FORTY-SEVENTH ANNUAL

COLORADO

BUSINESS ECONOMIC OUTLOOK

2012

Leeds School of Business
UNIVERSITY OF COLORADO BOULDER

BUSINESS RESEARCH DIVISION

FORTY-SEVENTH ANNUAL

COLORADO BUSINESS ECONOMIC OUTLOOK

2012

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

Leeds School of Business
UNIVERSITY OF COLORADO BOULDER

BUSINESS RESEARCH DIVISION

Price per copy: $75.00

Additional copies may be ordered from:

Business Research Division
University of Colorado Boulder
420 UCB
Boulder, CO 80309-0420
303-492-8227
leeds.colorado.edu/brd

ISBN 978-0-89478-019-0

Photo on page 15 courtesy of Molly Witzel. Other photos by University of Colorado.

Printed on recycled paper.

(FSC mark here.)

Table of Contents

Introduction

The Business Research Division (BRD) in the Leeds School of Business is proud to present our 47th annual Colorado Business Economic Outlook. The 2012 Colorado outlook is a product of partnerships that rely on research conducted by our students and staff, and members of the public and private sectors.

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

Methodology

We are fortunate to have approximately 100 individuals from business, education, and government 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 comprised of the sector chairs, meets to review their forecasts and identify factors that will positively or negatively drive change in their industry's economic performance during the second half of the year. These updates are published in the summer issue of our quarterly newsletter, the *Colorado Business Review (CBR)*.

Related Economic Research

The BRD conducts customized business and economic research that expands the knowledge base of decision makers throughout the state and region. The annual *Colorado Business Economic Outlook* provides the foundation for all research the BRD conducts within the state. Among the other BRD research tools available to businesses and organizations is the Leeds Business Confidence Index (LBCI), a forward-looking index that gauges Colorado business leaders' opinions about national and state economic trends and how their industry will perform in the coming quarter, and the *CBR*, 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 Labor and Employment, and the Colorado Department of Local Affairs, State Demography Office, who supply us with much of the employment and population data used in the forecast.

Finally, I would like to acknowledge the support of our primary sponsor, BBVA Compass, particularly Reneé Meaux. In addition, many Leeds School of Business and CU-Boulder personnel worked hard at preparing, presenting, and promoting this project. My sincerest thanks go to Brian Lewandowski, Research Associate; Cindy DiPersio, Project Coordinator; Bonnie Beverly, Administrative Assistant; Lynn Reed, Graphic Designer; Kim Warner, Publications Project Manager; and Cody Amen, Rachel Ford, Danielle Miller, and Ryan Streit, Student Research Assistants, for their help in assembling and presenting the 2012 Colorado Business Economic Outlook Forum. The assistance provided by Sarah Behunek, director of Alumni Relations/Communications in the Leeds School, and Greg Swenson and Dirk Martin, both with the Office of News Services, is also greatly appreciated.

Colorado Economic Forecast for 2012

The sections that follow provide a summary of employment for 2011, a forecast for 2012, and industry-specific data analysis and insight into the key factors influencing each of the sectors. We believe this information will prove useful in your business and policy decision-making process.

Richard L Wobbekind

Senior Associate Dean for Academic Programs
Executive Director, Business Research Division
Leeds School of Business
leeds.colorado.edu/brd

Celebrating More Than 95 Years of Service to Colorado

BRD: Business Research Division

Serving Colorado since 1915, the Business Research Division provides economic and demographic information needed by businesses, governments, and nonprofit organizations. Specializing in economic and fiscal analysis, market research, and customized research projects, the division also produces the longest-running annual forecast of the state's economy, now in its 47th year. Other helpful decision-making tools include the quarterly 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 quarterly *Colorado Business Review* newsletter.

CONTACT US

Dr. Richard Wobbekind, *Executive Director*
richard.wobbekind@colorado.edu
303-492-1147

Brian Lewandowski, Research Associate
brian.lewandowski@colorado.edu
303-492-3307

brdinfo@colorado.edu | leeds.colorado.edu/brd

Leeds School of Business
UNIVERSITY OF COLORADO BOULDER
BUSINESS RESEARCH DIVISION

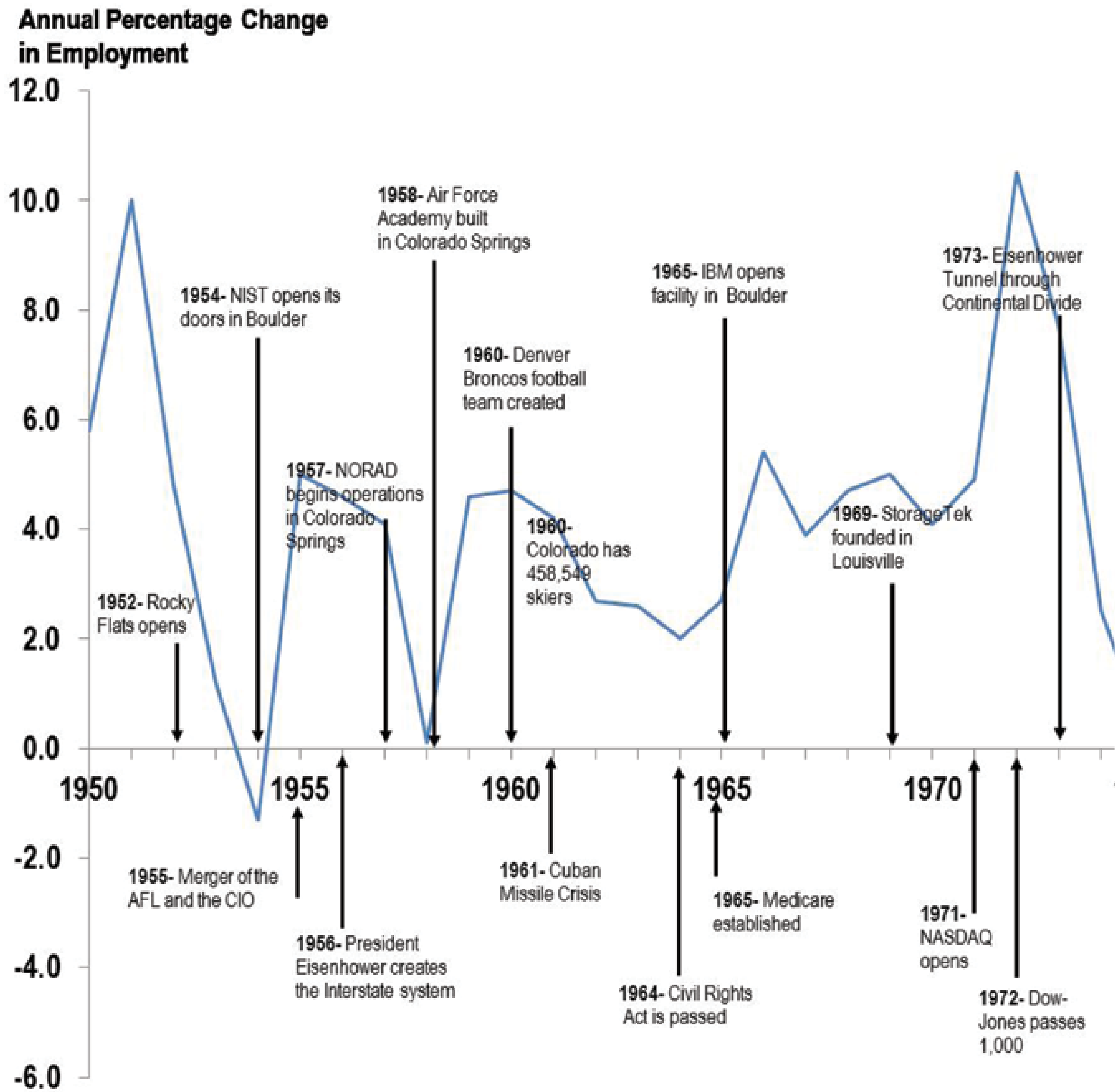
Colorado Then and Now

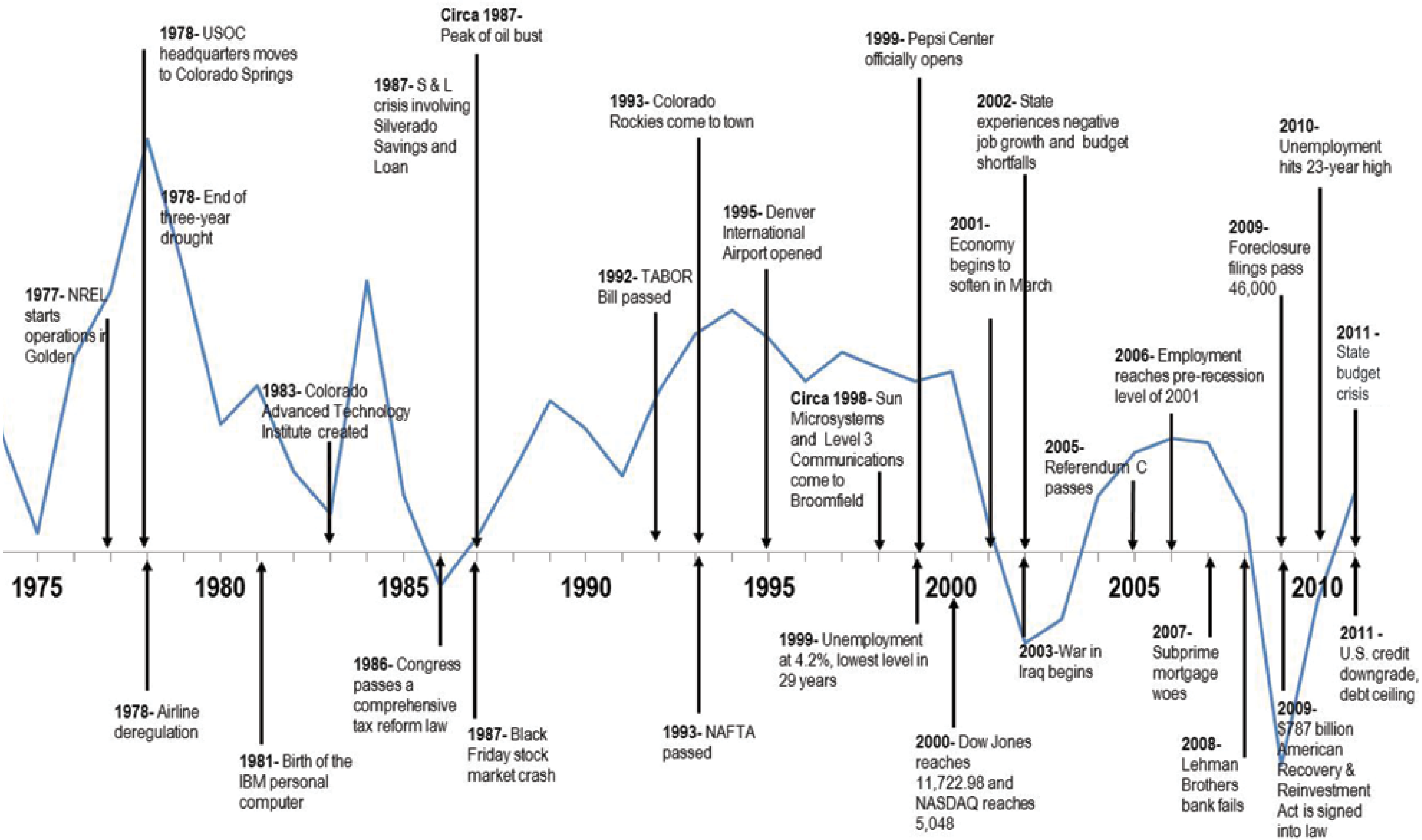
Countless events have shaped the American culture and economy over the past 60 years, many of which left thumbprints that can still be detected today. Nationally, such epic events range from wars to the interstate system to civil rights and free trade agreements. For Colorado, important events include the landing of federal labs, the growth of high-tech companies, the development of DIA, and the passage of TABOR. The adjacent timeline provides Colorado's annual employment changes expressed in percentages, along with a glimpse of some of the social, economic, educational, and political changes that have occurred since 1950. Colorado events are listed above the line, and national events are listed below.

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

Since then, the U.S. population has grown to more than 312 million, and Colorado's has more than 5.1 million residents. The United States has a massive trade deficit, the DOW is hovering around 12,000, and Colorado per capital personal income is over $42,000.

This timeline emphasizes the importance of learning from the past. A historical perspective of earlier events can help businesses make more effective decisions today and in the future.





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

U.S. Economic Outlook

Two-and-a-half years have passed since the National Bureau of Economic Research officially declared the end of the recession, and the nation is still experiencing slow economic growth. Employment is showing gains, jobless claims are generally declining, incomes are rising modestly, and GDP numbers point to sustained economic growth.

For many in the United States, however, it still feels like the country is rooted in recession, and the economic conditions that lead us into 2012 are anything but certain. The eurozone crisis, if left unabated, will undoubtedly wreak havoc in U.S. markets. The nation continues to add jobs month-over-month, but the pace of job growth is falling far short of a V-shaped recovery. Measures of wealth, including home values and investments, have yet to provide stable footing. Of looming concern is the lack of consensus of the 12-member Joint Select Committee on Deficit Reduction (the "super committee"), which was charged with finding $1.5 trillion in debt savings over 10 years. Hiring has been slow, with employers investing in capital before reinvesting in labor.

However, efforts are being made by the private and public sectors to sustain the recovery. Companies are doing what they know best—finding ways to market goods and services even during the most uncertain of times. Consumer-driven firms are successfully taking measures to lure customers back to the market through attractive pricing and payment programs, including the return of layaway. Despite the current debt debate in Washington, lawmakers continue to devise plans to spur growth with ideas ranging from incentives to tax cuts. The Fed also continues to reinvent—following two quantitative easing measures, it has now committed to keeping short-term interest rates low for two years and took measures to lower long-term interest rates through an exercise dubbed "Operation Twist."

Looking to 2012, the rate of expansion will be most influenced by employment growth, the European sovereign debt crisis, and federal spending cuts. With this backdrop, the following sections examine forecasts of output and the key components of GDP.

Total Output

Through Q3 2011, the United States recorded nine-consecutive quarters of GDP growth. The rate of growth for 2010 was 3%. While early 2011 exhibited signs of a faltering recovery, the economy surprised with annualized growth of 2.5% in Q3 2011, and the year should end with an annual growth rate of approximately 1.8%. While this is less than exuberant, it puts at ease the notion of a double-dip recession. Risks remain for the U.S.

REAL GROSS DOMESTIC PRODUCT, 2003–2012 (In Millions of Chained 2005 Dollars)

Economic Indicator	2003	2004	2005	2006	2007	2008	2009	2010	2011[a]	2012[b]
Real Gross Domestic Product	$11,836.4	$12,246.9	$12,623.0	$12,958.5	$13,206.4	$13,161.9	$12,703.1	$13,088.0	$13,323.6	$13,643.4
Percentage Change	2.5%	3.5%	3.1%	2.7%	1.9%	-0.3%	-3.5%	3.0%	1.8%	2.4%
Fixed Investment	$1,854.7	$1,992.5	$2,122.3	$2,172.7	$2,130.6	$1,978.6	$1,606.3	$1,648.4	$1,763.8	$1,919.0
Percentage Change	3.5%	7.4%	6.5%	2.4%	-1.9%	-7.1%	-18.8%	2.6%	7.0%	8.8%
Personal Consumption	$8,244.5	$8,515.8	$8,803.5	$9,054.5	$9,262.9	$9,211.7	$9,037.5	$9,220.9	$9,423.8	$9,621.7
Percentage Change	2.8%	3.3%	3.4%	2.9%	2.3%	-0.6%	-1.9%	2.0%	2.2%	2.1%
Government Expenditures	$2,330.5	$2,362.0	$2,369.9	$2,402.1	$2,434.2	$2,497.4	$2,539.6	$2,556.8	$2,508.2	$2,493.2
Percentage Change	2.2%	1.4%	0.3%	1.4%	1.3%	2.6%	1.7%	0.7%	-1.9%	-0.6%
Net Exports	-$603.7	-$687.9	-$722.7	-$729.4	-$648.8	-$494.8	-$358.8	-$421.8	-$415.0	-$408.0

[a]Estimate. [b]Forecast.

Note: Components may not sum to total due to chained dollars. Fixed investment excludes changes in inventories.

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

economy, not limited to the eurozone sovereign debt crisis or a potential U.S. sovereign debt crisis. Growth in 2012 is estimated at 2.4%, barring these external shocks.

GDP Components

Consumer Spending

The recession uncharacteristically affected consumers because of the trifecta of impacts: employment, income, and wealth. Total nonfarm employment peaked in January 2008 (seasonally adjusted) before losing 8.8 million jobs; 2.3 million have since been recovered. Nonfarm total wages dropped $282.9 billion, but have been on the rise since Q2 2010. The S&P 500 decreased 57%, and household wealth declined 33% from 2007 to 2009, but they have since increased 85% and 21%, respectively. While these three metrics have demonstrated year-over-year growth, they have not reached their previous peaks.

Post-recession consumer confidence, as measured by the Conference Board, peaked at 72 in February 2011 before trending a bumpy descent to 39.8 in October 2011—its lowest level since March 2009.

Despite dropping from the 10.1% unemployment rate recorded in October 2009 (seasonally adjusted), unemployment has remained stubbornly high. October 2011 figures were at 9%, but they should tick below this level in 2012. As the economy recovers, workers who left the labor force will begin to return, and the number of unemployed looking for work will rise. Therefore, high unemployment will remain even as employers increase their workforce.

Virtually every state is expected to continue employment growth in 2012. The unemployment rate will slowly improve to just under 9% in 2012, with full employment still a few years out. Vehicle sales will round out 2011 at 12.6 million, climbing another 5.5% in 2012, to 13.3 million. This vast improvement will still be well below the 16-17 million units sold annually between 2004 and 2007.

Construction will improve marginally in 2012 as 680,000 homes will be started, a trickle compared to 2.1 million in 2005. Given slow job growth, a tighter lending environment, and changing demographics, it will likely be many more years, if ever, before the United States returns to the long-term average of 1.5 million units.

While households have improved their debt ratios, consumers have demonstrated a return to the market. Retail sales will continue to grow in 2012, while price increases will remain below 3%. The fact that overall inflation remains in check understates the consumer-affecting price changes in some important purchase categories, primarily food and fuel.

Fixed Investment

Fixed investment includes investment in residential structures, as well as nonresidential structures, equipment, and software. In 2011, about 81.5% of real investment was business-related. Nonresidential investment grew at 9.1% and is expected to increase 7.4% in 2012.

Residential investment was set back another 1.3% in 2011, despite gains in multifamily housing. Growth will resume in 2012, estimated at 15.1%.

Government Expenditures

About 58% of total government expenditures are at the state and local level, roughly 28% are allocated to national defense, and 14% to nondefense programs. With ARRA spending coming to an end, government spending is anticipated to decline 1.9% in 2011 and 0.6% in 2012. The federal budget deficit is projected to remain unsettlingly high at $1.3 trillion in 2011 and fall to $1.06 trillion in 2012. Spending cuts and domestic austerity measures are needed, but cuts in the short term will also mean a slower overall recovery due to fiscal drag.

Net Exports

The United States maintains a net deficit on goods and a net surplus on services. Despite the resurgence of the consumer, net exports remain somewhat in check, with slight growth expected in both 2011 and 2012. Part of the improvement in trade imbalance is the increase in U.S. exports, helped by currency fluctuations. Currencies will surely play a role in U.S. exports in 2012, marked by a euro crisis, pressure placed on China to de-peg from the dollar, and other intentional inference, including devaluing the yen. Expect net exports to improve, from -$415 billion in 2011 to -$408 billion, in 2012.

Colorado Economic, Employment, and Population Outlook

This section provides a brief historical perspective of key Colorado economic indicators, highlighting Colorado's output, income, population, employment, and inflation.

State GDP and Income

In 2010, Colorado real GDP growth and employment growth each ranked 38th in the nation, and per capita personal income growth ranked 40th, demonstrating the relatively slow economic recovery. Colorado per capita income ranked 14th nationally, at $42,226, in 2010.

GDP growth was 1.4% in Colorado, compared to 2.6% nationally. Regionally, Colorado ranked in the middle, behind Idaho, Utah, and New Mexico, but ahead of Montana, Arizona, Nevada, and Wyoming.

Employment growth in Colorado declined 1% in 2010, compared to a loss of 0.8% nationally. While all of the regional states lost employment in 2010, Montana and Utah did so at a slower rate than Colorado, while Idaho, New Mexico, Wyoming, Arizona, and Nevada all recorded larger rates of decline.

Per capita personal income grew 2.2% in 2010, compared to the national average of 2.8%.

Inflation

The U.S. city average all items Consumer Price Index for All Urban Consumers (CPI-U) fell by 0.4% in 2009, followed by an increase of 1.6% in 2010. Inflation is expected to average 3.2% in 2011 and 2.2% in 2012, partially due to increases in energy and stagnant housing costs. Core inflation (all items less food and energy) increased nationally 1.7% in 2009 and 1% in 2010.

CONSUMER PRICE INDEX, U.S. AND DENVER-BOULDER-GREELEY 2003-2012 (1982–1984=100)

Year	U.S. CPI	U.S. CPI Rate	Denver-Boulder-Greeley CPI	Boulder-Greeley CPI Rate[a]
2003	184.0	2.3%	186.8	1.1%
2004	188.9	2.7	187.0	0.1
2005	195.3	3.4	190.9	2.1
2006	201.6	3.2	197.7	3.6
2007	207.3	2.8	202.0	2.2
2008	215.3	3.8	209.9	3.9
2009	214.5	-0.4	208.5	-0.6
2010	218.1	1.6	212.4	1.9
2011[b]	225.0	3.2	219.0	3.1
2012[c]	230.0	2.2	223.9	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: Colorado Department of Labor and Employment, Bureau of Labor Statistics, and Colorado Business Economic Outlook Committee.

Inflation is reported by the Bureau of Labor Statistics for the Denver-Boulder-Greeley combined metropolitan statistical areas, which is often used as the proxy for Colorado. The state tracks closely with national inflation. Like the nation, prices fell in 2009, by 0.6%, followed by an increase of 1.9%. In 2011 and 2012, Colorado prices are expected to increase 3.1% and 2.2%, respectively. Core inflation in the Denver-Boulder-Greeley region increased 1.7% and 1.4% in 2009 and 2010, respectively.

Population

Results from the 2010 census show Colorado's population reached 5,029,196 on April 1, 2010. This is an increase of 715,862 or 16.9%, over the decade. Colorado's growth ranked 9th in the nation. During the same time period, the U.S. population grew by 9.6%. This is a significant slowing compared to the previous decade, when Colorado's population rose by 31%, or 1.02 million.

Population change is the result of natural increase (births minus deaths) and net migration. Over the decade, 58% of the population change has been from natural increase and 42% from net migration. This is different from previous decades when net migration was the larger contributor to population change.

Colorado continues to become more ethnically and racially diverse. Colorado's Hispanic population (largest minority group) increased by more than 300,000, or 41%, during the decade compared to the total population, which grew by 17%. Blacks or African Americans rose 19%; Asians, 45%; and White non-Hispanic, 9.9%. This greater diversity occurred throughout the state, not just in the metro areas. The largest increases in the minority population were in Arapahoe, Adams, and El Paso counties. However, large increases were also seen in the

Eastern Plains counties of Yuma, Kit Carson, and Morgan, and the Western Slope counties of Routt, Moffat, Rio Blanco, Garfield, Eagle, and Mesa.

The population under 18 grew at a slower rate (11%) than those over 18 (18%). This is primarily due to the aging baby boomers, who are currently 45-65. Of Colorado's 64 counties, 39 recorded declines in their population under 18, most notably Jefferson County (-14,396) and Boulder County (-4,083). The population under 18 grew faster than the over 18 population in only a few counties, including San Miguel, Eagle, Pitkin, Summit, and Gunnison.

Hispanics were the only race/ethnicity where the population younger than 18 grew faster (44%) than the population over 18 (39%). Currently, 42% of the population under 18 is a minority (all except White non-Hispanic), compared to 15% of the population over 65.

Family households (with related individuals) grew at a slower rate than nonfamily households (living alone or with unrelated individuals). Households with children also grew slower; their share of all households dropped from 32% to 30%. Families with children, with both parents living together, fell from 75% of all households with children, to 72%, with a larger share of single-parent households. The largest growth of households was in nonfamily households, rising 24% over the decade compared to family households, which grew 16%. A subsector of this group is one-person households, which rose 26% over the decade and account for 28% of all households.

The short-run population forecast for Colorado is an increase of 66,600, or 1.3%, for 2011 and 75,900, or 1.5%, for 2012. Growth is projected to climb by 90,400, or 1.7%, for 2013. The 2013 forecast includes 4,000 net migration from the planned move of military troops and their families to Fort Carson in El Paso County following the Base Closure and Realignment Commission (BRAC) plans. Many of these troops may currently be deployed and will not be physically at Fort Carson.

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

The positive migration to the state during a decade with job loss has been a question and a doubt for several analysts in the state. Now with the 2010 census data in hand, net migrants to the state

continued on page 10

COMPONENTS OF COLORADO RESIDENT POPULATION
2003–2012
(In Thousands)

Year	Births (Resident)	Deaths (Resident)	Natural Increase	Net Migration	Population Change	Total[a] Population
2003	69.0	29.0	40.1	10.3	50.4	4,555.1
2004	68.5	29.0	39.4	14.3	53.7	4,608.8
2005	69.0	29.1	39.9	13.8	53.7	4,662.5
2006	69.5	29.3	40.2	42.9	83.1	4,745.7
2007	70.8	29.7	41.1	35.0	76.1	4,821.8
2008	70.7	31.0	39.7	40.5	80.2	4,901.9
2009	69.1	30.5	38.6	36.3	74.9	4,976.9
2010	67.3	31.4	35.9	38.1	74.0	5,050.9
2011[b]	69.0	32.0	37.0	29.6	66.6	5,117.4
2012[c]	73.0	32.5	40.5	35.4	75.9	5,193.3

[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 Economic, Employment, and Population Outlook

continued from page 9

totaled approximately 300,000 from 2000 to 2010. Several factors may explain the imbalance between migration and job growth:

- Skills mismatch: Industries where Colorado lost (Construction) and gained (Healthcare) jobs require skills that are not easily transferable.
- Growth in leavers from the labor force: Retirements (leavers) are growing as a share of the total labor force, creating opportunities for new entrants.
- Lower unemployment: Although Colorado's unemployment rate is high, it is relatively lower than other places in the United States, and workers see opportunities in the state.
- "Cool Cities" or "(f)un-employment": The Metro Denver area ranked number one of all metro areas in the nation from 2008 to 2010 in attracting persons age 25-34, according to a report by the Brookings Institute. The report states that "young adults are headed to metro areas which are known to have a certain vibe—college towns, high-tech centers and so called 'cool cities.'"

All of these factors contributed to Colorado's population gain during a decade with job loss.

HISTORICAL STATE AND NATIONAL ECONOMIC COMPARISON 2003–2010

	2003	2004	2005	2006	2007	2008	2009	2010
Colorado								
Real GDP ($ billions, chained 2005 dollars)	205.1	209.4	217.4	223.1	228.7	233.0	231.8	235.2
Nominal GDP ($ billions)	191.8	201.7	217.4	230.2	242.9	254.2	250.7	257.6
Total Personal Income ($ billions)	159.9	168.6	179.7	194.4	205.2	216.0	205.4	213.2
Per Capita Personal Income ($)	35,312	36,849	38,795	41,181	42,724	44,164	41,317	42,226
Employment (thousands)[a]	2,152.8	2,179.6	2,226.0	2,279.1	2,331.3	2,350.3	2,245.6	2,222.4
Unemployment Rate (percent)	6.1	5.6	5.1	4.3	3.7	4.8	8.3	8.9
United States								
Real GDP ($ billions, chained 2005 dollars)	11,836.4	12,246.9	12,623.0	12,958.5	13,206.4	13,161.9	12,703.1	13,088.0
Nominal GDP ($ billions)	11,142.2	11,853.3	12,623.0	13,377.2	14,028.7	14,291.5	13,939.0	14,526.5
Total Personal Income ($ billions)	9,378.1	9,937.2	10,485.9	11,268.1	11,912.3	12,460.2	11,930.2	12,373.5
Per Capita Personal Income ($)	32,295	33,909	35,452	37,725	39,506	40,947	38,846	39,945
Employment (thousands)	129,999	131,435	133,703	136,086	137,598	136,790	130,807	129,818
Unemployment Rate (percent)	6.0	5.5	5.1	4.6	4.6	5.8	9.3	9.6

[a] Revised.

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

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

The State Demography Office has created population and housing unit intercensal estimates for July 2000-2009 using census 2000 and 2010 counts as benchmarks. The office has also re-benched its forecasts, age, and race/ethnicity. Data and information can be found on the State Demography Office website at www.colorado.gov/demography.

Leeds Business Confidence Index

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

Looking back at the results for 2011, the forward-looking LBCI showed positive but waning optimism for the first three quarters. Expectations turned negative looking forward to Q4 2011, with the index dropping below 50.

One measure that is consistent is confidence that Colorado's economy will outperform the nation's economy. In the Q4 2011 survey, respondents indicated the greatest inhibitor to economic recovery is uncertainty and lack of confidence, followed by government regulation, politics, and employment.

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

Colorado Labor Force and Employment

For 47 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 analysis of 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. sources from the Bureau of Labor Statistics (BLS): Current Employment Statistics (CES) and Local Area Unemployment Statistics (LAUS).

continued on page 12

COLORADO RESIDENT LABOR FORCE, 2003–2012
(In Thousands) (Not Seasonally Adjusted)

Labor Force	2003	2004	2005	2006	2007	2008	2009	2010	2011[a]	2012[b]
Colorado Labor Force	2,492.3	2,535.4	2,588.4	2,655.6	2,698.6	2,737.3	2,727.6	2,687.4	2,687.5	2,737.5
Total Employment	2,339.5	2,393.0	2,455.8	2,541.8	2,598.4	2,605.5	2,501.8	2,447.7	2,454.6	2,506.7
Unemployed	152.8	142.5	132.6	113.7	100.2	131.7	225.8	239.7	232.9	230.8
Unemployment Rate	6.1%	5.6%	5.1%	4.3%	3.7%	4.8%	8.3%	8.9%	8.7%	8.4%

[a]Estimated.

[b]Forecast.

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

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

Colorado Economic, Employment, and Population Outlook

continued from page 11

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 based on the Quarterly Census of Employment and Wages (QCEW) that all firms are required to submit.

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

Labor Force

Between 2004 and 2007, household employment grew faster than the labor force. As a result, the unemployment rate declined from 5.6% to 3.7%. Colorado's unemployment rate increased steadily in 2008, reflecting the impact of the recession and the considerably slowing of wage and salary

COLORADO NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT
2003–2012
(In Thousands)

Sector	2003	2004	2005	2006	2007	2008	2009	2010	2011[a]	2012[b]
Mining and Logging	13.2	14.4	17.2	21.1	25.2	28.5	24.2	24.4	27.8	28.9
Construction	149.9	151.3	160.0	167.8	167.8	161.8	131.3	115.1	111.1	114.0
Manufacturing	153.9	151.8	150.4	149.1	147.0	144.1	129.6	125.2	128.0	126.1
Trade, Transportation, and Utilities	404.5	406.6	413.0	419.3	429.2	429.3	403.8	397.8	402.5	404.9
Information	84.6	81.2	76.9	75.4	76.4	76.8	74.7	71.7	71.1	70.6
Financial Activities	154.1	154.6	158.5	160.4	159.5	155.6	148.0	144.0	143.5	142.5
Professional and Business Services	292.0	304.1	316.8	331.8	347.9	351.9	330.2	329.8	337.0	343.8
Educational and Health Services	213.0	218.5	224.6	231.2	240.4	250.5	257.2	264.6	272.6	280.1
Leisure and Hospitality	245.6	251.3	257.5	264.9	270.4	272.9	262.4	263.1	270.5	274.3
Other Services	85.9	87.4	88.5	90.8	92.9	94.8	93.7	92.5	93.3	94.8
Government	356.2	358.5	362.6	367.2	374.7	384.1	390.5	393.9	392.2	392.6
Total[c,d]	2,152.8	2,179.6	2,226.0	2,279.1	2,331.3	2,350.3	2,245.6	2,222.1	2,249.6	2,272.6

[a]Estimated.

[b]Forecast.

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

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

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

employment growth from the prior years. In 2009 and 2010, the unemployment rate rose to 8.3% and 8.9%, respectively, as the state grappled with a declining labor force, increases in the number of unemployed, and population growth. The rate is projected to show a slight decrease in 2011 due to stabilization in the labor force number and a slight uptick in the number of employed. The unemployment rate is expected trend down to 8.4% in 2012, with the increase in household employment marginally outpacing growth in the labor force.

Employment

From 2001 through 2011, Colorado's population increased by almost 673,000 people—a 15.1% increase—while adding a mere 22,700 jobs, a 1% total increase over 10 years. Growth during the decade was wiped out with the crushing loss of 128,000 jobs from year-end 2008 to year-end 2010.

Colorado's return to growth occurred in 2011, with the state adding 27,500 jobs. While the gains were modest—making up only 21% total jobs lost—Colorado is moving in the right direction, helped by growth in both the goods-producing industries and services. Through aggressive economic development efforts that sell the great assets the state has to offer, Colorado is benefiting from companies that are choosing to relocate or grow operations in the state. The attraction to Colorado is as unique to each company as it is to each resident, ranging from a high quality of life and a highly education workforce, to high-tech industry clusters and a general entrepreneurial spirit.

In 2011, the goods-producing sector will add 2,200 positions, with gains in Manufacturing and Mining offsetting losses in Construction. Services-producing sectors will add 25,300 jobs, with the greatest gains in Education and Health Services, Leisure and Hospitality, and Professional and Business Services.

Nonfarm wage and salary employment for 2012 will increase 1%, reflecting a gain of 23,000 jobs. Only three sectors are expected to decline in 2012—Manufacturing, Information, and Financial Activities. Construction will show employment growth for the first time in four years, albeit off a much smaller base.

2010 AVERAGE ANNUAL WAGES BY SECTOR
COLORADO AND UNITED STATES

Sector	Colorado	United States
Agriculture, Forestry, Fishing, Hunting	$29,096	$26,636
Mining	99,133	90,628
Utilities	84,167	86,791
Construction	47,827	49,597
Manufacturing	60,033	57,526
Wholesale Trade	68,124	63,629
Retail Trade	26,823	26,652
Transportation and Warehousing	42,741	44,197
Information	82,085	74,395
Finance and Insurance	71,408	84,518
Real Estate and Rental and Leasing	41,860	43,786
Professional and Technical Services	79,623	77,318
Management of Companies and Enterprises	124,459	98,286
Administrative and Waste Services	33,865	33,276
Educational Services	37,884	42,801
Health Care and Social Assistance	44,310	43,725
Arts, Entertainment, and Recreation	30,097	32,280
Accommodation and Food Services	12,578	17,177
Other Services	33,219	29,370
Government	47,637	48,202
All Industries	$47,868	$46,751

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

Colorado Agriculture Will Post Record Estimated Net Farm Income in 2011

Colorado's agricultural producers benefited from unexpectedly strong market prices for livestock and crops in 2011, leading to estimated record net farm income of $1.7 billion. Gross farm revenue for 2011 is expected to increase by nearly $1.5 billion, to $8.6 billion, topping the previous high of just under $7.5 billion recorded in 2007. Estimated 2011 cash receipts for most of Colorado's major crops are far above the levels forecast a year ago, with hay up 32%, potatoes up 51%, and corn up a remarkable 62%. Total livestock cash receipts are estimated to surge to a new record of $4.6 billion in 2011, eclipsing the previous record of $4.3 billion in 2007. A strong recovery and growth in Colorado's dairy industry, along with record cash receipts for producers of sheep, lambs, and specialty livestock, contributed importantly. Estimated total farm production expenses are up 14% in 2011 from 2010 due mainly to increased feed costs for livestock and dairy industries. Despite considerable operating cost increases, the estimated 21% jump in gross value of farm revenue is enough to reward Colorado farmers and ranchers with an additional $625 million in estimated net income in 2011 compared to 2010.

Looking ahead to 2012, Colorado net farm income is projected to remain healthy at more than double the 2009 recession level. Production expenses are expected to continue to trend higher, limiting growth in net farm income. Export demand, especially to Asia, Canada, and Mexico, should remain strong and be a leading factor in determining prices and revenue received by Colorado's agricultural producers next year. However, some key factors, such as the value of the U.S. dollar, may slow the rate of increase for Colorado's agricultural product export sales. The severity and impact of the 2011 drought in Texas, Oklahoma, Kansas, and southern Colorado was not foreseen and may again be a production and market "game changer" for Colorado crops and livestock in 2012. On balance, a modest decline of $61 million in net farm income, to $1.6 billion, is forecast for Colorado in 2012, assuming the absence of sharp price increases that drove advances in gross farm revenue the past two years.

COLORADO FARM INCOME AND PRODUCTION EXPENSES 2003–2012 (In Millions of Dollars)

Year	Gross Value of Farm Revenue	Total Farm Production Expenses	Net Farm Income
2003	$5,711.5	$4,828.5	$883.0
2004	6,447.9	5,119.9	1,328.0
2005	6,755.7	5,379.8	1,375.9
2006	6,761.5	5,843.9	917.6
2007	7,478.2	6,203.1	1,275.1
2008	7,269.3	6,161.6	1,107.7
2009	6,800.4	6,092.8	707.6
2010	7,065.7	6,030.7	1,035.0
2011[a]	8,559.8	6,900.0	1,659.8
2012[b]	8,563.2	7,000.0	1,563.2

[a]Estimated.
[b]Forecast.
Source: Colorado Business Economic Outlook Agriculture Committee.

Historically, as goes the livestock industry, so goes Colorado's Agriculture Sector economy because livestock, predominantly cattle, traditionally accounts for at least 60% of total farm gate cash receipts. **Colorado's livestock industry** revenues were not expected to improve in 2011, but they grew substantially. For fed cattle, the 2011 projected average price of $96 for steers and heifers turned out to be far below the current estimated average price of $120 per hundredweight actually received. Colorado also bucked the national trend of a shrinking cattle herd and instead added cattle on feed coming from drought-stricken states. Fed cattle marketed in 2011 in Colorado are now estimated to be 10% above the number of head marketed in 2010. As a result of unexpectedly high prices and increased numbers on feed, cash receipts for **cattle and calves** reached an estimated record level of just over $3.5 billion. Cash receipts for cattle and calves are anticipated to grow marginally, to $3.6 billion, in 2012, with a projected average annual price of around $125 per hundredweight. Export demand for cattle and beef is likely to continue to grow and benefit Colorado more than perhaps any other state due to the state's high efficiency feedlots and processing facilities that can respond to demand for increased export shipments. Colorado is attracting and developing more high efficiency cattle feeding, while smaller, less efficient feedlots in the Midwest are reducing volume substantially. This long-term structural shift in geography provides an opportunity for Colorado's cattle and beef industry. Cow-calf operations could prosper with record nominal net returns on a per cow basis in 2012, if Mother Nature cooperates.

Colorado's **dairy** industry revenues rebounded strongly in 2011 as cash receipts soared to an estimated record $600 million. In the middle of the recession, just two years earlier, cash receipts for dairy products were only $359 million. Colorado's relatively high efficiency milk output per cow continues to support the industry. Strong exports are expected to continue in 2012, but not at the double-digit growth levels of 2011.

The highly anticipated new state-of-the-art Leprino Foods plant in Greeley began adding to local milk demand early in November 2011, with full capacity expected to be reached in 2013. At final build-out, it is estimated that the facility will consume up to 7 million pounds of milk daily, producing cheese, nonfat dry milk, and other dairy products. With both foreign and domestic demand growing, Colorado's dairy cow herd expanded by an average of 1,000 head per month in 2011 and will continue to add cows next year. Dairy cash receipts are not expected to increase in 2012 as higher cow numbers will be offset by tighter operating margins due to higher feed costs.

Sheep and lamb prices climbed to unprecedented levels in 2011 for the second year in a row, leading to record cash receipts for Colorado producers. Many positive elements are converging in this sector, in which Colorado is a national production leader. Lamb appears to be gaining greater interest among chefs and locavores, with overall consumer

continued on page 16

Agriculture

continued from page 15

demand improving, led by growing ethnic populations nationwide. Retailers Walmart and Kroger are notably featuring lamb in meat promotions. Northwest Colorado has the greatest concentration of sheep and lamb producers and that part of the state enjoyed good pastures in 2011. Encouraged and supported by strong prices, producers are expected to raise slightly larger flocks of sheep and goats in 2012. This sector should continue to contribute historically large cash receipts to the state's agricultural economy in 2012, with prices expected to continue the upward trend, though more moderately.

Hog production in Colorado has been steadily declining in Colorado for the past decade. From 2000 to 2010, state hog production fell by 50%, with annual cash receipts for producers falling between $100 million and $150 million by 2008-2009. Responding to strong prices in 2010, the hog inventory in Colorado and sow productivity increased, allowing producers to benefit from the 18% rise in prices nationally in 2011. Cash receipts were up 15% for the state's hog producers in 2011 as a result. Export demand from Asia, fueled by the weak dollar, should continue to support prices, and the newly approved U.S.-Korea Free Trade Agreement could mean more sales of U.S. pork (and beef) to that growing market in 2012 and beyond. While 2012 cash receipts for hogs are forecast to be in the $225 million range for the second-straight year, this is 25% below the peak recorded in 2000.

Colorado's declining **poultry** industry followed the national trend of substantial net losses per bird in

VALUE ADDED BY COLORADO AGRICULTURAL SECTOR
2003–2012
(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
2003	$3,525.9	$1,293.0	$4,818.9	$572.7	$319.9	$5,711.5
2004	4,187.4	1,395.9	5,583.3	643.4	221.2	6,447.9
2005	4,129.6	1,511.4	5,641.0	732.7	382.0	6,755.7
2006	4,168.7	1,574.7	5,743.4	773.4	244.7	6,761.5
2007	4,324.0	2,111.6	6,435.6	845.2	197.4	7,478.2
2008	3,892.1	2,231.2	6,123.3	885.0	261.0	7,269.3
2009	3,338.1	2,329.6	5,667.7	940.9	191.8	6,800.4
2010	3,807.0	2,320.1	6,127.1	667.0	271.6	7,065.7
2011[c]	4,639.3	2,993.5	7,632.8	700.0	227.0	8,559.8
2012[d]	4,721.3	2,946.9	7,668.2	700.0	195.0	8,563.2

[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 Agricultural Committee.

2011. While figures for Colorado specifically are not available, U.S. poultry producers are now estimated to be losing 10 cents per pound of production on average. High feed input costs continued to undermine poultry industry profitability in 2011. Cash receipts may improve slightly, to $85 million, in 2012, but they did not gain significantly in 2011 from the 20-year low of $77 million in 2010. In contrast, the pre-recession record net income received by Colorado poultry producers in 2007 was $207 million. The closure of the Butterball processing plant in Longmont continues the disappearance of turkey production and processing in Colorado, but egg and chicken production are stable.

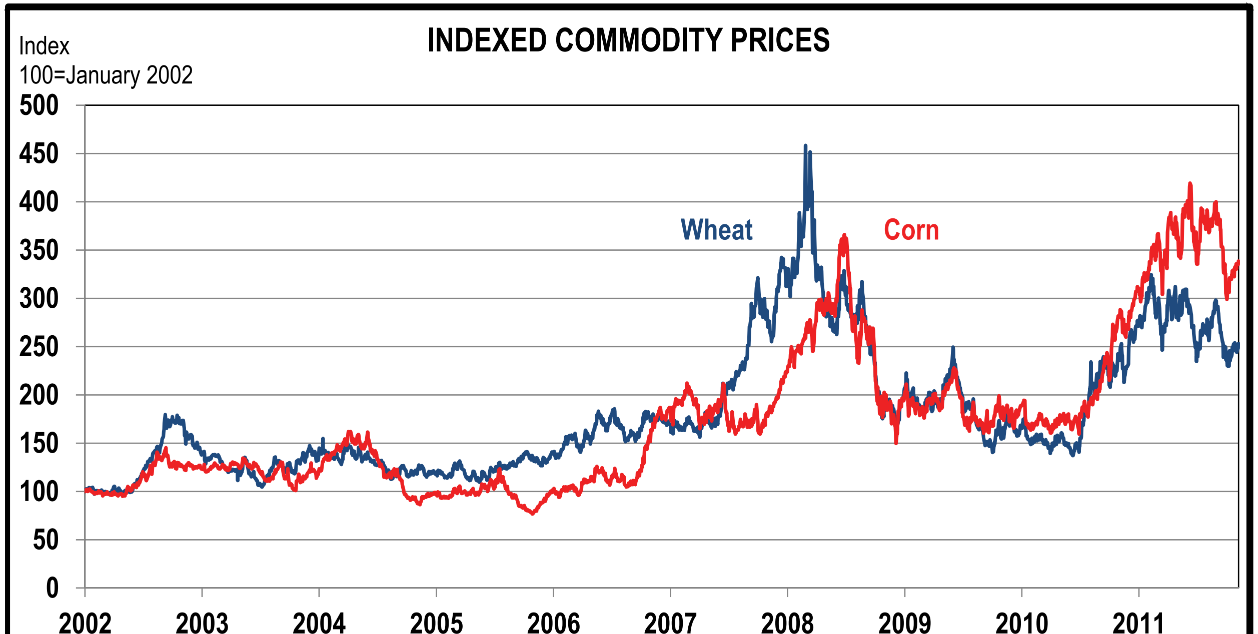
Despite the severe drought in southern Colorado, a devastating late freeze on the Western Slope orchards, and the lingering negative impact of the poor housing market on the nursery and greenhouse industry, record net income for **Colorado crops** is estimated for 2011. Grain prices were projected to remain firm in 2011, but season average prices for many crops far exceeded even optimistic expectations, with wheat, corn, hay, potatoes, and sunflowers all bringing record average market prices to Colorado producers. Average annual total cash receipts for all Colorado crops for the 10-year period from 1993 through 2002 were $1.3 billion. The average annual total for the current 10-year period projects to an eye-opening 48% higher, at $2 billion (including estimated 2012 numbers). Modestly higher crop production input costs in 2011 were compensated by even higher revenues for many producers.

Colorado **wheat** cash receipts are estimated at a record $572 million for 2011 as producers were able to market a record 2010 wheat crop at a record average marketing year price. While production in 2011 declined, overall average yields were better than many expected, due to timely rains in northeastern Colorado. Even in drier areas, wheat varieties bred at Colorado State University resisted and tolerated the drought well.

The recently seeded 2012 wheat crop is emerging with promise as planting and early post-planting conditions improved from the previous year. Cash receipts for wheat in 2012 should nearly match 2011, with prices remaining far above long-term historical averages and production prospects favorable. Corn prices, however, will likely have as much impact on wheat prices next year as any single factor.

Cash receipts for **corn** in Colorado are estimated at $976 million in 2011 and are forecast to reach the milestone of $1 billion in 2012. To put these figures into perspective, the state's corn producers garnered in excess of $400 million for the first time in 2008 and achieved $604 million in 2010. Corn has suddenly become the leading revenue generating crop in the state, responsible for a dominant 33% of cash receipt totals for all Colorado crops. If dry land corn yields improve in 2012, Colorado corn

continued on page 18



Source: Bloomberg (No. 1 hard red winter – ordinary protein, Kansas City, MO and USDA Toledo No. 2 Yellow Corn Not on the River Spot Price), through November 8, 2011.

