gaming industry experiences a continued recovery from the recession, it remains threatened by continued attempts to expand gaming to the Front Range of Colorado by ballot initiative or other means to allow video lottery terminals, keno machines, or instant racing machines at racetracks and other locations. The industry's annual polling on these types of gaming expansion continues to reflect that 75% of state voters oppose casinos located outside the historic towns of Black Hawk, Central City, and Cripple Creek. During 2012–13, there was a spread of illegal Internet sweepstakes establishments in Colorado that offer slot-machine-type games currently offered in casinos. This expansion of illegal gambling impacted the existing commercial casino market. However, the Colorado attorney general issued an opinion dated October 9, 2014, that deems these establishments illegal without the authorization of a constitutional amendment.

Restaurant Industry

Bolstered by a stronger economy and historically high levels of pent-up demand among consumers, restaurant-industry sales are expected to rise in 2015. According to National Restaurant Association projections, restaurant and foodservice sales in Colorado are expected to surpass $10 billion in 2015, the highest level on record.

According to the Bureau of Labor Statistics, the restaurant industry continues to post broad-based employment gains on the state level, with job growth outpacing the overall economy. Colorado recorded a 6.3% gain in restaurant jobs in 2014, putting the state on pace to register its strongest annual increase in restaurant employment since 1995.

Job growth will continue to be a key driver of restaurant sales growth in 2015, because it not only provides the disposable income necessary to support spending, but also generates the need for convenience that the restaurant industry provides.

Gasoline prices trended lower in the second half of 2014, and the restaurant industry appeared to be among the sectors reaping the benefits as sales trended steadily upward. This boost in consumers' disposable income typically benefits discretionary sectors like restaurants, in which a large proportion of the growth is driven by cash on hand.

Consumers' elevated pent-up demand for restaurants, combined with the economic boost that they will get from a stronger job market and lower gas prices, suggests that the business environment for restaurants should continue to improve in the year ahead.

To keep up with the evolution of consumer palates, restaurant operators continually add new food and beverage items to their menus.

The National Restaurant Association teamed up with the American Culinary Federation for the ninth-straight year to learn what professional chefs expect menu trends to be as presented in the "What's Hot in 2014" culinary forecast. The survey found that local sourcing, environmental sustainability, and children's nutrition remain the top trends, underscoring that these are true trends rather than temporary fads. In fact, sourcing, sustainability, and nutrition have stayed in the top 20 trends for the past five years, which bodes well for Colorado with its abundance of local farms and focus on healthy lifestyle.

Trends that gained the most momentum in 2014's chef survey include nose-to-tail/root-to-stalk cooking, pickling, ramen, dark greens, and Southeast Asian cuisine. On the flipside, Greek yogurt, sweet potato fries, new cuts of meat, grass-fed beef, and organic coffee lost the most ground as hot trends.

Limited-service restaurant operators are reporting overall trends similar to those expected by chefs in "What's Hot in 2014," but with a few differences. While local sourcing and kids' nutrition are in the top trends on both lists, spicy items, "build your own" items, and pretzel bread are unique leading trends in this segment. Gluten-free items again ranked as the No. 1 trend on limited-service menus.

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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 the Other Services Supersector. In 2013, more than 13,000 businesses were classified in Other Services. Industry growth is influenced by the demographics of the population and disposable income. In 2013, Colorado total employment for this supersector was 97,700, a 2% increase from the previous year. The supersector is expected to end 2014 with 99,300 jobs and add another 1,300 in 2015, a 1.3% gain. The improvement is mainly attributable to the increase in demand for personal services and the 2014 midterm elections.

Repair and Maintenance

The Repair and Maintenance Sector encompasses businesses that provide repair and maintenance services for automotive, commercial machinery, electronic equipment, and household goods. The sector has been slowly recovering since the last economic downturn. Businesses within this sector continue to face competition from larger retail firms that offer the same services but are outside this category. For example, the Best Buy Geek Squad offers many of the same tech support and repair services that many of the electronic businesses within this sector also provide. Walmart's automotive division provides many of the same services offered by the automotive businesses classified in Other Services. The sector is expected to end 2014 with 22,611 total jobs, relatively unchanged from the previous year. The plateau is mainly due to an increase in the number of new car sales that do not require as much frequent repair as older vehicles. However, the level of jobs for the Repair and Maintenance Sector will remain high from the continual demand for repair and maintenance for cars purchased during the past few years.

QUOTES FROM THE PAST: 1983

> *"The service industries employed 280,000 people in 1982 and led all other major sectors in terms of new jobs created over the 1972–1982 period."*

Personal and Laundry Services

Industries in the Personal and Laundry Services Sector are vastly diverse. They include 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 in this sector is based on changes in population and income. The sector grew 4.3% in 2014 and is expected to continue to improve in 2015. The increase is from continual demand for personal services, such as pet amenities and salons. In addition, an aging population provides an expanding customer base for many of these services.

OTHER SERVICES EMPLOYMENT, 2006–2015
(In Thousands)

Year	Repair and Maintenance Services	Personal and Laundry Services	Religious, Grantmaking, Civic, Professional, and Similar Organizations	Total
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	21.6	22.6	49.4	93.7
2012	22.0	23.2	50.8	96.0
2013[a]	22.5	24.2	51.1	97.7
2014[b]	22.6	24.8	51.9	99.3
2015[c]	22.6	25.2	52.8	100.6

[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.

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 under this sector. As a result, employment in this sector increases in election years because political campaigns hire more workers. In 2013, the sector added 300 jobs, which is relatively flat growth from the previous year. However, the sector is expected to end 2014 with significant growth due to the 2014 midterm elections The sector will add more than 800 jobs in 2014, a 1.6% increase from the previous year. The sector is expected to continue to grow in 2015 but at a slower pace. Employment growth is expected due to an increase in the number of social advocacy jobs.

Contributors: *Louis Pino, Colorado Legislative Council*
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Government

The Government Supersector includes federal, state, and local workers and is the second-largest provider of jobs in Colorado, representing roughly one in six jobs. Government activities include a variety of services ranging from space research and technology to public safety, program administration, and education.

In 2013, total Government employment in Colorado was 404,200, representing 60% local government (including K–12 education), 27% state government (including higher education), and 13% federal government. Following the Great Recession, Government employment declined 0.2% in 2011, but rose 0.5% in 2012 and increased 2.4% in 2013. Government employment is expected to increase 1.6%, to 410,600, in 2014, then rise 1.1%, to 415,100, in 2015.

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. The combination of long-term fiscal challenges, including the imbalance between spending and revenue, agency consolidations, and sequestration effects, will continue to affect federal employment growth. Furthermore, these challenges are expected to negatively impact many of the state's largest federal government employers, particularly the U.S. Postal Service and the U.S. Department of Defense. State employment is propelled by healthy growth in income and sales taxes. State government employment growth has followed very stable trends over the past decade. As a result, a steady recovery in tax revenues has supported a return to state hiring growth. Counties and many special districts in the state depend heavily on property and sales tax collections. Fiscal conditions for these districts continue to improve as the Great Recession recedes, and several districts have reported higher-than-expected revenue growth. Furthermore, property tax valuations continued to stabilize in 2014; however, the recovery in market values has varied significantly among taxing jurisdictions across the state, and some areas will experience changes in overall assessed valuations and some will not. Therefore, counties and special districts will remain financially cautious as they move into 2015.

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QUOTES FROM THE PAST: 1973

"The increase in government employment the last two years may be best described as stupendous. Government jobs grew by 11,500 in 1971, and by 13,100 in 1972."

GOVERNMENT EMPLOYMENT IN COLORADO
2006–2015
(In Thousands)

Government Sector	2006	2007	2008	2009	2010	2011	2012	2013[a]	2014[b]	2015[c]
Federal	52.2	52.1	52.4	53.5	56.2	54.9	54.6	53.5	52.2	51.5
State	82.5	84.7	87.8	90.7	93.0	95.4	97.6	107.8	110.1	112.2
State General	30.3	31.3	32.4	32.6	32.7	33.2	34.0	42.7	43.6	44.1
State Education	52.2	53.4	55.4	58.1	60.3	62.2	63.6	65.1	66.5	68.1
Local	232.6	237.8	244.0	246.3	244.7	242.6	242.6	242.8	248.3	251.5
Local General	112.8	115.4	118.9	119.2	117.9	116.5	117.2	115.3	117.0	119.2
Local Education	119.8	122.4	125.1	127.1	126.8	126.1	125.4	127.5	131.3	132.2
Government	367.2	374.7	384.1	390.5	393.8	392.9	394.8	404.2	410.6	415.1

[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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Federal Government

Long-term simulations by the Government Accountability Office (GAO) continue to highlight the need to focus attention not only on the federal government's near-term budget outlook but also on its longer term fiscal path. In the near term, deficits are expected to continue to decline from the recent historic highs as the economy recovers. However, long-term fiscal challenges will continue to persist. The GAO's 2014 forecast shows that there remains a fundamental imbalance between spending and revenue that will lead to an unsustainable debt to GDP ratio over the long term, hindering the growth potential of the U.S. economy. The main drivers of spending increases are an aging population and rising health care costs. Although health care costs have increased at a slower rate in recent years, it is unclear if this is a temporary, one-time structural shift in health care delivery and payment systems or a long-term adjustment from increased efficiency and management. If slower cost increases continue, this will contribute to a comprehensive fiscal solution. The long-term growth of the U.S. economy will be determined by the federal government's ability to implement meaningful policy solutions to address these issues. Success will depend on the ability of decision makers to reexamine the structure of federal activities and spending—entitlement programs, other mandatory spending, discretionary spending, revenue, tax reforms, and the budget process.

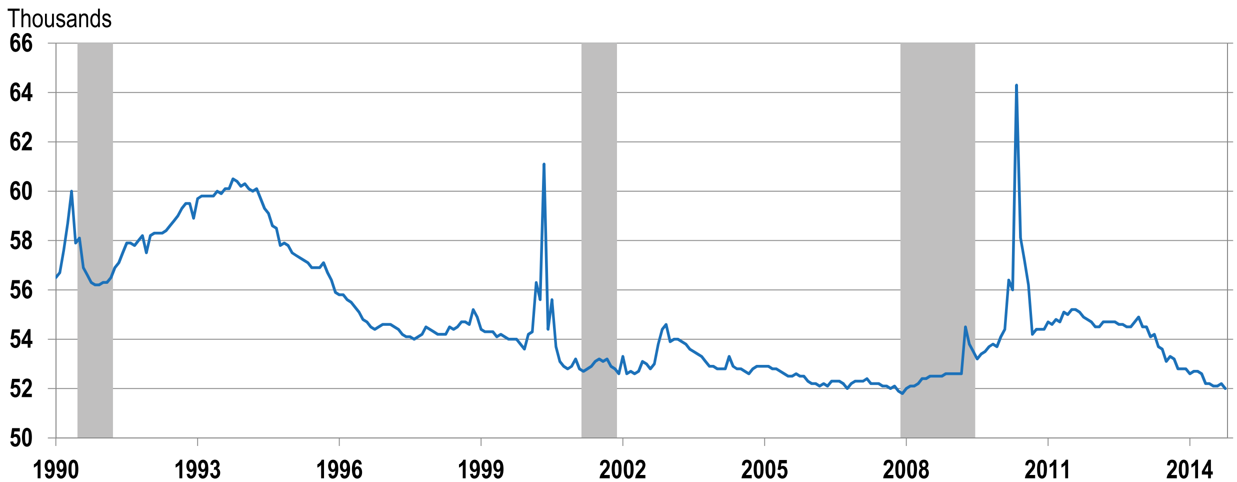
The federal government remains one of Colorado's largest employers. More than 52,000 civilian employees work at over 250 federal field offices, and a diverse mix of Department of Defense (DOD) military installations employs nearly 75,000 personnel from the military, civilian workers, and private contractors, and contracts. The political environment, sequestration that is trickling down to civilian employers, program eliminations, and ongoing agency consolidations will hinder federal employment growth, reduce funding levels for institutions and laboratories, and shrink or eliminate many public programs and services. As a result, federal employment will continue to decline through 2015, with a drop of 1.2%, ending the year with 51,500 jobs.

As of October 1, 2013, the 2011 Budget Control Act requires the federal government reduce spending by $109.3 billion each year from FY 2013 to FY 2021—half from defense programs and half from nondefense spending. Even if sequestration is reversed, federal spending is likely to slow and be closely monitored, at least in the near term.

Due to sequestration, the DOD—the largest federal agency in Colorado—is anticipating a 15% reduction in the military and civilian workforce over the next decade. Although it is trying to absorb the cuts through retirements and attrition, the DOD may have to resort to reductions in the workforce and buyouts. Similar to the DOD, the U.S. Postal Service continues to face significant financial challenges, including shrinking revenues due to declining mail volume. The agency's financial difficulties are partially the product of reduced demand; it has experienced a nearly 22% drop in mail volume during the past decade. As a result, agencies are trimming their hours and reducing or eliminating some services.

Although not immune to sequestration, federally funded science and research centers located in the state continue to generate significant employment and economic impacts. Colorado has 30 federal laboratories—one of the highest concentrations of federally funded science and research centers in the nation. These laboratories employ nearly 7,970 direct workers who earn a total of $787.2 million in wages and benefits and generate over $2.3 billion annual economic impact to Colorado. The labs also contribute greatly to the state's high-tech industries, stimulating significant tech-transfer opportunities for higher education and area companies in critical areas such as renewable energy, space science, and natural resource management.

FEDERAL EMPLOYMENT IN COLORADO, 1990–2014



Sources: Bureau of Labor Statistics, Current Employment Statistics. Data through October 2014. Shading represents recessions.

State Government

State government employment growth in Colorado has followed very stable trends over the past decade, slowing substantially only during the Great Recession as falling tax revenue sharply limited state resources. Since the beginning of Colorado's recovery from the recession, steady recovery in tax revenues has supported a return to state hiring growth. Dramatic growth in state government employment statistics in 2013 was largely the result of a change in the way that certain employees were classified and does not reflect actual state payroll growth.

State government employment for Colorado in 2013 grew substantially, though the large majority of this growth was the result of two large hospital employers moving to the University of Colorado hospital system. Formerly, one of the two was a private hospital system and the other was owned by a local government. The resulting reclassification of the employees at each system caused more than 8,000 employees to be counted under state government employment rather than under other industries as had been the case previously.

In addition to employment growth averaging about 2% since the beginning of Colorado's economic recovery, the State of Colorado has begun to award pay raises to state employees after foregoing wage increases for several years in order to cope with reduced revenue. Average annual pay increases between 1.2% and 3.7% over the past three years have increased earnings by state employees, allowing them to spend more money on goods and services purchased from Colorado businesses.

Although growing state revenues have supported hiring growth since 2011, specific elements of Colorado law restrict the amount of revenue the state can retain and thus will limit the rate of state government hiring in coming years. A unique provision of the Colorado Constitution, referred to as the Taxpayer Bill of Rights (TABOR), specifies a limit on the amount of revenue that can be collected and retained by Colorado governments. The cap on revenue collections is allowed to grow each year by no more than the sum of the rates of Colorado's population growth and inflation. Current revenue forecasts indicate that the state will reach the cap on revenue collections in FY 2016, which suggests a possibility that the cap could be reached even sooner. If the state collects revenue in excess of the cap, it must return the money to taxpayers unless voters give permission to retain it. Such an event will limit the state's ability to maintain the current trend in hiring and thereby limit growth in state government employment beginning in 2015.

