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**Compass  
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University of Colorado at Boulder   
**Colorado  
LEEDS**  
School of Business  
BUSINESS RESEARCH DIVISION

**FORTY-FIRST ANNUAL**

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# **COLORADO**

# **BUSINESS ECONOMIC OUTLOOK**

# **2006**

**Sponsored by the University of Colorado at Boulder, Leeds School of Business,  
and Compass Bank**



**Compass  
Bank**



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## Preface

The annual *Colorado Business Economic Outlook* is one tool we provide to policymakers to help them focus attention on the changing structure of the state's economy, both past and present. This forecast projects employment and major economic indicators for the coming year.



In addition, we compile the quarterly Business Leader's Confidence Index and publish the *Colorado Business Review* as ways for business and government leaders to stay up to date with relevant, understandable information concerning Colorado's economic future. At the Leeds School, it is our goal to advance sound economic development decisions by policymakers throughout the state.

The information presented at the Forty-first Annual Outlook Forum in Denver and the other forecast presentations throughout the state is reported with greater detail in this publication. It presents as complete and knowledgeable a forecast of the 2006 Colorado economy as possible, given our publishing deadline.

We are extremely pleased to work with concerned and committed individuals from Colorado business, education, and government organizations throughout the state, estimating and projecting the data series presented in this statistical summary, as well as providing significant portions of the narrative. The efforts of these individuals are greatly appreciated. A complete list of the contributors appears at the back of this book. If you have questions about the economic sectors or state regions, we encourage you to contact these individuals.

I especially acknowledge the support and hard work of the Leeds School of Business and University of Colorado at Boulder personnel in preparing, presenting, and promoting this project. My sincerest thanks go to Gary Horvath, Analyst; Cindy DiPersio, Project Coordinator; Lynn Reed, Graphic Designer; Lisa DeYoung, Project Manager; Terry Rosson, Program Assistant; and Brendan Hickey, Katie Vance, Luke Willoughby, and Ginger Wolf, Student Research Assistants, for their help in assembling and presenting the 2006 Business Economic Outlook Forum. The assistance provided by Greg Swenson, Staff Writer with the Office of News Services, and Doug Nogami, Director of Communications for the Leeds School of Business, is also greatly appreciated.

## Introduction

The University of Colorado at Boulder Leeds School of Business is pleased to present our annual forecast of Colorado's economy. Our program analyzes changes that took place this past year and projects activity for 2006.

Work on the forecast began in July, when data collection and statistical updates were performed. Committees were formed in September, with more than 80 leaders in business, education, and government, as well as economists and specialists, agreeing to participate. Members were split into 13 groups, each group representing a major economic sector.

Forecasts for each sector were prepared by extrapolating historical trends and then modifying the results with

1. Information from extensive survey work conducted with key Colorado business and industry leaders;
2. The expert knowledge and judgment of committee members; and
3. Known or expected economic changes affecting certain industrial sectors within the state.

For the past two years, the committees have reassembled in mid-year to review their forecasts.

These sessions have helped committee members develop an even greater understanding of their industries and the overall economy.

The unique nature of the Business Economic Outlook forecast is its combined approach of using detailed statistics with extensive survey research and expert opinion. We believe this methodology provides additional qualitative insight particularly relevant to the short-term forecasting process.

Richard L. Wobbekind, Ph.D.  
Associate Dean of External Relations and  
Director  
Business Research Division  
Leeds School of Business  
University of Colorado at Boulder

It is a great pleasure for Compass Bank to have this opportunity to expand our partnership with the University of Colorado's Leeds School of Business as sponsor of this year's economic forum.

We have been privileged to collaborate with the Business Research Division at Leeds since 2002. Through the *Compass on Business* program, we have worked together on a variety of initiatives aimed at helping local businesses monitor and respond to changing economic trends.

One of these joint initiatives is the Colorado Business Leaders Confidence Index® (BLCI). Conducted primarily through quarterly online surveys, the BLCI provides a measurement of how local business leaders view specific economic factors relative to their industry, both within the context of Colorado, as well as on a national level. It gives business leaders a unique look at what their industry peers are thinking about issues such as industry sales, profits, hiring plans, and capital expenditures from quarter to quarter.

The BLCI is a kind of "reality check" that can be extremely valuable in helping managers take timely action to steer their businesses in the right direction. By distilling industry data into a form that is both relevant and useful, it has become an important tool for business decision makers in

Colorado—which is precisely why the BLCI and the Colorado Business Economic Outlook complement each other so well.

Resources such as the BLCI are a tangible expression of Compass Bank's longstanding commitment to local businesses and to providing information and insights that can help them compete successfully in a global economy. We are delighted to be part of an event that contributes so significantly to this goal.

On behalf of all of us at Compass Bank, thank you for your continued commitment to the Leeds School and this very important program.

Sincerely,

Rafael Bustillo  
Colorado President  
Compass Bank



## Colorado Then and Now

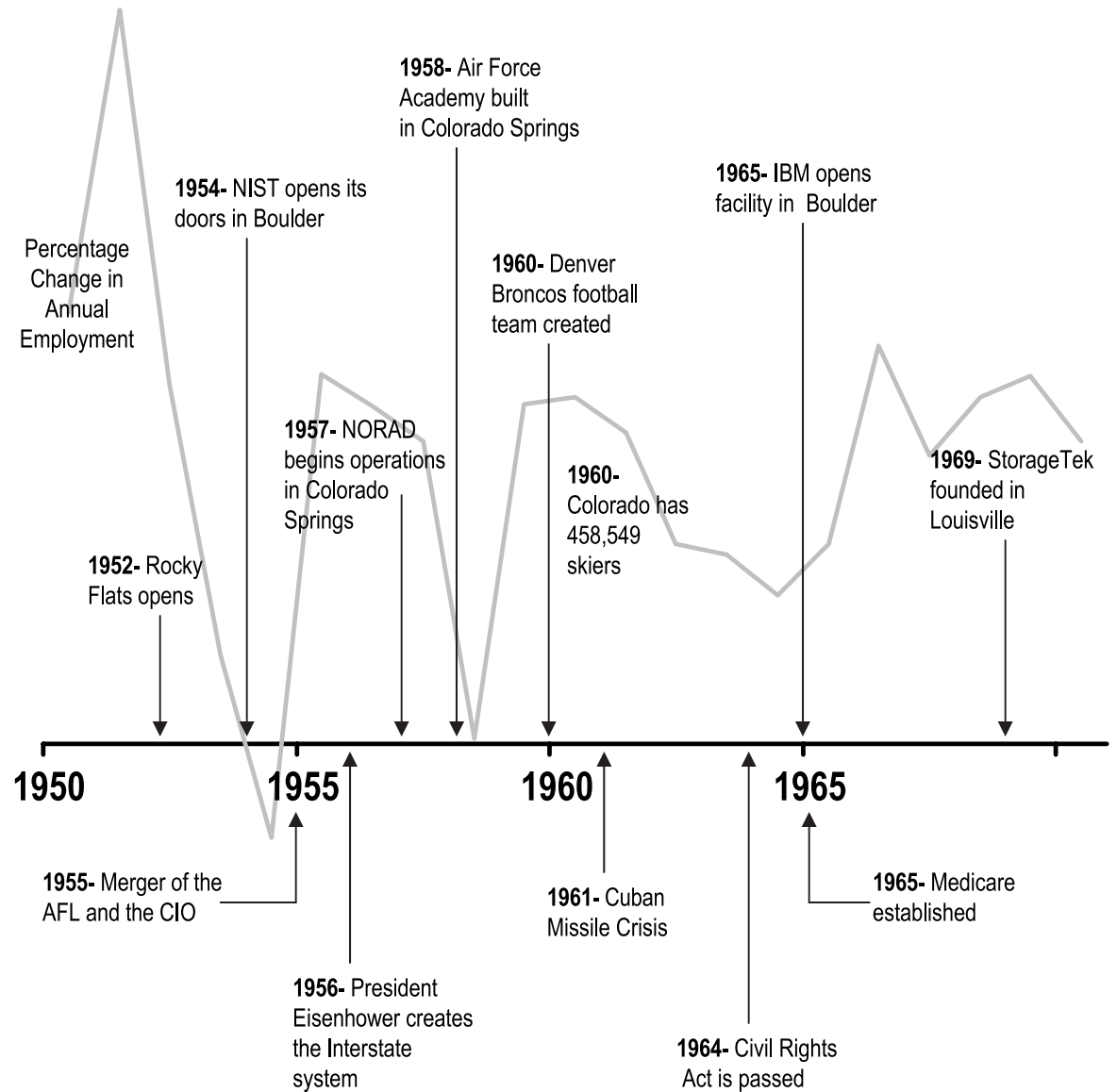
In 1950 the Dow Jones reached a monthly high of 235, Colorado per capita personal income was \$1,516, and the New York Yankees beat the Philadelphia Phillies 4–0 in the World Series. The population of the United States was about 151 million, and approximately 1.3 million people resided in Colorado. Since then, the U.S. population has almost doubled, while Colorado’s population has more than tripled. The United States has experienced periods of relative peace, along with wars in Asia, the Cold War, and now the war on terrorism. The state has endured floods and droughts, economic booms and busts, as well as booms and busts by its major sports teams.

Although state and national employment data are available back to 1939, the adjacent timeline provides the 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. These landmarks have laid the foundation for events that will affect our economy in the years ahead. Colorado events are listed above the line, and national events are listed below.

The employment downturn in 2003 marks only the sixth time since 1939 (when records were first kept) that Colorado showed negative job growth. During this same period, the United States recorded negative job growth on 11 occasions. The year 2003 was the first time that Colorado recorded negative job growth in consecutive years and the second time that the United States showed negative job growth in consecutive years.

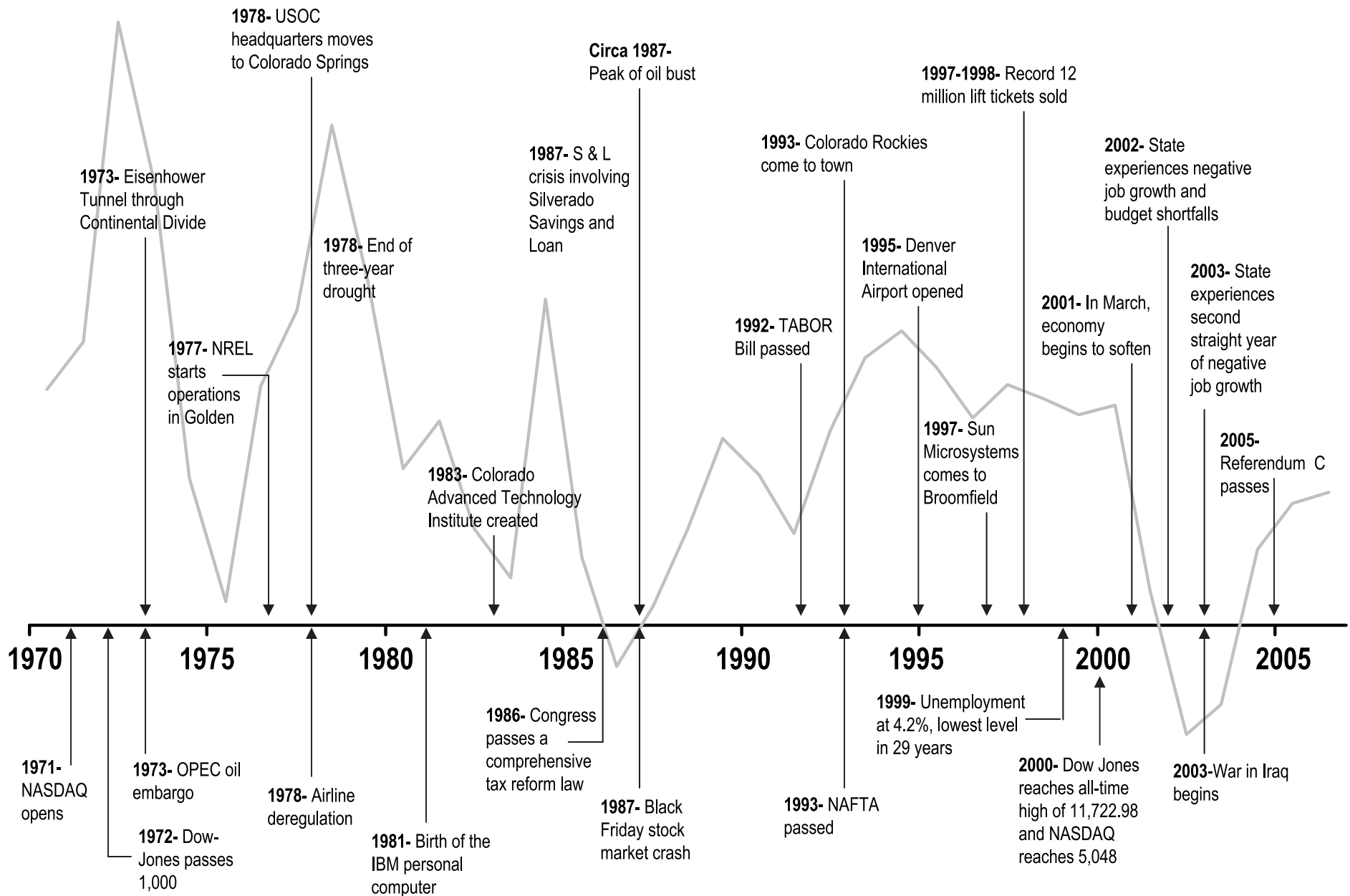
This timeline emphasizes the importance of learning from the past. A historical perspective of past events can help businesses make more effective decisions today and in the future. ❖

**1950s-1960s-** Numerous water storage and diversion projects are constructed in response to increased agricultural and municipal water demands



1970s- 1980s- Major population growth resulting in traffic problems and pollution

1990s- 2000s- LoDo is revitalized and technology booms and busts





## U.S. and Colorado Economic Outlook

### Output

The strength of the U.S. economy during 2005 has been overshadowed by uneasiness centered around the war in Iraq, rising energy prices, devastation from multiple hurricanes and fears of inflation. With all of these possible setbacks, real gross domestic product (GDP) still grew at its potential rate of 3.5%.

As a point of reference, the recent tech boom fueled real GDP growth of 3.3% annually for the period 1995 to 2004. By comparison, real GDP growth averaged only 2.9% for the prior 10-year period.

Many of the factors that caused uneasiness in 2005 will persist in 2006; however, the economy will continue to outperform the average GDP growth rates of the past 20 years. Projections are for GDP to increase at a rate of 3.5% in 2006. The GDP deflator is anticipated to remain relatively stable, registering 2.4% in 2005 and 2.3% in 2006.

### Consumption

For the past four years, accommodative monetary and fiscal policies have provided an environment that has encouraged spending. Financial institutions have provided consumers with a number of creative financing programs, and they have reacted by participating in them. These increased expenditures have come at the expense of the savings rate. While it seems appropriate to assume that consumer willingness to spend will extend into 2006, there is increasing concern that higher energy, health-care, and housing costs will push consumers to lower levels of purchasing.

Projected employment and wage increases will result in greater personal disposable income. However, spending will be curtailed slightly because of the previously mentioned concerns. Real personal consumption will remain solid, with 3.5% growth expected in 2005 and a slight drop, to 3.2%, in 2006.

Despite rising costs and sagging confidence in the later half of the year, consumers continued to spend in 2005. As a result, retail sales for the year are projected to exceed 2004 sales by 8%. Auto sales jumped to 16.9 million in 2005 as a result of employee-discount pricing programs. This sharp increase will come at the expense of sales for 2006 and beyond. In 2006, about 16.6 million autos and light trucks are expected to be sold. Although e-commerce is a small part of total retail sales, industry experts believe that increased high-speed access is the primary contributing factor for an annual growth rate of about 25% for Internet sales. E-commerce now accounts for about 2.2% of all retail sales. Nominal retail sales growth is expected to slow to 7.2% in 2006.

For seven of the first eight months of 2005 the Conference Board's Consumer Confidence Survey remained in the range of 103 and 106. As a result of uncertainty caused by multiple hurricanes, rising energy prices, potential energy shortages, and higher interest rates, the index dropped by nearly 20 points in September. Looking ahead, projected decreases in energy prices and increased employment are factors that should more than offset these concerns. Over the next year, these pluses will

outweigh the negatives and consumer confidence will experience a gradual, yet volatile rebound.

### Investment

Throughout the decade strong consistent growth in consumer spending has been accompanied by volatile movement in real business investment.

**CONSUMER PRICE INDEX,  
U.S. AND DENVER/BOULDER/GREELEY  
(1982-1984=100)**

Year	U.S. C.P.I.	U.S. C.P.I. Rate	Denver- Boulder- Greeley C.P.I. <sup>a</sup>	Denver- Boulder- Greeley C.P.I. Rate
1996	156.9	3.0	153.1	3.5
1997	160.5	2.3	158.1	3.3
1998	163.0	1.6	161.9	2.4
1999	166.6	2.2	166.6	2.9
2000	172.2	3.4	173.2	4.0
2001	177.1	2.8	181.3	4.7
2002	179.9	1.6	184.8	1.9
2003	184.0	2.3	186.8	1.1
2004	188.9	2.7	187.0	0.1
2005 <sup>b</sup>	195.2	3.3	190.1	1.7
2006 <sup>c</sup>	201.0	3.0	194.3	2.2

<sup>a</sup> 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, which is often used as a proxy for the inflation rate of Colorado; it is calculated semiannually.

<sup>b</sup> Estimated.

<sup>c</sup> Forecast.

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

During both 2001 and 2002, companies decreased business investments, followed by minimal growth in 2003. As businesses found that they could no longer postpone certain business expenditures, near double-digit growth was seen in 2004.

Business investment will grow at a rate of 8.7% in 2005, driven by the need to replace capital items and investments in technology goods and services, as well as general plant expansion. A combination of strong profits, positive cash flows, and tax incentives has helped foster investment. These factors will continue to come into play in 2006 as business investments increase at a strong, but slightly lower rate of 5.0%.

Growth in industrial production was strong, but slightly slower in 2005 as a result of somewhat weaker investment. A similar situation will occur in 2006 as industrial production will decrease marginally, but still show growth of 3.3%.

Inventory-to-sales ratios were at historical lows in 2003, indicating that goods needed to be replaced quickly. As a result, increased investment and employment translated to a \$52 billion increase in business inventories in 2004. This will be followed by growth of about \$25 billion in 2005 and \$40 billion next year.

In 2005, the housing market outperformed expectations as a record number of new housing starts was recorded. Rising mortgage rates and the increasing cost of construction will most likely dampen starts in 2006. Even with this decline, the housing market will remain strong, but closer to 2003 levels. Typically, U.S. home buyers spend up

to one-third of their annual income on mortgage payments, while in other parts of the world they spend up to one-seventh of that amount. It will be interesting to see whether lending institutions alter the structure of their future mortgage programs to allow for even more creative opportunities along these lines.

At the state level, the Colorado Business Leaders Confidence Index® (BLCI) measures business expectations for the Colorado economy on a quarterly basis. Since its inception in early 2003, the index has tracked the concern of Colorado leaders about the war in Iraq, improved confidence after the initial phases of the war were completed, the

improving strength of the Colorado economy relative to the national economy, and the recent impacts of hurricanes on the Gulf Coast. Additional information and quarterly updates are available throughout the year at [www.bhci.com](http://www.bhci.com).

### Government Spending and Exports

In 2001 the federal budget showed a positive balance of \$128 billion. Deficits occurred in each of the three subsequent years, topping out at \$412 billion in 2004. In 2005 real government consumption and investment will increase by 1.9%. As a result, the deficit is expected to be \$333 billion, which is less than originally anticipated. The projected

*continued on page 8*

### GROSS DOMESTIC PRODUCT 1996–2006

Year	Gross Domestic Current Dollars (Billions)	Change Current Dollars (Billions)	Gross Domestic Chained 2000 Dollars (Billions)	Change Chained 2000 Dollars (Billions)	GDP Deflator (2000=100)
1996	\$ 7,816.9	5.7%	\$ 8,328.9	3.7%	93.9
1997	8,304.3	6.2	8,703.5	4.5	95.4
1998	8,747.0	5.3	9,066.9	4.2	96.5
1999	9,268.4	6.0	9,470.3	4.4	97.9
2000	9,817.0	5.9	9,817.0	3.7	100.0
2001	10,128.0	3.2	9,890.7	0.8	102.4
2002	10,469.6	3.4	10,048.8	1.6	104.2
2003	10,971.2	4.8	10,320.6	2.7	106.3
2004	11,734.3	7.0	10,755.7	4.2	109.1
2005 <sup>a</sup>	12,426.6	5.9	11,132.1	3.5	111.6
2006 <sup>b</sup>	13,147.4	5.8	11,521.8	3.5	114.1

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

Source: U.S. Department of Commerce, Bureau of Economic Analysis; and Colorado Business Economic Outlook Committee.

## U.S. and Colorado Economic Outlook

continued from page 7

**NATIONAL ECONOMIC INDICATORS**  
**2001–2006**

Indicator	2001	2002	2003	2004	2005 <sup>a</sup>	2006 <sup>b</sup>
<b>Gross Domestic Product</b>						
Real GDP (% change)	0.8%	1.6%	2.7%	4.2%	3.5%	3.5%
Nominal GDP (% change)	3.2%	3.4%	4.8%	7.0%	5.9%	5.8%
<b>Consumption</b>						
Real Disposable Personal Income (% change)	1.9%	3.1%	2.4%	3.4%	2.0%	3.2%
Real Personal Consumption (% change)	2.5%	2.7%	2.9%	3.9%	3.5%	3.2%
National Consumer Confidence (December)	94.6	80.7	94.8	102.7	90.0	105.0
Colorado Business Leaders Confidence Index (Q4)	na	na	58.7	63.8	49.5	55.0
Consumer Credit (\$ billions)	\$1,870.7	\$1,954.4	\$2,047.0	\$2,141.2	\$2,240.0	\$2,340.0
Auto and Light Truck Sales (million units)	17.1	16.8	16.6	16.8	16.9	16.6
Retail Sales (% change)	3.2%	2.6%	4.3%	7.2%	8.0%	7.2%
<b>Investment</b>						
Real Gov't. Consumption and Investment (% change)	3.4%	4.4%	2.8%	2.2%	1.9%	2.2%
Real Business Investment (% change)	-4.2%	-9.2%	1.3%	9.4%	8.7%	5.0%
Industrial Production (% change)	-3.6%	-0.3%	0.0%	4.1%	3.1%	3.3%
Housing Starts (millions units)	1.60	1.71	1.85	1.95	1.98	1.82
Change in Business Inventories (\$ billions)	-\$31.7	\$12.5	\$15.5	\$52.0	\$25.2	\$40.8
<b>Prices</b>						
Consumer Price Index (% change)	2.8%	1.6%	2.3%	2.7%	3.3%	3.0%
Producer Prices (% change)	1.9%	-1.3%	3.2%	3.6%	4.7%	2.7%
Employment Costs (% change)	4.1%	3.8%	3.9%	3.9%	3.2%	3.6%
<b>Money and Interest</b>						
3-Month Constant Maturities (rate)	1.7%	1.2%	0.9%	2.2%	4.00%	4.75%
10-Year Constant Maturities (rate)	4.1%	3.8%	4.4%	4.2%	4.75%	5.75%
Fed Funds Rate (year end)	1.75%	1.24%	1.00%	2.25%	4.25%	4.75%
<b>Employment and Population</b>						
Population (% change)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Unemployment Rate	4.8%	5.8%	6.0%	5.5%	5.1%	5.0%
Nonfarm Employment (% change)	0.0%	-1.1%	-0.3%	1.1%	1.7%	1.8%
<b>Other Indicators</b>						
Nominal Pre-Tax Profits (% change)	-6.2%	15.5%	16.4%	12.6%	12.9%	7.2%
Current Account (\$ billions)	-\$386.0	-\$474.0	-\$520.0	-\$668.0	-\$790.0	-\$823.0
Federal Budget Balance (\$ billions for fiscal year)	\$128.0	-\$158.0	-\$378.0	-\$412.0	-\$333.0	-\$394.0
Real Net Exports (\$ billions)	-\$399.0	-\$471.0	-\$521.0	-\$601.0	-\$715.5	-\$758.5

<sup>a</sup>Estimated.<sup>b</sup>Forecast.

Sources: Consensus Forecast, The Conference Board, Federal Reserve Board, Colorado Department of Local Affairs, Bureau of Labor Statistics, Bureau of Economic Analysis, and Colorado Business Economic Outlook Committee.

budget deficit for 2006 will approach \$394 billion as real government consumption will grow at a much higher rate of 2.2%. In the near term, defense and homeland security expenses will remain high, while nondefense expenses will increase because of rising costs associated with health care, entitlement programs, and hurricane rebuilding.

Overall, U.S. and Colorado exports have benefited from improved global economic conditions and increasingly free and fair trade. Through August, U.S. and Colorado exports have grown at 11.1% and 1.6%, respectively. However, a growing trade deficit, combined (somewhat paradoxically) with a strengthening U.S. dollar, loom large over the international trade picture. Net exports are estimated to be -\$715.5 billion in 2005. The long-term impacts that the hurricanes will have on trade remain largely unknown. China presents further uncertainty. Its economy continues to grow at break-neck speeds, though the sustainability of this growth is unlikely. Furthermore, China's move this summer from a fixed dollar peg for the yuan to a managed float against a basket of currencies, though minor in its immediate effect, serves as a major signal for potential future revaluations. Should the yuan eventually appreciate further against the dollar, it could provide a boost to U.S. exporters, though importers would feel reverse effects. High oil prices, health concerns in Asia and Europe with Avian flu, and an ongoing ban on beef exports to Japan and Korea will also impact international trade in the year to come.

## Prices

The monetary policy prescribed by the Fed over the past year has placed a strong emphasis on keeping inflation in check. The key component of the CPI, housing, is expected to rise 2.6%, while medical care will climb 4.5%. The wildcard is energy prices. Nationally, the CPI is expected to increase by 3.3 % in 2005 and 3% in 2006. Colorado's inflation rates remain well below the national average because of artificially low prices for housing and

transportation. While the average price of homes continues to increase, the official calculation of the CPI factors in incentives offered by landlords and auto dealers. CPI rates for Colorado are projected at 1.7% for 2005 and 2.2% next year.

Producer prices, as measured by the Producer Price Index (PPI), were driven up substantially by higher energy prices. The projected PPI growth rate for 2005 is 4.7%. As energy prices stabilize or decrease in 2006, PPI growth will drop back to 2.7%.

Employment costs grew at a lower than expected rate in 2005. Upside wage pressure has been minimal, which has helped offset increasing benefit and medical costs. As unemployment rates continue to decrease, wage pressures are expected to accelerate. Employment costs will rise at a 3.2% rate in 2005, followed by an increase of 3.6% next year. Increasing productivity is the key to keeping wage inflation in check.

*continued on page 10*

### CHANGES IN COLORADO NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT (In Thousands)

Sector	2004	2005 <sup>a</sup>	2006 <sup>b</sup>	2005 New Jobs <sup>a</sup>	Percentage Change	2006 New Jobs <sup>b</sup>	Percentage Change
Natural Resources and Mining	14.6	16.8	18.5	2.2	15.1%	1.7	10.1%
Construction	151.4	159.1	168.6	7.7	5.1	9.5	6.0
Manufacturing	154.6	151.7	151.8	-2.9	-1.9	0.1	0.1
Trade, Transportation, and Utilities	407.3	412.9	420.7	5.6	1.4	7.8	1.9
Information	81.2	76.2	75.4	-5.0	-6.2	-0.8	-1.0
Financial Activities	155.0	158.7	162.0	3.7	2.4	3.3	2.1
Professional and Business Services	298.9	315.2	326.9	16.3	5.5	11.7	3.7
Educational and Health Services	218.5	224.7	231.4	6.2	2.8	6.7	3.0
Leisure and Hospitality	251.4	257.2	262.8	5.8	2.3	5.6	2.2
Other Services	86.7	88.6	90.6	1.9	2.2	2.0	2.3
Government	<u>359.2</u>	<u>366.7</u>	<u>371.2</u>	<u>7.5</u>	<u>2.1</u>	<u>4.5</u>	<u>1.2</u>
Total	2,178.8	2,227.8	2,279.9	49.0	2.2%	52.1	2.3%

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

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

Note: 2005 employment change includes the effect of 2,500 jobs being reclassified from Computer and Electronics Manufacturing to Scientific Research and Development Services (a subsector of Professional and Business Services).

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

## U.S. and Colorado Economic Outlook

*continued from page 9*

### Employment and Population

Nationally, employment will increase by 1.7% in 2005, followed by a slightly higher rate of 1.8% next year. Colorado will outperform the nation in job growth in both 2005 and 2006.

The highest absolute growth will occur in service-producing sectors, which includes high paying jobs in the professional business services sector. The construction sector will benefit from a strong housing market, plus rebuilding from the hurricanes. Manufacturing is expected to show gradual declines through 2006.

During the 1990s Colorado unemployment was typically about 1.0% below the national level. The

state recorded rates similar to the nation during 2002-04 period. During 2006 unemployment in the United States is expected to be 5%, while the rate for Colorado is projected at 4.9%. The unemployment rate is not expected to drop rapidly during the next 18 months as a number of workers who have been inactive for over a year reenter the workforce.

Nationally, population is expected to grow by 1.0% in both 2005 and 2006, while the growth of the state is expected to slow to 1.4% in 2005 and increase slightly to 1.5% the following year. The biggest factor in the slowing of the state's population growth rate from the rates of the 1990s has been the significant decrease in net migration.

Although net migration is substantially lower than in the 1990s, it is still positive.

In the sections that follow, a summary of 2005 and a forecast for 2006 is presented. The committee members have provided data analysis and their industry specific insight into the key factors influencing each of these sectors. We trust this data and analysis will prove useful in your business and policy decision-making process. Various updates and releases are made throughout the year and may be available on the BRD web site or in the *Colorado Business Review* newsletter. ❖

## Population, Labor Force, and Personal Income

The performance of the Colorado economy is directly affected by the role that net migration plays in population changes, the composition of the state's labor force, and the rate of increase in personal income. Colorado's population increased at a rate of about 2.1%, or about 814,700 people, between 1996 and 2005. This compares to a growth rate of about 1.1% for the United States during the same period.

Between 1992 and 2001, net migration in the state averaged about 74,200 people per year, representing about 70% of the total change in population. The remaining 30% is attributed to natural increase (births minus deaths). During the subsequent four years, net migration averaged about 28,800 per year. For this period of lower growth, about 42% of the change in the population was a result of net migration.

In 2006 Colorado's population will grow by 72,100 persons, to 4.8 million. This is an increase of 1.5%, compared to the national average of 1.0%. Net migration will account for about 32,000 people.

Between 1995 and 2004 the population grew at a compound annual growth rate (CAGR) of 2.2%, while the labor force grew at a rate of 2.1%. During that period, growth in the labor force occurred as a result of strong net migration. In 2006, the labor force is projected to rise at a much stronger rate than the population because of increased labor force participation (i.e., more workers who lost their jobs and quit looking for work will be reentering the workforce).

Although Colorado went into a recession in 2001, it also reached a record level of employment that year. It has taken until 2005 for state employment to return to the employment level attained in 2001. Nonfarm wage and salary employment for 2005 will grow at a rate of 2.2%, followed by similar growth next year. About 52,100 jobs will be added in 2006, for growth at a rate of 2.3%.

In 2006 all supersectors of the state economy are expected to record job growth, with the exception of Information. Absolute growth will be led by Professional and Business Services; Construction; Trade,

*continued on page 13*

### COMPONENTS OF COLORADO RESIDENT POPULATION 1996–2006 (In Thousands)

Year	Births (Resident)	Deaths (Resident)	Natural Increase	Net Migration	Population Change
1996	55.0	25.1	29.9	62.0	91.9
1997	56.3	25.9	30.4	63.5	93.9
1998	57.7	26.3	31.4	75.6	107.0
1999	60.7	26.5	34.2	79.8	114.0
2000	63.9	27.0	36.9	82.5	119.4
2001	66.5	27.9	38.6	68.4	107.0
2002	67.6	28.8	38.8	36.5	75.3
2003	69.0	28.9	40.1	24.8	64.9
2004	68.5	29.0	39.5	26.8	66.3
2005 <sup>a</sup>	68.9	29.0	39.9	27.0	66.9
2006 <sup>b</sup>	69.6	29.5	40.1	32.0	72.1

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

Source: U.S. Department of Commerce, Bureau of the Census; Colorado Division of Labor and Government, Demographic Section; and Colorado Business Economic Outlook Committee.

### ESTIMATED RESIDENT POPULATION, COLORADO AND UNITED STATES 1996–2006 (Base Year: 1996=100)

Year	Colorado		United States	
	Index	Resident Population (In Thousands)	Index	Resident Population (In Thousands)
1996	100.0	3,905.2	100.0	269,394
1997	102.4	3,999.2	101.2	272,647
1998	105.1	4,106.2	102.4	275,854
1999	108.1	4,220.2	103.6	279,040
2000	111.1	4,339.5	104.7	282,188
2001	113.9	4,446.5	105.8	285,094
2002	115.8	4,521.9	106.9	287,974
2003	117.5	4,586.8	107.9	290,810
2004	119.1	4,653.0	109.0	293,655
2005 <sup>a</sup>	120.9	4,719.9	110.1	296,592
2006 <sup>b</sup>	122.7	4,792.0	111.2	299,577

<sup>a</sup>Based on July 1 annual population figures.

<sup>b</sup>Forecast.

Source: U.S. Department of Commerce, Bureau of Economic Analysis; and Colorado Business Economic Outlook Committee.

**COLORADO RESIDENT LABOR FORCE**  
**1996–2006**  
**(In Thousands)**

Labor Force	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005 <sup>a</sup>	2006 <sup>b</sup>
Colorado Labor Force	2,175.7	2,229.8	2,307.9	2,340.9	2,359.3	2,394.9	2,443.3	2,479.8	2,522.2	2,544.8	2,595.0
Unemployed	92.0	75.5	81.6	71.3	62.5	93.7	143.3	154.5	139.4	130.3	127.0
Unemployment Rate (%)	4.2	3.4	3.5	3.0	2.6	3.9	5.9	6.2	5.5	5.1	4.9
Total Employment	2,083.7	2,154.3	2,226.3	2,269.7	2,296.8	2,301.2	2,300.1	2,325.2	2,382.9	2,414.5	2,468.0

<sup>a</sup>Estimated.<sup>b</sup>Forecast.