Agriculture

continued from page 17

production is projected to be very near the record 2010 crop output.

Corn prices have proven to be among the most volatile of any crop in recent years. Colorado's five ethanol plants have capacity to utilize 55 to 60 million bushels of corn annually, and produce 140 million gallons of ethanol every year. At maximum capacity, these plants could use nearly half of all corn produced in the state. Corn prices will continue to have a major impact on Colorado's livestock industry profitability and animal numbers.

Colorado **hay** prices soared in 2011 in response to supply shortages in drought-stricken states and a reflection of sharply higher prices for corn and other livestock feedstuffs. As a result, cash receipts reached a record estimated $397 million in 2011. Hay cash receipts had been projected to fall to $300 million in 2011, but surprisingly robust feed demand from Colorado's strengthening livestock and dairy industries added to the short national supply, putting upward pressure on prices. Fortunately, hay production in the state, while down slightly from 2010, was not a disaster in 2011. Hay prices for 2012 could fall substantially, but only if the Texas-centered drought is broken.

Barley production in Colorado has fluctuated dramatically in recent years, with production under 5 million bushels in 2007 and more than 10 million bushels in 2010. Production in 2011 and 2012 is projected at around 8 million bushels. Cash receipts for barley have moved into a higher range, between $30 million and $45 million, in the past five years. While 2012 is anticipated to be another year at the low end of the range, recognize that total cash receipts for Colorado barley producers exceeded $30 million only once between 1994 and 2007. Preliminary indications are that 2012 contract prices offered to growers are about 25% above the previous year.

Total cash receipts for **sunflowers** reached an estimated record $40 million in 2011 and are projected to maintain that level in 2012. In contrast, total cash receipts of $16 million in 2011 for **dry beans** were at their lowest level in more than 20 years. Annual aggregate cash receipts for dry bean producers in the early 1990s averaged three times the current amount. Cash receipts for **sorghum** in 2011 are estimated to equal the record of $26.3 million seen in 1996, but are expected to decline sharply in 2012, to $15.4 million. Cash receipts for millet are projected at $22 million in both 2011 and 2012. Millet has potential to grow in its contribution and in the past has added as much as $30 million annually in cash receipts to the agricultural sector.

While acreage of **sugar beets** has declined in recent years, production has been steady the past few years, mirrored by relatively stable prices, around the $44 per ton level. As 2011 began, great uncertainty existed regarding the legality of planting transgenic herbicide-tolerant sugar beets and questions were made about the availability of non-genetically modified (GMO) seed. Colorado growers were permitted to plant a crop of mostly Roundup Ready sugar beet acreage while an environmental impact study was undertaken by the USDA. Assuming growers will be able to do the same in 2012, production is expected to increase slightly, with total cash receipts declining marginally as prices soften somewhat.

The total cash receipts for Colorado's potato crop in 2011 are projected to be the highest on record, at almost $324 million.

The total cash receipts for Colorado's **potato** crop in 2011 are projected to be the highest on record, at almost $324 million, reflecting an estimated record average seasonal price of $17.53 per hundredweight. This is an increase of $160 million in cash receipts compared to 2006. Concerns about the decreasing aquifer levels in Colorado's main potato producing area, the San Luis Valley, heightened in 2011 due, in part, to poor valley and surrounding mountain snowpack in the 2010-11 winter. The industry continues to increase acreage of newer varieties less susceptible to disease, and is working to expand production of specialty potatoes in response to demand. However, growers are limited in substantially expanding production by insufficient water. Even though trade of fresh potatoes to Mexico remains restricted to deliveries just 26 kilometers inside its border, Mexico continues to be a significant and growing market for Colorado potatoes. More than 2,000 truckloads are exported annually, with an estimated value of $15 million. Progress was made in 2011 toward opening up the market for Colorado potato exports to Mexico. Colorado potato production and prices are both expected to be somewhat lower in 2012, but total cash receipts are projected to remain above $300 million for the second-consecutive year and much above the 10-year average.

The most important trend in the Colorado **onion** crop has been the decline in production since the last half of the 1990s. Average prices have not increased sufficiently in the past decade to offset lower production with respect to total grower cash receipts. Total cash receipts for onions in 2010 were $42 million, with similar expectations for 2011 and 2012.

Fruit crop production was damaged by a late spring frost on the Western Slope that particularly harmed cherries and apples, but also reduced the output of peaches and pears, as well as grapes. Tree fruit growers in Colorado have continued to increase peach orchard planting at the expense of apples in the past several years, and 2011 may have seen an acceleration in that trend. During the first half of the 1990s, the value contributed by apples to the Colorado fruit sector was regularly greater than peaches. By the late 1990s, peaches had overtaken apples in total value, and the value of peaches now averages about 75% of the total value of the Colorado tree fruit crop annually. Given the popularity of Colorado peaches, the 2012 cash receipts for the fruit sector will be carried by peach production and are projected to rise near the record 2010 level of $32 million after an estimated $28 million in 2011. A big question in the Colorado fruit and produce industry for 2012 will be how cantaloupe growers, consumers, and regulators will respond to the listeria crisis of 2011. While cantaloupe represents a relatively small and regional component of fruits and vegetables in Colorado—approximately 1,500 acres on more than 60 farms mostly in Otero County—confidence will be slow to recover, and some producers will switch to nonhorticultural crops (e.g., corn) in 2012.

The continuing weakness in the housing market has led to fewer housing starts, resulting in far fewer new lawns and landscaping in 2011 than in the boom years prior to the recession. The **floriculture** and **greenhouse** industry, including **sod** production, will depend largely on the recovery of new home construction to drive growth as the economy stabilizes. Greenhouses are experiencing strong growth in demand for vegetables, and nurseries are finding double-digit growth in demand for fruit trees as existing homeowners invest in productive landscaping improvements. Cash receipts for this sector are estimated at $255 million in 2011 and are projected to remain at that level in 2012. With four years of decline beginning in 2006 and a weak housing market, the stability of the past two years may be reason for optimism. This sector continues to be under-recognized for its contribution to the Colorado agricultural economy.

Volatile energy and fertilizer markets, as well as prices, will continue to be "wild cards" for Colorado's agricultural economy, which will challenge business planning, risk management, and economic forecasting. Colorado's Agriculture Sector is among the most diverse in the nation, and Colorado farmers and ranchers have proven to be quite resilient and innovative. Many farmers and ranchers continue diversifying operations and seeking additional sources of revenue to strengthen their businesses. Agritourism continues to expand in the state, with producers inviting the public onto their lands to experience pumpkin patches, corn mazes, bird watching, hunting, fishing, and other rural agriculture-related activities. Specialty crops continue to add great value and diversity to our agricultural economy. Colorado wineries, numbered at nearly 100, are making award-winning wines from grapes grown in the state, and new crops, like hops and millet, are emerging and finding markets. Moreover, Colorado has one of the 10-fastest growth rates among all states for new farmer's markets.

The total value of sales of forestry products, services, and fees received by Colorado farmers exceeds $700 million annually. Government payments for commodity programs, conservation, and disaster assistance also bolster farm income, totaling $227 million in 2011. Reduced government payments of $195 million are forecast for 2012 in Colorado. Landowners are also capturing increased lease payments associated with the development of wind farms, predominantly on Colorado's Eastern Plains.

The record contribution of Colorado's farmers and ranchers in 2011 to the state's economic recovery is projected to continue. The Agricultural Sector has reduced debt substantially over the past few years, which improves farmers' and ranchers' profitability and sets the stage for future prosperity and capital investment needed for Agriculture to continue to lead the Colorado economy out of recession.

Mining and Logging

Colorado is an energy- and mineral-rich state. The latest U.S. Energy Information Agency (EIA) ranking of natural gas and oil fields in the nation shows Colorado is home to all, or part of, nine of the largest natural gas fields and two of the largest oil fields. Furthermore, the state is currently the 11th largest coal producer in the country, and the Henderson Mine is the world's largest primary producer of molybdenum. In addition to traditional energy resource development, Colorado is also one of the nation's leading renewable energy states with plans to achieve 30% renewable energy by 2020. This goal will include a portfolio mix of wind, solar, biomass, and hydroelectric energy resources.

Revenues generated by Natural Resources and Mining development activity make this sector one of the most significant contributors to Colorado's GDP. Crude oil value is expected to increase in 2012, similar to the previous year, due to continued Niobrara play development and higher prices. The value of natural gas is anticipated to be flat due to lower prices, and coal may see a modest value increase due to higher prices (despite less production). Uncertainty associated with employment, debt, and deficit issues; European finances; and energy policy at the state or federal level makes forecasting revenue difficult.

Oil and Gas

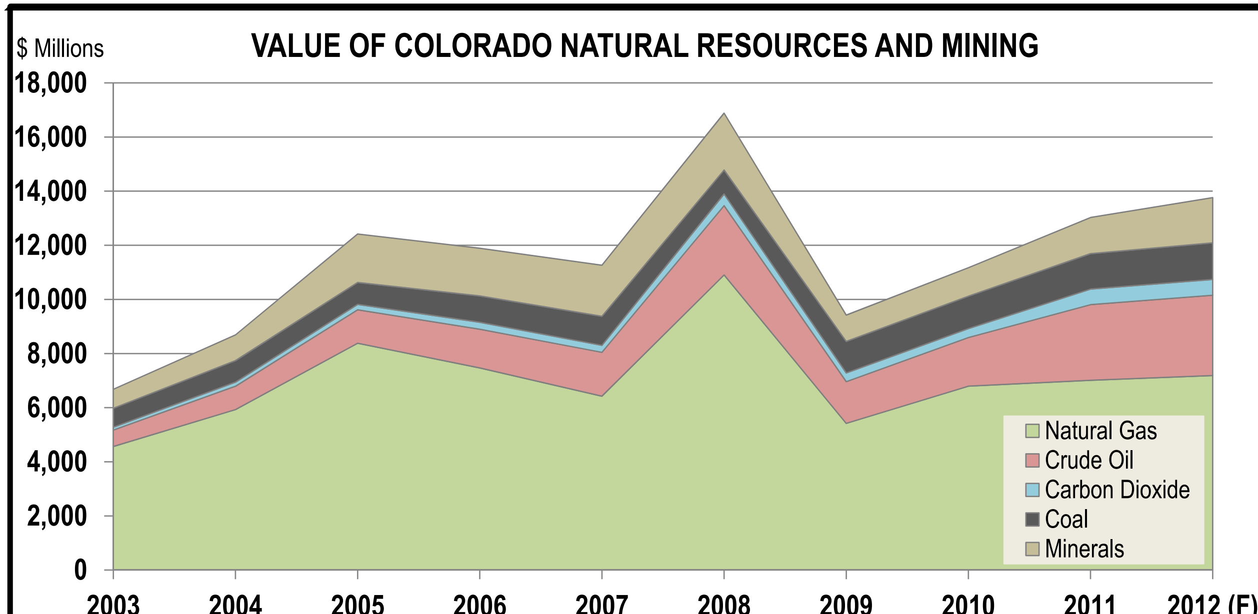
While not as robust as many hoped, steady growth was recorded in 2011 in Colorado oil and gas activity. Low gas prices have been offset to a large degree by higher oil prices, which helped to foster the continued development of Colorado shale oil plays, such as the Niobrara. Uncertainty in the national and global economic recoveries, however, will mean continued volatility for energy prices in 2012. Nonetheless, Colorado will likely see increases in oil and gas drilling, and the associated economic benefits. New technologies aimed at new resource plays, along with renewed attention toward developing North American energy resources, will help drive this growth regionally.

The total value of oil, gas, and carbon dioxide production in 2010 was $8.9 billion, a 23% increase from the 2009 value of $7.3 billion. The value of oil, gas, and carbon dioxide production for 2011 is projected to be about $10.4 billion, or 16.4% greater than 2010. For 2012, the value of Colorado's production is forecast at about $10.7 billion—a modest increase in line with the slow recovery pace for the economy as a whole. While gas prices are likely to remain low, unforeseen volatility in oil prices could significantly impact the 2012 forecast.

Oil and Gas

Oil

In 2010 and 2011, the U.S. petroleum benchmark known as West Texas Intermediate (WTI) fluctuated in a range between $70 and $110 per barrel. During the first half of 2011, the monthly spot average was often above $90 per barrel. This is in contrast to the average 2009 WTI spot price



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.

of close to $60 per barrel. Colorado crude oil is typically sold at a discount to WTI due to market demand considerations. For the first three quarters of 2011, the Colorado weighted average per barrel of oil was $88.14 based on data from the Colorado Oil and Gas Conservation Commission (COGCC), while the WTI spot price was $91.38 per barrel. The future price of oil for Colorado will depend on the pace of global recovery, as well as changes in local supply and demand.

The International Energy Agency (IEA) is forecasting 2012 oil demand to be marginally higher than in 2011 due to tight supply offsetting the effect of a weak global economy. If global economic growth should slow significantly, the Organization of Petroleum Exporting Countries (OPEC) may reduce production to prevent oil from dropping much below $80 per barrel. The IEA predicts that oil demand will be 89.2 million barrels per day in 2011 and 90.5 million barrels per day in 2012. The U.S. Energy Information Administration (EIA) has slightly lower estimates of 88.4 million and 89.8 million barrels per day in 2011 and 2012, respectively. China and other emerging economies will be responsible for this projected consumption growth. EIA currently estimates that the average WTI will be $99 per barrel in 2011 and $98 per barrel in 2012.

Retail Gasoline

The Colorado average retail price of automotive gasoline through October 2011 was $3.47. This is a $0.76 (28%) increase over the average 2010 price of $2.71. The transportation sector is unlikely to see much relief from these higher gas prices in 2012 unless the economic recovery should stall significantly. The EIA currently forecasts that the national average will decrease to $3.43 per gallon in 2012, not only affected by changes in the cost of crude oil, but also the average U.S. refinery gasoline margin. In Colorado, assuming $100 per

continued on page 22

VALUE OF COLORADO NATURAL RESOURCES AND MINING
2003–2012
(In Millions of Dollars)

	Oil and Gas Extraction					Mining					
Year	Crude Oil	Natural Gas	Carbon Dioxide	Subtotal	Percent Change	Coal	Minerals	Subtotal	Percent Change	Total	Percent Change
2003	$605	$4,567	$104	$5,276	87.8%	$703	$702	$1,405	12.9%	$6,681	64.8%
2004	862	5,930	151	6,943	31.6	796	951	1,747	24.3	8,690	30.1
2005	1,235	8,381	200	9,816	41.4	813	1,789	2,602	49.0	12,418	42.9
2006	1,428	7,469	258	9,155	-6.7	974	1,762	2,736	5.1	11,891	-4.2
2007	1,619	6,426	257	8,302	-9.3	1,075	1,886	2,961	8.2	11,263	-5.3
2008	2,561	10,905	430	13,896	67.4	887	2,100	2,987	0.9	16,883	49.9
2009	1,540	5,420	324	7,284	-47.6	1,166	971	2,137	-28.5	9,421	-44.2
2010	1,796	6,794	330	8,920	22.5	1,069	1,050	2,119	-0.8	11,039	17.2
2011[a]	2,794	7,012	575	10,381	16.4	1,201	1,336	2,537	19.7	12,918	17.0
2012[b]	2,964	7,188	586	10,739	3.4	1,213	1,673	2,886	13.8	13,625	5.5

[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.

Mining and Logging

continued from page 21

barrel oil, the actual cost of one gallon of unleaded gasoline would be approximately $3.40 taking into account margin costs, transportation, and taxes. Expected volatility in crude oil in 2012 would translate to a wide range in gasoline prices in the state—$2.65 to $3.90 per gallon is plausible. An additional consideration is that current energy and environmental policies discourage adding refining capacity.

The use of oxygenated motor gasoline is required during the winter months in the Denver/Boulder and Fort Collins areas. Although the Denver Metro area was the first area in the country to require the use of motor gasoline blended with ethanol to reduce carbon monoxide emissions, Colorado is relatively new to large-scale ethanol production. Currently, the state has the capacity to produce 125 million gallons of ethanol per year, mostly from corn at small facilities in the northeastern part of the state. Colorado's smallest ethanol production plant is co-located with the Coors brewery in Golden, where it uses waste beer to produce ethanol for fuel consumption. New EPA rules will allow blending of higher concentrations of ethanol, increasing from 10% to 15% of volume, with potential effects on supply and demand at Colorado refineries.

Natural Gas

Forecasts from the EIA suggest that the average American household using natural gas for heating will see a total winter (October through March) price increase of 3% (approximately $19) over 2010-11. More than 50% of all households in the United States depend on natural gas as a primary heating fuel; for the Midwest, this number climbs to

COLORADO PHYSICAL OUTPUT OF FOSSIL FUELS
2003–2012

Year	Coal Millions of Short Tons	Coal Index	Crude Oil Millions of Barrels	Crude Oil Index	Natural Gas Billions of Cubic Feet	Natural Gas Index	Dioxide Cubic Feet	Carbon Dioxide Index
2003	35.8	100.0	21.4	100.0	1,004	100.0	308	100.0
2004	39.8	111.2	22.4	104.4	1,065	106.0	342	110.9
2005	37.8	105.6	22.9	107.2	1,119	111.5	362	117.3
2006	35.5	99.2	24.0	112.4	1,218	121.3	373	121.0
2007	36.1	100.8	25.3	118.1	1,309	130.4	375	121.6
2008	32.3	90.2	29.3	136.7	1,487	148.0	371	120.5
2009	28.6	79.9	29.6	138.2	1,541	153.5	408	132.4
2010	25.2	70.4	31.4	146.5	1,569	156.2	265	86.1
2011[a]	26.8	74.9	31.7	148.1	1,623	161.6	401	130.1
2012[b]	26.7	74.6	32.3	150.9	1,664	165.7	409	132.7

[a]Estimated.

[b]Forecast.

Note: Base year for indexed values is 2003.

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.

more than 70%. This projected increase in average household expenditure will result from a forecasted 4% increase in prices and a 1% decline in consumption. The National Oceanic and Atmospheric Administration (NOAA) estimates that the total heating degree days in the 2011-12 winter will be 2% warmer in the lower 48 states compared to the previous winter. Regionally, the Mountain West, including Colorado, is projected to be 3% colder.

Colorado is a top natural gas-producing state. EIA estimates that conventional and unconventional output from several Colorado basins in 2009 accounted for nearly 7% of the annual U.S. natural gas production, making it the fifth-largest producing state. The industrial and residential sectors are the leading natural gas-consuming sectors in Colorado. About 75% of Colorado households use natural gas as their primary energy source for home heating, one of the highest shares in the United States. In 2010, gas producing wells in Colorado totaled more than 40,000, with a total production of just over 1.57 trillion cubic feet. Colorado is a net exporter of natural gas—66% of its natural gas production is transported to California and Midwest markets. The 1,679-mile Rockies Express Pipeline (REX), which became fully operational in November 2009, moves natural gas from Colorado to eastern Ohio, with a maximum capacity of 1.8 billion cubic feet per day. In August 2011, Kinder Morgan, which owns and operates REX, indicated it is considering reversing the flow of the pipeline to deliver natural gas to the west from the East Coast. This reversal could help remedy a mismatch in supply and demand, and ultimately lead to more uniform gas pricing across the nation.

COLORADO MINING AND LOGGING EMPLOYMENT 2003–2012 (In Thousands)

Year	Employment	Percentage Change
2003	13.2	2.3%
2004	14.4	9.1
2005	17.2	19.4
2006	21.1	22.7
2007	25.2	19.4
2008	28.5	13.1
2009	24.2	-15.1
2010	24.4	0.8
2011[a]	27.8	13.9
2012[b]	28.9	4.0

[a]Estimated.

[b]Forecast.

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

Pricing for natural gas using the Henry Hub benchmark averaged $4.58 per million Btu in 2010, and as of September 2011, averaged to $4.22 per million Btu for 2011. Gas prices appear to be steady, with limited probability for any significant near-term increases. Colorado-specific pricing continues to be less than the Henry Hub futures price due to export market limitations. In 2010, for example, the Colorado weighted price average was $4.18 per million Btu—a $0.40 discount to the average Henry Hub price. In 2011, the differential was even less, averaging $0.16 through September.

While it has been suggested that new shale-play drilling technologies and a push to include natural gas as a "clean" alternative to coal may impact Colorado's overall energy generation portfolio, the EIA's latest recorded data (2010) show instead a 5% decrease in natural gas usage for electricity generation compared to 2009. The competiveness of emerging renewable resources (i.e., wind, solar, etc.) could also be affected by lower natural gas prices. Various economic and political factors, such as the implementation of the Clean Air-Clean Jobs Act, will play a role.

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 2010, a total of 265 million cubic feet of CO_2 were produced in four counties (Montezuma, Dolores, Huerfano, and Jackson), with the total production value estimated to be around $330 million. CO_2 production levels and total values are on track in 2011 and 2012 to see significant increases over 2010. Total value in 2011 and 2012 may well exceed $500 million, although this value is based on uncertain pricing estimates.

Drilling Permits

COGCC reports 5,996 drilling permits were approved in 2010, representing a 16.2% increase from the 5,159 permits approved the previous year. For 2011, the commission approved roughly 3,227 permits in the first three quarters and is

continued on page 24

Mining and Logging

continued from page 23

projected to finish the year with approximately 4,800 approved permits in total. This decrease in total permits is due primarily to a new two-year permit scheme that became effective in late 2009. Additionally, horizontal wells take longer to drill and, if productive, can replace the need for multiple vertical wells. The monthly drill rig count in Colorado slowly increased throughout 2011, from 63 in January to 78 in October. As of August, the drilling of 1,789 new wells had been initiated in Colorado. Horizontal drilling is becoming a significant component of Colorado's oil and gas activity. In 2010, 5.6% of all Colorado drilling permits issued were for horizontal wells, compared to 18.8% in September 2011. Weld County has been the overwhelming center of Colorado horizontal drilling activity for 2011, with 85% of all newly drilled horizontal wells.

Employment

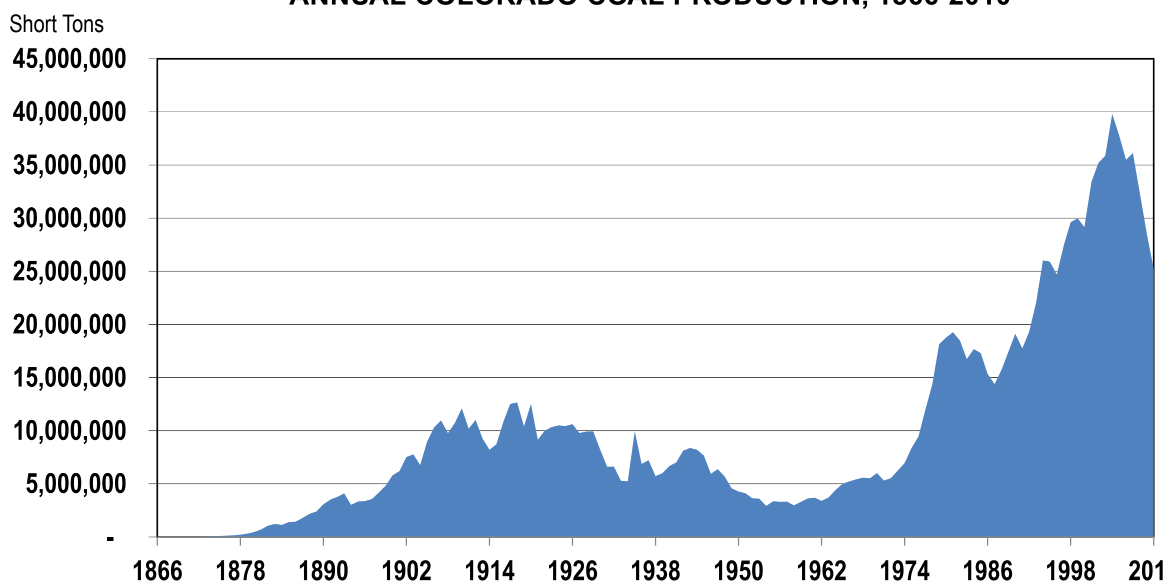
The Colorado Department of Labor and Employment (CDLE) estimates that jobs associated with oil and gas extraction (including support activities) numbered more than 18,500 in 2010. This total is expected to increase to over 21,000 in 2011 and more than 25,000 in 2012.

Coal

The Colorado coal industry has experienced a 33% decline in production over the last seven years. In 2010, annual production from the state's 10 mines decreased to 25.2 million tons, down 11.9% from 2009. Declines are attributed to a slower market for compliance coal sales to power plants in other states, higher transportation costs, uncertainty over carbon regulations, and new legislation mandating higher-cost energy sources, such as renewable energy for electricity generation. Demand for the low-sulfur, high-heat content Colorado coal decreases each year as more power plants in the Midwest, south-central, and southeast United States develop technologies to address air quality requirements. A few mines have technical geologic conditions making mining difficult, such as the Foidel Creek Mine in Routt County and the Bowie #3 Mine in Delta County.

Colorado coal exports have tumbled 43% since 2005, with increased transportation costs a key limiting factor. Nationally, power companies are also fuel-switching from coal to natural gas to offset carbon dioxide emissions. The potential closure of four coal-fired power plants in Colorado by 2017 (per recent legislation) may further reduce coal production by 2.5 million tons per year.

ANNUAL COLORADO COAL PRODUCTION, 1866-2010



Source: Carroll, Christopher J., and Mark A. Bauer (2002). *Historic Coal Mines of Colorado, Colorado Geological Survey Information*, Series 64.

Mines

In 2010, coal mines operating on the Western Slope produced bituminous and sub-bituminous coal for electricity generation at power plants, and to a lesser extent, cement and manufacturing operations. Coal was produced in eight Colorado counties: Routt, Moffat, Rio Blanco, Garfield, Delta, Gunnison, Montrose, and La Plata. In 2010, Routt County was again the leading coal-producing county, with more than 7.7 million tons (over

31% of the state's total production) from Peabody Energy's Foidel Creek Mine.

In 2011, one coal mine became idle and a new one opened. McClane Canyon Mine in Garfield County stopped production when its only customer, the Cameo Power Plant, closed in January 2011. The New Elk Mine opened in Las Animas County and began production in May 2011. This mine is owned by Cline Mining Corporation in Toronto, Canada. It is producing a special type of coal called coking coal, or metallurgical coal. This mine has an estimated metallurgical coal resource of 388 million tons. Cline hopes to mine up to 3 million tons per year to supply the growing Asian metallurgical coal market.

In September 2011, Western Fuels Colorado entered into an agreement to purchase the Colowyo Mine in Moffat County from Rio Tinto. Colowyo mines coal that Western Fuels supplies to the Craig power plant.

Production

Colorado currently ranks as the 11th-most productive coal mining state, just behind North Dakota and Ohio. On the basis of current weekly coal production data, the Colorado Geological Survey projects that the state's total coal production will be 26.8 million tons by year-end 2011, a 6% increase over the prior year, with expectations for production to remain flat in 2012. Since 1864, nearly 1.44 billion tons of coal have been mined from the state's reserves. Approximately 24% of the historic total has been mined in the last 10 years. Annual coal production peaked at 39.9 million tons in 2004. The Foidel Creek Mine recently surpassed the Colowyo Mine in historic coal production with more than 141 million tons produced since 1984.

Value

Although production is down, the total value of Colorado coal is up. Using an average value of $42.42 per ton for coal produced at Colorado coal mines on federal leases, the value of Colorado's coal production in 2010 was $1.069 billion. The price of coal per ton increased in 2011, from $42 per ton to about $48 per ton. Spot market coal prices have been flat in 2011, but dropped considerably in July 2011, to around $45.94 per ton. The total value of coal produced in 2011 (assuming $48 per ton) is projected to be approximately $1.2 billion, an increase of $130 million over 2010.

Employment

As of May 2011, about 2,190 coal miners were employed at the state's coal mines. The Colorado Mining Association reports that overall mine employment dropped from about 2,400 in 2009 to 2,200 in 2010. The May 2011 figure includes the hiring of 131 coal miners at the New Elk Mine, which offsets the loss of 18 mining jobs at the McClane Canyon Mine in January when the mine went idle because of the closing of Xcel Energy's Cameo Power Plant.

Export Coal

While Colorado's active coal mines are located primarily on the Western Slope, the customer base is mainly along the Front Range urban corridor and in states outside of Colorado. Colorado is considered one of the major environmental compliance coal suppliers in the nation. The state's coal emits the lowest level of mercury in the nation. Colorado's coal product is a low-sulfur, high-heat value product that is very much in demand for air pollution control.

More than 55% of the coal produced in Colorado is shipped by rail or truck to 20 other states, with destinations as far away as Florida. The five states that use the most Colorado coal are Kentucky, Utah, Alabama, Mississippi, and Tennessee. In addition to power generation, over 1.2 million tons of coal is shipped annually to manufacturing and industrial plants in Texas, Wisconsin, and Indiana for cement and other industrial uses.

Consumption and Generation

About half of the coal produced in Colorado is consumed in-state. Front Range power and industrial plants consume coal from both Colorado and Wyoming. More than 19.2 million tons of coal was consumed in Colorado in 2010, and 11.6 million tons were shipped from the state. Electricity generation at coal-fired power plants increased in 2010, from 34.5 million megawatt hours (Mwh) to 38.6 million Mwh total generation, and coal supplies 67% of Colorado's electricity generation. This is a 5% increase in coal's contribution to the state's total electricity generation portfolio.

continued on page 26

Mining and Logging

continued from page 25

Global

China is now building the equivalent of two 500-Mw coal-fired power plants every week. Two-thirds of the country's energy supply comes from coal. More than 80% of its electricity is from coal, and its coal production is twice that of the United States. It consumes one-third of all coal used worldwide. Several Asian companies have been exploring for new metallurgical coal resources in Colorado in 2011.

Environmental

Unconventional resources for coal include coal-to-liquids, coalbed methane, and coal gasification technologies. Colorado is one of the nation's largest coalbed methane producers, and the state's potential for coal gasification from deep unmineable beds is significant. Underground coal gasification is being explored in Moffat County. A Department of Energy Integrated Gasification Combined Cycle (IGCC) demonstration plant in Orlando, Florida, heats coal to release syngas that is burned to produce electricity. This plant is 285 MW capacity, and uses high-moisture, high-ash brown lignite coals. These same types of coal are found in the Denver Basin on the Eastern Plains.

Minerals and Uranium

Colorado's nonfuel minerals and uranium mining output is expected to increase in 2011 and 2012. The Colorado Geological Survey has calculated a total value of $1.3 billion for production value in 2011 and nearly $1.7 billion in 2012.

VALUE OF COLORADO NONFUEL MINERALS AND URANIUM PRODUCTION 2003–2012 (In Millions of Dollars)

Year	Nonfuel Minerals	Uranium	Total
2003	$702	$0.4	$702
2004	949	2.0	951
2005	1,782	7.3	1,789
2006	1,762	0.0	1,762
2007	1,886	<1.0	1,886
2008	2,084	16.0	2,100
2009	965	6.0	971
2010	1,050	0.0	1,050
2011[a]	1,336	0.0	1,336
2012[b]	1,673	0.0	1,673

[a]Estimated.

[b]Forecast.

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

The price of molybdenum—the largest component of Colorado's mineral production—stabilized in the vicinity of $17 per pound in 2010. The price remained at that level in 2011, although production decreased slightly. Gold production in 2011 is projected to increase over 2010. The average gold price has also risen in 2011, to $1,600 per ounce from $1,370 per ounce. Again in 2011, industrial mineral production (mainly construction materials) has been slow, although the value mined is predicted to climb slightly from 2010.

Climax Molybdenum, a subsidiary of Freeport McMoRan Copper and Gold, Inc., operates the Henderson Mine in Clear Creek County. The ore is mined at the Henderson Mine and transported via a 26-mile-long conveyer beneath the Continental Divide to the mill in Grand County. The mine is currently the largest primary producer of molybdenum in the world. Approximately 550 people are employed at the mine and the mill. Concentrate from the mill is subsequently shipped to the Climax plants in Iowa and the Netherlands, where it is used for a variety of products.

In 2010, the Henderson Mine produced 40 million pounds of molybdenum at an average price of $16.62 per pound. The company is scheduled to produce 38 million pounds in 2011 with a value of $17.35, yielding a total of $624 million. This would represent a 6% decline from 2010, based on lower production levels. The company reports that the Climax Mine, at Fremont Pass, is scheduled to reopen in 2012. Early plans call for production of 20 million pounds per year, increasing to 30 million pounds as long as the molybdenum price remains favorable. The Climax Mine is expected to employ more than 500 additional workers.

The Cripple Creek and Victor Gold Mining Company, owned by AngloGold Ashanti, experienced another record year at their Cresson Mine, buoyed by the rising gold price. The mine produced 233,429 ounces of gold and 51,903 ounces of silver in 2010. The average price of gold in 2010 was $1,370 per ounce, for a total value of $322 million. Projections for 2011 show a gain in production, to 265,000 ounces, and a higher gold price of $1,600 per ounce, for a total product value of $424 million. The Cresson Mine is one of the lowest cost producers in AngloGold Ashanti's portfolio. The mine employs 330 people in Teller County.

The uranium price has remained below $60 per pound in both 2010 and 2011, and no uranium mining was recorded in either year. Consequently, no vanadium, which is located along with uranium, was produced.

The industrial minerals sector reflects the construction activity in Colorado and correlates directly with that sector. With little housing or major highway construction, the mining of these materials is static. For 2010, construction aggregates, including crushed stone, sand, and gravel, were valued at $288 million—a 2.5% increase from 2009. Production tonnage, however, remained steady. Cement production also was stable as were other products in the sector, such as clay (for bricks), lime, gypsum, and bentonite.

Renewables

Colorado's abundance of renewable energy resources includes wind, solar, hydroelectric, and biomass resources. These alternative electricity resources accounted for nearly 10% of the net generation in 2010. In terms of overall alternative energy, Colorado ranks 10th nationally. Colorado's renewable energy standard of 30% potential renewable electricity by 2020 is one of the most aggressive in the nation.

Wind Energy

As of January 1, 2011, Colorado wind facilities cumulatively installed 1,299 megawatts (MW) of generating capacity. These wind farms produced 3.42 million megawatt-hours (MWh) of electricity in 2010, accounting for 6.6% of the total power generation in Colorado. The Peetz Table Wind Energy Center in Logan County is the largest wind farm in Colorado, at 400-MW capacity, generating from 347 General Electric wind turbines. The facility employs 28 full-time employees.

Other new projects currently under construction are the BP Energy Cedar Creek II projects in Weld County: one is a 100.8-MW capacity project with 63 turbines, and the other is a 150-MW capacity, 60-turbine Nordex site. The Cedar Point wind facility in Lincoln and Elbert counties is a 250-MW capacity project constructed by RES Americas and Enbridge. It was completed in September 2011. Duke Energy is planning a project in Kit Carson County with a 51-MW capacity. This 34-turbine facility will supply power to Tri-State Generation and Transmission. Platte River Power Authority in Fort Collins purchases electricity generated from wind farms in nearby Wyoming.

Solar Energy

General Electric recently announced plans to build a 400-MW solar panel manufacturing plant in Aurora. This factory, which would be the largest solar factory in the nation, may employ 355 new workers locally to produce thin-film photovoltaic panels. GE has 1,200 Colorado employees working in various engineering and technology capacities. The National Renewable Energy Laboratory (NREL) and PrimeStar will develop the cadmium-tellurium technology to be used in the manufacturing process.

continued on page 28

Mining and Logging

continued from page 27

In terms of cumulative installed solar capacity, Colorado ranked third in 2010, with 108 MW installed. Tri-State G&T buys power from the 30-MW thin-film solar plant in northeast New Mexico (Cimarron I Solar Project). In addition to utility-scale electricity, much of solar's input is from small-scale or distributed generation types of facilities, such as individual home solar projects that are prevalent throughout Colorado. Xcel Energy partners with most of the renewable energy projects in Colorado.

Hydroelectric Power

Colorado's hydroelectric power has been stable for many years. In 2010, more than 3.1% of the state's total electrical output came from 48 hydroelectric generating stations. Most of these are owned by the U.S. Bureau of Reclamation through the Western Area Power Association (WAPA), but some are privately owned or operated by local mountain towns, such as Aspen, Telluride, Ouray, and Nederland. This renewable resource provides a constant but seasonably variable source for electricity. The industry employs several hundred individuals for operations and maintenance. Many smaller dams are now retrofitting with electric generation turbines for their own power needs or for local distribution.

Biomass

Production of electricity via biomass resources produces more electricity than solar in Colorado. Sources include algae, ethanol, wastewater treatment facilities, and biodiesel. Costilla County operates a biodiesel facility that sells fuel to consumers and use in their county vehicles. There are 33 biodiesel stations in Colorado. In Fort Collins, an algae-cultivation company called Solix BioSystems is growing algae for fuel at Colorado State University. The promise of such a technology is great—it can be used for oil or for other biofuels for such end-products as jet fuel. Electricity is generated at several Colorado wastewater treatment plants. Sludge and anaerobic bacteria in a digester produces biogases that can be used for both heat and electricity. The economic impact of all biomass projects is difficult to assess but it is estimated that together they produced more than 57,000 MWh of electricity in Colorado in 2010.

COLORADO ELECTRIC POWER INDUSTRY GENERATION BY PRIMARY ENERGY SOURCE
2003–2010
(In Millions of Megawatt Hours)

Year	Coal	Natural Gas	Hydroelectric	Wind	Solar	Biomass	Petroleum	Other[a]	Total
2003	36.1	9.2	1.1	0.1	0.000	0.031	0.034	0.004	46.6
2004	35.8	10.7	1.0	0.2	0.000	0.035	0.014	0.002	47.8
2005	35.6	11.9	1.3	0.8	0.000	0.034	0.017	0.002	49.6
2006	36.3	11.9	1.6	0.9	0.000	0.031	0.021	0.003	50.7
2007	35.9	15.0	1.6	1.3	0.002	0.031	0.028	0.043	53.9
2008	34.8	13.5	1.8	3.2	0.018	0.045	0.019	0.033	53.4
2009	31.6	13.8	1.8	3.2	0.026	0.051	0.013	0.053	50.5
2010[b]	35.0	11.5	1.6	3.4	0.033	0.057	0.012	0.034	51.7

[a] "Other" 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.

[b] Preliminary.

Source: U.S. Energy Information Administration.

Construction

The Construction Supersector continues to lag the recovery in 2011, marking the fourth year of consecutive employment losses that reverts the industry to levels of the mid-1990s. Construction employment will end 2011 with 111,100 jobs, then increase in 2012, to 114,000. Value of construction will increase in residential, nonresidential, and nonbuilding in 2012.

Residential

Single-Family Housing

Bouncing Along the Bottom

Single-family permits peaked at more than 40,000 a year in 2004, but activity fell sharply with the recession. A 22% increase in 2010, to 8,790 permits, appeared to signal a significant recovery, but the improvement stalled in 2011. Permits through August were up a miniscule 0.1%.

Both the 2010 increase and the leveling off in 2011 were influenced by federal homebuyer tax credits, which boosted activity in the first half of 2010. That the industry was able to match this tax credit-assisted activity of 2010 during the first two-thirds of 2011 is evidence of fundamental stability. The market for new single-family housing seems to have bottomed out, but has yet to show evidence of improvement from these low levels.

Consumer confidence in the region remains near historic lows, undoubtedly influenced by reports of continued year-over-year home value declines reported by the Federal Housing Finance Agency (FHFA) and by S&P/Case-Shiller. These continued declines are changing potential buyers' expectations. People are becoming more pragmatic about comparing the investment value of a home with the expense of home ownership.

Very strict home loan underwriting policies also continue to suppress housing demand, with most lenders requiring higher down payments and sterling credit histories. Mortgage lenders anticipate further obstacles to financing home purchases as new federal regulations are developed in accordance with the Dodd-Frank financial reform and other initiatives.

A significant drop in mortgage delinquencies in 2011 will reduce downward pressure on home prices as foreclosure sales by lenders will also decline. However, this will take time—the number

continued on page 30

VALUE OF CONSTRUCTION IN COLORADO BY TYPE
2003–2012
(In Millions of Dollars)

Year	Residential	Nonresidential	Total Building	Nonbuilding	Total Construction
2003	$6,258.2	$2,712.9	$8,971.1	$1,731.8	$10,702.9
2004	8,050.3	3,291.4	11,341.7	1,753.8	13,095.5
2005	8,803.4	4,221.2	13,024.6	1,787.8	14,812.4
2006	8,708.1	4,641.1	13,349.2	3,446.3	16,795.5
2007	7,417.0	5,259.5	12,676.5	2,003.6	14,680.1
2008	4,041.8	4,116.7	8,158.4	2,542.4	10,700.8
2009	2,501.3	3,126.2	5,627.4	1,648.4	7,275.8
2010[a]	2,903.0	2,967.3	5,870.3	2,214.4	8,084.7
2011[b]	2,697.5	3,100.0	5,797.5	2,049.0	7,846.5
2012[c]	3,088.4	3,200.0	6,288.4	2,200.0	8,488.4

[a]Revised.

[b]Estimated.

[c]Forecast.

Sources: Department of Census; F.W. Dodge Company, Division of McGraw-Hill; the Colorado Contractors Association; and Colorado Business Economic Outlook Committee.

Construction

continued from page 29

of Colorado distressed transactions (lender real estate owned [REO] sales and "short sales") increased in the first half of 2011 despite a 28% drop in new foreclosure filings.

Still, foreclosures will continue to be a drag on the market for several years, with little anticipation of home price appreciation. The chief economist for Wells Fargo estimated in mid-2011 that 20% of Colorado homeowners hold mortgage balances higher than the value of their homes.

Positive Indicators

Record low mortgage interest rates will likely continue to support housing market demand through 2012. In 2011, the Federal Reserve made the highly unusual public statement of its intent to maintain low interest rates for two years.

The number of new single-family home sales for the Front Range declined by 5.4% through August 2011 relative to the corresponding period in 2010. However, this comparison includes the early 2010 tax-credit period—closings in July and August 2011 rose 8.2% compared with 2010. Resale activity year-to-date through September 2011 was unchanged from 2010.

Demographic Demands

The 2010 census reported that Colorado grew by more than 55,000 households per year during the previous decade, and the state will average about 35,000 new households per year through 2015. Yet recent annual activity has added only about 10,500 units. As households delay moves that would accommodate changing family needs, pent-up housing demand will grow. Continued slow growth in the housing supply will eventually have to increase to meet deferred demand.

With growth in housing units outstripping growth in households from 2000 to 2010, there is a possible excess of 90,231 housing units. However, many Colorado housing units are for seasonal or occasional use, particularly in rural, resort, and center city urban areas. In fact, of the 10.8% total housing unit vacancy rate, only 4.2% was for-sale and for-rent units—the balance, 6.6%, was seasonal, migrant, or other.

Forecasts

The decline in housing demand has significantly impaired the supply capacity of the housing industry. Some regional and national builders have failed or have exited the Colorado market. Numerous small homebuilders have failed, while others still exist but cannot finance new housing construction.

RESIDENTIAL BUILDING PERMITS BY TYPE
2003–2012

Year	Single Family	Multifamily	Total Housing Units
2003	33,837	5,732	39,569
2004	40,753	5,746	46,499
2005	40,140	5,751	45,891
2006	33,000	7,978	40,978
2007	21,087	9,333	30,420
2008	11,147	7,851	18,998
2009	7,231	2,087	9,318
2010[a]	8,790	2,801	11,591
2011[b]	8,500	3,600	12,100
2012[c]	9,350	4,000	13,350

[a]Revised.

[b]Estimated

[c]Forecast.

Sources: Department of Census and Colorado Business Economic Outlook Committee.

However, several of the nation's largest homebuilders with operations in Colorado have taken the necessary steps to survive. These actions include dramatic downsizing, charging off the value of high-priced land holdings, and operating only in the best market areas where they can compete with the resale market.

The year 2011 is projected to see a modest 3% decline, to 8,500 single-family permits in Colorado. Continued weak demand is anticipated, with 9,350 single-family permits forecasted for 2012.

The housing downturn has now affected upper price segments. As a result, the increasing permit value of new homes slowed from the 6-10% increases of 2002 through 2008 to a slight decline in 2009 and a 2% increase, to $261,656, for 2010. Although low demand continues to limit material and labor cost increases, preliminary census data indicate higher average values, perhaps a result of a shift to somewhat larger homes compared with the past two years. This results in the forecasting of a 5% increase in permit value per unit in 2011, to $275,000, and a 3% increase in the following year, to $283,250.

Multifamily Housing

Multifamily permit activity grew in 2011, but remained well below levels for 2003 through 2008, when an average of 7,000 units per year were permitted. Expectations are for 3,600 units to be permitted in 2011, an uptick of 29%. Most of the growth resulted from increased apartment construction in Front Range metro areas. In other parts of the state, apartment activity remained subdued or fell slightly. Condominium construction continues to be depressed throughout Colorado.

Rental markets tightened in most areas of the state in 2011, and Front Range apartment vacancy rates were around 5% in Q3 2011, down by at least half a percentage point from a year earlier. Vacancy rates remain higher in Grand Junction and Pueblo, but those markets tightened as well. The "shadow market" of single-family homes and condominiums for rent continues to be a significant presence. As vacancies declined, landlords have gained pricing power. In most of the Front Range metro

continued on page 32

Construction

continued from page 31

areas, average rents have increased by more than 4% from 2010, and in some of the tightest rental markets, concessions at apartment communities have all but disappeared.

The tighter rental market has generated heightened interest among apartment developers, but financing continues to be a major constraint. A large number of projects, totaling several thousand units, are in various stages of planning, but many will be unable to put deals together. However, a stronger market for federal tax credits has improved the feasibility for income-restricted projects.

Despite growth in rental demand, multifamily construction is expected to increase only moderately in 2012. Multifamily permits should total about 4,000 units, with nearly all of the activity in apartment construction. A large share of the development is expected to occur in the Denver area, particularly in the central submarkets where demand is strongest.

Construction of luxury apartment and condominium units remains limited, and with an increase in production of subsidized units, as well as a lack of building activity in high-cost areas such as mountain resorts, the value per unit of multifamily housing declined in 2011, to about $100,000. The average value per unit is expected to increase in 2012, to approximately $110,000. With continued growth in multifamily permitting activity, the total value of multifamily construction should climb to around $440 million.

Colorado remains a desirable place to live, and the population will continue to grow. Once the economy recovers, new housing creation will again be required for an increasing population. A dynamic housing industry then will reemerge.

Nonresidential Building

Although final figures might show a 4.5% increase in 2011, to $3.1 billion, a general sense of pessimism prevails for this broad sector that includes construction of offices, retail, medical, and institutional facilities. Similar to residential work, a modest recovery is expected to levels about two-thirds of Colorado's better years. Many small projects, rehabilitations, and tenant finish jobs are propping up activity.

Spending on schools and resorts has dropped from prior years, federal stimulus funds for projects have nearly wrapped up, and construction of a large number of medical facilities has mostly been completed. Anticipated building in 2012 will be essentially unchanged, at $3.2 billion. Several large projects that would add to this activity are beyond our forecast horizon. These include the ConocoPhillips campus in Louisville and the Gaylord hotel and convention facility in Aurora.

The forecast risk is toward significant improvement. The contractor for the Veterans Administration Hospital has been selected, and the $700 million project may break ground in 2012 if contract negotiations and questions of full funding are resolved. The $300 million DIA hotel has an equal probability for a start in 2012 as it does for a later start, in 2013. Fort Carson will construct the new Combat Aviation Brigade in 2012-13, totaling $750 million.