State government employment, excluding higher education, is expected to increase 2.1%, with nearly 43,600 jobs in 2014. Growth of 1.1%, to 44,100 jobs, is projected in 2015 as the state faces limitations on hiring due to constraints on the amount of spending growth it is allowed to carry out.

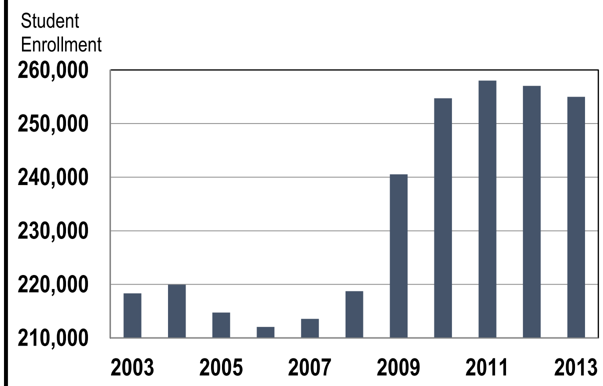
Higher Education

Employment in Colorado's higher education accounts for slightly more than 60% of state government total employment. These workers include both part-time and full-time faculty and nonfaculty staff. Employment in the state's higher education increased 2.4% in 2013, showing modest growth from the prior year. State higher education employment is anticipated to rise 2.2% in 2014 and 2.4% in 2015.

The *Higher Education Employment Report* by HigherEdJobs reported that higher education jobs at the national level have declined for the fourth-consecutive quarter in the second quarter in Q2 2014, though the number of advertised job openings in higher education grew 15.9% from Q2 2013 to Q2 2014. This growth in job postings may indicate that colleges and universities now face more challenges finding qualified staff as the economy improves and creates more opportunities for individuals outside of academia. This factor may explain, in part, Colorado's slowing growth rate in higher education jobs as the state reflects national trends.

Higher education enrollment, a leading indicator of state higher education employment, grew at a rapid rate during the recession as students returned to school. In the fall of 2013, a total of 254,981 students enrolled in public institutions, representing a 0.6% decrease from the prior year. As the cohort of students that had returned to school during the recession graduates, the total number of enrolled students declines. Also, Colorado's improving labor market may result in lower enrollment levels as an increasing number of individuals stay in the labor market rather than return to school.

HIGHER EDUCATION ENROLLMENT LEVELS IN ALL COLORADO PUBLIC INSTITUTIONS, 2003–2013



Source: Colorado Department of Higher Education.

Colorado's higher education system includes 31 public institutions of higher education, 354 private occupational schools, and 103 degree-granting private colleges and religious training institution. The 52,715 degrees or certificates awarded by these institutions during the 2012–13 academic year represented a 6% increase over the prior year. Of the degrees earned, 47% were Bachelor's, 19.2% were Certificates, 16.6% were Associates, and 17.2% were Graduate degrees.

In the fall of 2013, the top 10 declared majors/area of study for degree-seeking undergraduate students

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Government

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included business and marketing, psychology, bioscience, criminal justice and law enforcement, nursing, information technology, kinesiology and exercise science, accounting, English and literature, and fine arts.

Local Government

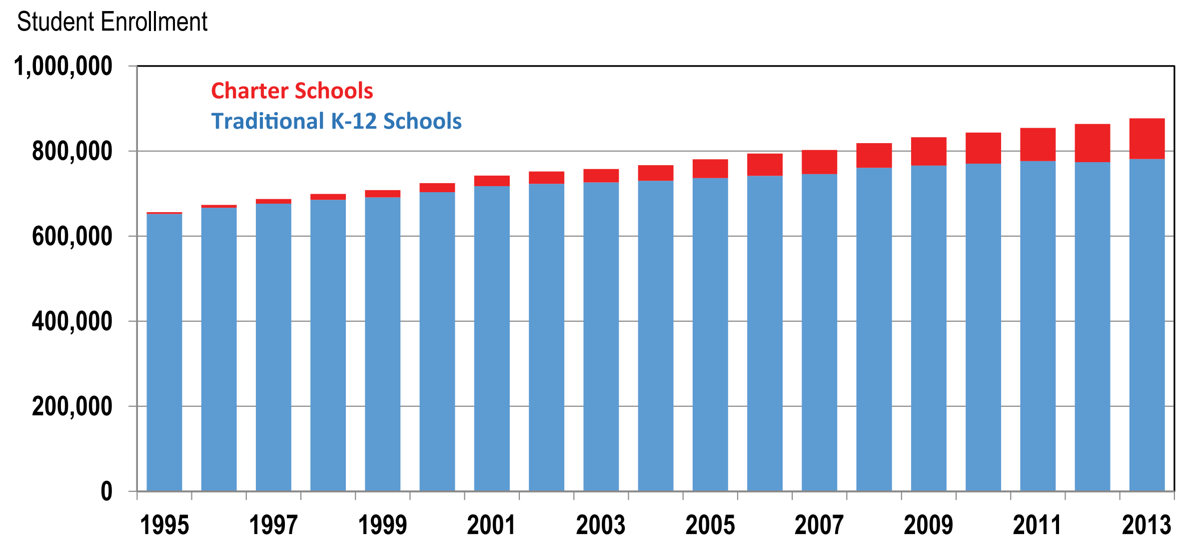
General

Local governments generally derive their revenues from property taxes, sales and use taxes, fees, and intergovernmental sources. 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, providing public safety, serving judicial functions, and regulating land use. State and federal governments transfer various revenues to local governments, such as state-collected highway revenues derived from gas tax and motor vehicle registration fees that are transferred to 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 locally in Colorado through local property and sales and use taxes. Although 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.

In its 2014 report, the National League of Cities stated that fiscal conditions are improving as the Great Recession recedes. It further states, however, that local fiscal health has not yet fully returned to pre-recession levels. The revenue picture for local governments in Colorado has continued to improve in 2014 and in some cases at a faster rate than the national picture. It is expected that some areas of Colorado will have recovered their pre-2008 levels of revenues by the end of 2014. While inflation levels have been low since the recession started in 2008, they have still eroded the buying power enough so that communities cannot purchase the same amount of goods with the same amount of revenue.

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 governmental entities across the state indicate that property tax valuations continued to stabilize during 2014. However, the recovery in market values has varied significantly among taxing jurisdictions across the state. This divergence means that some areas will see increased changes in overall assessed valuations during the next valuation cycle and some will not. Property valuations are done every two years in the odd years. Therefore, the next cycle will begin in May 2015. The 2015 assessed valuation will set the property taxes collected for the following two years. For non-valuation years the assessor's office adjusts the total valuation to account for any prior year sales of property that could change the valuation amount and any new development that has occurred. Therefore, counties and special districts (which usually rely more heavily on property tax as a main source of local income) will remain financially cautious as they move into 2015. Indications point to continued staffing increases in local government, but they will be made cautiously.

PUBLIC SCHOOL ENROLLMENT, 1995–2013



Source: Colorado Department of Education.

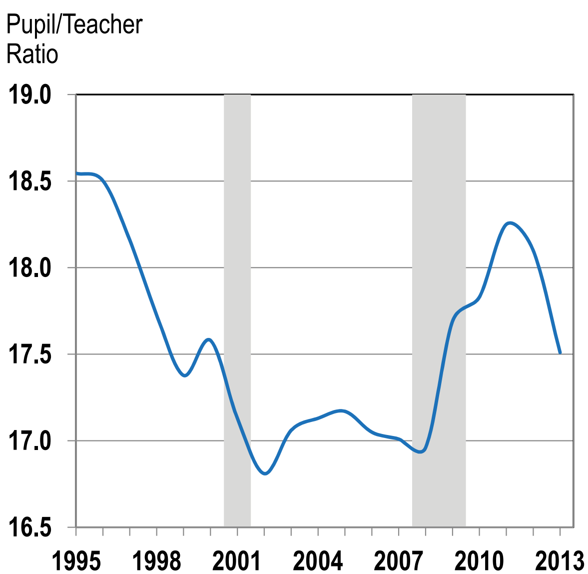
Combining the trends for all agency types and barring any unexpected decline in local revenues, it is projected that local government employment in Colorado, excluding K–12 education, will increase 1.5% in 2014 and 1.9% in 2015.

Education

More than half of local government employees in Colorado are teachers or staff in public K–12 education. Two factors that impact K–12 employment are the number of students and the amount of funding.

The number of K–12 students increased 1.6% between the 2012–13 and the 2013–14 school years, to 876,999 students. These students include attendance at both traditional K–12 and charter schools. Charter schools are semi-autonomous public schools operated by a group of parents, teachers, and/or community members that operate under a contract with the local school board. In the past 10 years, charter school enrollment has increased 161.5% while total public school enrollment has increased 16.4%.

PUPIL/TEACHER FTE RATIO, 1995–2013



Source: Colorado Department of Education.

Local government education services employment decreased in 2010, 2011, and 2012 due to school districts' tight budgets. At the same time, enrollment increased. This led to an increase in the student/teacher ratio for the state as a whole. In the 2011–12 school year, there were 18.25 teachers for each public and charter school student. This was the highest rate since the 1996–97 school year. The student/teacher ratio has declined for the past two years as the economy has improved.

Another factor in determining local government employment growth is the level of funding that is available. In Colorado, two large components of school funding are property taxes and the state general fund. While there are still areas of Colorado that have not recovered from the Great Recession, residential property values are above the peak values reached before the housing bubble. The growing economy is helping to boost nonresidential property values, which contributes to the property tax base. State general fund revenue grew 5.1% between FY 2013 and FY 2014 and is expected to continue to grow over the next several years. General fund revenue is used to pay for the state portion of education funding.

The number of public and charter school students is expected to continue increasing, which means that there will be increased demand for school faculty and staff. An improving revenue outlook will allow school districts the finances to make those hires. As a result of these trends, local government education employment will grow 3% in 2014 and 0.7% in 2015.

In 2014, voters approved the $576.5 million Boulder Valley School District Bond issue 3A—the largest K–12 construction bond issue in the state's history. The measure will allow the district to repair and upgrade all of its 55 schools, including rebuilding three elementary schools and building a new school in Erie. Boulder Valley School District plans to complete all the projects in six to eight years, thereby creating new construction jobs and additional K–12 employment. While Boulder's measure passed, the results were mixed for school district tax increase requests across the state. Voters rejected half the local school funding measures put forth in 2014, totaling nearly $790 million.

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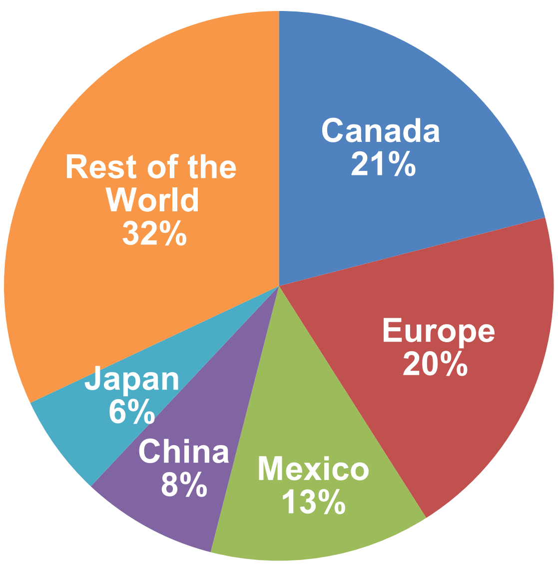
International Trade

Export Performance in 2014

After a record-breaking year in 2013 for Colorado's merchandise and commodities exports, the first seven months of 2014 showed a slight decline. Colorado exports are down 2% over 2013 values and are expected to remain down through the end of 2014, ending the year at a value of approximately $8.4 billion. Overall, U.S. exports are up 3% over 2013 and should continue to strengthen slightly through the remainder of the year, to approximately $1.6 trillion.

Colorado ranks 34th 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. Colorado is in the lower half of national export rankings; its neighboring states are also similarly ranked (Kansas #31, Utah #33, Nebraska #35, New Mexico #45, Wyoming #49). Services, which make up a large portion of Colorado's economy, are not reflected in this ranking. If services were included, Colorado is estimated to rank 22th among U.S. states in total value of exports.

COLORADO EXPORT MARKETS
AUGUST 2014



Source: World Institute for Strategic Economic Research (WISERTrade).

QUOTES FROM THE PAST: 1983

> *"International trade has surged in the last ten years to become one of the fastest growing segments of Colorado's economy. It has increased 449 percent since 1973 to a projected level of $2.4 billion in 1983…."*

North American Free Trade Agreement (NAFTA) partners Canada and Mexico remained Colorado's top export markets in 2014. Exports to Canada have decreased 16% over 2013 values. Beef and pork product exports to Canada are down double digits, but beer exports are up 14,000%, to $18 million. Exports to Mexico have seen a strong increase, 17%, in the first seven months of 2014 compared to 2013. Colorado beef exports to Mexico have grown 43%, making it the largest product or commodity shipped from Colorado to our southern neighbor. Colorado exports to Europe have fallen 5% in 2014 over 2013 and look to remain weak through 2015. Colorado's top European markets for exports in 2014 are the Netherlands, Germany, and the United Kingdom. China and Japan remain important markets for Colorado companies, and exports are growing from the state by 1% and 10%, respectively.

Colorado's product or commodity export strengths in 2014 include electronics, beef, medical and surgical equipment, and engines and motors. Electronic integrated circuits is Colorado's largest export product category and has grown 8% in 2014, with the majority of these products being shipped to Malaysia, the Philippines, and South Korea. Fresh beef and frozen beef remain an important export from Colorado and have grown 7% and 9%, respectively. Demand for Colorado orthopedic appliances, traditionally a top five product export category for Colorado, has declined 44% from 2013.

World Trade and Global Output Forecast

Overall world output showed some moderate growth for 2014 compared to 2013, with output rising to 3.3% from 2013's 3.2% according to the International Monetary Fund (IMF) World Economic Outlook October Update. Forecasts by the IMF expect overall growth to then rise modestly, to 3.8%, in 2015.

Most regions of the world are experiencing degrees of economic difficulty. The overall eurozone is expected to see growth of about 0.8% in 2014 and 1.3% in 2015. The United Kingdom is forecasted to grow by about 2.7% while Germany is on the brink of another recession, the third since 2008. Russia will experience flat growth and may start to decline if sanctions over the Ukraine continue or expand. Other major European countries are expected to grow between 1 and 2% in 2015.

The United States experienced tepid growth in 2013 of about 1.9%, followed by a forecast of slightly better growth of 2.2% for 2014 and 3.1% for 2015. Japan is expected to continue very slow growth, if any, while Canada and other advanced economies are likely to average about 3.2% growth in 2015.

The emerging and developing economies will again outpace the developed world. The IMF projects an overall growth rate for all emerging economies to be about 4.4% in 2015. China, while still forecasted to remain the fastest-growing major country, is expected to grow at an annual rate of 7.1%, down from 7.4% in 2014, 7.6% in

2013, 7.7% in 2012, and 9.3% in 2011. The lower growth rate is primarily due to the slowing of export growth and lower capital spending, and is in contrast to the 10%+ rate of the two previous decades. India's economy is expected to pick up steam again, rising from 5% in 2013 to 5.4% in 2014 and 6.4% in 2015. The ASEAN countries of Thailand, Malaysia, Indonesia, the Philippines, and Vietnam are also expected to grow 5.6% in 2015.