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

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

**COLORADO NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT**  
**1996–2006**  
**(In Thousands)**

Sector	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005 <sup>a</sup>	2006 <sup>b</sup>
Natural Resources and Mining	12.6	13.2	13.4	12.3	12.2	12.9	12.9	13.2	14.6	16.8	18.5
Construction	112.2	120.5	134.6	148.5	163.6	167.7	160.4	149.9	151.4	159.1	168.6
Manufacturing	182.9	189.3	194.4	190.7	191.3	181.9	166.1	156.0	154.6	151.7	151.8
Trade, Transportation, and Utilities	372.1	381.3	392.4	404.9	418.9	423.0	412.1	404.5	407.3	412.9	420.7
Information	67.9	73.7	86.4	97.0	108.4	107.3	92.9	84.6	81.2	76.2	75.4
Financial Activities	127.9	135.2	142.8	147.4	147.0	148.3	149.5	154.1	155.0	158.7	162.0
Professional and Business Services	252.1	270.2	279.2	298.1	315.2	308.4	292.2	288.0	298.9	315.2	326.9
Educational and Health Services	171.2	178.2	182.9	186.9	192.8	200.8	208.5	213.0	218.5	224.7	231.4
Leisure and Hospitality	220.1	226.6	231.0	238.5	246.0	247.2	247.0	245.6	251.4	257.2	262.8
Other Services	72.7	75.7	77.3	79.0	80.2	83.8	85.6	85.9	86.7	88.6	90.6
Government	<u>308.7</u>	<u>315.6</u>	<u>322.3</u>	<u>328.4</u>	<u>337.0</u>	<u>344.1</u>	<u>355.4</u>	<u>356.2</u>	<u>359.2</u>	<u>366.7</u>	<u>371.2</u>
Total <sup>c,d</sup>	1,900.4	1,979.5	2,056.7	2,131.5	2,212.6	2,225.4	2,182.5	2,151.0	2,178.8	2,227.8	2,279.9

<sup>a</sup>Estimated.<sup>b</sup>Forecast.<sup>c</sup>Nonagricultural self-employed, unpaid family workers, and domestics are excluded from the total.<sup>d</sup>Due to rounding, the sum of the individual sectors may not equal the total.

Note: 2005 employment change includes the effect of 2,500 jobs being reclassified from Computer and Electronics Manufacturing to Scientific Research and Development.

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

## Population, Labor Force, and Personal Income

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Transportation, and Utilities; Educational and Health Services; and Leisure and Hospitality.

In 2002 the state's level of unemployment jumped above the natural rate of unemployment (4.5–5.0%) for the first time since 1993 and remained well above that rate through 2004. Unemployment has gradually dropped since that time, to 5.1% in 2005 and a projected 4.9% in 2006.

Between 1995 and 2000, total Colorado personal income grew at a CAGR of 9.3%, compared to 6.5% for the nation. The impact of the economic downturn can be seen as the rise in personal income tapered off between 2001 and 2004, with a CAGR of 3.6% for the nation and 2.9% for Colorado. Both Colorado and the United States recorded similar rates in 2005, around 6.5%. As the Colorado economy becomes stronger in 2006, personal

income in Colorado will increase by 6.8%, which is again greater than the U.S. rate.

Between 1995 and 2000, Colorado per capita personal income increased at a CAGR of 6.6%, compared to the national rate of 5.3%. Between 2001 and 2004, Colorado per capita income increased at a CAGR of 1.5%, compared to 2.6% for the United States. On a more positive note, Colorado per capita income is expected to start growing at a rate greater than that of the United States again in 2006. Colorado per capita income is projected to be \$39,917 in 2006, compared to \$36,635 for the nation.

While the Colorado and U.S. economies are closely linked, Colorado has a greater concentration of technology-based, high-wage industries that were severely impacted by the downturn between 2001 and 2004. The sharp decline in personal income growth illustrates that the recession hit Colorado harder than the nation. It also shows why it has taken longer for the Colorado economy to recover. Moreover, the recent slowdown in income growth demonstrates the value of high-paying primary jobs to the state's economy. Ultimately, the strength of the current recovery will be a function of both the total number of jobs gained and then the quality of those positions. ❖

**TOTAL PERSONAL AND PER CAPITA INCOME, COLORADO AND UNITED STATES  
1996–2006  
(Base Year: 1996=100)**

Year	Colorado			United States		
	Index	Total Personal (Billions)	Per Capita <sup>a</sup>	Index	Total Personal (Billions)	Per Capita <sup>a</sup>
1996	100.0	\$100.2	\$25,570	100.0	\$6,520.6	\$24,205
1997	107.6	107.9	26,846	106.1	6,915.1	25,363
1998	118.2	118.5	28,784	113.8	7,423.0	26,909
1999	128.6	128.9	30,492	119.7	7,802.4	27,962
2000	144.1	144.4	33,370	129.3	8,429.7	29,873
2001	152.3	152.7	34,491	133.8	8,724.1	30,601
2002	152.7	153.1	34,032	136.2	8,881.9	30,843
2003	156.7	157.1	34,542	140.6	9,169.1	31,530
2004	165.8	166.2	36,109	149.0	9,713.3	33,077
2005 <sup>b</sup>	176.7	177.1	37,947	158.6	10,344.7	34,878
2006 <sup>c</sup>	188.8	189.2	39,917	168.3	10,975.0	36,635

<sup>a</sup>Based on July 1 annual population figures.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast, includes adjusted to account for anticipated population revisions.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Colorado Business Economic Outlook Committee.



## Agriculture

Strong livestock sales have continued to drive a robust agricultural economy in Colorado. Record livestock prices in 2005 pushed net income in Colorado over \$1 billion for the second straight year. Cattle prices will decline slightly during 2006 but net farm income will again be near the \$1 billion mark. Rising fuel and fertilizer costs, however, remain a growing concern and are having a strong negative impact on many grain farmers in Colorado.

Livestock remains Colorado's largest agricultural sector, representing some 73% of all farm gate sales. In 2006 cash receipts from cattle will exceed \$3 billion for the third consecutive year. Although Colorado fed cattle marketings (at 2 million head) will be at their lowest number in decades, the average steer and heifer price of \$109/hundredweight (cwt.) will be the second-highest recorded price. The declining number of cattle marketed has bottomed out, and projections for 2006 show that the cattle cycle has turned as ranchers are retaining more heifers in order to rebuild their herds. This will result in a greater number of beef cows in 2007 and through the remainder of this decade. The current cattle cycle has been very beneficial to Colorado's cow-calf operators, and in 2006 calf prices should again be strong, averaging between \$1.05 and \$1.16/lb. Packers and feeders will continue to struggle in the first half of 2006 as it will be difficult for them to find enough cattle to efficiently run their operations.

Dairy remains a very important part of Colorado's agricultural economy. Dairy cattle numbers continue to grow in Colorado by about 5% annually.

In particular, Colorado is experiencing a significant increase in organic dairy production, which is helping to drive organic hay and grain production. Dairy prices in 2006 will remain fairly flat, averaging about \$12.50/cwt. and putting statewide production at some \$325 million.

Lamb prices in 2005 were very strong and will push production in 2006 up another 2% in Colorado. Prices will drop back about 6.5% next year but still should keep lamb production profitable. Total sales of wool and lamb will be around \$125 million. In 2006 hog prices will average about 6% below this year, while production increases 1–2%. Overall, pork exports will likely decrease as international markets for beef begin to open. Total Colorado hog

sales will be off about 5%, at \$190 million. Egg production and prices will remain fairly steady and will account for about \$110 million in sales.

Total livestock sales will be down from the past two years, coming in at approximately \$3.9 billion. This is due primarily to lower cattle numbers. Most of the livestock industry, however, should experience another profitable year in 2006.

The U.S. corn crop is projected to total 10.9 billion bushels in 2005. Although 8% below the 2004 level, it is on track to be the second-largest crop on record. Colorado's crop is anticipated to be down about 14% in 2005, and it is likely that with rising fuel and fertilizer costs the crop will further decline

### COLORADO CASH RECEIPTS FROM FARMING AND RANCHING 1998–2006 (In Millions of Dollars)

Year	Livestock	Crops	Total Value of Production	Value of Services and Forestry <sup>a</sup>	Government Payments <sup>b</sup>	Gross Value of Farm Revenue
1998	\$2,841.9	\$1,552.8	\$4,394.7	\$547.0	\$260.3	\$5,202.0
1999	3,015.8	1,341.8	4,357.6	567.3	374.2	5,299.1
2000	3,325.3	1,229.2	4,554.5	517.5	351.1	5,423.1
2001	3,303.4	1,415.1	4,718.5	560.6	319.6	5,598.7
2002	3,208.0	1,318.4	4,526.4	652.0	211.0	5,389.4
2003	3,434.2	1,374.0	4,808.2	618.0	319.9	5,746.1
2004	4,261.9	1,360.7	5,622.6	590.3	220.9	6,433.8
2005 <sup>c</sup>	4,080.0	1,380.0	5,460.0	600.0	295.0	6,355.0
2006 <sup>d</sup>	3,940.0	1,440.0	5,380.0	600.0	270.0	6,250.0

<sup>a</sup>Includes sales of forest products, custom feeding fees, custom harvest fees, and other farm income.

<sup>b</sup>Includes farm program payments made directly to farm producers.

<sup>c</sup>Estimated.

<sup>d</sup>Forecast.

Source: Colorado Agricultural Statistics Service and Colorado Business Economic Outlook Agriculture Committee.

in 2006. With a large crop carryover and anticipated prices below \$2.00, expect the state's corn crop to return \$210 million in 2006, some \$34 million less than the previous year. The impact of the opening of the new ethanol facility in Sterling on the state's corn industry is still unknown.

Wheat harvests in Colorado have been disappointing in four of the last five years. Drought and abnormally hot weather have driven yields far below expected norms. Good fall precipitation means that the 2006 crop appears to have excellent potential. Assuming normal yields and wheat returning to about \$3.20/bushel, a crop of roughly 80 million bushels and sales of \$210 million are expected.

Hay remains our largest crop in terms of value (\$375 million) but due to on-farm use, actual sales are about one-half of that value. In 2006 the price for hay will likely average about \$90/ton, and total cash receipts will come in at around \$190 million. Potato prices have rebounded this past year, due, at least in part, to significantly reduced acreage in Colorado and in other major potato producing regions of the country.

In addition, a new marketing co-op has formed, with chapters in most potato-producing states, including Colorado. This group has significantly affected planting decisions. Expect potato receipts in Colorado next year to total about \$150 million. Sunflowers had strong prices in 2005 and, along

with other oil crops, prices should remain steady in 2006. Cash receipts of approximately \$38 million are expected in 2006, which will result in the most valuable sunflower crop recorded to date.

Greenhouse/nursery sales continue to grow and now exceed the sales from traditional crops such as corn and wheat. Sales in 2006 are again expected to rise by more than 5% and should reach \$300 million for the first time. This is an increase of some 200% during the past 13 years. Other crops

that have done well in recent years include specialty vegetables. With the onset of additional farmers' markets and direct marketing, an increase in vegetable production along the Front Range is likely. Expect dry beans, onions, sugar beets, and fruit receipts to be fairly steady in 2006. Overall crop receipts will be up about \$60 million, to a total of \$1.44 billion.

While other farm income is expected to remain stable at \$600 million, government payments are expected to show a slight decline, totaling about \$270 million in 2006. This will result in gross farm income of \$6.25 billion, approximately \$105 million below the 2005 level. Increased fuel and fertilizer costs are likely to affect many farmers' planting decisions next year, resulting in more wheat being planted and less corn. The influence of low corn prices and a decline in the number of cattle being fed and marketed will combine with crop planting changes to result in a small decrease in total production expenses. Overall net farm income is expected to decline by about 5%, to \$950 million. Although this will again be a better than average year for the state's farmers and ranchers, those in the livestock business are likely to fare much better than those who produce grain. Many grain producers will be facing both high costs of fuel and fertilizer and low prices for their efforts. Agriculture in Colorado is very diverse and can be fickle, and every year brings its own unique set of challenges and opportunities. As always, how we end up will depend on rain, snowfall, and the timing of markets opening or closing around the world. ❖

### COLORADO FARM INCOME AND PRODUCTION EXPENSES 1998–2006 (In Millions of Dollars)

Year	Gross Value of Farm Revenue	Total Farm Production Expenses	Net Farm Income
1998	\$5,202.0	\$4,275.0	\$927.0
1999	5,299.1	4,300.3	998.8
2000	5,423.1	4,675.0	748.1
2001	5,598.7	4,363.9	1,234.8
2002	5,389.4	4,721.5	667.9
2003	5,746.1	4,896.8	849.3
2004	6,433.8	5,134.9	1,298.9
2005 <sup>a</sup>	6,355.0	5,350.0	1,005.0
2006 <sup>b</sup>	6,250.0	5,300.0	950.0

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

Source: Colorado Agricultural Statistics Service and Colorado Business Economic Outlook Committee.

## Natural Resources and Mining

Colorado and the Rocky Mountain region are experiencing a boom in the energy sector, which is expected to continue through 2006. Energy markets are anticipated to face much greater than normal volatility in commodity prices for the next year or two. The combination of price volatility, growing demand, and tighter supplies will adversely affect all business sectors in the state.

### Oil, Gas, and Carbon Dioxide

The total value of oil, gas, and carbon dioxide production in 2004 was \$6.75 billion, representing a

30% rise over the 2003 value of \$5.25 billion. This increase resulted from a significant surge in both production volume and commodity price. Production volumes for 2005 and 2006 are expected to increase an average of 12% during the next two years due to aggressive drilling programs throughout the state. Based on price increases in 2004 and 2005, the value of oil, gas, and carbon dioxide production is estimated to total about \$8.1 billion for 2005 and \$9.7 billion for 2006.

Oil prices for the next couple of years are anticipated to remain in the range of \$50 to over \$60 per

barrel, with the potential for price spikes above \$70. Factors that continue to drive near-term oil prices higher include (1) continued unrest in the Middle East and potential instability in other member nations of the Organization of the Petroleum Exporting Countries (OPEC) (such as Venezuela and Nigeria) and Russia; (2) concerns that OPEC may not be able to significantly increase production to meet further demand, particularly from China and India; (3) the threat of demand destruction at higher price levels; and (4) extreme weather events, such as the record 2005 hurricane

### PHYSICAL OUTPUT OF FOSSIL FUELS 1996–2006 (Base Year: 1996=100)

Year	Coal Index	Coal Millions of Short Tons	Crude Oil Index	Crude Oil Millions of Barrels	Natural Gas Index	Natural Gas Billions of Cubic Feet	Carbon Dioxide Index	Carbon Dioxide Billions of Cubic Feet
1996	100.0	24.9	100.0	25.6	100.0	584.0	100.0	329.3
1997	110.0	27.4	87.9	22.5	110.7	646.7	100.9	332.3
1998	118.9	29.6	87.9	22.5	120.7	704.8	111.7	367.7
1999	120.5	30.0	75.4	19.3	125.4	732.2	92.5	304.7
2000	116.9	29.1	74.6	19.1	132.2	771.8	94.4	310.7
2001	134.1	33.4	77.3	19.8	142.3	831.0	92.4	304.3
2002	141.0	35.1	79.7	20.4	162.0	946.0	89.6	295.0
2003	144.2	35.9	83.6	21.4	176.7	1032.0	93.3	307.2
2004	160.6	40.0	86.3	22.1	183.7	1,073.0	103.6	341.0
2005 <sup>a</sup>	161.4	40.2	87.5	22.4	222.6	1,300.0	106.3	350.0
2006 <sup>b</sup>	161.4	40.2	88.7	22.7	256.8	1,500.0	109.3	360.0

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

Source: 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.

season that continues to disrupt an already tight refining capacity in the U.S. Gulf Coast and affect the infrastructure required to transport product.

According to the Energy Literacy Project, gasoline prices are forecasted to remain in the \$2.25–\$3.00 per gallon range, with seasonal and local swings reflecting the supply of mandated “boutique” blends. Spikes in gasoline prices could potentially go as high as \$4.00 per gallon if there is any further disruption to refining in the Gulf Coast region. This market is further complicated by the fact that the national refining segment is operating at an all-time high utilization; no capacity is available for excess demand, such as that coming from the reconstruction needs in the Gulf Coast. Gasoline imports from other countries offer some relief, although they may not be able to meet local blend requirements. Of equal importance to the effect of energy costs on the state’s economy is the price of other refined products, such as diesel and jet fuel. The prices for these products are also expected to increase on a seasonal basis as refineries shift their product mix.

Natural gas prices are anticipated to continue in the range of \$6 to over \$10 per thousand cubic feet (Mcf) through the end of 2006. However, natural gas prices are expected to be even more volatile than oil due to deliverability obstacles, increasing demand from electric generation, and uncertainties in the weather and oil markets. The 2005 hurricane season has already resulted in the Henry Hub natural gas price spiking to \$15.22 per Mcf in late September. Deliverability obstacles include weather-related disruptions and shut downs, a distribution

system already filled to capacity in many areas, and a need for more storage and distribution of liquefied natural gas.

Higher oil and gas prices in 2004 stimulated drilling activity in Colorado and the Rocky Mountains. More than 4,000 drilling permits will be approved in 2005 just in Colorado. This compares to the record-high 2,917 permits in 2004 and the 2,249 permits approved in 2003. If this activity level continues, as many as 5,500 drilling permits may be processed in 2006.

Drilling on the Roan Plateau in Garfield County continues to be of strategic importance to Colorado and the nation. The Department of Natural Resources has presented an innovative management plan to the Bureau of Land Management that strives to successfully balance the needs for energy development and preserve critical environmental areas. When implemented, this plan will further accelerate drilling activity in the Piceance Basin through 2006. This trend will exacerbate the state’s existing labor and equipment shortages, as well as tighten the supply of cement and hydraulic fracture sand used to complete oil and gas wells for production.

**The national refining segment is operating at an all-time high utilization; no capacity is available for excess demand, such as that coming from the reconstruction needs in the Gulf Coast.**

## Coal

In 2004 Colorado coal mines produced a record 40.0 million tons of coal. Coal production from the state’s 13 mines is expected to stabilize at around 40 million tons in 2005. Colorado coal mines have been producing at this level since early 2004, indicating that the established coal mining industry has reached its production capacity. The mines extract as much coal as current machinery can safely produce, and the trains haul as much coal as their lines can carry.

Spot prices for Colorado coal remained in the \$27–\$29 per ton range in 2004, according to the U.S. Department of Energy. Colorado’s high-quality coal is in great demand, and, according to Hill & Associates, the spot price recently increased to \$37 per ton. However, less than 10% of our coal is now sold on the spot market. Most Colorado coal mines have long-term contracts with utility companies that average \$19.55 per ton. This is the actual sales price of coal on federal leases mined in late 2004 and early 2005. This price has slowly but steadily increased over the last two years. It reflects the price of coal for future contracts, which, in turn, indicates a large increase in cost to utilities to produce electricity. It is estimated that the value of Colorado coal sold in 2005 and 2006 will be \$800 million per year.

Colorado’s coal industry employment, based on the number of miners working at the 13 coal mines, is increasing. In 2004 a total of 1,947 coal miners were employed, compared to more than

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## Natural Resources and Mining

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1,979 through the first seven months of 2005. Peabody Energy Company's Foidel Creek Mine in Routt County announced recently that it plans to boost production by 40% over the next two years. Eighty new employees are expected to be hired in 2006. Peabody will also close its surface mine operations at the Yoast and Seneca II-W mines in December 2005. The Seneca mines have supplied the Hayden Power Plant since it opened in the early 1960s. The Foidel Creek Mine will now supply the power plant with coal beginning in 2006.

The transportation sector increased its rail capacity for coal hauling in 2005. Union Pacific Railroad constructed a bypass spur north of Denver to maximize the hauling capacity from the Western Slope to coal markets east of Colorado. More than 66% of Colorado's mined coal is now sold to power plants in Kentucky, Illinois, Tennessee, and Georgia.

Central Appalachian Mining, which operates the McClane Canyon Mine near Loma, announced plans to increase its production from 300,000 tons per year to more than 5 million tons. This will be achieved by purchasing a longwall mining unit for its new mine at the Spinks Canyon location, which will open by 2007. The company wants to build a new rail line and loading facility in Loma to handle the large increase in coal production. It would also like to produce and sell more coal to the growing market for compliance coal to power plants in the Midwest. Bowie Resources closed their Bowie No. 2 Mine near Paonia in 2005. The firm moved its longwall operation into the adjacent Bowie No. 3 Mine and increased production there. This mine uses an onsite wash plant to clean the coal product

to stringent environmental standards for its customers.

Xcel Energy, the state's largest consumer of coal, recently broke ground on a \$1.35 billion coal-fired power plant. The 750-megawatt plant will be adjacent to the existing Cherokee Station in Pueblo, and is expected to take several years to construct. Up to 1,000 workers, primarily union members, will be employed to build the plant. Xcel has contracted with Mitsubishi Heavy Industries Ltd. to build the steam turbine. When finished the Cherokee Plant will double its capacity to 1,410 megawatts of power.

The long-term coal industry scenario is one of continued growth for Colorado. Hill & Associates predicts that coal production in Colorado should reach 43 million tons per year by 2012. With coal spot market prices very high for "clean" Colorado coal, longer term contracts to utilities at prices in the \$20-\$25 per ton range are expected to return.

### Minerals and Uranium

The mining industry has been one of the most positive sectors in both the national and Colorado economies during the last three years. Rising commodity prices have given a boost to Colorado's

producers of gold, molybdenum, cement, uranium, and other raw materials. In 2004 the Colorado Geological Survey estimated a total value of non-fuel mineral production in Colorado of \$949 million, a 35% increase over the 2003 production value. Nonfuel mineral production and employment will climb again in 2005 and 2006 due to the continued rise in metal prices and the commensurate increases in gold, molybdenum, and uranium production and value. The total value of nonfuel mineral production is expected to top \$1.4 billion in 2005 and 2006, which will break the previous record of \$1.3 billion set in 1982.

Prices for molybdenum have skyrocketed over the past two years. Phelps Dodge Corporation's Henderson Mine in Clear Creek County is North America's largest primary producer of molybdenum. As of early October, the average 2005 price for molybdic oxide was approximately \$37 per pound. The average price was just \$6.12 per pound in 2003. The mine and ore processing mill added a third work shift in 2004 and now employs approximately 500 people. In 2004, the mine produced 27.5 million pounds of molybdenum, with a production value of about \$348 million. The 2004 production was an increase of 24% over the 22.5 million pounds produced in 2003. In 2005 Henderson is forecast to produce around 32 million pounds, and by mid-2006, the production rate is expected to reach 40 million pounds per year. Phelps Dodge is also evaluating the possibility of reopening its Climax Mine near Leadville. If reopened, Climax could produce up to 20 million pounds of molybdenum per year. Prices for

**More than 66% of Colorado's mined coal is now sold to power plants in Kentucky, Illinois, Tennessee, and Georgia.**

molybdenum and other industrial metals should remain high because of increasing demand in the rapidly industrializing and populous nations of China and India.

Gold prices continued to rise in 2005. Through late October, the average 2005 gold price (London PM Fix) was \$434 per ounce, while the average price in 2004 was \$410 per ounce. This is good news for Colorado's only major gold mine, the Cripple Creek & Victor Mine in Teller County. This world-class mine employs about 320 people and produced 329,030 ounces of gold in 2004, a 16% production increase compared to 2003. Total gold production for 2005 and 2006 is expected to remain around 330,000 ounces. Denver-based Newmont Mining Corp. continues to be the world's largest gold mining company. Although Newmont does not have any active mining operations in Colorado, the company employs several hundred people at headquarters and research facilities in metro Denver. Numerous smaller mining and mineral exploration companies have offices in the Denver area and provide employment for geologists, engineers, financial specialists, and support personnel. All of these are benefiting from higher metal prices.

Uranium prices have risen from less than \$10 per pound in 2002 to more than \$33 per pound as of late October 2005. The price increases prompted Cotter Corporation to open four small mines near Naturita in western Colorado's famous Uravan mineral belt. At least one new mine near Slick Rock is scheduled to open in 2006, and exploration for new deposits is proceeding at a rapid pace. Western

### COLORADO NATURAL RESOURCES AND MINING EMPLOYMENT 1996–2006 (In Thousands)

Year	Total Natural Resources and Mining Employment	Percentage Change
1996	12.6	
1997	13.2	4.8%
1998	13.4	1.5
1999	12.3	-8.2
2000	12.2	-0.8
2001	12.9	5.7
2002	12.9	0.0
2003	13.2	2.3
2004	14.6	10.6
2005 <sup>a</sup>	16.8	15.1
2006 <sup>b</sup>	18.5	10.1

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

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

Colorado uranium deposits often contain significant amounts of vanadium, and this ferrous metal has seen sharp price increases over the last two years, jumping from \$2.21 per pound in 2003 to \$11.70 per pound by late October 2005.

Construction aggregates include crushed stone, gravel, and sand. In 2004 aggregate mines in Colorado produced 57.1 million tons of construction aggregate with a total estimated value of \$305 million. This increase of approximately 4% compared

to 2003 is attributed to a rise in construction activity fueled by improvements to the local economy. Additional small increases in residential and commercial construction are forecast for 2005 and 2006, and the demand for aggregates will increase commensurately.

Centex Construction Product's American Gypsum operation produces gypsum from its mine in Eagle County. The gypsum is manufactured into wall-board and other products at the plant. Holcim (US), Inc. operates a 2 million ton per year portland cement manufacturing plant near Florence. These operations are forecast to continue steady production in 2005. The value of Colorado's cement production is estimated to increase significantly because of higher prices for the product. Global demand for cement currently outstrips supply because of strong construction growth in China and India, and post-hurricane reconstruction in the Gulf Coast region.

### Employment

The primary contribution of the Natural Resources and Mining Supersector to the Colorado economy comes through the value of its production. From an employment standpoint, about 2,200 jobs will be added in 2005 and 1,700 jobs in 2006. As a result, employment will increase by 10.1%, to 18,500 jobs. About one-third of the employees work in each of the following areas: oil and gas extraction, mining, and support activities. In addition, approximately 150 to 200 workers are employed in the logging industry. ❖

## Construction

### Overview

The construction industry did not suffer from the 2001 recession, as measured by valuation, to the extent that other industries suffered. Now that the recovery is well underway in other sectors, strong, increasing activity is taking place across a broad spectrum of construction subsectors.

A major development within Colorado is the planned creation of a new power plant in Pueblo that will cost about \$1.3 billion. Work has already begun, and the number of permits will increase as the project moves forward.

Many business analysts are underestimating the extent to which inflation is affecting construction. The method for calculating inflation imputes the rental value for existing, owner-occupied housing. Construction inflation will become more apparent during the next year, and, at the margin, will decrease the size of units and prevent some developments from going forward.

Labor and materials costs will continue to rise with competition for those inputs increasing from the rebuilding in the Gulf Coast. Some demolition, hauling, and environmental companies have already moved labor and equipment to Louisiana and Mississippi. Much of the rebuilding efforts from inland communities will be typical work associated with recovery from a hurricane: re-roofing homes, fixing siding damage, and the like. All types of buildings in New Orleans will undergo an intense reconstruction effort. Much of the city was submerged in foul water for many days, which will require that buildings be gutted to their walls

and foundations. Much of the existing housing will simply be torn down and completely rebuilt.

### Single-Family Housing

The number of new single-family residential building permits in Colorado for 2005 will nearly equal the record total for 2004. Both large cities and mountain resort areas showed robust single-family growth in 2004 and 2005. The large Front Range metro areas and Grand Junction had the strongest showing, accounting for 85% of the increase. Homes in the resort and rural counties also

rebounded from declines in the early 2000s, but activity in those areas remains well below the levels posted in the 1990s.

Low mortgage interest rates have continued to drive demand in the new housing market in 2005. Other creative home financing programs, such as zero down payments and interest-only loans, and more frequent usage of adjustable rate mortgages also help facilitate the demand for home ownership.

Although average annual increases in the price of existing homes have been modest in Colorado since

**COLORADO EMPLOYMENT IN CONSTRUCTION AND STATE TOTAL**  
**1996–2006**  
**(In Thousands)**  
**(Base Year: 1996=100)**

Year	Construction			All Industries	
	Number	Index	Percentage Change	Index	Percentage Change
1996	112.2	100.0	8.2%	100.0	3.6%
1997	120.5	107.4	7.4	104.2	4.2
1998	134.6	120.0	11.7	108.2	3.9
1999	148.5	132.4	10.3	112.2	3.6
2000	163.6	145.8	10.2	116.4	3.8
2001	167.7	149.5	2.5	117.1	0.6
2002	160.4	143.0	-4.4	114.8	-1.9
2003	149.9	133.6	-6.5	113.2	-1.4
2004	151.4	134.9	1.0	114.6	1.3
2005 <sup>a</sup>	159.1	141.8	5.1	117.2	2.2
2006 <sup>b</sup>	168.6	150.3	6.0	120.0	2.3

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

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

2001, a growing share of new home construction is for larger homes at higher prices. The more affluent baby boomers and others least affected by the poor economy of the early 2000s were most confident in the region's recovery and returned to the market to purchase more expensive new homes. The total value of new home construction increased significantly in 2004 and 2005.

Builders carefully matched customer needs to new construction in 2005, leaving little excess inventory to suppress new permit activity next year. However, the volume of resale homes on the market will decline only slightly from its projected peak in 2005. This will continue to act as a drag on the market as move-up buyers will need more time to sell their homes before buying a new one.

Employment growth and improved consumer confidence have encouraged new home buying. Low inventory levels will put upward pressure on mortgage interest rates. Therefore, only a modest 3% growth in the number of new single-family permits in 2006 is projected. As market improvement becomes more widespread across middle and lower home price ranges in 2006, average new-home price increases will moderate. This moderation will offset higher construction costs driven, in part, by the labor and materials cost disruptions resulting from the 2005 hurricanes that hit the Gulf Coast region.

### **Multifamily Housing**

Multifamily activity in 2005 should dip below the already low numbers posted in 2003 and 2004, falling to a total of 5,200 units for the year.

The pace of multifamily construction in Colorado remains subdued, and a resumption of pre-recession activity is not expected for a couple of years. For-sale units continue to prop up the sector, but higher interest rates and a burgeoning supply in the Denver metro area will reduce future activity. Although many rental markets are improving, stagnant rents overall and increasing costs undermine economic feasibility for new apartments. Sustained employment growth throughout the state will set the stage for increased apartment production, but not until after 2006.

Colorado's largest rental market, the Denver MSA, is experiencing increases in absorption and declines in vacancy rates this year. Nevertheless, the average rent has been slow to increase and economic vacancy (physical vacancy plus losses from concessions and discounts) remains high. Offsetting this gloomy situation is renewed interest in multifamily construction in transit-oriented developments, which should see a small increase in activity in 2006. Obviously, fundamentals will not support resurgence in activity in the short run.

The recent arrival of the 2nd Brigade, 2nd Infantry Division at Fort Carson gave a much-needed boost to the rental market in Colorado Springs. In addition, the pending transfer of a Brigade Combat Team from Fort Hood has considerably brightened the long-run outlook for this market, although recurring overseas deployments of troops will mute some of the effect of these additions. This gain in the number of troops in the area should not only rescue the current Colorado Springs rental market from its prolonged depression but should

also create enough demand to stimulate additional construction as early as 2006.

Rental markets throughout the rest of the state are mixed. Stronger markets are evident in some resort areas but sustained recoveries remain sporadic in other regions.

After declining for several years, total residential construction in resort counties was up in 2004, but the increase came only in the single-family sector. Similarly, while overall residential construction increased in areas outside the Front Range, this growth in total activity failed to stimulate much change in multifamily activity. Low interest rates have made home ownership affordable to many renters. As a result, little demand exists for rental units in many areas other than those produced under the Low Income Housing Tax Credit Program.

A limited gain to 6,000 multifamily units is forecast for 2006 but a major revival of this sector will have to wait for at least another year.

### **Nonresidential Building**

Xcel Energy is building a new coal-fired power plant in Pueblo. This \$1.3 billion construction project broke ground in 2005 and will continue for about four years. This infusion of work represents about one-third of one year's entire volume of work for nonresidential building. It will boost nonresidential building in 2006 by \$200 million.

Resort work has been vibrant for hotels and other commercial buildings in 2005, and will remain so

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## Construction

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for several more years. Work began on 15 different hotel remodels in Vail in 2005. Next year, work will take place in Winter Park and Avon.

Construction on retail projects has returned to its position as a major contributor to commercial activity. A significant amount of work took place in 2005 at Ridge Gate, Orchard Town Center, and Southglenn. Moreover, the intersection of I-25 and U.S. Highway 34 north of Denver is quickly becoming

a focus for the northern Colorado region as evidenced by the 3,000-acre Centerra development. New projects are expected to emerge along the eastern growth borders of the Denver area, and the demand for new construction is projected to remain strong throughout next year.

Construction of medical facilities was down sharply in 2005, by about \$600 million, from the prior year, but 2004 experienced a truly anomalous

upward spike in the volume of new work started. Overall, the extent of medical facility rehabilitation and new construction is strong and stable, particularly in northern Colorado. St. Mary's in Grand Junction will start a new phase in 2006, and the earliest stages of the Veterans Hospital will get underway late in the year. The move of St. Anthony's Central to new buildings at the Denver Federal Center is not expected to occur for a couple of years.

### BUILDING PERMITS BY TYPE 1996-2006

Year	Single Family	Multifamily	Total Housing Units
1996	30,361	10,774	41,135
1997	31,941	11,112	43,053
1998	36,107	15,049	51,156
1999	38,410	10,903	49,313
2000	38,588	16,008	54,596
2001	36,437	18,570	55,007
2002	34,993	12,878	47,871
2003	33,837	5,732	39,569
2004	40,753	5,746	46,499
2005 <sup>a</sup>	40,000	5,200	45,200
2006 <sup>b</sup>	41,200	6,000	47,200

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

Note: In 2004, the Department of Census replaced the 19,000-place-construction-statistics series with a 20,000-place series, which resulted in subsequent increases in the data.

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

### VALUE OF CONSTRUCTION IN COLORADO BY TYPE 1996-2006 (In Millions of Dollars)

Year	Residential	Nonresidential	Total Building	Nonbuilding	Total Construction
1996	\$4,599.4	\$2,544.2	\$7,143.6	\$833.7	\$7,977.3
1997	4,774.6	3,273.7	8,048.3	1,145.1	9,193.4
1998	5,486.1	2,879.7	8,365.8	1,490.9	9,856.7
1999	6,229.1	3,782.9	10,012.0	1,590.3	11,602.3
2000	7,028.6	3,476.0	10,504.6	1,835.4	12,340.0
2001	6,593.3	3,500.0	10,093.3	1,686.6	11,779.9
2002	6,357.3	2,787.4	9,144.7	2,161.5	11,306.2
2003	6,258.2	2,712.9	8,971.1	1,731.8	10,702.9
2004	8,050.3	3,216.0	11,266.3	1,741.8	13,008.1
2005 <sup>a</sup>	8,706.0	3,000.0	11,706.0	1,850.0	13,556.0
2006 <sup>b</sup>	9,446.0	3,300.0	12,746.0	1,970.0	14,716.0

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

Note: In 2004, the Department of Census replaced the 19,000-place-construction-statistics series with a 20,000-place series, which resulted in subsequent increases in the data.