Encouraging news from the north and the south Front Range gives reason for modest optimism, but this will not break Colorado out of a continuing depressed construction volume.

Nonbuilding

Nonbuilding construction includes highways and roads, bridges, dams and reservoirs, power plants, and airport runways and aprons. Sources of funding for highway construction are little changed, and most of the federal ARRA funds have been spent. Traditional state subsidies for transportation dried up in the recession.

Generally, industry participants are pessimistic about a recovery in 2012. Almost all activity comes from tax-based sources through different levels of government. Commercial and residential markets remain stagnant, and privately financed development is scant. City and county funding is likewise flat statewide.

In 2011, it is anticipated that transportation funding from all sources will decline by 3%. The Colorado Department of Transportation (CDOT) expects to increase its 2012 construction program by $200 million due to newly allocated federal funds and one-time efficiency measures. Projects include the widening of I-25 north of Colorado Springs, and tunnel improvements on I-70 at the Twin Tunnels near Idaho Springs. A large project is US 36 Managed Lanes, which includes highway upgrades and bus lanes. It already has approval and financing, and will add to activity in 2012.

CDOT's FASTER-funded Colorado Bridge Enterprise (CBE) issued $300 million in federally subsidized bonds to repair the state's 120 structurally deficient and functionally obsolete bridges. A number of these projects will begin or continue during 2012. City and county road projects will likely be affected by decreased budgets, and the transportation components of the $550 million Better Denver Bond Program have been mostly completed.

Two FasTracks commuter lines, plus part of a third one, will begin in 2012. While work will continue on the West Corridor Line and on phase two of Denver's Union Station, more work will begin on the I-225 line extension to Iliff and on the first phase of the North Metro line from downtown to the National Western Stock Show station. Fort Collins will start the $65 million Mason Corridor Bus Rapid Transit project, and the $48 million VelociRFTA bus rapid transit project in Aspen, Carbondale, and Glenwood Springs should also be underway.

CONSTRUCTION EMPLOYMENT
2003–2012
(In Thousands)

Year	Employment	Percentage Change
2003	149.9	-6.5%
2004	151.3	0.9
2005	160.0	5.8
2006	167.8	4.9
2007	167.8	0.0
2008	161.8	-3.6
2009	131.3	-18.9
2010[a]	115.1	-12.3
2011[b]	111.1	-3.5
2012[c]	114.0	2.6

[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.

Although federal ARRA funds for traditional water and wastewater projects have been fully spent, and the budgets of many water and sewer providers are down, a few large projects will provide some offset in 2012. These multiyear projects are Colorado Springs Utilities' ongoing Southern Delivery System ($550 million from 2010 to 2016), Metro Wastewater Reclamation District's $473 million Northern Treatment Plant, the $426 million Northern Integrated Supply project, and Denver Water's $120 million in rehabilitation projects.

Construction started on power plants in 2010 and will total around $400 million in 2011. Further upgrades and rehabilitation spending on power plants will climb to $500 million in 2012. Spending on transmission lines is not tracked in the Construction Sector, but this activity is significant. Utilities, including Xcel Energy and Black Hills Energy, are making substantial investments in Colorado.

Total infrastructure starts in 2012 will increase levels by 7.4%, to $2.2 billion.

Employment

Seasonal fluctuations require significant smoothing adjustments. Recessionary levels have taken employment from averages of 168,000 in 2006 and 2007, down to the 111,100 jobs estimated in 2011, a decline of 3.5% for the year. Look for gains in 2012, even if large nonbuilding projects are delayed, because multifamily construction tends to be more labor-intensive. Average 2012 Construction employment is forecast at 114,000.

The large employment decline during the recession and slow recovery years was probably understated, because some "informal" labor that is generally underreported also declined. At this point, many subcontractors are surviving without employees, and are now self-employed contractors "working out of the backs of their trucks." Without reporting for these workers, the current level of available Construction employment is now underreported.

Manufacturing

According to the latest Institute for Supply Management's *Manufacturing Report on Business,* U.S. economic activity in the Manufacturing Sector expanded in September 2011 for the 26th-consecutive month. Of the component indices, the production employment and export indices continued to increase while the new orders index and backlog of orders index showed modest contractions. The 12 growth industries reported in September included wood products, nonmetallic mineral products, machinery, miscellaneous manufacturing, transportation equipment, plastics and rubber products, printing and related support activities, chemical products, and computer and electronic products.

Globally, manufacturing slowed significantly in Q3 2011, according to the JPMorgan Global Manufacturing Purchasing Managers' Index (PMI). The report cited a lack of incoming new work, which fell for the third-consecutive month, and slowing international trade flows. Growth slackened in India and declined in Europe, Japan, and Brazil. Even though China's official PMI indicated a moderate expansion of manufacturing activity in October, it followed three months of contraction. The sluggish global economy and uncertain demand from China's largest export markets, the United States and Europe, may continue to affect the country's manufacturing activity. Still, China is expected to remain competitive in manufacturing industries. Indeed, the Deloitte Manufacturing Competitiveness Index ranks the United States fourth in manufacturing competitiveness in 2010, behind China, India, and South Korea.

Strength in the national Manufacturing Sector in 2011 has been echoed on a regional level. In September, the monthly manufacturing survey conducted by the Federal Reserve Bank of Kansas City reported a continued increase in manufacturing activity. Despite a moderate decline in production expectations, producers anticipated increased activity over the next six months, mainly in durable goods industries, led by aircraft and computer equipment. On the other hand, nondurable goods producers reported continued slowing.

Mirroring national and regional activity, the Manufacturing Sector is expanding in Colorado, with 2011 marking the first year that the Manufacturing Sector has expanded in the state since 2000. Sector employment in Colorado is on track to grow 2.2% for the year, adding about 2,800 manufacturing jobs. Nationally, the Manufacturing Sector has grown about 1.7% year-to-date through September.

Manufacturing in Colorado is a $17.3 billion industry, representing about 7.4% of the value of all goods and services produced in the state. Colorado was home to about 5,400 manufacturing establishments employing roughly 125,200 workers in 2010, representing 5.6% of the total employment base in the state. Most of these companies are small businesses. Indeed, nearly 80% of manufacturing companies employ fewer than 20 workers, whereas only about 30 companies have 500 employees or more. These numbers only take into account those businesses with employees.

In addition, another 6,500 manufacturing businesses are classified as "nonemployer businesses," the majority of which represent self-employed individuals. About one-quarter of these nonemployer businesses fall into the miscellaneous manufacturing category, which includes a diverse range of products, including medical equipment and supplies, jewelry, sporting goods, toys, and office supplies. Fabricated metal manufacturing, printing and related support activities, apparel manufacturing, and wood product manufacturing round out the five largest nonemployer manufacturing industries. While these nonemployer businesses provide an important entrepreneurial base for the Manufacturing Sector in Colorado, it is important to note that the nonemployer businesses are not included in the employment statistics described in the sections that follow.

Nondurable Goods

About 35% of the employment in the Manufacturing Sector is found in nondurable goods industries, which include the production of goods that generally last for less than one year. Nondurable goods employment increased 1.6% in 2011 but will likely contract 1.1% in 2012, to about 44,400 workers.

The largest nondurable goods subsector is food manufacturing. A complete reversal of food exports from Colorado occurred in 2010 compared to 2009 as manufactured food exports rose. However, the idle capacity from the prior year meant the output increase occurred with little gain in employment. Domestically, beef prices are being impacted by slaughter and sales activity in Texas brought about by the severe drought in the region.

COLORADO MANUFACTURING EMPLOYMENT BY INDUSTRY
2003–2012
(In Thousands)

Industry	2003	2004	2005	2006	2007	2008	2009	2010[a]	2011[b]	2012[c]
Food	18.3	17.8	17.1	17.3	17.5	18.3	18.4	18.5	19.5	19.4
Beverage and Tobacco	5.8	5.9	5.7	5.7	5.7	5.6	5.2	5.3	5.3	5.2
Printing and Related	8.6	8.1	8.0	7.8	7.6	7.2	6.1	5.5	5.2	4.8
Other Nondurables	19.2	19.0	19.1	18.7	18.2	17.3	15.5	14.9	14.9	15
Subtotal, Nondurable Goods	51.9	50.8	49.9	49.5	49.0	48.4	45.2	44.2	44.9	44.4
Nonmetallic Minerals	9.1	9.1	9.5	9.8	9.8	9.2	7.2	6.8	6.8	6.8
Fabricated Metals	15.1	15.4	14.9	15.0	15.4	15.3	13.1	12.4	13.3	13.4
Computer and Electronics	33.6	31.6	30.1	28.3	26.3	25.5	23.4	22.7	23.5	22.8
Transportation Equipment	9.7	10.0	10.7	10.3	10.2	9.5	9.2	8.8	8.8	8.9
Other Durables	34.5	34.9	35.3	36.2	36.3	36.2	31.5	30.3	30.7	29.8
Subtotal, Durable Goods	102.0	101.0	100.5	99.6	98.0	95.7	84.4	81.0	83.1	81.7
Total, All Manufacturing	153.9	151.8	150.4	149.1	147.0	144.1	129.6	125.2	128.0	126.1

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

Prices are expected to rise sometime in spring 2012. While production will be helped by a weakening dollar, productivity gains will hurt employment. Looking ahead, the shutdown of a turkey processing plant and the loss of 300 jobs at the end of 2011 will reduce employment. This will be partially offset by Leprino Foods, which will complete the second phase of a cheese plant in 2012 that is expected to create 100 jobs. Overall, employment in food manufacturing is expected to decline from 19,500 jobs in 2011 to 19,400 in the following year.

The printing and publishing subsector continues to undergo revisions to its business model. Three factors explain the subsector's evolution. First, advances in desktop publishing, kiosks, and photo-quality home printers have reduced the number of limited run print jobs. Second, increased competition among commercial printers for the reduced demand for printing services has accelerated the need for technical innovation and increased efficiency. Third, smart phones and tablet computers offering real-time access to merchant promotions has accelerated the reduction in printed advertising. The trends related to industry downsizing, desktop publishing, and nonprint media are expected to continue. Inefficient print shops will not survive. The slow recovery will aggravate the subsector's business environment. The printing and publishing subsector lost 300 jobs in 2011 and will contract by another 400 jobs in 2012.

continued on page 36

Manufacturing

continued from page 35

Employment in the other nondurable goods subsectors, including textiles, clothing, paper, petroleum products, chemicals, and plastics and rubber manufacturing, remained stable in 2011, at 14,900 workers. The largest job declines occurred in textile product mills and paper manufacturing, which both lost 200 jobs. These were partially offset by growth in plastics and rubber products, which posted its second-consecutive year of growth and added about 300 jobs. Plastics and rubber products will continue to grow in 2012, adding 300 more jobs. Most of the other nondurable goods industries are expected to remain stable in 2012. This includes the largest other nondurable goods subsector, chemical manufacturing. With 5,700 employees in 2011, Colorado's chemical manufacturing companies have been challenged by tight access to capital—bioscience venture capital has decreased by about 40% in the past three years—and a burdensome FDA approval process. Other nondurables goods employment is expected to increase slightly in 2012, to 15,000 workers.

Durable Goods

About 65% of the employment in the Manufacturing Sector is found in durable goods industries. Durable goods manufacturing includes the production of goods lasting longer than one year, such as nonmetallic minerals, fabricated metals, computer and electronics, transportation equipment, and other durable goods. Employment in durable goods manufacturing grew 2.6% in 2011, the first increase in Colorado since 2000. However, slowing economic activity will contribute to a 1.7% decline in 2012, with employment dropping to 81,700.

The nonmetallic minerals subsector is a diverse group that includes pottery, plumbing fixtures, glass products, brick, tile, concrete and stone products, and high-tech porcelain electrical products. This subsector has been strained by subdued construction activity. Both building and nonbuilding construction industry projections, though positive, are expected to remain weak in 2012. New products within this subsector, such as the emergence of energy-efficient building materials, may buoy it to some degree, but not enough to support employment gains. Nonmetallic minerals manufacturing should maintain its employment base in 2012, averaging 6,800 jobs for the year.

The fabricated metals subsector provides products and materials for many other industries, everything from steel beams for construction to component parts for a myriad of other products, virtually anything with metal content. Employment in this subsector fluctuates with demand from other industries. Companies range from small suppliers to producers of industrial machinery. The continued build-out of Vestas' facilities in Colorado, a strong demand for exports, and a solid manufacturing recovery in early 2011 helped this subsector gain 900 jobs in 2011. That pace is unlikely to continue into 2012, but fabricated metals employment will increase modestly, adding 100 jobs to reach an average of 13,400 workers in 2012.

Business investment in technology has been strong as firms have endeavored to become more efficient in the current economic climate.

The computer and electronics products manufacturing subsector represents about 18% of total manufacturing employment in Colorado and is the state's largest durable goods subsector. The subsector produces a diverse set of products in the state, ranging from communications equipment, computer chips, and other components used in a variety of computing and electronic products, to sophisticated electronic medical devices. The industry pays high wages. According to the annual *Cyberstates 2011* report by TechAmerica, high-tech jobs in Colorado have an average annual wage that is 96% higher than the average private-sector wage. The computer and electronic products subsector is the state's largest exporter in terms of value of goods sold to other countries.

Since peaking at the beginning of 2001, Colorado has lost more than half of its jobs in the subsector. Thus, the expansion and job growth that began in the middle of 2010 has been one of the bright spots in Colorado's economy. The subsector added 800 jobs in 2011, a 3.5% gain. The increase has been driven by a rebound in economic activity worldwide, and Colorado companies have found ways to compete with producers overseas. Business investment in technology has been strong as firms have endeavored to become more efficient in the current economic climate. In addition, continued expansion of internet usage and solid consumer demand for new and innovative electronic devices has helped bolster the industry.

However, slowing economic activity and heightened uncertainty has begun to take a toll on sales of computer and other electronic-related products, which is likely to continue in 2012. The subsector is expected to shed 700 jobs in 2012, with employment dropping to 22,800. However, in the longer term, the subsector may get a boost from the relocation of Arrow Electronics' headquarters to the state. The company is a leading distributor of a wide range of electronic-related products and components. Arrow Electronics' expansion is expected to bring about 1,250 jobs over five years, with a portion of those jobs arriving in 2011.

The transportation equipment subsector includes the manufacture of everything from aircraft parts to hybrid-electric buses to spacecraft and satellites to mountain bike frames. After several challenging years, Colorado's long history of innovation in aerospace, aviation, and renewable energy will help this subsector stay steady, if not grow slightly, throughout the state. Lockheed Martin continues to work on the Orion spacecraft and contract with several suppliers in Colorado for the F-35 Lightning II military aircraft. One of these suppliers, Ball Aerospace & Technologies Corporation, will produce antennas for the F-35 Lightning II. The company invested $14.6 million in its manufacturing center in 2011 and is expected to increase its workforce from about 30 employees to 200 employees over the next several years. Sierra Nevada is another company that is ramping up its operations. The Louisville-based company received an $80 million NASA contract to develop a low orbit commercial aircraft called Dream Chaser.

Hybrid transportation vehicle manufacturing companies in the state also have plans for expansion. Boulder Electric Vehicle is manufacturing electric delivery trucks and electric cargo vans. The company announced an expansion of between 50 and 75 new jobs. In addition, Bye Energy, Inc., which is working on an electric-hybrid engine for general aviation aircraft, has extended its presence to Rocky Mountain Metropolitan Airport in Jefferson County and recently expanded its headquarters facility at Centennial Airport in Englewood.

Employment in transportation equipment remained stable in 2011 after several years of declines, settling at about 8,800 employees. Transportation equipment manufacturing is expected to grow in 2012, adding another 100 jobs.

The other durable goods subsectors include wood products, primary metals, machinery, electrical equipment and appliances, furniture, and miscellaneous manufacturing. Other durable goods manufacturing employment increased in 2011 by about 400 jobs, or 1.3%, to 30,700, This growth is expected to slow in 2012, due to various challenges, falling by about 900 jobs, to 29,800.

The largest decline will be in wood products manufacturing owing to the still-slumping housing market and decreased financial resources for forest management. A bright spot for the subsector is beetle-kill wood, which can be used in housing

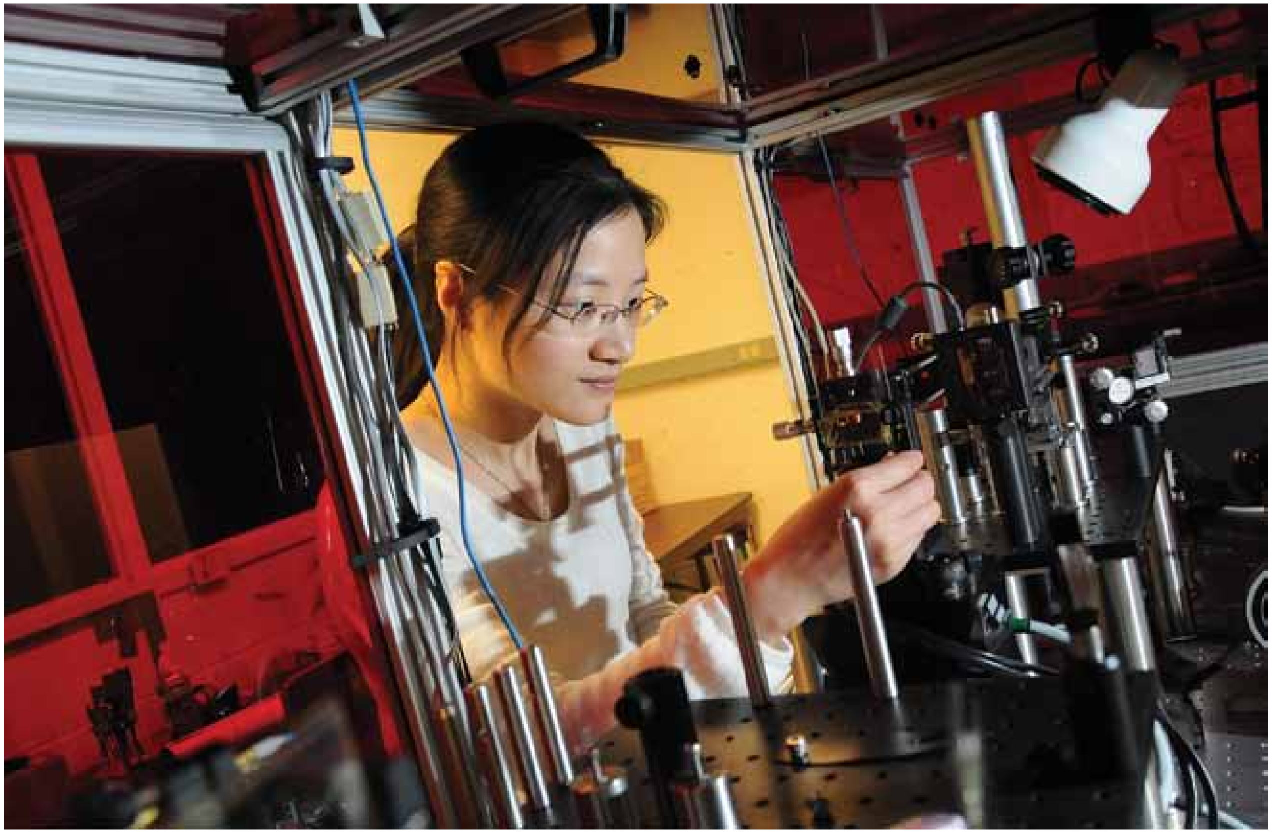
continued on page 38

Manufacturing

continued from page 37

and various products. Some Colorado builders are beginning to use the wood, and it is price-competitive with imported wood. However, to take advantage of this available wood, forest management would need to increase the pace of clearing those forests and provide loggers with special permits to clear the wood.

About 2,000 people are employed in the primary metals subsector, which includes steel and aluminum refining, as well as the manufacture of metal alloys and super alloys. Output from the primary metals subsector provides materials for many other industries. The success of Vestas' operations throughout the state should buoy this subsector. An example of the supply chain link is a Colorado manufacturer receiving a contract to produce wire cables for the Brighton nacelles plant, resulting in the addition of 50 employees. Exports of steel products are also up, reflecting global demand. Still, this is a capital-intensive industry where output can be increased with little additional manpower. Total employment in primary metals is expected to average 2,100 in 2012.



Machinery manufacturing and electrical equipment and appliances increased in Colorado with the relocation and expansion of several companies in 2011. Companies such as Vestas, SMA America, and Abound Solar have increased their workforce numbers with the expansions of their facilities. The subsectors will also benefit from the recent announcement by GE PrimeStar Solar that it will open a solar panel manufacturing plant in Aurora. The GE plant will be the largest in the United States and is expected to create almost 400 new jobs. The machinery manufacturing and electrical equipment and appliances subsectors added about 900 jobs in 2011, bolstered by an increased presence of renewable energy equipment manufacturing. Growth will decline modestly in 2012 due to overall economic uncertainty, with employment in the subsector falling by roughly 200 jobs, to an average of 12,200 positions.

Employment in furniture and related products manufacturing contracted by about 300 jobs in 2011. This mature, cyclical subsector is highly dependent on housing starts, population, and income growth. The subsector also faces challenges from increasing furniture imports. However, Colorado is home to smaller-scale furniture producers that typically offer more custom upholstery and furniture products. Demand for specialty products such as these remains strong when compared with lower-priced, mass-market products. In addition, furniture products made from beetle-kill wood are becoming increasingly popular due to the wood's unique blue coloring and an increasing consumer interest in purchasing eco-friendly products.

Industries in the miscellaneous manufacturing subsector create a wide range of products that cannot be readily classified elsewhere, from tennis racquets and golf clubs to dolls and jewelry. Miscellaneous manufacturing has experienced slight employment decreases over the past several years, including a decline of about 100 jobs in 2011. Employment will continue to contract in 2012 with the loss of an additional 100 jobs for total average employment of 9,200.

Summary

After 10 years of employment losses in Colorado's Manufacturing Sector, an unexpectedly strong first quarter and steady growth throughout the year have contributed to a 2.2% increase in manufacturing employment in 2011. Employment growth was fueled primarily by food manufacturing in nondurable goods and by computer and electronics in durable goods. On net, the Manufacturing Sector gained 2,800 jobs for total average employment of 128,000. However, manufacturing activity is slowing once again on a global, national, and regional level. Colorado will not be immune to this decline. Manufacturing employment in Colorado will contract 1.5% in 2012, falling by 1,900 jobs, to 126,000 workers.

The long-term outlook for manufacturing in the United States and Colorado may be shifting. Some analysts suggest that U.S. manufacturing will be just as economical as manufacturing in China by 2015 due to the rising cost of labor in China and increasing transportation costs. Furthermore, increased productivity, workforce flexibility, and corporate strength in the United States may bolster domestic manufacturing activity. If the resurgence in U.S. manufacturing comes to fruition, it will aid in the nation's economic prosperity as manufacturing represents nearly 12% of the nation's GDP.

However, U.S. manufacturing competitiveness is not a given and will rely on competitive tax policies, a constructive regulatory environment, workforce development, sound infrastructure, research and development expertise, and technological innovation. With continued and enhanced focus in these areas, Colorado also has the potential to expand its Manufacturing Sector.

Trade, Transportation, and Utilities

The Trade, Transportation, and Utilities Sector is the largest provider of jobs in Colorado. Improving wholesale and retail sales helped increase the number of jobs in the sector by 1.2% in 2011, to a total of 402,500. Slower gains in wholesale and retail, and continued weakness in transportation are expected to hold job gains to 0.6% in 2012.

Wholesale

In 2011, Colorado's Wholesale Trade Sector employed more than 92,000 workers, most of whom worked for merchant wholesalers (i.e., firms that sell to retail outlets). These firms provide 90% of all wholesale jobs. Firms selling durable goods, particularly computers, peripherals, and electronic equipment, account for just under 55% of the wholesaler employers. Nondurable jobs account for 34% of wholesaler employment, with the largest number selling groceries and related products. The remaining wholesale jobs are with business-to-business sellers, electronic marketers, and agents and brokers. According to the Bureau of Labor Statistics, the average annual pay for this sector was $68,124 in 2010, an increase of 4.1%. This is more than 42% higher than the nonfarm average for all industries. The Wholesale Trade industry also accounted for 5.7% of Colorado's real GDP product in 2010.

While the Wholesale Trade industry lost 9,200 jobs between 2008 and 2010, the industry demonstrated robust growth in 2011 and should finish the year with 1,400 additional jobs, a gain of 1.5%. Slow growth is expected in 2012, with a projected increase of 1,000 jobs, or 1.1%. Medium-term employment growth will be helped by the relocation of Arrow Electronics to Colorado.

Retail

The Colorado Retail Trade Sector employs almost 240,000 wage and salary workers and roughly 35,000 self-employed proprietors or family workers. Although accounting for more than 10% of the state's total jobs in 2010, the industry generated less than 6% of the state's GDP. Retail workers tend to be low paid, and many work less than full time. The average annual wage in the retail sector in 2010 was under $27,000 compared with almost $48,000 for all private-sector workers.

The retail workforce has shrunk, shedding nearly 14,000 jobs from the peak in 2007. These job losses can be explained by several factors. A sluggish state economy and flagging sales slowed growth in demand. The Retail Sector has consolidated, and many stores have closed. Major closures in the Denver Metro area in 2011 included Saks, Niketown, and Lowes, although the Ikea furniture retailer and H&M clothiers opened new stores in the state. Retailers continue to look for productivity enhancements, including supply-chain efficiencies in retailers such as Walmart.

TRADE, TRANSPORTATION, AND UTILITIES EMPLOYMENT
2003–2012
(In Thousands)

Year	Wholesale Trade	Retail Trade	Total Trade	Transportation and Warehousing	Utilities	Total TTU
2003	92.1	239.5	331.6	65.0	7.9	404.5
2004	91.9	241.3	333.2	65.5	7.9	406.6
2005	93.5	245.8	339.3	65.7	8.0	413.0
2006	96.4	248.3	344.7	66.6	8.0	419.3
2007	99.3	253.5	352.8	68.5	7.9	429.2
2008	100.1	252.6	352.7	68.3	8.2	429.3
2009	93.3	238.3	331.6	63.9	8.4	403.8
2010[a]	90.9	236.7	327.6	61.9	8.3	397.8
2011[b]	92.3	239.8	332.1	62.2	8.2	402.5
2012[c]	93.3	242.2	335.5	61.2	8.2	404.9

[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.

Coloradans spent more than $62 billion at retail establishments in 2010. The largest total expenditures occurred in food and beverage stores, which accounted for more than 21% of the total. Sales in general merchandise and motor vehicle and parts stores each accounted for about 18% of total retail sales. Sales volume rebounded from the Great Recession and posted a 6.8% increase in 2010. Sales through the first half of 2011 show similar growth, although roughly a percentage point of this gain is due to higher gas prices. Sales in current dollars are still below levels reached in 2007. If adjusted for inflation, sales are lower than any of the years since 2004.

Consumer spending slowed in the first half of 2011 as households confronted high debt levels, slow wage growth, fears of unemployment, and rising food and gas prices. Uncertainty and falling home prices led many households to apply any discretionary funds to paying down existing loans. For the nation, outstanding household debt, comprised of mortgage debt and consumer debt, fell by 4.5% from mid-2008 through mid-2011, either through payment or default.

The sluggish housing market continues to be an impediment to any resurgence in consumer spending. The home is the major asset in most families, and research on consumer spending suggests that the wealth effect from home values is larger than that from other assets. One study estimates that the decline in home prices from their most recent peak has reduced national consumer spending by $240 billion, or 1.7% of GDP. The regional housing market remains problematic. While most parts of Colorado did not experience the drastic drop in home prices that afflicted some parts of the nation, the state did not see the strong rise early in the decade either. Based on the S&P/Case-Shiller Index, Metro Denver home prices are down 1.6% from a year ago. Foreclosures fell in the first half of 2011 but much of the decline can be explained by caution on part of mortgage lenders due to the "robo-signing" controversy. Job and earnings prospects remain weak. The state began adding jobs in 2010, but growth has not kept pace with expansion in the potential workforce. The sluggish labor market slows wage growth. Real average earnings in early 2011 are below their levels three years earlier. Colorado's real median household income fell by 4% over the past 10 years. Although inflation was expected to ease in fall 2011, willingness to spend remained subdued.

The outlook for retail sales in late 2011 and in 2012 is fraught with uncertainty. The most likely scenario is one of continued slow growth. Home prices are not likely to recover until at least 2013, and job and income growth will remain sluggish at best. While consumer debt has come down, confidence remains weak, and credit opportunities are restrained for many households. The retail sales gain in 2012 should be slightly greater than

continued on page 42

WHOLESALE TRADE EMPLOYMENT
2003–2012
(In Thousands)

Year	Wholesale Trade Durable Goods	Wholesale Trade Nondurable Goods	Other Wholesale	Total
2003	52.7	32.3	7.1	92.1
2004	51.5	31.9	8.5	91.9
2005	52.4	32.0	9.1	93.5
2006	53.4	32.9	10.1	96.4
2007	54.4	33.7	11.2	99.3
2008	54.8	33.4	11.9	100.1
2009	50.1	31.5	11.7	93.3
2010	48.5	30.8	11.6	90.9
2011[a]	49.3	31.2	11.8	92.3
2012[b]	49.6	31.7	12.1	93.3

[a]Estimated.

[b]Forecast.

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

Trade, Transportation, and Utilities

continued from page 41

increases in population and inflation. The downside risk of a major negative shock from a worldwide financial meltdown or some other peril still lingers.

Sales by motor vehicle and parts stores have seen the strongest increases of any category since the beginning of 2010. New auto purchases weakened in mid-2011 due to economic concerns and low inventories of many Japanese models, but posted a solid gain in September. Years of subdued buying in Colorado left a reservoir of pent-up new car demand. Sales are expected to climb in 2012, although the gain will not be as strong as in 2010 or 2011. Food store sales will slow as price increases moderate. General merchandise sales will benefit from modest improvement in the overall economy. Although new building will remain weak, building material sales should post a gain, with demand for remodeling and home repair purchases continuing.

The holiday season is critical for many retailers, particularly smaller firms. Colorado retail sales in November and December 2010 posted very strong gains, with much of the growth in categories usually not associated with the holidays, including auto dealers, gas stations, and building materials. National forecasts for 2011 holiday sales call for a gain similar to that in 2010 or perhaps a little weaker. A similar outcome is likely in Colorado.

Structural changes in the industry make it very unlikely that retail will ever be the force in state job growth that it was when employment in the sector grew 3.5% annually during the 1990s. With

RETAIL SALES, 2003–2012
(In Billions of Dollars)

Year	Motor Vehicle and Parts	General Merchandise	Other Retail	Total Retail Trade Sales[a]	Percentage Change
2003	$13.7	$8.5	$30.6	$52.8	0.1%
2004	14.0	9.1	32.8	55.9	5.9
2005	13.6	9.8	35.3	58.7	5.0
2006	13.3	10.3	38.2	61.7	5.2
2007	14.1	11.0	42.2	67.3	9.0
2008	12.1	11.3	43.2	66.7	-0.9
2009	10.2	11.0	37.2	58.5	-12.3
2010	11.3	11.1	40.1	62.4	6.8
2011[b]	11.4	11.2	43.6	66.2	6.0
2012[c]	11.5	11.5	46.2	69.2	4.5

[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, 2003–2012
(In Thousands)

Year	Motor Vehicle and Parts Dealers	Food and Beverage Stores	General Merchandise Stores	Other Retail	Total
2003	32.4	42.2	44.2	120.7	239.5
2004	32.4	42.4	45.0	121.5	241.3
2005	32.0	43.9	46.7	123.2	245.8
2006	31.5	44.1	47.6	125.1	248.3
2007	31.8	44.8	50.9	126.0	253.5
2008	31.2	45.9	51.6	123.9	252.6
2009	28.0	44.7	50.7	114.9	238.3
2010	27.8	45.0	49.9	114.0	236.7
2011[a]	28.1	45.1	50.2	116.3	239.8
2012[b]	28.1	45.5	50.8	117.8	242.2

[a]Estimated.

[b]Forecast.

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

another year of sales gains, some additional hiring is expected. The state should add almost 2,400 jobs in 2012, slightly fewer than in 2011.

Transportation and Warehousing

The Transportation and Warehousing Sector includes air, railroad, and water transportation; trucking; taxi service; urban transit; couriers; warehousing; and pipelines companies. These industries are expected to contribute 62,200 jobs in 2011, falling somewhat in 2012 with continued losses in air transportation.

Transportation

Colorado Air Transportation

The U.S. airline industry includes about 600 companies with combined annual revenues of nearly $170 billion. Major companies include American (owned by AMR), Delta, and United Continental, as well as air express delivery companies such as FedEx and UPS. The industry is highly concentrated: the 10-largest companies account for more than 75% of the industry's revenue.

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

Total national passenger enplanements are compiled by the U.S. Department of Transportation's Bureau of Transportation Statistics (BTS). Total U.S. passengers are estimated to reach 744.8 million in 2011, up nearly 4.4% from 2010.

continued on page 44

TRANSPORTATION AND WAREHOUSING EMPLOYMENT
2003–2012
(In Thousands)

Year	Truck Transportation	Couriers and Messengers	Warehousing and Storage	Air Transportation	Other Transportation	Total
2003	16.5	9.7	8.0	13.7	17.1	65.0
2004	16.9	9.4	7.4	14.1	17.7	65.5
2005	17.8	9.3	7.0	13.6	18.0	65.7
2006	18.4	9.4	7.2	13.3	18.3	66.6
2007	19.0	9.7	7.0	14.2	18.6	68.5
2008	18.6	9.5	6.8	14.6	18.8	68.3
2009	17.3	8.7	6.6	13.4	17.9	63.9
2010	17.0	8.5	6.2	12.4	17.8	61.9
2011[a]	16.5	8.1	5.8	11.8	20.0	62.2
2012[b]	16.3	7.9	5.6	11.2	20.2	61.2

[a]Estimated.

[b]Forecast.

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

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

Trade, Transportation, and Utilities

continued from page 43

Despite stronger than expected growth in passenger markets during September 2011, the air transportation industry is bracing for more difficult times ahead. The International Air Transport Association's (IATA) October 2011 Airline Business Confidence Survey reported a significant decline in profitability expectations over the next 12 months. More worrying is the expectation that unit costs will increase with little optimism for yields. The majority expected no change in passenger yields, while 90% of respondents were split equally among those expecting cargo yields to remain the same or decline. Similarly, air freight, which is highly dependent on local economic activity, is expected to weaken. As such, Colorado air transportation jobs are estimated to contract 5.1% in 2012 after a decrease of 4.8% in 2011.

Passenger traffic at the Colorado Springs Airport (COS) continues to slide; the airport ranks 89th in the nation. Passenger traffic is expected to fall 12.4% in 2011 and 6.4% in 2012.

Grand Junction's Walker Field (GJT) is anticipated to recover from its decline in 2009-2010 by posting 1.4% growth in total passengers in 2011. GJT's passenger traffic is forecasted to climb 1.3% in 2012.

Modest passenger growth is expected at 7 of Colorado's 12 nonhub airports in 2011. Among those airports projecting increases are Eagle County Regional Airport, 2.7% (ranked 178th); Yampa Valley Regional Airport, 2.9% (ranked 215th); and Durango-La Plata County Airport, 10.4% (ranked 190th). In contrast, traffic at Aspen-Pitkin County Airport is anticipated to drop 4.3% in 2011 (ranked 171th).

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.

With nearly 52 million passengers in 2010, DIA ranked as the 5th-busiest airport in North America and the 10th-busiest in the world. The airport is expected to end 2011 with 53 million passengers, another all-time record. Minimal growth is expected in 2012.

DIA's largest carrier, United Airlines, closed a merger with Continental Airlines on October 1, 2010, to create the world's largest airline. The integration of the two carriers continues in Q4 2011, and a single operating certificate for the merged carrier is expected to be issued by the FAA before the end of the year. Merged, the airlines will provide nonstop service to more than 120 destinations from Denver, and DIA will rank as the fourth-largest hub in the carrier's network behind Houston, Chicago, and Newark. It is important to note that Denver will rank as the second-largest United hub in terms of domestic destinations served, solidifying both Denver's local market strength and competitive advantage as a central point for connecting transcontinental passengers.

Frontier Airlines, a wholly owned subsidiary of Indianapolis-based Republic Airways, maintains its rank as DIA's second-largest carrier. Frontier's largest hub remains in Denver, and the carrier also operates a smaller hub in Milwaukee. Southwest Airlines entered the Denver market in 2006 and is DIA's third-largest carrier. DIA ranks as the airline's fifth-largest station. Southwest is in the process of merging with AirTran; the merger is expected to be completed in Q1 2012. The impact of the integration has already touched Denver—Southwest will begin flights between Denver and Atlanta in February 2012. Further positive impacts are expected for Denver in 2012 and beyond, including new domestic routes and the potential for international service by Southwest from Denver.

In total, 14 airlines provide scheduled commercial passenger service at DIA, including four foreign-flag carriers (AeroMexico to Mexico City, Air Canada to Montreal and Toronto, British Airways to London, and Lufthansa to Frankfurt). A fifth foreign-flag carrier, Icelandair, announced in September 2011 its plans to begin year-round nonstop service between Denver and the carrier's hub in Reykjavik in May 2012. This expansion marks the first new transatlantic carrier in Denver since Lufthansa initiated service in 2001. United and Frontier also operate international service from Denver—United to both Canada and Mexico, and Frontier to Mexico and Costa Rica. The expansion of nonstop flights to international destinations remains a high priority for DIA.

DIA continues work on the South Terminal Redevelopment Program, which includes the construction of a 500-room hotel and conference center, a RTD FasTracks commuter rail station, and improvements to the existing concourse baggage and train systems. In addition, the program will

continued on page 46

COLORADO AIRPORT STATISTICS
2004–2012
(In Thousands)

Passengers and Cargo	2004	2005	2006	2007	2008	2009	2010	2011[a]	2012[b]
Passengers (in thousands)[c]									
Denver International Airport (DEN)	42,393.8	43,387.4	47,327.0	49,863.4	51,245.3	50,167.4	51,985.0	53,002.1	53,052.1
Colorado Springs Municipal Airport (COS)	2,069.5	2,061.7	1,995.5	2,067.4	1,993.0	1,864.0	1,738.3	1,658.4	1,633.5
Grand Junction Regional (GJT)	288.1	319.4	319.0	340.9	425.2	457.7	438.7	451.9	458.6
Eagle County Regional Airport (EGE)	388.3	426.5	434.1	463.4	425.7	363.3	402.0	389.6	418.0
Aspen-Pitkin County Airport (ASE)	368.5	387.9	403.3	364.5	426.8	433.7	445.5	426.3	403.7
Yampa Valley Airport (HDN)	240.6	259.5	262.9	279.3	273.2	245.0	220.1	226.6	230.9
Durango-La Plata County Airport (DRO)	193.1	203.5	227.0	232.6	268.8	296.2	327.2	345.2	362.5
Montrose Regional Airport (MTJ)	144.9	157.3	164.6	185.2	171.7	184.4	193.2	186.4	179.0
Gunnison-Crested Butte Regional Airport (GUC)	76.8	89.7	96.1	85.2	72.1	84.3	74.6	78.4	81.5
Fort Collins-Loveland Municipal Airport (FNL)	63.9	69.3	65.7	56.6	62.2	62.2	71.3	68.8	66.1
Telluride Regional Airport (TEX)	37.0	36.3	32.9	32.9	26.7	13.5	18.7	22.0	16.0
Cortez Municipal Airport (CEZ)	15.7	16.4	18.5	20.4	16.8	15.4	12.7	14.6	16.7
San Luis Valley Regional/Bergman Field (ALS)	10.4	10.9	14.4	15.0	14.3	12.6	13.5	13.0	13.0
Pueblo Memorial Airport (PUB)	9.0	8.1	9.9	9.8	8.7	10.4	23.3	23.5	23.7
Total Passengers	46,299.7	47,433.9	51,371.0	54,016.6	55,430.4	54,209.9	55,964.2	56,906.8	56,955.5
Cargo, Freight, and Air Mail (in millions of lbs.)									
DIA Freight and Express	621.0	615.6	580.2	573.9	527.1	468.2	517.7	518	520
DIA Air Mail	78.8	67.6	41.4	15.5	26.4	26.6	37.5	36.0	38.0
DIA Total	699.8	683.2	621.6	589.4	553.5	494.8	555.2	554.0	558.0
Colorado Springs Cargo	35.5	33.1	32.6	27.0	24.0	23.0	22.3	21.7	21.0
Colorado Springs Air Mail	1.0	0.3	0.0	0.0	0.0	0.0	0.6	0.0	0.0
Colorado Springs Total	36.5	33.5	32.6	27.0	24.0	23.0	22.3	21.7	21.0

[a]Estimated.

[b]Forecast.

[c]Passengers include enplanements and deplanements.

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

Trade, Transportation, and Utilities

continued from page 44

COLORADO NATURAL GAS CONSUMPTION
2003–2012
(In Billions of Cubic Feet)

Year	Total Gas Consumption	Percentage Change
2003	436.3	-5.0%
2004	440.4	0.9
2005	470.3	6.8
2006	450.8	-4.1
2007	504.8	12.0
2008	504.8	0.0
2009	520.2	3.1
2010	495.2	-4.8
2011[a]	474.6	-4.2
2012[b]	476.6	0.4

[a]Estimated.

[b]Forecast.

Source: Colorado Business Economic Outlook Committee.

COLORADO ELECTRIC POWER CONSUMPTION
2003–2012
(In Millions of Kilowatt Hours)

Year	Nonresidential	Residential	Total	Percentage Change
2003	30,770	15,725	46,495	1.2%
2004	31,192	15,532	46,724	0.5
2005	31,917	16,436	48,353	3.5
2006	32,782	16,952	49,734	2.9
2007	33,665	17,634	51,299	3.1
2008	34,422	17,720	52,142	1.6
2009	33,623	17,412	51,035	-3.8
2010	34,168	17,931	52,099	3.9
2011[a]	34,365	17,832	52,198	-0.2
2012[b]	34,688	17,942	52,630	1.0

[a]Estimated.

[b]Forecast.

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

incorporate an open-air plaza, complete with new concessions and leasable space that connects to the existing Jeppesen Terminal. The project is expected to be completed by 2016.

Motor Freight Transportation and Warehousing

Nationally, the trucking industry is comprised primarily of independent and small carriers. The industry has been adversely impacted by high fuel prices and weak consumption. Retail sales are exhibiting signs of improvement with year-over-year growth as consumers return to the marketplace, which bodes well for motor freight carriers. However, diesel fuel prices continue to fluctuate in the $3-$4 range, putting pressure on carriers, who may pass along costs as fuel surcharges.

Utilities

In 2011, natural gas and electric rates remained stable and demand fell. Domestic production and increased supply of fossil fuels, along with the increased demand for renewable resources conservation, had a balancing effect on the markets.

Energy conservation continues to be a familiar theme in legislation in 2011. Increased activity has been seen at the consumer level with the advent of alternative methods of customer participation in renewable resources. Utilities have continued efforts to meet the renewable energy standard set by the state and upheld by the Public Utilities Commission, including higher percentages of on-site solar, renewable energy credit requirements, and a reduction in greenhouse gas emissions. Natural gas pipeline safety legislation was prominent in 2011, with catastrophic events occurring in California and Pennsylvania. Additionally, new regulations by the EPA went into effect, requiring the reporting of greenhouse gas emissions by natural gas distribution companies.

The utilities industry continues the work began in 2009, increasing renewable portfolios with additional solar and wind generating facilities. Natural gas power generation continues to play a role in the renewable portfolio, with peaking facilities and the ability to balance load with renewable energy. The state currently has generation in wind, central, and on-site solar, biomass, and hydro resources. Utilities, in conjunction with state and federal agencies, are offering programs and rebates to entice customers to reduce load, use energy efficient appliances, and operate more efficiently.

Growing domestic natural gas production, large underground storage volumes, and adequate access to pipelines continues to drop the price of natural gas below 2010 levels. National natural gas consumption increased in 2011 by an average of 1.2 billion cubic feet per day; however, this increase is primarily attributed to the growth in gas consumption for electric generation purposes as residential demand for natural gas has actually decreased. Wholesale natural gas prices have continued to hover around $4 per MMBtu, which bodes well for retail natural gas and electricity consumers as consumption in the electric power sector makes up nearly half of the total natural gas consumption for the country.

Both residential natural gas and electricity consumption have seen decreased demand in the nation in 2011 based on slow economic growth, increased efficiency, and favorable weather patterns. National residential electric consumption decreased 2.6%, while residential natural gas consumption slid 1%. Electricity consumption was nearly flat in Colorado, increasing by a mere 0.2%, from 52,099 million kWh in 2010 to an estimated 52,198 million kWh a year later. Colorado natural gas consumption fell from 495.2 BCF in 2010 to an estimated 474.6 BCF in 2011, a decline of more than 4%.

Longer term, the demand for electricity and natural gas is expected to be stable. Consumers and utilities continue to implement conservation efforts, and Colorado utilities continue to strive to provide affordable, reliable power while being responsible environmental stewards.

Information

Overview

The Information Supersector continues to operate in a state of flux. The industry's entrepreneurial software developers are pooling capital and searching for talent, and telecom shrinks as Colorado found itself on the wrong side of an enormous merger of two large telecom companies. Social media—once considered the industry fringe—continues to have disruptive impacts on traditional media, with some firms harnessing the opportunities and others struggling to adapt.

Companies in the Information Supersector communicate and deliver content in a variety of channels or media to diverse audiences. They facilitate daily information and cultural exchanges for personal and professional consumption. This industry is forecast to lose 600 jobs in 2011 and another 500 in 2012.

The upheaval in twentieth-century communications continues with ongoing integration of digital and social media into existing traditional media outlets.

Colorado's major media have all moved into the digital media business with the *Denver Post* taking it the furthest in positioning itself as Colorado's largest digital network, including both news dissemination and advertising. The *Post* now offers a full spate of digital platforms and services. Among those are its digital, mobile, and social media news platforms, as well as its digital ad network, called Ad Taxi Network, which is a search engine optimization solution for advertisers. With these digital platforms and solutions, the *Post* claims it can target any audience at any time for any duration for any advertiser.

Denver's other media outlets such as KCNC, KMGH, and Gannet's KUSA are similarly positioning themselves as fully integrated media channels or networks. KUSA, for example, is marketed as the "networks of 9News," displaying the logos of various broadcast and online content channels. KUSA has also branched out with discrete websites targeted at specific audiences, such as its site aimed at mothers called "Moms," its "DealChicken" site, and finally its "Metromix" site focused on Denver restaurants, bars, nightclubs and music, and other events. KCNC and CBS Denver.com have their version as well, called "Top Spots," which features similar content. All have aggressively adopted the social media platforms of Twitter and Facebook.

The introduction of internet-ready television and Tivo and other recording platforms, plus multiple online services and service providers offering immediate streaming and downloading, such as Hulu, Netflix, GoogleTV, DirectTV, and Comcast's Xfinity, will have an impact on the industry. Many young adults prefer to access content through the internet, whether on an internet-ready television or through their laptops and mobile devices. In August 2006, McKinsey & Co published a report that said that by 2010 traditional TV advertising will only be one-third as effective as it was in 1990. Customer audiences are smaller and specialized. The fragmentation of media and audiences and the accompanying reduction of audience size have reduced the effectiveness of the traditional top-down, mass, "interrupt and repeat" advertising model. Forrester Research's *North American Consumer Technology Adoption Study* shows people in the 18-26 age group spend more time online than watching TV.