Latin American growth is anticipated to be moderate. Mexico's economy continues to improve, with an expected rate of 2.4% in 2014 and 3.5% in 2015. This represents a large gain from the 2013 rate of just 1.1%. Mexico has undertaken significant reforms over the past year in matters of financial regulation, taxation, antitrust, energy, and telecommunications as part of the broad Pact for Mexico initiated by President Enrique Peña-Nieto. By the end of 2013, the government had passed a number of constitutional reforms intended to encourage foreign investment and more competition, as well as increase the country's tax base. The rest of Latin America is expected to grow in the low 2% range in 2015, although potential growth varies widely across countries. This figure represents a downward revision of almost 0.5%, largely due to uncertainties related to Brazil and Argentina.

Forecasts for the Middle East suggest a growth rate of 4.8% in 2015, up from 2.5% in 2013 and 3.1% for 2014. Sub-Saharan Africa was forecasted to grow by more than 5% in the July 2014 forecast, although that figure could be substantially impacted by the current Ebola epidemic.

While world GDP growth rate forecasts for 2015 are generally unimpressive, world trade volumes are expected to pick up substantially over 2013 and 2014. With trade volume increases of 3.1% in 2013 and an expected 4% in 2014, the forecast of an increase of 5.3% for 2015 is heartening. This increase in trade volume is expected in both the advanced and emerging economies, although the emerging countries are expected to grow much faster (6.4%) in 2015 versus the 4.6% trade volume growth of the advanced economies.

The European sovereign debt and banking crisis still reverberates in the economy. Consumer confidence continues to fall, and austerity programs have contributed to the slow growth rates. The core economies are now hopefully at the bottom and will begin showing some signs of recovery, but it is expected that the recovery will be slow and will be subject to numerous structural and regulatory barriers to a rapid recovery. Unemployment still remains extremely high. The overall EU average unemployment rate is just over 11%, with Greece and Spain still around 25%; France, Italy, Ireland, and many of the Eastern European countries in the 10 to 11% range; the United Kingdom and Germany and most of the other Western European nations in the 6 to 8% range. The high unemployment rates and growing populist movements continue to threaten economic and political stability, which could be enough to force European leaders to loosen the fiscal austerity and soften their impacts.

In most countries, inflationary pressures have been low due to the low growth; however, inflation continues to mount in several fast-growing countries and has led to policies that aim to cool overheating and limit growth. India and Pakistan are both currently experiencing inflation above 8% while Indonesia and Brazil are above 6%. While China is being hard hit by increasing wage rates, its official inflation rate is only in the mid-2% range. Rising wages are creating opportunities for other low cost producers in Asia.

U.S. trade policies are expected to continue to play a role in influencing trade in 2015. Talks on the Trans Pacific Partnership (TPP) were held in October 2014, where progress has slowed in addressing outstanding issues within the 12-country bloc. This bloc represents about 40% of total global trade and includes several of the fastest-growing emerging economies, such as Mexico and Malaysia, as well as advanced economies like Canada, Australia, and New Zealand. The Peterson Institute for International Economics estimates that the United States will see an increase of $125 billion by 2025, with much of that coming from trade diverted from China.

The objectives of the TPP are to further reduce tariffs, facilitate development of supply chains, focus on improving conditions for small businesses, and promote further trade in innovative products and services, especially in the digital and green technologies. Legal text is being developed to address such issues as intellectual property, e-commerce, financial services, investment, labor, and environment, among others. The TPP partners at this time include the United States, Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam. Colorado has important trade and investment ties with TPP countries. In 2013, Colorado exported approximately $3.3 billion of goods and an estimated $2.1 billion in services to TPP countries, roughly 38% of total Colorado exports. TPP could help Colorado exporters reach additional customers, especially in agricultural and industrial machining industries.

Talks on the Transatlantic Trade and Investment Partnership (TTIP) also continue, although they are still in the early stages. Potential benefits of an agreement range from relatively small reductions in existing low tariff rates to highly beneficial changes in regulatory processes. One study by the Center for Economic and Policy Research concludes that U.S. exports to Europe could rise by $95 billion per year, up from current U.S. exports to the EU of close to $500 billion, or about a 20% increase. The Atlantic Council estimates that the successful implementation of TTIP will increase Colorado exports to the EU by 22% and could boost net employment by up to 13,180 jobs. Several Colorado industries will gain from this agreement, including information technology, bioscience, and aerospace.

The risk of increased political and trade friction with China continues as a real possibility. Should barriers to trade increase, the result will be both lower imports and exports between the United States and China. China is leading discussions of another trade agreement, the Regional Comprehensive Economic Partnership (RCEP),

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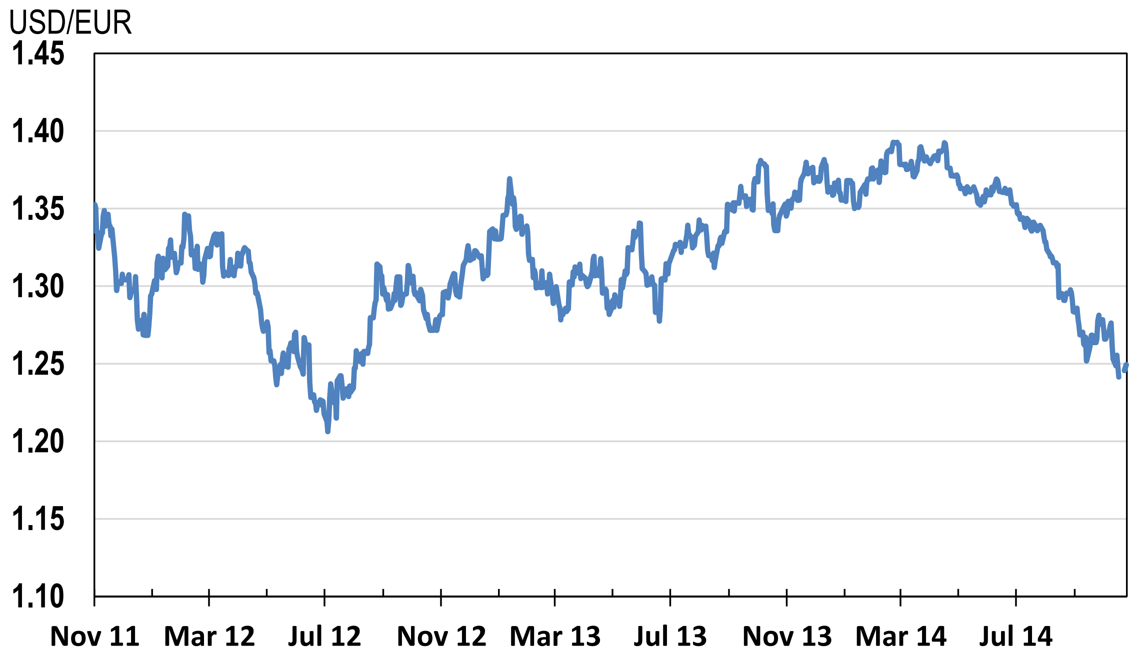

Source: Federal Reserve Board, Economic and Monetary Union (EMU) Members Euro.

VALUE OF COLORADO EXPORTS 2006–2015 (In Millions of Dollars)

Year	Total Exports	Percentage Change
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	8,167.3	11.4
2013	8,546.5	4.6
2014[a]	8,375.6	-2.0
2015[b]	8,543.1	2.0

[a]Estimate. [b]Forecast.

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

with 15 other Asian nations. However, most of the increased trade resulting from that agreement would be in areas that the United States has little engagement. Both countries, however, have more to gain from cooperation than conflict, a fact that administration officials are aware of.

The value of the U.S. dollar also affects the imports and exports of the United States and of Colorado. A weak dollar encourages more exports and fewer imports. The August 2014 trade weighted value of the U.S. dollar was at 106, up from 101 the same period the previous year. The 1997 benchmark was set at 100. 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%. In 2013, the United States was able to raise the debt ceiling and is expected to raise it again in 2014. As a result the flight to quality U.S. bonds has continued, but has been offset somewhat by the optimism seen by international investors in the U.S. economic recovery, pushing the value of the dollar upward by about 5% over the past year. This stronger dollar limits continued export gains to a small degree.

The chart on this page shows the value of the euro in U.S. dollars since November 2011. It reflects a strengthening of the euro since its low in mid-2012 as fear of further bank bailouts in Europe receded. Renewed weakening took place in early 2014 as tensions mounted due to concern over the situation in Ukraine, emergence of extremist parties, renewed economic weakness, and rejection of austerity programs by some major European countries.

Colorado Export Forecast 2015

Colorado manufactured exports and commodities are projected to rebound and grow 2% in 2015, to $8.5 billion in sales, which is roughly the total value of 2013 exports. According to the U.S. Department of Commerce's formula of one job created/retained for every $165,000 in export sales, this equates to approximately

51,500 jobs dependent on manufactured and commodities exports in the state of Colorado.

Colorado Import Forecast 2015

Imports are crucial to the state of Colorado. With more than $12.8 billion in imports in 2013, $10 billion were in nonfuel products. In 2012 nonfuel imports increased by 4.1% and in 2013 by 6.2%. The five-year average annual gain is 4.2%. The trends indicate that 2014 and 2015 should lead to continued growth of between 3 and 5% per year. Energy and mining are two of the major industries in the state, and the health of these industries can be measured by the state's imports. Imports equal capital investment in these industries. Changes in the health of these industries could seriously alter the state's import numbers.

Colorado's top import in 2013 was mineral oil and fuel from Canada, which dropped 13.5%, to $2.7 billion, compared to 2012 figures. Other key imports include automatic data processors, magnetic readers and other industrial computing equipment ($1.8 billion, up 10.1% from 2012); electronics ($1.7 billion, up 8% from 2012); and optical and medical equipment ($1.2 billion, up 0.7% from 2012).

One might be surprised that Colorado's top imports and exports are in the same industries. Based on the data, this could mean the demand for these products is high enough that the in-state manufacturers cannot meet all of the local demand. In other words, the imports could be used to compensate for the lack of production capacity. This can also be indicative of the need for a secondary source, or a way to offset the rising costs of manufacturing by importing components, unfinished goods, or equipment. Either way, imports can add more choice and alternatives that can significantly help a company's bottom line and therefore increase the number of jobs for our state.

TOP 20 COLORADO EXPORTS
2012–2014 YTD
(In Millions of Dollars)

Description	2012	2013	Aug 2014 YTD
Optic, Photo Etc, Medic Or Surgical Instrments Etc	$1,424	$1492	$901
Industrial Machinery, Including Computers	1,563	1,479	817
Electric Machinery Etc; Sound Equip; Tv Equip; Pts	1,144	1,127	748
Meat And Edible Meat Offal	888	915	651
Photographic Or Cinematographic Goods	281	310	218
Aircraft, Spacecraft, And Parts Thereof	179	291	147
Mineral Fuel, Oil Etc.; Bitumin Subst; Mineral Wax	211	280	151
Raw Hides And Skins (No Furskins) And Leather	208	247	187
Articles Of Iron Or Steel	212	198	111
Organic Chemicals	152	182	92
Plastics And Articles Thereof	174	169	114
Ores, Slag And Ash	137	162	100
Vehicles, Except Railway Or Tramway, And Parts Etc	116	141	138
Aluminum And Articles Thereof	108	114	66
Pharmaceutical Products	132	95	81
Dairy Prods; Birds Eggs; Honey; Ed Animal Pr Nesoi	59	83	56
Miscellaneous Chemical Products	79	83	52
Leather Art; Saddlery Etc; Handbags Etc; Gut Art	59	73	48
Art Of Stone, Plaster, Cement, Asbestos, Mica Etc.	61	68	52
Furniture; Bedding Etc; Namps Nesoi Etc; Prefab Bd	48	64	73
Total Top 20 Commodities	7,235	7,576	4,804
All Others	932	971	748
Total All Commodities	$8,167	$8,547	$5,552

Source: World Institute for Strategic Economic Research (WISERTrade).

Global Opportunities and Threats for Colorado Exporters

Much is occurring throughout the world that creates both opportunities and threats for U.S. and Colorado exporters.

North America

Canada and Mexico are the most important trade partners for Colorado companies. Canada remains the top market for many important Colorado industries, including food and agriculture, energy and natural resources, bioscience, and information technology. Exports to

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MAJOR DESTINATIONS FOR COLORADO EXPORTS OF MANUFACTURED GOODS, MINERALS, AND AGRICULTURAL PRODUCTS 2010–2013 (In Millions of Dollars)

Country	2010	2011	2012	2013	Annual 2013 Percentage of Total
Canada	$1,659	$1,541	$2,001	$2,063	24.1%
Mexico	590	755	849	918	10.7
China	558	635	676	659	7.7
Japan	318	393	427	442	5.2
Korea, Republic Of	201	226	266	341	4.0
Switzerland	186	241	245	329	3.8
Netherlands	331	316	280	304	3.6
Malaysia	175	208	224	274	3.2
Hong Kong	139	174	234	251	2.9
Germany	321	314	282	240	2.8
United Kingdom	213	247	205	211	2.5
Philippines	211	222	191	196	2.3
Brazil	124	106	172	185	2.2
Taiwan	156	181	144	182	2.1
Australia	161	179	172	181	2.1
Belgium	141	131	137	171	2.0
France	121	142	155	151	1.8
India	102	119	119	112	1.3
New Zealand	n/a	23	19	95	1.1
Singapore	100	105	92	88	1.0
Total Top 20 Countries	5,807	6,259	6,889	7,392	86.5
All Other Countries	882	1,080	1,278	1,154	13.5
Total All Countries	$6,689	$7,338	$8,167	$8,547	100.0%

Source: World Institute for Strategic Economic Research (WISERTrade).

Canada should increase in 2015 as the Canadian government is setting the stage for higher growth rates in 2015 and beyond through budgetary and tax policies that have delivered a budget surplus. Mexico continues to show strong growth, driven by a combination of structural reforms passed in 2013, growth in the U.S. economy, and rising productivity. Colorado food and agricultural exports to Mexico have been a real boon to overall Colorado exports to Mexico and should continue to remain strong in 2015. Other industries that are finding opportunity in Mexico include Colorado manufacturers of consumer goods, medical devices, and industrial machinery.

Colorado exports to Canada are down double digits in 2014 (-16%). Part of the decline can be explained by the strengthening of the U.S. dollar compared to the Canadian dollar, making Colorado exports less competitive to Canadian producers. Risks to Mexican growth could come if political opposition slows down further implementation of the structural reforms. The low oil prices currently exhibited in the market are not to Mexico's benefit; however, increased investment and opening of the energy sector does add to Mexico's economy. The Mexican central government has based its budget on a 2015 growth rate of 3.7%, up from 2.7% for 2014.

Latin America

Prospects for economic growth and opportunities for Colorado exporters are mixed in Central and South America. The three most open economies of South America—Peru, Colombia, and Chile—are strong, though Colorado exports to these markets have been up and down. Exports to Argentina have shot up nearly 60%, though much of this can be attributed to regaining the 40% drop in exports in 2013. Exports to Colombia have dropped significantly for the second year in a row while outbound trade with Peru has seen modest growth of around 7%.