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

Building at offices and schools has been slow, but institutional work has been notably stable. Three large projects at the University of Colorado—the new addition to the Leeds School of Business, the new law school building, and the new science building—are adding \$60 million of work. The nearly finished soccer stadium in Aurora also increased volume. As military base consolidations bring more people to Fort Carson, spending for support facilities will climb. In addition, the Pueblo Army Depot work will exceed \$1 billion, but the timing of its start is not clear. It is difficult to understand the amount and type of work for some planned new construction because of high security levels. Grupo Cementos de Chihuahua is scheduled to start on the \$200+ million new cement plant south of Pueblo in 2006.

School districts bonded \$1 billion last year for rehabilitation and new construction, and much of that work has been started and even completed. A significant amount of residual work still needs to be completed after the end of the 2005–06 school year, but an overall decline is anticipated in this area in 2006 compared to 2005.

Preliminary work on the new Denver Municipal Jail is taking place; however, it will be another year before construction begins. The design team selection and much of the preparatory work that is not allocated to the construction industry will occur in 2006.

At the state level, a total of \$300 million is planned for a new prison. In addition, construction will continue with the relocation the University of Colorado Health Sciences Center to Fitzsimons. A taxpayer lawsuit to prohibit the state from using certificates of participation held this work in

abeyance for a couple of years. With the recent legal resolution in favor of the government, this work will now move forward.

### Nonbuilding

Infrastructure building was robust in 2005, and slightly more work is anticipated next year. Work on T-REX will be winding down in 2006; however, it will still be a large part of the picture, contributing \$125 million to transit and highway work. Due to the way permits for highway work are issued, the data will create the appearance that an even larger drop is occurring.

Offsetting the decline in the major Department of Transportation project will be increased development work in the private sector. Investment in private infrastructure will occur as a result of activity in housing and retail. This work will be disbursed over newly developed areas, especially in the Denver region. Developers will place more new roads, water and sewer lines, grading, and drainage for new subdivisions and new projects, which will support the volume of work in the nonbuilding area.

Extensive activity in water development and storage is expected to continue in 2006, along with work on smaller, ongoing projects. A major reservoir is being constructed in Douglas County.

More highway projects may be funded by the legislature, but increased volume cannot be assumed in this forecast. The passage of Referendum C will have many competing demands beyond transportation. If extra highway money becomes available, it will affect the second half of the year. FasTracks will eventually be a \$7 billion project, but the various phases are still in the earliest stages of acquisition and engineering. This series of large public works

projects to build mass transit lines will not impact the construction sector for the time horizon that this report entails. No significant new airport projects will affect the forecast.

The federal government announced that the new transportation funding bill will bring \$2.9 billion to Colorado over the next four years. The legislation has not been finalized, and funding delays will lead to a slow start before it translates into permits or activity. The Colorado Department of Transportation does not anticipate that it will have federal funds available to spend even as late as year-end 2006. Only \$2.2 billion is slated for highways, and some of that is earmarked for specific projects. Limiting funding for only designated projects will cause further delays when projects are not on the designated list.

### Employment

A reawakening of job growth in Colorado's construction sector began in earnest in 2005. The surge in value for permits issued in 2004 kept workers busy well into 2005 and created a need for employers to expand payrolls throughout the past year. The annual average employment for 2005 is expected to increase to 159,100 workers, a surprising gain of 7,700 jobs (5.1%) over the 2004 average. Ongoing expansion in nonbuilding and nonresidential activity during 2006 will provide the impetus for additional growth in construction payrolls. While much of the surge in construction value that is forecast for 2006 is a result of increased materials cost, employment in this sector should continue to grow. Another 9,500 jobs are anticipated in 2006, bringing the annual average up to 168,600 workers, a gain of 6% from the 2005 average. ❖

## Manufacturing

Colorado's manufacturing industry finally achieved some stability in 2004 and 2005. Only 1,400 manufacturing jobs were lost in 2004 compared to the brutal losses of the 2001 to 2003 period. This sector's employment base shrunk by 35,300 positions during those three years alone, resulting in an 18% decline. Manufacturing jobs now account for only 6.8% of the state's total employment base, down from 9.8% in 1994 and 1995.

The 5,900 manufacturing establishments in Colorado are expected to employ approximately 151,700 workers in 2005. This represents a contraction of about 2,900 positions in 2005, although 2,500 of these "lost" positions are actually due to a reclassification of a Manufacturing establishment to a Professional and Business Services establishment. The net result of this reclassification is that only about 400 manufacturing jobs were lost in 2005. Most sectors should experience increasing or stable conditions in 2006, leading to the addition of 100 positions—the first increase in manufacturing employment since 2000.

Two main themes that emerged in 2003 continue to dominate the manufacturing outlook in 2006. First, offshoring of manufacturing operations has increased, with most industry experts expecting that these jobs are lost to the U.S. economy forever. Second, enhanced production processes and technological changes have advanced global productivity, meaning that manufacturers are able to do more with fewer employees. While there are advantages to both offshoring and productivity gains, the downside is that manufacturing employment in the United States and Colorado will grow slowly.

### Survey Results

For the 15th consecutive year, the Manufacturing Committee conducted a survey of Colorado manufacturers. Companies responding to the survey represent roughly 8,200 employees, or about 5.4% of total manufacturing employment. While this is a small sample, the results do provide some insight into the current state and future outlook of the industry.

Survey respondents were bullish on their Colorado operations, with an expected 5.9% increase in manufacturing employment in 2006. As for facility expansion plans, 43.5% plan to expand their facilities in Colorado during the next three years, while another 24.2% plan to expand their facilities elsewhere around the globe. While the expansion plans discussed by the survey participants are good news, it is likely that these results are skewed by the sample respondents and that actual performance will be less than the respondents indicated.

#### ATTRIBUTES OF THE COLORADO LABOR MARKET

	Excellent/Good		Fair/Poor	
	Prof. Staff	Hourly	Prof. Staff	Hourly
Skill Level	58%	37%	5%	25%
Willingness	56	32	12	22
Productivity	61	41	7	17
Availability	34	27	37	51
Work Ethic	42	36	22	39

Source: From 2005 Survey of Colorado Manufacturers, CU Business Research Division.

While survey questions have changed slightly over the years, one question that has been asked consistently is, "Has your company performed better or worse this past year than you had anticipated?" About 52% of respondents said they performed better or much better than they had anticipated, the highest response in the 15 years of the survey. Another 31% said they had performed as expected. Although 17% indicated that their company had performed worse than expected, this was down slightly, from 20% last year.

Nearly two-thirds of the survey participants indicated that 10% or more of their total sales are generated through foreign exports, with some receiving a majority of their sales from overseas customers. A total of 44% of these companies expect their export sales to grow by more than 10% in the next 18 months. The largest export markets for survey participants are Canada and Western Europe. As there were limited responses to this survey, it is important to note that the experience of the respondents may be different than state exporters as a whole. According to the latest export statistics, Colorado's largest export markets are Canada, Mexico, and China.

In terms of outsourcing, survey results this year were similar to those reported last year. Specifically, companies outsourced to domestic locations more frequently than foreign ones, and manufacturing was outsourced much more frequently than product design or development. Indeed, 62.5% of the respondents indicated that they did some level of domestic outsourcing of their manufacturing operations in 2005, 40% outsourced some product

design, and 34.2% outsourced some product development. Generally, respondents expected outsourcing to foreign locations to increase, while domestic outsourcing was projected to remain fairly stable in 2006.

Some level of outsourcing of manufacturing, product design, and product development is necessary to remain cost competitive, provide production flexibility, tap new sources of innovation, and create a presence in emerging markets. However, the development phases of bringing new products to market (testing, redesign, manufacturing process development, supply chain development, customer communication, pilot production, etc.) are the areas where companies learn about their products and processes. The tacit knowledge learned is important for future innovation capabilities. Outsourcing a large percentage (more than 50%) of these activities could damage manufacturers' abilities to innovate in the future. Therefore, manufacturing companies should use caution in their outsourcing operations, making sure that they are not substituting short-term financial results for long-term strategic competitive advantage.

Survey participants were also asked to rate both the hourly and professional workforce in Colorado in terms of availability, skill level, work ethic, productivity, and willingness to learn. Professional employees rated very high in skill level, willingness to learn, and productivity. Ratings were lower in work ethic. Hourly workers were rated significantly lower in all of the above categories. The hourly workforce received the most favorable ratings in productivity and least favorable in availability.

Availability of workers is beginning to become an issue once again in Colorado. A total of 37.3% of the respondents rated the availability of professional staff as fair to poor; this percentage was 50.8% for hourly employees.

Finally, the survey asked manufacturers about the possible impacts of a number of global, national, and local issues. Of the global/national issues, the areas of greatest concern were the cost/availability of raw materials and the level of domestic government regulations. Participants also frequently cited the level of domestic competition and the impacts of the Gulf Coast hurricanes as potentially negative impacts.

For the fourth year in a row, health insurance costs were identified more frequently than any other local business factor as having a negative impact on manufacturing operations. Just over 89% of the companies surveyed indicated that health insurance costs are detrimental to their business.

Ranking a close second, 87.5% of the businesses cited rising energy costs as negatively affecting their operations. Not surprisingly, many companies are adjusting their prices as a means for dealing with

**Outsourcing a large percentage (more than 50%) of development activities could damage manufacturers' abilities to innovate in the future.**

higher energy costs. Of the survey respondents, 58% said they have raised prices due to higher energy costs, while 22% have changed their manufacturing process and 31% have altered their shipping methods.

## Employment Forecast

Manufacturing job losses continue in Colorado, with 2005 the fifth consecutive year that employment has declined. The 2005 data reflect a reclassification of 2,500 jobs from Manufacturing to Professional and Business Services. When this reclassification is considered, Colorado manufacturers lost about 400 jobs in 2005, a 0.3% decrease. The picture is brighter for 2006. A slim gain of 100 positions expected, representing a 0.1% increase.

## NONDURABLE GOODS

Three trends currently affect the food and beverage industry. The first is that Americans are increasingly concerned with their health. The latest dieting trends of Americans are toward low-carbohydrate, low-fat foods that provide nutritional benefits, such as foods enhanced with fortifying vitamins and minerals. This health trend is also driving more people to buy organically grown foods. Consumers are buying more low-sugar, low-cholesterol, low-fat, and high-protein products. The consumption of high-carbohydrate foods, such as pasta and bread, is falling.

A second trend is toward more ethnic diversity. The biggest influence in this trend is the rapid increase in the Hispanic population in the United

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## Manufacturing

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### COLORADO MANUFACTURING EMPLOYMENT BY INDUSTRY GROUP 1996–2006 (In Thousands)

Industry Group	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005 <sup>a</sup>	2006 <sup>b</sup>
Food	19.3	19.6	19.6	19.3	19.8	19.8	19.3	18.3	17.9	17.5	17.5
Beverage and Tobacco	6.7	6.4	6.3	5.9	5.9	6.0	5.9	5.8	5.9	5.8	5.8
Printing and Related	12.3	12.5	12.4	11.8	11.4	10.4	9.2	8.6	8.1	7.9	7.7
Other Nondurables	<u>21.4</u>	<u>21.6</u>	<u>23.5</u>	<u>23.4</u>	<u>23.0</u>	<u>20.8</u>	<u>19.5</u>	<u>19.2</u>	<u>18.9</u>	<u>18.6</u>	<u>18.6</u>
Subtotal, Nondurable Goods	59.7	60.1	61.8	60.4	60.1	57.0	53.9	51.9	50.8	49.8	49.6
Nonmetallic Minerals	8.7	9.1	9.7	10.3	10.8	10.4	9.8	9.1	9.1	9.6	9.8
Fabricated Metals	16.5	17.3	17.9	17.6	18.3	17.2	15.8	15.1	15.6	15.9	16.1
Computer and Electronics	43.2	45.1	48.3	47.5	48.3	47.6	40.4	35.8	34.4	31.5	31.0
Transportation Equipment	12.4	13.8	13.9	13.2	12.3	11.3	10.4	9.7	9.8	10.0	10.2
Other Durables	<u>42.4</u>	<u>43.9</u>	<u>42.8</u>	<u>41.6</u>	<u>41.5</u>	<u>38.4</u>	<u>35.9</u>	<u>34.4</u>	<u>34.8</u>	<u>34.9</u>	<u>35.1</u>
Subtotal, Durable Goods	123.2	129.2	132.6	130.2	131.2	124.9	112.3	104.1	103.7	101.9	102.2
Total, All Manufacturing <sup>c</sup>	182.9	189.3	194.4	190.7	191.3	181.9	166.1	156.0	154.6	151.7	151.8

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

<sup>c</sup>Due to rounding, the sum of the individual items may not equal the total.

Note: 2005 employment change includes the effect of 2,500 jobs being reclassified from Computer and Electronics Manufacturing to Scientific Research and Development Services (a subsector of Professional and Business Services).

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

States. According to the U.S. Census Bureau, the Hispanic population increased nearly 70% from 1990 to 2002 and is now 18% of the total U.S. population.

A final trend is industry restructuring and streamlining. Food processors are facing inflation cost pressures on ingredients, packaging, health-care benefits, and energy. These factors are causing some consolidation in the industry. Many large

food manufacturers are shedding non-core, unprofitable assets and are eliminating less profitable brands in an attempt to reduce costs and increase profitability.

Colorado food and beverage manufacturing should benefit from at least two of these trends. The trend toward low-carbohydrate, high-protein foods should be good for the beef industry. Furthermore, the increase in the Hispanic population should

benefit the Colorado food manufacturers that cater to this segment of the population.

Given the changes taking place in the food and beverage industry, it is expected that employment in food manufacturing will decline by 400 jobs, to 17,500 workers, in 2005 and remain at this level in 2006. Beverage manufacturing employment is expected to fall by 100 jobs in 2005, to 5,800 workers, and continue at this level in 2006.

The printing and publishing industry is trying to cope with the rapidly expanding electronic distribution of information that was previously available only through traditional printed media. Debit cards, on-line payment of bills, direct deposits, and PayPal are advancing the day when handwritten checks will be a thing of the past. Discount shopping coupons can be downloaded from the Internet. Newspapers and magazines are available

on the Internet. Electronic distribution of most every type of document is now done via PDF format. These can be read on a personal computer or downloaded to a PDA. Best sellers to literary classics are available as electronic books that can be downloaded for the desktop, laptop, or PDA. The trend away from a hard copy to electronic distribution is making it very difficult for traditional printers to compete.

At some point, a new equilibrium level will be reached in the industry. This is not expected to take place for several years. Darwinian economics is expected to result in a decrease in employment in the printing and publishing industry by 200 workers in 2005 and another 200 jobs in 2006.

The other nondurable goods subsectors include textiles, apparel and leather goods; paper

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**MANUFACTURING EMPLOYMENT, DURABLE AND NONDURABLE  
1996–2006  
(In Thousands)  
(Base Year: 1996=100)**

Year	Durable		Nondurable	
	Employment	Index	Employment	Index
1996	123.2	100.0	59.7	100.0
1997	129.2	104.9	60.1	100.7
1998	132.6	107.6	61.8	103.5
1999	130.2	105.7	60.4	101.2
2000	131.2	106.5	60.1	100.7
2001	124.9	101.4	57.0	95.5
2002	112.3	91.2	53.9	90.3
2003	104.1	84.5	51.9	86.9
2004	103.7	84.2	50.8	85.1
2005 <sup>a</sup>	101.9	82.7	49.8	83.4
2006 <sup>b</sup>	102.2	83.0	49.6	83.1

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

Note: 2005 employment change includes the effect of 2,500 jobs being reclassified from Computer and Electronics Manufacturing (Durable) to Scientific Research and Development Services (a subsector of Professional and Business Services).

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

**COLORADO EMPLOYMENT IN MANUFACTURING AND STATE TOTAL  
1996–2006  
(In Thousands)  
(Base Year: 1996=100)**

Year	Manufacturing			All Industries	
	Number	Index	Percentage Change	Index	Percentage Change
1996	182.9	100.0	1.9%	100.0	3.6%
1997	189.3	103.5	3.5	104.2	4.2
1998	194.4	106.3	2.7	108.2	3.9
1999	190.7	104.3	-1.9	112.2	3.6
2000	191.3	104.6	0.3	116.4	3.8
2001	181.9	99.5	-4.9	117.1	0.6
2002	166.1	90.8	-8.7	114.8	-1.9
2003	156.0	85.3	-6.1	113.2	-1.4
2004	154.6	84.5	-0.9	114.6	1.3
2005 <sup>a</sup>	151.7	82.9	-1.9	117.2	2.2
2006 <sup>b</sup>	151.8	83.0	0.1	120.0	2.3

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

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

## Manufacturing

*continued from page 27*

manufacturing; petroleum and coal products; chemicals; and plastics and rubber products. With the exception of the latter two categories, these areas have a small, yet stable, presence in Colorado. The textiles and apparel and leather subsector employs about 3,500 people, but it continues to face stiff overseas competition. Roughly 2,400 people are employed in paper manufacturing in the state, including cardboard containers, packaging, and paper products. This group has been contracting by about 100 workers per year during the last four years. Another 900 people are employed in the petroleum and coal products subsector, mainly within petroleum refining operations. This area has posted increasing employment during the past year in response to rising energy costs.

The chemical manufacturing subsector includes petrochemical manufacturing, industrial gases, biotechnology, pharmaceuticals, household chemicals, and related industries. This is a very volatile category, with wide swings in individual company employment resulting from the success or failure of medical clinical trials and changes in the price of oil. Biotechnology is an important emerging sector for the Colorado economy and has been targeted in state economic development efforts. The continued development of the Bioscience Park Center at the former Fitzsimons Army Medical Center and the transformation of this site to an educational medical complex present long-term opportunities for the industry, although employment has been flat in recent years. Chemical manufacturing employs roughly 6,600 Colorado workers.

The plastics and rubber products subsector includes companies producing plastic film, plastic foam products, and other miscellaneous products. Rubber companies have a limited presence in Colorado, while the plastics industry continues to grow. This group includes injection-molding companies, which are closely tied to the biotech and electronics industries. Employment in the rubber and plastics subsector will remain at about 5,200 workers in 2005 and 2006.

The other nondurable goods subsectors are expected to decrease by a total of 300 positions in 2005 and will remain at this level in 2006. This brings the total nondurable goods employment forecast to 49,800 positions in 2005, down by 1,000 jobs from 2004. While most subsectors will be flat in 2006, the loss of 200 jobs in the printing and publishing sector will bring total nondurable goods employment down by 200. Still, nondurable goods employment continues to represent about one-third of Colorado's total manufacturing employment base.

### DURABLE GOODS

Although there is great diversity of products in this industry group, outputs from the nonmetallic minerals subsector are closely tied to construction activity of all types—residential, commercial, industrial, and heavy construction. This group includes everything from pottery, plumbing fixtures, and glass products, to brick and tile, to concrete and stone products. This subsector grew by almost 500 jobs in 2005 as construction held up better than anticipated, ending the year with

average employment of 9,600 workers. A small gain of about 200 jobs in this area is expected due to post-hurricane reconstruction activity driving demand. Nonmetallic minerals will average 9,800 jobs in 2006.

Output from the fabricated metals subsector provides materials for many other areas, everything from steel beams for construction to component parts for a myriad of other products—virtually anything with metal content. Employment in this industry fluctuates with demand from other industries. Many of the firms in this category are small suppliers to producers of industrial machinery. This subsector grew slightly in 2005 to end the year with average employment of 15,900, a gain of 300 jobs over 2004. Higher demand for fabricated metal products should continue as industries such as energy exploration and production drive the need for more equipment. In fact, Rocky Mountain Steel in Pueblo recently announced plans to reopen its seamless pipe unit after a two-year hiatus. Continuing strength in factory orders should help this subsector see a net gain of 200 jobs in 2006, reaching an average of 16,100 workers.

The largest durable goods subsector in Colorado is computer and electronics products. The slide in employment in this area continues into 2005 and 2006. Although U.S. companies started to invest in information technology products again in 2004 and 2005, much of the design and manufacturing has been outsourced to Asian countries, particularly China.

This trend is also occurring in Colorado, causing several state-of-the-art printed circuit board assembly plants and final assembly plants to close since 2002. Layoffs continued during 2005 at Advanced Energy, Hewlett Packard, McData, Celestica, and others. The acquisition of home-grown StorageTek by Santa Clara-based Sun Microsystems will probably result in future layoffs. One bright spot is Intel, which is spending \$590 million expanding its Colorado Springs and Fort Collins facilities and plans to add “several hundred employees” in each facility.

A reclassification of 2,500 workers in this subsector to a Professional and Business Services category leads to a new employment level of 31,500 workers in the computer and electronics area in Colorado in 2005. Employment will continue to decline by 500 workers in 2006. A major contributor to Colorado’s fast-growing and diverse economy of the late 1990s, the computer and electronics industry is declining in employment.

The transportation subsector includes the manufacture of everything from aircraft parts to missiles and satellites to Yeti mountain bike frames. Increased defense and aerospace spending since late 2001 have provided the state’s five prime contractors (Lockheed Martin, Boeing, Raytheon, Northrop Grumman, and Ball Aerospace) with new clients and new contracts. Although the operations of these companies are classified across a variety of manufacturing and service industries, the health of these firms in general tends to fuel transportation subsector employment. Adam Aircraft, Aviation

Technology Group, and other new aircraft companies are growing and adding manufacturing capacity and employment. A state tax credit for this area that became effective in September 2005 may accelerate employment growth. Employment in the transportation subsector is expected to increase by 200 jobs per year in both 2005 and 2006.

The Other Durable Goods Sectors include wood products, primary metals, machinery, electrical equipment and appliances, furniture, and miscellaneous manufacturing. This diverse group of subsectors is faced with varying demand issues.

Employment in the wood products and furniture subsectors increased by about 600 jobs in 2004 but is expected to remain flat in 2005 and 2006 due to decreased local home construction and flat or slightly declining consumer confidence. On the other hand, this area may be boosted by increased demand for building materials in the hurricane-affected areas.

Roughly 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 superalloys. Output from the primary metals area provides materials for many other sectors, especially fabricated metals. Another 8,700 people are employed in machinery manufacturing. Due to the overall sluggishness of the manufacturing industry, the primary metals and machinery subsectors are expected to remain flat in 2005 and 2006.

The miscellaneous manufacturing sector is quite broad and includes several industries that are very important to Colorado’s manufacturing base, such as medical and dental equipment and supplies, surgical instruments and appliances, and sporting goods production. Employment in the miscellaneous categories increased by about 100 positions in 2005 and is expected to gain another 100 jobs in 2006, growing to 10,200 workers.

Employment in other durable goods, which totaled 34,800 workers in 2004, is expected to increase by 100 jobs in 2005 and 200 jobs in 2006. This will bring total durable goods manufacturing employment in Colorado to 101,900 in 2005 and 102,200 in 2006.

## Summary

The 5,900 manufacturing establishments in Colorado are expected to employ about 151,700 workers in 2005, representing approximately 6.8% of the state’s total employment base. This represents a loss of roughly 2,900 positions in 2005, although 2,500 of these “lost” positions are actually due to a reclassification of a Manufacturing establishment to a Professional and Business Services establishment. This is a tremendous improvement over the situation from 2001 to 2003, when a total of 35,300 manufacturing jobs disappeared in just those three years. Most subsectors should experience increasing or stable conditions in 2006, leading to the addition of 100 positions in 2006, the first increase in manufacturing employment in six years. ❖



## Trade, Transportation, and Utilities

The Trade, Transportation and Utilities Supersector is the largest provider of jobs in Colorado. Firms added jobs in the area with higher wholesale and retail sales in 2005. The number of jobs increased by 1.4%, to 412,900. Sales should post stronger gains in 2006, pushing employment up 1.9% to a total of 420,700.

### Wholesale

Colorado's wholesale trade subsector currently employs over 90,000 workers. More than 90% of these jobs are with merchant wholesalers (i.e., firms that sell to retail outlets). The remaining 7,000

workers are employed by business-to-business sellers, electronic marketers, and agents and brokers. Nearly 60% of state's wholesale jobs are with firms specializing in durable goods. Computers, peripherals, and electronic equipment account for the greatest number of these jobs. Among nondurable wholesalers, the largest number of jobs is with grocery and related products firms.

Wholesale trade rebounded in 2004 after two consecutive years of declining employment. The sector will continue to climb in 2005. The turnaround is largely due to improved state and national economies. A gain of approximately 1,200

new jobs is also expected in 2006. Most of these new positions will be in firms selling durable goods. These companies are benefiting from ongoing strength in capital goods spending.

### Retail

Almost 250,000 workers are currently employed in retail trade. Colorado retailers account for nearly \$60 billion in sales. Three of the state's largest private sector employers are from the retail trade sector, including the state's largest private sector employer, Wal-Mart. The retail trade sector rebounded in 2004 after several years of declining employment and low inflation-adjusted sales. The recovery has continued into 2005.

While consumer spending has held up well through the early part of 2005, several developments raise doubts as to whether this trend will continue.

Concerns include higher gasoline and heating costs, excessive household debt, a softening housing market, and a saturated automobile market. Measures of consumer confidence fell sharply in the later half of 2005. The decline in the University of Michigan's Consumer Survey reported that the drops in both the Index of Consumer Sentiment and the Index of Consumer Expectations in August and September were the largest in the survey's history.

Rising prices for motor fuel and natural gas have reduced discretionary income. Since 2003, rising energy prices have accounted for a \$750 annual reduction in the average household budget in Colorado. This amounts to about 1.5% of income and has already had some effect on consumer spending. Retail sales through the first six months

**WHOLESALE TRADE EMPLOYMENT  
1996–2006  
(In Thousands)**

Year	Wholesale Trade Durable Goods	Wholesale Trade Nondurable Goods	Other Wholesale	Total <sup>a</sup>	Percentage Change
1996	50.6	29.8	5.4	85.8	2.3%
1997	53.1	30.8	5.8	89.7	4.5
1998	53.6	32.4	6.5	92.5	3.1
1999	55.9	33.1	5.5	94.5	2.2
2000	60.0	33.8	5.6	99.4	5.2
2001	60.4	33.9	5.5	99.8	0.4
2002	56.0	33.3	5.8	95.1	-4.7
2003	52.7	32.3	7.1	92.1	-3.2
2004	51.8	31.9	8.6	92.3	0.2
2005 <sup>b</sup>	53.1	32.1	8.3	93.6	1.4
2006 <sup>c</sup>	54.4	32.3	8.1	94.8	1.3

<sup>a</sup>Due to rounding, the sum of the individual items may not equal the total.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast.

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

**RETAIL TRADE EMPLOYMENT**  
**1996–2006**  
**(In Thousands)**

Year	Motor Vehicle and Parts Dealers	Bldg. Material and Garden Eqpt. and Supplies Dealers	Food and Beverage Stores	General Merchandise Stores	Other Retail	Total <sup>a</sup>	Percentage Change
1996	29.2	17.4	42.6	36.2	91.6	217.0	4.5%
1997	28.4	18.3	42.8	39.0	94.9	223.4	2.9
1998	29.2	19.1	44.4	39.2	98.9	230.8	3.3
1999	30.5	20.7	45.1	40.8	102.2	239.3	3.7
2000	31.9	21.3	44.7	42.6	104.7	245.2	2.5
2001	32.7	21.6	44.2	43.4	103.8	245.7	0.2
2002	33.0	22.2	42.7	44.0	100.8	242.7	-1.2
2003	32.4	21.5	42.2	44.2	99.2	239.5	-1.3
2004	32.4	22.6	42.6	44.8	99.1	241.5	0.8
2005 <sup>b</sup>	32.4	24.0	44.6	45.4	101.4	247.8	2.6
2006 <sup>c</sup>	32.4	25.3	46.3	46.0	103.9	254.0	2.5

<sup>a</sup>Due to rounding, the sum of the individual items may not equal the total.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast.

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

of 2005 are up 6%; however, if gas station sales are removed, the increase is only 5.3%.

Consumers have borrowed heavily but may be unable to incur much more debt. The American Bankers Association reported that credit card delinquencies rose to a record high in second quarter 2005. Bankruptcy reforms will make it harder for insolvent consumers to cast off their debts. On the other hand, the value of household assets has kept pace with the increase in debt. The Federal Reserve reported that household net worth in second quarter 2005 rose for the 11th consecutive quarter.

Questions about the housing market loom over the consumer spending outlook again this year. Housing markets in much of the state are already going through a correction. As of fall 2005, this correction has been orderly. Housing prices are flat along the Front Range rather than dropping. However, the lack of price appreciation has put pressure on household budgets as, in absolute number terms, 2005 will be the second-worst year on record for foreclosures in metro Denver. Stronger job growth will eventually create a rebound, but it is not imminent and weak housing demand will

limit homeowners' willingness and ability to spend. Alan Greenspan recently reported on research that suggests discretionary extraction of home equity accounts for about four-fifths of the rise in home mortgage debt. This increase in debt has contributed greatly to rising consumer spending in the face of modest job and income gains. As the housing market softens, this source of funding will shrink.

Auto sales were boosted over the summer by employer pricing incentives. It is questionable

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## Trade, Transportation, and Utilities

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whether consumers will continue to buy when these incentives expire. Weak national auto sales in September 2005 may be an early indicator of further weakness.

Holiday sales in 2004 were quite robust, with Colorado December retail sales up more than 9% over a year earlier. A similar gain this year is unlikely as shoppers face an uncertain economy. Colorado retailers will experience a jollier holiday season in 2005 than those holiday seasons during the recent economic downturn but overall sales gains will be only slightly above the rate of inflation. The forecast for sales growth anticipates a rise of

4-5% in December 2005 relative to the comparable period a year ago.

The retail real estate market is showing modest improvement. Metro Denver's new construction in early 2005 was minimal, and the vacancy rate posted a small decline. However, the Denver market has a reported 5 million square feet of new projects under construction. This highly desirable new space will, in a period of limited growth, put increasing pressure on older shopping areas.

Despite the many negative developments, the continuing economic recovery in Colorado should

limit any consumer retrenchment in the state. Job and income growth in the retail sector for 2006 will be slightly better than in 2005. In addition, retail spending is expected to post gains similar to those in 2005, climbing about 5.8% in 2006. Growth will be boosted by surging gasoline prices, which raise the dollar value of sales from gas stations even as it cuts into gains elsewhere. When sales from gas stations are excluded, projected sales are reduced almost one-half of one percent. The retail sector is expected to add 6,200 jobs.

The risks to the retail outlook are predominately on the downside. Another surge in energy prices, a decline in the national economy, or increased concerns about security could bring about a pull back by consumers. Increases in the value of household assets have fueled a great deal of the rise in spending over the past two years. If consumers become less confident about continued increases in wealth, they will curtail big-ticket purchases that can be deferred.

### Transportation and Warehousing

The Transportation and Warehousing Sector includes air, railroad, and water transportation; trucking; taxi service; urban transit; couriers; warehousing; and pipeline companies. These industries are expected to contribute 63,600 jobs in 2005 and 63,900 in 2006. High fuel prices led to job losses in this sector in 2005, with employment falling by 3%. With lower to stable prices, prospects should improve next year.

**RETAIL SALES  
1996-2006  
(In Billions of Dollars)**

Year	Motor Vehicle and Parts	General Merchandise	Total Retail Trade Sales <sup>a</sup>	Percentage Change
1996	\$9.2	\$5.6	\$38.2	7.0%
1997	10.0	6.2	40.4	5.8
1998	10.0	6.2	43.1	6.7
1999	11.8	6.9	47.4	10.0
2000	13.0	7.6	52.2	10.1
2001	13.9	7.9	52.9	1.3
2002	13.5	8.2	52.9	0.0
2003	13.7	8.5	52.8	-0.2
2004	14.0	9.1	55.8	5.7
2005 <sup>b</sup>	14.3	9.8	58.9	5.6
2006 <sup>c</sup>	14.6	10.5	62.3	5.8

<sup>a</sup>The two largest Retail Trade categories are included in the above table. The total also includes gas stations, and food/beverage, building materials/home improvement, furniture, clothing, electronics, and other retail stores. The total does not include food services.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast.

Source: Colorado Department of Revenue and Colorado Business Economic Outlook Committee.

## NATIONAL AIR TRANSPORTATION

The national air transportation system appears to be on the road to recovery after the events of 9/11 and the recent economic downturn. Air Transport Association (ATA) data reveal that aircraft departures have increased to 30,600 daily. Passenger volumes have risen to 697.8 million enplanements, and cargo volumes are up to 28.0 million revenue ton miles. The good news for consumers is that price competition has kept ticket prices relatively low. The downside for the airlines is that ticket prices have not kept up with inflation. Net losses were approximately \$9.1 billion, and net profit margins posted further decreases, to -6.8%.

These financial pressures forced several national carriers into bankruptcy and/or to scale down operations. In 2005 substantial fuel price increases and adverse weather conditions in the Gulf Coast region further negatively impacted airline profitability. For the most part, airlines have avoided hedging on fuel cost (only one airline is partially hedged) due to lack of adequate operating funds for that purpose.

The financial outlook for airlines depends on all of the following: a strong macro economy; the abatement of abnormally high fuel prices; the fulfillment of government's obligation not only to provide but also to fund national aviation security initiatives; easing of the industry's high tax burden; and reform of the air traffic management system, including a more equitable funding structure across all users of airports and airways.

Under current conditions, notwithstanding some modest fare increases in 2005, it is estimated that the industry will not record a full-year profit until at least 2006.

## COLORADO AIR TRANSPORTATION OVERVIEW

Air transportation in Colorado is a major contributor to the state's economy, both in terms of direct employment and transportation infrastructure. In 2003 the Colorado Department of Transportation Aeronautics Division estimated that airports and aviation directly employed more than 50,000 workers and contributed \$5.6 billion in direct economic

activity. With visitor spending and other multipliers, the total economic impact of airports in Colorado was over 280,000 jobs and \$23.5 billion in wages and economic activity. Clearly, most of this economic impact centers on commercial aviation, although corporate/business and general aviation also play important roles.