Broadcast radio continues to adjust to even more online and satellite competition. Well-known streaming services, including Pandora, Rhapsody, Grooveshark, and Spotify, are joining with personal music download and management services, such as iTunes, Google Music, Myspace Music, and Amazon. Additionally, broadcast radio must contend with Sirius satellite radio, which is now adding listening options to its existing car radio. Among these are Sirius radio in the home and online listening options.

The mobile versions of many of the services cannot be ignored. Increasingly, Coloradans, and Americans in general, turn to their mobile devices for a variety of streaming services. According to the online site MobiThinking that aggregates statistics and information from experts, analysts, associations, and regulators, it was projected that by 2011 more than 85% of new handsets will be able to access the mobile web. In the United States, 25% of mobile users are mobile only. U.S. consumers prefer mobile browsers for banking, travel, shopping, local information, news, video, sports, and blogs, and choose apps for games, social media, maps, and music. "In the last 12 months, customers around the world have ordered more than US$1 billion of products from Amazon using a mobile device," Jeff Bezos, founder and CEO of Amazon.com (July 2010).

Just as with internet and mobile streaming of television and other content, mobile is eating into the landline offerings of the telecommunications industry. Fewer digital natives are using landline telephones, and, in fact, are using their phones to call at all: texting is their preferred method of communication. In the past five years, full-fledged adults have given up on the telephone landline, mobile, and voice mail, according to Pamela Paul of the *New York Times*. She quotes Nielsen Media that cell phone voice spending is trending down, with text spending to surpass it within three years.

Meanwhile, the social media trend continues extending into the corporate and retail level—witness large brands launching blogs, Facebook pages, and Twitter accounts. According to Reuters, Walmart is stepping up its e-commerce and social networking investments in an effort to compete with internet rival Amazon. In partnership with Facebook Inc., the company has launched "My local Walmart" that lets its roughly 9 million fans connect with about 3,500 local stores rather than the corporate-level Facebook strategy.

This strategy mirrors what is happening with local and regional businesses as social media also continues to go hyperlocal, with local businesses using blogs, Facebook, and Twitter to amplify products and services. Advertising and public relations agencies in Denver and around the state are now offering services to help some of these local firms craft and implement their social media strategies, signaling that engaging with customers online is sound business practice.

These new services will also have implications for the skill sets employers will need in their digital media and marketing employees. Stephanie Schwab of Crackerjack Marketing predicts that in 2012 employers will need to hire people with more and varied skills. In her blog post on Social Media Explorer, she points out there is a need for people with great editorial skills; who can write blogs, white papers and slide presentations; and who can conceptualize and perhaps even edit video. If the marketing or media staff has those capabilities, she points out, the costs for content marketing gets absorbed into the department. She also predicts there will be new positions like "marketing technologist" and "marketing scientist" who understand online technologies and can assist with implementation without waiting for the IT department.

Another emerging trend is the rise of the online review another variation of what is called user-generated content (UGS). Media outlets and all types of businesses are making good use of this content. Newspaper, television, and radio encourage submission of all types of content, video, audio, photos, and social media. Businesses encourage consumers to review their products and use the reviews to promote their best-selling items and make decisions about seasonal and clearance inventory, as well as other strategic considerations. Consumers have become accustomed to participating in their purchasing experience, and they want to share that feedback. They have been labeled the "prosumer" and expect to have a say in the look, feel, features, and service experience—whatever the purchasing experience is. Online businesses are making the most of the activism, consciously and actively encouraging consumers' input through product reviews, live chat, and other feedback mechanisms.

Social and digital media innovations are also at the heart of a technology start-up boom that continues in Colorado, many of which are based in Boulder. With the city's status as the number one city for technology start-ups comes an influx of new development talent from around the country and the world. Increasingly, tech entrepreneurs are flocking to Colorado, hoping to be the next big thing—whatever that might be. To leverage the Boulder and Colorado reputation for entrepreneurship, a consortium of entrepreneurs launched "Startup Colorado" aimed at fostering the growth of innovative companies around Colorado.

Publishing

As the second-largest information sector, publishing employed just under 22,900 people in 999 establishments in 2010. The industry includes any firm that issues print or electronic copies of original works for which they own a copyright, excluding Internet firms. Products include software, newspapers, periodicals, books, directories, databases, calendars, and greeting cards. Consumers are demanding, and the publishing industry is increasingly producing, material in formats other than traditional print, such as audio, downloadable files, digital books, and smart-phone applications.

continued on page 50

Information

continued from page 49

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

The industry lost 34.3% of its jobs between 2001 and 2010, with 84% of those losses occurring in the software and newspaper publishing sectors. Book publishers also shed 27.6% of their job base since 2001, but because Colorado's book publishing sector is very small, these losses represent only 3.3% of the jobs lost by the overall publishing industry. Employment in publishing (excluding Internet) is expected to remain fairly flat overall, increasing slightly, by 0.5%, in 2011 and decreasing 0.3% in 2012.

Newspaper Publishers

While newspaper readers had become accustomed to receiving low-cost information subsidized by advertisers, it is clear that this business model has become obsolete. Circulation of print newspapers and local newspaper advertising revenue are diminishing each year as people increasingly turn to the Internet for news and to post and respond to classified advertisements. The recent recession accelerated this trend, with businesses and consumers substantially reducing spending on traditional advertising.

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

Traditional media outlets, including newspapers, televisions, and radio, have begun to converge, sharing resources and information both in print and online. In addition, newspapers and periodicals are creating full or partial paywalls for access to information online or on mobile devices. Other newspapers have converted to a nonprofit business model, relying on philanthropic donations.

Employment at traditional Colorado newspapers has been declining since 2005. The state's newspapers employed 4,308 people in 2010 in 166 establishments, down from 7,080 people in 2005. Newspaper employment is expected to continue to lose ground in 2011 and again in 2012, although at a slower rate.

Book Publishers

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

This trend in the industry may have begun to contribute to the strength of Colorado's book publishers, which tend to be fairly small firms that specialize in certain subject areas. After falling for three years, the number of book publishers in Colorado held steady in 2010, at 103 firms, and employment increased from 1,006 people in 2009 to 1,042 people in 2010.

Jobs in these firms generally include editors, marketers, production staff, and general administrators. Most authors are freelance workers, who are classified in the services industry. Authors who publish their own books have an ever-increasing presence in Colorado and are not represented in these figures. However, small book publishing firms have increasingly begun to collaborate with these authors. Employment in Colorado's book publishing industry will remain flat in 2011 and 2012.

continued on page 52

2010 COLORADO INFORMATION EMPLOYMENT, WAGES, AND ESTABLISHMENTS

Sector	NAICS	Percentage of Total Firms	Percentage of Total Employment	Percentage of Total Wages	Average Wages	Percentage Change in Average Wages 2009-10
Publishing Industries, except Internet	511	31.6%	31.9%	31.7%	$81,518	3.9%
Motion Picture and Sound Recording Industries[a]	512	14.8	5.6	1.6	23,549	2.0
Broadcasting, except Internet	515	6.3	8.9	6.6	60,586	0.4
Telecommunications	517	24.5	42.0	48.0	93,923	8.6
Data Processing, Hosting and Related Services	518	12.3	8.8	9.4	87,514	5.1
Other Information Services	519	10.5	2.8	2.7	80,389	5.3
Total Information[b]	**51**	**100.0%**	**100.0%**	**100.0%**	**$82,084**	**5.8%**
Information in Denver Metro Area	51	51.0%	62.4%	66.0%	$86,921	7.9%
Information in Rest of State	51	49.0%	37.6%	34.0%	$74,067	1.7%
Total All Industries					$47,868	2.1%

[a]Includes movie theater employees and wages.

[b]Totals may not sum to 100% due to rounding.

Note: Differences occur between QCEW data and CES data series.

Source: Colorado Department of Labor and Employment, Quarterly Census of Employment and Wages.

Information

continued from page 51

Directory Publishers

Colorado's directory publishers have lost 378 jobs, or 16.3%, since 2006. Consumers increasingly prefer using online directories that can be accessed remotely for free using smart phones and GPS devices, which has affected sales and advertising revenue.

Software Publishing

Companies in the software publishing industry design, provide documentation of, install, provide support services for, and distribute software. The developed economies of the world now rely on computers and information technology to operate and grow. Much of the recent development has concentrated on small and inexpensive online applications, such as those produced for smart phones and tablet computers.

Software publishers have also been innovative in helping large firms improve their efficiency by creating applications that help the firm more centrally organize and manage its operations, supply chain, and customer relations processes. In addition, as the economy becomes increasingly more reliant on the Internet and more data and software is stored remotely via cloud computing, firms have also focused on Internet security services.

In the long run, employment in the software publishing industry is expected to grow as the economy continues to transition away from traditional publishing toward online operations, and software publishers continue to respond to the ever-changing requirements of firms and consumers. While this should spur growth in the

future, employment in Colorado's software publishing industry contracted every year between 2001 and 2010 as technological improvements promoted industry convergence and efficiencies. The software publishing sector, the largest sector in Colorado's publishing industry, employed 10,927 people in 2010 in 413 establishments. Employment data and anecdotal evidence suggest growth and entrepreneurship in the state's publishing industry in 2011, particularly in the Boulder area. Software publishing employment is expected to increase 3.4% in 2011 and remain flat in 2012.

Telecommunications

Telecommunications service revenue rebounded in Q2 2011, rising 3.7% nationally compared to the same period in 2010. Although small, gains in revenue can indicate a revival of demand, particularly from businesses, which are often the largest consumers of telecommunication service. However, the economic slump has actually helped to boost revenue for some telecommunications services. Lingering low consumer confidence and small gains in consumer spending have allowed some telecommunications services, such as television, to compete effectively with more expensive forms of entertainment for consumer's time.

In the long term, higher population growth forecasted for the western United States is expected to enlarge the Colorado market for all telecommunications services, attracting more capital investment. In the short term, any local telecommunications growth will probably come from significant government commitments aimed at expanding telecommunications infrastructure in rural communities. In 2010, this industry was comprised of 774 firms and 30,000 employees. Overall, the telecommunications industry will continue to lose jobs in 2011 and 2012, albeit at a more moderate rate than during the recession—down 400 in 2011 and 200 the following year. Reluctance to increase capital spending and cost-cutting measures contribute to weakening employment.

Broadband

In 2009, the most significant development in the area of broadband deployment came as the result of passage of the federal American Recovery and Reinvestment Act (ARRA), which allocated $7.2 billion in grant money to be awarded to broadband infrastructure and other investment projects nationwide. The ARRA created two programs for the evaluation of grant proposals: the Broadband Technology Opportunities Program (BTOP), administered by the National Telecommunications and Information Administration of the Department of Commerce, and the Broadband Initiatives Program (BIP), administered by the Rural Utilities Service of the Department of Agriculture. In 2011, BIP closed to new applications.

Data published in the *Consolidated Federal Funds Report for Fiscal Year 2010* detailed spending for all of the broadband programs in Colorado: $3.89 billion in grants for the Broadband Technology Opportunities Program, $290.9 million in grants for the State Broadband Data and Development Grant Program, $1.23 billion in direct loans, and $2.34 billion in grants for BIP. In July, August, and November 2011, additional infrastructure loans were approved, including a loan of $18.7 million to help expand and improve broadband services in 10 rural exchanges in Colorado.

Telephone

CenturyLink's $24 billion acquisition of Qwest was completed in April 2011. Mergers of this kind often result in job loss rather than creation as combined companies lend to the consolidation of overlapping tasks. Some of CenturyLink's Colorado jobs were moved to company headquarters in Monroe, Louisiana, and still others were eliminated in the merger. CenturyLink has been offered $19.4 million in incentives by the state of Louisiana to create 800 jobs at its headquarters in the next five years. Nevertheless, even before the merger was approved, CenturyLink agreed to invest about $70 million over five years in Colorado to expand broadband. Other funding to improve communication infrastructure in 2012 will come from federal grants that were approved in late 2011 to expand emergency communication. The grants aim to allow rural areas to finance technology enhancing public safety, such as the ability to precisely locate 911 calls.

Television

Nationally, revenue for cable and other subscription broadcasting rose 8.1% year-over-year in Q2 2011. Advertisements make up a significant portion of U.S. television revenue—75% of sales for broadcast programming and 40% for cable. Across the nation, political advertisement revenue is expected to add as much as $3.2 billion in activity for television networks according to the Campaign Media Analysis Group. Past trends during presidential election cycles suggest that advertisement revenue can double in the 18 months leading up to an election. With Colorado considered a battleground state, local media outlets stand to gain.

continued on page 54

INFORMATION EMPLOYMENT 2003–2012 (In Thousands)

Year	Publishing	Telecommunications	Other	Total[a]
2003	30.3	34.5	19.8	84.6
2004	29.7	32.5	19.0	81.2
2005	29.0	29.3	18.6	76.9
2006	28.5	28.2	18.7	75.4
2007	27.9	30.2	18.3	76.4
2008	26.6	31.0	19.2	76.8
2009	24.1	31.8	18.8	74.7
2010	23.0	29.9	18.8	71.7
2011[b]	23.1	29.5	18.5	71.1
2012[c]	23.0	29.3	18.3	70.6

[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.

Information

continued from page 53

Ratings, which are important in maintaining advertising revenue, are increasingly connected to online word-of-mouth promotion. A report by NM Incite and Nielsen found that social media buzz boosted TV ratings significantly, especially in the 18-34 age demographic, where a 9% increase in buzz raised ratings by 1%. Federal grants authorized in late 2011 add another dimension to the future of television in Colorado. The grants will inject around $500,000 into efforts by Rocky Mountain Public Broadcasting Network, Inc. to transition rural television stations to digital broadcasting.

Wireless

To boost the competition, construction, and growth of wireless facilities, the Federal Communications Commission (FCC) is beginning to set up bandwidth auctions to favor new construction and expansion and to encourage small bidders. In Auction 93, the next auction of FM bandwidth that will open in March 2012, winning bidders will receive construction permits that, if completed in an allotted time period, will allow bidders to file for an eight-year license. However, despite a push for increased investment and near record-setting revenue for wireless companies in 2010, U.S. wireless jobs continue to decline. Industry consolidation, such as the contested merger between AT&T and T-Mobile, and increased productivity due to technological innovation continue to eliminate jobs.

One of the ongoing challenges in remaining competitive in the saturated U.S. wireless market is keeping pace with rapid technological change, particularly in offering social media capabilities. In 2010, social media activity surpassed e-mail, suggesting that the demand for fast broadband service and advanced video streaming ability will continue to grow in 2012.

The Year Ahead

In 2012, telecommunications employment will continue to decline, despite localized government projects to expand service to rural areas. With a few exceptions, capital investment is expected to remain low in the absence of strong consumer confidence. In particular, the wired communications industry will continue to contract as more consumers meet their needs with bundled services from wireless providers, including voice, television, and internet. As larger companies move toward consolidation, smaller companies will have to form alliances or move to more specialized markets, such as web design, hosting, website maintenance, and consulting, to compete.

Other

Film, Television, and Media

Overall, the production of significant films in Colorado is moribund. That being said, some very low budget films (under $500,000) are being produced in the state, and the 10% incentive program has proved somewhat attractive to commercial and documentary producers.

The biggest content creator in Colorado is High Noon Entertainment, which currently has 26 shows in production for 11 cable networks—in all, more than 500 hours of reality television production in 2011. Although most of these shows are shot out of state, either for content reasons or to take advantage of better incentives, most of the shows are assembled, edited, and finished in Denver. It is estimated that $40 million per year comes into Colorado as a result of this significant operation. High Noon employs approximately 200 full-time employees in Colorado and employs many freelance workers as well.

In 2012, a major improvement in Colorado's incentives for film, television, and other media is expected. This will take legislation, which, if passed, will transpire in July 2012, the start of Colorado's next fiscal year. If all goes as planned, film activity for films budgeted between $5 and $12 million, with total budgets in the $25-$30 million range, should significantly improve from the virtually zero dollars currently spent.

Broadcasting (except Internet)

The broadcasting subsector includes television and radio broadcasting, as well as cable and other subscription programming. This subsector experienced rapid consolidation in 2009, leading to hard cuts of more than 425 jobs, or 6.2%. The outcome led to the sharing of resources and content, which helped stabilize the industry in 2010, when fewer than 100 jobs were lost. Broadcasting is demonstrating year-over-year growth in 2011, and the number of firms has remained fairly constant, at about 200.

Financial Activities

The Financial Activities Supersector is comprised of two sectors: (1) Finance and Insurance, and (2) Real Estate and Rental and Leasing. Since peaking in 2006, the Financial Activities Supersector lost 16,400 jobs in Colorado through 2010, a decline of 10.2%. In 2010, Finance and Insurance Sector employment fell 2.3%, or by 2,400 jobs, and employment in the Real Estate and Rental and Leasing Sector decreased 3.6%, or by 1,600 jobs. These sectors continue to exhibit weakness, with employment expected to decline in 2011, to 143,500 jobs, and lose another 1,000 in 2012, to 142,500.

Approximately 45% 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.

Finance and Insurance

Employment in the Finance and Insurance Sector totaled 101,400 in 2010. In 2011, employment decreased by 200 jobs, with an additional loss of 500 anticipated in 2012, making the sixth-consecutive year of employment declines.

Financial Markets

Distortion, dIstorTion, DIsToRTIon…this word perhaps more than any other describes the challenge in deciphering the capital markets. For example, the Federal Reserve implemented a new program known as Operation Twist. This moniker comes from the action of the Federal Reserve selling its short treasury holdings and moving out on the curve, purchasing longer maturities. What is the end result? A twisting of the yield curve. One of the goals of this program is to keep mortgage funding costs down. By purchasing longer maturity treasuries, it hopes to keep the rate on the 10-year treasury low. Additionally, the Federal Reserve has also stated that it will take principal cash flows from its mortgage holdings and reinvest them in the mortgage market rather than in treasuries. Again, this is driven by a desire to keep mortgage funding costs down.

FINANCIAL ACTIVITIES EMPLOYMENT 2003–2012 (In Thousands)

Year	Finance and Insurance	Real Estate and Rental and Leasing	Total
2003	107.1	47.1	154.1
2004	107.3	47.3	154.6
2005	110.3	48.3	158.5
2006	111.4	49.1	160.4
2007	110.1	49.4	159.5
2008	107.4	48.2	155.6
2009	103.8	44.2	148.0
2010[a]	101.4	42.6	144.0
2011[b]	101.2	42.3	143.5
2012[c]	100.7	41.8	142.5

[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.

This has been the response of the Federal Reserve to the end of its second round of quantitative easing (QE2). Operation Twist is not quite a third iteration of quantitative easing, although there is speculation that round three is in the queue. For at the November Federal Open Market Committee (FOMC) meeting, there was one dissension. However, this dissension was not like those voiced by the now-retired Kansas City Federal Reserve President Hoenig calling for restraint. No, this dissension was a call for more policy accommodation by the Fed, requested by Chicago Federal Reserve President Evans.

Why the obsession with supporting asset values, notably, real estate values? Because deflation is still a very real risk, and Fed Chairman Bernanke seems to be willing to do whatever it takes to avoid a deflationary spiral. Furthermore, real estate values are the key asset securing bank loans. Should real estate values continue to decline, then bank capital is at risk. Additionally, declining real estate values inhibit the mobility of the labor force. However, it is difficult to target only one asset with monetary policy. Consequently, it can be argued that the

continued on page 56

Financial Activities

continued from page 55

unintended consequence of the nontraditional easy monetary policy is to inflate all asset values. This calls into question what the real value of the stock market and commodity prices would be, in addition to treasury securities and real estate, if it were not for these nontraditional actions.

However, residential home prices continue to decline. From a regulatory stand point, the Federal Housing Finance Agency announced a series of changes to the Home Affordable Refinance Program (HARP) that are intended to attract more eligible borrowers who can benefit from refinancing their home mortgage to lower rates. All of these actions are to support and stimulate the economy, but there are limits to what monetary policy can accomplish. It is plausible that such extraordinary actions are inhibiting investors and consumers—that, in fact, the suspension of normal policy action and consequences is itself creating a road block to recovery.

In October 2011, the September personal savings rate data were released. It had fallen to 3.6%, the lowest since December 2007 and down from 5.3% in June. The concern is that the consumer strength that has been observed is unsustainable if it is being fueled by drawing down personal savings.

Meanwhile, innumerable shock waves are on the horizon, any one of which has the ability to derail, disrupt, or impede the economy. With 2012 a presidential election year, several of the GOP candidates have expressed a desire to replace Bernanke as the Federal Reserve chairman. Likewise, several of the candidates have indicated that they would repeal the universal healthcare plan that was a key policy issue for the Obama administration. Also, the U.S. tax code has come into question, with several of the candidates expressing an interest in making changes. There is the Occupy Wall Street movement and the question of how it might influence political debate in this country during a presidential election year. The super committee's inability to find concensus for debt reduction and fiscal sustainable risks additional downgrades to the U.S. credit rating and greater uncertainty. Failure to make meaningful gains in this regard risks additional downgrades to the U.S. credit rating.

While the long-term impact of such actions can be debated, of immediate relevance is that new elements of uncertainty will exist throughout 2012. Perhaps that is the reason why the FOMC policy announcements have focused on keeping the Federal Funds rate at exceptionally low levels until at least through mid-2013.

What other exogenous factors are impacting the markets and the U.S. economy? It seems oddly appropriate that exogenous is a Greek word because as 2011 closes out, Greece is front and center, standing as the poster child for the

FINANCE AND INSURANCE EMPLOYMENT
2003–2012
(In Thousands)

Year	Credit Intermediation and Related Activities	Securities, Commodities, and Other Activities	Insurance Carriers and Related Activities	Other Finance and Insurance Activities	Total
2003	50.7	13.9	39.5	3.0	107.1
2004	51.5	13.5	39.5	2.8	107.3
2005	53.3	13.7	40.2	3.1	110.3
2006	53.7	14.6	40.0	3.1	111.4
2007	51.8	15.8	39.2	3.3	110.1
2008	48.6	16.6	38.9	3.3	107.4
2009	46.6	15.5	38.5	3.2	103.8
2010[a]	45.7	15.1	37.6	3.0	101.4
2011[b]	44.8	15.7	37.8	2.9	101.2
2012[c]	44.0	15.9	37.8	3.0	100.7

[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.

sovereign debt crisis. As this is being written, Greek Prime Minister Papandreou resigned and is working with the opposition party to create a unity government to implement the necessary austerity measures required to receive the €8 billion bailout funds. The drama leading to this action buffeted the markets. Illustrating how fluid the situation is, Italy, the world's third-largest sovereign borrower, appears to be the next domino in the chain, with Prime Minister Berlusconi resigning following the passage of austerity legislation. What's next, and can the European leadership successfully get in front of the problem and limit the contagion?

The apparent flaws to the creation of the euro are coming under scrutiny as economic growth slows and the specter of an anomic collapse of confidence in the eurozone raises its head. Unity without a common fiscal policy, without a common constitution, and without enforcement mechanisms is possible in times of growth but as growth slows, weaknesses that were once overlooked can no longer be ignored.

In 2008, it was obvious that a global devaluation of currencies would be a tool that the industrialized countries would have to consider. A weaker currency would serve to make exports look more attractive and, in the case of tourism-based economies, it would make for a more attractive vacation destination. As such, those countries viewed as the weakest in Europe—Portugal, Italy, Ireland, Greece, and Spain—must be seriously debating and perhaps romanticizing the idea of controlling their own destinies with their own currency. However, no exit mechanism exists for leaving the euro. The current European plan for Greece is to persuade its creditors to write down 50% of the value of its bonds. Surely, the other countries have to be thinking they would like the same deal. Meanwhile, a 50% writedown hardly seems adequate given that the entire Greek treasury curve is trading at less than 40 cents on the dollar.

Not unlike with the subprime market and its role in precipitating the financial crisis in 2008, the sovereign debt markets have similar potential. Sovereign debt was treated as having zero risk by the banks of Europe. As such, there is a tremendous amount of bank exposure and related counterparty risk. Once again we are seeing the rule of law subverted, specifically as it relates to credit default swaps (CDS) in the sovereign debt markets. In the case of Greece, the 50% writedown is not being treated as a default, which means any institution that purchased CDS as a hedge against such an event are receiving nothing. Systemic risk, contagion, is the threat and what the European leaders, as well as the United States and the International Monetary Fund, are trying to avoid. There is an apparent fear among regulators and investors alike that somebody somewhere is going to go under like Lehman or Bear Stearns did in the last crisis. What will be the catalyst? Will it be a writedown of the value of the debt of Portugal, Ireland, Italy, Greece, and Spain? It is just

continued on page 58

FINANCIAL MARKETS: STOCKS
2002–2011 YTD
(Year-End Close)

	Value				Index (2002=100)			
Year	S&P 500	Dow Jones	NASDAQ	Bloomberg Colorado Index	S&P 500	Dow Jones	NASDAQ	Index of Bloomberg Colorado
2002	879.8	8,341.6	1,335.5	167.2	100.0	100.0	100.0	100.0
2003	1,111.9	10,453.9	2,003.4	237.0	126.4	125.3	150.0	141.7
2004	1,211.9	10,783.0	2,175.4	278.9	137.7	129.3	162.9	166.8
2005	1,248.3	10,717.5	2,205.3	326.0	141.9	128.5	165.1	195.0
2006	1,418.3	12,463.2	2,415.3	382.5	161.2	149.4	180.9	228.8
2007	1,468.4	13,264.8	2,652.3	450.2	166.9	159.0	198.6	269.3
2008	903.3	8,776.4	1,577.0	220.5	102.7	105.2	118.1	131.9
2009	1,115.1	10,428.1	2,269.2	310.3	126.7	125.0	169.9	185.6
2010	1,257.6	11,577.5	2,652.9	468.4	142.9	138.8	198.6	280.1
2011[a]	1,257.8	12,096.2	2,686.2	452.8	143.0	145.0	201.1	270.8

[a]Year-to-date value at market close on November 16, 2011.
Sources: Bloomberg, Colorado Business Economic Outlook Committee, and Yahoo! Finance.

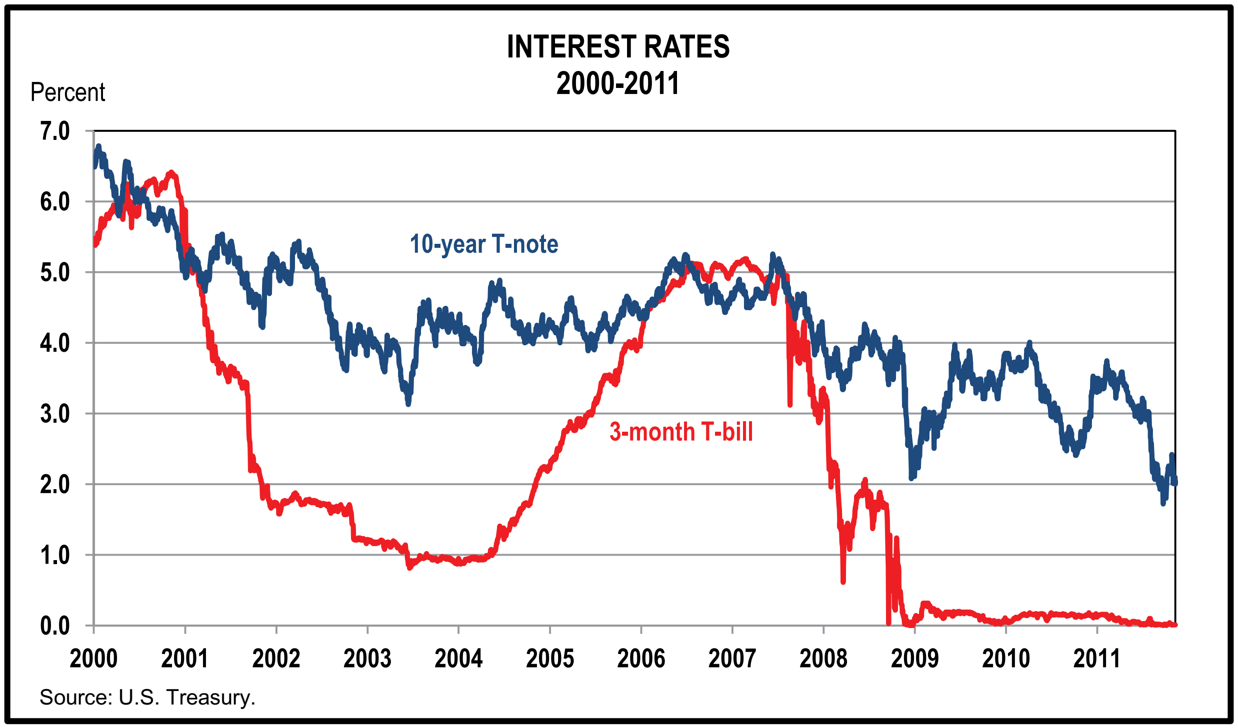
Financial Activities

continued from page 57

one of many uncertainties facing the markets and inhibiting long-term planning until these risks are recognized.

Looking at market performance across the globe, the United States has done remarkably well. As of mid-November 2011, the Dow Jones Industrial Average is up 4.5% year-to-date, the NASDAQ is up over 1%, and the broader S&P 500 is flat. Over the course of the year, they have all touched on negative returns. These are hardly inspiring until they are compared to the returns of the major global indices. England's FTSE is down 6.6% year-to-date, Germany's DAX is down 14.5%, and Japan's NIKKEI is off 17%.

How does Colorado look? The Bloomberg Colorado Index is down 3.3%. Colorado has come to track more closely with the national economy over the years. With the national unemployment rate running at 9% as of October, and the underemployment rate, otherwise known as the U-6 rate, running at 16.2%, the United States has nearly one-in-four members of the labor force being underutilized. Such an abundance of human capital is both a curse and a blessing. Should the impediments to growth and innovation be overcome, then an abundant labor force serves as fuel for growth, but absent that, it serves as a drag on the economy. At present, interest rates are low, and the powers that be seem predisposed to doing everything they can to keep them that way. The yield on the 10-year treasury has averaged well below 3% in 2011, and as the fourth quarter closes it has been trading on either side of 2% and has traded below 1.75%. This should help to support the current level of growth. However, until there is greater clarity regarding the plan and fallout from the sovereign debt crisis, until we know who is going to be the next president, until we know what the plan is for the leadership of the Federal Reserve, of tax policy and healthcare, not to mention what the plans are for facilitating job creation and innovation, there will be a lid on upward potential and a bias toward further erosion.



Commercial Banking

The U.S. banking system continues to recover from a credit-driven recession caused by a combination of interest rates being kept too low for too long and insatiable global demand for fixed income that was grossly mispriced by rating agencies and financial markets. The subsequent credit lockdown required a massive fiscal (TARP and TALF) and monetary (QE1 and QE2) government response in fear of greater peril. While the first steps focused on transferring toxic debt from large banks to the federal government, later actions provided a steepening yield curve, which increased bank profits and capital.

The Fed concluded at its Jackson Hole meeting in late August that the economic recovery was at risk from Washington's polarizing budget debate and the European debt crisis. The Fed responded with Operation Twist, hoping to spur economic activity by lowering long-term rates through the purchasing longer-dated treasuries with their maturing short-term securities. Ironically, prior monetary and fiscal actions helped to stabilize and rebuild banks, and Operation Twist potentially destabilizes them by reducing the profits banks can earn through yield spreads. Banks will face challenges rebuilding their balance sheets the longer Operation Twist continues. Banks will take a number of measures to pursue profits, including pricing products higher than the government's lower manipulated rates intend, selling off less profitable loans net of retention in the securitization markets, taking on greater loan underwriting risk, and other diversified nontraditional revenue streams like insurance and investment brokerage.

Despite Treasury Secretary Geithner's assurance that Europe would not have a major bank failure, rumors and news of this evolving debt rescue plan weighed on U.S. banks and their potential exposure to toxic debt. The EU has been strained to provide a united response among its 17 members that share a common currency but maintain vastly different fiscal policies, budgets, and debt.

The second quarter 2011 *FDIC Quarterly Banking Profile* reported the following national banking industry results:

- Earnings: Despite lower revenues, U.S. banks' reported net income increased by 38%, largely attributable to lower expenses for loan-loss provisions experienced by larger banks and credit card portfolios. The average return on assets (ROA) for the industry rose to 0.85% in Q2 2011 from 0.63% a year earlier, while community banks lagged at 0.57%, rising from 0.26%. This positive trend in ROA was not the case for Colorado banks, which declined to 0.60% from 0.69%.
- Noncurrent Loans: Noncurrent loans declined nationally by 6.5%, marking the fifth-consecutive quarterly decline, with levels now 22% below their 2010 peak. Colorado banks likely experienced an increase from their high commercial real estate (CRE) exposure. The national equity to assets ratio reached 11.3%, a post-1938 high, but still below new FDIC targets.
- Deposit Growth: Total deposits in all FDIC institutions increased by 1.7% in Q2 2011. The largest segment of growth in deposits was 15.9% for noninterest bearing accounts over $250,000. This increase came from investors and businesses seeking safety from the EU debt crisis, taking advantage of the temporary unlimited FDIC insurance. While this flight to safety was felt more by the nation's largest banks, the real winner was likely the FDIC Deposit Insurance Fund (DIF) as new deposits likely outweighed increases in bank equity. This transitory deposit growth is not expected to stimulate economic activity, loan growth, or even bank profits as they are expected to revert to higher interest crediting accounts when the EU debt crisis calms.
- Problem Banks: Problem banks declined in the third quarter 2011, to 865 banks with assets of $372 billion, down from 888 banks with assets of $397 billion at the end of the first quarter.
- The FDIC Deposit Insurance Fund: The FDIC reported in October that its recapitalization reaffirms that the banking industry is rapidly returning to health and that the losses once expected were overstated as fewer bank closures were required and those that were closed were completed at lower costs. These reserve adjustments and expanded premiums gave the fund its sixth-consecutive quarterly increase. The DIF increased by $4.9 billion to post its first positive quarterly balance, $3.9 billion, since June 2009. The DIF must now continue to build toward the Dodd-Frank 2020 goal of 1.35% of insured deposits. The FDIC also reported in October 2011 that it is closing two of its three temporary field offices set up to handle the increase in bank failures.

Colorado Banks

As stated in 2010, Colorado's community banks had limited options for raising new capital as required by regulators. Some of Colorado's troubled community banks were able to raise capital and repair their balance sheets; however, six could not and were closed by the FDIC in 2011. It should be noted that the magnitude of the increase in Colorado bank failures in 2011 over prior years was

continued on page 60

Financial Activities

continued from page 59

likely a function of FDIC scheduling of resources rather than sudden local industry downturn. The most common form of raising capital for these banks was private placement investments, where new investors lost everything trying to stabilize these six troubled Colorado banks. This will likely make it more difficult for Colorado's surviving local banks to raise new capital as accredited investors become more cynical. Banks will likely feel more pressure to shrink their balance sheets by any means, a problematic strategy where performing, high-quality loans transition to new banking relationships and troubled customers have nowhere to go.

Colorado banks are facing structural headwinds. Many Colorado bankers have insisted that loan demand is anemic, especially among the most credit worthy borrowers with equity to fund new ventures. Colorado's banks are also expected to feel more of the pain from Operation Twist, because they rely more heavily on traditional yield spread products and have less ability to take loan underwriting risk (limited by CRE exposure) or pursue other diversified revenue sources. Larger regional banks with operations in Colorado should fare better under this scenario.

Dodd-Frank 2011 Update

In October 2011, Fed President Ben Bernanke stated that one of the most important legacies of the financial crisis would be the recognition by central banks of their dual responsibility (restoration of financial stability policy and co-equal status with monetary policy in pursuit of macroeconomic objectives). One of the cornerstones of this new "financial stability" was the Dodd-Frank Act, which created the Consumer Financial Protection Bureau. By the time of this writing in November 2011, only a small portion of the law had been implemented, with a significant portion yet to be written. A summary of some of the recent provisions and changes in 2011 include:

- Systemic Risk: In October, the Federal Reserve announced it had finished its "Living Will" proposal for banks and systemically important financial institutions ("nonbanks") given its resolution authority granted by Dodd-Frank. This should provide investors and depositors with greater confidence in the health of the U.S. banking system.
- Asset Backed Securities: In addition to the 5% retention rule provided in 2010, new rules effective September 2011 now prohibit asset-backed security originators from shorting positions on their balance sheets they sold to the public in the past 12 months. This new material conflict of interest rule was in response to short positions some large investment banks took on residential mortgage-backed securities they originated and sold as viable investments at the beginning of the 2008 credit lockdown.
- Proprietary Trading and the Volcker Rule: While still a work in process, this rule would limit most proprietary trading where banks place bets for themselves rather than their clients. The 1999 repeal of Glass-Steagall Act made proprietary trading a profit center and removing it now could hinder the ability of banks to recapitalize. Proponents of the rule suggest providing government support and subsidies for corporate risk taking is likely against public interest and encourages a moral hazard.
- FDIC Insurance: In pursuit of maintaining a positive fund balance and steady assessment rates throughout economic and credit cycles and banking crises, the Dodd-Frank Act gave the FDIC authority to revise how banks are charged for DIF payments. The new rules that became effective in February 2011 are more forward-looking, using risk-based assessments on what the banks hold in assets minus their tangible equity (a better measure of the fund's risk than bank deposits alone). Additional risk premium adjustments are made for banks with higher risk factors, such as assets with unsecured debt "credit cards" or less stable balance-sheet liquidity from "transitory" brokered deposits. Although these new risk-based charges make intuitive sense, they fail to capture premiums for other transactions with similar risk characteristics, like "transitory" internet solicitations for deposits. As DIF assessments evolve, banks

Some of Colorado's troubled community banks were able to raise capital and repair their balance sheets; however, six could not and were closed by the FDIC in 2011.

should benefit from a more transparent framework for risk taking and related costs.

The FDIC and the Federal Reserve expect larger institutions that pose a higher risk to the financial system will end up paying more, while it is anticipated that smaller community banks (like ones in Colorado) will pay significantly less.

- The Durbin Amendment: Effective October 1, 2011, interchange fees received by banks will be reduced to what the Fed deems reasonable for their underlying costs. This large wealth transfer from debit card issuers to merchants will likely end many free premium bank services, while it is less clear if retailers will pass on those savings to consumers. While this change reduces yet another bank profit center, it should not have any impact on Colorado banks as their assets are below the $10 billion exemption.

Credit Unions

The Colorado credit unions have emerged from the Great Recession quite strong as their assets and earnings grew, principally from improved performance in their loan portfolios. Total assets rose to $15.1 billion, or 1.6%, in the first six months of 2011 versus a decline of 1% in 2010. With ROA of 0.95%, earnings were far stronger than in 2010, which came in at 0.80% ROA. The improved earnings were stimulated by low loan charge-offs and lower delinquent loans that resulted in substantially lower loan provision expense. Loans that were delinquent more than 60 days retreated from 1.20% of loans in December 2010 to 1.02% in June 2011, while loans that were charged off declined from 1.14% to 0.80% for the same time period. The combination of these two substantially improved metrics accounted for 0.44% of earnings improvement for all Colorado credit unions.

The industry continues to bear the expense to recapitalize the losses to the National Credit Union Share Insurance Fund (NCUSIF), which were primarily caused by the failure of five large corporate credit unions in 2009. Importantly, the losses incurred by the NCUSIF are solely borne by credit unions and do not entail the use of any taxpayer monies. As of June 2011, 98% of all of Colorado's credit unions attained the level of "well capitalized," which is a minimum of 7% capital to asset ratio, by the National Credit Union Administration (NCUA). Many questions were raised about the sufficiency of capital for credit unions entering the Great Recession. The industry has answered the question by demonstrating its sustainability during the recession and its swift improvement in its capital position, which, as nonprofit financial cooperatives, can only be attained through earnings.

Colorado's credit unions continue to consolidate. At the end of June 2011, credit unions in the state totaled 100, down from 102 at the end of 2010 and 122 at year-end 2007. This trend is likely to continue, driven by tight interest margins, increasing operating and regulatory costs, and the need to create economies of scale.

Insurance

The insurance industry is no different than most other financial services in 2011. The global effects of the U.S. and European debt crises, worldwide catastrophes, a stalled economy, and the struggles on Wall Street have had significant implications. There is, however, some profound anticipation for improvement in 2012 as historically the economy picks up in an election year. The employee benefits industry continues to prepare for the ultimate implementation of Patient Protection and Affordable Care Act (PPACA) in 2014. (For additional information on healthcare, see the Healthcare Services section on page 75.)

In 2011, insurers are still reeling from the implementation of minimum medical loss ratios, which require health insurers to spend minimum levels of premium dollars on medical services. These levels are currently set at 85% for large employers and 80% for individual and small group plans. This mandate affects how health plans account for the nonclinical, or fixed, costs embedded in premium dollars. The most significant modification felt by agents and brokers is the dramatic change in the amount and methods by which commission is paid on health insurance policies.

The industry continues to wait for the Supreme Court to determine if the mandate requiring every individual to purchase health coverage is constitutional. At the local level, the Colorado Health Benefit Exchange will essentially be a clearinghouse to be accessed by individuals who do not or cannot obtain private insurance on the open market or through their employer.

It remains to be seen whether purchasing coverage through the exchange is a cost advantage as

continued on page 62

Financial Activities

continued from page 61

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

Additional items still on the horizon:

2012

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

2013

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

2014

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

2018

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

Regardless of what happens in the 2012 presidential election, the 1,100 pages that comprise the PPACA will have a resounding effect on the health insurance industry. As the federal government generates the regulations, tax code, and user guidance, the industry prepares for its ultimate implementation.

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

On the property and casualty (P&C) side of the insurance industry, the predicted market change did not occur. With investment income reduced and significant catastrophic events occurring in late 2010 and early 2011, normally accepted wisdom had predicted a slight hardening or at least a leveling of P&C pricing.

The residential construction sector, which has been hit particularly hard by the economic downturn, has experienced a severe hardening of the insurance market with access to coverage almost always coming from excess and surplus (E&S) markets. House Bill 1394, enacted in July 2010, changes the definition of construction defect to that of an accidental occurrence and includes language that provides a seven-year "look back" for any claims liability. This has caused insurers to assess their participation in that market segment.

Companies in all sectors have chosen to let property sit idle as they believe this eliminates the need to carry coverage on these autos, trucks, and equipment not required for service. Several severe uninsured theft or physical damage losses have occurred as stored equipment is still subject to all the standard perils. Additionally, companies have many times chosen to reduce policy limits in order to save premiums. Underinsured claims have dramatically increased over the last several years as well.

Workers' compensation premiums are on the rise according to a recent study released by the Colorado Division of Insurance. Pinnacol Assurance continues to dominate the market for companies with limited or no employees working outside the state of Colorado. The relatively new doctrine of health risk management continues to gain steam as employer commitment to creating a healthier and more productive workforce expands throughout Colorado.

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

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

The M&A activity in the agency world has slowed to a crawl. Sellers are holding off as the value of their agency has dropped due to the P&C soft market and healthcare reform looming on the horizon.

The effect of these factors on employment has been dramatic. Fewer insurance company and agency jobs are available than in the past. Some companies in the industry have laid off employees or closed unproductive regional offices. Others have invoked hiring freezes, but very few have been able to boast about creating jobs.

Real Estate and Rental and Leasing

Overall, this sector was impacted by decreases in employment and a strained housing market. Real Estate and Rental and Leasing is expected to end 2011 with 300 fewer jobs, and shed an additional 500 in 2012.

Commercial Real Estate

Embers of commercial real estate (CRE) activity are glowing around Colorado. Strong correlation exists with the health of employment in Colorado. Across the state, CRE space is slowly getting absorbed by the addition or expansion of businesses in key industries, such as energy, healthcare, education, and financial services. Not surprisingly, stringent capital requirements and subsequent limited inventory have beneficially impacted CRE markets through positive absorption and a leveling of lease rates.

Metro Denver CRE fundamentals through 2011 have continued to improve, albeit slow and steady, similar to 2010. According to Newmark Knight Frank Frederick Ross, the office market continues to benefit from a "flight to quality" trend as companies seek more attractive rents and upgrade space, especially into Class A. Overall office vacancy rate stands at 18.9%, which is a decline from 19.7% in 2010. The Denver Central Business District (CBD) and the southeast suburban submarkets attracted the most investment and leasing activity, while secondary markets lagged. Overall industrial vacancy increased slightly, to 8.1%, in Q3 2011 from 7.7% in Q3 2010 due to

continued on page 64

CU Real Estate Center

Founded in 1999, the University of Colorado Real Estate Center's (CUREC) mission is to develop the next generation of real estate leaders through teaching, research, and industry engagement. Offering a very comprehensive program supporting undergraduates and MBAs, CUREC provides an education founded on academic research and practical applications. Mark your calendars for CUREC's Annual Real Estate Conference on March 8, 2012, at the Grand Hyatt in downtown Denver.

CONTACT US

Sherman R. Miller, *Interim Executive Director*
Sherman.Miller@Colorado.EDU
303-492-8966

Tom Thibodeau, Ph.D., *Academic Director*
Tom.Thibodeau@Colorado.EDU
303-735-4021

leeds.colorado.edu/realestate

Leeds School of Business
UNIVERSITY OF COLORADO BOULDER

CU REAL ESTATE CENTER

Financial Activities

continued from page 63

full building vacancies caused by large company closings or bankruptcies. Metro retail market fundamentals reversed course, driven, too, by closings and bankruptcies, notably Ultimate Electronics and Borders. Retail vacancy increased to 8.1% from 7.8% in Q3 2010. Capital and very little new supply are constraining CRE market fundamentals, which is positive. Expect further leveling out of vacancy and rents before speculative development can resume.

The **Northern Colorado** economy is attracting businesses and investors, due to good local governance, a burgeoning oil and gas industry focused on the Niobrara formation in Weld County, and the adaptive reuse of commercial space, such as Loveland's Agilent Technologies site into NASA's Aerospace and Clean Energy (ACE) Manufacturing and Innovation Park. When completed in 10 years, the campus will support 7,000 new jobs. The lack of new construction has generated positive absorption, decreased vacancy rates, and stabilized lease rates. CoStar Group reports the office, retail, and industrial vacancy rates for Q3 2011 in Fort Collins/Loveland were 9.4%, 7.4%, and 9.7%, respectively, compared with Q3 2010 vacancy rates reported by Realtec of approximately 13%, 9%, and 8%. Businesses consider Northern Colorado a safe place to grow, with its favorable tax environment, educated labor force, and high quality of life. Existing CRE will continue to strengthen, provided new supply is constrained.

Southern Colorado and Colorado Springs ranked 9th in a study by the Brookings Institute of the top 100 metro areas in the country for its position to recover from the economic downturn, citing the resiliency of the area's industries and the gap between education of the workforce and the needs of employers. In 2011, small office lease transactions have been growing, which may signal a stabilization of the employment market. Sierra Commercial Real Estate notes that Q3 2011 vacancies were down but rents were generally flat year-over-year. Office vacancy decreased slightly, to 17.27% from 17.41%, but rents slipped to $11.22 per square foot (psf) from $11.52 psf. Absorption was muted by the lateral movement of tenants into Class A space due to tight spreads in lease rates among product classes. Industrial vacancy decreased to 10.44% from 11.52%, but rents remained flat at $6.10 psf. Demand from nontraditional users, such as churches and recreation, is helping absorption. Retail vacancy decreased to 10.94% from 11.63%, but lease rates fell to $12.90 psf from $13.06 psf, with newer centers attracting the most leasing activity. The local economy will benefit from returning military personnel, but a long-term regional focus on manufacturing, communications, and distribution will have a broader impact on the CRE markets.