While exports to the trade-friendly countries of South America will likely continue a trend of bumpy growth, several other countries in the region are experiencing significant problems. Brazil—the second-largest economy of Latin America—and many smaller export markets are expected to grow slowly or not at all in the foreseeable future. In Brazil, tighter money supply and a devaluation to reverse the bleak situation may be necessary but would come at a very high social cost. The Brazilian economy is now very close to being in a recession. Argentina is in technical default on its sovereign bonds and may need to devalue its currency, while the Venezuelan economy is suffering from 60% inflation, declining GDP, and internal conflict. Colorado exports have struggled against the economic woes of these countries.

Asia

Colorado exports to Asia remain promising. Of the state's top 10 export markets, Asian countries hold five spots. With the exception of Hong Kong, exports to these top five Asian trading partners grew across the board through 2014. As of August 2014, exports to China, Japan, South Korea, and Malaysia have seen increases over 2013 levels, with Japan, South Korea, and Malaysia experiencing growth rates of approximately 9%, 8%, and 17%, respectively.

Exports to China through 2014 have achieved only small growth, however, the overall outlook for trade with China looks positive. First, though trends point to an overall slowing down of the economy, forecasts for Chinese GDP growth are still high enough to be the envy of most other countries. Second, the country is seeking to rebalance its economy and will need to move toward a more consumer-driven economy to keep its growth rate acceptably high, which will create opportunities for Colorado exporters that can supply consumer goods. Similar prospects exist in India, which has a forecasted GDP of 6.4% for 2015. The IMF cited the "Modi dividend" as a driving factor in increasing business confidence and potentially allowing for greater two-way trade.

Despite Colorado's noticeable growth among leading Asian trading partners, there remains vast opportunities for Colorado to tap into developing markets in the region. In most cases, Colorado exports are keeping pace with the impressive 5.6% average economic growth expected of ASEAN countries like Thailand, Malaysia, Indonesia, the Philippines, and Vietnam. GDP growth rates in Indonesia, Malaysia, and the Philippines are all expected to grow faster than 7% while developed economies like Hong Kong and Singapore expect growth above 4%. Thailand is also expected to reach over 4% in growth.

The economic growth in Southeast Asia makes it an attractive market for the United States. Further integration and penetration of these markets is important to Colorado exporters and is something that could be partially addressed with the completion of the TPP, which would include such ASEAN economies as Malaysia and Vietnam.

Shifting U.S. trade focus to the Asia-Pacific region has run into its own set of challenges. The road to completing the TPP continues to be bumpy as talks stall and the hope of reaching a broad deal by the end of 2014 looks unlikely. Partly due to the broad scope of the agreement, obstacles to completing the TPP continue to present themselves, resulting in slow progress of the negotiations. The largest obstacles are still concentrated on disagreements between the United States and Japan, namely on tariffs, agriculture, and automobile trade issues. Implementing the TPP would be a great boon for U.S. exporters as the countries account for around 40% of international trade, and the agreement would call for lower trade barriers, allowing Colorado companies greater access to overseas markets.

In light of the slow progress achieved in the TPP talks, a similar regional free trade agreement (FTA) that does not include the United States is taking shape and gaining momentum. The Regional Comprehensive Economic Partnership (RCEP) is a 16-country FTA negotiation being developed by the 10 members of ASEAN (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam) and 6 additional countries with which ASEAN currently has existing FTAs—Australia, China, India, Japan, Korea, and New Zealand. The RCEP, which was launched during the East Asia Summit in 2012, seeks to create an "open trade and investment environment" among some of the world's largest developed and emerging economies.

Together, the 16 countries involved in the RCEP have a population of 3.4 billion, an estimated trade share of 27% of global trade, and GDP of more than $27 trillion. The creation of an integrated market across Asia-Pacific would boost intraregional trade and could potentially pose a challenge to the TPP. Though running into its own roadblocks, the RCEP has a tentative deadline to reach an agreement before the end of 2015.

Europe

Colorado exports to Europe were down across the board in 2014 due to the slow European economic recovery. Traditionally strong markets such as France and Switzerland were down 21% and 41%, respectively. Colorado exports to Europe of medical and surgical instruments, as well as aircraft and spacecrafts, dropped significantly.

Colorado exports to Europe will continue to lag through 2015. As growth is slowing, another European recession is becoming a real threat. Even the German economy is sputtering to a halt. Some of the weakest countries, such as Spain and Italy, have recently started experiencing deflation, a broad drop in incomes and asset values, which is a painful process that can be hard to reverse once it starts. Additionally, the balance between maintaining continued government austerity measures to bring deficits down versus combating the economic stagnation and high unemployment with spending programs remains a large dilemma for most European countries.

Another threat that is likely to continue to plague Europe is the volatile relationship between the United States and Russia. Ukraine and other former Soviet states are being pushed into either a Western or Russian orbit. Sanctions and counter-sanctions can serve to further slow the already weak economic growth.

Select markets in Central Europe that have a growing middle class and a steadier growth pattern provide spots of opportunity for Colorado exporters in 2015. Colorado exports to Hungary and Slovakia were up 59% and 210%, respectively, in 2014. As their economic and political structures develop and their middle class consumers

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demand higher value goods and services, these Central European countries will continue to purchase more U.S. goods. In particular, the opportune sectors for Colorado exporters to target in these growing markets include biotechnology, renewable energy, aviation, and information technology.

Middle East and Africa

Although a few bright spots exist for Colorado exporters in the Middle East and African markets, political and social events continue to cast a shadow over the region, affecting stability and hampering growth. As of the writing of this report, the spread of Ebola continues unabated in West Africa. Forecasting how this disease may spread worldwide is very speculative; however, the US Center for Disease Control, in its worst case scenario, puts the potential number of cases at 1.4 million. Even at its current level, regional GDP is expected to drop by half.

The emergence of ISIS and the conflicts in Syria, Iraq, and other places have the potential to significantly impact trade. Given the reengagement of the United States in the Middle East, the complexities of the situation, and the geopolitical mix of involved countries and interests, this resurgence of conflict has the potential to negatively affect the economies of the Middle East, including Turkey, Iran, and the Horn of Africa.

Despite the regional turmoil, the economic center of the United Arab Emirates remains relatively unaffected. On the heels of steady, continued national growth hovering above 4%, Colorado exports to the country jumped 32% over 2013 levels. As the United Arab Emirates and other countries in the Gulf Cooperation Council seek to actively diversify their economies away from hydrocarbons, opportunities will emerge throughout the peninsula in infrastructure and nontraditional energy, including renewables and clean technologies.

AGRICULTURAL EXPORTS FROM THE STATE OF COLORADO
FISCAL YEARS 2011–2015
(In Millions of Dollars)

Product	2011	2012	2013	2014[a]	2015[b]
Live Animals	$1.0	$0.8	$5.0	$5.0	$6.0
Meat and Products	923.0	906.9	926.0	980.0	1010.0
Wheat and Grains	513.0	479.7	506.0	540.0	506.0
Hides and Furs	230.0	207.7	247.0	282.0	292.0
Dairy Products	81.0	59.1	128.0	157.0	157.0
Fruits and Vegetables	17.0	32.4	22.0	25.0	25.0
Processed Foods	75.0	114.9	167.0	188.0	188.0
Wood Products	16.0	14.3	22.0	25.0	25.0
Misc. Seeds/Plants	16.0	14.3	22.0	6.0	7.0
Total	$1,774.0	$1,827.0	$2,030.0	$2,209.0	$2,214.0

[a]Estimated 2014 projection based on Global Trade Information Services YTD Trends.

[b]2015 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.

Colorado's Agricultural Exports

Colorado's 2013 agricultural exports surpassed $2 billion, representing an 11% increase over 2012. Exports in 2014 will rise an additional 8.8% for a record value of more than $2.2 billion.

Colorado's 2013 agricultural export expansion was led by over $200 million in additional beef exports. The majority of beef export growth was in Asia, with Hong Kong increasing $36.6 million, followed by Korea ($32.9 million), Japan ($17.7 million), and Taiwan ($13.8 million). Canadian imports dropped $8.8 million but Canada remains Colorado's largest export market. Mexico also decreased $7.4 million, dropping from the third to fourth largest beef export market. Dairy exports were the second-largest export increase, with more than $69 million. Processed foods, wheat, and hides all increased significantly, creating the top five export commodity sectors.

In 2014, Colorado's projected agricultural export increase of $179 million is primarily due to the continuing growth in beef exports. Also, the global markets for grains are projected to retract with improved global harvest projections. Colorado's wheat exports in 2014 are up slightly due to a larger Colorado harvest despite reduced global demand.

Colorado's Top Agricultural Export Markets for 2013

In 2013, Colorado's agricultural products were exported to 121 countries. While these products have a broad global reach, the top 10 markets represented more than 83% of Colorado's agricultural exports, up from 82% in 2012.

Canada remains Colorado's largest export market for agricultural products, primarily due to beef exports. Colorado is the largest U.S. exporter to Canada, with 24%

COLORADO'S TOP AGRICULTURAL EXPORTS REGIONAL DESTINATIONS 2011–2013 (In Millions of Dollars)

Region	2011	2012	2013
Canada	$375.8	$425.8	$443.9
Mexico	342.3	315.7	314.2
Japan	248.6	255.8	262.9
China	130.9	132.6	198.4
Korea	138.0	161.9	185.7

Sources: Wiser Trade Atlas and USDA Export data (all based on the U.S. Census records of exports).

of total beef exports. Mexico continues to be Colorado's second-largest export market despite a slight reduction in imports in 2013 versus 2012. Japan is Colorado's third-largest market, again primarily with beef imports, as well as wheat imports. China's imports of Colorado agricultural products consist of hides, with a $45 million increase in wheat imports in 2013.

Colorado's 2014 Agricultural Export Forecast

Based on year-to-date exports and USDA projections, Colorado's 2014 agricultural exports are projected to increase almost 9% in 2014 from 2013. Leading growth in exports are beef, with a $54 million increase, followed by hides, with a gain of $35 million; wheat, with an increase of $34 million; and dairy products, with growth of $39 million.

The forecast for Colorado's 2015 agricultural exports indicates continued increases in beef and hides, with a projected decrease in wheat exports based on USDA-projected reduced global demand and lower global wheat prices. The global hide market is projected to grow 3.5%, with other sectors experiencing flat growth.

Global Opportunities and Threats for Colorado Agricultural Export Growth

North America

Canada and Mexico represent Colorado's largest markets, collectively buying 37% of all of Colorado's agricultural exports. Beef represents 59% of the total value of exports. Nationally, Colorado is the largest exporter of beef to Canada, supplying more than 23% of total exports. In 2013, Colorado was the fourth-largest beef exporter to Mexico, with over 12% of total beef exports. In 2014, that share has grown to over 14%. Colorado is the second-largest beef exporting state to Mexico.

Colorado continues to dominate these markets and grow its share of beef exports; however, in October 2014 the World Trade Organization (WTO) ruled against the United States in favor of Mexico and Canada in the ongoing trade dispute concerning U.S. requirements for country-of-origin labeling (COOL). With the WTO ruling, Canada has threated to impose retaliatory duties on a variety of U.S. agricultural products imported into Canada, including beef. This action would reduce Colorado beef exports. Further impacting Colorado's beef exports, Mexico would also impose similar duties.

Colorado's beef exports represent 73% of the state's total agricultural exports to Canada, so reduced imports would have a significant impact on Colorado's agricultural exports. Colorado beef exports represent more than 39% of agricultural exports to Mexico, which would also have a significant impact. The proposed retaliatory measure raises a significant threat to continued export growth.

Other trade issues with Canada and Mexico are import restrictions, import quotas, and high tariffs. These barriers have reduced the potential for agricultural exports to these markets and conversely represent an export growth opportunity if these barriers are lowered.

Currently, Mexico has restricted access to its market for fresh potatoes. In May 2014, barriers were lifted allowing almost total market access; however, legal action against the expanded markets reclosed the market within weeks. The matter is now in the Mexican courts. Removal of these restrictions would increase potato imports to Mexico by an estimated 400%. With Colorado currently providing more than 50% of all fresh potatoes to Mexico, opening of this market would significantly increase Colorado exports.

Colorado's dairy industry (the second-largest agricultural sector) has had minimum access to the Canadian market due to import quotas and 275% import duties on exports above the quota. This affects Colorado fresh milk, organic dairy products, and cheese producers. In 2014, Canada completed a new trade agreement with the European Union, which provides an increased cheese quota for European producers. Unfortunately, this accord does not increase the total global import quota, only reallocates the existing quota, which will have a negative impact of the limited exports of U.S. dairy products to Canada.

Asian Markets

The Asian markets represent 5 of the top 10 global markets for wheat. Exports to Asia are projected to be reduced both in value and volume. World prices for wheat are down, resulting in reduced exports in value even if the volume remains the same. China imports of wheat and other grains are projected to be down due to import restrictions. Colorado wheat exports also face the annual issue of moisture as most grains are grown with nonirrigated methods that can impact harvests by 20% or more in quantity harvested. If a lower harvest occurs for the 2015 market, combined with lower global market prices, the reduced export values could be significant for Colorado.

Market access and import duties within the Asian markets continue to have a major impact on Colorado beef exports. While Japan is the largest importer of beef for both Colorado and the United States, it continues to impose a current import duty of 38.5% on all beef imported. The TPP is an opportunity to address this issue, similar to the accord included in the U.S.-Korea

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International Trade

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Free Trade Agreement (USKFTA), which also has high import duties on U.S. beef. The USKFTA established a set timeline to reduce the 40% import duties to zero. A similar agreement with Japan would create new export opportunities. China has become the largest importer of beef in the world; however, it continues to prohibit imports from the United States. Continuing negotiations with China could provide the United States equal access to China, resulting in further growth opportunities.

Increasing market opportunities exist for Colorado food sectors, including dairy and dairy byproducts, as well as the natural, organic, and specialty foods. A major growing industry for Colorado is also the "liquid arts," which now represents more than 415 companies producing craft wine, beer, and distilled spirits.

Service Exports

The services industries account for a majority of Colorado production and employment as they do in most developed economies. Based on the 2013 Brookings Institution's report *Export Nation*, Colorado is a leader in service exports, estimating that 2012 service exports from the state (latest data available) totaled $12.4 billion, up 5.1% over estimated 2011 volumes. Leading categories of service exports include travel and tourism ($3.4 billion), royalties ($2.6 billion), information and telecom services ($1 billion), financial services ($931 million), and engineering services ($485 million). Service exports are more difficult to track by state; however, based on Brookings Institution estimates and using the Department of Commerce's export formula for job creation/retention, nearly 70,000 jobs depend on service exports in Colorado.

International Students in Colorado

Colorado continues to see annual increases in the number of international students enrolling in colleges and universities in the state. In the 2013–14 academic year, institutions of higher education reported a record 9,621 international students, a 7.1% increase from the previous year according to the Institute of International Education's annual *Open Doors Report on International Educational Exchange*.

The growth in the number of students enrolling in Colorado is just under the national growth rate of 8.1%. The leading countries of origin for students coming to Colorado are China (29.6%), Saudi Arabia (15.3%), India (8.8%), South Korea (3.6%), and Kuwait (2.5%). For the United States as a whole, the top countries of origin are China, India, South Korea, Saudi Arabia, Korea, and Canada.