With the state's economic recovery projected to continue, the future for the aviation industry is promising in 2006 and beyond. However, the commercial airline sector is still heavily affected by high expenses (including much higher fuel costs), debt,

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## TRANSPORTATION AND WAREHOUSING EMPLOYMENT 1996–2006 (In Thousands)

Year	Truck Transportation	Couriers and Messengers	Warehousing and Storage	Air Transportation	Other Transportation	Total <sup>a</sup>	Percentage Change
1996	17.2	9.4	6.9	13.5	13.3	60.3	1.0%
1997	16.8	10.2	7.2	14.5	10.9	59.6	-1.2
1998	17.3	9.9	7.8	14.1	11.6	60.7	1.8
1999	17.2	10.0	8.2	15.5	11.9	62.8	3.5
2000	17.7	10.5	8.9	17.0	12.2	66.3	5.6
2001	17.3	10.4	9.0	16.1	16.7	69.5	4.8
2002	16.9	9.7	8.7	14.2	16.7	66.2	-4.7
2003	16.5	9.7	8.0	13.7	17.1	65.0	-1.8
2004	16.9	9.5	7.5	14.1	17.6	65.6	0.9
2005 <sup>b</sup>	16.6	8.9	7.1	13.3	17.7	63.6	-3.0
2006 <sup>c</sup>	16.3	8.7	6.9	13.9	18.1	63.9	0.5

<sup>a</sup>Due to rounding, the sum of the individual items may not equal the total.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast.

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

## Trade, Transportation, and Utilities

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**COLORADO AIRPORT STATISTICS**  
**1997–2006**  
**(In Millions)**

Industry Group	1997	1998	1999	2000	2001	2002	2003	2004	2005 <sup>a</sup>	2006 <sup>b</sup>
<b>Passenger Boardings (thousands)</b>										
DIA Passengers	34,968.0	36,831.4	38,034.0	38,751.7	36,092.8	35,651.9	37,505.1	42,276.0	43,300.0	45,000.0
Colorado Springs Passengers	3,870.0	2,637.7	2,481.1	2,424.7	2,131.8	2,136.4	2,023.3	2,069.5	2,023.8	2,084.5
Grand Junction Passengers	<u>280.7</u>	<u>280.9</u>	<u>279.1</u>	<u>273.2</u>	<u>240.1</u>	<u>250.9</u>	<u>255.2</u>	<u>288.1</u>	<u>304.4</u>	<u>319.7</u>
Total Colorado Passengers	39,118.7	39,750.0	40,794.2	41,449.6	38,464.7	38,039.2	39,783.6	44,633.5	45,628.2	47,404.2
<b>Cargo, Freight, and Air Mail<sup>c</sup></b>										
Cargo	964.1	986.3	1,031.2	1,083.3	830.3	678.2	753.7	735.3	735.3	735.2
Freight	681.6	650.2	682.9	684.5	570.7	644.3	617.7	619.3	619.4	619.5
Air Mail	315.3	339.5	355.9	370.1	231.6	98.6	108.4	84.7	85.2	85.7

<sup>a</sup>Estimated.<sup>b</sup>Forecast.<sup>c</sup>Millions of pounds, in/out.

Source: Denver International Airport, Colorado Springs Airport, Grand Junction Airport, and Colorado Business Economic Outlook Committee.

and the inability to significantly raise fares to offset higher costs. Fuel costs now account for close to 22% of the airlines operating expenses, up from about 15% five years ago. They are second only to labor costs, which fell from 34.5% to 26% of the airlines' total costs. For Colorado, passenger demand remains strong, and United Airlines is projected to exit from bankruptcy in early 2006. Frontier Airlines is expected to return to profitability. Southwest Airlines will be initiating service at Denver in early 2006. Its presence in a market is historically stimulatory, which should result in increased passengers for DIA. Additional price competition is also anticipated, especially in the personal/leisure sector. Based on initial flights planned in three markets, Southwest's service to

Denver could add 1-1.5 million passengers a year to DIA's total.

The commercial airlines will continue to compete for the business travel market due to its generally lower price sensitivity and typically high yields. A growing dimension in the business travel sector is the increased use of corporate jets created by the fractional ownership of these aircraft and the introduction of affordable "microjets" into the marketplace that will be occurring in the next several years. With the ongoing development of satellite-based navigation systems that will allow instrument approaches into nearly every airport, this form of nonairline air transportation will provide a viable point-to-point alternative to the traditional commercial airline services without the

security hassles of airline travel. This will positively impact activity at many smaller and noncommercial airports.

Nationally, the Federal Aviation Administration (FAA) projects commercial passenger airline service will grow about 3.3–3.5% annually for the next several years and general/corporate aviation 1.4%. Business jet activity is estimated to climb at a rate of 6.4–6.7%. Colorado should closely match these trends. Aviation employment will likely grow at a slower rate, at roughly one-half the rates of passenger and general aviation growth.

With likely increased levels of competition in 2006 and 2007 and barring any economic downturn or significant service contraction by Frontier or

United, DIA will likely see annual passenger activity increases slightly higher than the FAA projections for the nation, probably in the 4-5% range.

Air cargo in Colorado is funneled through Denver, Colorado Springs, and Grand Junction, with Denver being the major cargo “hub” of the state. Air cargo is expected to remain flat as Denver continues to recover from the burst of the high-tech bubble in the 2000–01 period and the shift of most of the air mail segment over to ground transportation. Annual growth of 3.5–4% can be anticipated

beyond 2006; however, cargo should remain below 1999–2000 activity levels through 2007–08.

Approximately 26,000 workers are employed at DIA in 2005, and this number will likely grow an annual rate of 2–2.5% over the next couple of years as the airlines continue their recovery and competition increases. Employment at other Colorado airports can be expected to rise slightly, probably in the 0.5–1.0% annual range. In August 2005, the Aviation Technology Group announced that it would construct facilities at Front Range Airport

to build its new Javelin sport jet aircraft, projecting new employment of 150 at the facility.

### Denver International Airport

Denver International Airport (DIA) is owned and operated by the City and County of Denver. Roughly 900 people are employed by the city’s Department of Aviation.

In 2004, DIA served more than 42 million passengers, ranking as the 5th-busiest airport in North America and the 10th-busiest in the world. Additionally, 2004 marked the first time in Denver aviation history that the airport served more than 40 million passengers, a 13% increase over 2003. DIA continues to experience growth in passenger traffic in 2005, with levels 2.5% above 2004 (through September).

DIA’s major carrier, United Airlines, accounts for 57% of DIA’s total passenger traffic. United provides nonstop service to more than 100 destinations from Denver, the second-largest hub in the carrier’s network. Frontier Airlines is the second-largest carrier at DIA, and its share of DIA passengers continues to increase, currently accounting for nearly 20%. Frontier serves over 50 destinations nonstop from Denver.

Nearly 30 other airlines, including regional carriers, also serve DIA. Low-cost carriers (LCCs) in Denver include AirTran, America West, Frontier, and JetBlue, and, as previously mentioned, Southwest Airlines will begin service in January 2006. The

## TRADE, TRANSPORTATION, AND UTILITIES EMPLOYMENT 1996–2006 (In Thousands)

Year	Wholesale Trade	Retail Trade	Total Trade	Transportation and Warehousing	Utilities	Total TTU <sup>a</sup>	Percentage Change
1996	85.8	217.0	302.8	60.3	8.9	372.1	3.2%
1997	89.7	223.4	313.1	59.6	8.6	381.3	2.5
1998	92.5	230.8	323.3	60.7	8.4	392.4	2.9
1999	94.5	239.3	333.8	62.8	8.2	404.9	3.2
2000	99.4	245.2	344.6	66.3	8.0	418.9	3.5
2001	99.8	245.7	345.5	69.5	8.0	423.0	1.0
2002	95.1	242.7	337.8	66.2	8.1	412.1	-2.6
2003	92.1	239.5	331.6	65.0	7.9	404.5	-1.8
2004	92.3	241.5	333.8	65.6	7.9	407.3	0.7
2005 <sup>b</sup>	93.6	247.8	341.4	63.6	7.9	412.9	1.4
2006 <sup>c</sup>	94.8	254.0	348.8	63.9	8.0	420.7	1.9

<sup>a</sup>Due to rounding, the sum of the individual items may not equal the total.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast.

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

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## Trade, Transportation, and Utilities

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growth of LCCs in Denver continues to put downward pressure on fares and increases airline choices for travelers.

DIA has several capital improvement projects scheduled over the next two years:

- Concourse C western apron expansion (complete late summer-fall 2006)
- 78th Avenue widening (complete in 2006)
- New aircraft deicing pad (complete in late 2007)
- Mod 4 West parking structure (2,000+/- spaces, complete in late 2007)
- Addition of one lane in each direction on Peña Boulevard
- E-470 to Jackson Gap, phased, complete in 2007
- Phase 1 of Landscape Master Plan
- First phase of commercial use development program at Peña and Gun Club Road
- Retail and services to passengers and employees

DIA has been profitable every year since it opened, even during the recent difficult years. Furthermore, each year it shares its revenue with the airport's signatory carriers. In addition, DIA continues to receive awards for efficiency and overall customer experience. In 2004, the FAA ranked DIA as the best on-time arrival airport in the nation, and *Travel Savvy* magazine rated it as the best airport in North America in 2005.

### REGIONAL AIR TRANSPORTATION

#### Air Carrier Airports

The health of Colorado commercial airport economies continues to be subject to concerns related to airline service level issues that facilitate passenger growth. In 2005 Colorado's commercial passenger growth is expected to be below the national growth rate of 3.4%. Grand Junction Walker Field will post a significant increase in total passengers for 2005, but will have only a modest effect on the state's performance since DIA and Colorado Springs Airport represent nearly 99% of the state's passenger activity.

Recent trends in air cargo and air freight have exhibited slight declines for the past several years. This is expected to continue as long as fuel surcharges are applicable.

Nationally, air-mail activity has been declining at an average rate of -18% since 2001, while activity in Colorado has also decreased. This trend is expected to continue at similar levels.

**DIA has been profitable every year since it opened, even during the recent difficult years. Furthermore, each year it shares its revenue with the airport's signatory carriers.**

#### General Aviation and Resort Airports

Nationally, general aviation economic conditions are measured by aircraft operation, fuel sales, and aircraft sales. Centennial Airport, which is consistently ranked in the top 10 general aviation airports in the nation, posted reduced operations of -1.36% in 2004. This trend is expected to improve for business jet traffic as jet fuel sales for 2005 are expected to climb 5.04% over 2004. Activity at the Jefferson County Airport continues to be strong.

Other positive issues for general aviation include an increase of 10.2% in shipments of U.S. manufactured airplanes, from 2,137 in 2003 to 2,355 planes in 2004. Many of these aircraft are just now entering full service. Bonus depreciation for new airplane purchases clearly had a very positive impact on the size and condition of the general aviation fleet.

Among the resort airports, Eagle County Airport continues to have strong activity, with the number of commercial passengers increasing in 2004 by 11%. Similarly, the Aspen/Pitkin County Airport is anticipated to maintain its contribution to the local economy in the form of \$14 million in direct impacts and \$208 billion in indirect impacts.

#### MOTOR FREIGHT TRANSPORTATION AND WAREHOUSING

Nationwide and regionally, freight activity is increasing, with higher imports and the continued growth of Internet shopping. High fuel prices and Colorado's unfavorable tax environment are hurting motor freight transportation and warehousing in the state. The state has much higher specific ownership tax and business personal property

taxes than our neighbors. Unlike most other states, Colorado taxes interstate commerce. Another factor in the viability of the state to compete with trucking in nearby states is diesel fuel taxes. While Colorado's state diesel tax, at 20.5¢ per gallon, is very competitive with New Mexico (21¢), Arizona (26¢), Nebraska (24.8¢), and Utah (24.5¢), Wyoming only charges only 14¢ per gallon.

Colorado is also unattractive because it is a net importer, with 25% more freight coming into the state compared with the amount that leaves. As a result, some firms are moving out of state. The sector lost 2,000 jobs in 2005, and further reductions are expected in 2006.

Surprisingly, the biggest issue facing the trucking in Colorado, and indeed the nation, is not fuel cost but the lack of qualified drivers and mechanics. Employers report that this is the tightest job market in 20 years. There is a high degree of driver churning, or moving from one carrier to another carrier. Large truckload carriers are reporting an average annual turnover of more than 100%. Long-term growth in the industry is expected to be about 2.2%. Long-haul drivers are unhappy with earnings, extended periods away from home, and unpredictable schedules. While the industry is looking for more drivers, it is rejecting a high percentage of applicants because of lack of qualifications, including criteria concerned with tightened security and safety measures.

The driver shortage comes as the trucking industry is hauling record levels of freight. In coming years, it will become more difficult to find drivers as adverse demographic trends limit the size of the

pool of workers that traditionally fill truck-driving jobs. For example, one-fifth of all heavy-duty truck drivers are 55 or older. Replacements must be found for nearly all of these because only a small fraction of heavy-duty truck drivers work past age 65. The ability to replace these drivers will be further constrained by insufficient growth of new entrants into the labor force. More importantly, the number of men 35 to 54, which make up the primary driver demographic, will be flat or declining over the next 10 years. Employers will look to non-traditional sources of workers.

Fuel costs have affected the bottom line of the trucking industry. However, regional shippers have raised rates to cover costs. In June of 2005 diesel fuel cost approximately \$2.24 per gallon, compared to about \$1.84 per gallon a year ago.

Insurance costs are also problematic. After 9/11 insurance rates increased about 70%. They have stabilized over the last two years at the higher levels, with only modest increases.

Colorado was mirroring national trends before the Gulf Coast hurricanes. These trends were generally positive: the number of loads carried and mileage were up about 2% over 2004, revenue and revenue per mile were significantly higher (10 to 20%), the number of specialized carriers (refrigerated, flatbed, bulk, and tanker) was increasing faster than regular carriers, and long-haul loads were also climbing faster than short-haul loads. While data are not available for the post-hurricane period, the impact will be significant, although neither the direction nor the magnitude of the change is evident at this time.

## Utilities

Natural gas and electricity prices soared in 2005, grabbing headlines and hurting pocketbooks. Utilities passed higher natural gas costs onto their consumers through higher natural gas and electricity rates. Electricity providers are expanding renewable energy and coal projects to hedge against volatile and high natural gas prices.

Wholesale natural gas prices have moved sharply higher in the past year. Prices in the Colorado market rose from \$6 to over \$11 in the past year before declining slightly in fall 2005. Prices were even

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### COLORADO NATURAL GAS CONSUMPTION 1998–2006 (In Billions of Cubic Feet)

Year	Total	Percentage Change
1998	330.3	na
1999	333.1	0.8%
2000	367.9	10.4
2001	463.2	25.9
2002	459.4	-0.8
2003	436.3	-5.0
2004	442.5	1.4
2005 <sup>a</sup>	457.0	3.3
2006 <sup>b</sup>	481.0	5.3

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

Source: Colorado Business Economic Outlook Committee.



## Trade, Transportation, and Utilities

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higher in national markets, peaking at more than \$14. New production outpaced new pipeline capacity in Colorado and is keeping natural gas prices lower than the national averages.

As utilities have experienced rising costs, they have passed them on to customers on a dollar for dollar basis. With the 2005 winter heating season beginning, residential customers can now expect to see natural gas bills that are 30-50% higher than last year.

High natural gas prices have spurred demand for alternative fuels as a source of electricity generation.

The result has boosted the development of both renewable and traditional generation. Colorado voters passed Amendment 37 in 2004, directing the state utilities to expand electricity production based on renewable fuels. Emphasis is given to the installation of solar electric generation systems. At the same time, Xcel Energy, the state's largest utility, broke ground in 2005 on a new 750-megawatt coal-fired power plant in Pueblo.

Higher prices are dampening the growth in electric consumption despite a growing population and the increased use of electric appliances. Electric con-

sumption in Colorado grew from 46,725 million Kwh in 2004 to an estimated 48,950 million Kwh in 2005, and is expected to climb to 49,500 million Kwh in 2006. The state's rate of electricity consumption growth slowed from 1.2% in 2003 to just 0.5% in 2004, but should pick up, with growth of 4.8% in 2005.

Despite high prices, natural gas consumption has continued to grow with demand from new gas-fired combustion turbines. The rate of growth is expected to slip with more coal fired and renewable generation coming on line. ❖

### COLORADO ELECTRIC POWER CONSUMPTION 1996-2006 (In Millions of Kilowatt Hours)

Year	Non-residential	Residential	Total	Percentage Change
1996	25,202	11,871	37,073	6.3%
1997	25,808	12,261	38,069	2.7
1998	26,923	12,652	39,574	4.0
1999	27,440	13,131	40,571	2.5
2000	28,991	14,029	43,020	6.0
2001	29,766	14,470	44,236	2.8
2002	30,512	15,425	45,937	3.8
2003	30,770	15,725	46,495	1.2
2004	30,908	15,817	46,725	0.5
2005 <sup>a</sup>	32,725	16,225	48,950	4.8
2006 <sup>b</sup>	33,100	16,400	49,500	1.1

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

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

## Information

### Overview

Companies in the Information Supersector influence and enhance our daily lives. The supersector covers telecommunications and publishing, Internet, broadcasting, and entertainment industries, and is very broad in terms of the services provided, the work skills necessary, and the size of companies involved. It is an area known for innovative ideas and life-changing technologies.

Given the explosion in media channels and the public's desire to be informed, the growth potential of the sector is very strong. The category contains the foundation, the content, and the delivery methods for informing our population.

This sector drives decisions that affect other sectors of the economy. The timeliness and accuracy of information received in turn affects the quality of business and individual decisions. For example, the availability of hourly updates via Internet news sources becomes invaluable in a dynamic situation. In addition, the use of on-line collaboration rooms, instant ability to update information for immediate access by large groups of people, and immediate notification methodologies are essential in emergency and risk situations.

From a national perspective, the Information Supersector represented about 1.8% of all establishments in 2004 and about 2.5% of total employment. In Colorado, the sector represents about 2%

of establishments, 4% of all employment, and 7% of earnings. Despite a downturn in employment from 2003 to 2004, the gross state product (GSP) for the Information Supersector grew by about 5%, highlighting the explosive growth in productivity that this area is experiencing.

### National Trends

The U.S. Department of Labor estimates that the employment in the Information Supersector will grow 18.5% over the 2002–12 timeframe. This is higher than U.S. employment growth of 14.8% that is projected for the same period.

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### 2004 INFORMATION EMPLOYMENT, WAGES, AND ESTABLISHMENTS

Category	Percentage of Total Info Employees	Percentage of Total Info Firms	2003 Average Annual Wages	2004 Average Annual Wages	Percentage Change in Wages
Telecommunications	40.0%	25.2%	\$77,253	\$73,754	-4.5%
Publishing Industries, except Internet	36.5	36.4	62,190	64,010	2.9
ISPs, Search Portals, and Data Processing	9.2	16.0	62,907	68,951	9.6
Broadcasting, except Internet	7.8	5.8	61,092	57,569	-5.8
Motion Picture and Sound Recording	5.1	13.1	25,213	21,340	-15.4
Internet Publishing and Broadcasting	1.2	2.7	68,375	73,001	6.8
Other Information Services	0.2	0.9	56,483	51,981	-8.0
Total Information	100.0%	100.0%	\$66,529	\$65,770	-1.1%
Information in Denver Metro Area	63.2%	52.2%	\$73,990	\$71,131	-3.9%
Information in Rest of State	36.8	47.8	53,154	56,579	6.4
Total All Industries			\$38,942	\$40,296	3.5%

Note: Differences occur between ES202 data and CES data series.

Source: Colorado Employment and Wages (ES202) and Colorado Business Economic Outlook Committee.

## Information

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Consumer spending in this supersector has grown significantly. With cell phones, DSL/cable Internet connections, satellite radio/television, and digital/cable entertainment delivery, the average household now pays \$158.88 per month on goods and services from this sector. This is in addition to spending on movies, publications, and other entertainment.

Although overall consumer purchasing may slow with increasing energy costs, this is not expected to affect expenditures in the Information Supersector. Although this spending may be termed discretionary, items such as cell phones and Internet access have become essentials for many Colorado households.

## Telecommunications

Telecommunications is the largest industry in the Information Supersector. Originally the domain of monopolistic telephone companies, telecommunications has become a vibrant industry offering an ever-evolving variety of services, including traditional telephone service, wireless telephone service, VoIP, wired and wireless Internet access, and cable programming. Technological advances include satellite communications and digital transmissions. Consolidation is a major trend, particularly among firms offering different types of services. Evolving usage patterns and consumer tastes will continue to contribute significantly to the evolution of the industry. The lines between voice, video, and data transmission will become increasingly blurred over the next decade.

Underlying demand for telecommunication services is expected to remain stable through 2006, despite technological innovation, regulatory changes, litigation, and shifting consumer preferences that are driving structural changes in the industry. Meanwhile, the industry retains significant excess capacity built during the 1990s.

A total of 14,500 jobs were lost in telecommunications between 2001 and 2004, representing about half of the jobs lost in the Information Supersector during that period. The trend has accelerated this year as the area lost 1.7 jobs for every position lost between March and September in the other supersector industries.

While some of the jobs that disappeared in 2005 were the result of long-term trends, many were lost due to regulatory changes. Since 1996, Congress and the Federal Communications Commission (FCC) have required incumbent Bell companies to lease, at wholesale rates, portions of their legacy networks to competing local exchange carriers (CLECs). Pursuant to a court order, the FCC began allowing incumbents to charge CLECs market-based prices and to discontinue offering certain wholesale services in March. Many observers believe this change caused, and will continue to cause, difficulty for many CLECs.

Employment opportunities will also be limited through 2006 by excess infrastructure capacity, significant debt in the industry, labor-saving technological improvements, and consolidation. Federal antitrust regulators have approved mergers between SBC Communications and AT&T, and between Verizon and MCI. Employment in the

telecommunications industry will decrease 9.3% in 2005 and another 2.0% next year. The types of jobs surviving the cuts since 2001 have been increasingly high-skilled and high-paid. As a result, average wages have increased. This trend will continue through 2006.

## Publishing

The publishing sector includes publishers of newspapers, periodicals, books, directories, software, and Internet material. As with the other companies in the Information Supersector, publishing is continually being affected by technological innovations. These advances have allowed individuals who work in the industry to live in a different location from where the publication is produced. Digital technology is changing the publishing world, presenting employment and income opportunities in electronic books, digital productions, and online publications. In addition, growth in the number of corporate web sites has created the need for content development and creative ways to dynamically update web site material. Copyright legislation and digital rights continue to be a hot topic in the publishing industry.

At a national level, there is a trend toward consolidation of companies, particularly larger companies. Growth in academic and scientific publishing is expected to continue as the demand for material increases. Diverse distribution channels make material available to the general population. About two-thirds of Colorado publishing companies have fewer than 250 employees, while about 23% have 250–1,000 employees and 11% have greater than 1,000.

Total gross state product for the publishing sector is about \$3.8 billion. Approximately 58% of Colorado companies have sales less than \$50 million, about 35% have sales between \$50 million and \$500 million, and roughly 9% have sales in excess of \$500 million.

Employment is expected to add 200 jobs in 2006.

### Information Technology

The Information Technology (IT) sector is one of the most innovative areas of the Colorado economy. Although the Information Supersector includes only select portions of the complete IT industry, it is worth looking at the big picture. The Colorado Software and Internet Association (CSIA) and the Metro Denver Chamber of Commerce have in-depth reports on IT in Colorado. These reports identified 3,300 Colorado IT companies, with a total of 100,000 employees and \$2.5 billion in payroll. In addition, every company—large and small—uses IT. It is the backbone of many companies and is becoming increasingly important as a means of doing commerce and communicating information. Many innovative Colorado-based companies miss the media spotlight but make significant contributions to the economy.

Three segments of IT are included in the Information Supersector: (1) ISPs, search portals, and data processing; (2) software publication (as part of the publishing industry); and (3) Internet publishing and broadcasting. In 2004 these sectors accounted for 30% of Information Supersector employment and \$1.5 million in compensation. Wage growth from 2003 to 2004 was 3%. It is estimated that

these segments will have growth in employment in 2006 as the national and global use of IT continues to grow.

#### ISPs, SEARCH PORTALS, AND DATA PROCESSING

This subsector includes companies that provide the following Internet services: access, searching, hosting, data management, security, data processing, content delivery, shared use of data, and navigation. More than 500 companies are classified in this category, with total employment of about 9,200. Most firms are located in the Denver/Boulder area. Given the innovation and transformation in this industry, growth is expected in 2006.

### INFORMATION EMPLOYMENT 1996–2006 (In Thousands)

Year	Publishing	Telecommunications	Other	Total
1996	23.2	29.6	15.1	67.9
1997	25.3	29.6	18.8	73.7
1998	28.5	38.5	19.4	86.4
1999	32.5	42.9	21.6	97.0
2000	35.9	46.0	26.5	108.4
2001	34.8	46.8	25.7	107.3
2002	31.1	39.1	22.7	92.9
2003	30.3	34.5	19.8	84.6
2004	29.7	32.4	19.1	81.2
2005 <sup>a</sup>	28.9	29.4	17.9	76.2
2006 <sup>b</sup>	29.1	28.8	17.5	75.4

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

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

#### SOFTWARE PUBLISHING

Companies in the software publishing industry offer software packaging; software protection; installation, including license agreements; and distribution, support, maintenance, and license renewal services. Piracy and unlicensed use continue to plague the industry but new installation technologies and user licensing processes may resolve these issues in the future. The 2002 Economic Census reported 337 companies, with about 8,500 total employees, in this sector. Most statistics for this category are grouped with publishing, which makes year-to-year comparisons difficult.

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**Information**

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**INTERNET PUBLISHING AND BROADCASTING**

According to the 2002 Economic Census, 50 companies, employing approximately 1,200 workers, are classified in this subsector. More than 1,200 employees work in other IT areas. It is estimated that employment will grow in this industry in 2006.

**Motion Picture and Television Industry**

The Motion Picture and Television industry is a truly global business, with a 4.8% annual growth rate and a turnover of \$1.7 trillion by 2007. The trends that affect Colorado’s own film industry

are influenced and affected by the international environment.

The motion picture industry is faced with a number of challenges.

- In the absence of competitive tax incentives, it is difficult for Colorado to compete for big budget studio pictures.
- It is, however, able to compete effectively in television commercial and stills photographic work. The development of production capacity in this area is vital.

- A focus on reality shows, including locally produced work, is viable in the current market.
- There is potential depth as new talent graduates from film schools.
- The number of reported documentaries and corporate videos severely underrepresents the extent of that business segment. It would not be unreasonable to suggest that corporate video production alone is 10 times larger than reported.
- Video game production, which remains a potential growth sector, is not charted.
- The need for a centralized database of production activity and economic impact is a priority for 2006.

**CURRENT COLORADO FILM INDUSTRY FACTS**

Members of Colorado Film and Video Association	612
Number of Statewide Film Festivals	58
Number of Official Film Education Programs	16
Members of Colorado Actors and Screenwriters Assembly	1,200
Number of Broadcasters Based in Colorado	23
Number of Counties Hosting Broadcasters	5
Estimated Value of Broadcaster Sales	\$14.9 billion
Number of AFCl <sup>a</sup> Registered Film Commissions	4
Number of Statewide Film Community Contacts	85
Recorded Shoots in State	
Local Indie Feature Films	17
Studio Feature Films	1
Television	48
Stills Photographic Shoots	29
Student Products	28
Television Commercials	53

<sup>a</sup>Association of Film Commissioners International.

Source: Colorado Film Commission, October 2005.

The economic outlook for the global motion picture and television industry is extremely positive. According to *Global Entertainment and Media Outlook: 2005–2009* (produced by PriceWaterhouseCoopers), the global entertainment and media industry is poised for five years of solid growth. The challenge for Colorado is how to engage in this lucrative market.

In 2005, the Office of Economic Development and International Trade, in partnership with CU-Denver, committed to the reestablishment of a new Colorado Film Commission. The new commission will be reopen as a private-public partnership in January 2006. The new film commission is part of the Advance Colorado Center, along with other information- and technology-based associations.

New technologies affect the motion picture and broadcast industries in a number of ways.

- Satellite communications and the Internet increasingly challenge territorial markets and drive global media companies to pursue transnational commercial strategies.
- New hardware technologies such as TiVo may also threaten broadcasters by allowing television viewers to store content and skip commercial advertising. The commercial strength of broadcasters has an obvious impact on their relationship with independent producers.
- New technologies that shape screen experiences or alter images through computer graphics now allow productions to create or recreate whole artificial worlds. This merely reiterates the decrease in importance of location as a factor in

any decision of where a production can be located.

- New technologies also threaten the industry and the economy as a whole. Piracy is a burning issue for the global industry. The 2004 *Intellectual Property Alliance Report* on the copyright industries noted that this sector (including movies, television shows, home video, books, music, computer games and software) is equivalent to about 5% of the GDP of the United States.

On the whole, changes in the technological environment would seem to benefit the producers creating independent films in Colorado today. Access to equipment that produces great quality content at a fraction of the cost, coupled with new forms of online and even point-of-sale DVD distribution, gives local producers increased opportunity to control the purse strings of their operations.

However, the central challenge/opportunity in Colorado remains the lack of access to financing/funding for filmmakers.

### Summary

In 2005 the Information Supersector makes up 7% of the earnings and 9% of Colorado's GSP. In 2006 sector employment growth is expected to decline by 800 jobs, but the industry is well positioned to take advantage of national economic expansion and technological advances. Although the large, national organizations in the sector get the lion's share of press coverage, the small and mid-size companies make a significant economic impact. From satellite communications to digital transmissions and VoIP, the innovations in this sector will change lives. For Colorado, this supersector continues to diversify the Colorado economy and enrich the lives of its citizens. ❖

### COLORADO INFORMATION SECTOR GROSS STATE PRODUCT (In Millions of Current Dollars)

Sector	1997	1998	1999	2000	2001	2002	2003	2004
Information Sector Total	\$10,183	\$12,878	\$15,616	\$17,857	\$17,190	\$16,219	\$16,671	\$17,460
Publishing	2,217	2,861	3,456	3,762	3,758	3,706	3,818	n/a
Motion Picture/Sound Recording	169	185	350	632	673	248	260	n/a
Broadcasting/Telecommunications	7,243	9,458	11,326	12,592	11,838	11,406	11,760	n/a
Information/Data Processing Services	553	374	485	870	921	859	833	n/a
Colorado Total GSP (All Industries)	\$132,881	\$143,429	\$156,603	\$171,363	\$177,526	\$181,246	\$188,397	\$199,969
Information as Percentage of Colorado Total	7.7%	9.0%	10.0%	10.4%	9.7%	8.9%	8.8%	8.7%

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

## Financial Activities

The Financial Activities Supersector is comprised of two sectors: (1) Finance and Insurance and (2) Real Estate and Rental and Leasing.

The Finance and Insurance Sector includes monetary authorities—central bank; credit intermediation and related activities; securities, commodity contracts, and other financial investments and related activities; insurance carriers and related activities; and funds, trusts, and other financial vehicles. The Real Estate and Rental and Leasing Sector obviously includes real estate-related jobs (brokers, agents, property managers, appraisers, etc.). In addition, the sector consists of rental and leasing services (cars, equipment, appliances, movies, formal wear, etc.) and lessors of nonfinancial intangible assets (except copyrighted works), including royalties, franchisees, patents, trademarks, and so forth.

Between 1994 and 2004, the Financial Activities Supersector grew at a compound annual growth rate (CAGR) of 2.5%, with the strongest employment growth occurring in credit intermediation (3.8%) and securities (3.7%). Insurance employment increased 2.5%, real estate employment grew at 2.9%, and rental and leasing employment rose 1.7%.

In 2005 the Finance and Insurance Sector is expected to add approximately 1,900 jobs, while the Real Estate and Rental and Leasing Sector is projected to add 1,700. Next year the Finance and Insurance Sector is anticipated gain to an additional 2,200 jobs, while the Real Estate and Rental and Leasing Sector should add roughly 1,100 jobs.

### Finance and Insurance

#### COMMERCIAL BANKING

The commercial banking landscape in 2006 will undergo a number of changes. The industry was not immune to the effects of the hurricane season—many banks took third quarter charges to cover expected loan defaults—though it is still too early to fully evaluate the impacts. Strong performance may also be difficult for banks to sustain, and profit growth may decelerate next year given the

changing interest rate environment. Short-term rates should continue to rise at least through the first quarter of 2006 as the Fed continues its tightening march. Inevitably, long-term rates should also climb, though when exactly this will take place remains a conundrum. Declining mortgage activity and weaker auto sales will further compound the challenges commercial bankers face. Smaller local banks, with their focus on consumer lending, will feel these effects more than their larger, more diversified counterparts. Commercial banks are

**FINANCIAL ACTIVITIES EMPLOYMENT  
1996–2006  
(In Thousands)**

Year	Finance and Insurance	Real Estate and Rental and Leasing	Total <sup>a</sup>
1996	87.9	40.0	127.9
1997	93.9	41.2	135.2
1998	100.2	42.6	142.8
1999	103.1	44.3	147.4
2000	101.9	45.1	147.0
2001	102.3	46.0	148.3
2002	103.5	46.1	149.5
2003	107.1	47.1	154.1
2004	107.6	47.5	155.0
2005 <sup>b</sup>	109.5	49.2	158.7
2006 <sup>c</sup>	111.7	50.3	162.0

<sup>a</sup>Due to rounding, the sum of the individual items may not equal the total.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast.

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

responding to these challenges with increased fees and fee-related activity. They have also turned to business lending to fill the void left by declines in consumer borrowing. Finally, consolidation is expected to continue to reshape the industry, though not as rapidly as in years past.

### SAVINGS AND LOANS

Since the S&L crisis in the late 80s, savings and loan institutions have played a relatively minor role in the U.S. financial sector. Consolidation and deregulation in commercial banking have further decreased

their importance. Colorado is no exception. While the opening of several new S&Ls in 2003 provided notable job gains, the subsector still employs fewer than 1,500 workers, less than 1% of total employment in the Financial Activities Supersector.

### CREDIT UNIONS

Overall, Colorado's credit unions continue to be well capitalized in spite of various economic conditions that have put downward pressure on their return on assets. Declining unemployment, bankruptcy reform, and increasing interest rates are

expected to impact both loans and deposits. A solid economy and employment stability should continue to reduce members' concerns about job losses and uncertain financial expectations. A reduced need for precautionary savings and increased confidence in the stock market will likely tempt members to save in accounts outside the credit union. Although interest rates are increasing, savings growth is expected to remain below the five-year trend, increasing only slightly from 2005.