The **Western Slope** economy has weathered a tough economic downturn since 2009, primarily related to falling energy prices and the ongoing economic recession. Along with Pueblo, unemployment in Grand Junction was one of the highest in the state; however, Colorado's oil and gas industry is percolating. Oil and gas drilling and extraction have created jobs and a demand for smaller commercial properties. Through Q3 2011, Heritage Title Company reports year-over-year real estate transactions are up 5%, to 1,993 from 1,897, but total dollar volume is down 8%, to $410.2 million from $447.5 million. On a positive note, foreclosure filings have slowed by 21%, suggesting that households are finding ways to avoid foreclosure. Aside from tourism, the Western Slope economy depends greatly on the health of the oil and gas industry. Advances in new technology, such as fracking, lowers extraction costs and increases output, impacting corporate profits. State government support of this industry benefits the Western Slope and CRE.

Positive gains in statewide CRE activity have been slow and steady. Capital and new CRE supply have been constrained, leading to decreased vacancies and stabilizing rents. Conditions for speculative supply will not be present in 2012. However, continued recognition by local and state government that a favorable tax and regulatory environment attracts businesses and investment will directly benefit CRE markets.

Residential Real Estate

The residential real estate market throughout Colorado exhibited mixed signals in 2011. Modest sales levels, minimal price increases, and reduced foreclosure activity suggest another year of stabilization in 2011 with modest improvements in 2012. The star of the 2011 residential market is the multifamily market, which will soon be faced with an influx of new supply to incorporate. However, weak job growth and consumer confidence are supportive of the rental market, and potential home buyers remain on the sidelines until the market direction is more stable.

The Federal Reserve's stated intent to keep interest rates low will continue to support the housing market. The Freddie Mac Primary Mortgage Market Survey reported that an average rate for the conventional 30-year fixed mortgage dipped below 4% for the first time in history in 2011. Low interest rates are helpful but meaningful job growth and increased income levels are necessary to provide a major recovery.

For-Sale Existing

The existing residential market faces economic uncertainty, along with financing and credit challenges, that has many buyers sitting on the sidelines. Modest signs of improvement have been seen in 2011 compared to the previous year, particularly in the Denver Metro region, although demand has not strengthened enough to cause upward price pressure. The hot rental market is beginning to ratchet up apartment rental rates, possibly giving some momentum to the resale market in the months to come. Looking ahead, experts express some broad concerns about the impacts of the National Flood Insurance Programs cash limitations and scheduled decreases on value limits of FHA loans.

Realtors participating in the National Association of Realtors (NAR) Confidence Index in September 2011 reported relatively strong demand at lower price points, possibly due to bargain-hunting investors. However, current market demand overall is disappointing, largely due to economic concerns by buyers who are potentially deferring purchases until they are more confident, and due to limited credit availability for buyers.

REAL ESTATE AND RENTAL AND LEASING EMPLOYMENT
2003–2012
(In Thousands)

Year	Real Estate	Rental and Leasing	Total
2003	32.9	14.2	47.1
2004	33.3	14.0	47.3
2005	34.4	13.9	48.3
2006	35.1	14.0	49.1
2007	35.4	14.0	49.4
2008	34.3	13.9	48.2
2009	31.9	12.3	44.2
2010[a]	31.2	11.4	42.6
2011[b]	31.0	11.3	42.3
2012[c]	30.6	11.2	41.8

[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.

The NAR reported an 18.6% increase in existing home sales between July and August 2011 for the West region of the nation compared to more modest gains of between 3% and 6% in other regions.

Statewide existing home sales, including single-family homes and condominiums, were 11.2% weaker in Q2 2011 compared to 2010. Colorado ranked 14th in year-over-year growth, and only six states reported positive year-over-year increases in sales. Sales in Q2 were 0.9% higher than Q1 sales.

Metrolist data for the Denver area show year-over-year sales were up 13% in September 2011. Single-family inventory levels for existing homes were 27% below September 2010, the lowest level so far in 2011. Metrolist data include the seven-county Metro Denver region; Elbert, Park, Gilpin, and Clear Creek counties; and a portion of the Loveland area.

Home prices have generally not shown signs of growth, although the data are varied. Nationally, home prices are down 2.8% year-over-year, to $171,900, although Metro Denver prices are performing better than nation. In Q2 2011, the Denver-Aurora-Broomfield median home price was $232,700, a decline of 0.9% year-over-year, while the Boulder area median home price was $370,300, an increase of 5.1% year-over-year. The average sale price in the Denver Metro area was $257,063 in the first nine months of 2011, which is up 0.1% from 2010 year-to-date and 6% from 2009.

The latest S&P Case-Shiller Home Price Index revealed Denver area home prices fell 2.1% from July 2010 to July 2011. This marks the 13th-consecutive month of year-over-year price decline.

continued on page 66

Financial Activities

continued from page 65

In May 2011, the median sales price in Colorado Springs was 79% of its peak 2007 price level, while the median sales price in Metro Denver was at 84% of its peak 2006 price.

Summit County saw a 67% increase in home sales from 2009 to 2010, and reported $1.5 billion in sales volume. The first half of 2011 experienced increased sales transactions from the same period last year, while total sales volume fell slightly. Sales of properties valued below $500,000 accounted for half of the transactions.

The Federal Housing Finance Agency Purchase-Only Index, which measures repeat sales price changes on the same properties, reported the Colorado index was down 0.3% in Q2 2011 quarter-over-quarter, down 4.2% year-over-year, and down 6.1% from five years prior. Colorado's 4.2% decline ranked 23rd in the nation, with only Washington D.C. and North Dakota reporting positive change.

New Home Activity

New home building activity remains modest, with relatively robust activity in the multifamily sector supported by HUD financing and low vacancy rates. Overall, weak job growth and economic uncertainty have restricted demand. On a positive note, analysts believe the general stabilization in new home sales without tax credit assistance suggests underlying strength.

Home builders nationwide are slightly less pessimistic according to the latest National Association of Home Builders Sentiment Index. The index rose from 14 in September 2011 to 18 in October after six-consecutive months of lackluster and low index values. Builders continue to compete with foreclosures and rentals, and are further hampered by the job losses, lower than expected appraisals, and credit hurdles.

Building permit activity in the Metro Denver area reached a record high in 2000 only to steadily decline to a record low of 3,408 permits in 2009. Permit activity improved in 2010 and the first half of 2011. During the first six months of 2011, 94% of all multifamily building permits issued in Colorado were located in Denver, El Paso, and Larimer counties.

New home building activity in the multifamily submarket has been notably strong. Through July, multifamily permits pulled in Metro Denver surged 86% compared to the same period in 2010. Multifamily permits also represented a larger share of total new home permits, increasing from 11% in the first seven months of 2010 to 19% in 2011. Disciplined single-family builders have kept building activity modest.

Through the first half of 2011, new home sales activity appears to be on a similar level as two years prior, according to the Genesis Group's midyear report. Metro Denver new home sales in 2009 and 2010 were at their lowest levels since 1990 despite two decades of population growth.

New home building activity in the multifamily submarket has been notably strong.

Foreclosures

Foreclosure activity has steadily declined in 2011, although there is speculation that bank behavior may change, resulting in increased foreclosures in the remaining months of 2011 and into 2012. National foreclosures are down on 38% on a year-over-year basis in September, but RealtyTrac data revealed a sharp increase from July to August 2011. Still, September was the 13th-consecutive month of year-over-year declines. There was also a less than 1% increase from second to third quarter for the nation, breaking the trend of three-consecutive quarters of declines.

Colorado recorded 4,855 foreclosure filings in September 2011 or the 10th-highest rate of foreclosure filings per housing unit, despite a 17% decline from August to September. The states with the highest foreclosure rates are Nevada, California, and Arizona. Third quarter 2011 foreclosure filings across the state were down almost 21% from Q3 2010. According to the latest Colorado Division of Housing data (covering 12 urban counties in the state), Colorado reported a 29% decline in foreclosure filings in August 2011 compared to the same month a year earlier.

The Metro Denver area has also welcomed significantly decreased foreclosure activity so far in 2011. In fact, by midyear, foreclosure activity was at its lowest level in Metro Denver since 2005, according to the Division of Housing. Metro Denver foreclosure data from the Colorado Division of Housing revealed a 31% year-over-year decline through

August. Adams and Denver counties are reporting the largest year-to-date declines in foreclosure activity so far this year. The 2011 ratio of new home closings to real estate owned (REO) closings in the Denver-Aurora MSA ranks 69th in the nation, at 0.3%, compared to 3.1% five years prior, according to Hanley Wood Market Intelligence.

Rental Market

A net increase of 1.4 million U.S. households, or 4%, moved into rental housing in the year ending June 2011, according to the Census Bureau. Meanwhile, U.S. homeownership slipped 1.5%. Notably, younger households are driving much of the rental demand as they postpone home ownership either due to job uncertainty or other economic strains. Ownership rates for heads of households under 25 years of age dropped 4.4% in the last year compared to 7% decline for household heads between 25 and 29 years of age.

The overall composite Colorado vacancy rate fell to 5.2% at midyear 2011, from 5.8% at year-end 2010. For comparison, the overall vacancy rate in 2008 was 8%, according to the latest Colorado Multi-Family Housing Vacancy and Rental Survey. Second quarter vacancy rates varied for the following metropolitan areas surveyed: Colorado Springs (6.4%), Fort Collins/Loveland (6.4%), Grand Junction (6.3%), Greeley (6.7%), and Pueblo (9.6%).

The rental market in the Metro Denver area continues to tighten exhibited by a 4.8% vacancy rate in Q2 2011, down from 5.5% in Q1. The Q2 vacancy rate of 4.8% is the lowest since 2000. A study by MPF Research reported that Metro Denver had the fifth-best performing apartment market in the nation in 2010 and that it was one of the first markets to begin raising rental rates. However, new supply will likely impact vacancy and rental rates. As of the third quarter 2011 Apartments Insights report, 3,611 multifamily units were under construction in Metro Denver and another 15,708 units were planned. Denver's CBD will see the bulk of the activity, followed by Northwest Denver and Highlands Ranch/Lone Tree.

Rental rates in Metro Denver posted a 2.8% year-to-date increase in the first half of 2011, according to the Denver Metro Apartment Vacancy and Rent Survey, and analysts expect the pace of rates to rise in the second half of the year. The average rental rate was $915 a month in Q2, up from $900 in the same quarter last year.

Apartment building sales volume is expected to increase, although reduced financing availability will hamper acquisitions, particularly with the high demand for HUD financing and slow loan processing. On the other hand, decreasing vacancy rates and increasing rental rates will continue to strengthen the market at least until the new supply comes online. Analysts expect the rental market to remain strong due to weak job growth, minimal new home construction, and financing challenges.

Rental and Leasing

Given that NAICS categories are defined by process, Rental and Leasing is one of the more diverse sectors in the NAICS structure. It includes an array of companies tied together by their renting/leasing function, but that are otherwise unrelated.

Rental and Leasing employment fell particularly hard during the economic downturn, partially due its tie to the consumer. The sector lost 11.5% of employment in 2009 and 7.3% in 2010. Year-over-year losses are marginal in 2011, and employment is expected to be flat in 2012.

The general rental centers sector was hit hardest, tumbling 17% in 2009 and 28.3% in 2010, bringing employment down to only 35% of the level recorded in 2001. The consumer goods rental sector was also hit by company closures, including Blockbuster.

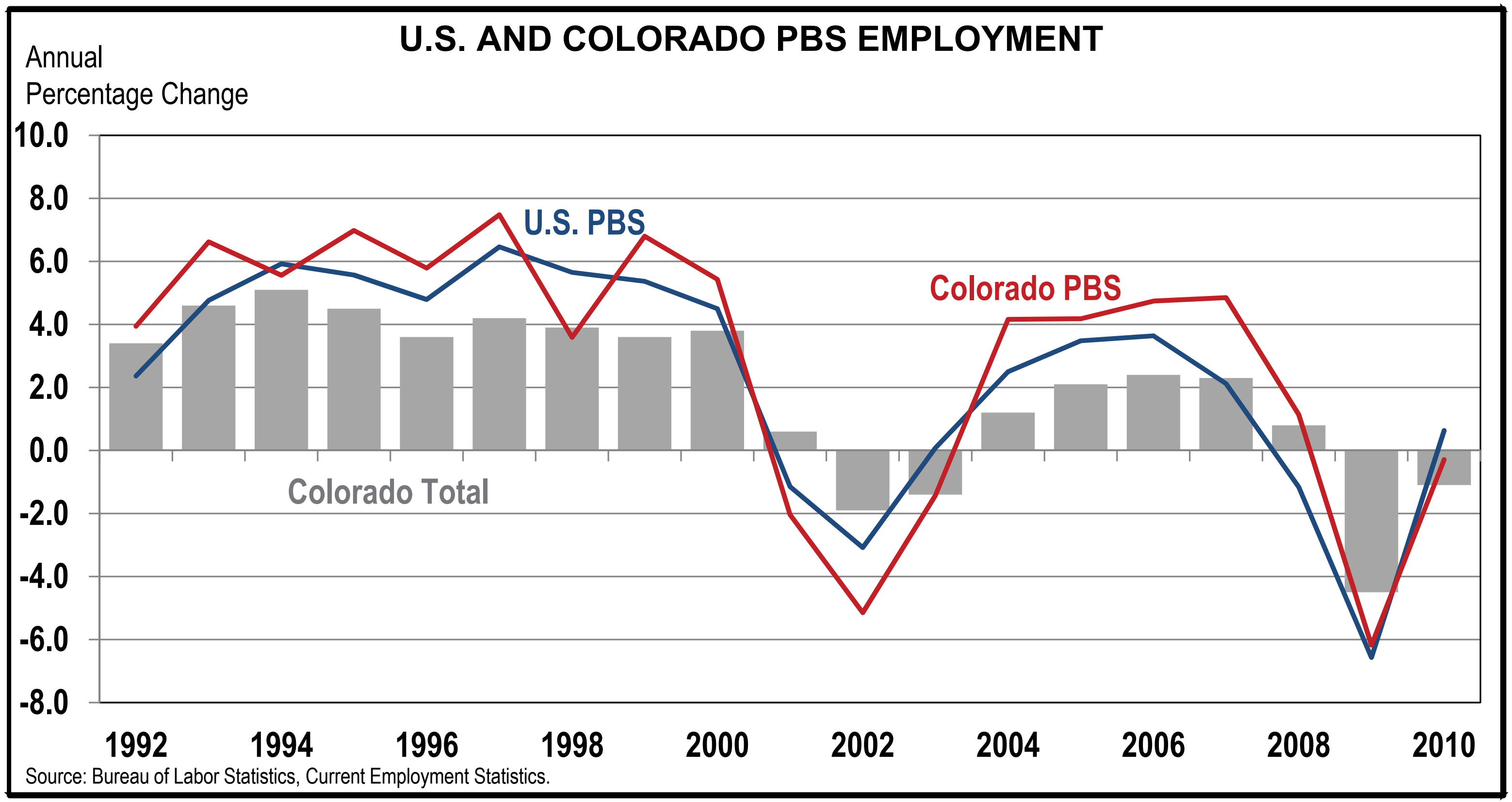
Professional and Business Services

Overview

Colorado's advantages in the current economy include a well-educated workforce, entrepreneur-friendly environment, diverse industries, and high quality of life. This is an attractive package for professional service companies. Industries with major footprints in the state include aerospace, bioscience, renewable energy, and photonics. In Colorado, you can manage a satellite in the morning and ski in the afternoon.

Professional and Business Services (PBS) employees account for about 12% of employment in the United States, up from 10% in 1990. In Colorado, PBS accounts for 15% of total employment. Both nationally and statewide, PBS has followed the trajectory of the U.S. economy, but has been more volatile.

Throughout the 1990s, U.S. employment in PBS increased at a much faster rate than total employment. In Colorado, the sector grew at a much faster rate compared to the nation. For this reason, it was believed that PBS firms would be never-ending growth engines, and that PBS was recession proof, unlike Construction or Manufacturing. Yet PBS took a hard hit after the high-tech bubble burst in 2001-02. Similarly, PBS employment expanded faster and crashed harder during the housing bubble. PBS firms, alas, are not immune from business cycles. It should also



be noted that although PBS Sector employment rebounds after each recession, there is a general downward trend in the growth rates.

Given these trends, the PBS Committee expects employment to increase by 7,200 jobs in 2011 and by 6,800 in 2012, a growth rate of 2.2% and 2%, respectively. While this is slow by historical standards, the committee believes it represents the "new normal" for PBS.

The PBS Supersector contains several subcomponents. Professional, Scientific, and Technical Services accounts for half of the sector's total employment. Administrative and Support and Waste Management and Remediation Services accounts for 40%, and Management of Companies and Enterprises makes up less than 10%.

Several encouraging developments are on the horizon.

In October 2011, the *Denver Post* reported that General Electric plans to locate a multimillion dollar thin-film solar manufacturing plant in Aurora. Where manufacturing exists, PBS firms provide services. According to the *Post*, this "sends a broad message into the marketplace that the changes occurring in the cleantech sector continue to leapfrog one another." This should result in lower costs for electricity production and increasing numbers of advanced manufacturing technologies. In the *Post*'s view, Colorado could be at the forefront of a national manufacturing resurgence. As wages in China rise and transport costs climb, the United States becomes more competitive.

DigitalGlobe, located in Longmont, is a global provider of high-resolution earth imagery solutions. The firm recently reported that it launched two new geospatial intelligence services. Both services are designed to enable faster response and more effective management of on-the-ground personnel during natural and man-made disasters.

NASA awarded $80 million to Sierra Nevada Corporation's Louisville division for continued development of the Dream Chaser space plane (*Denver Post*, April 18, 2011). The space agency's commercial crew development program aims to advance transportation concepts, including launch vehicles and spacecraft. Sierra Nevada is one of four companies to receive funding.

The government defense sector, a large employer of PBS firms, currently remains strong. The Air Force Space Command, the Army Space and Missile Defense Command, the North American Aerospace Defense Command, and the U.S. Northern Command continue invest in future technologies. These large government customers create jobs for large and small businesses. With small business set

continued on page 70

PROFESSIONAL AND BUSINESS SERVICES SUPERSECTOR EMPLOYMENT
2003–2012
(In Thousands)

Year	Professional, Scientific, and Technical Services	Management of Companies and Enterprises	Administrative and Support and Waste Management Services	Total[a]
2003	141.8	22.5	127.6	292.0
2004	148.1	24.5	131.6	304.1
2005	156.0	25.3	135.5	316.8
2006	162.8	27.2	141.9	331.8
2007	170.3	28.4	149.3	347.9
2008	176.7	28.9	146.4	351.9
2009	169.7	28.5	132.0	330.2
2010	167.5	28.8	133.5	329.8
2011[b]	171.6	30.0	135.4	337.0
2012[c]	177.1	30.4	136.3	343.8

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

[b]Estimated.

[c]Forecast.

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

Professional and Business Services

continued from page 69

asides and incentives, they encourage research and development of new products, as well as efficiencies in production.

Professional, Scientific, and Technical Services

The Professional, Scientific, and Technical Services component of PBS includes firms in Legal Services; Architectural and Engineering Services; Computer Systems Design; and Management, Scientific, and Technical Consulting Services. This category accounts for half of the entire PBS Supersector employment. The committee expects this area to outperform the rest of the sector, growing by 2.4% in 2011 and 3.2% in 2012.

The Colorado Department of Labor and Employment (CDLE) recently received a $5 million federal grant that will allow it to retrain 800 workers for careers in scientific and technological fields. Priority service will be offered to veterans, minorities, and women. The Strategies to Advance Colorado's Highly Skilled Workforce grant will fund advanced training in the Professional, Scientific, and Technical Services industries, and the fields of information technology and advanced manufacturing, with a focus on aerospace. The grants will target workers statewide with the philosophy that economic recovery must focus on skills as well as job numbers. CDLE has identified a skills gap in the Colorado workforce. According to CDLE, businesses will save nearly $2.3 million in training costs and $3 million in savings for using local labor rather than foreign workers on H1-B visas. The grant's return on investment for businesses and for the state will be more than $6 million over four years.

Large corporations in the Professional, Scientific, and Technical Services Sector have teamed with higher education programs to train new workers and widen the career opportunities of young adults. Programs include Renewable Energy Technology, Homeland Security, Biofuels Development, and Optical Science. These young adults organize special events, including the Space Vision conference at the University of Colorado, which is the largest student-organized space conference in the nation. The next astronaut, rocket scientist, or nuclear physicist could be sitting next to you at Starbucks. Colorado is the home of Dream Chaser, the Orion Crew Exploration Vehicle, the Atlas V rocket, and the next generation of GPS. Companies in Colorado build space transport vehicles, the systems that guide them, and the rockets that launch them.

Legal Services

Legal Services still appears nearly recession proof. Despite considerable structural change within the industry, it has shown negative growth in only 1 of the past 20 years. The once leather-bound and stodgy Legal Services Sector is in ferment. Changes in technology have pulled law firms squarely into the twenty-first century. The venerable profit-sharing regional partnership is evolving into a global industry of publicly traded companies. The recession has put tremendous pressure on law firms. An article in the *Economist* magazine (May 5, 2011) states that "ever-growing profits are no longer guaranteed. Nor, for some firms, is survival." Work on mergers and acquisitions has dried up. Clients are scrutinizing bills and challenging the convention of paying by the hour. Firms are adapting by charging flat, capped, or contingent fees. All of this puts pressure on profits. According to an annual survey by the *National Law Journal*, the 250 biggest firms pink-slipped more than 9,500 lawyers in 2009 and 2010. They also deferred hiring. This left new graduates in a glutted market. Indeed, many law school graduates do not even go into the legal profession. A new niche, "legal-process outsourcing firms," which do not advise clients but do routine work such as review documents, puts further downward pressure on the demand for traditional law firms. These outsourcing firms can be located anywhere in the world.

The next astronaut, rocket scientist, or nuclear physicist could be sitting next to you at Starbucks.

The PBS Committee expects Legal Services to grow at a slight 0.4% and 0.2% in 2011 and 2012, respectively.

Architectural, Engineering, and Related Services

Mergers and acquisitions have continued steadily for engineering and architectural firms due to the economy and to the retirement of owners. Lack

PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES SECTOR EMPLOYMENT
2003–2012
(In Thousands)

Year	Legal Services	Architectural and Engineering Services	Computer Systems Design Services	Management, Scientific, and Technical Consulting Services	Other	Total[a]
2003	16.3	35.4	33.1	12.6	44.4	141.8
2004	16.6	36.8	34.1	13.7	46.9	148.1
2005	17.2	39.0	35.7	15.1	49.0	156.0
2006	17.4	41.1	37.1	16.0	51.2	162.8
2007	17.9	43.3	39.3	16.4	53.4	170.3
2008	18.1	44.8	41.3	17.4	55.1	176.7
2009	17.8	41.5	40.2	16.9	53.3	169.7
2010	17.9	39.0	40.0	17.4	53.2	167.5
2011[b]	18.0	39.7	42.1	17.5	54.3	171.6
2012[c]	18.0	40.9	44.6	17.3	56.2	177.1

[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.

of work is keeping overhead rates high in spite of aggressive cost control. Residential and commercial building construction remains slow. Road and bridge work has been keeping some companies busy. The Funding Advancement for Surface Transportation and Economic Recovery Act (FASTER) funded the design of close to 70 structurally deficient bridges. The work, which was split between CDOT and the private sector, resulted in a spike of activity for architecture and engineering firms. In 2012, more bridge work is anticipated as is the design for the expansion of DIA. The recent announcement of the development of a new convention center and the possibility of the relocation of the National Western Complex to the east of the metro area will most likely not result in work until 2013 or beyond. Plans and negotiations are in the early stages.

The lack of a multiyear federal surface transportation funding bill is also putting downward pressure on infrastructure work. This includes highways and bridges, water supply and distribution systems, waste treatment plants, aviation systems, communication facilities, and buildings. Instead of the normal six-year term for the bill, a two-year term is more likely. The projects funded will be short term in nature as they have been since 2009 when the Transportation Equity Act expired. This bill, as with all of the appropriations bills, is under intense budgetary pressure. To add to the uncertainty of future federal spending is the lack of consensus by the Joint Select Committee on Deficit Reduction that was charged with proposing major spending cuts.

continued on page 72

Professional and Business Services

continued from page 71

The ending of stimulus funds in 2010 and their nonrenewal in 2011 and 2012 resulted in a decline in public-sector spending, along with a decrease in outsourcing work to the private sector. Forecasts of revenue for the majority of public agencies are trending upward in 2012 and 2013. This good news may be tempered by the need to backfill inadequately funded pensions. Infrastructure systems will continue to deteriorate.

Future projects for commercial and residential development will likely include sustainable and renewable energy and energy conservation features. This will increase the need for design services, but the cost of these services will be more than offset by operating cost savings. It is expected that warehouse and other industrial buildings will be the first to be upgraded. This will delay the building of new commercial building projects.

Architecture and Engineering follow the business cycle. The committee expects this sector to grow by a relatively healthy 1.8% and 3% in 2011 and 2012, respectively.

Computer Systems Design and Related Services

Computer Systems Design follows the business cycle, but on steroids. Employment in this sector tripled between 1990 and 2000. It subsequently fell by more than one-third during the high-tech bust, then climbed again, to more than 40,000. Employment has been flat in the past two years.

Computer Systems Design and Related Services should show healthy growth due to the need to replace aging servers and workstations, and the need to set these up and develop software for them. The committee expects a 5.3% increase in 2011 and 6% in 2012. The downside risk for this sector is the relative ease with which software services can be sent overseas, and competition from innovations such as cloud computing.

Management of Companies and Enterprises

This is a peculiar sector. Companies in this sector manage other businesses and include such diverse firms as Texas Roadhouse Management Corporation; Sports Authority; Encana Corporation; United Launch Alliance; Johns Manville International, Inc.; Tri-State Generation and Transmission Association; and Quiznos. As such, it is difficult to tell a single story.

Perhaps because of its diversity, Management of Companies and Enterprises is another sector that appears almost recession proof. It completely bypassed the high-tech boom and bust. Growth did flatten during the housing crisis, yet historically, growth has been strong. In 1990, sector employees totaled 13,000; that number has recently climbed to nearly 30,000. Most of this increase took place prior to the housing crisis, and growth has been relatively flat since then. Colorado has made gains in acquiring company headquarters through targeted economic development efforts. The committee believes that this will continue, with 4.2% growth in 2011 and 1.3% in 2012.

Administrative and Support and Waste Management and Remediation Services

This large sector includes Office Administrative Services, Facilities Support Services, Employment Services, Business Support Services, Investigation and Security Services, Services to Buildings and Dwellings, and Waste Collection and Remediation Services. It lost 12% of its employment during the housing crisis. The committee foresees 1.4% growth in 2011 and 0.7% in 2012, with gains primarily in employment services.

Employment Services

The Employment Services industry is extremely volatile. It benefits early in a recovery as other firms hire temporary employees and seek to hire staff with specific skills. During the 1990s, employment tripled, from 15,000 to 45,000. On the other end of the business cycle, when business contracts, employment declines. Employment fell by more than one-third between 2008 and 2009, rebounding by nearly 13% in 2010. The committee projects continued but slower growth of 7.7% in 2011 and 2.2% in 2012.

ADMINISTRATIVE AND SUPPORT AND WASTE MANAGEMENT AND REMEDIATION SERVICES SECTOR EMPLOYMENT 2003–2012 (In Thousands)

Year	Employment Services	Services to Buildings and Dwellings	Business Support Services	Other	Total[a]
2003	36.2	35.0	16.3	40.1	127.6
2004	38.5	36.9	16.7	39.5	131.6
2005	40.2	37.9	17.9	39.5	135.5
2006	42.6	39.0	19.8	40.5	141.9
2007	44.0	40.3	22.4	42.6	149.3
2008	40.1	40.6	23.7	42.0	146.4
2009	30.0	38.0	24.1	39.9	132.0
2010	33.8	36.8	24.0	38.9	133.5
2011[b]	36.4	35.6	23.6	39.8	135.4
2012[c]	37.2	35.2	23.7	40.2	136.3

[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.

Services to Buildings and Dwellings

This sector grew steadily, from fewer than 20,000 employees in 1990 to more than 40,000 just before the housing crash in 2008. Employment has fallen steadily, to 35,000, since then. Look for a 3.2% decrease in 2011 and a 1.2% decline in 2012. This sector serves real estate, from landscape services to residences to maintenance and security services for commercial buildings. Sector employment will not recover until there is recovery in both the residential and commercial real estate markets.

Summary

The PBS Supersector benefits from its tremendous diversity. What was once thought to exist outside the business cycle now appears to be especially sensitive to it. PBS firms primarily serve other businesses. The long growth spell of the 1990s gave the illusion that the business cycle had ended. Clearly, it had not.

Education and Health Services

The Education and Health Services Supersector includes private-sector educational and healthcare companies and organizations. Nearly 88% of industry employment is comprised of Healthcare and Social Assistance, while 12% is related to private education. Strong growth was recorded in both education and in healthcare in 2011, each adding employees at more than 3%. This supersector will end 2011 with 8,000 additional jobs to total 272,600 employees, then grow by 7,500 in 2012.

Educational Services (Private)

In 2010, private-sector educational services consisted of 2,259 organizations and 32,300 employees. This includes educational institutions that can be classified as private not-for-profit, private for-profit, religious exempt, and private occupational.

Growth in 2011 increased more than expected, and the sector should end the year with 33,300 employees, for growth of 3.1%.

Public education accounted for more than 188,000 employees in 2011. Public education is detailed in the state and local government sections of this book. Public elementary and secondary educators are in local government; public higher education is in state government.

The education sector has a tendency to be countercyclical relative to the economy; the growth in this sector during the last two economic downturns supports this theory. Academic leaders at all types of institutions continue to report that the weak economy has a positive impact on the demand for both face-to-face and online courses.

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

While the trend for the larger sector, including the private education services subsector, should continue to grow, gains in 2012 will be moderated by two factors. Nationally, the for-profit industry was the fastest-growing sector for the last 12 years. However, enrollments for many of these institutions were flat or lower in 2011, and given changing regulatory and accreditation environments, growth will be modest at best for the next several years. Additionally, the private K-12 sector saw reduced enrollments in the fall of 2007 and 2009, with the pattern repeating in 2011. This leads to a modest growth forecast for 2012 in the private educational services subsector of an additional 1,500 jobs to end 2012 at 34,800.

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

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

The employment growth in the private education sector is also 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, development of employees through learning curriculum continues to play a critical role in developing competitive competencies of businesses, especially in the high-tech and consulting arenas. Corporations consider reinvestment in their employees a required business development function. Furthermore, certification within specific industries drives both corporate and consumer consumption of learning in order to remain competitive.

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

Online learning delivery continues to be an integral component of every educational offering, even within the traditional K-12 sector. Colorado is home to Pearson eCollege, a leading global provider of integrated education technology, content, academic services, and support that powers some of the most successful online programs. Other software businesses in the learning and education delivery sector in Colorado include Disney's Kerpoof and Knowledge Factor.

Distance learning continues to expand as more postsecondary institutions use Internet-based technology to conduct lessons and coursework electronically. This allows students in distant locations access to educational opportunities formerly available only on campus.

Healthcare Services

Healthcare employment has grown each year, regardless of the factors affecting other economic sectors. The contraction in Colorado's overall employment in 2009 and 2010 was not mirrored in the healthcare sector, which posted gains of 6,100 jobs in 2009 and 6,300 in 2010. Increases of 7,000 and 6,000 are expected in 2011 and 2012, respectively.

Healthcare is Colorado's fourth-largest sector, accounting for about 1 in every 10 Colorado jobs. Continued growth in this sector is expected due to four trends:

- An aging population,
- A population that increasingly suffers from obesity and chronic diseases,
- An expansion of persons eligible to receive health insurance as a result of state and federal expansions, and
- A realignment of the delivery systems.

The Healthcare Workforce

A key element of the healthcare workforce is the front line of care or "primary care." This workforce is now considered to include primary care physicians, physician assistants (PAs), and advanced practice nurses (APNs), such as nurse practitioners (NPs). It is estimated that around 3,300 physicians practice primary care in the state, along with 1,500 NPs and 760 PAs (*Online Learning Trends in Private-Sector Colleges and Universities*, March 2011). Approximately one-third of Colorado physicians are expected to reach retirement age in 10 years. In order to maintain sufficient primary care provider-to-population ratios of 2005 through 2025, the Colorado Health Institute estimates that Colorado will need approximately 2,200 more primary care providers beyond

continued on page 76

EDUCATION AND HEALTH SERVICES EMPLOYMENT, 2003–2012
(In Thousands)

Year	Educational Services	Healthcare and Social Assistance	Total
2003	25.0	188.0	213.0
2004	26.1	192.4	218.5
2005	27.5	197.1	224.6
2006	28.6	202.6	231.2
2007	29.6	210.9	240.4
2008	30.6	219.9	250.5
2009	31.3	226.0	257.2
2010[a]	32.3	232.3	264.6
2011[b]	33.3	239.3	272.6
2012[c]	34.8	245.3	280.1

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

Education and Health Services

continued from page 75

the anticipated supply. Furthermore, primary care providers are not evenly distributed throughout the state, and some nonresort rural areas are all ready experiencing an undersupply of providers.

Nurses and Physician Assistants

Registered nurses (RNs) work in a wide range of clinical settings and make up the largest profession in the healthcare sector. Based on the *Occupational Outlook Handbook,* 2010-11 edition, published by the Bureau of Labor Statistics, RNs hold almost four times as many jobs as physicians. While RNs are one of the occupations expected to have significant growth in the future, the current workforce is aging—in 2008, approximately one-third of RNs were at or near retirement age (55 years of age or older). Forecasts of the timing and extent of an RN shortage vary, but recent national supply and demand analyses predict a deficiency beginning in 2018 that could climb to a shortage of about 260,000 RNs by 2025, according to a study that was published in *Health Affairs*. In spite of this projected shortage, the recent recession appears to have caused a temporary reduction in the number of RN vacancies due to cuts to nursing staff and delayed retirements.

About 65% of NPs specialize in primary care. The NP occupation is the fastest-growing segment of primary care providers nationally, but, like physicians and RNs, they are aging as well. Almost 40% of NPs are 55 or older. In contrast, nearly half of the population received their education in the last 10 years, likely associated with the growing popularity of this occupation.

Employment by Hospitals

Hospitals employ a highly diverse workforce consisting of individuals with a broad spectrum of education backgrounds and skill levels. A recent report, *Examining the Impacts of Hospitals on Colorado's Economy*, published by the Regional Economics Institute at Colorado State University and the Colorado Hospital Association, notes that Colorado's public and private general medical and surgical hospitals employed approximately 71,700 workers in 2010. Statewide, hospital employment has grown an average of 3% annually since 2007. Public government healthcare workers are counted in the Government Sector.

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

Training the Future Workforce

Colorado has a number of professional schools that training healthcare providers, and two of the largest education providers are located in the Denver Metro region. The University of Colorado (UC Denver), Denver School of Medicine, is an academic medical center (AMC). AMCs offer training programs, research, and patient-care delivery options, such as inpatient and outpatient care services. Currently, the University of Colorado Medical School graduates approximately 140 medical students per year. UC Denver has schools for dental medicine, medicine, nursing, pharmacy, and public health. Other professionals, including dieticians, dental hygienists, physical therapists, and physician assistants, are also trained at the Fitzsimons campus. Regis University has schools of nursing, pharmacy, and physical therapy; and healthcare ethics and health-science administration departments. The only other program in the state preparing physicians is the Rocky Vista University College of Osteopathic Medicine, which opened in Parker in 2008 and is expecting its first graduating class in 2012.

A large number of qualified nursing school applicants are turned away every year as the number and size of nursing programs are inadequate. In the 2008-2009 academic year, Colorado's nursing schools declined more than 3,500 qualified applications due to limited institutional capacity. The average age of Colorado's nurse faculty is 50. A study conducted by the Colorado Health Institute reports that by the 2014-15 academic year, nursing education programs can expect that at least one-quarter of their current faculty will have retired. This also impacts the opportunities for clinical rotations—in the 2008-09 academic year, 20 clinical rotations were canceled due to an inability to fill instructor positions.

Impact of Poor Health on Costs and Healthcare Coverage

Factors contributing to escalating healthcare costs include an aging and more diverse population and the rise in obesity and chronic diseases. Healthcare costs are three to five times higher for those 65 and older than those under 65. In addition, disease incidence varies across ethnic groups. Obesity, especially morbidly obese, in adults and children has increased and is associated with the downstream rise in chronic diseases. One in six children is now considered overweight or obese. The Robert Wood Johnson Foundation reported in 2011 that Colorado is the only state in the nation that has an overall obesity rate below 20%; however, the Colorado rate of obesity continues to climb, doubling since 1995.

Chronic diseases, such as diabetes, chronic obstructive pulmonary disease, and heart disease, are the largest driver of healthcare costs and their prevalence is growing. Spending on chronic care conditions is estimated to drive 75% of all health spending in 2007. The Centers for Medicare and Medicaid (CMS) projects that by 2023 increases will be seen in selected chronic disease cases, including mental disorders and diabetes topping 50%. At the same time, it projects an increase of more than 40% in heart disease and hypertension, while the U.S. population growth will only be 19% during this time period. These trends will continue to heighten demands on the healthcare system providers and payers as costs are spread to all in the form of higher premiums and taxes to support the Medicare and Medicaid programs.

HEALTHCARE AND SOCIAL ASSISTANCE EMPLOYMENT, 2003–2012
(In Thousands)

Year	Ambulatory Care	Hospitals	Nursing Care	Social Assistance	Total[a]
2003	77.4	46.4	33.9	30.3	188.0
2004	78.7	48.1	34.3	31.3	192.4
2005	80.7	49.1	35.1	32.3	197.1
2006	83.1	50.1	35.7	33.7	202.6
2007	86.7	52.0	36.5	35.6	210.9
2008	90.5	53.7	37.7	38.0	219.9
2009	93.3	54.9	39.1	38.7	226.0
2010	96.7	55.8	39.3	40.6	232.3
2011[b]	100.2	56.9	40.1	42.1	239.3
2012[c]	103.2	57.9	40.8	43.3	245.3

[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.

Persons with chronic diseases are estimated to account for 30% of the denials for health insurance coverage due to these preexisting conditions.

Impact of Relentless Inflation, the Flagging Economy, and Legislation on Healthcare Coverage

Even before the economic 2008 downturn, the high and unrelenting rise in the cost of health insurance has continued to diminish the number of individuals and businesses that can afford premiums. Family insurance premiums were 15% of the median family income in 2003, and rose to 19% in 2009. A survey of Colorado employers by Lockton, Inc. in 2010 noted that the average increase in premiums over the prior year was 14.4%. The 2010 Mountain States Employer Council survey reports a 10% increase by its respondents.

Is healthcare coverage an important factor in the "economic health" of the country? Lack of coverage is tied to 96 preventable deaths per 100,000 in the United States compared to 55 per 100,000 in France, where there is universal access. Additionally, a survey conducted in the United States in 2010 relates that about one in three adults did not get medical care, did not fill a prescription, or skipped a needed test or treatment because of cost. The corresponding statistic for Great Britain is

continued on page 78

Education and Health Services

continued from page 77

5%. Uninsured individuals who defer routine care often seek services in the emergency department, where care is episodic, not coordinated with other medical services, and most expensive.

A study published in 2009 in the *American Journal of Medicine* estimated that 1.5 million Americans would declare bankruptcy in 2009 and more than 60% of people who go bankrupt are actually capsized by medical bills. Bankruptcies due to medical bills increased by nearly 50% in a six-year period, from 46% in 2001 to 62% in 2007. Furthermore, most of those who filed for bankruptcy were middle-class, well-educated, and homeowners.

According to a study published in *Health Affairs* published in 2011, annual income from 1999 to 2009 for a family of four in the United States increased from $76,000 to $99,000 (adjusted). However, all of this revenue totaled to a gain of only about $95 per month as the remainder was entirely offset by spending on healthcare. The component costs were reflected in growth in premiums (from $490 to $1,115), out of pocket spending on healthcare (from $135 to $235), and healthcare-related taxes ($345 to $440). If healthcare inflation had tracked with the rate of general inflation, the family would have had $545 additional income per month.

In 2010, 44% of adults in the United States ages 19-64 either did not have insurance at some point in the year or did not have adequate insurance to cover their needs. This is an increase from the 35% reported in 2003. According to the latest figures from the U.S. Census Bureau, the estimated number of Coloradans lacking health insurance rose slightly, from 777,794 (15.8%) in 2009 to 789,109 (15.9%) in 2010 (not a statistically significant change).

To address the issue of the uninsured, both state and federal laws have been enacted. In 2009, the Colorado General Assembly passed legislation to increase the number of Coloradans eligible for Medicaid and Colorado Child Health Plan Plus (CHP+) largely by changing the rules by which eligibility is determined. At the national level, the 2010 passage of the Patient Protection and Affordable Care Act (also known as federal health reform, or PPACA) additionally expanded public coverage and is expected to significantly impact private coverage over the next 10 years.

Key provisions of the PPACA include:

- An expansion of Medicaid eligibility to all individuals and families with incomes up to 133% of the federal poverty level (FPL);
- Insurance reforms that include prohibiting the denial of insurance for individuals with preexisting health conditions;
- Incentives for small employers to provide affordable health insurance to their employees and penalties for large employers who do not;
- An individual mandate that requires most citizens and legal residents to obtain health insurance and penalties for those who do not;
- A state-based health insurance exchange that will serve as a marketplace for businesses and consumers to review, compare, and purchase health insurance; and
- Subsidies to help individuals and families with incomes between 134% and 400% of FPL purchase insurance on the state health insurance exchange. These subsidies will limit family expenditures for health insurance premiums to between 2% and 9.5% of taxable income.

COLORADO PUBLIC HEALTH INSURANCE PROGRAM ENROLLMENT

Year	Caseload[a]
FY 2007-08	451,327
FY 2008-09	500,329
FY 2009-10	568,475
FY 2010-11	628,788
FY 2011-12[b]	691,350

[a]Medicaid and Child Health Plan Plus combined.

[b]Forecast.

Source: Colorado Joint Budget Committee FY 2011-12 Appropriations Report.

Based on federal and state policy changes, the Colorado Health Institute (CHI) predicts around 540,000 of the nearly 800,000 uninsured Coloradans will be insured once state and federal policy changes are fully implemented. Approximately 214,000 of the newly insured Coloradans will enroll in public programs, while 328,000 newly insured are likely to gain access in the private market.

Regardless of whether they have public or private insurance, individuals who are insured use more healthcare services than those who are uninsured. Furthermore, due to pent-up demand, utilization by newly insured individuals is typically relatively high at first then levels off.

Healthcare Coverage Trends

Cost pressures, along with the economic downturn, are associated with two notable health coverage trends: (1) accelerating enrollment in public programs, and (2) continued erosion of employer-sponsored insurance.

Enrollment in Public Programs

Enrollment in the state's public insurance programs, Medicaid and the CHP+, rose by approximately 53% between FY2007-08 and FY2011-12. The Colorado Department of Health Care Policy and Financing (HCPF) projected that the Medicaid and CHP+ combined caseload would reach almost 700,000 Coloradans by the end of FY2011-12.

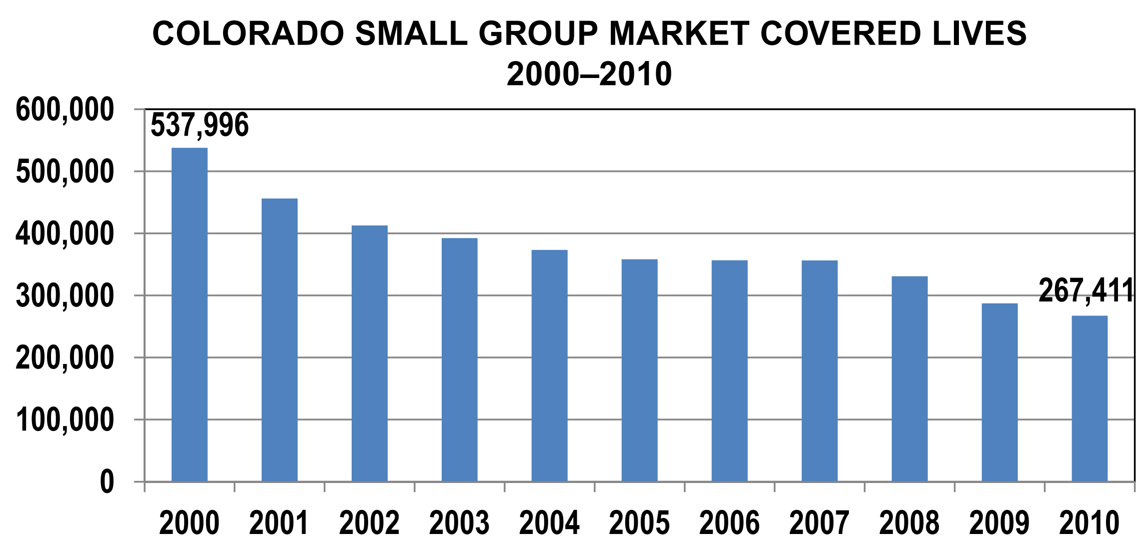
Reasons for this growth include: (1) the weak economic environment that has fostered record enrollment in Colorado's Medicaid and CHP+ programs as families whose income has declined may find themselves or their children newly eligible for public programs; (2) nonprofit organizations and the Ritter administration developed outreach activities aimed at promoting public awareness of the Medicaid program and implemented a number of programmatic changes to streamline enrollment in the last two years; (3) expansion of the Colorado Medicaid program in 2009; and (4) provisions of the Colorado Healthcare Affordability Act (HB09-1293) began to be phased in in 2010, increasing the number of children and parents eligible for Medicaid and CHP+.

Continued Erosion of Coverage by Private Insurers

According to the Colorado Department of Labor and Employment, 8.3% of Coloradans were without work as of August 2011, compared to 8.7% at the same time in 2010. Not reflected in this percentage are those who are not considered part of the labor force because they may have become discouraged and ceased looking for employment. The loss of jobs is associated with the loss of employer-sponsored health insurance (ESI) as the number of Coloradans (and their dependents) covered by ESI dropped from 57.3% in 2009 to 55.4% in 2010.

In addition to workers who lost their jobs (and thus lost their coverage) are those whose firms may have decided to drop coverage for employees because of increasing healthcare costs. Based on data from the U.S. Department of Health and Human Services, between 2008 and 2010, the percentage of working Coloradans covered by ESI fell 1.8% points, a statistically significant decrease that mirrors the national trend. Many employers are finding it increasingly difficult to keep up with the escalating costs of covering their employees. In that same time period, health insurance premiums among private-sector workers enrolled in their employer's plan rose 7.6% on average for an individual and 12.1% for a family. In 2010, the average cost of an employer-sponsored policy in

continued on page 80



Source: Colorado Department of Regulatory Affairs, Division of Insurance, *2010 Small Group Market Activity and Rating Flexibility Report*.

Education and Health Services

continued from page 79

Colorado for an individual was $4,630 and $13,393 for a family, but it is higher for small group coverage, according to the U.S. Department of Health and Human Services.

Colorado Small Group Market

The impact of rising healthcare costs on small group employers (50 or fewer employees) remains especially challenging. The 2010 Colorado Division of Insurance's survey of the small group market reports that the number of individuals (covered lives) able to receive health plan coverage by their small group employer has decreased more than 50% since 2000. This decline continues to signal the difficulty small businesses have with the availability of coverage due to costs.