International student expenditures in Colorado totaled an estimated $303 million for 2013–14 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.

The largest number of international students was reported by the University of Colorado Boulder (with 2,163 students), Colorado State University, the University of Denver, the University of Colorado Denver, and the Colorado School of Mines. Many of Colorado's institutions of higher education and English language schools are working together under the state's StudyColorado initiative to market Colorado as a higher education destination. That effort, together with the institutions' individual recruiting efforts and an overall increase in student mobility, is expected to lead to continued increases in international students enrolling in Colorado higher education institutions.

The number of Colorado students studying abroad has similarly continued to climb, with 5,067 Colorado students studying outside the United States in 2012–13 (data for students studying abroad lags other data by a year). This number represents a 1.2% increase over the prior academic year compared to a 2.1% gain for the United States as a whole. Colorado students who choose to study abroad cite preparation for the increasingly globalized, economy as a key benefit.

INTERNATIONAL STUDENT ENROLLMENT AT SELECT COLORADO INSTITUTIONS

Institution	2010-11	2011-12	2012-13	2013-14	Percentage Change
University of Colorado Boulder	1,553	1,681	1,910	2,163	13.2%
University of Denver	1,250	1,430	1,590	1,617	1.7
Colorado State University	1,216	1,352	1,598	1,793	12.2
University of Colorado Denver	940	1,116	1,348	1,457	8.1
Colorado School of Mines	570	652	660	767	16.2

Sources: Institute of International Education and Colorado School of Mines.

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Summary

Job growth in 2014 will mark the best employment growth Colorado has seen since 2000. In fact, 2013, 2014, and 2015 will be the three best years for the state since the start of the century. Colorado added 68,100 jobs in 2013, accelerating to 72,900 jobs added in 2014. Job growth will remain positive in 2015, with a slight deceleration in new jobs (61,300, 2.5%).

Over the past 10 years, goods-producing industries lost a net 5,700 jobs, while services-producing industries gained 280,000 jobs. Both goods- and services-producing sectors are anticipated to add workers in 2015. Notably, no industry is expected to lose jobs in 2015 in Colorado.

The goods-producing sectors will increase their employment base in 2015.

Agriculture—Despite a setback in revenue and farm income in 2013, new records were achieved in 2014 and are projected for 2015 on steady crop valuations and growing livestock values.

COLORADO ESTIMATED EMPLOYMENT LEVELS
2004–2015
(In Thousands)

Sector	2004-2014[a]	2013[b]	Estimated 2014	Forecast 2015
Natural Resources and Mining	19.3	0.2	3.2	2.3
Construction	-11.3	10.7	13.5	6.0
Manufacturing	-13.7	1.9	3.2	2.2
Total Goods Producing	-5.7	12.8	19.9	10.5
Trade, Transportation, and Utilities	23.6	9.7	10.8	9.1
Information	-11.7	0.0	-0.3	0.0
Financial Activities	-2.0	4.0	1.9	2.7
Professional and Business Services	78.3	16.0	11.6	12.8
Education and Health Services	78.8	4.2	10.5	9.3
Leisure and Hospitality	49.0	10.1	10.5	11.2
Other Services	11.9	1.7	1.6	1.3
Government	52.1	9.4	6.4	4.5
Total Services Producing	280.0	55.1	53.0	50.8
Total Jobs Created	274.3	68.1	72.9	61.3

[a]Estimated. [b]Revised.

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

Construction—Benefiting from economic growth that exceeds that in most other states, the construction industry continues to claw back from the recession, with building permits, value of construction, and employment increasing year-over-year, but still recording below-peak levels. Total value of Construction is estimated to rise 11.5% in 2015, to $13.4 billion. The largest increase is attributable to residential construction, which will grow nearly $900 million in 2015. A total of 32,000 housing permits are expected for the year, with an increase in single family permits year-over-year. Overall, employment will increase an estimated 6,000 jobs in 2015.

Manufacturing—Following a decade of decline, employment is expected to increase for the sixth-consecutive year in 2015 as the state benefits from the national phenomenon of reshoring. In 2015, a total of 2,200 additional jobs are expected, with much of the growth in the durable goods sectors.

Natural Resources and Mining—Colorado is firmly a top 10 energy-producing state, but the abundance of natural resources extends beyond oil, gas, and coal to resources such as molybdenum and gold. Total value of production will reach record levels in 2014, but slip in 2015 due primarily to softer pricing and lower production for some resources. In 2015, the industry is likely to add 2,300 jobs, or 6.8% growth.

The outlook for services employment shows growth in nearly every sector in 2015.

Education and Health Services—Private education and health care services are expected to add 9,300 jobs in 2015, demonstrating resilience both during and after the recession. Most of the growth will be in health care, driven by population growth, accessibility, and demographic shifts while private higher education will face headwinds.

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Summary

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Professional and Business Services—Employment in this sector will increase by 12,800 jobs in 2015, building on gains in the Professional, Scientific, and Technical Services subsectors related to Colorado's high-tech industries and research institutions. Growth will be highest in the Computer Systems Design Services and the Employment Services subsectors.

Trade, Transportation, and Utilities—TTU employment is anticipated to increase by 9,100 in 2015, due to growth in wholesale and retail trade. Transportation and Warehousing employment will record modest growth, and Utilities will be flat. It is projected that Denver International Airport will record another record year, despite ongoing construction at, and on the way to, the airport. Retail sales are anticipated to rise 7% in 2015.

Leisure and Hospitality—Signaling an improved tourism industry, Colorado is recording more room nights, higher occupancy rates, more skier visits, increased gaming proceeds, and growth in visits to Colorado public lands. This sector expects growth will be extended in 2015, resulting in job growth of 11,200 jobs in 2015. This forecast rests on a number of assumptions, including average snowfall and reasonable gasoline prices.

Government—Federal government employment will continue to get squeezed in 2015 as a result of the shrinking fiscal budget. However, these declines will be offset by growth in state and local government that coincides with the economic recovery and growing population. Total government employment is projected to increase 1.1% overall in 2015 in Colorado.

Financial Activities—The Financial Activities Sector continues to respond to a seemingly ever-changing regulatory environment that induces higher costs and uncertainty. Despite this, the industry continues to add workers in Colorado, with the fastest growth in real estate and rental and leasing heading into 2015. Finance and Insurance has been impacted by a decreasing mortgage refinancing and origination market.

Information—The declining publishing sector will be exactly offset by modest growth in telecom, film, and software publishing, leaving the sector unchanged in 2015. Despite the dismal employment outlook, productivity reigns in this sector, leading to great total industry GDP.

The following observations summarize the thoughts of committee members for 2015:

National and International

- A slowing global economy poses risks to Colorado exports in 2015.
- U.S. GDP growth will likely exceed 3% in 2015.
- The debt ceiling debate will likely resume in 2015, elevating uncertainty about government expenditures, shutdowns, and sequestration.
- The change in Fed policy will begin putting slight upward pressure on interest rates, particularly during the second half of the year.
- Inflation will continue in check for another year, and interest rates will remain at historically low levels.

Colorado

- Employment growth will place Colorado in the top 10 states in 2015.
- Weather fluctuations will continue to cause volatility for agriculture production, as well as tourism.
- Home prices will continue to creep higher in Colorado as inventory is absorbed, making housing affordability a detriment to some communities in the state.
- In terms of population, Colorado is the fourth-fastest growing state in the nation in percentage terms. The state will continue to attract people from out of state, which will contribute to population growth of 1.7%.
- Colorado will sustain a sub-5% unemployment rate.

With Colorado's skilled workforce; high-tech, diversified economy, relatively low cost of doing business, global economic access, and exceptional quality of life, the committee believes the state is poised for both and short-term and long-term economic growth.

Around the Region

The western region of the United States is made up of Colorado and its neighboring states of Arizona, Kansas, Montana, Nebraska, New Mexico, Utah, and Wyoming. This section compares economic activity in 2014 in these states and their top metropolitan statistical areas (MSAs) as measured by total employment, employment growth, unemployment rate, average annual pay, and GDP.

Every state in the region has shown positive employment growth year-to-date as well as positive 10-year growth. In September 2014, Utah, Colorado, Montana, and Arizona experienced the largest increases with year-over-year growth of 3.6%, 2.8%, 2.2%, and 2%, respectively. Kansas (0.7%), Nebraska (0.7%), and New Mexico (0.8%) lagged behind the rest of the region. Regarding MSAs, Denver, Salt Lake City, and Lincoln led the region with year-over-year growth of 2.8%, 2.8%, and 2.7%, respectively, in September 2014. Phoenix-Mesa-Glendale and Cheyenne followed close behind, with growth of 2.2% and 1.3%, respectively. Albuquerque, Wichita, and Kansas City each recorded growth under 1%.

Regionally, changes in employment growth rates are due, in large part, to developments in certain industries. Colorado experienced significant growth in the Mining and Logging Industry, leading the region with 11.9% year-over-year growth. Arizona's healthy year-over-year employment growth is attributed to its strong increases in both the Education and Health Services and Financial Activities sectors, which increased 5% and 4.4%, respectively. Utah's employment increases came largely from Construction (10.7%) and Information (6.7%).

As the region continues its recovery along with the rest of the nation, every state enjoyed positive GDP growth from 2012 to 2013. Wyoming led the region with 7.6% change in real GDP, and Colorado, Utah, Nebraska, and

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REGIONAL STATES								
September 2014 Total Employment (In Thousands)	294.8 Wyoming	459.5 Montana	816.8 New Mexico	989.1 Nebraska	1,341 Utah	1,389 Kansas	2,465 Colorado	2,577 Arizona
Employment CAGR September 2004–September 2014	0.3% New Mexico	0.4% Kansas	0.7% Nebraska	0.7% Arizona	1.1% Montana	1.2% Colorado	1.5% Wyoming	1.9% Utah
Employment Percentage Change September 2013–September 2014	0.7% Kansas	0.7% Nebraska	0.8% New Mexico	2% Wyoming	2% Arizona	2.2% Montana	2.8% Colorado	3.6% Utah
September 2014 Unemployment Rate	6.9% Arizona	6.6% New Mexico	4.8% Kansas	4.7% Colorado	4.7% Wyoming	4.6% Montana	3.6% Nebraska	3.5% Utah
2013 Average Annual Pay	$37,575 Montana	$39,965 Nebraska	$40,809 New Mexico	$41,548 Kansas	$41,792 Utah	$44,972 Wyoming	$45,921 Arizona	$50,873 Colorado
2013 GDP (Millions of Current Dollars)	$44,040 Montana	$45,432 Wyoming	$92,245 New Mexico	$109,614 Nebraska	$141,240 Utah	$144,062 Kansas	$279,024 Arizona	$294,443 Colorado
Real GDP Percentage Change 2012–2013	1.1% Arizona	1.5% New Mexico	1.9% Kansas	3% Montana	3% Nebraska	3.8% Utah	3.8% Colorado	7.6% Wyoming

Sources: Bureau of Economic Analysis, Colorado Department of Labor and Employment, and Bureau of Labor Statistics (CES, QCEW, and LAUS data). Unless noted, all data are seasonally adjusted. Employment based on preliminary data for September 2014.

Around the Region

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Montana followed with 3.8%, 3.8%, 3%, and 3%, respectively. New Mexico (1.5%) and Arizona (1.1%) lagged behind the rest of the region.

Denver, Cheyenne, Lincoln, and Salt Lake City MSAs led the region with 4.3%, 2.7%, 2.6%, and 2.5% increases in real GDP, respectively. Albuquerque (-0.1%) and Wichita (0.7%) recorded the slowest growth.

In 2013, Colorado's $50,873 average annual earnings exceeded all others in the region, including Arizona, with $45,921. Boulder and Denver have maintained their top place, with above-average annual pay levels exceeding $56,000. This far surpasses other MSAs in the region.

REGIONAL METROPOLITAN STATISTICAL AREAS (MSAs)								
September 2014 Total Employment (In Thousands)	46.6 Cheyenne	187.9 Lincoln	291.0 Wichita	367.8 Albuquerque	682.4 Salt Lake City	1,014.1 Kansas City	1,342.2 Denver-Aurora-Broomfield	1,859.5 Phoenix-Mesa-Glendale
Employment CAGR September 2004–September 2014	-0.1% Albuquerque	0.2% Wichita	0.4% Kansas City	0.9% Phoenix-Mesa-Glendale	1.2% Lincoln	1.3% Cheyenne	1.4% Denver-Aurora-Broomfield	1.9% Salt Lake City
Employment Percentage Change September 2013–September 2014	-0.6% Albuquerque	0.0% Kansas City	0.5% Wichita	1.3% Cheyenne	2.2% Phoenix-Mesa-Glendale	2.7% Lincoln	2.8% Salt Lake City	2.8% Denver-Aurora-Broomfield
September 2014 Unemployment Rate (Not Seasonally Adjusted)	6.4% Albuquerque	6.0% Kansas City	5.8% Phoenix-Mesa-Glendale	5.2% Wichita	4.4% Cheyenne	4.0% Denver-Aurora-Broomfield	3.2% Salt Lake City	2.8% Lincoln
2013 Average Annual Pay	$39,398 Lincoln	$41,941 Albuquerque	$42,148 Cheyenne	$42,534 Wichita	$43,196 Salt Lake City	$47,854 Kansas City	$47,987 Phoenix-Mesa-Glendale	$56,146 Denver-Aurora-Broomfield
2013 GDP (Millions of Current Dollars)	$5,567 Cheyenne	$16,638 Lincoln	$31,532 Wichita	$41,970 Albuquerque	$76,185 Salt Lake City	$117,321 Kansas City	$178,860 Denver-Aurora-Broomfield	$209,523 Phoenix-Mesa-Glendale
Real GDP Percentage Change 2012–2013	-0.1% Albuquerque	0.7% Wichita	1.2% Phoenix-Mesa-Glendale	1.4% Kansas City	2.5% Salt Lake City	2.6% Lincoln	2.7% Cheyenne	4.3% Denver-Aurora-Broomfield

Sources: Bureau of Economic Analysis, Colorado Department of Labor and Employment, and Bureau of Labor Statistics (CES, QCEW, and LAUS data). Unless noted, all data are seasonally adjusted. Employment based on preliminary data for September 2014.