Loan growth will likely continue to slow somewhat in 2006, primarily due to rising interest rates, high oil prices, already above normal levels of consumer debt, and lower than average demand for autos and mortgage refinancing. With the passage of bankruptcy reform legislation, asset quality will likely decline with higher than average filings in the end of 2005. This should cause a reduction in bankruptcies, and ultimately charge-offs, in 2006. However, the new legislation could adversely impact the level of delinquencies, since many slow-paying accounts may not qualify for bankruptcy protection. Diversifying loan portfolios in order to better serve members is a priority for many credit unions.

Overall, in 2006 credit unions are preparing for a more challenging interest rate environment. Expectations of a flat yield curve as short-term rates rise faster than long-term rates will further squeeze interest margins. In response, credit unions are looking for ways to reshape asset-liability portfolios, boost noninterest income, and develop more efficient operational processes. As efficiencies are improved, capital-to-asset ratios are expected to remain healthy.

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## FINANCIAL MARKETS INTEREST RATES 2000–2006

Month End	3-Month Treasury	10-Year Treasury	Spread <sup>a</sup>
December 2000	5.94%	5.24%	- 0.70%
June 2001	3.57	5.28	1.71
December 2001	1.72	5.09	3.37
June 2002	1.73	4.93	3.20
December 2002	1.21	4.04	2.83
June 2003	0.94	3.33	2.39
December 2003	0.91	4.27	3.36
June 2004	1.29	4.73	3.44
December 2004	2.22	4.23	2.01
June 2005	3.04	4.00	0.96
December 2005 <sup>b</sup>	4.00	4.75	0.75
June 2006 <sup>b</sup>	4.50	5.25	0.75
December 2006 <sup>b</sup>	4.75	5.75	1.00

<sup>a</sup>Spread=10-year rate minus 3-month rate.

<sup>b</sup>Forecast.

Source: Federal Reserve Board, Consensus Forecasts, and Colorado Business Economic Outlook Committee.



## Financial Activities

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### FINANCIAL MARKETS

As we look forward to 2006, let us first look at where financial markets stood at the end of Q3 2005. At that time, two of the three major equity indices were negative. The Dow and the NASDAQ were both down (1.9% and 1.1%, respectively), though the broader market, as measured by the S&P 500, was still in positive territory (up 1.4%). Of note, the Bloomberg Colorado stock index, made up of companies headquartered in Colorado, was up an impressive 13.8% for the year. None of these indices are expected to see significant growth as 2005 draws to a close.

It appears that there will be no shortage of challenges facing the financial markets and the economy as a whole in 2006. Hurricanes Katrina and Rita devastated cities along the Gulf Coast and disrupted already strained energy supplies. The prices of crude oil and natural gas have both reached record levels. The economy faces a double-edged sword as a result of the higher energy prices. On the one hand, should the price of oil continue to remain above \$60/b (some 50% higher than the average price of crude oil in 2004), there is a concern that price inflation will ripple through the economy. On the other hand, there is the effect of

energy as a tax on consumption: the dollars consumers are forced to spend on energy are dollars that flow out of their discretionary spending, effectively slowing economic growth. The Federal Reserve, as led by Alan Greenspan, has suggested that it is more concerned with the former issue—the risk that inflation becomes embedded into forward economic expectations and pricing. Inflation concerns are being further bolstered by anticipated stimulatory effects of government spending and the expected surge in demand tied to the hurricane relief/rebuilding effort, as well as the ballooning of the budget deficit. Consequently, the Federal

### FINANCIAL MARKETS STOCKS 1996–2004 (Year-End Close)

Year	Value				Index (1996=100)			
	S&P 500	Dow Jones	NASDAQ	Bloomberg Colorado Index	S&P 500	Dow Jones	NASDAQ	Bloomberg Colorado Index
1996	740.7	6,448.3	1,291.0	136.4	100.0	100.0	100.0	100.0
1997	970.4	7,908.3	1,570.4	148.0	131.0	122.6	121.6	108.5
1998	1,229.2	9,181.4	2,192.7	143.7	165.9	142.4	169.8	105.3
1999	1,469.3	11,497.1	4,069.3	230.6	198.3	178.3	315.2	169.1
2000	1,320.3	10,788.0	2,470.5	228.2	178.2	167.3	191.4	167.4
2001	1,148.8	10,021.6	1,950.4	204.4	155.1	155.4	151.1	149.9
2002	879.8	8,341.6	1,335.5	167.2	118.8	129.4	103.4	122.6
2003	1,111.9	10,453.9	2,003.4	237.0	150.1	162.1	155.2	173.8
2004	1,211.9	10,783.0	2,175.4	278.9	163.6	167.2	168.5	204.5

Source: Free Lunch (Economy.com), Bloomberg, and Colorado Business Economic Outlook Committee.

**FINANCE AND INSURANCE EMPLOYMENT**  
**1996–2006**  
**(In Thousands)**

Year	Credit Intermediation and Related Activities	Securities, Commodities, and Other Activities	Insurance Carriers and Related Activities	Other Finance and Insurance Activities	Total <sup>a</sup>
1996	37.6	11.7	34.2	4.4	87.9
1997	40.4	13.0	36.4	4.1	93.9
1998	44.1	13.9	38.7	3.5	100.2
1999	45.3	15.3	40.2	2.3	103.1
2000	43.5	17.9	38.9	1.6	101.9
2001	45.0	17.4	39.0	0.9	102.3
2002	47.4	15.1	39.3	1.7	103.5
2003	50.7	13.9	39.5	3.0	107.1
2004	51.6	13.5	39.6	2.9	107.6
2005 <sup>b</sup>	53.6	13.7	39.9	2.3	109.5
2006 <sup>c</sup>	55.4	13.9	40.1	2.3	111.7

<sup>a</sup>Due to rounding, the sum of the individual items may not equal the total.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast.

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

Reserve is expected to continue increasing the Fed Funds rate into Q1 2006.

Additional economic headwinds include a string of major corporate bankruptcies at well-known airlines (United, Northwest, and Delta) and the recent filing of auto parts manufacturer Delphi. Two other automotive giants, General Motors and Ford Motor Company, have seen their credit ratings plummet to junk status this year, effectively raising their cost of funds and further squeezing their profit margins. Unfunded pension liabilities

are one of the common denominators among these companies, along with a vulnerability to high energy costs. Combined, these companies directly employ more than 1 million workers. As they struggle for survival, their employees face an uncertain future, although downward wage pressure is expected. Congress is exploring legislation that will address the issue of unfunded pension liabilities, but any resolution will likely pressure the profitability of corporations facing these legacy costs.

Despite the clouds on the economic horizon, the financial industry has been doing quite well. The S&P 500 Investment Bank and Brokerage Index was up more than 9% at the close of the third quarter, significantly outperforming the broader market. Wall Street firms are anticipated to see their pretax profits rise to \$21.5 billion (2.4% over 2004), which would make 2005 the fourth most profitable year of all-time (2000 ranks first). Much of these gains have been driven by increased trading profits, which are inherently volatile, and raise the question of how well this industry will perform next year.

The resiliency of the economy will be tested in 2006. The Federal Reserve has raised the Fed Funds rate 12 times, a total increase of 300 basis points, between June 2004 and November 2005. Based on comments from members of the Federal Reserve, the markets anticipate additional increases. Up to this point, long-term rates have been extremely resistant to upward pressure, effectively flattening the yield curve. Should long-term rates rise, future corporate earnings will be discounted at higher rates, impacting price/earnings ratios. Their cost of funds will also increase, effectively squeezing profit margins. Higher long-term rates would result in higher mortgage rates, potentially ending the bull market housing has experienced. In the event that long-term interest rates do not rise and the yield curve flattens further or inverts, this traditionally has been interpreted to signal economic slowing or, in the case of inversion, a recession.

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## Financial Activities

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### REAL ESTATE AND RENTAL AND LEASING EMPLOYMENT 1996–2006 (In Thousands)

Year	Real Estate	Rental and Leasing	Total <sup>a</sup>
1996	26.6	13.4	40.0
1997	27.0	14.2	41.2
1998	27.9	14.7	42.6
1999	28.8	15.5	44.3
2000	29.7	15.4	45.1
2001	32.0	14.0	46.0
2002	32.2	13.9	46.1
2003	32.9	14.2	47.1
2004	33.4	14.1	47.5
2005 <sup>b</sup>	35.0	14.2	49.2
2006 <sup>c</sup>	35.9	14.4	50.3

<sup>a</sup>Due to rounding, the sum of the individual items may not equal the total.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast.

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

### INSURANCE

Nationally, nearly 2.3 million people are employed in insurance. The consolidation that has swept across the financial sectors in the last decade has not missed the insurance industry. Recent technological impacts have also had major effects on the industry, allowing companies to serve larger populations with fewer employees. As a result, employment growth has tapered off in recent years.

The industry can be broken into two main categories: life and health insurance, and property and casualty (or liability) insurance, with the former

being the larger in terms of employment. Since 1994, life and health insurance category has seen a decline in employment, while the property and casualty category has experienced moderate growth.

In recent years the insurance industry (with the exception of health insurance) has seen a general downward trend in premiums. Increased industry competition, combined with health-care improvements and longevity increases, has driven life insurance premium rates down. While costs of homeowner's insurance are still rising, the rate of increase has slowed in recent years and is expected

to continue this trend. Auto insurance rates also appear to be leveling off, particularly in Colorado after the recent conversion from a "no-fault" system to a tort system.

Performance in the insurance industry depends largely on the returns on invested premiums that insurers can realize. Stagnating U.S. equity markets in 2005 will likely dampen industry-wide financial performance.

It is still too early to fully gauge the impact that the hurricanes will have on the insurance industry, but estimates are that insured losses resulting from Hurricane Katrina will fall between \$35 and \$60 billion, making it the most expensive event in U.S. history. Hurricane Rita, though not as damaging as Katrina, further exacerbated the challenges faced by the insurance industry. In addition to the direct effect on financial performance, the scope of the disaster may lead many insurance companies to reevaluate their risk management measures.

In Colorado, the insurance industry employed roughly 39,600 in 2004. This represents a CAGR of 2.5% since 1994. The industry is expected to gain 300 jobs by the end of 2005, and add 200 employees in 2006.

### Real Estate and Rental and Leasing

#### COMMERCIAL REAL ESTATE

When the nation's economy does well, Colorado's economy will almost always follow suit. Commercial real estate (CRE) investment and development has accelerated since mid-2003 as Colorado has experienced good job growth and attracted new

residents. Traditional industries, such as defense and mining, have sparked pockets of strong commercial real estate activity and added diversity to the state's economy.

According to Ross Research, metro Denver CRE vacancy rates have moved lower due to less supply and positive absorption. While the office market lost some momentum from 2004, overall vacancy dropped to 20.5%, with the majority of space being absorbed by Class A properties. The southeast suburban market was dominant, but nearly all geographical sectors performed better overall. The industrial market activity has been robust, absorbing nearly 1.37 million square feet through mid-2005, almost equaling its absorption for all of 2004. Organic growth from existing tenants pushed vacancy down to 8.31%. Industrial vacancy will be tested in 2006, with the delivery of 1.8 million square feet. The metro retail market continued its strong performance. Vacancy shed more than a point as it fell to 7.50%; however, a large supply line will soon deliver 6.4 million square feet. Office and industrial lease rates have been stable, while retail rates have risen. Grubb & Ellis notes that Colorado's investment in its transportation infrastructure is helping to attract companies looking to expand to the interior West.

Northern Colorado continues to attract the attention of retirees, as well as regional and national companies. Amenities include affordability and proximity to I-25, Denver, and the Fort Collins/Loveland airport. Prudent investors are already here, while the rest of the nation is clamoring to get in this market. Available commercial land is scarce.

Realtec notes that industrial, retail, and office vacancy rates dropped significantly in 2005 versus 2004. As expected, lease rates have steadily risen with demand. Expect the torrid pace of development along the I-25 corridor to continue in 2006.

Good things are happening in southern Colorado. Defense contractor Northrop Grumman won a \$2.5 billion government contract, Barcalys PLC will open a call center bringing 450 jobs, and Fort Carson will add an estimated 12,000 troops over the next three years. Colorado Springs was ranked eighth among the nation's largest metro areas for business growth by infoUSA, adding 3,500 businesses between 2000 and 2004. The unemployment rate for El Paso County is down, to 4.9%, from 5.8% in 2004. This explains the rapid absorption of available and sub-leased office space. Sierra Commercial Real Estate notes that office vacancy now stands at 11.8%, and lease rates are rising. Retail vacancy rates also show slight improvement. Overall industrial sector vacancy has risen, although vacancy in traditional industrial space (manufacturing/assembly) has improved. Lease rates, however, have decreased slightly due to new supply. Today, southern Colorado is better positioned to absorb economic challenges that made it unstable in the past.

The revitalization of gas, drilling, and mining along the Western Slope communities of Rifle, Parachute, and Grand Junction has generated increased commercial real estate activity. First American Heritage Title Company notes that real estate sales transactions are up 8%, and total dollar volume has

### VACANCY RATES IN COLORADO COMMERCIAL REAL ESTATE MARKETS

	2004 <sup>a</sup>	2005 <sup>a</sup>
Metro Denver		
Industrial	9.0%	8.3%
Retail	9.4	7.5
Office	22.4	20.5
Southern Colorado		
Industrial	10.2	11.8
Retail	7.6	7.6
Office	9.4	11.8
Fort Collins		
Industrial	6.2	4.7
Retail	6.6	5.4
Office	11.1	12.4
Loveland		
Industrial	5.6	2.9
Retail	5.9	1.9
Office	16.9	7.7
Greeley		
Industrial	8.0	8.1
Retail	6.0	4.5
Office	13.0	10.1

<sup>a</sup>As of Q3.

Source: Ross Research, Sierra Commercial Real Estate, Realtec, and Colorado Business Economic Outlook Committee.

increased over the same time period from 2004. The influx of employment is driving new home construction and demand for housing permits. Another positive sign is the decrease of foreclosures from the same time period in 2004. A lack of commercially developable sites and available commercial buildings will heat up the CRE industry to begin developing land and delivering new building supply to an eagerly awaiting market.

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## Financial Activities

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The boom/bust cycle that has long characterized Colorado's economy is ever present. However, the reemergence of traditional industries adds more diversity to the economy and is attracting companies and individuals to locate and expand here. Statewide, it is reasonable to expect the CRE industry to grow in 2006 with increased demand.

### Real Estate Employment

Employment in the Real Estate Sector is expected to reach 35,000 in 2005, up 1,600 from last year.

This growth is expected to continue, but moderate, in 2006, with an estimated 900 jobs added in the sector next year.

This growth is driven largely by continued strength in office, industrial, and retail space markets. Rising interest rates and declining mortgage activity will dampen demand in the residential sector.

### RENTAL AND LEASING

Rental and Leasing is one of the more eclectic sectors in the NAICS structure. It includes an array

of companies, tied together by their renting/leasing function, but otherwise totally unrelated. Companies classified within the sector range from Blockbuster Video to Hertz Rent-A-Car and Mr. Neat's Formalwear. The sector is heavily consumer-driven, and tends to pattern general economic and population growth trends. Employment decreased during the economic downturn, but appears to have leveled off more recently. The sector is expected to add roughly 100 jobs this year, and an additional 200 in 2006. ❖

## Professional and Business Services

The Professional and Business Services Supersector continues to create significant job growth in Colorado in 2005. Between 1995 and 2004, it was the leading employment area in the state, with a net increase of about 60,000 jobs. This represents 17.4% of the total jobs gained during that period.

In terms of employment, the Professional and Business Services Supersector is the second largest supersector in Colorado. Service industries are growing significantly, and often pay higher than average wages. The fastest growing occupations typically occur in the services areas.

The Bureau of Labor Statistics employment projections for 2002–12 identified the following five industries as having the highest annual rates of growth: software publishers (5.3%); management, scientific, and technical consulting services (4.5%); community service facilities for the elderly (4.5%); computer systems design (4.5%); and employment services (4.4%). Approximately 3.4 million jobs are projected to be added in these five occupations in this 10-year period; 2.8 million of these will be in services.

### Composition of Professional and Business Services Supersector

The size and diversity of the Professional and Business Services Supersector provides an enormous challenge to those who catalog the kinds of firms and the types of employees who work for these firms. To help manage this task, this formerly

huge services supersector has been divided into three components:

1. Professional, Scientific, and Technical Services
2. Management of Companies and Enterprises
3. Administrative and Support and Waste Management and Remediation Services

A further explanation of the supersector composition is provided in the Appendix.

There are about 33,000 total service establishments in Colorado, with an average firm size of approximately nine employees. Firms in the Professional, Scientific, and Technical Services Sector are slightly smaller, with an average size of six employees and average annual wages of more than \$64,000. The second sector, Management of Companies and Enterprises, includes only about 1,000 companies. However, these firms employ an average of approximately 20 workers, with average annual wages

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### COMPOSITION OF PROFESSIONAL AND BUSINESS SERVICES SUPERSECTOR

Sector	2006 Forecasted Employment (000s)	Percentage of Total Supersector
<b>Professional, Scientific, and Technical</b>		
Legal Services	17.4	5.3%
Architecture, Engineering, and Related	39.5	12.1
Computer Systems Design and Related Services	36.6	11.2
Other Professional, Scientific, and Technical	<u>64.9</u>	<u>19.9</u>
Total Professional, Scientific, and Technical	158.3	48.4%
<b>Management of Companies and Enterprises</b>	25.0	7.6%
<b>Administrative and Support and Waste Mgmt.</b>		
Employment Services	45.7	14.0
Services to Buildings and Dwellings	36.5	11.2
Other Administrative and Support and Waste Mgmt.	<u>61.3</u>	<u>18.8</u>
Total Administrative and Support and Waste Mgmt.	143.5	43.9%
<b>Total Professional and Business Services Supersector</b>	326.9	100.0%

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

## Professional and Business Services

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above \$87,000. Finally, the Administrative and Support and Waste Management and Remediation Services Sector comprises approximately 9,000 establishments, with an average size of 14 employees and average annual wages of \$29,000.

### Employment Outlooks

#### PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES SECTOR

The major subsector classifications for the Professional, Scientific, and Technical Services Sector are legal services; accounting, tax preparation, book-keeping, and payroll services; architectural, engineering, and related services; specialized design services; computer systems design and related services; management, scientific and technical consulting services; scientific research and development services; advertising and related services; and other professional, scientific, and technical services.

#### Legal Services

This subsector provides an example of the diversity of jobs within the professions of the services sector. Nationally, less than one-third of the employees in legal services are attorneys. Legal secretaries fill about 20% of the jobs, paralegals make up 13% of the workforce, and the remainder is spread across 129 other legal occupations.

The legal services industry has grown slowly through the 1990s, with a steady increase through 2005. The employment growth for this subsector is anticipated to be 1.8% in 2005. Demand for law school graduates is expected to remain strong in

### PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES SECTOR EMPLOYMENT 1996–2006 (In Thousands)

Year	Legal Services	Engineering and Architectural Services	Computer Systems Design Services	Other Professional, Scientific, and Technical Services	Total <sup>a</sup>	Percentage Change
1996	14.3	27.5	29.1	48.0	118.9	5.2%
1997	14.5	29.4	30.7	50.9	125.5	5.6
1998	14.6	31.0	33.1	52.4	131.1	4.5
1999	14.8	33.2	39.0	54.8	141.8	8.2
2000	15.1	34.3	45.4	56.6	151.4	6.8
2001	15.5	37.5	42.7	55.9	151.6	0.1
2002	15.8	36.0	35.9	54.5	142.2	-6.2
2003	16.3	35.4	33.1	54.9	139.7	-1.8
2004	16.6	36.9	33.8	55.7	143.0	2.4
2005 <sup>b</sup>	16.9	38.1	34.8	62.6	152.5	6.6
2006 <sup>c</sup>	17.4	39.5	36.6	64.9	158.3	3.8

<sup>a</sup>Due to rounding, the sum of the individual items may not equal the total.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast.

Note: 2005 employment change includes the effect of 2,500 jobs being reclassified from Computer and Electronics Manufacturing to Scientific Research and Development Services (a subsector of Professional, Scientific, and Technical Services).

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

2006 in both the private and public sectors, particularly in the following areas of practice: real estate, intellectual property, environmental, antitrust, financial services, and general commercial litigation. Despite the best efforts of in-house legal counsels, the need for general corporate legal services will increase such that Colorado corporations will have to outsource work.

Legal expenditures have soared over the last few years, and large, national firms have explored ways to control costs. Most companies view their law departments and outside counsel as cost centers and are examining ways to make future expenditures more predictable. These firms are looking at options such as better integration with outside counsel, cost savings by acquiring longer term commitments with outside counsel, and reduced duplication of efforts.

This shift in business practice of legal firms is currently in transition, moving toward more competitive corporate modes, complete with marketing departments and business development directors. Several years ago the big accounting firms opened legal service subsidiaries.

Employment is expected to grow at a rate of 3% in 2006.

### **Architectural, Engineering, and Related Services Sector**

This sector is expected to experience another healthy increase in employment in 2005. After sector employment losses in 2002 and 2003, the area rebounded with an increase in 2004 and is anticipated to grow another 3.3% in 2005, or approximately 1,200 jobs.

Although federal, state, and local agency capital spending on infrastructure is slowly increasing, it is not fast enough to compensate for the lack of spending from 2002 to 2004. Numerous building and transportation projects were shelved during that period as a way to balance budgets quickly during lean times. However, pressure on transportation systems continued to increase during that same period with the growing Colorado population. The condition of roads, highways, and bridges has deteriorated significantly. The forecasts of costs to renew these systems will increase markedly because timely repairs were not performed. The brunt of renewing transportation infrastructure has been borne by the municipal and county agencies owing to considerably lower federal and state appropriations for these projects. The demand for renewal

of transportation projects will continue to increase faster than anticipated tax revenues and associated project spending.

The residential housing market will soften in 2006 due to increasing concern about mortgage rates, buyer resistance to higher home prices, fuel costs, and a growing inventory of units. The construction of new commercial office buildings is not expected to show strong growth as a result of abundant capacity in many geographic areas.

On a positive note, Congress finally passed the multiyear, multimodal Federal Transportation Appropriations Bill, known as SAFETEA-LU. This will stimulate the design and construction of transportation and related building projects. Colorado fared favorably as the yearly increase in the federal appropriation is 40% higher than previous TEA-21 appropriations.

Other federal spending on military installations, new buildings, and related security spending has also grown. The demand for health facilities, high-tech and aerospace facilities, and buildings for retail and other consumer-driven stores is rising. Some of this is being guided by speculation about

**Some growth is being guided by speculation about where new consumer demand will be created by the new FasTracks transit corridors.**

where new consumer demand will be created by the new FasTracks transit corridors.

The passage of Referendum C will affect the outlook for employment in this sector. A locally tightening job market of architects and engineers is already being realized. Additionally, fewer engineers and architects are graduating every year. Employment levels in this sector are expected to rise about 3.7% for 2006.

### **Computer Systems Design and Related Services**

Computer Systems Services was one of the fastest-growing sectors in terms of employment during the 1990s, although it was also one of the fastest-declining areas from 2001 to 2003. This sector recorded employment growth in the 16–18% range and declines between 6 and 16% during this period.

In 2004 this sector grew marginally and is expected to rebound with 3% growth in 2005. Computer applications companies have become savvier and are forcing operating system and application software upgrades that have resulted in the replacement of the vast majority of pre-Y2K computer systems.

Greater need for computer security and protection from viruses and spam has also spurred the need for computer systems to be updated with more processing power. Network systems have also become more sophisticated, leading firms to out-source for specialized technical assistance. Employment growth for this sector is expected to increase by 5.2% in 2006.

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## Professional and Business Services

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### MANAGEMENT OF COMPANIES AND ENTERPRISES

The Management of Companies and Enterprises Sector is among the most diverse in this supersector. According to the North American Industry Classification System, this sector is defined as:

1. Establishments that hold the securities of (or other equity interests in) companies and enterprises for the purpose of owning a controlling interest or influencing management decisions, or
2. Establishments (except government establishments) that administer, oversee, and manage establishments of the company or enterprise and that normally undertake the strategic or organizational planning and decision-making role of the company or enterprise.

Establishments in this sector provide essential services that are otherwise conducted in-house by companies across many sectors of the economy. By consolidating these services in one establishment, economies of scale can be achieved.

This sector may represent the management of nearly any other type of company. In Colorado, firms in this sector include the Anschutz Corporation, Big O Tires, the Gates Corporation, and Wells Fargo Bank. The committee believes that the "outsourcing of management" is a wave of the future. Employment is expected to increase 4% in 2005 and 5.9% in 2006.

### ADMINISTRATIVE AND SUPPORT AND WASTE MANAGEMENT SERVICES SECTOR 1996–2006 (In Thousands)

Year	Employment Services	Services to Buildings and Dwellings	Other Adm. Services and Waste Mgmt.	Total <sup>a</sup>	Percentage Change
1996	43.0	26.2	49.2	118.4	5.7%
1997	48.0	28.1	54.0	130.1	9.9
1998	48.2	29.3	55.3	132.8	2.1
1999	51.2	31.4	57.1	139.7	5.2
2000	54.5	33.0	58.4	145.9	4.4
2001	46.9	34.4	57.2	138.5	-5.1
2002	39.0	34.1	57.7	130.8	-5.6
2003	36.2	35.0	56.4	127.6	-2.4
2004	39.2	36.9	57.1	133.2	4.4
2005 <sup>b</sup>	43.6	36.5	59.1	139.1	4.4
2006 <sup>c</sup>	45.7	36.5	61.3	143.5	3.2

<sup>a</sup>Due to rounding, the sum of the individual items may not equal the total.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast.

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

### ADMINISTRATIVE AND SUPPORT AND WASTE MANAGEMENT AND REMEDIATION SECTOR

The major subsector classifications for the Administrative and Support and Waste Management and Remediation Sector portion of this sector are employment services; professional employer organizations; and services to buildings and dwellings, which includes pest control, janitorial services, landscaping services, and carpet cleaning services. Other subsectors are document preparation services, telephone call centers, collection agencies, credit bureaus, travel agencies and tour operators,

investigation and security services, convention and trade show organizers, solid and hazardous waste collection, landfill operations, materials recovery facilities, and other remediation services.

Employment in these subsectors fell between 2 and 6% from 2001 to 2003, but recovered in 2004. More stringent environmental regulations should stimulate the need for jobs in the remediation of hazardous wastes. The outlook is for positive growth in this area for the next few years as newer regulations demand more environmental evaluation of land prior to development. Even though vacancy

rates for buildings in Colorado are slowly declining, owners continue to look for ways to consolidate cleaning and maintenance services. This subsector's employment is expected to decline for 2005 and remain flat through 2006.

The recycling of construction materials is anticipated to increase as the global demand for these

materials grows. Steel prices spiked in 2004 and remain high, driving the demand for recycled steel. The structural and reinforcing steel taken from the demolition of several large buildings in Colorado was shipped overseas, where it was smelted into new steel for new buildings. With the surge in oil prices and the resulting increase in the cost of asphalt, old asphalt is being recycled in greater

amounts to be used for feedstock to make pavement for new roads and highways. The employment growth in this subsector is expected to climb significantly, to more than 3.5% per year, for several years.

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**TOTAL PROFESSIONAL AND BUSINESS SERVICES SUPERSECTOR EMPLOYMENT  
1996–2006  
(In Thousands)**

Year	Professional, Scientific, and Technical Services	Management of Companies and Enterprises	Administrative and Support and Waste Management Services	Total <sup>a</sup>	Percentage Change
1996	118.9	14.8	118.4	252.1	5.5%
1997	125.5	14.7	130.1	270.2	7.2
1998	131.1	15.3	132.8	279.2	3.3
1999	141.8	16.6	139.7	298.1	6.8
2000	151.4	17.9	145.9	315.2	5.7
2001	151.6	18.3	138.5	308.4	-2.2
2002	142.2	19.3	130.8	292.2	-5.3
2003	139.7	20.7	127.6	288.0	-1.4
2004	143.0	22.7	133.2	298.9	3.8
2005 <sup>b</sup>	152.5	23.6	139.1	315.2	5.5
2006 <sup>c</sup>	158.3	25.0	143.5	326.9	3.7

<sup>a</sup>Due to rounding, the sum of the individual items may not equal the total.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast.

Note: 2005 employment change includes the effect of 2,500 jobs being reclassified from Computer and Electronics Manufacturing to Scientific Research and Development Services (a subsector of Professional, Scientific, and Technical Services).

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

## Professional and Business Services

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### Employment Services Sector

The Employment Services Sector is recognized as a leading indicator of employment growth or decline of service professions. Employers use employment services for a variety of reasons: to hire temporary employees for peak times, to locate workers for “temp-to-hire” situations, and as a recruiting agency to find candidates for permanent employment. With increasing health premiums and employee liability, some companies hire temp workers who are trained for specific tasks but are not entitled to benefits, which increase the firm’s human resources workload.

After steady growth in the 1990s and early 2000s, employment in this sector took a nosedive from 2001 to 2003, with declines between 14 and 17%—most of which was attributable to the burst in the high-tech bubble. Employment rebounded sharply in 2004, increasing by 8.3%, and jumped again, by 11.2%, in 2005. High demand for health-care professionals, scientists, and technicians is expected to continue, accompanied by increases in related support positions. With the economy growing once again, many companies are focusing on their core specialties and choosing to outsource financial, human resources, and administrative functions, which are overhead in nature. As long as the cost to outsource these positions is less than the cost of a permanent employee, this trend will continue.

### Effects of Future Energy Costs

Forecasts of energy prices indicate that they will remain relatively high for the next few years. The corresponding increases in future costs are embedded in all aspects of the procurement of services and construction materials. As an example, asphalt is a material whose cost is affected by energy prices at every step of assembly and paving. The material is composed of heavy oils and aggregates that must be hauled to the plant. At the plant, energy is used to mix and heat the oil and aggregate to its final composition. From there, the asphalt is transported to the site and paved with machines that all burn either diesel or gasoline. The asphalt testing service companies burn fuel to travel to the site and during the paving operation.

Private companies and public agencies consume their highest levels of construction-related fuel during the summer months, with 2005 being no exception. For example, one medium-size Colorado municipality exceeded its fuel budget by \$200,000. In order to quickly bring the budget back into balance for the rest of 2005, it was forced to postpone projects until the following year.

Overall, in order to compensate for increasing material and fuel costs, many public and private projects and/or other internal and external functions will either be delayed or cancelled, which will affect the level of outsourcing of services by private and public owners.

From the standpoint of the employees who work in the services sectors, increasing energy costs will

result in more people choosing to work for firms closer to their residence. It is also expected that more employees will be encouraged to telecommute, which, in turn, will increase the need for strong telecommunications technology. Telecommuting is of limited value to highly skilled professions that require face-to-face interaction to conduct business.

### The Forecast and Conclusions

The recovery of the state’s economy began in the second quarter of 2004, and the leader of this recovery continues to be the Professional and Business Services Supersector in 2005. This area is anticipated to add 11,700 jobs in 2006.

Businesses and government will continue to outsource professional and business services. So far, higher energy prices have not rippled through the economy as much as expected. Many companies report that they are unable to raise prices and, as a result, are offsetting higher energy prices with other cost reductions. Similarly, government agencies are still able to balance their budgets by reducing internal costs and by delaying some projects. Future energy cost levels and uncertainty about inflation will determine the need for more strategic cost control and the related procurement of services by the private and public sectors.

A lack of labor force mobility is caused by the constant increasing cost of employer-provided health insurance. This makes employers reluctant to hire and workers hesitant to leave their current employers. In light of this, the concern of rising fuel costs

may cause workers to shift to companies located closer to their residences. Use of newer technologies that provide efficient telecommuting will also be used more by service firms.

The trend of sending service jobs overseas will continue to affect this supersector. Many first attempts to offshore services met with mixed results. Offshoring is expected to increase as local businesses become more experienced with this concept. Nationally, the number of jobs that have been moved offshore by legal firms in 2005 is reported to be 20,000.

In 2006, Colorado may be able to count on an influx of people from other states because of

business failures and delayed remedial efforts in disaster locations due to hurricanes Katrina, Rita, and Wilma. One large national engineering firm is experiencing a marked increase of inquiries from its employees looking to relocate to states outside of hurricane zones. Employees who work in the more financially affluent service professions may consider relocating to Colorado with its appealing climate and growing economy. Also, many families who have been temporarily located to Colorado are considering permanent residence here.

The United States still has the most highly educated workforce among the major economies. This drives our competitive global advantage in innovation and technical research. However, the number

of engineering and science graduates in the United States fell to about 70,000 in 2004, while 10 times that number graduated from colleges in India and China. The United States needs to maintain its focus on a better-educated workforce in order to prevent many local and national services from being outsourced as skill and education levels rise elsewhere. The current issue of immigration control is another factor that may make it more difficult to attract people from overseas to work here for service companies.

Employment in the Professional and Business Services Supersector is expected to grow by 3.7% in 2006. ❖

## ***Educational and Health Services***

This NAICS supersector, which includes private sector educational and health-care companies and organizations, showed strong growth during the recent economic downturn and has been the fastest growing sector in Colorado over the past decade. Overall growth will be 6,200 jobs in 2005 and 6,700 jobs in 2006.

The private education sector includes about 1,800 organizations that employ approximately 27,000 employees. (It should be noted that public sector education employment is recorded as government employment, and totals 165,000.) The top 28 organizations employ about 11,000 workers and include the University of Denver, Regis University, Colorado College, the University of Phoenix, Naropa Institute, and Colorado Christian University. Other organizations include tennis camps, instruction for beauticians, driver training institutes, and firearms training centers.

The much larger health-care sector is composed of four subsectors: ambulatory care, nursing, hospitals, and social assistance. The ambulatory care subsector includes approximately 75% of the health-care companies and 41% of employees. About two-thirds of the employees work as doctors, dentists, or in home health care. The remainder of the subsector includes such medical services as specialists, medical labs, blood banks, and dialysis centers.

Approximately 80 private hospitals are located in Colorado. These represent less than 1% of the companies in the health-care subsector, but about 25% of the subsector's employees.

Approximately 28% of the companies and 58% of the employees are included in the nursing care subsector, while about 28% of the companies and 13% of the workers are employed in homes for the elderly. Roughly 10% of the employees work in the area of mental care and substance abuse.

### **Private Education**

Much of the growth in private education is from increased state population, higher demand during expansionary cycles, outsourcing resulting from recessionary cycles, and funding cuts to public education. Moreover, growth in the sector has been driven by demand for continuing education programs; retraining in new areas; and technical, computer, and management training. Approximately 800 jobs will be added in private education in both 2005 and 2006.