The number of covered lives fell 7% from 2009 (287,239 to 267,411). Not surprising, the number of small group employers participating has also declined by 10% from 2009 (37,328) to 2010 (33,734). It is estimated that 40% of small group employers in 2010 had coverage terminated due to nonpayment of premiums. The decrease in covered lives (18,828) in 2010 was less than half of the loss experienced in 2009 (43,759).

Firms with 10 or fewer employees make up almost 90% of the insured small group market covering 163,000 lives (approximately 61% of the total). Colorado is atypical in that it allows a "Business Group of One" (BG-1s); most states only allow group policies to be bought by two or more. The Business Group of One segment accounts for 27% of the small group market. The number of BG-1s continues to decline, falling 15% in 2010 (9,131) from 2009 (10,693), and has plunged from more than 28,000 in 2000.

Colorado small group premiums in 2010 were on average $5,148 for single coverage and $13,524 for family coverage, compared to the U.S. average of $5,112 for single coverage and $13,404 for family coverage. According to American Health Insurance Plans (AHIP) 2010 survey, Colorado small businesses paid among the highest premiums in the nation.

According to Kaiser Family Foundation study, 35% of covered workers in small firms have employers that pay the full premium for single coverage, while for family coverage, the worker may expect to significantly contribute to the premium cost. This often leads to employees unable to afford health insurance for family members. Family members may need to purchase individual health plans, obtain coverage on a spouse's plan, or be left uninsured. It is not unusual for small group employers to experience 10% to 20% or more

COLORADO SMALL GROUP HEALTH INSURANCE MARKET

Number of Employees	Percentage of Companies in Small Group Insured Market	Percentage of Covered Lives	Colorado Average Monthly Premiums Paid by Employers		U.S. Average Monthly Premiums Paid by Employers	
			Single	Family	Single	Family
1 to 10	89.6%	60.7%	$441	$1,159	$446	$1,172
11 to 25	8.5	27.5	420	1,102	419	1,100
26 to 50	1.9	11.8	418	1,098	406	1,065
Total	100.0%	100.0%	-	-	-	-
Average	-	-	$429	$1,127	$426	$1,117
BG-1s[a]	27.0%	7.7%	-	-	-	-

[a]Business Group of One.

Sources: American Health Insurance Plans (AHIP) 2010 survey, and Colorado Business Economic Outlook Committee.

annual rate increases, which contributes to the inability of small businesses to continue offering health insurance to their employees.

Ten out of the current 16 insurance carriers insure 99.7% of the small group market. The top three carriers have an 80% market share, or 214,000 covered lives. They are Kaiser Foundation Health Plan (78,743 lives), UnitedHealthCare (70,161 lives), and Anthem Blue Cross Blue Shield (65,123 lives). Five carriers left the small group market since 2009, and six are in process of formally exiting the market. These six companies represent 1.5% of the covered lives.

Small group employers surveyed by the Colorado Division of Insurance suggest that 60% of small businesses shop for insurance every year and continue to see a decrease in the number of affordable healthcare options. Small group employers rank price, benefits and copays, and deductibles as the most important features when selecting a carrier and plan design.

Industry Trends

As healthcare costs continue to rise, carriers have responded with larger portfolios tailoring benefit design products with features including the expansion of narrow networks, and health maintenance organizations (HMOs) with high deductible health savings accounts. In Colorado, employers slightly prefer HMO plans (38%) over preferred provider organization (PPO) only plans (35%), with 27% of employers offering employees a choice of products (HMO, PPO, and indemnity).

The advent of healthcare reform has provided an opportunity for healthcare companies to reposition themselves with new relationships both within and outside their traditional domains. One strategy includes healthcare insurers realigning their business model to control costs. For example, the insurance company Humana is purchasing Concentra, which operates more than 300 medical centers, including many in Colorado. Another strategy is to diversify through expanding into new lines of business, such as Aetna, which has acquired Medicity, a health technology company that has a contract in Colorado with the Colorado Regional Health Information Organization. Last, healthcare companies are consolidating to maintain access to capital and leverage economies of scale, such as UnitedHealthCare, which has acquired Principal Financial Group.

The industry is undergoing a number of changes in Colorado. Hospitals have consolidated ownership, such as the $1.4 billion buyout by the HCA-Health One Hospital System of the 40% stake owned by the Colorado Health Foundation. Mergers, under the form of operating agreements, have been concluded between the University of Colorado Hospital and Poudre Valley Health System. Citizens of Colorado Springs are considering ownership and management issues of Memorial Hospital, a city-owned institution. In addition, hospitals have been acquiring physician practices in a manner reminiscent of the activity in the early 1990s. For example, Poudre Valley Health System now employs 200 physicians, and Exempla has acquired a cardiology practice in addition to its primary care physicians. Physician acquisitions are also reported by Centura Health, as well as the joint operating agreements in place with outpatient surgical centers.

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

Similar to Medicare, commercial payers are facing financial challenges that will exert further downward pressure on hospital payments. These lower payments will come, in part, as a result of a migration away from the current fee-for-service-based payment model to new models that pay based on patient outcomes and on keeping the people in their communities healthy—thus, reducing avoidable emergency department visits and hospitalizations. Hospitals will be required to better coordinate with all providers involved in patient care, including physicians, post acute care providers, home health providers, and others, to ensure optimal outcomes for acute care episodes. One payment for an episode of care will be shared by all providers involved, and there will be incentives

continued on page 82

Education and Health Services

continued from page 81

for good outcomes and disincentives for adverse outcomes. No payment will be made for "rework," including excessive readmissions, hospital acquired infections, or certain medication errors. Consequently, in order to prepare for the new payment models, hospitals are looking at a number of strategies to better coordinate care, eliminate avoidable complications, increase efficiencies, and reduce costs.

Colorado's 15 community health centers serve about 10% of Coloradans at more than 130 sites. Many of the patients served are uninsured or covered by Medicaid. In anticipation of serving more citizens who will have health insurance coverage, they announced an effort to employ an additional 5,000 healthcare workers by 2014. These centers already use electronic medical records, and feature team-based care that includes mental health and dental services, in addition to medical services.

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

A recent report, *Examining the Impacts of Hospitals on Colorado's Economy*, published in 2011 by the Regional Economics Institute at Colorado State University and the Colorado Hospital Association, notes that in 2009 hospitals accounted for $9.8 billion in output, which represents about 2% of the state's total output. Taking into account that the economic activity of hospitals contributes to economic activity in other sectors of the economy (called the multiplier effect), the same report notes that hospitals directly and indirectly generate $18.8 billion in output, which translates into 133,100 jobs with average employee compensation of slightly more than $55,700.

Over the past few years, construction of new hospitals had been one bright spot in an otherwise ailing sector. While declines in the number of hospital projects in the last couple of years have been significant, one recently announced project is Exempla Healthcare, which is beginning a $623 million renovation project to replace its St. Joseph Hospital. Valley View Hospital in Glenwood Springs is also completing a 160,000-square-foot, $29 million expansion featuring an updated cancer center, as well as new emergency, radiology, and family birthplace departments.

Colorado has been investing in health information technology (HIT) and health information exchange (HIE) for more than seven years. This includes significant external dollars brought to Colorado from the Agency for Healthcare Research and Quality (AHRQ) to demonstrate point-of-care inquiry capabilities, the Federal Communications Commission (FCC) grant to expand broadband capacity across the state, and foundation and local funding to develop local health information exchanges. In 2009, Governor Ritter designated the Colorado Regional Health Information Organization (CORHIO) as the state-level entity for coordinating and facilitating adoption of HIT. CORHIO is the entity to receive and invest more than $10 million in ARRA funds so that all Coloradans benefit from HIT and HIE efforts. An early goal for CORHIO is that 85% of all primary care providers and community health centers will be meaningful users of electronic health records (EHR) by 2014. A financial award will be made to physicians who meet this "meaningful use standard" by the Medicare and Medicaid programs. Nationally, only 18% of physicians in office-based practices report using an EHR. Estimated costs of an EHR are $40,000-$50,000 per year per physician in the first year of adoption and $10,000-$20,000 annually thereafter. While these patterns are national, they appear to reflect Colorado costs, as well. Significant IT investment within and on behalf of the healthcare sector will also occur with the development of the Colorado Health Benefit Exchange, which is an electronic "marketplace" where individuals and small businesses will be able to access and purchase health insurance. The State of Colorado received federal funding of nearly $1 million in 2010 to facilitate the planning of the Colorado Health Benefit Exchange. Although this activity was required as part of the PPACA legislation, many observers believe that many state exchanges will become functional even if the federal PPACA legislation is overturned by a Supreme Court review in 2012.

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

Leisure and Hospitality

Overview

The Leisure and Hospitality Supersector includes performing arts, entertainment, and recreation, as well as accommodations and food services. This supersector encompasses the recreational and entertainment activities of Colorado residents, tourists, and business travelers. Over the years, Colorado's appeal has expanded beyond the natural environment to include sports, entertainment, cultural attractions, and business.

Because the Leisure and Hospitality Sector depends heavily on discretionary spending and the health of the national economy, the current soft economic recovery continues to impact the sector's performance. Risk and uncertainty are still on the table. The weak housing market, the ongoing debt crisis, and depressed consumer confidence are keeping many American's spending plans on hold. While the sector has recovered from the lows of 2008 and 2009, recovery has been sluggish. The U.S. Travel Association has forecast a modest 1.8% increase in 2011 domestic person trips and 3.7% growth in 2011 international arrivals to the United States. At the U.S. Travel Association's annual Travel Outlook Forum, held in late October 2011, Dr. Suzanne Cook, senior advisor to the association, pointed out that after four years of recovery, domestic travel has finally exceeded the record set in 2007, and international travel is back to the levels reached in 2000. The forecast for 2012 is continued slow growth. Business travel, which declined for five years, has now stabilized; domestic leisure travel will grow 1.5% in 2012 and 1.8% in 2013; and international travel will continue to increase at a 3-4% pace.

Tourism in Colorado

Tourism in Colorado is closely tied to national trends and will continue to mirror them in 2012 as cautious Colorado consumers consider their options. Some encouraging developments are:

- Icelandair will begin year-round, nonstop service from Denver to Reykjavik in May 2012. The new service will connect Denver to more than 20 destinations in Scandinavia, the United Kingdom, and Europe, and is expected to bring more than $28 million in annual economic impact to the state. Icelandair is the first new carrier to initiate transatlantic service at Denver International Airport (DIA) in more than a decade.
- A new cultural attraction, the Clyfford Still Museum, held its grand opening ceremony on November 18, 2011, and is now open to art followers around the globe. Designed by Brad Cloephil and Allied Works Architecture, the new museum will provide visitors with an intimate environment to experience the art of Clyfford Still.

DIA's South Terminal Redevelopment Program will transform the airport into an intermodal transportation hub.

- DIA's South Terminal Redevelopment Program will transform the airport into an intermodal transportation hub. When completed in 2015, the program's three major elements—rail access to downtown Denver's Union Station, an on-site Westin Hotel, and an outdoor plaza—will elevate DIA to one of the premier airports in the world.
- The Regional Tourism Act, approved by Colorado lawmakers in 2009 and expanded in 2011, established a program for local governments across the state to submit proposals to the Economic Development Commission for the funding of large-scale tourism projects.
- The Colorado Tourism Office has more than 308,000 fans on the Colorado Facebook page and 33,000 Twitter followers.

The following paragraphs focus on specific areas in the sector. A brief summary of the challenges facing the leisure and hospitality industry concludes the discussion.

Employment

Leisure and Hospitality employment has typically been a growth sector in the Colorado economy; however, the sector's strong employment performance came to an abrupt halt in 2009. While a total of about 27,300 jobs were added between 2003 and 2008, approximately 10,500 positions were lost in 2009. Slight recovery took place in 2010 when 700 jobs were added. With sector employment increasing by 7,400 jobs, or 2.8% in

continued on page 84

Leisure and Hospitality

continued from page 83

2011, it is encouraging to see growth returning. That said, the industry is still recovering and has yet to exceed the 2008 job total of 272,900 jobs.

Continued growth is forecast for 2012, but at the slower pace of 1.4%, or 3,800 jobs. If the forecast is achieved and jobs total 274,300 in 2012, it would be a new record for the sector. Food service dominates the employment picture for this supersector, accounting for roughly two-thirds of total Leisure and Hospitality employees.

Accommodations

According to the STR Analytics (www.STRanalytics.com) projections for 2011, hotel occupancy across the state will rise 5.5%, to 59.3%, by the end of 2011; average daily room rate (ADR) will increase 2.7%, to $106.25; and revenue per available room (RevPAR) is expected to end the year up 8.3%, to $63.03. These changes are consistent with national trends.

Modest growth is forecast for Colorado Lodging and Hospitality in 2012. For the state as a whole, occupancy rates are expected to increase 1.1%, to 60%; ADR will rise 4%, to $110.50; and RevPAR will climb 5.2%, to $66.30.

LEISURE AND HOSPITALITY EMPLOYMENT
2003–2012
(In Thousands)

Year	Arts, Entertainment, and Recreation	Accommodations	Food Service	Total Accommodations and Food Service[a]	Total Leisure and Hospitality[a]
2003	40.5	39.3	165.8	205.1	245.6
2004	42.2	39.1	170.0	209.1	251.3
2005	43.3	39.8	174.4	214.2	257.5
2006	44.1	41.1	179.8	220.9	264.9
2007	44.6	41.7	184.1	225.8	270.4
2008	45.7	42.3	184.9	227.3	272.9
2009	44.6	39.9	178.0	217.9	262.4
2010	45.2	39.6	178.3	217.9	263.1
2011[b]	45.9	40.8	183.8	224.6	270.5
2012[c]	46.6	41.2	186.5	227.7	274.3

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

[b]Estimated.

[c]Forecast.

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

Tourism in Denver

Accommodations

It appears that 2011 is poised to be one of the strongest years for Denver's convention and tourism industry. Denver built on the momentum achieved in the record-breaking 2010, where visitor volume reached an all-time high of 12.7 million and spending totaled a near-record $3 billion. According to Smith Travel Research (STR), Denver was one of the top cities in the nation for increased RevPAR for the metro hotel market in 2010.

For the first nine months of 2011, both the City and County of Denver and the metro area saw increases in hotel occupancy, ADR, and RevPAR compared to 2010. For 2011, RevPAR in the metro area will be up 9.5%, and will climb 5.1% in 2012. Denver lodger's tax collection for the first three quarters of 2011 rose 12.5% relative to the first three quarters of 2010. DIA continued to set new records for most of 2011, rising slightly over 2010.

Convention Business

The convention calendar for 2011 was very strong, on pace to be Denver's second-best year, exceeding 2010 and only just behind 2008 for the top spot.

In 2010, 75 groups used the Colorado Convention Center, some 6% more than 2009, bringing an estimated 268,905 delegates, an increase of 30% over the year before. With 82 groups confirmed, 2011 looks even better, bringing an expected 269,397 delegates. Hotel and nonconvention center groups booked by VISIT DENVER added another 394 meetings with more than 95,000 delegates, contributing a total of $645.5 million in direct economic impact to the city.

In 2011, some of the large groups meeting in Denver for the first time included the Allied Social Science Associations, the American Chemical Society, the American Thoracic Society, the Young Presidents Organization, and the American Society for Cell Biology. Some familiar faces were also back in Denver in 2011, such as the National Cattlemen's Beef Association, the Shriners International (celebrating their fourth meeting in Denver over Fourth of July weekend), Ace Hardware, the American Public Works Association, and the American Association of Neurological Surgeons.

Due to increased national competition, 2012 is currently off pace for convention bookings by approximately 15%, year-over-year. New convention center and hotel supply in Denver's key competitive set decreased the overall demand in 2012 and 2013. Due to the 2009 and 2010 sluggish economy, meeting planners have become more cautious in their future bookings, and they are also taking advantage of booking opportunities in first tier cities, which, up until the recession, were limited and expensive.

Denver continued to win accolades in 2011, selected as the best convention city in the world by

continued on page 86

COLORADO LODGING AND HOSPITALITY FORECASTS

	2011			2012		
	Occupancy	Average Daily Rate	RevPAR	Occupancy	Average Daily Rate	RevPAR
Denver Metro Area						
Downtown	71%	$146.50	$104.67	72%	$156.02	$112.34
Airport/East	64%	79.50	51.02	65%	82.28	53.07
West	61%	81.25	49.86	62%	82.06	50.63
North	65%	83.00	54.36	66%	85.49	56.42
South	66%	82.50	54.51	67%	85.39	56.78
Subtotal	66%	100.34	66.49	67%	104.83	69.90
Percentage Change	*5.2%*	*4.0%*	*9.5%*	*0.6%*	*4.5%*	*5.1%*
Total Colorado Springs	59%	$94.75	$55.44	59%	$97.59	$57.58
Percentage Change	*2.4%*	*3.9%*	*6.5%*	*0.8%*	*3.0%*	*3.9%*
Resorts						
Vail/Beaver Creek	53%	268.00	141.84	53%	278.72	148.28
Aspen/Snowmass	50%	265.00	133.72	51%	278.25	141.91
Steamboat Springs	49%	114.00	55.93	50%	116.28	57.67
Other	50%	137.50	68.49	50%	140.25	70.13
Subtotal	51%	192.33	97.43	51%	199.04	101.46
Percentage Change	*5.0%*	*3.0%*	*8.1%*	*0.6%*	*3.5%*	*4.1%*
Other Colorado Cities						
Boulder/Longmont	63%	117.50	74.02	63%	122.79	77.85
Fort Collins/Loveland	55%	86.00	47.57	56%	90.30	50.57
Durango	55%	109.25	60.61	56%	111.98	62.71
Glenwood Springs	51%	86.25	44.14	52%	87.98	45.75
Grand Junction	57%	79.25	45.00	57%	79.65	45.40
Other Colorado areas	58%	81.44	46.86	59%	85.83	50.50
Colorado Total	59.3%	$106.25	$63.03	60%	$110.50	$66.30
Percentage Change	*5.5%*	*2.7%*	*8.3%*	*1.1%*	*4.0%*	*5.2%*

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

Leisure and Hospitality

continued from page 85

the *Toronto Globe and Mail*, the best city for public transportation by *U.S. News & World Report*, and the fourth-greenest city by OurGreenCities.com. These recognitions reinforce marketing messages for meeting planner clients. Additional, positive press was garnered by DIA, which was named the nation's best airport for the sixth-consecutive year by *Business Traveler* magazine, and was cited for the 29% drop in round-trip fares during the past decade—the fourth-largest drop of any city in the country.

Leisure Tourism

Denver was one of just a few destinations in the United States to see an increase in the number of leisure visitors in 2009, according to Longwoods International. In 2010, Denver tourism rose again, attracting 10.9 million overnight pleasure visitors, up 8% over the record-setting 10.1 million overnight pleasure visitors in 2009, and on par with the national average.

Overall, the city registered a record total of 12.7 million overnight visitors, up 5% over 12.1 million in 2009—even surpassing the previous record of 12.2 million in the 2008 banner year. Total visitor spending was $3 billion, which is a second year of lower spending from the record $3.1 billion spent in 2008. Denver's increase in the number of leisure visitors came from a 4% gain in "marketable visitors" and a 4% rise in people visiting friends and relatives. A *marketable visitor* is defined as someone who could visit anywhere, yet chose Denver. Denver had a record 4.4 million marketable visitors, the sixth-straight year the city has seen an increase in these visitors. Nationally, marketable visitors grew 3% in 2010, after falling 5% in 2009. Marketable visitors spent $107 per day versus visitors who stayed with friends and relatives, who spent only $38 a day. Business travel was down in 2010 for the first time since 2008, even though convention attendance was up 6%.

By the end of 2011's first three quarters, the Mile High City's tourism industry was continuing its strong signs of recovery. Denver Restaurant Week was a huge success, setting a new record, with 303 restaurants participating and a total of 360,480 meals served, a gain of 7% and 7%, respectively.

VISIT DENVER launched a $2 million consumer advertising campaign marketing the Mile High City as a summer tourism destination. Built around the theme, "Denver's Summer of Adventure," the integrated marketing campaign uses television, magazine, newspaper, radio, billboard, transit, and Internet advertising.

The campaign promoted more than 100 different urban and day trip adventures, asking visitors to design their own vacation by selecting options that included everything from seeing Real Pirates at the Denver Museum of Nature & Science, taking in the Marvelous Mud at the Denver Art Museum, meeting Komodo dragons at the Denver Zoo, experiencing outdoor thrills at Elitch Gardens Theme & Water Park, hiking in Rocky Mountain National Park, and driving up the highest paved road in North America to the top of Mount Evans. The adventures campaign also featured dining, shopping, sports, summer festivals, and theater.

Overall, the city registered a record total of 12.7 million overnight visitors, up 5% over 12.1 million in 2009—even surpassing the previous record of 12.2 million in the 2008 banner year.

Tourism got an extra boost in 2011 with Denver named as the sixth-best place to visit in America in 2011 by the editors of *Lonely Planet*; the sixth-best city for summer travel by *Travel + Leisure*; a top destination for singles by Travelocity; the fifth-fittest city by the American College of Sports and Medicine; the No. 1 city for public transportation by *U.S. News*; and the third-top city poised for greatness by *Sperling's BestPlaces*. Denver was also named as one of the top 10 cities for a vacation by *Forbes Magazine*.

For 2012, VISIT DENVER will continue to use a combination of destination appeal (brand), short-term exhibits/holiday weekends, and value messages to appeal to visitors. Denver's tourism amenities will expand with the openings of the Clyfford Still Museum in late 2011; the Asian Tropics at the Denver Zoo and the new History Colorado Center both in early 2012; and a variety of major shows on the books, including the Yves Saint Laurent exhibition and the Van Gogh exhibit at the Denver Art Museum, as well as events marking the 100th anniversary of the sinking of the Titanic at the Molly Brown House Museum.

DIA remains the 5th-busiest airport in the nation and 10th-busiest in the world, with nearly 1,700 daily nonstops to more than 160 worldwide destinations and serving the third-most destinations of U.S. airports. In 2011, DIA recorded the busiest August in its history, with a total of 5,037,947 passengers traveling through the facility. This marks the first time in its 16-year-history that DIA has surpassed 5 million passengers during the month of August. The figure also represents a 2.3% increase from the 4,924,060 travelers who used the airport during the same month in 2010. The year-to-date traffic through August 2011 is 35.76 million, an increase of 794,347 passengers—another 2.3% gain over the same eight-month period in 2010 when DIA saw 34.96 million travelers. The presence of Frontier and United, and the growth of Southwest in adding new routes, has combined to keep airfares to and from Denver very low relative to the rest of the country.

In addition to DIA, Colorado Springs, Grand Junction, and seven mountain airports provide service to many resorts. Passenger traffic at Colorado's major airports and regional hubs was expected to reach nearly 56 million in 2010 and 56.9 million in 2011. Refer to the Trade, Transportation, and Utilities section for more information on air transportation.

The Regional Transportation District's (RTD) FasTracks project continues, representing the largest simultaneous construction of a mass transit system in United States. The plans entail adding 48 miles of new track by 2018, including routes to DIA, Boulder, and Golden, as well as a new $500 million complex around Union Station that will offer shopping, dining, and entertainment options. Due to a funding gap, leaders from civic, municipal, and business organizations will work with RTD in 2012 to examine options to finish the project, including a possible ballot measure to approve new funding.

In 2012, modest supply growth is expected in the Denver Metro area.

- A full-service, four-star hotel with approximately 230 rooms is planned by Stonebridge Companies for the building formerly occupied by the historic Colorado National Bank, with a completion date projected for mid-2012.
- Metropolitan State University will be opening a 150-room SpringHill Suites by Marriott hotel complex on the Auraria Campus. The hotel, scheduled for opening in August 2012, will be managed by Sage Hospitality and will provide hands-on training opportunities for students in the university's Hospitality, Tourism and Events Department. The complex will also provide 28,000 square feet of academic space and 5,000 square feet of meeting space.
- Preliminary design plans were released for the 500-room Westin at DIA. Ground was broken on the rail line that will connect downtown Denver to the airport by early 2016. The hotel will have its own stop in the new South Terminal Building and is scheduled to be completed in 2014.

continued on page 88

Leisure and Hospitality

continued from page 87

- News reports have disclosed that discussions are underway for a plan to move the National Western Stock Show to the DIA area, with an adjacent Gaylord property located in Aurora. The preliminary designs show the property would have 1,500 rooms and 400,000 square feet of meeting space.

Casinos and Gaming

Despite the opening of new casinos, Black Hawk, Central City, and Cripple Creek have all experienced volatility over the past decade. Colorado's casino and gaming industry had only marginal growth through late 2010 and 2011 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 Wildwood Casino's opening in 2009 did not increase the Cripple Creek gaming market as originally anticipated. Since calendar year 2008, the industry has experienced an average of $11 million in collective losses. Nonetheless, since the industry is taxed on gross revenues rather than net revenues, the industry continues to honor its commitment to the recipients of gaming tax revenues, such as the state's historic preservation program and the community college network. These gaming tax revenues help bolster their budgets and maintain their commitments to preserving Colorado landmarks, as well as assuring students a quality higher education. The gaming tax also funds the tourism promotion budget for the Colorado Tourism Office, which in previous years has been an average of $15 million, but most recently has been reduced to $12 million due to the state's budget shortfall.

COLORADO CASINOS
2003–2012 Calendar Year

	Colorado	Colorado	Adjusted Gross Proceeds[a] (In Millions)			
Year	Casinos Open	Devices (000s)	Black Hawk	Central City	Cripple Creek	Total[b]
2003	44	15.5	$506.5	$49.9	$142.5	$698.9
2004	45	15.7	524.0	53.2	148.7	725.9
2005	47	16.4	531.9	72.6	151.0	755.5
2006	46	17.1	554.5	74.5	153.1	646.1
2007	43	16.8	581.4	79.8	155.0	816.1
2008	41	16.8	514.8	66.5	140.9	722.2
2009	40	16.1	530.0	64.3	140.4	734.7
2010	39	15.4	559.4	65.7	134.4	759.6
2011[c]	38	14.5	549.9	67.1	131.0	748.1
2012[d]	37	14.4	547.1	67.2	129.7	744.0

[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.

For the fiscal year ending in June 2011, Colorado casino adjusted gross proceeds (AGP), which is defined as the amount wagered by bettors less payout from the casinos, were $754.1 million, and gaming taxes paid to the state were $104.8 million. This reflects a decrease of 5.4% in AGP compared to the FY2010 AGP of $794.9 million and a 2.7% decline in gaming taxes over the FY2010 taxes of $107.7 million.

Black Hawk continues to dominate the Colorado casino sector with 18 casinos, approximately 8,600 gaming devices, and about 73% of the industry's AGP. Cripple Creek has 14 casinos, roughly 4,000 gaming devices, and 18% of AGP, while Central City has 8 casinos, 2,400 devices, and around 9% of AGP.

While the gaming industry experienced a very modest recovery from the recession, it remains threatened by the Colorado legislature's continued attempts to expand gaming to the Front Range, such as authorizing video lottery terminals, keno machines, or instant racing wagering machines at racetracks and other locations. In addition, the U.S. Department of Interior has relaxed its rules regarding off-reservation gaming, which may generate interest among tribes without recognized reservations in Colorado to "reservation shop" for casino ventures in Colorado. 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.

Restaurants

As the economy continues to slowly improve, the restaurant industry is also on the road to recovery. In 2012, restaurant-industry growth will be driven by an improving economic environment, where growing jobs and income will bolster the confidence of consumers. A more positive mindset, along with an improving household financial situation, will allow many consumers to satisfy their pent-up demand for restaurants that went unfulfilled during the recession.

Unlike other industries, the recent downturn was not the reflection of a prolonged decline in the restaurant industry, but rather a temporary pause in its long-term trajectory. Indeed, the restaurant industry currently accounts for nearly one-half of the food dollar in the United States, up from just 25% in 1955. Driven by consumer's ever-expanding desire for convenience, value, and socialization, America's restaurants will continue to play an important role in the lives of consumers in 2012 and beyond.

A more positive mindset, along with an improving household financial situation, will allow many consumers to satisfy their pent-up demand for restaurants that went unfulfilled during the recession.

To be successful in 2012, Colorado's restaurant operators must find a way to connect with today's consumer and provide the food, service, and social oasis that evokes the positive feelings that they have about the restaurant industry. Indeed, most are already doing it as 88% of adults report they enjoy going to restaurants, according to research by the National Restaurant Association.

Repeat customers have always been important to the long-term success of restaurants. However, in today's challenging economic environment, when many consumers are choosing to stand on the sidelines, repeat customers are more important than ever.

According to National Restaurant Association research, repeat customers represent 75% of sales at quick-service restaurants, 75% of sales at family dining restaurants, 70% of sales for casual dining operators, and 60% of sales for the fine dining segment. As such, it is important for Colorado's restaurant operators to know how to reach these customers, what their tastes and preferences are, and what motivates their restaurant decisions.

Looking to 2012, the strength of the restaurant industry's recovery will be driven by an improving employment picture in Colorado. Jobs give households the disposable income necessary to support restaurant spending, and they also create the need for convenience that the restaurant industry provides.

continued on page 90

Leisure and Hospitality

continued from page 89

Parks and Outdoor Recreation

Colorado has an incredible outdoor recreation system that is anchored by four premier national parks: Rocky Mountain National Park, Mesa Verde National Park, the Great Sand Dunes National Park and Preserve, and Black Canyon of The Gunnison National Park. These four parks, along with five national monuments, a national historic site, and a national recreation area, receive more than 5.6 million visits annually and are an important component of tourism and the overall outdoor recreation system in the state. Visits to national parks in Colorado are projected to rise 1% (56,400 visits) in 2012.

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

As the economy recovers, the outdoor recreation industry will continue to benefit from consumers' interest in finding affordable ways to relax and spend time with family.

COLORADO NATIONAL PARKS VISITS
2004–2012
(In Thousands)

Parks	2004	2005	2006	2007	2008	2009	2010	2011[a]	2012[b]
Bent's Old Fort NHS	31.0	27.8	26.5	24.0	25.0	28.2	29.1	29.3	30.3
Sand Creek Massacre NHS[c]	--	--	--	--	--	--	4.0	4.0	4.0
Black Canyon of the Gunnison NP	175.6	180.8	160.5	219.6	160.2	171.5	176.3	172.7	171.1
Colorado NM	352.6	347.1	332.7	395.3	391.0	400.3	433.6	452.6	473.2
Curecanti NRA	1,006.1	882.8	936.4	964.6	1,007.4	953.2	969.5	982.7	988.1
Dinosaur NM[d]	240.7	266.8	206.1	170.9	149.3	150.9	146.3	122.8	108.9
Florissant Fossil Beds NM	61.3	59.5	56.1	56.0	57.0	64.3	65.4	67.8	70.5
Great Sand Dunes NP	267.2	279.6	258.7	285.1	273.9	290.0	283.2	294.4	299.8
Hovenweep NM[d]	11.8	11.7	11.6	11.6	11.2	12.3	12.1	12.2	12.4
Mesa Verde NP	446.8	498.3	557.2	541.1	551.4	550.4	559.7	556.2	557.6
Rocky Mountain NP	2,781.9	2,798.4	2,743.7	2,895.4	2,757.4	2,822.3	2,955.8	2,940.2	2,975.4
Total Visitors to Parks and Sites[e]	5,374.9	5,289.5	5,563.6	5,383.8	5,443.4	5,635.0	5,634.9	5,634.9	5,691.3

[a]Estimated. [b]Forecast.

[c]Sand Creek Massacre NHS was dedicated as an official park unit in April 2007.

[d]Dinosaur NM and Hovenweep NM cross into Utah, but the number of visitors reported in this table is only for the Colorado portion of the parks.

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

Note: Yucca House National Monument does not report visitations, therefore it is not included.

Skiing Industry

Colorado's ski areas recorded an estimated 12.2 million skier visits in the 2010-11 season, up from the 11.85 million in 2009-10. This was the fourth time skier visits have exceeded the 12 million mark. Most resorts saw above-average amounts of snowfall with LaNiña conditions resulting in earlier than planned openings, good snow during the season, and some resorts extending their seasons.

According to the National Ski Areas Association, the United States recorded the highest number of skier visits in the 2010-11 ski season, surpassing the 60 million mark. Colorado resorts accounted for more of these visits than any other state in the nation, with more than one in five skiers choosing to ski at a Colorado resort.

For the 2011-12 ski season, the presence of the LaNiña is again expected to result in good snow conditions in much of the state. The pattern has all ready been seen with early October and November snows. When snow conditions are good, in-state visits tend to be especially strong.

To boost the skiing experience and draw more skiers, Colorado resorts continue their dedication to maintaining the highest standard in ski vacations with preparations and projects exceeding more than $50 million for the 2011-12 season. Improvements ranging from minor developments to major renovations allow the resorts to provide the finest ski experience available.

Colorado Ski Country USA (CCSCUSA) announced new flights will be available for the 2011-12 ski season, offering more options and easier access to the already extensive menu of travel choices to reach Colorado resorts.

With the forecast of good LaNiña snow conditions, continued improvement of facilities at resorts, and new flights, it is predicted that skier visits will increase about 1%, to 12.32 million skier visits, for the 2011-12 season.

COLORADO SKIER VISITS
2002–2012
(In Millions)

Season	Total
2002-03	11.61
2003-04	11.25
2004-05	11.81
2005-06	12.53
2006-07	12.56
2007-08	12.54
2008-09	11.85
2009-10	11.85
2010-11[a]	12.20
2011-12[b]	12.32

[a]Revised.

[b]Forecast.

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

Challenges

Challenges facing the Leisure and Hospitality Supersector include the following:

- A slow economic recovery: A weak housing market, a lack of recovery in labor markets, and low consumer confidence all lead to weak spending. The trends of shorter travel distances and lead times, and more budget-conscious decisions are patterns of consumer behavior.
- Inflation: Inflationary pressures are still high in the travel industry and a substantial consumer concern. Since Colorado is a major drive vacation market, the volatile price of gasoline can have a significant impact.
- Income: Real median household incomes are down 7% from 2000.
- Pricing: Price erosion has a detrimental effect on industry profitability. Pricing strategies will continue to be a challenge in 2012.
- The hassle factor: Increased security lines, late flights, packed airplanes, and congestion in the skies have made air travel an ordeal. Highway congestion continues to be an issue, and the combination of all these elements makes travel less pleasant and causes visitors and locals to question whether they should just stay home.
- The tight state tourism promotion and marketing budget: Budget cuts continue to have an effect, requiring the industry to make its marketing dollars work harder.

Other Services

The Other Services Supersector is comprised of three sectors: Repair and Maintenance; Personal and Laundry Services; and Religious, Grantmaking, Civic, Professional, and Similar Organizations. Because this sector provides services for the general population, changes in population directly affect the employment and growth levels of these industries. In 2011, it is expected to grow by 400 jobs, or around 0.4%, over the previous year, and increasing growth is estimated for 2012, with an additional 1,500 jobs, or a 1.5% gain.

Repair and Maintenance Services

Repair and Maintenance Services includes four subsectors: automotive repair, commercial machinery, electronic equipment, and household goods. The sector has been negatively impacted in the past several years by a persistently stagnant construction industry.

Consumer spending on repairs is heavily influenced by the macroeconomy. Growth in the sector has been limited as a result of the slow economic recovery. Many consumers are holding off on repairs until a better time. However, in August 2011, national consumer spending on services increased 1.9% year-over-year, indicating a more optimistic outlook for this sector.

Automotive repair and maintenance accounts for the largest portion of all Repair and Maintenance Services Sector employment. Although it is by far the largest subsector, employment growth in auto repair has been slight since 2002, and the industry lost 900 jobs in 2009 as a result of the recession.

OTHER SERVICES EMPLOYMENT
2003–2012
(In Thousands)

Year	Repair and Maintenance Services	Personal and Laundry Services	Religious, Grantmaking, Civic, Professional, and Similar Organizations	Total
2003	22.8	21.1	41.9	85.9
2004	22.7	21.5	43.2	87.4
2005	22.7	21.9	44.0	88.5
2006	22.6	22.3	45.9	90.8
2007	22.7	23.0	47.3	92.9
2008	22.7	23.6	48.6	94.8
2009	21.4	22.6	49.6	93.7
2010[a]	21.3	22.1	49.2	92.5
2011[b]	21.5	22.3	49.5	93.3
2012[c]	22.2	22.4	50.2	94.8

[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.

The subsector added jobs nationally in 2011 as repair shops earned 0.4% more revenue in the second quarter.

Employment in electronic equipment repair services is smaller than in automotive repair. A strong indicator of this subsector's growth is corporate profits as more corporate income increases spending on electronic equipment repairs. An 8.5% gain in national 2011 second quarter corporate profits indicated optimistic growth for the subsector, while retail sales of consumer electronic products remained stagnant. In addition, household goods, also a small portion of the total sector's employment, is expected to experience more robust growth as consumer confidence increases.

Commercial machinery includes agricultural and other heavy industrial machinery and equipment (e.g., forklifts, machine tools, construction equipment, and mining machinery). The weak construction industries has slowed growth in the sector as less equipment use yields lower demand for repairs.

Sector employment is expected to increase through 2012 as consumers' disposable income increases, and many individuals and firms opt to repair their equipment and machinery.

Personal and Laundry Services

Four types of services form the core of the Personal and Laundry Services industry: death care services, dry cleaning and laundry, personal care services, and other personal services. The industry as a whole is highly fragmented, and local demand for these services is closely tied to disposable income and the population's demographics and growth. While a growing and aging population provides an expanding customer base for many of these services, the high costs associated with business activities leave them vulnerable to volatility in consumer disposable income. In addition, dry cleaning and laundry, personal care services, and personal services face increasing competition from convenient and frugal do-it-yourself products. As disposable income begins to rebound, service providers will have to continuously cultivate visibility and effective marketing strategies to be competitive.

Religious, Grantmaking, Civic, Professional, and Similar Organizations

Religious, Grantmaking, Civic, Professional, and Similar Organizations is comprised of nonprofits; grant and scholarship foundations; and business, civic, and professional organizations. It is the largest industry in Other Services, employing more than 50% of the supersector's workforce. Employment for the subsector is expected to increase by 700 jobs in 2012. This is greater than the 200 new jobs expected in 2011.

Nationally, second quarter 2011 revenue for Religious, Grantmaking, Civic, Professional, and Similar Organizations rose 16.8% over the same time period in 2010. However, prolonged high unemployment and the slow economic recovery has strained the resources of many nonprofits. A survey by the Communitiy Foundation found that demand for services is up and donations are down in many Colorado nonprofits. On the bright side, high unemployment has also led to many workers spending more time getting involved with volunteer opportunities and other nonprofit organizations. Colorado moved from 16th to 13th in the nation for the percentage of population who volunteered in 2010, continuing a trend of increasing volunteer involvement in the state. Future employment growth expected in this sector may be explained by the growing administrative needs associated with rising volunteerism.

Government

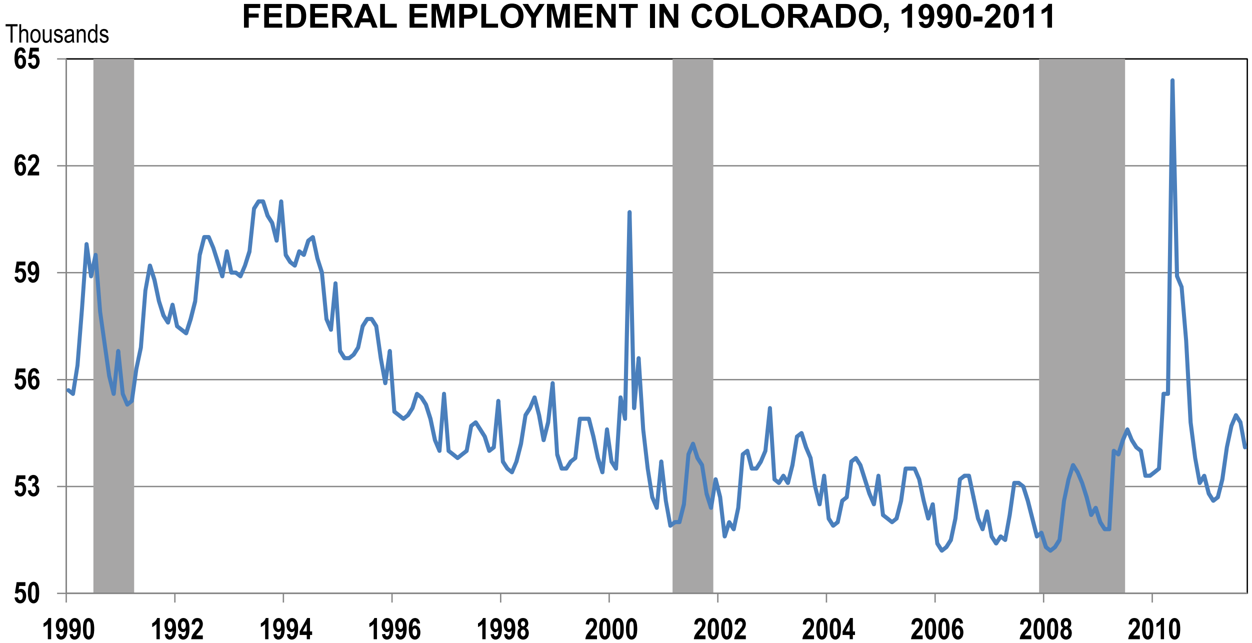
The Government Supersector encompasses federal, state, and local workers, and represents the second-largest provider of jobs in the Colorado economy, behind the Trade, Transportation, and Utilities Supersector.

Despite a national decline in the Government Supersector in 2010, Colorado Government employment rose 0.9%, to 393,900 employees, with increases in federal and state government employment. The local government subsector includes municipalities, counties, school districts, and special districts, and is the leading subsector, followed by state and federal government employment in the state.

Impacted by the recession and slow recovery, federal, state, and local governments have pulled back spending. As a result, Government employment in Colorado is expected to fall 0.4%, to 392,200, in 2011. However, growth in the number of state workers is anticipated to rebound as the economy slowly improves, contributing to an overall 0.1% increase in government employment, to 392,600 workers, in 2012.

State employment is propelled by healthy growth in income and sales taxes. The Colorado economy is slowly recovering but revenue collections might not be enough to completely replace federal stimulus or federal programs that have been cut. In addition to subdued growth in sales tax revenues, local governments are facing a decrease in property tax revenues due to a weak real estate market. Given budgetary pressures all levels of government are facing, slow growth in government employment is expected. In fact, more budget cuts in both federal programs and education are anticipated on top of the existing cuts. Additionally, the U.S. Postal Service is closing several post offices, state and local workers are being asked to do more with fewer resources, and some K-12 programs have been eliminated.

FEDERAL EMPLOYMENT IN COLORADO, 1990-2011



Source: Bureau of Labor Statistics, Current Employment Statistics (not seasonally adjusted). Data through September 2011.

Federal Government

Colorado has experienced modest gains and losses over the last decade in the federal government sector, mirroring nationwide trends. From 2000 to 2010, federal government employment increased at an average annual rate of 0.2%, with stronger growth in the latter half of the decade. Between 2005 and 2010, Colorado's federal government employment increased at an average annual rate of 1.3% as a result of temporary U.S. census hiring in 2010. Despite this boost to employment, total federal government employment in Colorado is forecast to decline 3% in 2011, primarily because the employment base was inflated by peak hiring of temporary census workers. Increasing budgetary pressures at the national level will force agencies to trim payrolls, resulting in a 1.7% decline in 2012, to a total of 53,600.

Federal government employment accounts for roughly 14% of all government employment across the state. Furthermore, the state's largest federal government employers—the Department of Defense and the U.S. Postal Service—represent nearly 40% of the state's total federal government workforce. The Department of Defense, Colorado's largest federal employer, accounts for more than 11,200 workers across the state. The combination of the department's hiring reform initiative and high-profile deals has led to increasing employment payrolls over the last few years. The U.S. Postal Service, on the other hand, is facing significant losses and could close more than 16% of the state's post offices over the next few years as a result of declining mail volumes and the loss of revenue amid the economic downturn.

Colorado's 24 federal research labs have a profound impact on the state's economy, ranging from research and development to federal government services and ongoing collaborations with Colorado universities. A 2011 study by the Business Research Division found the state's federal research labs contributed $1.5 billion to the state's economy in 2010 and accounted for more than 16,000 direct and indirect jobs. The $1.5 billion impact is a 36% increase compared with the $1.1 billion impact for 2007 when the division last completed the survey and analysis.

Furthermore, federal spending in the state provides economic opportunities for communities. A recent issue of the *Colorado Business Review* highlighted Colorado's federal spending totaled nearly $50 billion in the state. Of the statewide total, retirement and disability payments for individuals account for the largest funding category (25.8%), followed by procurement contracts (20.9%) and federal grants (17.7%). The remaining funds are dispersed among various federal programs, including Medicare, unemployment compensation, crop insurance, conservation reserve, and housing assistance, and salaries and wages for federal employees. Additionally, Colorado ranked ninth in per capita spending in the nation for both procurement contracts and salaries and wages in 2010, and federal

continued on page 96

GOVERNMENT EMPLOYMENT IN COLORADO
2003–2012
(In Thousands)

Government Sector	2003	2004	2005	2006	2007	2008	2009	2010[a]	2011[b]	2012[c]
Local General	107.2	108.4	109.9	112.8	115.4	118.9	119.2	118.0	116.2	114.8
Local Education	115.2	115.8	117.7	119.8	122.4	125.1	127.1	126.7	126.3	128.0
Total Local	222.4	224.2	227.6	232.6	237.8	244.0	246.3	244.7	242.6	242.8
State General	30.1	29.7	30.0	30.3	31.3	32.4	32.6	32.7	33.1	33.6
State Education	50.2	51.8	52.3	52.2	53.4	55.4	58.1	60.3	62.0	62.6
Total State	80.3	81.5	82.3	82.5	84.7	87.8	90.7	93.0	95.1	96.2
Total Federal	53.5	52.9	52.7	52.2	52.1	52.4	53.5	56.2	54.5	53.6
Total Government	356.2	358.5	362.6	367.2	374.7	384.1	390.5	393.9	392.2	392.6

[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

continued from page 95

funding was the greatest per capita in small, rural communities across the state.

State Government

Relative strength in Colorado's Government Sector has helped mitigate weakness in the state's economic recovery. Since the end of recession in June 2009, Colorado private employment growth has been weaker than in the rest of the country. However, Government employment growth has held steady in Colorado, while dipping roughly 2% in the rest of the country. The comparative strength of Colorado Government employment has largely been due to the relative strength of state government.

Governments across the nation have been faced with budget challenges. The economic downturn has increased demand for state services, such as unemployment insurance, and put downward pressure on tax and fee revenue. The General Assembly and Governor Hickenlooper have addressed these challenges with a mix of tax increases, program cuts, and reduced employee costs, but not layoffs. Most employees have experienced wage freezes and reductions in retirement benefits, and in 2010, many state workers were required to take unpaid furlough days. Growth in state government employment slowed, but did not decline as in many other states. Excluding higher education, Colorado state government employment rose 0.3% in 2010. Growth in the number of state workers is rebounding with the economy and is expected to pick up to 1.2% and 1.5% in 2011 and 2012, respectively.

A strengthening economy will boost state tax and fee revenue, but state government budgets are expected to remain tight for several years. Weak income and wage growth will result in soft growth in state income and sales tax revenues. Furthermore, a number of temporary measures designed to boost tax revenue during the economic downturn will expire, further restraining tax collections. Only severance taxes on energy are expected to increase strongly over the next few years.