Around the State

COLORADO METROPOLITAN STATISTICAL AREAS (MSA)

September 2014 Total Employment (In Thousands)

59.6	60.2	94.6	148.2	178.3	257.6	1,342.2
Pueblo	Grand Junction	Greeley	Fort Collins-Loveland	Boulder	Colorado Springs	Denver-Aurora-Broomfield

Employment CAGR September 2004–September 2014

0.3%	0.8%	0.9%	1.2%	1.4%	1.4%	2.3%
Colorado Springs	Pueblo	Grand Junction	Boulder	Denver-Aurora-Broomfield	Fort Collins-Loveland	Greeley

Employment Percentage Change September 2013–September 2014

-0.3%	-0.2%	1.0%	2.5%	2.6%	2.8%	3.7%
Grand Junction	Colorado Springs	Pueblo	Boulder	Fort Collins-Loveland	Denver-Aurora-Broomfield	Greeley

September 2014 Unemployment Rate (Not Seasonally Adjusted)

5.7%	5.1%	4.5%	4%	3.8%	3.2%	3.1%
Pueblo	Colorado Springs	Grand Junction	Denver-Aurora-Broomfield	Greeley	Fort Collins-Loveland	Boulder

2013 Average Annual Pay

$37,440	$39,738	$43,174	$43,437	$44,220	$56,146	$58,009
Pueblo	Grand Junction	Greeley	Fort Collins-Loveland	Colorado Springs	Denver-Aurora-Broomfield	Boulder

2013 GDP (Millions of Current Dollars)

$4,629	$5,196	$9,528	$13,210	$21,260	$28,251	$178,860
Pueblo	Grand Junction	Greeley	Fort Collins-Loveland	Boulder	Colorado Springs	Denver-Aurora-Broomfield

Real GDP Percentage Change 2012–2013

-0.9%	-0.2%	0.4%	2.9%	3.2%	4.3%	10.1%
Grand Junction	Colorado Springs	Pueblo	Fort Collins-Loveland	Boulder	Denver-Aurora-Broomfield	Greeley

Sources: Bureau of Economic Analysis, Colorado Department of Labor and Employment, and Bureau of Labor Statistics (CES, QCEW, and LAUS data). Unless noted, all data are seasonally adjusted. Employment based on preliminary data for September 2014.

Boulder County

Boulder County has a robust economy fueled by high concentrations of businesses and employees in a diverse mix of industries. A highly educated workforce, visionary entrepreneurs, a well-established manufacturing sector, a world-class research university, and several federal research labs are equally critical to Boulder's economic vitality. The area has continued to outperform state and national economies in many areas such as job growth, educational attainment, capital investment, and commercial real estate absorption, among others. Boulder County was severely impacted by the September 2013 floods, but the area has largely recovered. Local communities are investing in infrastructure, business resources, and cultural amenities to enhance their preparedness for future natural disasters.

Employment and Wages—Boulder County has experienced above-average employment growth and some of the lowest unemployment rates in Colorado over the past several years. Employment in Boulder County increased 2.5% between September 2013 and 2014, creating an additional 4,300 jobs. In September 2014, the Boulder County unemployment rate was 3.1% compared to state unemployment of 4% and a national rate of 5.7% (not seasonally adjusted). The area's large concentration of jobs in sectors with higher-than-average wages contributes to above-average incomes for area residents. The median household income for Boulder County residents was $67,403 in 2012 compared to $58,244 for Colorado residents.

Real Estate—Commercial and industrial real estate absorption in Boulder County has produced low vacancy rates and accelerating demand for new construction. The office vacancy rate for the region showed a decrease over the past year to 6.1% in the third quarter of 2014. Similarly, the industrial vacancy rate in the county fell to 7.6%, and the retail vacancy rate dropped to 6.4%.

Residential construction continues to be a strong component of Boulder County's economy, with residential sales and average home values steadily increasing in communities throughout the area. According to the Boulder Area Realtor Association, the number of single-family homes sold in Boulder County through August 2014 fell 6%, to just over 3,500 homes, compared to the same period in 2013. The Federal Housing Finance Agency house price index for Boulder County increased 9.6% from midyear 2013 to 2014. During the same period, the house price index for Colorado increased 9.5%.

Financial Services and Venture Capital Investment—Boulder County represents a significant and growing share of the state's financial institution deposits and venture capital investment.

As of June 30, 2014, Boulder County had 32 FDIC-insured financial institutions with 110 offices and $7.7 billion in deposits, representing 7% of the state total. From midyear 2013 to midyear

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Around the State

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2014, deposits in Boulder County institutions rose $284.2 million or 3.9% compared to an increase of 3.5% during the same period for deposits held in Colorado institutions. Deposit growth from 2013 to 2014 was slightly lower than from midyear 2012 to 2013, when deposits in Boulder County institutions increased by $543.5 million or 8% and deposits in Colorado institutions increased 6.1%.

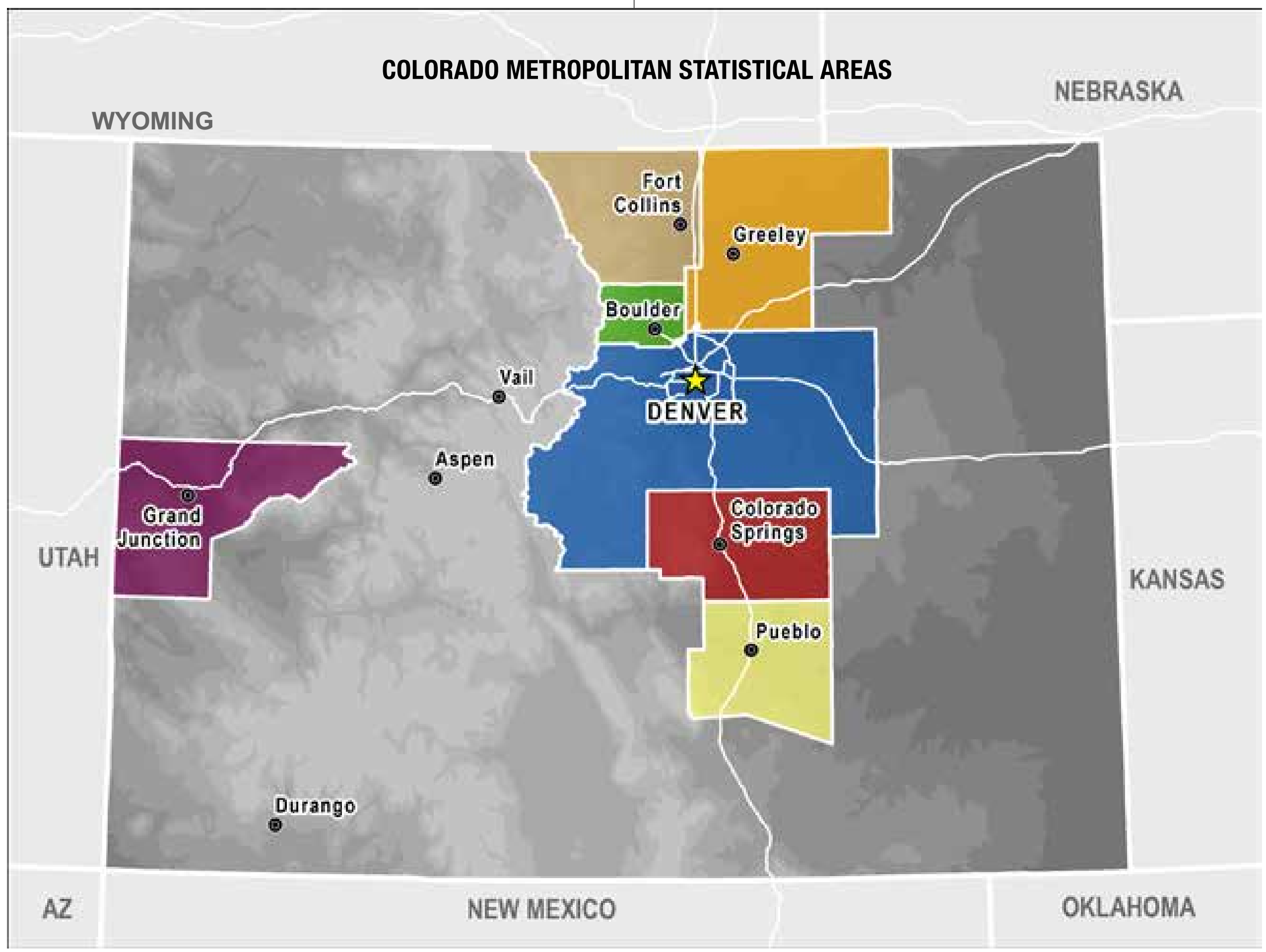
The high concentration of advanced technology and entrepreneurial activity in Boulder County continues to fuel continued venture capital investment in early-stage, Boulder County companies. According to the PricewaterhouseCooper/Venture Economics/NVCA MoneyTree Report, nearly $71.4 million in venture capital funding was received by Boulder County companies in the first half of 2014, representing 27% of the state total.

Leading Industries—The Boulder County economy continues to benefit from high concentrations of companies and employment in key industry clusters such as aerospace, biotechnology, cleantech, information technology, natural and organic products, outdoor recreation, and tourism. In addition to the presence of well-established Fortune 500 companies, many startup and early-stage companies in these industries are based in Boulder County.

Aerospace—Many aerospace companies, including Ball Aerospace, DigitalGlobe, Lockheed Martin, Northrop Grumman, and Sierra Nevada Space Corporation, do business in Boulder County. 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. 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).

Biotechnology—Boulder County is a well-established location for companies in the pharmaceuticals and medical devices industries. Major employers include Array BioPharma, Covidien, KBI BioPharma, Medtronic, Mountainside Medical, and GHX. The University of Colorado Boulder has a distinguished record in biotechnology research that has attracted major research funding and generated numerous startups. The university is home to the BioFrontiers Institute, a program headed by Nobel laureate Dr. Tom Cech, designed to facilitate interdisciplinary research and expand Colorado's leadership in biotechnology.

Cleantech—Renewable energy, energy efficiency, and energy research companies continue to diversify in Boulder County. The industry is well-supported by university programs such as the University of Colorado Boulder's Renewable and Sustainable Energy Initiative (RASEI) and the National Renewable Energy Laboratory (NREL), the federally funded research lab in Golden. Boulder County businesses in the industry include Boulder Wind



Power, GE Oil & Gas, juwi solar, juwi wind, Populus, RGS Energy, and Siemens Energy.

Information Technology—Boulder County has a long history as a center of information technology, data storage, software development, and Internet services. Major employers include Epsilon, Google, HP, IBM, Intrado, Microsoft, Qualcomm, Rally Software, and Seagate, among hundreds of other established and early-stage companies. Boulder was ranked first in the nation for its concentration of high-tech startups by the Ewing Marion Kauffman Foundation. The area is home of the successful mentorship and seed-funding program TechStars, and TinkerMill, the largest makerspace/hackerspace in Colorado.

Natural and Organic Products—Many leaders in the natural and organic products industry cluster got their start in Boulder, and the area remains an international hub of the industry. Area companies include Bhakti Chai, Boulder Brands, Celestial Seasonings, Chocolove, Fresca Foods, Justin's Nut Butter, Oskar Blues, and Rudi's Organic Bakery. Naturally Boulder, a Boulder-based industry association, supports these and hundreds of other natural products companies through networking, educational sessions for early-stage companies, and other programming.

Outdoor Products and Recreation—Widely recognized as a center for the outdoor recreation industry, Boulder 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 service providers focused on the industry. Local companies include American Rec Products, Bergans USA, Brunton, La Sportiva, Newton Running, Pearl Izumi, Salewa, Sea to Summit, and Spyder Active Sports, among many others.

Tourism—The Boulder area is a popular destination that receives national media attention for its recreational and cultural amenities, and impressive array of shopping and dining choices. Boulder was recently recognized by NationalGeographic.com (one of America's Top Adventure Towns), *Bon Appetit* (America's Foodiest Town), *Outdoor* magazine (#1 Sports Town), *Gallup-Healthways* (Nation's Happiest and Healthiest City), and *Bicycling* magazine (one of the Best Bike Cities).

The business and economic outlook is very positive for Boulder County. The region's robust economy built on diverse high-tech and lifestyle industries, the University of Colorado Boulder flagship campus, a highly educated workforce, thriving entrepreneurial culture, and highly desirable quality of life inspires optimism heading into 2015.

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Around the State

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Kit Carson County

Kit Carson County's economy, despite still being in a drought area, is better than a year ago. Yields in irrigated crops were above average as was most of the dry land. The area was extremely fortunate in receiving timely precipitation that resulted in, overall, better yields for all crops.

Agriculture continues to dominate the economy. Tourism is also a strong factor in the economy, although it does not approach the impact of agriculture. The year 2014 has been an excellent one for tourism as the lodging tax is up approximately 2.5% from the previous year. Compared to other welcome centers, the Colorado Welcome Center in Burlington has the third-highest number of vehicles entering the state.

At present, dry land wheat that has been planted has more than enough moisture to establish what appears to be a strong winter wheat crop.

The financial condition of farmers remains strong. In 2010 and 2011, excellent yields were produced and commodity prices were exceptional. In 2012 and again in 2013, yields were poor; however, the results in 2010 and 2011 enabled farmers to extend an excellent working capital.

In 2014, yields were above average, although commodity prices were down dramatically. The net result is that the farmers still have a good financial picture but not as strong as in 2013. There will be in excess of 13 billion bushels of corn available for market throughout the United States. It would appear that with these kind of numbers the price of corn will not be going up.

Supplies for farmers (fertilizer, seed, machinery) have also seen price increases, which makes it that more challenging for them.

Cattle numbers continue to decline with the high prices now being paid. The present market works well for those farmers that have a cow-calf operation, and they do not have to purchase additional cattle to keep their operations running smoothly.

It has become somewhat risky to replace animals after selling because of the high prices being paid for replacement cattle.

As is always the case, agriculture continues to rely on adequate moisture and good commodity prices. Commodity prices have been dropping dramatically, with corn off a minimum of 50% and wheat down approximately 20%.

Farmland values are somewhat softer than a year ago.

Burlington continues to show very modest increases in population while the county numbers have dropped slightly.

In 2013, total average nonfarm employment in Kit Carson County was 2,992 according to the Quarterly Census of Employment and Wages. The average weekly wage was $617, and the annual average wage was $32,103. This is considerably lower than the annual average wage in Colorado of $50,873.

In addition to this nonfarm covered employment, farm and sole proprietor employment represents significant employment in the county, accounting for approximately 37% of total employment not in the nonfarm wage and salary tally. The Kit Carson County unemployment rate was 2.3% in September, much lower than the state or national average.

Major industry employment in Kit Carson County includes:

- Construction: 21 establishments, 410 employees
- Wholesale Trade: 28 establishments and 337 employees
- Education Services: 6 establishments and 326 employees
- Agriculture, Forestry, Fishing and Hunting: 31 establishments and 312 employees
- Accommodation and Food Services: 25 establishments and 307 employees
- Health Care and Social Assistance: 22 establishments and 283 employees
- Public Administration: 22 establishments and 283 employees
- Retail Trade: 34 establishments and 265 employees
- Manufacturing: 10 establishments and 128 employees

Real estate has continued to increase over the past year. Prices have remained good to excellent over the past 13 years.

Affordable housing is in very short supply. There continues to be a waiting list for rental housing, and rents are high. All indications continue to point to a strong housing market.

Total bank deposits are at another record level in Kit Carson County, hitting more than $300 million.

Contributor: *Rol Hudler, City of Burlington*

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 the tourism's impact on the local economy and construction. Although there is significant winter tourism associated with winter sports, most La Plata County tourism occurs during the summer. This summer concentration of tourism causes a third quarter seasonal upswing in economic indicators such as retail sales and employment each year.

The presence of organizations such as Fort Lewis College; Walmart; Mercury, a high-tech payment-processing company; Mercy Medical Center; as well as natural gas and oil extraction in La Plata County, provides some stability to the local economy. This is particularly true for labor markets, which have steadily become less volatile over the past 20 years.

However, the impact of the student population has deteriorated since 2002 when the student body peaked at 4,347 students. Fall 2014 undergraduate enrollment is 3,814, including Fort Lewis' first graduate students, which is slightly down from the previous year.