### **Health-Care and Social Assistance Services**

According to a report by the Kaiser Family Foundation, national health insurance cost trends moderated somewhat in 2005, to an average of 9.2%—the lowest annual increase in five years, yet this rise still significantly outpaced wage and inflation growth. The national average cost for a family policy topped \$10,000. For workers with coverage, employers pay 74% of those costs on average, which represents approximately 10% of total payroll dollars. Colorado employers experienced an average 9% increase in 2005. In 2006 rates will creep back into the lower double-digits, according to a survey conducted by the Mountain States

Employers Council. Frequently cited cost drivers include aging demographics, the high cost of new technology, provider reimbursement rate increases, the high number of uninsureds, and underinsured and government-covered individuals' reimbursements for uncompensated care.

Despite single-digit growth in average U.S. health insurance costs, the Colorado Health Institute published a report in 2005 that cites a crushing 84% increase in the cost of premiums from 1996 to 2002 for Colorado businesses with 50 or fewer employees. Coverage rates for Colorado small businesses are falling, according to data provided by the Colorado Division of Insurance in April 2005. For the period 2000 to year-end 2004, the division reports a decline in covered individuals from nearly 538,000 to 373,330; a decrease in small business plans from 70,270 to 49,000; and a drop in the number of "business group of one" policies from 28,805 to 11,374. Only about 46% of Colorado businesses with 50 or fewer employees are offering health insurance. For employers of all sizes in the United States, the number of employers who offer health insurance has slipped from 69% to 60% since 2000.

Individuals and businesses are increasingly switching to either high-deductible plans (usually preferred provider organizations, or PPOs) or consumer-driven health plans, which allow for moderation of premium cost while exposing individuals to greater risk of out-of-pocket expenses. The steady increase nationally in PPO coverage since the early 1990s has mirrored the increases in overall health-care

benefit costs. Coverage in traditional HMO plans in Colorado has fallen from nearly 1.5 million members in 2002 to just over 1.05 million in March 2005, according to the *Colorado Managed Care* newsletter. Reflecting the greater financial risk to people with high deductible plans is the fact that more than half of those individuals who file personal bankruptcies in the United States cite the cause as health-care costs when catastrophic illness or injury strikes. Many of these people have, or did have, some level of health insurance.

The latest estimate of Coloradans without insurance is 17.1%, according to recent figures (2003–04) released by the Colorado Health Institute. This is an increase of 0.4% from the preceding period. Nearly 80% of the uninsured are part of families where there is at least one person employed. As more Coloradans are underinsured or uninsured, costs for uncompensated care are reflected in increased charges that return to employers in the form of ever higher premiums. According to a 2005 Families USA study, the authors suggested that treatment

costs for uninsured adults increase private health insurance premium rates by an average of 8.5%.

Efforts by the State of Colorado to curtail rising costs in the 2004 session included amending regulations to increase Multiple Employer Welfare Association (MEWA) participation and introducing opportunities to rate band premiums under certain conditions. The state also enacted a one-time reentry exemption to the waiting period for health insurance carriers that had left the Colorado small-group market and wanted to reenter. The wait period was changed from five to four years. While more time is needed to accurately judge the effect of these initiatives, early indications do not support their success in insuring more Coloradans. Legislative efforts in 2005 include implementing voter approval of the revenue raised by the increase in tobacco taxes to expand access to Medicaid coverage to more children and families; provide for prevention, early detection, and treatment of cancer; and underwrite education, prevention, and cessation programs. The legislature also provided poor women with access to prenatal care pending their Medicaid eligibility processing and restored Medicaid eligibility to legal immigrants. To combat Colorado's low immunization rate, the legislature authorized the creation of an immunization tracking system that requires the reporting of immunizations throughout the state. Medicaid expansions may be reflected in the reduction in the number of persons without insurance in 2006, assuming that businesses do not continue to drop coverage, which would offset this small gain.

#### HEALTH-CARE SERVICES EMPLOYMENT 1996–2006 (In Thousands)

Year	Ambulatory Care	Hospitals	Nursing Care	Social Assistance	Total <sup>a</sup>	Percentage Change
1996	64.8	35.9	28.8	23.5	153.0	3.1%
1997	65.6	39.2	29.8	24.2	158.8	3.8
1998	66.1	41.2	30.0	25.3	162.6	2.4
1999	66.1	42.4	30.6	26.6	165.6	1.8
2000	68.4	42.6	31.5	27.6	170.1	2.7
2001	71.0	44.4	32.6	29.1	177.2	4.2
2002	74.7	45.4	33.8	30.0	183.9	3.8
2003	77.4	46.4	33.9	30.3	188.0	2.2
2004	79.0	48.0	34.2	31.3	192.5	2.4
2005 <sup>b</sup>	80.8	50.0	34.6	32.5	197.9	2.8
2006 <sup>c</sup>	82.6	52.4	35.0	33.8	203.8	3.0

<sup>a</sup>Due to rounding, the sum of the individual items may not equal the total.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast.

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

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## Educational and Health Services

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Cost reductions in the system resulting from previously enacted legislation are being realized. Colorado estimates that its “advanced care management” initiative, an integration of disease and care management intervention for its high-risk pool enrollees, generated \$2.3 million in direct savings to the state from May 2002 to September 2003. Reforms passed in 2003 also provided some relief for medical malpractice. COPIC Insurance provides malpractice insurance to 80% of physicians in the state and will increase rates in 2006 by less

than 3%. This is the smallest increase in four years and is attributable to the state laws that capped noneconomic damages in malpractice lawsuits and allowed physicians to explain and apologize for medical errors. Under this law, patients receive limited compensation to cover short-term losses and retain the ability to later file lawsuits against physicians. When physicians had such conversations with patients, about two-thirds of them did not pursue lawsuits.

In the coming session, the legislature will continue to wrestle with the rising numbers of uninsured, increasing premiums, and the strong demand and higher costs of public insurance programs. Anticipated legislation may include combining Medicaid and the Child Health Plan Plus into a single program under the auspices of an approved waiver by the federal government, as well as ideas to address the plight of small businesses in their quest to offer affordable health insurance to their employees. The 2003 replacement of a no-fault auto insurance system with a tort system continues to generate controversy. In response to a contentious debate on the impact of this change on consumers and health care providers, the 2005 General Assembly created an interim committee to study the issue. The committee has approved six bills for consideration by the 2006 General Assembly that would make various changes to current insurance law.

Employment in the health industry continues to be limited by the supply side: there is a national desperation for health-care workers, particularly nurses and other allied health professionals. Major factors behind the increasing demand for health-care workers include population growth, the aging of the population and the nursing workforce, increased per capita demand for health-care services, and new construction of hospitals. Registered nurses account for 25% of the entire health-care workforce, but only 7% are age 30 or younger. According to the Colorado Center for Nursing Excellence, the 2003 shortage of nurses in Colorado was 11%, and the projected shortfall is 30% by 2020. The shortage of nursing faculty was 15–25% in 2004. Significant

### COLORADO EDUCATIONAL AND HEALTH-CARE SERVICES EMPLOYMENT 1996–2006 (In Thousands)

Year	Educational Services	Health-Care Services	Total <sup>a</sup>	Percentage Change
1996	18.2	153.0	171.2	3.5%
1997	19.4	158.8	178.2	4.1
1998	20.4	162.6	182.9	2.6
1999	21.3	165.6	186.9	2.2
2000	22.7	170.1	192.8	3.2
2001	23.7	177.2	200.8	4.2
2002	24.6	183.9	208.5	3.8
2003	25.0	188.0	213.0	2.2
2004	26.1	192.5	218.5	2.6
2005 <sup>b</sup>	26.9	197.9	224.7	2.9
2006 <sup>c</sup>	27.7	203.8	231.4	3.0

<sup>a</sup>Due to rounding, the sum of the individual items may not equal the total.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast.

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

barriers to the expansion of nursing and health professions workforce include severe financial constraints within Colorado's higher education system, wage gaps between faculty and practice settings (especially for nurses), and high rates of nursing faculty retirements. A collaborative effort among Colorado's public and private sectors, including nursing constituents, the state workforce development system, and the health-care industry, is looking to take advantage of existing resources and private sector investments to target development of education capacity and faculty supply. These endeavors, however, are not short-term solutions.

Construction of new hospitals and renovation projects of existing institutions continue to boom at an unprecedented rate. A sampling of completed projects in 2005 include the Exempla Good Samaritan Medical Center, the St. Mary-Corwin Medical Center Tower expansion, the Denver Health Medical Center renovation, the Penrose Hospital East Bed Tower addition, the McKee Medical Center Legacy expansion, the new Kaiser Permanente Rock Creek Medical Center, and the Montrose Memorial Hospital Bed Tower addition. Planned new facilities include the completion of the Medical Center of the Rockies in Loveland (2006), a new facility in Woodland Park, a Summit County hospital, the Platte Valley Medical Center, and the move of St. Anthony's to Lakewood. Hospital, medical, and biotechnology-related capital construction continue at the Fitzsimons campus, featuring the University of Colorado Health Sciences Center, the Children's Hospital, and the planned Veterans Administration Hospital. Bricks and mortar

infrastructure will also contribute to higher hospital and premium costs for Coloradans. Considering construction trends, demands for nurses and other medical professionals is expected to remain strong but due to supply constraints only modest growth in professional health employment overall is forecast.

Unlike the hospital facility sector, the Colorado Department of Public Health and Environment reports flat to very low rates of new licenses for long-term care facilities (nursing homes) and assisted living facilities. This implies the creation of few new jobs in this sector.

In the context of nationwide momentum fueled by public and private sector leadership, organizations, providers, and communities across Colorado are increasingly interested in information technologies and building systems for health information exchange. Electronic data systems and data exchange projects are in various states of development within health-care systems and individual provider groups, and among community networks of health-care providers. The federal government is driving efforts to address prevailing barriers to widespread implementation of electronic and web-based health information solutions that include patient

**Construction of new hospitals and renovation projects of existing institutions continue to boom at an unprecedented rate.**

privacy issues, legal and regulatory structures, and the need for electronic data standardization. The private sector is being called on to offer workable prototypes for how national health information architecture can be structured and implemented. While there is widespread acceptance of the need to convert to electronic health information systems, adequate funding and the nature of investments required by various sectors remain core issues at national and state levels. The costs associated with updating the health-care information infrastructure are significant, and it is estimated that conversion from paper records to digital hospital clinical information systems will cost \$100 billion over the next decade. Yet it is contended that these systems will pay for themselves over time in improved resource management and reduction of errors. Early adopters of electronic medical records report 92% improvement in overall efficiency and 70% indicate cost savings. A \$5 million grant to a coalition including University Hospital, the Children's Hospital Denver Health Medical Center, and Kaiser Permanente expressly for information infrastructure is intended to speedup the pace of adoption of these new technologies. As part of this initiative, the creation of a nonprofit organization to promote health information infrastructure and oversee a statewide health information exchange network is being actively discussed among key stakeholders. Efforts to promote technologies such as telemedicine are being examined as options to promote access to health-care services, especially among rural communities, and to reduce costs under publicly funded health programs.

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## Educational and Health Services

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Many industry watchers claim that consumers have been insulated too long from the actual costs and utility of visits, procedures, and medicines, leading to inappropriate utilization. “Consumerism” is viewed as a potential solution to the health-care cost predicament, and employers are introducing a range of plan designs to promote this type of behavior. Adoption of high deductible plans, wider adoption of health savings accounts, and proposed changes to rollover provisions of flexible spending accounts may compel individuals to look for comparative cost and quality among providers of services. However, information to enable this level of knowledgeable decision making is not necessarily readily available. In one positive development in 2005, Colorado hospitals released quality indicators to the public through the Colorado Hospital Association Performance and Quality Group, whose members represent health-care, business and governmental organizations. Colorado consumers now have access to 11 risk-adjusted mortality (death) indicators and 4 volume indicators to gauge Colorado full-service hospitals. As the only state in the country to voluntarily release this information, this collaborative effort is truly unique. Other efforts, dubbed “pay for performance,” have been adopted by Medicare, private purchasers, and payors. They will pay financial rewards to hospitals and physicians whose data reflect that they are improving quality through decreased waste, errors, and inefficiencies. Patients and consumers will soon be able to access more extensive performance data on these participating providers.

It is estimated that lifestyle behaviors contribute up to 50% of an individual’s health status. Ways to

creatively improve the health of the population will be one of the only options to combat the costs and complications of early or avoidable chronic diseases. According to a 2004 Towers Perrin survey on aligning employer and employee interests, three-fourths of employees indicated that they would join a health plan that offered financial incentives for healthy behavior. Disease management programs will become a focal point for patient education, coordinating between patients and physicians and coaching for adherence to recommended treatment goals such as control of blood pressure and cholesterol. Disease management programs do not offer quick and substantial savings, especially when poorly implemented, but will be attractive to employers who seek to manage their human capital and get in front of health-care costs by managing direct health care expenditures, long- and short-term disability, productivity, and absenteeism.

### Health-Care and Social Assistance Employment

Between 1995 and 2004, Colorado’s population increased at a compound annual growth rate (CAGR) of 2.2%, and wage and salary employment grew 1.9%. During this period, health-care and

social assistance employment expanded at a CAGR of 2.9%, with ambulatory health-care increasing 2.6% and hospital employment rising 3.7%. The smaller subsectors also grew faster than the state population as nursing care employment increased 2.4% and social assistance employment rose 3.1%.

In 2005 health-care and social assistance employment will grow by 3.0%, or 5,400 jobs. Approximately 1,800 jobs will be added in ambulatory care and 2,000 positions in hospitals. Nursing care employment is expected to finish 2005 with an increase of 400 jobs, while social assistance will climb by 1,200 employees.

Growth is anticipated to continue at a slightly faster pace in 2006, with an increase of 5,900 jobs. The supply of physicians, dentists, and other trained employees in the ambulatory health-care subsector will not be able to meet demand, and employment will rise 2.2%, or 1,800 employees. With the addition of several new hospitals, employment in the hospital subsector will expand by 2,400 jobs. While these two subsectors face the same supply and demand issues, growth in the hospital sector will occur as a result of increases in hospital support staff. Gains in the nursing care subsector will also be constrained by the supply of trained employees, although the subsector is still expected to grow by 1.2%, or 400 jobs. Finally, social assistance employment will rise by 1,300 jobs. ❖

**Colorado consumers now have access to 11 risk-adjusted mortality (death) indicators and 4 volume indicators to gauge Colorado full-service hospitals.**

## Leisure and Hospitality

### Overview

This NAICS supersector includes performing arts, spectator sports, and related industries; museums, historical sites, and similar institutions; amusement, gambling, and recreation industries; accommodations; and food services and drinking places. Thus, the Leisure and Hospitality Supersector encompasses a broad spectrum of businesses and activities. It includes not only the recreational and entertainment activities of both Colorado residents and the tourists who visit the state, but also the effects of business travel to and within Colorado. Furthermore, much of Colorado's leisure and hospitality businesses exist and depend on the natural environment that is such a central part of our state's image and lifestyle.

One of the major economic contributions of the leisure and hospitality industry is its central role in attracting businesses and residents to Colorado. Each year companies from all economic sectors move to the state because of the quality of life it offers. Moreover, several major outdoor recreation equipment and clothing manufacturers are headquartered in Colorado because of recreational opportunities and the environment. Finally, Coloradans tend to forget that shopping is by far the most popular tourist activity. Numerous Colorado shopping and outlet store malls depend heavily on tourism.

Good things are on tap for this sector for 2006, which will spur continued growth and recovery from the downturn in 2001. Southwest Airlines is coming to Denver International Airport, which is a significant event and will make Colorado more

attractive and competitive in markets that the airline serves. Starting January 3, 2006, Southwest will start service with a total of 13 daily nonstop flights to Las Vegas, Chicago-Midway, and Phoenix. The airline's return to Denver will boost all Colorado tourism, from mountain resorts to city attractions.

An 1,100-room Hyatt hotel is scheduled to open on December 20, 2005, and will complement the \$310.7 million expansion of the Colorado Convention Center. The center opened in December of 2004.

Denver voters approved an increase in the Denver

lodging tax, which will provide an additional \$4.2 million for the Denver Metro Convention and Visitors Bureau to promote Denver as a top-tier tourist and meeting destination. The bureau's annual budget will be raised to \$12 million, which will make the bureau competitive with the marketing efforts of cities such as Dallas, Boston, and Washington, D.C.

Exciting things are happening on the cultural tourism front with the opening of the new Ellie Caulkins Opera House. The dramatic new addition

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### LEISURE AND HOSPITALITY EMPLOYMENT 1996–2006 (In Thousands)

Year	Arts, Entertainment, and Recreation	Accommodations	Food Service	Total Accommodations and Food Service <sup>a</sup>	Total Leisure and Hospitality <sup>a</sup>
1996	36.0	38.3	145.9	184.1	220.1
1997	37.6	39.5	149.6	189.0	226.6
1998	38.5	40.1	152.5	192.6	231.0
1999	40.4	41.1	157.1	198.2	238.5
2000	42.5	41.6	161.9	203.5	246.0
2001	42.1	40.4	164.8	205.1	247.2
2002	41.1	39.8	166.2	205.9	247.0
2003	40.5	39.3	165.8	205.1	245.6
2004	42.2	39.5	169.7	209.2	251.4
2005 <sup>b</sup>	43.9	40.5	172.8	213.3	257.2
2006 <sup>c</sup>	44.8	41.4	176.6	218.0	262.8

<sup>a</sup>Due to rounding, the sum of the individual items may not equal the total.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast.

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

## Leisure and Hospitality

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of the Frederic C. Hamilton Building to the Denver Art Museum will add another architectural and cultural attraction. While the new building is scheduled for opening in the fall of 2006, it is already attracting visitors to the construction site. For sports fans, the Colorado Avalanche hockey team is again attracting fans after last season's absence.

Data presented at the Travel Industry Association of America's (TIA) Travel Marketing Outlook Forum in Seattle, Washington, in late October 2005 indicate that 2005 has seen travel in full recovery mode. Travel expenditures are expected to increase 8% in 2005, to more than \$645 billion, and rise another 4.5% next year, for a total of \$675 billion, with leisure travel trips increasing 4% in 2005 and 2% in 2006.

Leisure travel will continue to be a bright spot in the travel picture. Business travel shows modest growth, only 1% in 2005, and is expected to continue in the 1–2% range in 2006. International in-bound travel is expected to increase 8%, to 49 million arrivals, in 2005. A total of 52 million international arrivals are anticipated in 2006. The weak dollar has made the U.S. attractive to foreign visitors, but passport and visa issues, as well as the nation's deteriorating image around the world, are deterrents.

Air traffic has increased, bringing crowded airports and high load factors, but revenue has not grown. Airlines are plagued with high fuel costs and are suffering billions of dollars in losses.

In contrast with the airline industry, it is a great time to be in the lodging business. Room demand,

### COLORADO LODGING OCCUPANCY AND AVERAGE DAILY ROOM RATES 2004–2005

	Occupancy Rate Percentage		Average Daily Rate Dollars	
	2004	2005	2004	2005
January	50.8%	52.9%	\$104.9	\$111.7
February	54.8	58.7	110.6	123.5
March	60.1	59.9	111.8	124.2
April	51.2	54.9	83.7	89.6
May	53.9	56.1	84.5	91.6
June	66.9	70.6	91.8	100.4
July	73.5	75.4	97.0	106.3
August	69.5	71.5	96.8	105.7
September	61.6	64.6	90.7	100.1
Year to Date	60.4%	62.8%	\$96.9	\$105.7

Source: *Rocky Mountain Lodging Report* and Colorado Business Economic Outlook Committee.

occupancy, and rates are up; room supply increases are low; and revenue per available room (RevPAR) has climbed about 8% in 2005. Projections for 2006 show room supply increasing by 1.5%, demand by 3%, occupancy by 1.4%, room rates by 5%, and RevPAR by 6.5%.

Colorado's tourism economy has reflected many of these trends and will continue to mirror them in the future. However, given that Colorado's economic recovery has generally lagged behind the national economy, growth in the Leisure and Hospitality Supersector is anticipated to be slightly slower than the TIA forecasts for the nation. Specifically, receipts in Colorado's travel, tourism, outdoor recreation, leisure, and hospitality economy are projected to grow by 4% in 2006.

### Employment

For a variety of reasons, employment will not grow as much as expenditures. Food service dominates the employment picture. While the number of food service employees will jump by several thousand, the percentage increase is relatively small owing to the large base. The opening of the new Hyatt convention hotel will help boost accommodations employment.

Leisure and Hospitality Supersector employment is forecast to increase 2.2%, or by approximately 5,600 employees.

The following paragraphs focus on specific areas in the sector, and are followed by a discussion of challenges facing the industry.

## COLORADO LODGING AND HOSPITALITY FORECASTS

	2005			2006		
	Occupancy	Average Daily Rate	Revenue per Available Room	Occupancy	Average Daily Rate	Revenue per Available Room
<b>Denver Metro Area</b>						
South and SE	62%	\$84.3	\$48.0	60%	\$88.0	\$52.8
Midtown	65	67.3	43.7	64	70.0	44.8
Downtown	68	132.0	89.8	62	138.0	85.6
Northeast	69	75.5	51.7	68	77.0	52.4
West	62	77.5	48.1	63	80.5	50.3
North	52	62.5	32.5	53	63.0	33.1
Hwy 36 Corridor	65	96.0	62.4	66	99.0	65.3
Boulder	64	103.0	65.9	66	110.0	72.6
Subtotal	65	92.0	59.3	62	96.0	59.5
<b>Colorado Springs</b>	61	80.0	48.8	62	82.0	50.4
<b>Resort Areas</b>						
Vail	54	248.0	133.9	55	275.0	151.3
Aspen	60	328.0	196.8	60	350.0	210.0
Steamboat	48	140.0	67.2	49	150.0	73.5
Winter Park	40	123.5	49.4	40	130.0	52.0
Other resorts	49	185.0	90.7	50	190.0	95.0
Subtotal	50	215.0	106.4	50	230.0	115.0
<b>Other Colorado Cities</b>						
Durango	59	90.0	53.1	60	98.0	58.8
Cortez	49	72.0	35.3	52	75.0	39.0
Grand Junction	62	62.0	38.4	63	68.0	42.8
Glenwood Springs	70	106.0	74.2	71	110.0	78.1
Estes Park	47	134.0	63.0	48	135.0	64.8
Montrose	64	65.0	41.6	60	70.0	42.0
Fort Collins	60	81.0	48.2	60	90.0	54.0
<b>All Other CO Areas</b>	56	74.0	41.1	56	77.0	43.1
<b>Colorado Total</b>	60%	\$105.5	\$63.3	60%	\$110.0	\$66.0

Source: Hospitality Valuation Services, Inc., Boulder, CO.

## Accommodations

According to the *Rocky Mountain Lodging Report*, statewide lodging occupancies are up 2.4% from 2004 levels (62.8% compared to 60.4%), and average daily rates (ADRs) climbed 9.1% (\$105.67 versus \$96.87) through September 2005. The data show good improvement in 2005, which is consistent with national trends. Both leisure and business travel segments have grown. While virtually all sectors of the lodging market have shown occupancy gains year to date, if the data are examined in-depth the occupancy gains have been accompanied by room-rate growth in the Denver metro market, the resort market, and at higher-end properties. More rate-sensitive hotels, however, have had flat to declining rates nationally and in Colorado. This leads to the conclusion that the outlook is not so promising for the economy sectors of the lodging market.

The big event affecting the 2006 accommodations forecast is the opening of the convention center hotel, the 1,100-room Hyatt. While this should help increase demand and total revenue significantly, it will also boost the room supply, which, in turn, will result in relatively flat occupancy rates and slow growth in average daily rates and RevPAR.

The Colorado lodging and hospitality forecast table shows data for many areas in the state by the key lodging variables of occupancy, ADR, and RevPAR. Slow, but steady growth is anticipated in most areas. For the state as a whole, occupancy rates are expected to be flat, while ADR will rise 4.3%, from \$105.50 to \$110, and RevPAR will climb 4.3%,

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from \$63.30 to \$66. The Colorado resort areas will lead the state with an 8.5% increase in RevPAR as ADR grows 7%.

### Casinos and Gaming

After the pause in 2003, Colorado's casino gaming industry is back on a growth pattern. Adjusted gross proceeds increased \$27.6 million in 2004 over 2003 and are projected to rise \$28.0 million in 2005 compared with 2004. The available data on Colorado casino areas is shown in the table on this page. It was expected that the completion of the new road from I-70 to Central City would increase casino revenues in that city. It certainly has, reversing the loss in market share with a nearly 40% increase.

It was also expected that Central City would take some casino revenues away from Black Hawk. However, this did not occur as Black Hawk's revenues continue to increase.

The state's three gaming areas are all showing growth. It is anticipated that the Colorado gaming industry will remain strong in 2006, and adjusted gross revenue will increase by 3.4%, to \$779.5 million.

### Restaurants

Over the past several decades, the restaurant industry has truly become an economic juggernaut, both on the national level and in Colorado. Year after year, the main factor driving the industry's growth

remains the unrelenting consumer demand for the industry's products and services. The typical American consumer now spends approximately 47% of his/her food dollar in the restaurant community—a figure that is expected to exceed 50% within the next 10 years.

Amidst this positive economic and demographic backdrop, Colorado is expected to rank in the top 10 states in terms of restaurant sales growth in 2006. Colorado's restaurants are projected to register sales of more than \$7 billion in 2006, which is a robust increase over 2005.

Newly released statistics from the U.S. Department of Commerce illustrate the economic powerhouse that is the Colorado restaurant industry. Within Colorado, every dollar spent in restaurants generates an additional \$1.36 of sales for other industries in the state. These industries include agriculture, construction, manufacturing, transportation, real estate, financial services, and wholesale trade. In fact, essentially any industry that is associated with the operation of a restaurant enjoys increases in sales when the restaurant industry grows. Similarly, these supporting industries also experience proportional losses in sales when the restaurant industry faces a downturn, which makes it critically important to ensure the continued growth of this sector.

The employment impact of Colorado's restaurant industry is equally impressive. For every additional \$1 million in sales at restaurants in Colorado, the

**COLORADO CASINOS  
1996–2006**

Year	Colorado Casinos Open	Colorado Devices (000s)	Adjusted Gross Proceeds (In Millions)			
			Black Hawk	Central City	Cripple Creek	Total
1996	57	12.9	\$219.9	\$88.9	\$102.7	\$411.5
1997	54	13.4	234.6	87.4	108.6	430.7
1998	49	13.4	272.0	94.0	113.2	479.2
1999	48	14.0	354.9	73.8	122.6	551.3
2000	45	14.6	433.8	63.5	134.6	631.9
2001	44	14.6	478.3	59.7	139.5	677.5
2002	43	15.6	524.5	52.8	142.4	719.7
2003	44	15.5	505.9	49.9	142.5	698.3
2004	45	15.7	524.0	53.2	148.7	725.9
2005 <sup>a</sup>	46	16.5	528.4	74.4	151.1	753.9
2006 <sup>b</sup>	46	16.5	546.4	76.9	156.2	779.5

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

Source: Colorado Division of Gaming and Colorado Business Economic Outlook Committee.

state economy generates 42 jobs, including employment opportunities in the restaurant industry and in industries that support the industry.

The restaurant and food service industry is the largest private sector employer in Colorado. According to the National Restaurant Association, the Colorado restaurant and food service industry employed 225,700 individuals in 2005, including employment in all eating and drinking place occupations, plus employment in food service positions that are not located in eating and drinking places. This represents approximately 10% of the total employment base in Colorado. By 2015, Colorado's restaurant industry is projected to employ 271,000 individuals, a 20% increase (or 45,300 jobs) over the 2005 level.

While these employment numbers are impressive, it is the continued growth of the restaurant industry that is crucial to the overall health of the Colorado economy, as well as the employment opportunities it provides for Colorado residents.

### Parks and Outdoor Recreation

Visitation to state parks, national forests, Bureau of Land Management lands, and various county park and open space areas exceeds visitation to National Park Service (NPS) facilities. Indeed, NPS visitation is a small component of the overall outdoor recreation system in Colorado, and NPS visits have been declining. Furthermore, an immense amount of outdoor recreation in Colorado occurs on privately

owned lands. Unfortunately, reliable visitation data for these other various outdoor recreation areas is unavailable. Given this lack of data, the forecast is therefore based on these limited data points. Moreover, the outdoor recreation sector, both summer and winter, is extremely sensitive to weather and natural hazards, particularly wildfires. Taking all this into account, it is projected that outdoor recreation behavior in Colorado will grow essentially in conjunction with the overall growth in state tourism. Thus, outdoor recreation visitation is forecast to increase 2% and spending is projected to climb approximately 4% in 2006.

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### COLORADO PARKS VISITS 1996–2005 (In Thousands)

Parks	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005 <sup>a</sup>
Bent's Old Fort NHS	37.6	38.8	41.1	36.8	30.5	31.0	29.8	31.2	31.0	27.8
Black Canyon of the Gunnison NP	200.1	209.9	193.5	200.1	191.5	181.0	173.7	167.2	175.6	185.1
Colorado NM	318.7	307.1	291.7	297.1	269.3	237.6	294.0	336.6	352.6	352.5
Curecanti NRA	1,017.3	966.7	973.7	1,044.5	1,022.3	879.8	732.7	1,008.8	1,006.1	904.3
Dinosaur NM <sup>b</sup>	343.5	330.5	311.0	303.9	293.8	241.5	221.4	214.5	240.7	277.4
Florissant Fossil Beds NM	91.3	86.5	79.8	81.5	82.1	79.7	62.5	67.5	61.3	59.3
Great Sand Dunes NM	309.3	309.9	279.8	286.7	260.8	277.5	234.8	251.4	267.2	278.2
Hovenweep NM <sup>b</sup>	12.1	10.8	10.4	20.9	19.1	16.5	13.6	13.1	11.8	11.8
Mesa Verde NP	617.4	627.7	604.6	635.7	452.3	513.4	406.4	438.6	446.8	497.2
Rocky Mountain NP	<u>2,923.8</u>	<u>2,965.4</u>	<u>3,035.4</u>	<u>3,186.3</u>	<u>3,185.4</u>	<u>3,139.7</u>	<u>2,988.5</u>	<u>3,067.3</u>	<u>2,781.9</u>	<u>2,778.9</u>
Total Visitors to Parks and Sites	5,871.0	5,853.1	5,820.9	6,093.8	5,807.0	5,597.6	5,157.4	5,596.3	5,374.9	5,372.5

<sup>a</sup>Estimated.

<sup>b</sup>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.

Source: National Park Service and Colorado Business Economic Outlook Committee.

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**COLORADO SKIER VISITS BY TYPE OF SKI AREA**  
(In Millions)

Season	Destination Resorts <sup>a</sup>	Front Range Destination Resorts <sup>b</sup>	Gems/Front Range <sup>c</sup>	Total
1995-96	3.61	6.62	1.16	11.39
1996-97	3.89	6.82	1.14	11.85
1997-98	4.08	6.68	1.22	11.98
1998-99	3.83	6.44	1.12	11.39
1999-00	3.47	6.30	1.12	10.89
2000-01	3.58	6.95	1.14	11.67
2001-02	3.38	6.71	1.03	11.12
2002-03	3.46	6.85	1.30	11.61
2003-04	3.52	6.56	1.17	11.25
2004-05	3.64	6.91	1.26	11.81
2005-06 <sup>d</sup>	3.71	7.05	1.29	12.05

<sup>a</sup>Resorts more than a two-hour drive from Denver with a bed base. This includes: Aspen Highlands, Aspen Mountain, Buttermilk, Crested Butte, Durango Mountain Resort, Howelson Hill, Silverton Mountain, Snowmass, Steamboat, Telluride, and Wolf Creek.

<sup>b</sup>Resorts within a two-hour drive of Denver with a bed base. This includes: Beaver Creek, Breckenridge, Copper Mountain, Keystone, Vail, and Winter Park.

<sup>c</sup>Resorts either within a two-hour drive from Denver and/or with no bed base. This includes: Arapahoe Basin, Eldora, Loveland, Monarch, Powderhorn, Ski Cooper, SolVista, and Sunlight.

<sup>d</sup>Forecast.

Source: Colorado Ski Country USA.

## Skiing

Colorado continues to be the nation's premier winter ski destination, with 37,791 acres of skiing, 311 lifts, and 2,229 trails at 25 resorts. The state's ski resorts once again dominated *SKI Magazine's* annual ranking of North American ski resorts. Five Colorado ski resorts were in the top 10, and 12 were ranked in the top 25. Colorado resorts were led by Vail in the number two position. The state had

more resorts in the top 25 than any other region, followed by Utah and California, with four each in the top 25. The top 10 resorts in North America, according to *SKI Magazine's* readers, are:

1. Deer Valley, Utah
2. *Vail*
3. Whistler/Blackcomb, British Columbia
4. *Snowmass*
5. Park City, Utah

6. *Beaver Creek*
7. *Breckenridge*
8. *Aspen*
9. Mammoth Mountain, California
10. Sun Valley, Idaho

The 2004–05 ski season recorded approximately 11.81 million skier visits—an increase of more than 550,000—for the third-best season ever. The key news of the season was that the number of international skiers and snowboarders jumped a record 28%. Colorado ski resorts' international visits dropped significantly after September 11, 2001, although they have been rebounding rapidly since 2002–03, posting an increase of more than 200,000 visits. The United Kingdom remains the state's largest international market, with a 31% increase over the 2003–04 season; however, Australia and Latin America also saw huge gains of 25% and 16%, respectively.

Colorado had a 6% gain in destination visits (visits from states other than Colorado and countries other than the United States), while the remainder of the Rocky Mountain and Pacific West regions dropped 4% in the coveted destination visits. As a result, Colorado remains the market share leader, accounting for 55% of the western U.S. total destination skier visits.

Colorado Ski Country USA reports and distributes skier visit numbers in three overall categories: Destination Resorts, Front Range Destination Resorts, and Gems/Front Range Resorts. All categories reported impressive gains over the 2003–04 season. Front Range Destination Resorts posted the largest overall growth, totaling an increase of more

than 350,000 skier visits year-over-year. The Gems Resorts also saw solid gains, with nearly a 5% increase over the prior season. The Destination Resorts ended the season with a 3% rise.

On the basis of early snow, an improving economy, strong season pass sales, a return of the destination skier, excellent early reservations, a strong international market, and a strong euro, it is estimated that skier visits will increase by 2% and break the elusive 12-million-skier-visit mark in the 2005–06 season. A necessary ingredient is abundant snowfall!