Tight budgets will be felt by local governments as well, putting demands on state programs to assist school district budgets. Property taxes, the primary revenue source for local governments, are projected to be slower to recover than income and sales taxes.

Higher Education

The relative strength of Colorado state government employment has largely been because of solid growth in state employment at public colleges and universities. State employment in higher education increased 4.9% in 2009 and 3.8% in 2010. While still relatively strong, job growth is expected to continue to slow into 2012. Employment at state higher education institutions is anticipated to increase 2.8% in 2011 and 0.9% the following year.

The state's public higher education institutions employ nearly two-thirds of state employees. These workers include administrative staff, instructors, support staff, and student work-study positions. To meet tight budgets, full-time instructors are increasingly being replaced by lower-cost adjunct positions.

Total statewide enrollment at higher education institutions has grown sharply during the economic downturn as unemployed or underemployed workers seek additional education and training. The most recent economic downturn has been notable for the slow recovery of the job market and the structural changes in the economy. Many workers will be unable to return to a position in the same industry where they were previously employed. These workers often seek retraining during a period of unemployment to increase their attractiveness to potential employers in other industries.

In Colorado, higher education includes more than 470 institutions educating approximately 400,000 students. These institutions include two- and four-year public, for-profit, nonprofit, and seminary private-accredited institutions; area technical institutions; and private occupational institutions. During the 2009-10 school year, 43,283 degrees and certificates were awarded from public higher education institutions, a 6.1% increase from the previous school year and one of the largest year-over-year gains during the decade. Baccalaureate degrees accounted for nearly half of the total degrees and certificates awarded, followed by 19.8% for certificates; 17.6% for master's, doctorate, and other graduate degrees; and 14.5% for associate degrees.

According to the U.S. Census Bureau's 2010 American Community Survey, Colorado ranks second, behind only Massachusetts, in the percentage of residents with a bachelor's degree or higher. About 36.4% of Colorado residents had at least a bachelor's degree in 2010, a gain of 0.5% compared to 2009.

Local Government

General

Colorado's more than 3,000 local governments continue to face economic challenges. Revenue shortfalls, coupled with the expiration of ARRA funding, will negatively affect local governments' ability to provide services through counties, school districts, special districts, cities, and towns. The powers and duties of local governments, which are defined by state law, include oversight of K-12 education, maintaining parks, and providing law enforcement and other vital services. Local government revenue used to provide these services is derived from several sources: property taxes, sales and use taxes, fees, and intergovernmental revenues.

In addition to sales, use, and property taxes, intergovernmental revenues, and fees, local governments receive revenue from several state and federal government transfers. State-collected highway revenues derived from gas tax and motor vehicle registration fund a variety of services, such as reconstruction, maintenance, repair, improvement, and administration of streets and public highways. Parks and recreation districts receive revenue from a state-run lottery. This revenue is used for open space and recreation programs. The School Finance Act provides funding to local governments and is a significant state-funded program. In addition to traditional revenue sources, since 2009, ARRA funds have provided a major offset to revenue loss for municipalities and districts across the state.

Municipal finances continue to struggle as revenue associated with sales and property taxes have failed to return to their pre-2008 levels. Revenue's failure to recover is a result of persistent low unemployment across municipalities and slow or no growth in property tax revenue. According to the U.S. Bureau of Labor and Statistics, Colorado statewide noneducational local government employment continues to decrease. Although revenue may rise slightly for some municipalities, continued stagnation or declines in revenue for most Colorado local governments will force many to cut staff, reduce services, and cut park, police, and fire budgets. The Colorado Municipal League's *State of Our Cities and Towns Report* published in 2011 shows 30% of municipal governments expect a better revenue picture in 2011, while 38% anticipate the same and 26% foresee continued lower in municipal revenue.

continued on page 98

Government

continued from page 97

A continued drop in assessed valuations will strain local government budgets further. As confidence in the housing market continues to sag, many potential homebuyers are turning to rental properties rather than purchasing a home. The lower demand for home purchase creates downward pressure on prices. Furthermore, the continued presence of foreclosures properties has created a glut of available homes in the market. The reduction in demand, coupled with ongoing problems in the housing market, will continue to create problems with assessed valuations. These factors will keep prices well below their pre-recession levels and suggests declines or zero increases in revenue and locally collected property taxes.

Expected lower local government revenues, reductions in services and staff, and continued drops in assessed valuations will all negatively affect economic outcomes within localities across the state. As a result of the self-reinforcing cycle caused by the aforementioned factors, it is projected that local noneducation government employment in Colorado will decline 1.5% and 1.2% in 2011 and 2012, respectively.

Education

Enrollment and funding are the two key drivers of employment growth in local government educational services. Statewide K-12 enrollment has grown every year since 1989 and continues to increase. In the 2008-09 school year, enrollment growth was 2% over the prior year, the largest increase since 1989. The Colorado Legislative Council estimates that in the 2011-12 academic year, K-12 enrollment will grow 0.9%, totaling 791,839 students. Limited job opportunities in Colorado may impact in-migration and thereby affect enrollment growth. In the 2010-11 school year, statewide enrollment in full-time equivalent (FTE) students rose 1.2% over the prior year, totaling 784,836 students. Furthermore, the State Demography Office is projecting a gain of 1.2% between 2010 and 2011, and 1.4% between 2011 and 2012 in the population of school-age children over the next few years.

Colorado ranked 15th in the nation in the percentage of residents with a high school degree or equivalent, according to the U.S. Census Bureau's 2010 American Community Survey. The percentage of Colorado residents who have at least a high school diploma in 2010 was 89.7%, up from 89.3% in 2009. According to the National Center for Education Statistics' *Projections of Education Statistics to 2020*, public enrollment in elementary and secondary schools across the nation is projected to increase nearly 7% between 2008 and 2020, compared to 18% estimated growth for Colorado. Colorado ranks 6th in the largest projected gain among the 37 states with forecast enrollment increases between 2008 and 2020.

Colorado's public schools receive funding from a variety of sources. The Public School Finance Act provides the majority of funding to Colorado's 178 school districts. Funding for public schools accounts for a significant share of state General Fund expenditures and has been affected by General Fund revenue shortfalls associated with the recent recession. In FY2011-12, the education budget accounted for 40.4% of the total General Fund. FY2011-12 appropriations reduce total program funding by approximately $12.5 million in order to balance the state budget. This scenario affects local government educational employment and classroom sizes as district administrators respond to budget reductions.

Colorado's school districts receive funding through local property taxes (33%) and vehicle registration taxes (3%). Since assessed valuations have rebounded slightly, public school funding could receive more local revenue.

Statewide, local education employment is expected to grow 1.3% in 2012, to 128,000 employees.

International Trade

Export Performance in 2011

Colorado's merchandise and commodities exports have continued to recover from the sharp decline in 2009. After growing 14.6% in 2010, to a total of $6.7 billion, state exports are expected to climb another 10% in 2011. Even though exports of Colorado products are up 12.1% in 2011 through August year-over-year, lower demand from European countries as a result of the debt crisis is anticipated to slow export growth through the remainder of the year. Exports to the eurozone made up 16% of total Colorado exports in 2010.

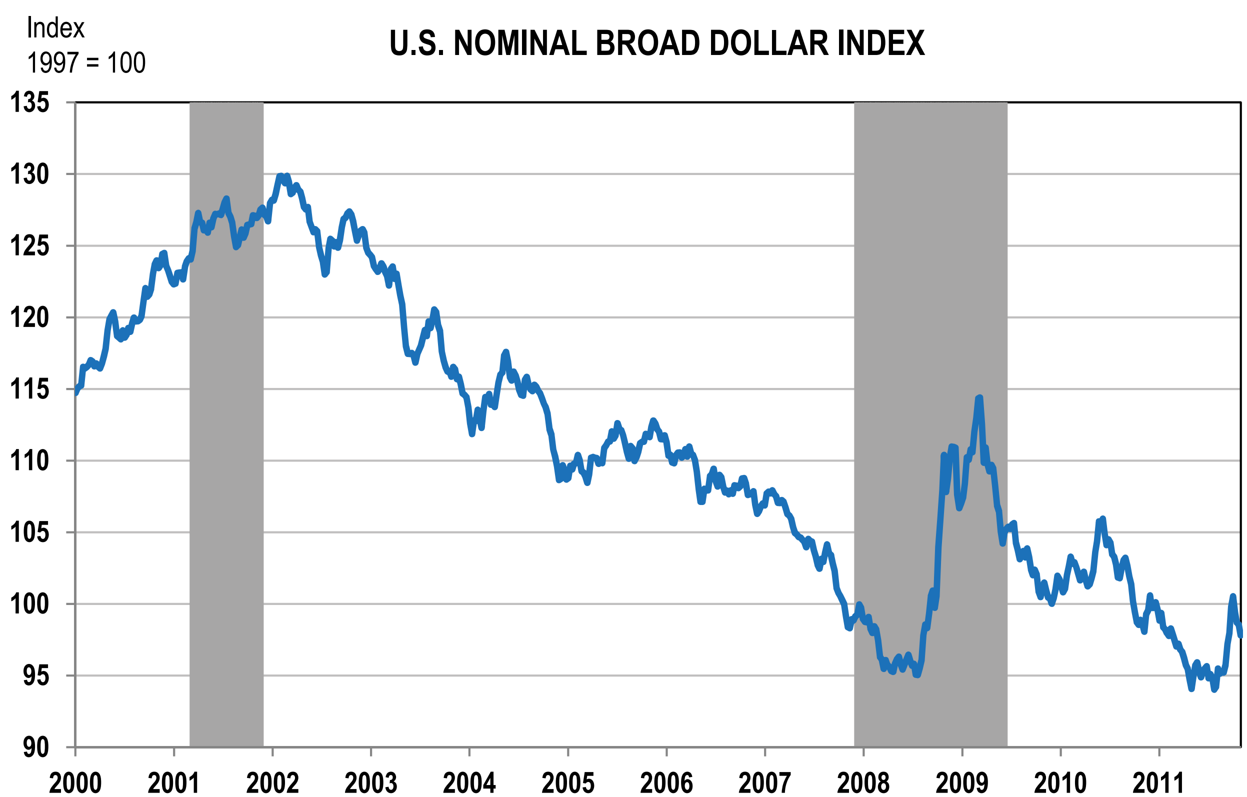
Colorado's export growth rate is not as strong as the national rate of 17.7% for the first eight months of 2011. Colorado ranks 37th among U.S. states in dollar value of merchandise and commodities exports. Services, which make up a large proportion of Colorado's economy, are not reflected in this ranking.

Canada and Mexico maintained their positions as the top two export markets for Colorado in the first eight months of 2011. Exports to Canada decreased for the third year in a row, with a 9% drop from August 2010 to August 2011. During the same period, exports to Mexico climbed 25%. Colorado exports to China and Japan increased considerably between August 2010 and 2011, with gains of 18% and 29%, respectively. Exports to Mexico, Japan, and Switzerland displayed the highest growth rates among Colorado's top 10 export markets worldwide.

Colorado's product or commodity export strengths in 2011 include electronic integrated circuits, meat, medical equipment, civilian aircraft, and molybdenum. Agricultural exports grew approximately 20% for the first eight months of 2011 and remain an important export for the state. Exports of electronic integrated circuits and automatic data processing equipment have continued to rebound after a sharp decline in 2010.

The Brookings Institute regards Colorado as a leading state in service exports, estimating that 2010 service exports from the state totaled $5.8 billion. While service exports, such as engineering, architecture, financial, and legal services, are more difficult to track, it is no surprise that Colorado is

continued on page 100



Source: Federal Reserve Board. *Note: Grey shading indicates recessionary periods.*

International Trade

continued from page 99

a leading provider of export services, based on the economic makeup of the state.

World Trade and Global Output Forecasts

Global economic activity is expected to grow, but at a slower pace through the end of 2011 and into 2012 when compared to 2010. The extent to which increasing demand from developing countries can offset sluggish or shrinking demand from developed countries will largely determine growth in the near term. According to the International Monetary Fund's (IMF) September 2011 World Economic Outlook, world output is projected to grow 4% in both 2011 and 2012, a slightly more moderate rate than the 5.1% increase experienced in 2010. World trade volume of goods and services is expected to climb 7.5% in 2011 and 5.8% in 2012, slower than the 12.8% gain experienced in 2010.

The European debt crisis poses a considerable threat to near-term economic growth, not only in Europe, but to countries across the globe. The crisis is expected to dampen global trade as a result of lower demand from European countries. Additionally, contagion of the crisis to the financial sectors of other countries remains a risk. Many economists project that Europe is already in recession and that much of Europe will face a slow, protracted recovery lasting several years. Outside of the eurozone, over-leveraging of public and private sector debt in the United States, Japan, and the United Kingdom also threatens growth prospects in the near term.

VALUE OF COLORADO EXPORTS 2003–2012 (In Millions of Dollars)

Year	Total Exports	Percentage Change
2003	$6,086.9	10.2%
2004	6,659.8	9.4
2005	6,773.3	1.7
2006	7,954.7	17.4
2007	7,352.2	-7.6
2008	7,712.6	4.9
2009	5,867.2	-23.9
2010	6,726.7	14.6
2011[a]	7,399.3	10.0
2012[b]	7,961.7	7.6

[a]Estimate.

[b]Forecast.

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

While many advanced countries are facing slower growth amid financial troubles, many developing country economies, including China and India, are expected to see near double-digit growth in 2011 and 2012. With growth at such high levels, inflationary fears in these countries are rising and could lead to policies that aim to cool overheating and to limit growth.

U.S. trade and exchange rate policies are expected to play a role in influencing trade in the coming year. The Obama administration continues to pursue policies that encourage domestic manufacturing and consumption, free-trade agreements, and freer-floating exchange rates abroad—particularly for China. All of these policies seek to encourage U.S. exports, and some policies are expected to temper growth in foreign imports.

Colorado Exports Forecast

In 2012, Colorado manufactured exports and commodities are projected to grow 7.6%, to $7.96 billion in sales. According to the U.S. Department of Commerce's formula of one job created for every $165,000 in exports, this equates to approximately 48,250 jobs depending on exports. Contributing to growth in 2012, the value of the U.S. dollar is expected to fall relative to other foreign currencies, which will reduce the price of Colorado goods compared to similar goods produced in other countries. Slower export demand from Europe will be offset some by rising growth in exports to developing countries. The passage of new free trade agreements may also open new markets to Colorado businesses. Finally, the outlook for certain products look particularly favorable and are expected to drive growth in 2012. These exports include agricultural and livestock products, propped up by growing global demand for food products, and raw minerals, such as molybdenum, with the expected reopening of the Climax mine near Leadville.

Colorado Imports Forecast

Just as Colorado exports many products, it also imports a variety of goods from around the world. Value-added jobs are also created when importing components or other unfinished products into Colorado when staff is needed to package finished

TOP 20 COLORADO EXPORTS
2009–2011 YTD
(In Millions of Dollars)

Description	2009	2010	Aug 2011 YTD
Optic, Photo Etc, Medic Or Surgical Instrments Etc	$957	$1,097	$866
Industrial Machinery, including Computers	896	1,002	752
Electric Machinery Etc; Sound Equip; Tv Equip; Pts	778	955	721
Meat and Edible Meat Offal	545	654	517
Photographic or Cinematographic Goods	283	303	177
Raw Hides and Skins (no Furskins) and Leather	108	188	152
Aircraft, Spacecraft and Parts thereof	224	245	129
Plastics And Articles thereof	111	159	129
Ores, Slag and Ash	86	154	115
Articles of Iron or Steel	105	114	108
Organic Chemicals	424	300	92
Aluminum and Articles thereof	107	114	92
Vehicles, Except Railway or Tramway and Parts	81	85	83
Mineral Fuel, Oil Etc.; Bitumin Subst; Mineral Wax	328	248	73
Pharmaceutical Products	52	113	59
Art of Stone, Plaster, Cement, Asbestos, Mica Etc.	9	31	55
Miscellaneous Chemical Products	38	59	45
Copper and Articles thereof	24	42	38
Ceramic Products	44	53	35
Dairy Prods; Birds Eggs; Honey; Ed Animal	26	33	35
Total Top 20 Commodities	5,226	5,949	4,273
All Others	631	767	534
Total All Commodities	$5,867	$6,726	$4,817

Source: World Institute for Strategic Economic Research (WISERTrade).

goods or add services or other technical support. In 2010, Colorado imported $11.3 billion of goods, $2.4 billion of which was fuel coming from Canada. This represents a $4.6 billion trade deficit compared to approximately a $2.7 billion deficit in 2009 and 2008, and imports have increased 10% since 2008. Imports from Canada, Mexico, and China represented more than half the value of all imports in 2009 and 2010. These countries are also the largest markets for Colorado products.

Imports are expected to grow in 2011 and 2012, though at a fairly modest pace. The declining value of the U.S. dollar relative to other foreign currencies is expected to boost domestic demand and temper import growth in 2012. Additionally, slow wage and salary growth through 2012 will moderate the consumption of foreign goods. Rising demand for energy products and higher energy prices will drive import growth through 2012.

New Free Trade Agreements: Korea, Colombia, and Panama

On October 12, 2011, the U.S. Congress passed free trade agreements with the Republic of Korea, Colombia, and Panama. The trade agreements will help U.S. workers, farmers, ranchers, and businesses gain new customers in three lucrative and rapidly growing markets, increasing U.S. exports by $13 billion each year. It is estimated that the agreements will boost U.S. GDP by more than $15 billion. In 2010, some $2.5 billion, or 39%, of all manufacturing exports went to countries with a free trade agreement with the United States.

continued on page 102

International Trade

continued from page 101

MAJOR DESTINATIONS FOR COLORADO EXPORTS OF MANUFACTURED GOODS, MINERALS, AND AGRICULTURAL PRODUCTS 2007–2010 (In Millions of Dollars)

Country	2007	2008	2009	2010	2010 Percentage of Total
Canada	$1,774	$2,191	$1,772	$1,659	25.0%
Mexico	949	961	583	589	9.0
China	488	508	439	558	8.0
Japan	359	336	275	318	5.0
Netherlands	294	404	174	331	5.0
Germany	315	283	220	320	5.0
Switzerland	137	157	15	185	3.0
United Kingdom	253	231	141	212	3.0
Philippines	204	220	150	210	3.0
Korea, Republic of	181	174	122	200	3.0
Malaysia	206	185	179	175	3.0
Hong Kong	188	123	121	139	2.0
Taiwan	328	130	108	156	2.0
Australia	157	162	128	160	2.0
France	183	198	93	121	2.0
Belgium	133	179	145	140	2.0
Thailand	90	66	49	62	1.0
India	103	100	94	102	2.0
Singapore	126	120	87	100	1.0
Brazil	104	118	81	123	2.0
Total Top 20 Countries	6,572	6,846	4,976	5,860	87.0
All Other Countries	780	866	891	866	13.0
Total All Countries	$7,352	$7,712	$5,867	$6,726	100.0%

Sources: Foreign Trade Division of the U.S. Census Bureau and World Institute for Strategic Economic Research (WISERTrade).

Recently implemented agreements have had an immediate impact on Colorado's economy. Since the U.S.-Chile trade agreement went into force in 2004, Colorado's exports to Chile have surged 217%.

Benefits for Colorado

The U.S.-Korea Free Trade Agreement is expected to generate 6,000 jobs within Colorado. Many industries stand to benefit from the agreement. In particular, computers and electronics products, a leading export sector for Colorado, will become more competitive with the reduction in Korean tariffs, previously as high as 13%. Processed foods will benefit from the elimination of tariff and nontariff barriers to trade. Machinery manufacturers will receive a duty-free treatment immediately on products including refrigeration compressors, water filtering, and purifying equipment. Additionally, Colorado's farm and livestock producers, who rely heavily on this market for exporting, will see reduced tariffs over time.

More than 80% of U.S. exports of consumer and industrial products to Colombia will become duty-free immediately, including beef, wheat, fruits, vegetables, and many processed foods. Colorado will benefit especially from computers and electronic products, previously subject to import duties generally between 5% and 10%.

Overall, 88% of U.S. consumer and industrial exports to Panama will benefit from immediate duty-free status. Colorado will gain from the elimination and reduction in tariffs on computers, technology equipment, construction and agricultural machinery, and chemical products (including pharmaceuticals, cosmetics, fertilizers, and agro-chemicals). The elimination and phase out of tariffs on agricultural products, including beef, dairy, and wheat, will benefit Colorado ranchers and farmers.

Growing Opportunities for Colorado Exporters: China, Japan, Mexico, and Brazil

Though several international markets are purchasing less from Colorado companies than they did prior to the global financial crisis, numerous key countries continue to purchase goods from the state at impressive levels. By looking at the most recent data concerning manufactured exports from Colorado, China, Japan, Mexico, and Brazil stand out for their continued resilience as purchasers of Colorado-made products. Highlighted below are a few of the state's leading sectors of growth for these key markets.

China

The IMF forecasts that China's economy will grow 9% in 2012. In 2010, Colorado manufacturers increased sales to China by more than 27%, and realized a further 18% increase in August 2011 year-to-date (YTD), totaling $426 million as of August 2011 YTD. Sales to China by several of Colorado's sectors have increased significantly over the last 2.5 years, including:

- Instruments for physical and chemical analysis, increasing 96% in 2010 and 72% from August 2010 to August 2011, reaching $24 million in August 2011 YTD;
- Copper waste and scrap, climbing 65% in 2010 and 62% from August 2010-August 2010, reaching $32 million in August 2011 YTD; and
- Medical, surgical, dental, and veterinary instruments, increasing 8% in 2010 and 13% from August 2010-August 2011, reaching $21 million in August 2011 YTD.

With the Chinese government's implementation of the 12th five-year plan starting in early 2011, the increasing focus on acquisition of green technologies and environmental policy improvements will likely translate into tremendous sales potential for Colorado's providers of environmental goods and services in 2012 and beyond. In addition, China's large and aging population, and increasing per capita income levels will likely provide opportunities for various consumer- and health-related goods and services.

Japan

The IMF estimates that Japan's economy will grow 2.3% in 2012. In 2010, Colorado manufacturers increased their sales to Japan by 15.6%, for a total of $318 million, making the 29% gain from August 2010-August 2011 all the more significant. Colorado companies in the meat industry have realized increases in their sales to the Japanese market the last 2.5 years, rising 5.7% in 2009, 14% in 2010, and 7% from August 2010 to August 2011, and reaching $86 million as of August 2011 YTD. Given ongoing concerns about the safety of Japan's food supply since the earthquake and tsunami, sales growth in this sector is expected to continue. Colorado-made medical, surgical, dental, and veterinary instruments have also proven notable for their recent sales growth in the Japanese market, increasing 52% from August 2010 to August 2011 and reaching $14.7 million in August 2011 YTD. While several sectors of the Japanese market have not yet recovered from the natural disasters, considerable private and public investment will be needed to achieve national and prefectural infrastructure improvements. This may represent opportunities for Colorado businesses, mostly in the areas of energy efficiency, renewable energy, smart grid, and environmental remediation.

Mexico

Considered the second-largest economy in Latin America and the region's biggest trader, Mexico has weathered the recent financial crisis quite well, according to an IMF study. Specifically, the study projects that Mexico will continue to enjoy economic growth of roughly 4% annually over the next several years. This growth has been safeguarded by stringent financial protection measures meant to ensure the health of domestic Mexican markets in the face of future global financial turbulence.

Mexico was second only to Canada in terms of total dollar revenue generated from the purchase of Colorado exports. In 2010, Mexico purchased roughly $590 million of Colorado-made products. While the primary sectors included meat

continued on page 104

International Trade

continued from page 103

products, photographic or cinematographic goods, and industrial machinery (including computers), the environmental goods category has also experienced significant growth. These sectors have continually ranked highest in the areas of Mexican purchasing over the last five years and should continue to offer strong prospects for Colorado companies seeking to enter the Mexican market. Also of importance to U.S. exporters was a recent announcement from the Mexican government on October 21, 2011, eliminating all retaliatory tariffs that had been imposed on certain U.S. goods in a dispute over the U.S.-Mexico cross-border long-haul trucking pilot program.

Brazil

Brazil has experienced a rapid and pronounced economic expansion over the last decade. The Brazilian economy's solid performance during the financial crisis was due, in part, to its strong and early recovery, including 2010 growth of 7.5%, which contributed to the country's transition from a regional to a global power. Colorado has benefited from increased Brazilian demand, with nearly $124 million of Colorado-made products purchased in 2010. This figure represents a staggering 52% increase in purchases since 2009, attesting to the strength of the Brazilian economy. Top Colorado exports include industrial machinery, which climbed 96% in 2010; medical and optical instruments, which increased 32% in 2010; and aircraft and aircraft parts, which surged 184% from August 2010 to August 2011. As commodity exports account for a significant amount of Brazil's economic power, tools, machinery, and supply chain-related service exports from the United States should continue to be in high demand, as well as security and infrastructure-related products and services as Brazil prepares for the upcoming World Cup in 2014 and Summer Olympics in 2016.

Brazil is currently the largest economy in Latin America and the eighth-largest economy in the world, according to the IMF. Brazil has increasingly been among the top targets for foreign direct investment, and has worked to implement capital

AGRICULTURAL EXPORTS FROM THE STATE OF COLORADO
FISCAL YEARS 2008–2012
(In Millions of Dollars)

Product	2008	2009	2010	2011[a]	2012[b]
Live Animals and Meat, exc. Poultry	$722.9	$558.3	$663.5	$776.3	$758.4
Wheat, Feed Grains, Fodders, and Products	464.0	470.5	527.6	712.3	669.5
Hides and Skins	143.6	108.8	189.0	225.9	225.9
Vegetables, Fruits and Products	99.8	102.2	113.1	125.3	130.0
Other Food Products	76.1	77.7	85.4	102.8	111.2
Fats, Oils, and Greases	70.6	43.3	63.4	58.6	59.7
Dairy Products	29.4	26.1	33.4	57.0	54.0
Seeds, Sunflower Seed and Oil	20.1	22.6	31.6	34.9	35.3
Total	$1,626.5	$1,409.5	$1,707.0	$2,093.1	$2,044.0

[a]Estimated 2011 projection based on GTIS YTD trends.

[b]2012 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.

controls to safeguard the value of the Brazilian currency, the real. Given its emerging status as an economic power, Brazil is on the top of many multinational corporations' lists of destinations to invest and do business in.

Agricultural Exports

Colorado's 2010 agricultural exports grew more than 21% over 2009 exports, to $1.7 billion, with shipments to 105 countries. Exports continue to offer major opportunities for Colorado agricultural production. While total agricultural sales have grown 4 times the 1971 levels, Colorado's agricultural exports have grown 4 times faster than total revenue (15 times growth in exports) since the 1971 level. Exports continue to increase in importance as the primary growth market for Colorado's agricultural production.

Colorado's 2011 agricultural exports are on track to gain an additional 23%, increasing $386 million over 2010 levels, to more than $2 billion. Colorado's beef exports are projected to climb 17% in 2011, while hide exports will rise over 19%. Colorado's wheat and feed exports are projected to increase significantly based on global market conditions that continue to hold prices high in world markets. Estimates are that 80% of Colorado's wheat is exported, making global market trends a critical factor in wheat prices. Colorado's dairy industry continues to experience significant export growth as the state dairy herds are increasing to support new processing facilities entering Colorado.

COLORADO'S TOP AGRICULTURAL EXPORTS REGIONAL DESTINATIONS 2008–2010 (In Millions of Dollars)

	Exports		
Region	2008	2009	2010
Canada	$297.4	$277.2	$300.3
Mexico	417.2	263.2	278.9
Japan	182.1	193.6	199.6
Korea	72.1	63.6	106.8
China	72.0	66.9	83.3
Taiwan	48.7	50.7	80.0
Egypt	26.6	12.2	48.2
EU	21.2	26.8	33.6
Russia	9.8	2.9	30.1
Hong Kong	9.6	7.6	26.4
Thailand	14.3	22.1	22.9
Indonesia	17.0	15.0	20.7
Vietnam	5.8	11.6	16.5

Source: World Institute for Strategic Economic Research (WISERTrade).

The U.S. Department of Agriculture's forecast for 2012 agricultural exports projects slow export market growth for Colorado's primary commodities. Factors that could impact the 2012 market include global grain production and continuing efforts to increase Colorado and U.S. beef access in global markets such as Japan and China. If these markets open, the state's beef exports could again experience significant growth in exports in 2012. Other commodities impacting Colorado's top export markets are hides (China's primary import from Colorado) and wheat to markets such as Egypt and Indonesia.

Colorado's top markets are changing. Colorado's NAFTA partners Canada and Mexico have historically been the largest partners, representing 44% of the state's total exports in 2008. In 2010, the NAFTA market sales were lower than in 2008, and Asian markets became the largest region for Colorado's agricultural exports. In 2008, a total of 28.3% of Colorado's agricultural exports went to Asia. Two years later, the Asian market has grown to 35.3% of exports and is now the largest region for agricultural exports. The European markets increased 58% from 2008 to 2010, representing a growing market for Colorado grains and specialty products.

Beef Products

Colorado's two top markets, Canada and Mexico, remain the largest markets for Colorado's beef exports. In 2010, Canadian exports grew 13.5%, while exports to Mexico slid 9.4%. Exports through August 2011 indicate Canadian exports are up more than 40%, with Colorado as the largest U.S. supplier of beef products to Canada, supplying over 25% of all U.S. beef to the country. Mexican imports during the same period show a further decrease of 4.4% from Colorado, while Mexico's total imports of U.S. beef products grew more than 23%. Colorado remains Mexico's third-largest beef supplier, with 14.9 % of total shipments.

continued on page 106

International Trade

continued from page 105

The Asian market continues to expand for Colorado beef exports. In 2010, the Asian market rose to 36% of Colorado's total beef exports, up from 22.5% in 2008. In 2011 (through August), the Asian market continued to represent 35% of Colorado's beef exports, with growth of more than 24% in 2011 versus 2010.

2012 Forecast

Colorado's agricultural export forecast currently indicates that 2012 exports will equal the 2011 level, representing two years of the largest agricultural exports for the state. While USDA forecasts indicate limited U.S. (and Colorado) export increases, Colorado's expanding dairy industry, and the potential for greater market access for key Asian markets, could result in growth, particularly for beef products. The Korean Free Trade Agreement will begin a 15-year process to reduce import duties on Colorado and U.S. beef. Over time, the annual reduction of duties by 2.7% per year should begin to increase Colorado (and U.S.) beef exports to the country. New markets such as Russia and Colombia, as well as Asian markets of Singapore, Taiwan, and Indonesia, could also help expand beef exports. The industry continues to seek removal of market-limiting regulations of U.S. beef in Japan and advocate for the opening of the Chinese market for Colorado and U.S. beef.

COLORADO'S BEEF EXPORTS REGIONAL DESTINATIONS 2008-2010 (In Millions of Dollars)

	Exports		
Region	2008	2009	2010
Canada	$171.1	$156.0	$177.1
Mexico	206.2	149.5	135.5
Japan	76.3	86.0	107.7
Korea	30.4	27.7	58.1
Russia	4.5	2.1	26.4
Taiwan	2.2	6.4	15.2
Hong Kong	2.5	4.3	12.5
Egypt	0.3	1.0	12.0
Vietnam	2.8	10.1	7.9
Indonesia	0.0	0.0	5.8

Source: World Institute for Strategic Economic Research (WISERTrade).

International Visitors to Colorado

While the U.S. Travel Association forecasts an increase in international travel in the 3-4% range in 2012 and 2013, the U.S. Deparatment of Commerce has slightly higher projections. It estimates international travel to the United States will continue to experience robust growth through 2016. Visitor volume is expected to increase 6% in 2011, reaching 63 million visitors who stay one or more nights in the United States. This growth would build on the 9% increase in arrivals in 2010, which resulted in a record 59.7 million visitors.

According to the current forecast, the United States is projected to see 5% annual growth rates in visitor volume between 2012 and 2016. By 2016, visitors are expected to total 81 million, a 36% increase and an additional 22 million visitors compared to 2010. Colorado is anticipated to account for approximately 1.5% of international visitors to the United States in 2012 (excluding Canada and Mexico).

The 2012 forecast considers the added benefit from the national marketing efforts by the new Corporation for Travel Promotion (CTP), established by the Travel Promotion Act of 2009 (TPA). The CTP's goal is to promote the United States as a premier travel destination to international travelers. Impacts are expected to be minimal in 2012 and increase as a proportion of normal expected growth through 2014 and then decline through 2016.

Forecast Highlights by Region to the United States

North America

The top two markets generating visitors to the United States—Canada and Mexico—are projected to increase in 2011 by 7% and 1%, respectively, and by 34% and 22%, respectively, from 2010 to 2016. Canada's annual growth would build on the 2010 record of 20 million visitors, and Mexico's growth would establish new records beginning in 2013.

South America

The number of visitors from South America is projected to climb by 15% in 2011, the second-largest growth rate of any region, and the area should remain a leader in arrivals growth for the next several years. It is estimated that by 2016 South America will generate nearly 6 million more visitors, an increase of 77% compared to 2010. Brazil, the largest source market in the region, is expected to build on the 2010 record-breaking performance and climb 25% in 2011, a gain of 1.5

million visitors. By 2016, it is projected the United States could host a record 2.8 million Brazilian visitors, a 135% increase over 2010. Argentina is forecast to post a gain of 16% in 2011, climbing to 70% by 2016. Colombia should have steady growth over the forecast period (2% to 7%), and growth from Venezuela will be solid in 2011 (9%), then decline through 2016.

Europe

Visitors from Europe are expected to increase by 7% in 2011, followed by additional slower growth over the next five years. The top European markets are forecast to grow between 2 and 5% in 2011. The highest growth in Europe will come from Switzerland (23%), Sweden (21%), and France (12%). In contrast, following a 23% decline in 2009 and a 12% drop in 2010, visitation from Ireland is forecasted to post an additional decrease in 2011 (3%) and remain essentially flat through 2016.

Asia-Pacific

Asia is projected to generate a visitor increase of 4% in 2011. After smaller gains initially, the region is projected to have larger growth over the next few years for a total 61% increase from 2010 to 2016. Japan is projected to contract 3% in 2011, decline the following year, then grow slightly through 2016. Strong growth, 37%, is expected for China in 2011, increasing 274% through 2016—by far the highest rate of any country. Oceania is anticipated to post a 17% increase in 2011, the largest of any region, and grow a total of 85% in number of visitors through 2016. Australia dominates the Oceania region and is projected to rise 18% in 2011 and 94% between 2010 and 2016.

Trends in International Students in Colorado

During the 2010-2011 academic year, the number of international students in Colorado increased 10.1% over the previous academic year, according to the Institute of International Education's annual report on international academic mobility. Colorado institutions enrolled 7,688 international students during this period. The state's rate of increase was double the 5% increase in international students enrolled in U.S. higher education institutions as a whole. International students' expenditures in Colorado totaled an estimated $235 million for 2010-2011.

The leading countries of origin for international students in Colorado for 2010-2011 were China with 1,653 students (21.5% of total); Saudi Arabia with 1,122 students (14.6%); India with 753 students (9.8%), and Taiwan, with 269 students (3.5%).

Colorado students have been studying abroad in greater numbers, preparing themselves for the increasingly globalized, knowledge-based economy that is coming to characterize our state. In 2009-2010 (the most recent year for which reliable data are available), 4,467 students enrolled in Colorado institutions opted to study outside the United States. This represents a 0.1% increase over the prior academic year, compared to a 0.8% decrease for the United States as a whole.

INTERNATIONAL STUDENT ENROLLMENT AT SELECT COLORADO INSTITUTIONS

Institution	2007-08	2008-09	2009-10	2010-11	Percentage Change
University of Colorado Boulder	1,264	1,341	1,360	1,553	14.2%
University of Denver	870	919	1,081	1,250	15.6
Colorado State University	1,046	984	1,127	1,216	7.9
University of Colorado Denver	635	729	734	940	28.1
Colorado School of Mines	423	511	523	570	9.0

Sources: Institute of International Education and Colorado School of Mines.

Summary

Colorado, like the rest of the nation, experienced slow growth in 2011. The state added 27,500 jobs in 2011, a gain of only 1.2%, which only makes up one-fifth of the jobs lost from 2008 through 2010. For the decade, population gains outstripped job gains nearly 30-to-1. While some of these people represent retirees, others are now self-employed and thus may be working, but are not counted in total nonfarm employment rolls. The consensus of the 2012 estimating committees is that nascent employment growth will continue in 2012, with the state adding another 23,000 new jobs.

Over the past 10 years, goods-producing industries lost a net 93,200 jobs, while services-producing industries gained 115,900 jobs. While services is expected to continue employment gains, industries producing goods are also adding employment.

Following Manufacturing gains in 2011, the sector will resume losses of 1,900 in 2012, related primarily to declines in durable goods manufacturing. Expected weakness in the dollar should assist in mitigating some Manufacturing losses. Despite environmental policy implications, much of the Natural Resources and Mining Sector continues to add jobs given improving prices and technology that make extraction of resources more feasible. This should lead to 1,100 more jobs in 2012. With modest increases in the supply of nonresidential buildings and multifamily residential housing, Construction will return to growth in 2012, climbing by 2,900 jobs.

The 2012 outlook for services employment shows growth in all sectors but Information and Financial Activities, which will shed 500 and 1,000 jobs, respectively. Information continues to shrink primarily due to consolidations in telecom and publishing, while Financial Activities needs fewer employees in a slow banking and mortgage market. Adding 7,500 jobs, growth will be led by Education and Health Services, which weathered the recession better than all other industries in Colorado. Professional and Business Services; Trade, Transportation, and Utilities; and Leisure and Hospitality will continue to exhibit moderate employment growth of 6,800, 2,400, and 3,800, respectively. Government will increase by 400 jobs, with growth in state and local public education offset by declines in federal, state, and local noneducation.

ESTIMATED NET JOBS CREATED IN NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT SECTORS 2000–2012 (In Thousands)

Sector	2001-2011[a]	2010[a]	2011[b]	2012[c]
Mining and Logging	14.9	0.2	3.4	1.1
Construction	-56.6	-16.2	-4.0	2.9
Manufacturing	-51.5	-4.4	2.8	-1.9
Total Goods Producing	*-93.2*	*-20.4*	*2.2*	*2.1*
Trade, Transportation, and Utilities	-20.5	-6.0	4.7	2.4
Information	-36.2	-3.0	-0.6	-0.5
Financial Activities	-4.8	-4.0	-0.5	-1.0
Professional and Business Services	24.7	-0.4	7.2	6.8
Education and Health Services	71.8	7.4	8.0	7.5
Leisure and Hospitality	23.3	0.7	7.4	3.8
Other Services	9.5	-1.2	0.8	1.5
Government	48.1	3.4	-1.7	0.4
Total Services Producing	*115.9*	*-3.1*	*25.3*	*20.9*
Total Jobs Created	22.7	-23.5	27.5	23.0

[a]Revised.

[b]Estimated.

[c]Forecast.

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

The following observations summarize the thoughts of committee members for 2012 and beyond:

National and International

- U.S. GDP growth will accelerate in 2012, but will remain below-potential.
- It is unlikely that the United States will face a double-dip recession, but the likelihood is much greater for Europe.
- The sovereign debt crisis will continue to destabilize global economic growth.
- On a trade-weighted basis, the dollar's decline will continue to benefit exports and slow growth of the trade deficit.
- Federal spending will decrease, but the federal deficit will remain in excess of $1 trillion.
- The November 2012 election will result in political gridlock for most of the year.
- Inflation will continue in check for another year, and interest rates will remain at historically low levels.

Colorado

- Colorado will outperform the nation in employment growth in 2012.
- Rebounding commodity prices will benefit farmers and ranchers, as well as the extraction and energy sectors.
- State and local governments will continue to struggle with budget issues as federal funding tightens and income and property taxes lag the recovery. This will have further implications for public education.
- The foreclosure situation will continue to improve in Colorado. Housing prices will remain soft, which will hold back new residential construction, as well as labor mobility.
- Colorado will remain a popular place to live, with projected population growth above 1.5%.
- The state's unemployment rate will improve faster than the nation's.

While the road to global economic recovery has many hurdles, Colorado remains positioned for strategic economic growth, leveraging economic diversity that ranges from natural resources to high-tech industry clusters. Targeted economic development will yield new companies and businesses in expansion that will drive employment growth looking forward. And Colorado's unique quality of life will continue to attract skilled labor, entrepreneurs, and thought leaders that will help give the state a competitive advantage in an ever-more competitive landscape.

Around the Region

Along with Colorado, the neighboring states of Arizona, Kansas, Montana, Nebraska, New Mexico, Utah, and Wyoming, make up the western region. This section compares economic activity in 2010 as measured by total employment, employment growth, unemployment rate, average annual pay, and GDP in these states and in some of their top metropolitan statistical areas (MSAs).

The recent recession caused every state in the region to suffer employment losses that nearly overwhelmed the gains from 2001-2010. Montana, Wyoming, and Utah had annual growth rates in excess of 1%, while Arizona, Nebraska, and New Mexico gained less than 1% annually. Colorado's annual growth was flat, and Kansas recorded a net loss of jobs. Regarding MSAs, Grand Junction and Greeley experienced the most robust annual growth, 1.5% and 1.1%, respectively, from 2001-2010.

The losses suffered by states and MSAs persisted into 2010. Arizona experienced the greatest percentage decrease in employment, 2.1%, while the rest of the western region fell between 0.4% and 1.5%. As these states began their anemic recovery along with the rest of the nation, every state, with the exception of Wyoming, enjoyed positive GDP growth from 2009 to 2010. While Wyoming's state GDP fell 0.3%, Kansas and Nebraska grew 2.1% and 1.9%, respectively. New Mexico and Utah followed close behind with 1.7% growth each, while Colorado lagged slightly, at 1.4%.

In 2009, Colorado's $47,868 average annual earnings surpassed all others in the region, including Arizona, at $43,299. Boulder and Denver have maintained their top place, with above-average annual pay levels exceeding $50,000. This is far more than other MSAs in the region, which fall within the $39,000-$45,000 range.

REGIONAL STATES

States	2010 Total Employees (In Thousands)	Employment CAGR 2001-2010	Employment Percentage Change 2009-10	2010 Unemployment Rate	2010 Average Annual Pay	2010 GDP (Millions of Current Dollars)	Real GDP Percentage Change 2009-10
Colorado	2,220.1	0.0%	-1.1%	8.9%	$47,868	$257,641	1.4%
Arizona	2,377.3	0.5	-2.1	10.0	43,299	253,609	0.7
Kansas	1,323.0	-0.2	-1.5	7.0	38,936	127,170	2.1
Montana	428.2	1.0	-0.4	7.2	34,595	36,067	1.1
Nebraska	939.4	0.3	-0.6	4.7	37,324	89,786	1.9
New Mexico	801.6	0.6	-1.3	8.4	39,264	79,678	1.7
Utah	1,181.1	1.0	-0.7	7.7	39,389	114,538	1.7
Wyoming	282.6	1.6	-1.3	7.0	41,963	38,527	-0.3

Sources: Bureau of Economic Analysis and Bureau of Labor Statistics (CES, QCEW, and LAUS data).

COLORADO METROPOLITAN STATISTICAL AREAS (MSA)

MSAs	2010 Total Employees (In Thousands)	Employment CAGR 2001-2010	Employment Percentage Change 2009-10	2010 Unemployment Rate	2010 Average Annual Pay	2010 GDP (Millions of Current Dollars)	Real GDP Percentage Change 2009-10
Boulder	158.8	-0.5%	-0.5%	7.1%	$54,325	$18,298	4.0%
Colorado Springs	246.1	-0.3	-1.0	9.6	42,682	26,461	3.5
Denver-Aurora-Broomfield	1,191.2	-0.2	-0.7	9.0	52,888	157,567	1.3
Fort Collins-Loveland	133.8	0.6	0.3	7.4	40,808	11,552	2.9
Grand Junction	58.9	1.5	-4.4	10.6	37,993	4,786	-3.3
Greeley	77.9	1.1	-1.3	10.2	39,125	7,341	1.9
Pueblo	57.4	0.5	0.0	10.4	35,409	4,229	0.8

Sources: Bureau of Economic Analysis and Bureau of Labor Statistics (CES, QCEW, and LAUS data).

REGIONAL METROPOLITAN STATISTICAL AREAS (MSA)

MSAs	2010 Total Employees (In Thousands)	Employment CAGR 2001-2010	Employment Percentage Change 2009-10	2010 Unemployment Rate	2010 Average Annual Pay	2010 GDP (Millions of Current Dollars)	Real GDP Percentage Change 2009-10
Albuquerque	371.4	0.3%	-1.7%	8.8%	$40,688	$38,080	1.7%
Cheyenne	43.4	1.4	-1.6	7.5	38,999	5,323	-0.1
Kansas City	963.9	-0.1	-1.6	9.1	45,179	105,968	1.5
Lincoln	170.7	0.3	1.3	4.2	37,073	14,448	1.2
Phoenix-Mesa-Glendale	1,686.8	0.6	-2.1	9.2	45,294	190,601	0.7
Salt Lake City	607.2	0.6	0.2	7.5	43,500	66,456	1.9
Tucson	353.4	0.3	-2.3	9.0	40,461	32,324	0.2
Wichita	283.6	-0.6	-3.0	8.6	40,661	26,299	-0.4

Sources: Bureau of Economic Analysis and Bureau of Labor Statistics (CES, QCEW, and LAUS data).

Boulder County

Boulder County's diverse economy is supported by a world-class research university, several major federal labs, a well-educated and highly skilled workforce, visionary entrepreneurs, an award-winning quality of life, and a high concentration of businesses in a number of emerging industries. This diversity has buffered the effects of the recession and contributed to the area's economic recovery. While Boulder County's overall economy is expected to continue to improve in 2012, any significant reduction in federal research funding would have a negative impact, affecting federally funded research facilities, universities, numerous businesses developing and refining new technology through federal research contracts, and Small Business Innovation Research (SBIR) grants and other funding programs.

Population, Employment, and Wages

Boulder County continues to experience steady population growth, above-average employment growth and income, and below-average unemployment. Boulder County's population increased an average of 0.86% a year over the past decade. Year-to-year comparisons show total nonfarm employment rose 1.9% between September 2010 and 2011, after climbing 0.5% between September 2009 and 2010, and decreasing 5.2% between September 2008 and 2009. A large concentration of jobs in sectors with higher-than-average wages contributes to above-average incomes for area residents (Boulder 2010 median household income, $64,314; Colorado, $55,945; United States, $51,222). In September 2011, the not seasonally adjusted Boulder County unemployment rate was 5.9% compared to the not seasonally adjusted state unemployment rate of 7.6% and the national rate of 8.8%.

Real Estate

Boulder County experienced a rise in commercial vacancy rates and a decrease in residential real estate sales and average home values over the past year. Year-to-year comparisons of the office vacancy rate for the Boulder-Longmont market show an increase from 11.4% in Q2 2010 to 13.6% in Q2 2011. The industrial vacancy rate fell from 12.7% to 11.8% during the same period. Submarkets varied, with higher vacancy rates in the City of Longmont (Q2 2011 office, 16.8%; warehouse, 12.6%; R&D/flex, 24.7%) than in the City of Boulder (Q2 2011 office, 13.3%; warehouse, 7.5%; R&D/flex, 8.6%). Residential real estate activity fell over the past year. The number of single-family homes sold in Boulder County for the 12 months ending in September 2011 was 6% lower than the same period in 2010. The number of single-family homes sold decreased in the cities of Boulder (5.8%), Longmont (11.8%), Lafayette (4.3%), and Erie (16.5%), while sales activity increased in Louisville (1.6%) and Superior (2.8%). Home values have continued to slide, although at a lower rate than many other areas. The Federal Housing Finance Agency house price index for Boulder County declined 2.2% from midyear 2010 to 2011. During the same period, the house price index for Colorado dropped 4.2%, and the national index fell 5.9%.