Over the past 10 years or so, there has been a push to attract new and dynamic private companies, "growth companies," to La Plata, Archuleta, and Montezuma counties, which has attracted higher skilled jobs to the area, including Ska Brewry, Mercury, and StoneAge. In addition, the opening of the Four Corners Film Office has helped attract greater interest in filming movies, TV, and advertising in the region.

Employment and Unemployment—For the 12 months September 2013 to September 2014, the La Plata County moving average adjusted unemployment rate continued to decline, falling 2.1 percentage points from the same period the previous year. The rate is currently about the same as the statewide unemployment rate and below national average.

In September 2014, the La Plata county moving average adjusted labor force was 31,138 or about 3.2% higher than same period in 2013. From September 2009 until July 2012, La Plata county's labor force experienced negative growth; however, since then it has grown an average of 0.5%, and this growth has accelerated over 2014.

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. Average annual pay in 2013 (most recent statistic available) was $42,304 in La Plata County, an increase of 0.9% from 2012, and it remains the highest in the Region 9 counties. While the state average annual pay increased at a compound annual growth rate of 2.5% from 2001 to 2013, to $50,873, La Plata County total wages have increased an average of 4% over the same period. The gap between county and state income has fallen to 16%, and the gap continues to shrink. This rise in income coincides with growing diversity of producers in the region.

Since 2002 moving average quarterly total income growth in La Plata has been positive about 89% of the time, with only Q1 2009–Q1 2010 experiencing negative income growth. In Q1 2014, total income was about 5.5% higher than the previous year not adjusted for inflation.

In 2013, with respect to countywide private income shares, services account for about 75% of total income in La Plata County. The largest industry share for private firms was for Transportation and Utilities, accounting for about 21% of total income, followed by Health and Education Services with about 18.5% of total income. Construction's share of income has been rebounding since 2010 and has now reached 2009 levels. Income shares of natural resources and mining have been falling since 2013, and the amount of natural gas extracted has been trending down. However, higher gas prices at the end of 2013 and the first half of 2014 will likely lead to relatively high revenues from gas, at least until Q3 2014.

Federal, state, and local government income as share of total private and public county income has remained nearly constant, at 25%, over the past 10 years. Local government is expanding, making up 18%, with state and federal income shares contracting. They make up 2.3% and 4.7%, respectively.

Tourism—Though the economy has become diversified, tourism continues to play a large role in La Plata County. Retail and Accommodation and Food Services combined account for almost 17.5% of private income. Data through summer 2014 reveal the impact the Great Recession has had on the regional economy. However, the two primary regional tourist attractions, Mesa Verde and the Durango to Silverton Train, seem to have stabilized. The 12-month moving average of visits to each attraction have remained more or less constant since the beginning of 2012. Although Mesa Verde National Park is in Montezuma County, many of the tourists who visit the park stay in La Plata County during their time in the area. The arrival of more airlines to La Plata airport has driven consistent growth in the number of enplanements since 2003. In the last year alone, plane travel grew about 15% year-on-year for September.

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 median inflation adjusted (Q1 2010=100) home price in La Plata County stabilized at about $328,000 in Q3 2014, about 10% higher than the same time in 2013, though real price growth has remained relatively flat since 2010. The growth in the number of home sales over the past five years has been robust—averaging about 4.5%, and days on the market has contracted over the same period, a -1.8% average.

OBER now tracks bank deposits at four local and regional banks. Between 2009 and 2011 bank assets, defined as net loans and leases, experienced negative growth, then in 2012 and 2013 liabilities recorded strong

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growth. However, since Q3 2013 liabilities have stabilized about 17% higher than in 2007. Assets grew an average of 7.3%. While bank assets experienced a decline between 2009 and 2011, they have been steadily growing since then, averaging 5.9%.

Recent and Future Trends—The past couple of years have seen relatively minor external shocks, including fire. Tourism appears to have stabilized at about 15% below recession levels but has not fallen since 2012. However, the local economy is diversifying, and becoming less dependent on seasonal economic drivers, such as tourism. The labor market is continuing to experience positive trends and OBER expects to see continued economic improvements.

Anecdotally, the spirits of most local business owners are improving, and optimism is continuing to build on the environment of the past two years or so. Rising demand for construction and in real estate will slowly provide a foundation for relatively good growth. Continued levels of *underemployment* is also anticipated, which is not unlike other resort communities that rely on seasonal construction jobs and low value-added service jobs.

Oil and gas revenues have picked up steam somewhat over the last couple of years; however, continued nervousness in resource markets in the fall of 2014 adds some uncertainty to local county extraction taxes. Nonetheless, other flows of revenues have been quite strong.

***Contributor:** Robert Sonora, Fort Lewis College*

Mesa County

Located on the Western Slope of the Colorado Rockies and bordering Utah, Mesa County is isolated from other population centers by mountain passes and open ranges. Most of the county's residents live in Grand Junction, which is 250 miles from both Denver and Salt Lake City, and is the largest city between the two. Those who live in the county outside of Grand Junction are distributed among the small and rural towns of Fruita, Palisade, Gateway, Collbran, Mesa, Mack, and DeBeque.

Population, Employment, Wages—Mesa County has experienced slow but steady population and employment growth and a decrease in unemployment over the past year.

Between 2010 and 2013, the county's population increased by 2.1%, totaling 149,617 compared to the state population increase of 4.4%. Year-to-year total nonfarm employment fell 0.3% between September 2013 and 2014. The unemployment rate in Mesa County fell to 4.5% in September 2014. This is slightly higher than Colorado's unemployment rate of 4% but lower than the nation's rate of 5.9%. The Mesa County Workforce Center recorded 939 new job orders in Q2 2014, a 13% increase from Q2 2013.

As of August 2014, the Mesa County labor force totaled 76,276, a 0.3% decrease from August 2013 and a 7.6% decline from August 2009. The average annual wage in Mesa County for Q2 2014 was $40,051, which is a 1.1% increase from the same time in 2013.

Real Estate—In Q2 2014, Mesa County residential real estate transactions increased 1.7%, to 1,036 transactions, and the median home price rose 3.3%, to $176,833. Foreclosures fell 19.2%, to 147, during the same period.

Regional Hub—Mesa County continues to be a regional hub for health care, education, energy, and travel. The area is a regional medical and health center serving a population of approximately 500,000 in western Colorado and eastern Utah.

Health Care—St. Mary's Hospital is the only Level II trauma center in western Colorado and eastern Utah. Mesa County serves as a commercial and medical center for citizens in this region and as a medical referral center for neighboring towns such as Moab in Utah and Montrose, Delta, Rifle, Eagle, Aspen, Glenwood Springs, Craig, Meeker, Rangely, Gunnison, Ouray, and Telluride in Colorado.

Education—In 2012, Colorado Mesa University employed more than 1,800 full- and part-time individuals, generated nearly $920,000 in state revenues and had an estimated regional economic impact of $351 million. Mesa County School District 51 currently employs more than 2,600 teachers, administrators, and support staff.

Retail – Retail sales in Mesa County increased slightly in 2014. City of Grand Junction sales and use tax revenues increased 2% from 2013, with the city collecting $32.6 million compared to $31.9 million in 2013.

Airport—The Grand Junction Regional Airport (GJT) is classified by the Federal Aviation Administration as a Class I airport. GJT is the premiere facility serving western Colorado and eastern Utah. In addition to both private and public passengers, FedEx operates out of the facility. The Grand Junction Regional Airport reported 165,834 passenger enplanements as of September 2014, a 2.4% increase compared to September 2013.

Leading Industries—Originally steeped in mining and agriculture, the Mesa County economy has diversified significantly in the last 25 years. Evidence of this is provided by the significant increase in gross manufactured product over the last 10 years, the 15th-fastest rate in the nation.

Energy—The energy industry makes up 5.2% of Mesa County's total employment. Mesa County had an 11.3% increase in the total number of energy-related businesses from 2013 to 2014. Natural gas prices continue to be low, but the number of drilling permits issued year-to-date has increased by 4.1% in August of 2014. Major

employers include Halliburton, Certek Heating Solutions, TWI Oilfield Fabrication, Chevron, Encana, Exxon Mobil, WPX Energy, and Xcel Energy.

Aviation and Aerospace—The aviation and aerospace industries employ more than 400 employees in Mesa County. Aviation industry revenues in Q2 2014 increased 22.3% in 2014 compared to 2013; however, the total number of new job openings that were available decreased 14.4%. Lewis Engineering, Twin Otter Airborne Research, Inc., and West Star Aviation, Inc. are the leading employers in the aviation and aerospace industry.

Medical and Health Care—Health care and social assistance make up 15.2% of Mesa County's total employment. As of Q2 2014, health care jobs totaled 8,941, a 1.4% gain. St. Mary's is currently growing its services to include a bone marrow transplant program and an expansion to its rehab and surgical units, which will have an estimated economic impact of $40 million to the local economy. Community Hospital is beginning a $50 million expansion that will extend services to include labor and delivery and a variety of out-patient surgeries. The Grand Junction VA Medical Center is another health care facility providing patient care to more than 37,000 veterans residing on the Western Slope.

IT and Professional Services—The Professional, Scientific and Technical Services industry makes up 3.7% of Mesa County's total employment and expects a modest increase of 1% by the end of 2014. This industry includes employment in IT solutions, data storage, web design and marketing, and web-based services. Local companies include Networks Unlimited, Cobb & Associates, StarTek, Cranium 360, Ryan Sawyer Marketing, EWS Group, and ProVelocity.

Outdoor Products and Services—Businesses are attracted to Mesa County because of the natural environment for product testing and the wide array of outdoor recreation options that are attractive to the outdoor workforce. Businesses currently based in Mesa County include DT Swiss, Loki, Mountain Racing Products, Honey Skateboards, Powderhorn Mountain Resort, Leitner-Poma of America, Mountain Khakis, and Bonsai Design. The area is home to more than 12 bike shops, 5 ski shops, and 2 mountaineering/climbing shops.

Agriculture—In 2012, Mesa County farms brought in more than $84.5 million in crop and livestock sales, which is a 38% increase from 2007. This includes $40.7 million in fruit, tree nuts, and berry sales, which makes Mesa County the top producer in this category in the state.

Tourism—Fruita, Grand Junction, and Palisade attract visitors from all over the country who come to ride world-class single-track mountain bike trails. These trails have spawned the Grand Junction Off-Road endurance mountain bike event, which has gained global attention, drawing racers from around the world. Registrations climbed 25% for the 2014 event, and participation grew by about 50%, to a total of approximately 530. Registrants came from 30 states and 4 countries.

Mesa County is home to Colorado National Monument, which attracts more than 400,000 visitors annually. Visitation in 2013 was down 9.9% from 2012, totaling 409,351, but up 42% from the 2001 total. The Town of

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Palisade is a sought-after destination with its rich history of growing Palisade peaches. The town is also the home of Colorado Wine Country. Palisade boasts 17 wineries and 22 orchards, and hosts many festivals, including the Bluegrass and Roosts Festival, the Lavender Festival, the Palisade Peach Festival, and the Colorado Mountain Winefest.

Summary—Overall, business sentiment is improving in the region. Mesa County, with a high quality of life and a good place for doing business is poised for a good year in 2015.

Contributors: *Kelly Flenniken and Steve Jozefczyk, both with the Grand Junction Economic Partnership*

Northern Colorado

Although the U.S. economy is still somewhat out of sorts, Larimer and Weld counties appear to have more than fully recovered by most broad economic measures. The region has more jobs than ever, and unemployment rates are lower than they were on the recession's eve. Indeed, the local press has been citing a mounting pile of anecdotal evidence about labor shortages across a variety of industries. One important result is that regional wages are finally starting to grow in some sectors after many stagnant years, helping boost household incomes.

Although both county economies are doing well, the driving forces are quite different. According to the Current Employment Statistics provided by the Colorado Department of Labor and Employment (CDLE), Weld County has added more than 9,000 nonfarm jobs over the past 24 months, a 10.7% change that exceeds the two-year growth rates from previous expansions.

Much of this is propelled by traditional strengths in food processing, and oil and gas; the supply-chain effects for these two industries is also prominent. Agricultural producers continue to prosper, in part buoyed by higher commodity prices. At the same time, natural resource extraction has bolstered the construction and transportation industries.

Larimer County has added nearly 11,000 nonfarm jobs over the past two years, with much of the growth coming from service industries. Noteworthy expanding sectors reflecting the county's high-service orientation include Professional, Scientific and Technical Services; Health Care; and Education. A growing regional economy has also benefited retail development, with several new national merchants entering the market, including Costco, Sierra Trading Post, and Trader Joe's.

Northern Colorado's housing market is also strong. Over the past two years, Federal Housing Finance Association (FHFA) data show single-family housing price indices in Weld and Larimer counties have climbed 15.2% and 14.8%, respectively, in Q2 2014. Price appreciation has led to builders moving more dirt, with single-family building permits rising in both counties. The U.S. Census Bureau estimates 1,500 permits were issued in Weld County through September 2014, up nearly 500 from two years earlier. Larimer County saw about 400 more single-family permits through the time period than 24 months earlier.

A tight housing market means rents are also increasing. Recent figures from the Colorado Department of Local Affairs show the median rental rates for a two bedroom, two-bath apartment is $1,002 in Greeley and $1,246 in Fort Collins–Loveland. The increase over the past two years is 14.9% in Greeley and 11.1% in Fort Collins–Loveland.

The overall strong performance over the past year is especially remarkable given the damage caused by the September 2013 floods. In last year's regional outlook great concern was expressed about the potentially adverse impacts of substantial infrastructure damage. The impacts on the Town of Estes Park and its tourism-based economy, which bore significant damage to most access roads, were especially concerning.

Due to a very focused and intense recovery effort, however, most of the negative effects were short-lived. Although comprehensive data are still scarce, recovery efforts injected millions of new dollars into the economy, and the *Estes Park Trail Gazette* recently reported that sales tax collections are up 6.7% over the same period last year.

Still, there may have been some negative effects. National Park Service data show Rocky Mountain National Park visitor numbers for the first eight months of 2014 were down more than 3% from the same period in 2012, although the "cause" for this decline is very difficult to discern.

Despite mostly positive news, it is important to remember that many local households are still not enjoying the prosperity. For example, the 2013 poverty rates in Weld and Larimer counties were 14.4% and 13.7%, respectively, firmly placing both counties above the state rate of 12.9%.

To better understand why growth is not helping every household, it is useful to take a closer look at specific industries and the wages that they pay. Doing so reveals that much of the regional job growth is concentrated in industries that pay below-average wages.

This is especially true for Larimer County, where CDLE data indicate 56% of the job growth between Q1 2011 and Q1 2014 was in industries that pay less than the average wage. As a result, the average weekly wage in the county, adjusted for inflation, grew less than 2% over that timeframe. For Larimer County, the point is that despite many signs of a robust economy, there is much work to be done.

Wage growth is not nearly as tepid in Weld County. Due to strong job growth in Construction and Natural Resources—two sectors with above-average wages—62% of the recent employment gains have been in industries paying above-average wages. Adjusting for inflation, average weekly wages grew by about 12% between Q1 2011 and Q1 2014. Despite this increase, Weld County wages average only about 83% of the state average.