The 2005–06 ski season will be helped by the expansion of lifts, terrain, and other improvements at the ski resorts as Colorado Ski Country's 25 resorts have invested more than \$140 million in improvements to continue to make the skiing experience better. Events will also help boost ski visits. Some of the notable ones are:

- Women's Alpine World Cup and ESPN Winter X Games Ten at Aspen
- 25th Anniversary Celebration and Culinary Classic and Celebrity Chef Ski Race at Beaver Creek
- U.S. Freeskiing Open at Vail
- Bud Light Cowboy Downhill, Winter Carnival, U.S. Jumping/Nordic Combined Championships at Steamboat
- POWERade Colorado Freeride Series and Championships at Snowmass
- Annual Wells Fargo Bank Cup at Winter Park

## Conventions

Business travel, which includes meetings and conventions, represents 14% of Colorado's total travel- and tourism-related expenditures annually.

The meetings and convention business in Colorado during 2005 showed improvement over last year. The primary reason appears to be a stronger economy, with hotels reporting an increase in business meetings. In addition, the expanded Colorado Convention Center was host to several large conventions in its first full year of operation. However, the 2006 outlook for meetings and conventions is projected to be flat compared to 2005. Meetings and conventions may increase 1–3% if the economy continues to grow and Colorado secures some of the displaced meetings from New Orleans and the Gulf Coast region.

The Hyatt Regency Convention Center Hotel, which opens December 2005, reports strong bookings over the next three to four years. However, individual hotel group bookings in Denver are tracking even with 2005.

The outlook after 2006 is promising, with strong bookings at the Colorado Convention Center in 2007 and beyond. The Broadmoor in Colorado Springs has added 60,000 square feet of meeting

**Colorado Ski Country's 25 resorts have invested more than \$140 million in improvements.**

space and its resort complex will be hosting new groups in the future.

Overall, Colorado's future as a meetings and convention destination appears to be bright. The capacity to house and host large meetings and convention groups is expanding across the state, which brings optimism for economic gains from this sector.

The sources used to compile the information in this section include Longwoods International, Denver Metro Convention & Visitors Bureau, and the Colorado Springs Convention and Visitors Bureau.

## Air Travel

The Leisure and Hospitality Supersector depends heavily on air travel. Passenger traffic at Denver International Airport (DIA) surged 13% in 2004, pushing the yearly total to a record 42.3 million. This is an increase of 4.8 million over the 37.5 million passengers who went through the airport in 2003.

The December total of 3.5 million passengers also set a record for the busiest December ever. It was the 13th straight month, dating back to December 2003, that traffic at DIA set a monthly record. Traffic in December of 2004 was 5.2% higher than in the same month of 2003, when 3.3 million passengers were recorded.

With nearly full airplanes and airlines not adding much seat capacity, DIA continues to enjoy modest growth in 2005. Through the first nine months of 2005, nearly 33 million passengers passed through DIA. This was 2.5% more than the 32.1 million

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## Leisure and Hospitality

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travelers recorded during the first three quarters of last year. It is estimated that 2005 will close with a gain of 2.5%.

Southwest Airlines' announcement that it will begin service to DIA on January 3, 2006, is good news for the traveling public in the Rocky Mountain region. Denver will now be served by most of the low-fare carriers in the country, and more competition generally results in lower fares. It is also good news for the Denver and Colorado economy as it will add new employees to the transportation sector. Because of the "Southwest Effect," it is forecast that

DIA passengers will increase by 3.9% in 2006, to 45.0 million.

Colorado Springs Airport enplaned just over 1 million passengers in 2004 for a 2.3% increase over 2003. In 2005 the number of total enplaned passengers is flat. It is anticipated that the completed expansion of convention facilities at the Broadmoor will increase enplanements in 2006 by 1–3%.

In addition to DIA and Colorado Springs, seven mountain airports provide service directly to many resorts.

## Challenges

High energy prices will impact the Colorado economy and be a special challenge to the Leisure and Hospitality Supersector. Since Colorado is a major drive vacation market, the price of gasoline is a concern. While most consumers think in terms of gasoline prices, of equal importance is the price of diesel, jet fuel, and other refined products. It is these products that have cost impacts throughout the economy and on the consumer's ability or desire to spend.

The same is true for home heating energy costs, which are projected to increase by one-third or even double in 2006. Leisure and hospitality depends on discretionary income to succeed, and if discretionary funds are used to pay necessary heating bills, fewer dollars will be available for travel expenditures.

Another concern is the high level of debt that is currently carried by consumers and its impact on their ability to travel. The debt level problem will be compounded by rising interest rates.

Funding is another major challenge facing Colorado tourism. Since 1993 Colorado has been struggling to find increased funding for tourism promotion programs in order to be competitive with other states. As the state tourism offices in Colorado's major competitor states continue to increase their promotional funding, the inability to fund Colorado's tourism promotion at the same level puts the industry at a competitive disadvantage. This contributes to the forecast that Colorado leisure and hospitality economy will not grow as rapidly as that of the nation. ❖

**DENVER INTERNATIONAL AIRPORT PASSENGERS  
1997–2006  
(In Millions)**

Year	Enplanements	Deplanements	Total Passengers <sup>a</sup>
1997	17.4	17.5	35.0
1998	18.4	18.4	36.8
1999	19.0	19.0	38.0
2000	19.4	19.4	38.8
2001	18.0	18.0	36.1
2002	17.8	17.8	35.7
2003	18.7	18.8	37.5
2004	21.1	21.1	42.3
2005 <sup>b</sup>	21.6	21.7	43.3
2006 <sup>c</sup>	22.5	22.5	45.0

<sup>a</sup>Due to rounding, the sum of the individual items may not equal the total.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast.

Source: Denver International Airport and Colorado Business Economic Outlook Committee.

## Other Services

The Other Services Supersector consists of three main sectors: Repair and Maintenance; Personal and Laundry Services; and Religious, Grantmaking, Civic, Professional, and Similar Organizations. It includes an eclectic mix of companies in a variety of industries. While there are some large, recognizable firms in the supersector (Weight Watchers, Focus on the Family, and YMCA), the majority of businesses are small, locally owned shops. Some of the lesser-known Colorado entities in this group include Hanks Auto Body and Paint

Shop, Thin Air Boat Repair, Floyd's Old School New Style Barber, Lost Sock Laundromat, Stinky Dog No More LLC, and the United States Hang Gliding Association.

Nationally, this supersector only employs about 5.5 million people, or about 4% of total employment. Because many companies in this supersector provide personal and consumer services, employment growth is driven largely by population expansion and is more resilient to economic downturns. As long as our hair continues to grow, our cars

continue to breakdown, and our clothes continue to get dirty, demand will be solid for the barbers, mechanics, and dry-cleaners that make up this supersector. In the period from 1995 to 2004, national employment in the supersector grew at a compound annual growth rate (CAGR) of 1.9%. Over the same period, the U.S. population grew 1.1%.

In Colorado, 86,700 people were employed in the Other Services Supersector in 2004, accounting for

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### OTHER SERVICES EMPLOYMENT 1996–2006 (In Thousands)

Year	Repair and Maintenance Services	Personal and Laundry Services	Religious, Grantmaking, Civic, Professional, and Similar Organizations	Total <sup>a</sup>	Percentage Change
1996	20.7	18.4	33.7	72.7	6.1%
1997	21.4	18.8	35.5	75.7	4.1
1998	22.0	19.4	36.0	77.3	2.1
1999	22.8	19.7	36.5	79.0	2.2
2000	23.1	20.3	36.8	80.2	1.5
2001	23.5	21.0	39.3	83.8	4.5
2002	23.5	21.1	41.0	85.6	2.1
2003	22.8	21.1	41.9	85.9	0.4
2004	22.9	21.5	42.3	86.7	0.9
2005 <sup>b</sup>	23.3	21.9	43.4	88.6	2.2
2006 <sup>c</sup>	23.8	22.4	44.4	90.6	2.3

<sup>a</sup>Due to rounding, the sum of the individual items may not equal the total.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast.

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

## Other Services

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4% of total state employment. The majority of the roughly 12,100 companies in the supersector are small businesses—average employment was just over five. Average annual wages at these companies were slightly more than \$28,100, compared to the state average of \$40,300.

Since 1995, this supersector in Colorado has grown at a CAGR of 2.7%, while population growth was 2.2%. Employment growth is typically very stable—the supersector has posted job gains in every year since 1990 (the first year data were collected). Growth slowed significantly in 2003, but picked up in 2004. This recovery is expected to continue, with 2005 employment up 1,900 jobs, to 88,600. The area is projected to show similar growth in 2006, adding 2,000 jobs.

The largest subsector in Other Services is Religious, Grantmaking, Civic, Professional, and Similar Organizations. The subsector, which includes about 49% of total supersector employment, is comprised of an array of nonprofit organizations—grant and scholarship foundations; environmental and wildlife conservation, social advocacy, business, professional, civic, political, and religious organizations; chambers of commerce; and homeowners' associations. This subsector has also been the fastest growing, with a CAGR of 3.7% since 1995. In 2005, employment is expected to increase by 1,100, reaching a total 43,400 jobs. Another 1,000 jobs are expected to be added in 2006.

The next largest sector is Repair and Maintenance Services. The major employers provide automotive services, but the sector also includes furniture,

clothing, and appliance repair and maintenance businesses. Since 1995, the sector has posted a CAGR of 1.5%. In 2005 employment is expected to reach 23,300, an increase of 400 jobs from 2004. The subsector is projected to gain an additional 500 jobs in 2006.

The Personal and Laundry Services Sector includes a wide, and somewhat unusual, assortment of businesses. Beauty and tanning salons, barbershops, dry-cleaning and Laundromats, pet care, photo processing, parking lots and garages, and funeral

**Average annual wages at Other Services firms were slightly more than \$28,100, compared to the state average of \$40,300.**

services are all classified together in this group. The subsector has grown at a CAGR of 2.1% since 1995. In 2005 this area is expected to increase by 400 jobs, for a total of 21,900, followed by another gain of 500 next year.

### Microenterprises

A majority of the companies in the Other Services Supersector are small businesses. Indeed, many meet the qualifications for “microenterprise” classification, which is generally defined as a company with fewer than five employees and limited access to traditional forms of capital. In early 2005, the

Business Research Division conducted a study for the Colorado Microenterprise Development Advisory Council (MDAC) and the Colorado Alliance for Microenterprise Initiatives (CAMI) that measured the impact of the microenterprise business segment in Colorado. While microenterprises cover the full industry spectrum, a large concentration is classified within Other Services. In fact, while Other Services is one of the smaller sectors in the overall economy, the study revealed that it is one of the largest and most important sectors in the “micro-economy,” particularly in rural counties, where in some cases about half the businesses could qualify as microenterprises. Microenterprises face unique challenges in terms of cost management, government regulations and tax issues, and, in particular, funding (the study found that most microenterprises in Colorado are self-funded). The study also identified a number of assistance organizations and programs throughout the state that target these businesses specifically. Many are engaged in innovative and successful practices to seek out and provide support to microenterprises in need. The further development of microenterprise businesses will continue to have a major effect on the Other Services Supersector. ❖

## Government

Government employment includes workers at the federal civilian, state, and local levels. Higher education is typically included as part of state government, and K–12 public education is included in local government. During the past five years, total Colorado government employment has grown at a compound annual growth rate (CAGR) of 1.8%. In 2004 employment in the Government Supersector rose 0.8%, compared with a national employment increase of only 0.2%. Government employment growth in Colorado is expected to remain positive in 2005, with payrolls climbing 2.1%. In 2006 the forecast calls for supersector employment to increase at the slower rate of 1.2%.

### Federal Government

Overall, federal government employment has declined slightly over the past five years, falling at a CAGR of 0.5%. This trend was interrupted due to the 2000 Census as federal government employment rose 1.3%, but then slid to historic lows the following year. The events of September 11 temporarily reversed the downward trend for 2002 and 2003. Federal government employment in Colorado posted a 0.6% increase in both years, while at the national level, government payrolls rose 0.1% in 2002 and fell 0.2% in 2003. In 2004 Colorado's federal government payrolls expanded 0.8%, but contracted 1.2% at the national level. Through 2005, federal employment in Colorado is expected to

remain positive, growing by 300 jobs; however, in 2006, employment is forecast to decline slightly, by 100 positions. The decrease in 2006 will be a result of the Department of Defense's decision to close the Defense Finance and Accounting Services office located at the former Lowry Air Force Base. The closure of the last military operations on the base will result in a loss of 746 jobs over the next two to six years.

Because of the war in Iraq, federal government expenditures have grown at an average annual rate of 7.7% since 2001. Federal defense expenditures are forecast to rise 2.3% this year and 1.9% in 2006. Federal spending related to nondefense projects will also increase in 2005 and 2006 but at a faster

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### GOVERNMENT EMPLOYMENT IN COLORADO 1996–2006 (In Thousands)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005 <sup>a</sup>	2006 <sup>b</sup>
Total Government	308.7	315.6	322.3	328.4	337.0	344.1	355.4	356.2	359.2	366.7	371.2
Federal	55.0	54.3	54.5	54.1	54.8	52.9	53.2	53.5	52.8	53.1	53.0
State	72.6	74.5	75.9	77.1	78.6	80.0	81.9	80.3	81.4	82.6	84.1
General	27.0	27.8	28.6	29.5	30.6	31.3	31.9	30.1	29.6	29.8	30.1
Education	45.6	46.7	47.3	47.6	48.0	48.7	50.0	50.2	51.8	52.8	54.1
Local	181.1	186.8	191.9	197.1	203.6	211.2	220.3	222.4	224.9	231.0	234.1
General	87.0	89.1	91.7	94.6	98.4	102.3	106.5	107.2	109.1	112.9	114.2
Education	94.1	97.7	100.2	102.5	105.2	108.9	113.8	115.2	115.8	118.1	119.9

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

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

## Government

*continued from page 73*

rate due to the increasing costs of health care, entitlement programs, and homeland security. Although defense spending will not have a huge impact on the Colorado economy, the regional effect of this spending will help maintain federal government payrolls in the state. Furthermore, employment by the U.S. Postal Service continues to shrink due to declining mail volume and increased automation. However, U.S. Postal Service employment in Colorado is expected to remain steady due to the growing population in the surrounding areas of metro Denver and rural areas. In total, the Department of Defense and U.S. Postal Service account for 50% of the federal government employment in Colorado.

### State Government

Between 1999 and 2004, state government employment grew at a CAGR of 1.1%. When state revenues fell 13% in the state fiscal year beginning in 2001, state government employment decreased 3.5%. Moreover, state education, which accounts for approximately 61% of state government employment, declined 5.6% in 2003. In 2004 state government employment fell 1.3% as a result of the decrease in education. The forecast calls for state employment, excluding education, to grow by 200 jobs in 2005, with an increase of 1,000 in state education. Total state government employment will increase by 1,500 in 2006.

The 2001 slowdown in state government employment and the decline experienced in 2004 can be attributed to weaknesses in Colorado's economy and the stock market, which significantly reduced

sales tax and capital gains income tax receipt collections in the state's coffers. During the same period, state employees took advantage of a relatively low rate of service credits and purchased years to add to their pension. Consequently, the purchasing of years led to a higher than average number of employee retirements in 2002 and 2003. Many of the vacancies left by these retirees remained open as a number of state departments implemented a voluntary hiring freeze in an effort to minimize personnel expenditures. To a lesser effect, this trend continued into 2004.

As Colorado's economic recovery began in 2004, sales and use tax revenues rose 3.7% for the state fiscal year ending June 2004, compared to a 3% decline in the previous fiscal year. State sales and use tax revenues will continue to climb for the foreseeable future as Colorado payrolls strengthen and consumers and corporations have more disposable income available to spend on goods and services, barring substantial increases in energy, health care, or housing costs. As such, individual income tax receipts are expected to increase 7.6% in fiscal year 2006, after rising 10.5% in fiscal year 2005. Corporate income tax receipts will fall 5.2% in fiscal year 2006 after climbing 33.9% in fiscal year 2005.

**Because of their enterprise status, all tuition and fee collections from state institutions of higher education do not count as TABOR revenue.**

Typically, this type of news would correlate to increased state government employment at higher levels than the state has recently experienced. However, the Taxpayer's Bill of Rights (TABOR) is a state constitutional provision that limits state revenue growth to the sum of inflation, plus population growth of the previous calendar year. In addition, appropriations growth is restricted to 6%. Due to the 2001 recession and an exceptionally low rate of inflation in 2004, paired with low immigration, state government growth was limited in 2005. Meanwhile, Colorado citizens will be able to claim, for the first time in four years, nearly \$45 million in TABOR refunds. The governor's fiscal budget request starting July 2006 contains a modest 4.1% general fund increase, primarily to fund the natural increases for state correctional facilities, K-12 education, and Medicaid. Prior to the 2001 recession, state expenditures increased at an average of 6%. On November 1, 2005, Colorado citizens passed Referendum C, authorizing the state to retain and appropriate all revenues collected during the period between July 1, 2005, and June 30, 2010. As the state must still maintain appropriations under the 6% Arvescough-Bird limit, the referendum is expected to have a minimal impact on state government payrolls.

Beginning in July 2004, the University of Colorado became an enterprise, and in July of the next year, the remaining state institutions of higher education followed suit. Because of their enterprise status, all tuition and fee collections from state institutions of higher education do not count as TABOR revenue. The effect of enterprise status on

employment growth at the state's institutions of higher education is uncertain. However, the higher education sector is expected to grow at a more rapid rate than the agencies and organizations within the state government. It is expected that the 2004 reversal of employment losses experienced in 2003 (as a result of the dissolution of academic programs and research centers) will continue into 2005 and 2006.

### Local Government

Local government is comprised of municipalities, counties, school districts, and special districts. From 1999 through 2004 local government employment increased at an average annual rate of 2.7%. During the same period, the annual average growth in local educational services, which accounts for more than 51% of local government employment, climbed by a slightly slower rate of 2.5%. In 2004 local government rose 1.1%, while local education remained relatively flat, increasing 0.5%. The 2005 estimate is for local government to increase 2.7%, while the 2006 forecast calls for a more modest rise of 1.3%. Local education will show growth of 2% in 2005 and 1.5% the following year.

Changes in the local education subsector are estimated using information from school district enrollment. Throughout the state, local school districts curtailed the bonding initiatives at the ballot in 2005. Overall, growth in the number of new students enrolled in public schools between 2005 and 2010 is expected to rise at a modest average annual rate of 1.5%. This sluggish growth is primarily due to lower migration resulting from a slowdown in employment growth. Colorado Springs, metro Denver, and northern Colorado account for the majority of current student enrollment. This trend is expected to shift slightly over the coming years as rural communities experience rapid population growth. Indeed, the most recent noteworthy enrollment gains have been in the counties of Douglas, Weld, El Paso, and Adams. Enrollment in the Brighton School District in Adams County has surged 127% since 1996.

Colorado school districts asked voters to approve \$274 million in debt this year, down from \$817 million two years ago. Many school boards were avoiding bond and tax issues in 2005 so voters would not be confused with Referenda C and D during the November 2005 election. Brighton School District voters were asked to approve a \$68 million bond in that same election, which would

have relieved overcrowding by financing three elementary schools and a middle school. The bond was not approved by the voters.

Prairie View High School in the Brighton School District is set to open in 2006. In addition, Landmark Properties Group is exploring opening a charter school near Denver International Airport and High Point Community, a new residential community of between 3,000 and 5,000 homes that is currently being built. The Town of Fountain is likely to add a new elementary school to the Fountain School District in order to accommodate the children of nearly 10,000 soldiers who have been relocated to Fort Carson. Fort Carson now serves as the headquarters for the 4th Infantry Division and the 2nd Brigade Combat Team. About 4,000 troops arrived in 2004, and another 6,000 will join them by 2008.

According to the National Center for Education Statistics' *Projections for Education Statistics through 2014*, total enrollment in elementary and secondary schools across the nation is expected to rise 4% between 2002 and 2014, compared to 10.9% growth projected for Colorado. Colorado is among the 23 states that are anticipated to show enrollment gains. ❖

## International Trade

### Prospects for Colorado Exports in 2006

Colorado exports rose to a new high of \$6.65 billion in 2004, an 8.9% increase over 2003. This growth, however, has not been sustained in 2005. Through August, exports from Colorado have climbed by 1.6% versus an increase of 11.1% for U.S. exports. The glaring weak spot in Colorado exports in 2005 is semiconductor exports, which historically have been Colorado's number one export. Sales plummeted 47%, or \$387 million. Meanwhile, U.S. exports of semiconductors were also down, but only by 11%. High oil prices, health concerns in Asia and Europe with Avian flu, an ongoing ban on beef exports to Japan and Korea, growing U.S. trade and budget deficits, and natural disasters in the United States and other parts of the world all factor into prospects for growth through 2005 and 2006.

On the positive side, Colorado exporters continue to benefit from existing and new free trade agreements. Since 1985, the United States has successfully negotiated nine free trade agreements, starting with Israel. The most recently completed agreement, CAFTA, was signed in 2004 and includes the countries of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and the Dominican Republic. A review of Colorado exports to Israel, Canada, and Mexico from 1996 to 2004 (1996 data are the oldest available comparable data) shows increases of 37%, 818%, and 259%, respectively, for exports to these three countries. In addition, Colorado exports to Jordan are up 47% since an agreement was signed in 2000, while exports to Chile have jumped 98% and exports to Morocco have

increased 15% from the time agreements with them were signed in 2003. Only exports to Singapore and Bahrain have declined since signing agreements in 2003 with the United States. One of the most striking increases is the 89% increase in Colorado exports to Australia since the U.S.–Australia Free Trade Agreement went into effect in January 2005.

Despite the many challenges facing the global economy in 2006, the International Trade Committee is optimistic that free and fair trade will continue to grow and that Colorado businesses that choose to enter the global marketplace will benefit from this growth. The committee is forecasting an increase of 3% in exports from Colorado in 2006.

### Forecasts for Key Regional Markets

#### ASIA

Higher oil prices, a reorientation in China's economy, growing health concerns, and geopolitical instability will slow growth in the Asian region in 2006. The high price of oil has hampered both business and consumer purchasing power of many U.S. and Asian trading partners. China's growth away from import-intensive investment spending, as well as its revaluation of the yuan by 2%, are actions that could dampen imports from the United States. Due to a stabilization of global prices for raw materials and its industrial structure change, China's import growth has slowed sharply, falling from 35.8% in 2004 to 13.9% in late May 2005.

In addition to a global slowdown in IT business, China's development of domestic sources of parts and intermediary goods has had an import

**VALUE OF COLORADO EXPORTS  
FISCAL YEARS 2000–2006  
(In Millions of Dollars)**

Year	Total Exports	Percentage Change
2000	6,593.0	11.2%
2001	6,125.5	-7.1
2002	5,521.7	-9.9
2003	6,109.1	10.6
2004	6,651.0	8.9
2005 <sup>a</sup>	6,810.6	2.4
2006 <sup>b</sup>	7,014.9	3.0

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

Source: World Institute for Strategic Economic Research and Colorado Business Economic Outlook Committee.

substitution effect, resulting in a significant decline in IT imports. The unlinking of the yuan from the U.S. dollar exclusively and tying it to a basket of currencies appears to be too small of an adjustment to make a dent in the United States' \$160 billion deficit with China.

Growth in technology exports to an improving Japanese economy has been tempered by the continuing ban on U.S. beef due to concerns surrounding mad cow disease, as well as increasing anxiety of a global pandemic from a mutating Avian flu virus in Southeast Asia. Additionally, North Korea's nuclear weapons issue, China's escalating military buildup against an independent Taiwan, and

Indonesia's terrorist activity all serve as geopolitical-instability wildcards for increasing commercial activity with Asia.

## EUROPE

The eurozone remains in the grips of sluggish economic growth. Recent indicators point to real growth of only 1.4% for 2005 and 2% in 2006. Political and financial market developments in 2005 underscore the difficulties the area is having in crafting long-term strategies on top of difficult and unsettling economic realities. In mid-2005 French and Dutch voters rejected the E.U. constitution, a move some herald as the beginning of the end of the common area, while others note that the public is still committed to the idea of a united Europe but is deeply dissatisfied with the structure of the constitutional document and its impact on a country's ability to protect jobs, wages, and living conditions.

Within the European Union, several countries are experiencing different phenomena with respect to their various economic sectors. For example, cooling retail sales, housing prices, and manufacturing activity may hint at slowing growth in the United Kingdom. Germany is struggling with labor issues, unclear results of September parliamentary elections, and the same pressures from rising oil prices as the rest of the world, although it is enjoying a healthy foreign trade surplus. In Italy, joblessness fell in the second quarter of 2005, bringing it to 1 percentage point below the eurozone average, while tax cuts fueled a surge in higher capital spending and real GDP.

## COLORADO'S LARGEST GAINERS AND LOSERS IN EXPORT COMMODITY CATEGORIES 2005 YTD (through August)

Description	August 2004 YTD	August 2005 YTD	Gain/Loss
<b>Export Commodity Category - Largest Gain by Dollar Value<sup>a</sup></b>			
Color TV Sets, with/without Radios, Players, or Recorders	\$2.0	\$86.2	\$84.2
Meat of Bovine Animals, Boneless, Fresh or Chilled	52.7	96.7	44.0
Parts and Accessories for ADP Machines and Units	377.0	419.0	42.0
Acyclic Amides and their Derivatives ETC, NESOI	0.0	34.0	34.0
Automatic Data Processing (ADP) Storage Units, NESOI	81.2	109.3	28.1
<b>Export Commodity Category - Largest Decline by Dollar Value<sup>a</sup></b>			
Digital Monolithic Integrated Circuits	\$616.3	\$244.3	-\$372.0
Automatic Data Processing Storage Units, NESOI	236.6	196.3	-40.3
Static Converters, ADP Power Supplies	49.6	29.8	-19.8
Monolithic Integrated Circuits, Other than Digital	169.0	151.1	-17.8
Parts of Airplanes or Helicopters, NESOI	100.8	87.6	-13.2

<sup>a</sup>Values in millions of dollars.

Note: NESOI = Not Elsewhere Specified or Indicated.

Source: Adapted from WISERTrade: International Trade Database, Holyoke Community College.

## LATIN AMERICA

Much of Latin America should continue to experience good economic times through 2005 and into 2006. Forecasters project a 4.6% economic growth rate for Latin America and the Caribbean in 2005. The Inter-American Development Bank is estimating strong performance in 2005 stock markets, better employment rates, and increased investment. These positive economic changes are due, in part, to a commodity price boom in Latin America stemming from increased demand from China and also from the U.S. dollar depreciation. The economic improvements are also the result of various fiscal adjustments and increased attention to financial soundness by Latin American countries.

Predictions for economic growth for specific countries is as follows: over 6% growth in a recovering Argentina, 5.5% in Chile, 5.3% in Venezuela, 4.4% in Peru, 4% in Brazil and Mexico, and 3.6% in Colombia. The leading market sectors for these countries are automotive parts and supplies, electronic components, the energy sector, travel and tourism services, plastic materials/resins, telecommunications equipment, the environmental sector, hotel and restaurant equipment, education and training services, agriculture, industrial chemicals, medical equipment supplies, and mining machinery and equipment.

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## International Trade

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### CANADA

The Canadian economy is in rebound mode, with unemployment at 6.8% in 2005, the lowest since 1976. The Canadian dollar has been strengthened by the impact of the hurricane season in the United States, with expectations that it will peak at US.87¢ by early 2006, before drifting back to US.83¢ at the end of the year. Economists project that net exports will rise in 2006, driven by petroleum and building products exports. Nevertheless, Canadians are cautious about the U.S. housing market taking a downturn, which would dampen consumer spending in the United States, and, in turn, slow both economies. Still, national economic growth rates of 2.9% and 3.0% are estimated for 2005 and 2006.

### AUSTRALIA

Through early 2005, Australia was experiencing unprecedented economic growth, fueled mostly by China's importing of Australian commodities, particularly minerals, for its manufacturing plants. In the third quarter of 2005, however, consumer confidence slumped to a two-year low, exports fell, building approvals dropped to the lowest level since 2001, and the International Monetary Fund cut Australia's growth forecast. Overall, the economy should expand 2.2 % in 2005 and accelerate to 3.2% in 2006.

### Colorado's Manufactured Exports

Colorado exports of manufactured, mineral, and agricultural products rose 8.9% in 2004, to a record \$6.65 billion. As mentioned earlier, a significant drop in semiconductor exports prevented similar

### COLORADO'S TOP AGRICULTURAL EXPORTS REGIONAL DESTINATIONS (In Millions of Dollars)

Region	Exports			
	2001	2002	2003	2004
Mexico	\$190.5	\$225.7	\$236.3	\$237.6
Canada	174.7	163.1	165.1	117.6
Japan	199.3	153.5	165.3	91.7
Taiwan	74.4	78.1	60.7	55.0
China	30.9	35.4	39.8	53.2
Korea	90.8	103.5	108.0	42.8
Europe	41.9	38.0	30.3	34.9
Hong Kong	32.1	28.2	29.8	16.7

Source: WISER, U.S. Bureau of Census.

growth during 2005. On a positive note, other categories have continued to increase, and exports through the first eight months were 1.6% over the same period last year. In 2005 advanced technology products again dominated Colorado's top export categories. Major export categories included computers and peripherals, semiconductors (still Colorado's second-largest export), computer components, telecommunications equipment, photographic film, medical instruments, beef, and aviation/aerospace related products.

### EXPORT MARKETS BY REGION IN 2005

#### Western Hemisphere

Shipments to Canada, Latin America, and the Caribbean account for nearly 42% of all Colorado exports through August of 2005. At more than \$1.8 billion, exports to the other countries in the Western Hemisphere grew 33% compared to the same

period last year. The dominant markets in this group are Canada, with \$1.2 billion in Colorado exports, and Mexico, at \$541 million. Other countries in the region also showed strong growth, with the third-largest market, Brazil, up 48%, to \$51 million.

#### Asia

At almost 33% of Colorado exports, the countries of the Pacific Rim and South Asia made up Colorado's second largest regional export market. Exports to South Asia grew 47%, led by a strong demand for telecom equipment; however, this increase was not enough to offset the 50% drop in the much larger semiconductor category in most Pacific Rim markets. Overall, exports to Asia declined 14%. The comeback of Colorado exports to Japan was a major highlight in sales to the region, with the value of products shipped totaling \$267 million through August of 2005, a 23% increase.

**AGRICULTURAL EXPORTS FROM THE STATE OF COLORADO**  
**FISCAL YEARS 2002–2006**  
**(In Millions of Dollars)**

Commodity	2002	2003	2004	2005 <sup>a</sup>	2006 <sup>b</sup>
Beef and Meat Products	\$317.5	\$295.9	\$210.1	\$220.8	\$217.9
Hides and Furs	148.2	149.2	156.5	150.9	150.9
Course Grains/Feed/Fodder	174.7	130.7	153.4	131.6	164.7
Wheat, Flour and Products	148.7	119.9	200.3	161.3	157.3
Fruit, Vegetables	76.3	74.0	69.2	75.4	82.7
Misc. Processed Foods and Ag. Products	44.6	44.5	46.8	47.4	46.5
Dairy	13.1	13.0	16.9	22.5	22.5
Animal Fats/Oils	29.5	36.8	34.6	34.4	35.2
Total <sup>c</sup>	\$965.8	\$956.4	\$895.4	\$851.7	\$855.1

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

<sup>c</sup>Totals may not add due to rounding.

Source: U.S. Department of Agriculture Economic Research Service (ERS), ERS Forecast, and Colorado Business Economic Outlook Forum.

### Europe

Colorado exports to Europe represent 22% of the state's total exports. Through the first eight months of 2005 they totaled \$967 million, a 2% drop from the same period a year ago. Shipments of medical instruments and aviation/aerospace equipment increased, but not enough to make up for declines in some computer- and electronics-related sectors, including semiconductors. There were wide swings in exports to many smaller European countries. For example, sales to Belgium and Switzerland grew 76% and 21%, respectively, while exports to Italy decreased by 21% and sales to France declined 8%.

### Australia and Oceania

Beginning in 2005, American companies were presented with new opportunities as a result of the U.S.-Australia Free Trade Agreement. The Australian market dominates Colorado's trade within this region. Almost \$147 million of the \$166 million in products that Colorado companies sold in the area went to Australia, a jump of 89%. Firms in the state shipped \$18 million in products to New Zealand, an increase of 84%. Together, sales to Australia, New Zealand, and the other islands of this region accounted for almost 4% of Colorado exports in 2005.

### The Middle East and Africa

Combined sales to the Middle East and Africa made up just over 2% of Colorado's exports. For the first eight months of 2005, exports to the Middle East rose 25% in 2005. Colorado's largest market in the region, Israel, reached \$28 million in sales for an increase of 58%. Colorado companies sold \$26 million in products to Africa during the same period, a decrease of 41%. Colorado's largest African market was the Republic of South Africa, at \$11 million.

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## International Trade

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### Prospects for Colorado Agricultural Exports

Colorado's agricultural exports decreased in 2004 due to the closed markets in Asia for Colorado and U.S. beef. Japan, Korea, and Taiwan have not imported U.S. beef since 2003, and a drop in exports to each of these markets is attributable to the decline in beef sales. This is particularly significant since Japan was the largest export market.

Despite this loss of key markets, Colorado's top agricultural export category in 2005 continues to be beef and meat products. Mexico opened its market to selected U.S. beef products in the spring of 2004 and is providing a strong outlet for Colorado beef. In the fall of 2005 some Asian markets began to open, and the industry remains hopeful that the Japanese market will open by year-end 2005. If the Japanese market opens, it is anticipated that the remaining closed Asian markets will also open in the near future. Unfortunately, since these markets have been closed for two years, it will take several years to regain the confidence of consumers and reach past export levels. Colorado's other agricultural export sectors have held their global market, with wheat increasing due to higher world prices and global demands.

Mexico continues to grow as Colorado's most important agricultural export market. Since NAFTA went into effect in 1994, Colorado agricultural

exports to Mexico have shown strong increases. U.S. beef exports to Mexico have experienced impressive growth of more than 590% since 1995, while vegetable exports have surged 380% and wheat exports have jumped 270%.

Overall, Colorado agricultural exports are projected to fall by 4.9% in 2005, with only a 0.5% increase in 2006.

### Trends in International Education in Colorado

A total of 572,509 international students studied in the United States in 2003–04, down 2.4% from 2002–03. Colorado had 5,943 international students during that period, a decline of 5.6%, according to the Institute of International Education's annual report on international academic mobility.

The University of Colorado at Boulder was the only school in Colorado that had more than 1,000 students from foreign countries, with 1,082 international students out of a total of 27,000 in 2003–04. CU-Boulder ranks 131 on the list of U.S. schools that have international students. The most recent estimate (2002–03) of expenditures by foreign students in Colorado was \$140.1 million.