Financial Services and Venture Capital Investment

Boulder County has 30 FDIC-insured financial institutions with 113 offices and $6.7 billion in deposits, representing 6.9% of the state total. From midyear 2010 to midyear 2011, deposits in Boulder County's banks rose $460 million, or 7.4%, compared to an increase of $202 million, or 3.3%, from midyear 2009 to midyear 2010.

Venture capital (VC) investment in Colorado companies has started to rebound, reaching its highest levels since 2008. The high concentration of advanced technology and entrepreneurial activity in the area has continued to help fuel VC investment in Boulder County companies. According to the PwC/NVCA MoneyTree™ Report, $96 million of VC funding was received by Boulder County companies during Q3 2011, representing 61% of the state total.

Emerging Industries

Boulder County continues to benefit from the facilities, programs, suppliers, and workforce that support the growth of several emerging industry clusters, including aerospace, biotechnology, cleantech, information technology, natural and organic products, outdoor products and recreation, and tourism.

Aerospace

Several aerospace companies are headquartered in Boulder County. Among these are Ball Aerospace and DigitalGlobe, and the area has a high concentration of aerospace employment. 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). Nineteen astronauts are graduates of the University of Colorado Boulder. The university, a member of the Universities Space Research Program, offers nationally recognized aerospace academic programs and receives major funding from NASA. Boulder-based eSpace: The Center for Space Entrepreneurship, a joint venture of the University of Colorado and Sierra Nevada's SpaceDev, assists in creating new aerospace companies.

Biotechnology

Boulder County has a high concentration of companies and employment in the biotechnology, pharmaceuticals, and medical devices industry clusters. Major employers include Covidien, Amgen, and Array BioPharma. The University of Colorado Boulder has a distinguished record in biotechnology research that has attracted major research funding and generated numerous startups, and the area is expected to continue to play a key role in the growth of biotechnology in the state. Construction on the Jennie Smoly Caruthers Biotechnology Building on CU-Boulder's east campus is nearing completion. The world-class research facility will be home to the Biofrontiers Institute headed by Nobel laureate Dr. Tom Cech. The building will house 60 senior faculty researchers and more than 500 research and support staff spanning eight departments.

Cleantech

Boulder County continues to experience growth in the renewable energy and energy research industry. This development is supported by the federal labs, the University of Colorado's Renewable and Sustainable Energy Initiative, and businesses, including GE Energy Control Solutions, Tendril Networks, Siemens, juwi Solar, and juwi Wind.

Information Technology

Boulder County has a long history of involvement in the information technology cluster and a high concentration of employment in software, data storage, and web-based services. Major employers include IBM, InfoPrint Solutions, Seagate, Intrado, Google, HP, Microsoft, Rally Software, and Wall Street on Demand. The Boulder area, which is home to TechStars, a highly successful mentorship and seed-funding program, continues to be one of the hottest markets for tech startups.

Natural and Organic Products

Many leaders in the natural and organic products cluster got their start in Boulder, and the area remains important in the growth of the industry. Area companies include Celestial Seasonings, Rudi's Organic Bakery, Justin's Nut Butter, Eco-Products, Whole Foods, Sunflower Markets, EVOL Foods, and Pangea Organics. New natural and organic products companies continue to be launched in the Boulder area.

Outdoor Products and Recreation

Boulder is widely recognized as a center for the growing outdoor recreation industry and is home to the Outdoor Industry Association and the International Mountain Bicycling Association. The Boulder area has a high concentration of manufacturers; distributors; retailers; event, marketing, and media companies; and medical and other services providers focused on the industry. Local companies include Spyder Active Sports, GoLite, Newton Running, and Sea to Summit. Interest and participation in outdoor recreation remained strong during the recession, and the industry is expected to grow as consumer confidence and spending rebounds.

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. Tourism in Boulder County remained relatively strong through the recession and is anticipated to continue to grow as consumer spending rebounds.

continued on page 114

Around the State

continued from page 113

The La Plata County Economy

The Office of Business and Economic Research (OBER) in 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 due to impact of tourism and construction. Although winter tourism and sports are significant, most La Plata County tourism occurs during the summer. This summer concentration causes an annual July-September seasonal upswing in economic indicators, such as retail sales and employment.

The presence of major organizations such as Walmart and the Mercy Regional Medical Center in La Plata County provide some stability to the local economy, particularly in labor markets. However, while the county economy has become less volatile over the past two decades, the recession and declining student enrollment at Fort Lewis College have inhibited further growth and stability. The impact of the student population at Fort Lewis College has declined since 2002, when the student body peaked at 4,347 students. Enrollment totaled 3,856 students in fall 2011. Despite enrollment levels increasing slightly over the past three years, the consistently small student population ripples through the regional economy, according to an impact study conducted by the OBER in 2010. Fort Lewis contributes approximately $70 million to the La Plata County economy, or about 7% of total income.

Employment and Unemployment

La Plata County's not seasonally adjusted unemployment rate in September 2011 was 5.5%. This rate is still well below the not seasonally adjusted rate for Colorado (7.6%) and the nation (8.8%).

In August 2011, the La Plata County labor force 12-month moving average was 31,692, or about 4.9% higher compared to the previous year. Although labor force growth was positive in January 2011 for the first time since October 2008, the employment-population ratio in La Plata County has yet to return to pre-recession levels.

Income

Per capita income in La Plata County has improved over the last few years, both in absolute terms and relative to per capita personal income for the state as a whole. In 2010, the most recent year for which data are available, per capita income in La Plata was $40,925, the highest of the Region 9 counties. This equates to about 84% of the state average of $47,868, an increase from 70% of the state average in 2001. Additionally, while Colorado's economy has grown at an average rate of 2.3% from 2001 to 2010, La Plata County personal income has climbed an average of 4.5% over the same period. This rise in income coincides with growing diversity of producers in the region.

Despite the onset of the recession at the end of 2007, total income in La Plata continued to increase for two quarters before falling 4% below pre-recession levels by Q3 2009. Since then, La Plata County income has fully recovered and is about 1.5% above pre-recession levels in Q1 2011.

In 2010, the largest share of private income was attributed to service providers—Retail, Transportation, and Utilities—which accounted for roughly 48% of total private income in La Plata County. From 2006 through 2010, the share of each sector's total income remained relatively stable, with the exception of Natural Resources, and Education and Health Services, which gained about 2% and 1.7% of income share, respectively. The biggest loss of income share, 4%, was in Construction. Natural Resources and Construction are frequently used to gauge overall economic activity in the area.

Since 2002, Government total income growth at all levels has been steadily declining. The growth of local government income for 2010 was 4.5%, while state government growth, feeling the pinch of the recession, shrank 2.5% over the same period. Federal government income growth was a meager but positive 1.1% after two years of contraction.

Tourism

Though the La Plata economy has become more diversified, tourism continues to play a large role: retail, accommodations, and food together account for almost 18% of private income. Data through September 2011 reveal the relatively small impact the recession has had on the regional economy. Total growth of visitors to Mesa Verde National Park through September 2011 was up 3.2%. Although Mesa Verde is in Montezuma County, many of the tourists who visit the park stay in La Plata County during their time in the area. Similarly, airline enplanements were up 5.5% from the previous year. However, passengers on the Durango & Silverton Narrow Gauge Railroad fell about 6.6% over the same period. The OBER Tourism Index shows overall long-term tourism trends up about 7% from the beginning of the recession in December 2007. Finally, through Q2 2011, lodgers taxes are down about 5% but sales taxes show a 3.3% gain compared to a year ago.

Real Estate and Banking

Like many Colorado resort communities, La Plata County's economy is closely tied to real estate. The median home price in La Plata County is down approximately 9.2% year-over-year; however, total sales are up almost 70% through Q3 2011, a sign that the housing market is starting to clear as owners accept lower prices. As of Q2 2011, the La Plata County foreclosure rate has improved to 1 out of every 584 homes in foreclosure, down from 1 in 435 in Q1 2011.

The OBER tracks bank deposits at four local and regional banks. Since Q3 2009, bank deposits have been weakening. Deposits from Q2 2011 fell an average of 7.2% relative to the same period in 2010, an improvement compared to the 8.6% average decline the previous year.

Recent and Future Trends

Like the rest of the state and nation, several key trends in the La Plata economy are negative. Despite a falling unemployment rate, the labor market remains weak. Given Colorado's propensity to lag behind the rest of the country's economy, La Plata's local economy is expected to remain unsteady. Falling demand in construction and a weak real estate industry will continue to hamper the economy's potential for robust growth. Underemployment will persist as the region continues to depend largely on seasonal construction and low value-added jobs.

Furthermore, the OBER has found a close relationship between housing markets in San Diego and Durango with a one-year lag. Thus, given the recent declines in the Southern California market, performance in the value of the local housing market in La Plata is anticipated to remain sluggish as foreclosure properties continue to vex real estate values.

The decline in tax revenues seems to have abated following the recent recession, which should provide greater stability in government revenues, despite the loss of the lodgers tax. Moreover, natural gas prices have stabilized, providing more stable extraction tax revenue levels at the county level.

Mesa County

As anticipated, the economic recovery continues its slow but steady pace in Mesa County. The labor force and number of available jobs have both decreased, while the unemployment rate is the lowest since November 2009, at 8.5%. The energy industry, which remains a critical component in the Mesa County economy, has stabilized and grown with renewed interest in Western Colorado oil shale. The state college in Mesa County was renamed and received university status in 2011. Colorado Mesa University is considered a liberal arts university, offering associate's, bachelor's, and master's degrees in a variety of academic fields. Sales tax revenues continue to grow as new stores, such as American Furniture Warehouse, and returning stores, like Joann's Fabrics, are slated to open in late 2011.

Employment

The Grand Junction area labor force is still declining, from 86,122 in April 2009 to 77,432 in 2011, a loss of 10%. Mesa County continued to see a drop in the unemployment rate over the course of 2011. The highest level of unemployment, 11.9%, was in January 2011. The county's unemployment rate is still higher than the state's.

Wages

While average wages fell 1.2% from 2009 to 2010 in Mesa County, average wages rose 3.4% year-over-year in Q1 2011, which is positive news for the community. This is the third-consecutive year-over-year increase in the county.

continued on page 116

Around the State

continued from page 115

GDP

The real GDP numbers released by the Bureau of Economic Analysis for 2010 show a decrease for Mesa County of 3.3% year-over-year and 9.3% from 2008. Mining was one of the few sectors that showed measureable improvement in 2010, while most sectors remained flat. The largest declines came from Construction, Wholesale Trade, and Finance and Insurance. The 2011 numbers for Mesa County were not available at the time this report was written (late 2011); however, with unemployment down, wages up, and new businesses arriving, it is looking like the Grand Junction area's GDP may increase in 2011.

Energy

The exploration and production of natural gas and oil continues to play a large role in the Mesa County economy. To keep up with the expanding oil and gas exploration and production, some local companies, like Frank Henry Equipment, announced expansions in the county in 2011. These will add new jobs and capital investment to the economy. According to the Colorado Oil & Gas Association, oil and gas companies contributed nearly $1.7 million in severance taxes to Mesa County in 2011, nearly doubling the $941,000 received in 2010.

Real Estate

Over the last three years, home prices in Mesa County have decreased from $227,500 in Q2 2008 to the current average home price of $156,000 in Q2 2011. Although the price of homes has continued to fall, the number of foreclosure filings has slowed from 2010. According to Advanced Title Company, the monthly average for foreclosure filings in 2010 was 132, compared to only 87 in 2011—a 34% decline.

Taxes

Sales tax revenue continues to climb from the low in January 2010. Overall tax collections in Grand Junction are up 9.4%, with the city collecting a little over $32 million through August 2011. The opening of several retail businesses partially contributed to the uptick in tax collection.

Tourism

Tourism has a large economic impact on Mesa County. Lodging tax revenue in Grand Junction is down 3% through August 2011 compared to 6.9% in 2010. That may be the only glimmer of good news in tourism in the area. Occupancy rates are down from 78.2% in September 2010 to 72% in 2011, and the average price of a room has also dropped 5%, from $89.00 in 2010 to $84.72 in 2011.

Summary

Mesa County continues to grow and change along with the state, national, and global economies. Since the county was late to enter the recession, it is still regaining ground lost over the past years. Areas of optimism are those that have seen growth in 2011, including the average wage, some areas of GDP, and the energy industry.

Northern Colorado

Northern Colorado's economic recovery is underway. Not well underway, mind you, but underway.

Through Q3 2011, Larimer and Weld counties added more than 3,000 jobs from the previous year. This 1.4% growth was half a percentage point higher than the state's rate over the same time period.

Despite the improvement, the region's economy is still well below where it was three years ago. Larimer County has 1,400 fewer jobs than during the same period in 2008, and Weld County is down nearly 4,800 jobs. Clearly, the region still needs substantial job creation to bring unemployment rates back to pre-recessionary levels.

Recent growth in Larimer County has occurred primarily in Professional and Business Services, which added more than 1,400 jobs over the past year. Much of this has been in the temporary staffing agencies, which are expanding as businesses respond to increasing short-term demand. The Education and Health Services Sector is also experiencing continued strength, with more than 600 jobs added over the past 12 months.

Weld County's growth has been driven primarily by expansion in the oil and gas industry. Over the past 12 months the county's Mining and Logging, and Construction sectors added over 1,200 jobs, an increase of more than 13% over 12 months. Despite recent gains, however, the sector is still down more than 1,700 jobs over the past three years. Most of these losses are in the Construction Sector, which lost 1,600 jobs between Q3 2008 and 2009.

Although both counties have strong pockets of growth, most industries remain in a holding pattern. The days of significant industry job losses seem past for the time being, but few sectors beyond those mentioned are expanding. Thus, the broad-based recovery that is needed is still elusive.

Especially troubling is that the Construction industry, and its allied sectors, continue to struggle. In Weld County, single-family building permits through September 2011 totaled 578, down more than 100 from 12 months earlier and a loss of 62% from 2007. In contrast, Larimer County has seen an uptick in new single-family starts, registering 563 through September. This is an increase of more than 200 from 12 months earlier, but still about half of the county's 2007 totals.

Notable growth has occurred in Larimer County in the number of permits authorized for 5+ unit structures. Through September 2011, a total of 28 such structures have been authorized, a gain from 25 in 2010 and 18 in 2006. Local analysts attribute this to low vacancy rates, especially in Loveland and Fort Collins.

Despite the modest uptick in the regional market, housing prices are still dropping. While the popping of the housing bubble was not as cataclysmic in the region as it was elsewhere, the market remains flat, providing builders with few strong signals about a turnaround. Until the housing market recovery begins in earnest, a significant amount of regional skills and talent will remain underutilized, and the economy will remain well below its potential.

While national reports still talk about poor consumer confidence, the regional retail market suggests that the shoppers have come back, somewhat. Through September 2011, Greeley and Loveland both show higher sales and use tax revenues compared to the previous year. In Greeley, such collections are up 8.1%, while in Loveland they climbed 5.1%. Fort Collins, which increased its sales tax rate in January, has seen 5.2% growth in taxable sales.

The region's Manufacturing Sector provides another reason for subdued celebration. Although job change over the past 12 months has been flat, several projects, including the Leprino Cheese Plant in Greeley, could add several hundred new jobs in the region in 2012.

Northern Colorado is expected to continue its sluggish economic recovery in 2012. Job creation should pick up in both counties, and it is predicted that Larimer County will achieve employment levels above its pre-recessionary height. However, the county's unemployment rate will still remain relatively high as job creation will barely keep pace with labor force growth. Still, the county is expected to significantly outperform the nation in 2012.

Weld County is a tougher call. Overall, the county is in a deep jobs hole and needs substantial job creation to make a significant dent in unemployment. The Oil and Gas, Agriculture, and Manufacturing sectors show promise, and could spark a meaningful recovery. However, the housing market remains in flux, and a sustainable economic recovery in the county depends largely on that market showing strong improvement.

Pueblo County

Of the 14 Colorado planning and management regions, Region 7 is the only one that consists of a single entity, Pueblo County. With a land area of 2,400 square miles, Pueblo County ranks 13th-largest of Colorado's 64 counties. Of the planning and management regions, it is the smallest in geographic size. In terms of total population, Region 7 is 5th-largest of the 14 regions, according to the 2010 census. The 2000 census recorded 141,472 Pueblo County residents. Since then, it has seen moderate population growth, with a 2010 census population count of 159,063. Its 2000-2010 compounded annual population growth rate of 1.2% makes it the 8th-fastest growing of the state's regions.

Job Trends

On the basis of August 2011 data, Pueblo's seasonally adjusted unemployment rate was 10.3%. This compares to 10.5% and 9.4% in August 2010 and August 2009, respectively. The rate has been relatively flat for the past 18 months, ranging from 10.1% to 10.9%. Seasonally adjusted employment for August 2011 totaled 68,044 jobs, an increase of 1.8% over the 66,046 recorded in August 2010. During the August 2009-August 2010 interval, employment decreased at a rate of 1.3%.

Examining the trends of job growth by business sector seems to reveal accelerated growth during the past year. Professional and Business Services, Education and Health Services, Manufacturing, and Construction led the field in the number of

continued on page 118

Around the State

continued from page 117

jobs gained from August 2010 to August 2011, with 500, 400, 400, and 300 jobs added, respectively. No sector experienced job declines of more than 100 jobs during this time period.

Contrast this with August 2009-August 2010. The Education and Health Services Sector recorded the largest employment gain, 400 jobs. Construction showed the greatest decrease, 300 jobs. Construction job losses during 2009 were due primarily to the contraction of the Pueblo housing market. The increase in Construction jobs during 2010 was primarily a result of increased commercial activity, continuing work at the Black Hills Energy power plant located northeast of the City of Pueblo, and hiring associated with the mustard agent weapons disposal taking place at the Pueblo Chemical Depot. Job gains in the Education and Health Services Sector were largely a result of recent hiring at Pueblo's two regional hospitals. Recent manufacturing job gains can be accounted for by hiring at the Vestas wind tower facility, located southeast of the City of Pueblo. The $250 million facility manufactures the tower sections for wind turbines. It is the largest facility of its kind in the world and has the capacity to manufacture 1,000 towers annually.

Housing

Pueblo's housing market has registered a disappointing performance during 2011. During the first eight months of the year, new single-family dwelling permits stood at 90, compared to 153 for the same period of 2010—a 41.2% decrease. The market for sales of existing homes remains stagnant. Data compiled by the Pueblo Association of Realtors reveal that in August 2011, a total of 156 homes were sold, representing a value of $19.3 million. For August 2010, home sales also registered 156; however, the value of homes sold was $20.2 million.

The disparity in Pueblo incomes relative to the state is somewhat compensated for by the low cost of housing in the region. The 2010 median sales price for existing Pueblo single-family homes, $113,000, was 56% of the Colorado figure. Apartment rents are similarly low, with an overall median of $495, according to the Colorado Division of Housing's multifamily vacancy survey for the first quarter of 2011. For Q1 2010, the median value was $488. A decrease in the vacancy rate for apartments from 12% to 7% has resulted in a slight upward pressure on rental rates. Pueblo's 2010 median household income value of $38,326 was only 71% of the Colorado figure of $54,046. Pueblo's rate of home ownership is 67.1% of all occupied units according to the census. However, the housing stock is showing its age. A comparison of American Community Survey three-year data for 2007-2009 reveals that units built prior to 1940 comprise 17.7% of all units—twice the Colorado figure (9%). Perhaps the best bit of good news related to Pueblo's housing market is the substantial reduction in home mortgage foreclosure filings. Pueblo County Public Trustee data indicate a 14.8% drop in the number of Q2 filings for 2011 compared to 2010.

Pueblo's Neighborhoods

One of the more unpleasant by-products of stagnant economic growth is the effect it has on a community's neighborhoods. In a time of economic uncertainty, homeowners are reluctant to invest money in improving or maintaining their homes. Needed repairs are not made; yards are not maintained; the overall value of the property declines; and when the home is sold, the value the owner receives is less than it otherwise might have been. In an effort to reverse this trend, the City of Pueblo Department of Planning and Development has conducted a housing survey of Pueblo's Eastside neighborhood in order to identify properties with historic significance. The State of Colorado Certified Local Government grant-funded survey identified 45 residences within the area, which, due to their historic significance, may be eligible for state or national tax credits.

Other Developments

A perusal of historic population data in conjunction with recently released 2010 census figures reveal some interesting trends. In 1970, Pueblo County's population numbered 118,238 residents compared to 123,051 inhabitants in 1990. Population growth over the 20-year period was only 4.1%. In terms of compounded annual growth, this is only 0.2% per year. From 1990 to 2010, the picture was markedly different. The population recorded in 2010 was 159,063 residents. Compared to 1990, this accounts for a numeric increase of 36,012 residents, or a 29.3% gain in population over the 20-year period. In terms of compounded annual growth, this translates to 1.3% per year. The acceleration of long-term population growth can probably be accounted for by the success of Pueblo's economic development efforts in attracting new businesses to the area. Another component of growth, however, is the community of Pueblo West, located approximately five miles northwest of the City of Pueblo. Pueblo West, founded in 1969, is now the second-largest community in Pueblo County. Its 2010 population of 29,637 inhabitants is 18.6% of the total county's population. From 1980 to 1990, its population grew from 2,618 to 4,386 residents. By 2000, 16,899 persons were residents of Pueblo West. According to 2007-2009 data from the Census Bureau's American Community Survey, the community accounts for 22% of Pueblo County's aggregate personal income of $3.3 billion.

The 2010 census numbers reveal that the Hispanic population within the City of Pueblo accounts for 49.8% of the city's total population of 106,595 residents. The non-Hispanic White population (the second-largest group) represents 45.2% of City of Pueblo population. In 2000, Hispanics accounted for 44.1% of City of Pueblo population. The City of Pueblo's 53,098 Hispanics are now the majority. Of the 10-largest Colorado communities with a population over 100,000, the City of Pueblo has the highest concentration of Hispanics.

The Southern Colorado Economy

During 2010-11, the world's economy was influenced strongly by political and economic conditions that contributed to uncertainty, high oil prices, and political upheaval. The entire Middle East seemed to undergo a revolution in 2011. Governments were overthrown in Egypt, Libya, and Tunisia. Protests and armed conflicts took place, and in some cases are continuing, in Iran, Afghanistan, Bahrain, Yemen, Algeria, Syria, Jordan, and Saudi Arabia. Uncertainty in the Middle East and the global economy in spring 2011 helped push the West Texas Intermediate oil price from $84.45 a barrel in January to $112.27 in April. By August, evidence of a slowing global economy helped lower it to $86.65.

Japan experienced a crippling earthquake and tsunami that killed tens of thousands and displaced hundreds of thousands. The global supply chain was disrupted for months.

Greece, Ireland, and Portugal were bailed out of their fiscal problems by members of the European Community. The problems in Greece are creating global market turmoil. Italy is attempting to deal with its fiscal problems. Spain's sovereign debt was downgraded. The ability of the European Community to absorb the collective debt burden is in doubt. Basel III called for banks to bolster reserves and capital structure beyond their financial capabilities.

Although U.S. banks appear to be better off than they were in 2008, they are exposed to European sovereign and other debt. The Dodd-Frank Bill mandates significant restructuring of domestic banking practice, and creates new and onerous regulation and associated costs. The Budget Control Act requires the U.S. government to reduce its deficit growth by $2.5 trillion from 2011 to 2012. Domestic GDP was revised downward in Q1 and Q2 2011. The Reuters/University of Michigan overall index on consumer sentiment declined to 63.7. This low reading has occurred only two other times: late fall 2008 and spring/summer 1982. Consumers are likely to cut back on their expenditures and increase their savings for what appears to be the coming of a rainy day. This often means the economy will slow and unemployment will rise.

As of June 2011, the seasonally adjusted unemployment rate for El Paso County was 9.5%. Approximately 25,433 fewer people were employed in the county as of June 2011 than in June 2007. During this period, population increased by 46,071. The normal labor force participation rate suggests the labor force should be 318,754. Currently, it totals 294,797 people. This means about 24,000 discouraged workers have dropped out of the labor force. Allowing for these workers, the local unemployment rate could conceivably be closer to 15.5% compared to the current seasonally adjusted rate of 9.6%.

Locally, sales tax collections and other local government receipts are recovering slowly. The Lodger's and Auto Rental Tax (LART) receipts for 2011 are expected to total $3.9 million versus $4.2 million in 2007, the peak collection year. Sales and

continued on page 120

Around the State

continued from page 119

use taxes in Colorado Springs are anticipated to come in at $118.5 million in 2011. This would be a 2.5% gain over 2010, but still below 2007 receipts. The slowing economy and probable cuts in expenditures by the federal government suggest that 2012 will be accompanied by declining tourism, a small increase in sales and use tax receipts, and a potential decrease in defense industry spending in the region.

In 2010, GDP grew 4.5% for the metropolitan statistical area, and total personal income increased 4.6% in El Paso County. Private-sector personal income rose 0.7%, while personal income for those in the military climbed 16.1%. The military's presence is the primary reason the county's income grew in 2010.

The local economy is expected to see decreased federal expenditures in the coming years. The Budget Control Act of 2011 will result in reduced federal expenditures beginning in 2012. This is anticipated to result in lower local expenditures for military and federal civilian employees, which will slow the local economy, independent of concerns about the national economy. Efforts to grow the private sector must be more aggressive and innovative.

Employment and Unemployment

The El Paso County private-sector employment figures from the Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages (QCEW) decreased by 0.9%, or by 2,163 jobs, in 2010. This comes on top of losses of 10,507 jobs and 2,216 jobs in 2009 and 2008, respectively. Five sectors saw job gains in 2010: Healthcare (839), Education Services (391), Retail (297), Government (292), and Administration and Waste Services (263). Job losses were more common than job gains. Twelve of the 21 NAICS sectors reported job losses. Sectors that shed jobs in 2010 are: Construction (-1,514 jobs), Manufacturing (-863 jobs), Professional and Technical Services (-659 jobs), and Wholesale (-499 jobs). The remaining 8 sectors had smaller losses.

Echoing the very weak job market is an unemployment rate that has averaged 9.4% since January 2009. The seasonally adjusted unemployment rate hit 10% in November 2010. Since then, it has declined, to 9.5%. However, this is misleading. If discouraged workers are included, the unemployment rate in El Paso County would be close to 15.5%. If not for the build-up of the military, especially at Fort Carson, an additional 10,000 people could very well be unemployed.

Wages and Income

Well-paid Manufacturing and Information Technology jobs continue to be replaced with lower economic multiplier jobs in the service sector. These jobs tend to be more stable but pay lower wages than the jobs that were lost. The net effect is that the employment base is less susceptible to business cycle swings but wages are lower.

The average wage in El Paso County increased in 2010, to $42,989. This is 1.9% above the 2009 average wage of $42,189. By comparison, the average wage in Colorado climbed 2.1% in 2010, to $47,864. El Paso County's average wage is now 10.2% below the state average. The need for more high-income, high-multiplier primary jobs is apparent. Higher income has been linked to higher standards of living, better quality of life, lower crime, better educational attainment, better coverage of medical insurance, and improved life expectancy.

Retail and Wholesale

El Paso County retail sales totaled $12.8 billion in 2010, a decline of $70 million year-over-year. Colorado Springs continued to lose share in sales tax collections compared to the rest of El Paso County in 2010. Ten years ago, the city captured 91.7% of taxable retail sales. As of 2010, its share of taxable retail sales had fallen to 86.1%, a decline of 5.6 percentage points from 2000 and 0.3% from 2009.

Wholesale sales in Colorado decreased 8.7% in 2010 versus a 3.4% decline in wholesale sales in El Paso County during 2010. The "better" wholesale activity in El Paso County might be due to losses of manufacturers and wholesalers in prior years rather than a better business climate.

Housing Construction and Commercial Activity

A total of 1,627 permits for new, single-family homes and townhomes was recorded in 2010—a gain of 24.5% from 2009. This marked the first yearly increase since 2005. The growth was, to some extent, influenced by the first-time and trade-up home buyer tax credit programs in 2010. Average permit value decreased by 3.2%, from $342,485 in 2009 to $331,446 in 2010.

Townhome construction rose to 222 in 2010 from 201 permits in 2009, a 10.5% gain. Average permit value increased 3.9%, from $172,355 in 2009 to $179,011 in 2010.

As expected, new arrivals at Fort Carson boosted population growth and the demand for multifamily housing in 2010. Vacancy rates dropped, from 9.7% in 2009 to 6.6% in 2010. Rents increased an average of $20 a month, or 2.8%, from $704 to $724.

The lower vacancy rates and higher rents helped stimulate very modest multifamily construction in 2010. Permits for 88 units were taken in 2010 compared to 30 units in 2009. Permits for 232 multifamily units have been taken through June 2011. Permits for a 177-unit luxury complex were recently pulled for a development in Monument.

An uptick in multifamily permit activity is forecast—an increase of 550 units in 2011 and 500 units the following year.

Commercial construction value decreased in 2010 to $74.8 million, a decline of $207.2 million (73.5%) from 2009. Current activity in nonresidential construction suggests 2011 will finish with about $140 million of new commercial construction. Existing vacancy rates in all areas of commercial properties and the sluggish economy may imply that nonresidential construction will change very little in 2012.

Where Is the Southern Colorado Economy Heading?

The Southern Colorado economy is expected to grow slowly over 2012—if it grows at all. Metropolitan GDP is expected to increase by less than 1%. Global uncertainty, particularly in Europe, continues to weigh down the national and local economy. Consumer sentiment remains low, and people are cautious. Uncertainty over a longer term resolution to the federal government's budget creates another level of uncertainty in Southern Colorado that could play out unfavorably. Housing and nonresidential construction will remain anemic. This, combined with the global and national uncertainties, leads to a forecast of a drop in nonagricultural employment of 0.5% in El Paso County in 2012. The unemployment rate is expected to remain high, at 9.4%, in 2012. Wages and salaries and personal income will grow slightly. Retail trade is expected to increase a modest 1.5%.

Steering Committee

Mr. Tim Burleigh
Colorado Department of Agriculture
Special Projects
303-356-1889
tim.burleigh@ag.state.co.us

Dr. Jim Burnell
Colorado Geological Survey
Minerals Geologist
303-866-2611 x 8311
jim.burnell@state.co.us

Dr. Steve Fisher
Economist
303-499-7875
stevefisher2995@msn.com

Ms. Elizabeth Garner
Colorado Department of Local Affairs
Division of Local Government
State Demographer
303-866-3096
elizabeth.garner@state.co.us

Mr. Mark Hamouz, P.E.
LONCO, Inc.
Principal
303-620-0098
mhamouz@lonco.com

Mr. Brian Lewandowski
University of Colorado Boulder
Business Research Division
Research Analyst
303-492-3307
brian.lewandowski@colorado.edu

Mr. Tom Lipetzky
Colorado Department of Agriculture
Director, Markets Division
303-239-4128
tom.lipetzky@ag.state.co.us

Ms. Donna Marshall
Colorado Business Group on Health
Executive Director
303-922-0939
donna.marshall@cbghealth.org

Dr. Vince Matthews
Colorado Geological Survey
State Geologist and Director
303-866-2611 x 8340
vince.matthews@state.co.us

Ms. Sandi Moilanen
Colorado Office of Economic Development and International Trade
Global Business Associate Division Director
303-892-3857
sandi.moilanen@state.co.us

Mr. Richard Morgan
Mutual of Omaha Bank
Senior Vice President
303-320-3151
richard.morgan@mutualofomahabank.com

Mr. Penn Pfiffner
Construction Economics, LLC
Consulting Economist
303-233-7731
penn@constecon.com

Mr. Tim Sheesley
Xcel Energy
Chief Economist
303-294-2662
tim.sheesley@xcelenergy.com

Ms. Patty Silverstein
Development Research Partners
President
303-991-0073
patty@developmentresearch.net

Ms. Lisa Strunk
Development Research Partners
Research Economist
303-991-0075
lisa@developmentresearch.net

Mr. Joseph Winter
Colorado Department of Labor and Employment
Labor Market Information
Program Manager CES/LAUS
303-318-8857
joseph.winter@state.co.us

Dr. Richard Wobbekind
Executive Director
University of Colorado Boulder
Leeds School of Business
Business Research Division
303-492-1147
richard.wobbekind@colorado.edu

Estimating Groups

Agriculture

Mr. Tim Burleigh (Co-Chair)
Colorado Department of Agriculture
Special Projects
303-356-1889
tim.burleigh@ag.state.co.us

Mr. Tom Lipetzky (Co-Chair)
Colorado Department of Agriculture
Director, Markets Division
303-239-4128
tom.lipetzky@ag.state.co.us

Mr. Darrell Hanavan
Colorado Wheat Administrative Committee
Executive Director
970-449-6994
dhanavan@coloradowheat.org

Ms. Trudy Kareus
USDA Colorado Farm Service Agency
State Executive Director
720-544-2876
trudy.kareus@co.usda.gov

Ms. Maren Kempton
USDA - NASS CO Field Office
Agricultural Statistician
303-236-2300
maren_kempton@nass.usda.gov

Dr. Steve Koontz
Colorado State University
Agriculture & Resource Economics
Associate Professor
970-491-7032
stephen.koontz@colostate.edu

Ms. Katelyn McCullock
LMIC
Dairy Economist
303-236-0460
katelyn.mccullock@lmic.info

Mr. Bill Meyer
USDA - NASS CO Field Office
Director
303-236-2300
bill_meyer@nass.usda.gov

Mr. Rodger Ott
USDA - NASS CO Field Office
Deputy Director
303-236-2300
rodger_ott@nass.usda.gov

Jim Robb
LMIC
Director
303-236-0460
james.robb@lmic.info

Ms. Erica Rosa-Sanko
LMIC
Agricultural Economist
303-236-0460
erica.rosa-sanko@lmic.info

Tom Vessey
USDA - NASS CO Field Office
Agricultural Statistician
303-236-2300
tom_vessey@nass.usda.gov

Around the State

Dr. Fred Crowley
University of Colorado at Colorado Springs
College of Business and Administration
Senior Economist and Senior Instructor
719-255-3531
fcrowley@uccs.edu

Ms. Kelly Flenniken
Grand Junction Economic Partnership
Executive Director
970-245-4332
kelly@gjep.org

Ms. Jennifer Pinsonneault
Boulder Economic Council
Director of Research & Marketing
303-938-2081
jennifer@bouldereconomiccouncil.org

Dr. Martin Shields
Colorado State University
Director, Regional Economics Institute
Professor of Economics
970-491-2922
martin.shields@colostate.edu

Dr. Robert Sonora
Fort Lewis College
Office of Business and Economic Research, School of Business Administration
Director
970-247-7296
sonora_t@fortlewis.edu

Mr. Don R. Vest
Pueblo MPO/TPR
Urban Transportation Planning Division
719-553-2947
dvest@pueblo.us

Dr. Tom Zwirlein
University of Colorado at Colorado Springs
College of Business and Administration
Professor of Finance and Faculty Director of the Southern Colorado Economic Forum
719-255-3241
tzwirlei@uccs.edu

Construction

Mr. Penn Pfiffner (Chair)
Construction Economics, LLC
Consulting Economist
303-233-7731
penn@constecon.com

Mr. James Conner
U.S. Department of Housing and Urban Development
Economist
303-672-5005
james.h.conner@hud.gov

Mr. Gary D. Meggison
The Weitz Company
Senior Vice President
303-860-6639
gary.meggison@weitz.com

Mr. Jim Moody
Colorado Contractors Association
Director of Owner-Agency Relations
303-290-6611
jmoody@ccainfo.org

Mr. Tom Peterson
Colorado Asphalt Pavement Association
Executive Director
303-741-6150
tompeterson@co-asphalt.com

Mr. Michael Rinner, MAI
Grubb & Ellis Landauer
VP, Consulting and Valuation
303-572-5512
mike.rinner@grubb-ellis.com

Mr. Mark Shaw
McGraw Hill Construction
Senior Managing Editor
303-584-6725
mark_shaw@mcgraw-hill.com

Education and Health Services

Ms. Donna Marshall (Chair)
Colorado Business Group on Health
Executive Director
303-922-0939
donna.marshall@cbghealth.org

Dr. Michele Almendarez
Kaiser Foundation Health Plan – Colorado
Director, Strategic Planning
303-344-7348
michele.almendarez@kp.org

Mr. Scott Anderson
Colorado Hospital Association
Vice President, Professional Activities
720-330-6028
scott.anderson@cha.com

Ms. Amy Downs
Colorado Health Institute
Senior Director for Policy and Analysis
720-382-7091
downsa@coloradohealthinstitute.org

Mr. Brian Kelley
Colorado Center for Nursing Excellence
Director of Development
303-715-0393
bkelley@coloradonursingcenter.org

Ms. Michele Lueck
Colorado Health Institute
President and CEO
720-382-7073
lueckm@coloradohealthinstitute.org

Ms. Marcia Morgan
Knowledge Factor, Inc.
Director of Channel Development
720-214-9950
mmorgan@knowledgefactor.com

Dr. Richard Thompson
Jones International University
Dean, Academic Affairs and School of Business
800-811-5663 x 8479
rthompson@international.edu

Finance

Mr. Richard Morgan (Chair)
Mutual of Omaha Bank
Senior Vice President
303-320-3151
richard.morgan@mutualofomahabank.com

Mr. Gerry Agnes
Elevations Credit Union
President, CEO
303-402-5443
gerry.agnes@elevationscu.com

Mr. Joseph Hubbard, CPA CFP
Keystone Capital Advisors
Director
720-530-7632
jhubbard@ffec.com

Mr. Ron New
Stifel, Nicolaus & Company Inc.
Institutional Fixed Income
Vice President
303-291-5291
rnew@stifel.com

Mr. Rick Ninneman
Poms & Associates
Regional Director
720-458-8906
rninneman@pomsassoc.com

Ms. Jessica Morgan Ostermick
OZ Architecture
Business Development Director
720-838-9008
jostermick@ozarch.com

Mr. Steve Travers
The Kentwood Company
Broker Associate
303-773-3399
stravers@frii.com

Government

Ms. Lisa Strunk (Chair)
Development Research Partners
Research Economist
303-991-0075
lisa@developmentresearch.net

Mr. Zak Brewer
Governor's Office of State Planning & Budgeting
Economist
303-866-2972
zak.brewer@state.co.us

Mr. Justin Derdowski
Governor's Office of State Planning & Budgeting
Economist
303-866-4267
justin.derdowski@state.co.us

Mr. Bob Eichem
City of Boulder
Chief Financial Officer
303-441-1819
eichemb@bouldercolorado.gov

Ms. Fiona Sigalla
Colorado Department of Regulatory Agency
Public Utilities Commission
Economist
303-894-2729
fiona.sigalla@dora.state.co.us

Ms. Aisha Yededji
Colorado Department of Revenue
303-866-3664
ayededji@spike.dor.state.co.us

Information

Mr. Brian Lewandowski (Chair)
University of Colorado Boulder
Business Research Division
Research Analyst
303-492-3307
brian.lewandowski@colorado.edu

Ms. Sarah Behunek
University of Colorado Boulder
Leeds School of Business
Alumni and Communications Director
303-735-6405
sarah.behunek@colorado.edu

Ms. Rachel Ford
Student Research Assistant
University of Colorado Boulder
Leeds School of Business
Business Research Division
rachel.ford@colorado.edu

Mr. Ryan Martens
Rally Software
Chief Technology Officer
303-565-2800
ryan.martens@rallydev.com

Ms. Natalie Mullis
Colorado Legislative Council
Chief Economist
303-866-4778
natalie.mullis@state.co.us

Mr. Donald Zuckerman
Colorado Office of Film Television & Media
Director
303-592-4075
donald.zuckerman@state.co.us

International Trade

Ms. Sandi Moilanen (Chair)
Colorado Office of Economic Development and International Trade
Global Business Associate Division Director
303-892-3857
sandi.moilanen@state.co.us

Ms. Karen de Bartolomé
Institute of International Education
Rocky Mountain Regional Center
Director
303-837-0788 x 14
kdebartolome@iie.org

Mr. Thomas Binet
Colorado Office of Economic Development and International Trade
Trade and Investment Director, Asia Pacific
303-892-3850
thomas.binet@state.co.us

Mr. Paul Bergman, Jr.
U.S. Department of Commerce
U.S. Export Assistance Center
Director, Colorado & Wyoming
303-844-6001 ext. 222
paul.bergman@trade.gov

Ms. Stephanie Dybsky
Colorado Office of Economic Development and International Trade
Trade & Investment Director EMEA
303-892-3850
stephanie.dybsky@state.co.us

Mr. Jorge Diaz
Colorado Office of Economic Development and International Trade
Program Administrator
303-892-3850
jorge.diaz@state.co.us

Ms. Stephanie Garnica
Colorado Office of Economic Development and International Trade
Director, Trade & Investment for the Americas
303-892-3891
stephanie.garnica@state.co.us

Ms. Karen Gerwitz
World Trade Center Denver
Executive Director
303-592-5760
karen@wtcdenver.com

Mr. Tim Larsen
Colorado Department of Agriculture
Markets Division
Senior International Marketing Specialist
303-239-4118
tim.larsen@ag.state.co.us

Ms. Kate Watkins
Colorado Legislative Council
Economist
303-866-6289
kate.watkins@state.co.us

Leisure and Hospitality

Mr. Al White
Colorado Office of Economic Development and International Trade
Director, Colorado Tourism Office
303-892-3885
al.white@state.co.us

Ms. Lynn Bishop
Colorado Restaurant Association
Communications Manager
303-830-2972 x 117
lbishop@coloradorestaurant.com

Dr. Charles Goeldner
University of Colorado Boulder
Leeds School of Business
Professor Emeritus of Marketing and Tourism
303-492-2553
charles.goeldner@colorado.edu

Mr. Stephen R. Hennis
STR Analytics
Director
303-396-1642
shennis@stranalytics.com

Mr. Bill Hopping
W.R. Hopping & Company
President
303-798-4045
bill@hoppingcompany.com

Mr. Rob Perlman
Winter Park Resort and Steamboat Ski & Resort Corp.
Senior Vice President of Sales and Marketing
970-871-5459
rperlman@skiwinterpark.com

Ms. Lois A. Rice, CAE
Colorado Gaming Association
Executive Director
303-237-5480
cologaming@gmail.com

Mr. Richard W. Scharf
VISIT DENVER
President and CEO
303-571-9415
rscharf@visitdenver.com

Manufacturing

Ms. Patty Silverstein (Chair)
Development Research Partners
President
303-991-0073
patty@developmentresearch.net

Mr. Sam Bailey
Colorado Office of Economic Development and International Trade
Global Business Development Specialist
303-892-3725
sam.bailey@state.co.us

Ms. Michelle Claymore, CEcD
Jefferson County Economic Development Corporation
Vice President
720-544-5503
mclaymore@jeffcoedc.org

Dr. Fred Crowley
University of Colorado at Colorado Springs
College of Business and Administration
Senior Economist and Senior Instructor
719-255-3531
fcrowley@uccs.edu

Mr. David Hansen
Development Research Partners
Research Economist
303-991-0072
david@developmentresearch.net

Ms. Sue Piatt
Colorado Office of Economic Development & International Trade
Research Manager
303-892-3840
sue.piatt@state.co.us

Ms. Christine Richards
Colorado Association for Manufacturing and Technology (CAMT)
Economic Consultant
720-363-6531
hchristine1980@hotmail.com

Mr. Jason Schrock
Governor's Office of State Planning & Budgeting
Chief Economist
303-866-3174
jason.schrock@state.co.us

Dr. Tom Zwirlein
University of Colorado Colorado Springs
College of Business and Administration
Professor of Finance and Faculty Director of the Southern Colorado Economic Forum
719-255-3241
tzwirlei@uccs.edu

Mining and Logging

Dr. Jim Burnell (Co-Chair)
Colorado Geological Survey
Minerals Geologist
303-866-2611 x 8311
jim.burnell@state.co.us

Dr. Vince Matthews (Co-Chair)
Colorado Geological Survey
State Geologist and Director
303-866-2611 x 8340
vince.matthews@state.co.us

Mr. Bob Burnham
Wood Mackenzie, Inc.
Senior Analyst
303-425-5025
bob.burnham@woodmac.com

Mr. Chris Carroll
Colorado Geological Survey
Coal Geologist
303-866-2611 x 8312
chris.carroll@state.co.us

Mr. Chris Eisinger
Colorado Geological Survey
Senior Oil & Gas Geologist
303-866-2611 x 8323
chris.eisinger@state.co.us

Mr. Stuart Sanderson
Colorado Mining Association
President
303-575-9199
ssanderson@coloradomining.org

Mr. John Tobin
Energy Literacy Project
Executive Director
303-674-7083
jtobin3es@gmail.com

Population

Ms. Elizabeth Garner (Co-Chair)
Colorado Department of Local Affairs
Division of Local Government
State Demographer
303-866-3096
elizabeth.garner@state.co.us

Mr. Joseph Winter (Co-Chair)
Colorado Department of Labor and Employment
Labor Market Information
Program Manager CES/LAUS
303-318-8857
joseph.winter@state.co.us

Mr. Chris Akers
Colorado Department of Labor and Employment
Labor Market Information
303-318-8856
chris.akers@state.co.us

Ms. Cindy DeGroen
Colorado Department of Local Affairs
Division of Local Government
Projections Demographer
303-866-3004
cindy.degroen@state.co.us

Professional and Business Services

Dr. Steve Fisher(Co-Chair)
Economist
303-499-7875
stevefisher2995@msn.com

Mr. Mark Hamouz, P.E. (Co-Chair)
LONCO, Inc.
Principal
303-620-0098
mhamouz@lonco.com

Mr. Dan Powers
Western Disposal Services
Community Relations Coordinator
303-448-2355
dpowers@westerndisposal.com

Dr. Phyllis Resnick
R Squared Analysis, LLC
Managing Director
303-554-9292
r2analysis@comcast.net

Ms. Lisa Shade
Northrop-Grumman Corporation
Electronic Systems
720-308-6546
coloradoshade@yahoo.com

Trade, Transportation, and Utilities

Mr. Tim Sheesley (Chair)
Xcel Energy
Chief Economist
303-294-2662
tim.sheesley@xcelenergy.com

Mr. Ryan Brandle
Colorado Legislative Council
Economist, Legislative Council
303-866-4105
ryan.brendle@state.co.us

Mr. John Ferguson
Excel Consulting, Inc.
Managing Principal
303-410-9775
jfergie01@comcast.net

Mr. Gregory Fulton
Colorado Motor Carriers Association
President
303-433-3375
greg@cmca.com

Ms. Laura Jackson
Denver International Airport
Senior Director, Research and Market Intelligence
303-342-2282
laura.jackson@flydenver.com

Mr. Bill Kendall
303-472-7835
bill@cbef-colorado.com

Ms. Michelle Moorman
Summit Utilities, Inc.
Manager of Regulatory Affairs
720-981-2127
mmoorman@summitutilitiesinc.com

Other Services

Mr. Brian Lewandowski
University of Colorado Boulder
Business Research Division
Research Analyst
303-492-3307
brian.lewandowski@colorado.edu

Mr. Ryan Streit
Student Research Assistant
University of Colorado Boulder
Leeds School of Business
Business Research Division
ryan.streit@colorado.edu

Mr. Cody Amen
Student Research Assistant
University of Colorado Boulder
Leeds School of Business
Business Research Division
cody.amen@colorado.edu

University of Colorado
Boulder