Looking forward, there is little reason to think things will change dramatically in 2015. Models predict that employment will continue to grow in both counties, and the industry mix will be consistent with recent history. The Construction Sector, which has seen a recent spurt in both residential and nonresidential projects, is expected to further strengthen in 2015.

In 2015, the job growth rate is expected to continue to outpace the state average, further lowering the local unemployment rate. One important consequence will be increased wages, which should help households across the income spectrum. Yet, concerns remain that wage gains for lower-income households will fail to keep pace with rising housing prices.

Contributor: *Martin Shields, Colorado State University*

Pueblo County

Introduction—Pueblo is known as the transportation and health care hub of Southern Colorado. Puebloans boast of having one of the lowest costs of living in the country and a rich history in high-paying manufacturing jobs. Another lustrous point in Pueblo's economy is the continuous investment from outside sources in area tourism, infrastructure, and job creation.

Unemployment and Employment—Following statewide trends, Pueblo County's unemployment rate observed dramatic decreases between September 2013 and September 2014. According to Colorado Department of Labor and Employment data, the county's unemployment rate dropped by 3.3 percentage points in that time period, reaching the milestone rate of 5.7%. The county's unemployment rate had not been below 6% since 2008. While the Pueblo County workforce region has the third-highest unemployment rate in the state, Pueblo's unemployment rate is expected to continue its downward trajectory.

The health care industry is Pueblo County's largest industry in terms of employment. Southern Colorado's only Trauma I hospital, Parkview Medical Center, is Pueblo's largest employer, employing more than 1,900. St. Mary Corwin Hospital employs approximate 1,200 workers, and the Colorado Mental Health Department provides approximately 1,000 jobs.

In 2014, the health care industry saw incremental job growth as it did in the previous year. In Q1 2014, the industry had already added 508 jobs, employing 12,467. The trend is expected to continue to grow by 19% over the next few years. General medical and surgical jobs are also forecast to grow by 7%.

One of the largest industries in the Pueblo region is steel production. The steel mill, Pueblo's largest manufacturing employer, is now operated by EVRAZ North America and produces more than 1 million tons of steel annually. EVRAZ employment numbers are expected to rise in 2015 as it continues to see increased production in the rail segment of its business. The fabricated structural metal manufacturing sector in Pueblo employs an estimated 752 people and added 129 jobs in 2014. This trend is expected to continue. Out of the top 39 industries examined in the region, the fabricated structural metal manufacturing industry is forecast to record the highest growth, increasing by 42% over the next few years. Incremental job growth is also predicted to increase during that same time period in the iron and steel mills ferroalloy sector.

The median income level in Pueblo continues to rise. The median household income was $38,958 in 2012 and is expected to grow to $45,022 by 2017.

Cost of Living and Doing Business—For a city of approximately 160,000 residents, the cost of living in Pueblo is significantly less than most other Colorado cities. Rising gas prices and the rebounding real estate market have not affected Pueblo's cost of living as dramatically as other Colorado communities.

The average Puebloan has an eight-minute commute to downtown, which is significantly less than other metro areas in Colorado. Pueblo also has a very low housing cost relative to many other Colorado communities. The median home value in 2012 according to the Pueblo County assessor is $132,455. This is 63% below the median sales price for the rest of the southeastern region of Colorado, $210,000. Forecasts indicate that the median home value in Pueblo will continue to increase in 2015.

Continued Investment—Investment in The St. Charles Industrial Park in Pueblo project continues, making it a hub for large-scale utility energy projects.

In 2014, Pueblo County and Xcel Energy announced the largest solar project in the state of Colorado, covering 900 acres and 450,000 solar panels. The project will take about 15 months to build, and an investment of more than $200 million will be realized by the project. The start date for operations is tentatively set for summer 2016.

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Heavy manufacturing continues to see resurgence in the Pueblo area. Rocla Concrete Rail has announced plans to increase capacity, and companies such as Vestas and EVRAZ are operating near or at production capacity. Food processing and retail distribution companies in Pueblo have also been required to increase their physical footprint to accommodate expansion in 2014. Activity in the rail industry continues to increase. Pueblo hosts the world's leading research facility in the rail industry, the Transportation Technology Center, Inc. (TTCI), which is run by the American Association of Railroads. CSU Pueblo also offers a master's degree in rail engineering, making the area extremely attractive to potential rail-affiliated companies.

Plans for Pueblo's Historic Arkansas Riverwalk Project (HARP) continue to move forward. In 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. Design schematics for Phase One of the project, which call for expansion of the Pueblo Convention Center and location of a second hotel in the HARP vicinity, are complete. Ground breaking for Phase One of the project is expected in 2015. Expansion of the convention center will include a multiuse arena for the first-ever Professional Bull Riding University bull-riding school. Additional phases entail improvements to the Riverwalk, an amphitheater and a swim complex for amateur athletics, as well as an indoor/outdoor 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.

Contributors: *Richard Werner and Paris Carmichael, both with the Pueblo Economic Development Corporation*

Southern Colorado

Employment—The unemployment rate in El Paso County stood at 5.1% on a nonseasonally adjusted basis at the end of September 2014. This compares to an unemployment rate of 7.5% in September 2013. Most of the improvement in the unemployment rate is from a reduction in the size of the labor force in the county rather than employment increases. The labor force declined from 303,391 to 296,745 from September 2013 to September 2014. Over the same period, employment increased from 280,496 to 281,631 for a change of 1,135. The reasons for the shrinking labor force are not entirely known. The Colorado Department of Labor and Employment (CDLE) expects a significant revision in the September 2014 labor force and employment numbers that will affect the current figures.

Specific Sectors and Employment—The current figures notwithstanding, 15 of the 20 QCEW industry sectors in El Paso County saw job gains in 2013. The most significant gains were in Professional and Technical Services, Accommodation and Food Service, Retail Trade, Health Care and Social Assistance, Construction, Finance and Insurance, Educational Services, and Administrative and Waste Services. Professional and Technical Services, combined with Accommodation and Food Services, represented 50.2% of total job gains in the county. Job losses occurred in five sectors, with the most notable losses in Manufacturing and Information, which tend to be some of the higher paying county jobs.

The Colorado Springs Regional Business Alliance targets a number of key industries as part of Operation 6035 conducted several years ago. The Southern Colorado Economic Forum tracks employment and wages in El Paso County in these targeted industries using the Quarterly Census of Employment and Wages (QCEW) data from the CDLE. Total employment in these clusters was estimated at 37,767 in 2013. The clusters include Aerospace, Defense and Homeland Security (7,143 employed), Software and Information (12,660 employed), Renewable Energy and Energy Efficiency (8,609 employed), Sports and Sports-Related Industries (6,947 employed), and Emerging Industries/Entrepreneurs (2,408 employed). The estimated number of employees in these clusters is somewhat overstated due to the difficulty of tracking specific jobs within North American Industry Classification System (NAICS) codes. However, the good news is that estimated employment in these targeted clusters increased 8.9% in 2013.

The health and wellness sector continues to develop in the region. The emergence of small health-related start-ups and relocation of health-related companies to the area is encouraging. The Bureau of Labor Statistics projects health care jobs will be the most demanded jobs over the next 20 years. The health care subsector has grown from 9.3% of total QCEW employment in 2001 to 13.8% of employment in 2013. Hospitals and physicians offices are some of the larger employers in the sector. These subsectors have average wages that are much higher than the average wage in the county. Total health care wages paid in El Paso County in 2013 were more than $1.5 billion or 14.3% of total wages in El Paso County. This sector should continue to grow at a faster rate than general employment in the county.

QCEW average annual pay across all categories decreased slightly in El Paso County, from $44,597 in 2012 to $44,494 in 2013. The fact that the average county wage did not grow in 2013 is disturbing. The average wage in El Paso County remains low compared to Colorado as a whole and is 12.5% below the 2013 state average of $50,873.

Average wage growth in El Paso County was strong in Management of Companies and Enterprises (up $5,920, to $97,254), Mining (up $4,709, to $85,654), Professional and Technical Services (up $4,106, to $82,355), Finance and Insurance (up $504, to $57,209), Real Estate and Rental and Leasing (up $1,607, to $36,629), and Health Care and Social Assistance (up $811, to $43,507). Average wages declined most significantly in the Utilities Sector, which appears to be an aberration in the data from 2012.

Manufacturing also declined (down $4,319, to $57,542), along with Administrative and Waste Services (down $2,210, to $34,579), and Agriculture, Forestry, Fishing and Hunting (down $879, to $23,491).

Per Capita Personal Income—Although average wages have remained stagnant in El Paso County in the past year, per capita personal income did increase. This includes not only net earnings, but also personal dividend and interest income, rental income, and transfer payments by government sources. Given the high proportion of retirees in the region, it stands to reason that some of the appreciation in per capita personal income is associated with working residents and with retirees. Per capita personal income increased 2.2%, to $40,893, in 2012 (most current available) over the 2011 level of $40,019. The forum forecasts per capita personal income in 2013 will be 1.8% higher than the previous year ($41,629). At the estimated 2013 level, per capita personal income in El Paso County would be 6.5% below the U.S. average and 10.7% below the Colorado average.

Residential Real Estate—The residential real estate market continues to improve, although there has been a small slowdown in single-family permit activity so far in 2014. From July 2013 through June 2014, a total of 2,656 single-family permits were issued in El Paso County. This is a decrease of 180 permits (-6.3%) issued from July 2012 through June 2013. The forum expects approximately 2,900 permits to be issued in El Paso County in 2014. The multifamily market remains active. Through July 2014, permits for 50 projects and 754 units were pulled. Multifamily permits are expected to end 2014 with 800 units and a forecast for another 600 units in 2015. Average monthly rents for apartments are currently $861 per month in the Colorado Springs Metropolitan Statistical Area (MSA).

Home sales were strong in 2014. Buyers are taking advantage of historically low mortgage rates and attractive prices. The average sales price of a home is expected to increase to $245,715 in the Pikes Peak region in 2014, a 3.1% gain over 2013. The median price of a single-family home is anticipated to rise to $216,393 in 2014 compared to $211,250 in 2013. Sales are expected to reach 10,849 homes in 2014 and 11,066 homes in 2015.

The improving economy has helped reduce the rate of foreclosures. Foreclosures decreased 44.7% in 2013, to 1,861. This is the fourth-consecutive year foreclosures declined in El Paso County. Through June 2014, foreclosures totaled 1,009. This is very similar to the number of foreclosures for the same period in 2013. The forum projects a total of 1,700 foreclosures in 2014 and 1,600 foreclosures in 2015.

Commercial Real Estate—Turner Commercial Research reports mixed signals in the commercial real estate market. Commercial office vacancy rates declined to 12.8% at the end of 2013 compared to 14.5% at the end of 2012. By June 2014, the vacancy rate edged up again, to 13.5%. Similarly, triple net lease rates dropped from $10.27 per square foot at the end of 2012 to $10.12 per square foot at the end of 2013 before increasing to $10.26 per square foot in June of 2014. Evidence suggests landlords are very willing to negotiate lower lease rates. These reductions are expected to diminish as vacancy rates decline.

The industrial vacancy rate decreased slightly, to 9.3%, at the end of 2013 from 9.4% at the end of 2012. As of June 2014, the vacancy rate was up somewhat, to 9.9%. Average rents increased from $6.12 per square foot in 2012 to $6.48 per square foot by the end of 2013 according to Turner. This rate is flat, at $6.47 per square foot, as of June 2014. Shopping center vacancy rates have decreased from 12.2% at the end of 2012 to 11.7% at the end of 2013 and 10.6% by June 2014. Average rents increased about $0.45 per square foot from $12.34 at the end of 2012 to $12.80 at the end of 2013. They have dropped back to $12.53 per square foot as of June 2014. Anchored shopping centers have average vacancy rates of 6.5%, a rate much lower than the non-anchored shopping centers' average rate of 17.2%.

Wholesale and Retail Trade—With the increase in GDP and employment levels, and the improvements in consumer confidence, it is not surprising there has been a rise in sales of building materials, non-store retailers, food and beverages, motor vehicles and parts, clothing, accessories, health and personal care, hobby, books, and music. The only category that declined from 2012 to 2013 was electronic appliances, furniture, and home furnishings. Employment in the Retail Trade Sector increased 813 jobs, up 2.8%. Average wages increased $312, to $27,508 (1.1%).

Wholesale sales in El Paso County show continued fluctuation. After increasing 12.6%, to $4 billion in 2012, they decreased 7.7%, to $3.7 billion, in 2013. Wholesale Trade employment in El Paso County increased by only 178 jobs, to 4,924, in 2013. Average wages for employees in Wholesale Trade grew 1.5%, or $884, to $59,852, in 2013.

Sales and Use Tax—The City of Colorado Springs benefits from strong, 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 5.7%, or $7.4 million, to $136.1 million in 2013. Sales and use tax collections are expected to increase 3% in 2014 and another 2.9% the following year in nominal terms. However, adjusting sales taxes for both consumer price inflation and population increases, the real value of sales and use tax collections will decrease by 1.2% in 2014 and by another 1.1% in 2015. This means the city will have difficultly providing the same level of service in the next few years. Currently, the city is putting together its budget for the next fiscal year and is looking at a potential shortfall of approximately $6 million.

Where Is the Economy Heading?

The forecast for the southern Colorado region calls for continued improvement in the unemployment rate and more moderate growth in GDP. Employment should continue to grow as industrial production improves.

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Higher employment will help to grow wages, salaries, and personal income. Improvement in these areas will translate into improved retail trade and sales, and the housing market will continue to rebound. Most economists expect interest rates will begin to rise during the second half of 2015. How much it affects the mortgage market will depend on how high the 30-year mortgage rate increases. The regional economy continues to be clouded by the high proportion of economic activity generated by the military. Even in the absence of a base reduction in 2017 the scheduled military cuts will impact the local economy. Diversification and organic business growth will be key.

Other factors will keep the local economy from increasing at a rate closer to Colorado's overall growth in 2015. First, oil and gas exploration and development, so far, has not materialized in El Paso County. Second, the region has been unable to attract new jobs in significant numbers to help diversify the economy. Although some communities are seeing a resurgence in business activity, including manufacturing in specific industry sectors, the types of El Paso County business lost to offshoring over the past 12 years are not likely to reappear. Fostering new and growing clusters and developing new organic businesses is likely to be more fruitful.

Third, the competition for new businesses has increased over the past five years, and the Pikes Peak region is in a less competitive position to attract these businesses. Some factors that place the area in a less competitive position include: (1) a drop in activity at the airport; (2) a lack of city-owned industrial land for sale in multiple locations around the community; (3) deteriorating infrastructure; (4) the lack of a defined strategy for the city and for the greater southern Colorado region; (5) continual squabbles in city hall; (6) a perception that the community is overly conservative, anti-tax, and contentious; (7) the lack of a strategy for mass transit and other nonauto transport; and (8) relatively low wages and incomes.

In spite of these headwinds, there are a number of positives. The summer of 2014 saw the return of recreation and tourism. After two years of fire and floods that scared away many tourists, the summer turned pleasant with ample amounts of rain. The improved conditions fostered a much improved tourism season; many attractions reported strong attendance gains compared to the past two years. The increased activity helped many local businesses and boosted tax revenues.

Last, there appears to be an awareness of and desire to address some of the regional shortcomings. Additionally, greater focus on fostering entrepreneurship, innovation, and small business growth will lead to strong economic performance as it has in other regions of the state.

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