Initial data for the 2005–06 school year indicate that the number of foreign students studying at Colorado universities and colleges continues to decline. The University of Colorado reported 912

international students, down from 1,165 in 2004–05. Colorado School of Mines reported a similar drop, from 417 in 2001 to 278 in 2005. A total of 915 international students studied at Colorado State University in 2001; that number was 819 for the fall semester of 2005. Colorado College had 37 international students in fall 2005, down from 41 a year earlier. Although the University of Denver has reported a steady decline in international students over the years, from 261 in 2000 to 197 in 2004, a slight increase, to 210, was reported in the fall 2005 semester.

The annual fall census of foreign students shows that the United States remains by far the most popular destination for overseas students. Nevertheless, the latest figures (2004) show sharp declines in key groups, such as graduate students from India. One clear area for concern is whether tighter visa rules enacted after the 2001 terrorist attacks serve the nation's interest if they dissuade foreign students from choosing to study in the United States. According to the Department of Commerce, international students contribute more than \$13 billion to the U.S. economy in money spent on tuition, living expenses, and related costs, making higher education among the top 10 largest service sector exports for the United States. ❖

## Summary

Along with other western states, Colorado will be at the forefront of employment growth in 2006. After reaching record employment in 2001 of 2,225,400 workers, the Colorado economy went into a tailspin. It has taken four years for employment to return to the 2001 level. Employment in 2005 will rise 2.2% and slightly exceed the 2001 total. In 2006 employment is projected to grow at a rate of 2.3%, adding 52,100 jobs.

The current economic recovery began near the end of first quarter 2004. Strong month-over-month growth was recorded through the remainder of the year aided by the best holiday season in recent history. The recovery has continued into 2005, with solid broad-based growth. However, as 2005 progressed, month-over-month employment tapered off slightly. A solid national economy should provide the foundation for continued strong economic growth in Colorado during 2006.

The general consensus of the outlook committee members is that growth will be steady and at a somewhat higher rate than in 2005. Compared to the state's recent employment history, this is strong growth; however, a longer term perspective suggests that this is only slightly better than average growth. Indeed, average job growth for the 10 years ending in 2004 is 42,300 jobs.

Industries that have primary jobs, or those jobs with higher than average wages or multiplier effects, play an important role in the strength of the Colorado economy. Many of these industries, such as telecommunications and manufacturing, have endured the largest relative job losses during

### NEW JOBS CREATED IN NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT SECTORS

Industry	Jobs Added		Total	Percentage
	2005 <sup>a</sup>	2006 <sup>b</sup>	Jobs Added 1995-2004	Jobs Added 1995-2004
Natural Resources and Mining	2,200	1,700	1,300	0.4%
Construction	7,700	9,500	47,700	13.8
Manufacturing	-2,900	100	-24,900	-7.2
Durable Goods	-1,900	300	-15,000	-4.4
Nondurable Goods	-1,000	-200	-10,000	-2.9
Trade, Transportation, and Utilities	5,600	7,800	46,700	13.6
Wholesale Trade	1,300	1,200	8,400	2.4
Retail Trade	6,300	6,200	33,700	9.8
Transportation and Utilities	-2,000	400	4,400	1.3
Information	-5,000	-800	16,700	4.8
Financial Activities	3,700	3,300	33,900	9.8
Professional and Business Services	16,300	11,700	60,000	17.4
Educational and Health Services	6,200	6,700	53,100	15.4
Leisure and Hospitality	5,800	5,600	36,200	10.5
Other Services	1,900	2,000	18,200	5.3
Government	<u>7,500</u>	<u>4,500</u>	<u>55,500</u>	<u>16.1</u>
Total <sup>c</sup>	49,000	52,100	344,500	100.0%

<sup>a</sup>Estimated.

<sup>b</sup>Forecast.

<sup>c</sup>Due to rounding, the sum of the individual items may not equal the total.

Note: 2005 employment change includes the effect of 2,500 jobs being reclassified from Computer and Electronics Manufacturing to Scientific Research and Development Services (a subsector of Professional and Business Services).

Source: Colorado Business Economic Outlook Committee.

the recent downturn and have taken the longest to return to positive job growth. Between 2000 and 2004, slightly more than 50,000 jobs have been lost in manufacturing and telecommunications, with manufacturing employment dropping 19.1% and telecommunications sliding 29.6%. Neither sector showed employment growth during 2005. The real measure of the strength of the current recovery will

be determined both by the total number of jobs gained and the quality or number of primary jobs recovered.

To that point, the leader of this recovery has been the Professional and Business Services, a supersector that has 2004 average annual wages of approximately \$64,532 compared to the state average of \$40,300.

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## Summary

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This area will add, on average, roughly 16,300 jobs during 2005 and about 11,700 jobs in 2006.

For the first time since 1998, all goods-producing supersectors are slated to show positive job growth in 2006. At that time, they gained a total 19,400 jobs, with a majority of the jobs added in construction. The three goods-producing sectors are expected to gain a total of 7,000 jobs in 2005 and 11,300 jobs in 2006.

Overall, the service-producing sectors will grow by 40,800 jobs in 2006. Only the Information Supersector is projected to lose jobs in 2006. In addition to the jobs added in Professional Business Services, other top contributors to absolute job growth are Construction; Trade, Transportation, and Utilities; Educational and Health Services; and Leisure and Hospitality.

Colorado's population growth will continue to outpace that of the United States as net migration begins to show signs of resurgence. The state is expected to increase at a rate of 1.5% compared to 1.0% for the country in 2006. Colorado's population will grow by 72,100 persons, to 4.8 million. Net migration will account for about 32,000 people.

Like most of the western United States, Colorado is poised to outperform the national economy. The state's economic growth depends on strong national and international economies, although Colorado's economy obviously does not directly track its national counterpart. Looking forward, committee members believe the following factors will shape future growth and prosperity of Colorado's economy:

### NATIONALLY AND INTERNATIONALLY

- Overall, the global economy will record solid but slower growth. Bright spots include Asia (Japan, China, and India), Canada, and Latin America. The greatest area of concern is weak growth, high jobless rate, and unrest in key European countries.
- The situation in the Middle East and the constant threat of terrorism continues to create a level of caution among consumers and businesses.
- Real GDP growth similar to 2005 will be driven by solid, but slower consumption; strong, yet decreased business investment; and higher government spending.
- The impact of Katrina and other hurricanes will undoubtedly have a significant impact on the southeastern part of the nation; however, the U.S. economy is solid enough that the destruction caused by the hurricanes will have only a short-term effect.
- Highly volatile energy prices will greatly influence the trade deficit and present challenges to critical industries. Moreover, supply may become an issue if the winter months are colder than average.
- Curtailing inflation will continue to be a concern of the Federal Reserve as the target Federal Funds rate reaches a more neutral position.
- Mortgage rates will rise, although from a historical perspective, they will remain low. Higher rates will decrease the amount of disposable income for individuals participating in adjustable rate programs.

### COLORADO

- Bipartisan efforts will continue to be a way of life as state policy for the next year will be set by a Republican governor and a Democratic legislature.
- State tax revenue collection is expected to improve; however, the state legislature will continue to face difficult fiscal decisions and will be forced to operate in a defensive mode, despite the passage of Referendum C.
- There will be more signs of upward pressure on wages now that the state unemployment rate has entered the range of natural unemployment (4.5–5.0%).
- Retail sales will show positive growth, but will rise at a rate lower than the national level. Tighter budgets, increased e-commerce sales, and a slowing housing market will moderate growth.
- The state's colleges and universities became eligible for enterprise status this past year, which means the fees and tuition that they collect do not count as TABOR revenue. It remains to be seen how this will affect their operations. Higher education, a major driver of the state's economy, will have to rely more heavily on external sources to maintain or improve the quality of education.
- The effects of the 2002 drought have diminished in most parts of the state; however, the need to address water storage issues is even more critical as the state moves into a period of stronger growth. ❖

## From Around the State: La Plata County

The Office of Economic Analysis and Business Research in the School of Business Administration at Fort Lewis College measures and reports on economic activity in La Plata County in a quarterly publication, the *Econometer*. The Econometer Index, which is presented in each issue, is a composite index of the La Plata County economy and represents changes in personal income in the county. The La Plata County economy is highly seasonal, which is related to tourism's impact on the local economy. Although there is significant winter tourism associated with winter sports, most La Plata County tourism occurs during the summer. This summer concentration causes an annual third quarter seasonal upswing in economic indicators such as retail sales and employment.

A mitigating factor to this seasonality is Fort Lewis College, which is located in La Plata County. The college provides both long- and short-term, or seasonal, stability to the local economy. Seasonal stability occurs because most of the college's students attend classes from September through April, when tourist activity is relatively low. The presence of the students and their expenditures moderates the seasonal decline in the local economy.

### Employment and Unemployment

In 2004 La Plata County had a lower unemployment rate on average (4%) than both the United States and Colorado (both with 5.1%). The county's unemployment rate continues to remain below that of both the nation and the state in 2005.

The La Plata County labor force averaged 28,186 persons during 2004, with average total employment of 27,045 (Colorado Department of Labor and Employment). Interestingly, employment patterns within La Plata County are somewhat different from those found in the national and state economies. Employment in the county is less concentrated in manufacturing, whereas construction and mining (particularly natural gas extraction) are somewhat more significant. Transportation and public utilities; wholesale trade; and finance, insurance, and real estate are to some extent less important providers of employment in La Plata County, while services, retail trade, and government are relatively more important than in Colorado or the United States. A close examination of La Plata County employment shows that services, retail trade, and government provide the majority of employment. These three sectors together accounted for 60.8% of nonagricultural employment in the county during 2004. If construction is added, the four sectors made up 71.3% of employment (Colorado Department of Labor and Employment).

### Income

Per capita income in La Plata County has improved over the last few years, both in absolute terms and relative to national per capita personal income. With per capita personal income of \$29,807 in 2003 (the most recent data available), La Plata County ranked 21st out of Colorado's 64 counties and has the highest per capita personal income of surrounding counties.

### Recent and Future Trends

The most recent indicators of La Plata County reflect continued growth. According to the Econometer Index, the second quarter of 2005 remained fairly stable, showing a slight decline of 1.7% from the second quarter of 2004. As usual, there was a seasonal increase of 19.2% compared to the first quarter of 2005. In addition, half of the sectors revealed increases during the second quarter of 2005 compared to the same period in 2004. Sectors that were stronger on an annual basis included agriculture, energy, finance, and real estate. Construction also remains an important contributor to the county, along with tourism, although its importance has slightly decreased in recent years.

Population growth in La Plata County continues at around 3% (the average growth rate for the last eight years). This increase will continue to fuel the construction and real estate sectors of the economy.

Energy prices have been climbing since the beginning of 2002. Most recently, the federal government's energy price index (adjusted for inflation) increased by 19.4% from the second quarter of 2004 to the second quarter of 2005. Energy prices are very important to La Plata County because the county is a major producer of natural gas. Rents and royalties, as well as property tax revenues associated with natural gas production, are significant sources of income to La Plata County and should remain so for some time. ❖

## *From Around the State: Northern Colorado*

The northern Colorado economy can expect significant growth during 2006, due to a combination of recent project completions and projected expansions. In 2004 more than \$1 billion in new capital construction projects were scheduled for completion within two years. These projects are all coming to fruition, bringing with them more than 5 million square feet of new construction, including large-scale commercial, education, government, health-care, industrial, and retail developments. As a result, more than 2,000 new job opportunities will be created during 2006.

Additionally, the Northern Colorado Economic Development Corporation surveyed 40 of the region's largest primary employers regarding their projections for future operations. The outlook is positive for the aggregate future dollar investment, new job creation, and facility expansion. More than 70% of the surveyed industries plan to expand during the next three years, with an estimated dollar investment of approximately \$420 million for facilities.

The aggregate demand for new facility expansion is approximately 1,170,600 square feet. The estimated employment demand from this growth is projected to create 1,971 new jobs in northern Colorado. Approximately 21% of the expanding companies are durable goods producers, and 17% are health-care businesses. Other industries that are projecting significant growth include technology, education, transportation, and distribution.

The Intel Corporation gave a big vote of confidence to the region's technology sector in fall 2004 when it announced that it would purchase the 200,000-square-foot Celestica building in Fort Collins, thereby retaining approximately 300 world-class chip design jobs. The company's purchase of such a cavernous building indicates a strong commitment to the high-tech sector of northern Colorado.

The office, industrial, and retail sectors are creating some significant changes in the supply and demand for new construction. Office space vacancy rates vary greatly throughout the region (5% vacancy in one community versus 13.4% in another). The supply of industrial space is very tight (2–6.9%), which is forcing some companies to build due to the lack of supply. Retail space is also very tight (1.9% in one community and 5% in another), creating a projected new construction demand for about 2 million new square feet in the next few years. Meanwhile, big box retailers such as Lowes, King Soopers, and Wal-Mart continue to construct new retail stores in the region. While ShopKo and Mervyns exit the market, two of the premier regional shopping centers (the Promenade Shops at Centerra/Loveland and the Foothills Mall in Fort Collins) continue to sign new leases. Significant new downtown redevelopment projects are underway in every major community in northern Colorado.

Raw land continues to be a hot commodity in the region as evidenced by the new acquisition of large land tracts along I-25, Colorado 84, and U.S. 34. The intersection of I-25 and U.S. 34 is quickly becoming a strong focal point for the northern Colorado area as evidenced by the 3,000-acre Centerra development, the 500-acre 2534 development, and the 160-acre Crossroads Business Park. Development within a 5- to 10-mile radius around this intersection has increased significantly, and will bring with it hundreds of new job opportunities to northern Colorado residents. Many of the jobs that will be created are tied to the health-care sector. The Medical Center of the Rockies will begin hiring soon, and jobs will be added with the expansions of the Banner/McKee, Skyline Medical complexes and the Northern Colorado Rehabilitation Hospital. The continuing growth in the health-care industry is just one example of the increased economic vitality that is occurring in northern Colorado.

The successful implementation of a regional approach to economic development has benefited both the region and all of its communities. While the communities in northern Colorado will gain from the increased economic activity, it is the ability to leverage the collective assets within the region that will create the strongest ongoing economic impact on northern Colorado. ❖

## From Around the State: Pueblo County

The Pueblo economy has shown a different pattern of growth than the state in recent years. Although volatility has occurred as a result of changes in some of its major employers, the fact that Pueblo is a regional center for medical care and retail consumption has provided the region with stability.

A favorable combination of low interest rates and inexpensive housing costs has ensured continuing strength in the Pueblo market for single-family housing. The number of new building permits for single-family units through September 2005 totaled 851 units, essentially unchanged from the previous year. The median value of existing housing for the second quarter of 2005 was \$119,192, or 56.8% of the U.S. value. Although Pueblo wages are 83.1% of the national average, the relative low cost of homeownership in Pueblo for even moderate-income households promotes a resilient housing market.

Correspondingly, the market for multifamily construction is limited. Through the first three quarters of 2005, only 32 multifamily units have been authorized by construction permits. Data compiled for the first quarter of 2005 indicate an overall apartment vacancy rate of nearly 13% for Pueblo. This has ensured that apartment rents remain low, with first quarter median rent of \$445. In January of 2006, construction of the new \$1.3 billion Xcel generating plant will commence, resulting in an anticipated 1,000 new construction jobs. This should result in some increased demand for rental

housing, but the question to be pondered is whether the demand is sufficient to improve the prospects for new multifamily unit construction given the very high vacancy rates.

Employment in the Pueblo MSA, as measured by the CES series from the Bureau of Labor Statistics, averaged 55,800 workers. This represents growth of 2.3% relative to the corresponding period in 2004. In addition to the employment gains anticipated from the Xcel expansion, the job outlook for the near future seems favorable, with the recent announcement that Rocky Mountain Steel Mills will be reopening its seamless tubing mill. Approximately 150 workers will be hired. The firm has invested heavily in its Pueblo operation, with a \$30 million furnace replacement project nearing completion.

Retail growth continues with completion of the Pueblo Mall renovation, construction of a new Wal-Mart store in Pueblo West, and the location of additional stores at the Pueblo Crossings shopping center. Retail trade sales in 2004 grew by 5.4% over 2003 sales. The 2002–03 growth rate was 1.8%. Three factors seem to govern the level of retail growth: income growth, population growth, and the reduction of trade leakage from Pueblo to other communities. Pueblo's 2.5% annual growth in wages ranks 247th of the 362 U.S. metro areas. As Pueblo is not an affluent community, the recent acceleration of retail trade growth seems primarily related to the second factor, population growth. The area's population has been growing at a compound annual rate of 1.5%. The extent of recaptured trade is as yet an unknown factor.

Amid much controversy, the Cheyenne and Arapaho Tribes of Oklahoma announced that they were canceling their plans to operate a casino in downtown Pueblo. The redevelopment outlook for downtown Pueblo remains positive, however, with the announcement that the Professional Bull Riders will be locating its administrative functions in the downtown area, adjacent to the Historic Arkansas Riverwalk Project. The City of Pueblo will construct a four-story office building and parking facility to house the administrative staff of approximately 75 workers. A restaurant and storefront will be located at the first floor level of the building.

The \$59 million expansion of the St. Mary Corwin Medical Center is nearing completion. In recent years, the medical sector has assumed increasing importance as one of the linchpins of the Pueblo economy. The two regional Pueblo hospitals, St. Mary Corwin and Parkview Medical Center, account for about 1 out of every 20 jobs. Increasingly, the health-care sector will become a growth industry as the baby boomer population ages. An occupational forecast of Pueblo area jobs developed by the Colorado Department of Labor and Employment shows that job openings for registered nurses ranks highest of the 85 occupational categories reported, with 36 openings per year expected through 2012. ❖



## From Around the State: Southern Colorado

Overwhelming aggregate and specific economic evidence pointed to the March-April 2003 period as the turning point in El Paso County's economic recovery from the downturn that began in March 2001. The Southern Colorado Economic Forum's Business Condition Index (BCI) bottomed out at 88.42 in March 2003, a decline of 11.58% from its March 2001 reference point (March 2001=100). As of June 2005, the BCI stood at 106.19, a 0.84% gain in the El Paso County aggregate economic indicator since June 2004.

Despite a strengthening local economy, business had been slow to invest in new equipment until the beginning of 2004. Use taxes collected by the City of Colorado Springs for 2004 were up 32.1% over 2003 collections. Growth in 2005 has been much slower. As of August 2005, use tax collections were down 12.7%. Sales tax collections by the City of Colorado Springs are also growing slowly, increasing a mere 1.9% through the first eight months of 2005.

The initial return of troops to Fort Carson from Iraq had a significant effect on the local economy in 2004. Their purchases helped push new car sales to 26,422 units. This was a 6.5% increase, or 1,606 vehicles, over the 2003 level. The forum estimated that Fort Carson troops purchased 12-15% of all new El Paso County car sales in the first six months of 2004. Despite the zero-percent financing offers, rebates, and employee-pricing options in 2005, new car sales in the county are running 689 vehicles behind the same period in 2004 (i.e., 16,405 in August 2005 versus 17,094 in August 2004).

Airport enplanement activity has been sluggish in 2005. Total enplanements through June are 11,416

behind the same period in 2004. At its current trend, enplanements are expected to decline by 2.3%, to 1,005,000, in 2005. Enplanements are projected to climb approximately 3% in 2006, to 1,035,000, due primarily to the completed expansion of convention facilities at the Broadmoor.

### Employment/Unemployment

El Paso County gained 3,194 jobs during 2004, a 1.4% increase compared to 2003. This was the first time in four years that job gains were reported in the county. The largest employment gains were in professional and technical services (985 jobs), administrative and waste services (668 jobs), retail trade (557 jobs), local government (528 jobs), and construction (420 jobs).

Similar to 2003, significant job losses continued in manufacturing and information processing during 2004. Manufacturing lost 604 jobs at an average annual pay of \$50,128. The information-processing area contracted by 531 jobs at an average annual pay of \$50,648.

The average unemployment rate in El Paso County fell to 5.6% in 2004 compared to 6.4% in the previous year. Unemployment rates are expected to be 5.4% in 2005 and 5.3% next year. Reductions in unemployment have been occurring systematically since May 2003. Additional gains in employment are expected in El Paso County as the economy continues to strengthen with additional job growth from Northrop Grumman, Intel, and Barclays Bank. Increases in finance, health care, retail, and construction are also anticipated in 2005 and 2006.

### Wages and Income

The average wage in El Paso County grew 3.3% in 2004, to \$36,556, a rise of \$1,165 over 2003. This is a marked improvement compared to the 2.1% gain in 2003 and 0.9% in 2002. Wage increases were modest, except for mining (10.9%), wholesale trade (5.4%), transportation and warehousing (7.8%), and information (7.8%). Average federal government wages climbed 6.5%, state government wages fell 1%, and local government wages grew 1.3%.

Wage growth is helping to increase personal income, which is expected to rise 5.6% in 2005 and 6.4% the following year. Per capita income is anticipated to climb approximately 4.8% in 2005 and 5.6% in 2006. Per capita income levels in El Paso County continue to be approximately 10-11% less than the average for Colorado.

### Retail and Wholesale Trade

Retail trade sales in El Paso County increased a very robust 10.1% in 2004 compared to 5.73% the previous year. After adjusting for inflation and population growth, real retail trade sales grew 9.1%.

Over the last couple of years, growth in retail activity in El Paso County has followed the growing number of rooftops beyond the city limits of Colorado Springs. A comparison of sales tax collections in Colorado Springs shows a decline of 0.5% through June 2005 compared to the same period in 2004. In contrast, El Paso County retail activity posted a 5.6% increase through June 2005 over the first half of 2004. Wholesale trade in El Paso County grew 21.9% in 2004 compared to 2003.

## Housing Construction and Commercial Activity

New residential construction continued to meet the record-setting demands of the new home buying public. A total of 5,060 detached, single-family homes were built in 2004, a surge of 16.2%, or 704 homes. The average value of a building permit in 2004 was \$141,029, compared to \$132,443 in 2003, an increase of 6.5% per home.

Townhome construction was very strong in 2004. A total of 714 townhome permits were issued, compared to 477 in 2003. The average permit value in 2004 was 32% higher than the previous year (\$123,836 in 2004 versus \$93,597 in 2003).

Multifamily permit activity in 2004 also increased despite vacancy rates that were in the 10-14% range throughout the year. A total of 720 multifamily permits were issued in 2004, compared to 470 permits in 2003.

Commercial construction totaled approximately \$240 million through August 2005, which is more than the total for all of 2004. At its current rate, commercial construction should top \$300 million in 2005. Significant vacancies still exist in the commercial/industrial market, which may dampen the commercial construction market in 2006. However, recent announcements about new employers coming to Colorado Springs suggest some will need new facilities. The forum believes the net effect points to a 10-15% increase in commercial permit value in 2006, to between \$375 and \$400 million.

Office space is showing signs of tightening in 2005. Vacancies in the central business district (CBD) are

expected to drop to the 5-6% range. Countywide, vacancies should decrease to perhaps 8.5%. Given the expectation of lower vacancies, rents should increase to around \$12.50 in the CBD and \$10.40 in the balance of the county.

Industrial vacancies increased from 10.3% in 2003 to 10.9% in 2004. Absorption was 360,000 square feet, a reversal from the negative absorption figures in 2001 through 2004. Rents dropped from \$6.84 to \$6.63 per square foot. Industrial rents have stabilized and are expected to stay close to \$6.65 per square foot, triple net (NNN). Rents for industrial space are projected to increase in 2006, to approximately \$6.85 per square foot. Vacancies are anticipated to be slightly below 10%.

Aggregate shopping center lease rates increased 3.57% in 2004 to \$12.77, NNN. Leasing and absorption activity help explain the rise. During 2004, vacancies decreased to 7.7% from 8.3% the previous year. For the first six months of 2005, vacancy rates climbed to 8.54%. The increase reflects new space in the market more than a downturn in shopping center economics. Absorption was 124,383 square feet for the first six months of 2005, which is well below the past 13-year annual average of 585,000 square feet.

The strong growth in retail activity during the last 12 months is expected to continue through 2006. Vacancies should drop to 6.2% for anchored shopping facilities and 8% for other retail facilities. Rents are expected to increase about 4-5% in 2006 as inflation-adjusted lease clauses kick in with higher inflation expectations in 2006.

## BRAC05 and the Military Community

The outlook on the military's contribution to the local economy is very positive in 2005. El Paso County seems to have won the BRAC05 "lottery." A series of positive announcements in 2004 and this year will translate to an increase of 13,000 new military-related jobs in the community over the next several years. Most of military and civilian jobs will be at Fort Carson, and ongoing activities at Peterson and Schriever indicate approximately 500 more positions will be created at these bases.

Based on Census 2000 data, it is expected that the 13,000 military-related jobs will have the following impact on the El Paso County population:

Military	13,000
Spouses	6,500
Children	24,500
Total population change	44,000

The annual aggregate income from the increase in jobs and population in 2005 dollars is expected to be \$109.6 million. The purchasing power of the BRAC05-related troops and families make the local economy more recession proof.

## Where Is the Southern Colorado Economy Headed in 2006?

The forum's assessment of the southern Colorado economy is that it will continue to grow throughout 2005. Growth will be slower in 2006 and most of 2007. ❖

## **Appendix: North American Industry Classification System Descriptions and Concentrations**

Beginning with the 2004 forecast, the economic sectors analyzed in this book reflect the new North American Industry Classification System, adopted in January 2001. The system is more relevant to the modern economy, and will allow the United States to directly compare its economic data with that of other NAFTA members, Canada and Mexico. A brief summary of the composition of each supersector appears below, followed by a discussion of each area's concentration in the economy.

### **Supersectors**

#### **NATURAL RESOURCES AND MINING**

Crop production; animal production; forestry and logging; fishing, hunting, and trapping; support activities for agriculture and forestry; oil and gas extraction, mining (except oil and gas); and support activities for mining.

#### **CONSTRUCTION**

Construction of buildings, heavy and civil engineering construction, and specialty trade contractors.

#### **MANUFACTURING**

Food manufacturing; beverage and tobacco product manufacturing; textile mills; textile product mills; apparel manufacturing; leather and allied product manufacturing; wood product manufacturing; paper manufacturing; printing and related

support activities; petroleum and coal products manufacturing; chemical manufacturing; plastics and rubber products manufacturing; nonmetallic mineral product manufacturing; primary metal manufacturing; fabricated metal product manufacturing; machinery manufacturing; computer and electronic product manufacturing; electrical equipment, appliance, and component manufacturing; transportation equipment manufacturing; furniture and related product manufacturing; and miscellaneous manufacturing.

#### **TRADE, TRANSPORTATION, AND UTILITIES**

Merchant wholesalers, durable goods; merchant wholesalers, nondurable goods; wholesale electronic markets and agents and brokers; motor vehicle parts and dealers; furniture and home furnishing stores; electronics and appliance stores; building material and garden equipment and supplies dealers; food and beverage stores; health and personal care stores; gasoline stations; clothing and clothing accessories stores; sporting goods, hobby, book, and music stores; general merchandise stores; miscellaneous store retailers; nonstore retailers; air transportation; rail transportation; water transportation; truck transportation; transit and ground passenger transportation; pipeline transportation; scenic and sightseeing transportation; support activities for transportation; postal service; couriers and messengers; and warehousing and storage.

#### **INFORMATION**

Publishing industries (except Internet); motion picture and sound recording industries; broadcasting (except Internet); Internet publishing and broadcasting; telecommunications; Internet service providers, web search portals, and data processing services; and other information services.

#### **FINANCIAL ACTIVITIES**

Monetary authorities—central bank; credit intermediation and related activities; securities, commodity contracts, and other financial investments and related activities; insurance carriers and related activities; funds, trusts, and other financial vehicles; real estate; rental and leasing services; lessors of nonfinancial intangible assets (except copyrighted works).

#### **PROFESSIONAL AND BUSINESS SERVICES**

Professional, scientific, and technical services; private households; professional, scientific, and technical services; management of companies and enterprises; administrative and support services; waste management and remediation services; repair and maintenance; personal and laundry services; religious, grantmaking, civic, professional, and similar organizations; and private households.

#### **EDUCATIONAL AND HEALTH SERVICES**

Educational services; ambulatory health care services; hospitals; nursing and residential care facilities; and social assistance.

#### **LEISURE AND HOSPITALITY**

Performing arts, spectator sports, and related industries; museums, historical sites, and similar institutions; amusement, gambling, and recreation industries; accommodation; and food services and drinking places.

#### **OTHER SERVICES**

The Other Services Supersector consists of three main sectors: Repair and Maintenance; Personal and Laundry Services; and Religious, Grantmaking, Civic, Professional, and Similar Organizations. The supersector includes an eclectic mix of companies in a variety of different industries.

#### **GOVERNMENT**

Executive, legislative, and other general government support; justice, public order, and safety activities; administration of human resource programs; administration of environmental quality programs; administration of housing programs, urban planning, and community development; administration of economic programs; space research and technology; and national security and international affairs.

## Sector Concentrations/ Location Quotients

A useful tool for examining an industry's relative concentration in an economy is the location quotient (LQ). The LQ is a ratio comparing an industry's share of a total (can be number of firms, employment, wages, etc.) at a local level to that industry's share of the total at a national level. Therefore, an employment LQ greater than 1 means the industry has a higher than average share of employment in a given area, or is relatively more con-

centrated in that area. For example, if manufacturing makes up 20% of employment in a state and 10% of total U.S. employment, that state would have an LQ of 2.0 for manufacturing ( $20/10 = 2$ ). In other words, manufacturing is twice as heavily concentrated in that state relative to the United States. Two of the tables in this section explore this concept.

The other table in this section examines average wages by sector for both Colorado and the United States. ❖

### 2004 SECTOR CONCENTRATIONS OF COLORADO FIRMS, EMPLOYMENT, AND WAGES

Sector	Percentage of Total			Location Quotient		
	Firms	Employment	Wages	Firms	Employment	Wages
Agriculture, Forestry, Fishing, Hunting	0.8%	0.7%	0.4%	0.70	0.76	0.80
Mining	0.6	0.7	1.4	1.99	1.67	2.05
Construction	12.7	7.1	7.1	1.30	1.32	1.28
Manufacturing	3.6	7.2	9.4	0.82	0.65	0.70
Wholesale Trade	7.5	4.3	6.0	1.06	0.99	1.01
Retail Trade	11.3	11.3	7.0	0.92	0.97	0.97
Transportation and Warehousing	2.1	2.8	2.7	0.86	0.92	0.89
Utilities	0.2	0.4	0.7	1.09	0.85	0.82
Information	2.2	3.8	6.2	1.27	1.58	1.67
Finance and Insurance	6.5	4.9	7.2	1.21	1.08	0.90
Real Estate and Rental and Leasing	5.7	2.1	2.0	1.41	1.34	1.30
Professional and Technical Services	14.4	6.8	10.8	1.37	1.29	1.30
Management of Companies and Enterprises	0.7	1.0	2.3	1.41	0.80	0.85
Administrative and Waste Services	5.6	6.1	4.5	1.12	1.01	1.06
Educational Services	1.1	1.1	0.8	1.26	0.68	0.58
Health Care and Social Assistance	7.1	9.0	8.5	0.89	0.83	0.84
Arts, Entertainment, and Recreation	1.5	2.0	1.3	1.08	1.37	1.29
Accommodation and Food Services	7.1	9.8	3.6	1.05	1.19	1.16
Other Services	7.4	3.0	2.1	0.58	0.92	1.00
Government	1.8	15.9	16.1	0.55	0.99	0.97

Source: Colorado Department of Labor and Employment - Covered Employment and Wage Data.

### AVERAGE ANNUAL WAGES BY SECTOR COLORADO AND UNITED STATES 2004

Industry	Colorado	United States
Agriculture, Forestry, Fishing, Hunting	\$24,045	\$22,326
Mining	83,831	66,677
Construction	40,269	40,524
Manufacturing	52,645	47,859
Wholesale Trade	56,137	53,314
Retail Trade	25,073	24,416
Transportation and Warehousing	38,668	38,822
Utilities	71,636	72,392
Information	65,778	60,724
Finance and Insurance	59,292	70,094
Real Estate and Rental and Leasing	37,033	37,288
Professional and Technical Services	64,527	62,536
Management of Companies and Enterprises	87,742	80,064
Administrative and Waste Services	29,176	27,213
Educational Services	30,699	35,432
Health Care and Social Assistance	38,014	36,702
Arts, Entertainment, and Recreation	26,634	27,595
Accommodation and Food Services	14,729	14,706
Other Services	28,134	25,152
Government	40,641	40,497
Total	\$40,285	\$39,348

Source: Colorado Department of Labor and Employment - Covered Employment and Wage Data.

### CONCENTRATION OF SELECT SUBSECTORS IN COLORADO 2004

Industry	Location Quotient		
	Firms	Employment	Wages
Food Mfg	0.91	0.72	0.71
Beverage and Tobacco Product Mfg	0.88	1.83	2.17
Chemical Mfg	0.65	0.47	0.38
Computer and Electronic Product Mfg	1.25	1.58	1.62
Transportation Equipment Mfg	0.58	0.33	0.40
Software Publishers	3.14	3.51	3.06
Telecommunications	1.06	1.91	2.16
Scientific Research and Development Services	1.41	1.20	1.23

Source: Colorado Department of Labor and Employment - Covered Employment and Wage Data.

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For nearly 90 years, the Business Research Division (BRD) of the Leeds School of Business has been providing business, economic, and market research that contributes to the efficient use of Colorado's resources. Through its annual Colorado Business Economic Outlook Forum, the BRD has established a base of knowledge that adds value to the division's work in other areas. In addition to providing research to public and private organizations, the division is the umbrella organization for Colorado Association of Manufacturing and Technology (CAMT) and the Rocky Mountain Trade Adjustment Assistance Center (RMTAAC).

### **Purposes of Unit**

The BRD provides business, economic, and market research that contributes to the efficient use of Colorado's resources and increases interest in and awareness of the Leeds School of Business. The BRD provides support to the Colorado business community in the following areas:

**Industry Support**—Through research conducted with companies, associations, nonprofit organizations, educational institutions, and state and local

governmental agencies throughout the world, the BRD has developed primary competencies in the areas of manufacturing issues and trends, the impact of government and government policy, the role and impact of technology in Colorado, and issues in the health-care industry. Secondary competencies have been developed as a result of research conducted in the construction, trade, services, and finance sectors.

**Research for the State of Colorado**—Each December the BRD presents its annual forecast of the Colorado state economy. Subsequent presentations are made during the year throughout the state. Selected summaries or research reports are available on the BRD's web site. In addition, the BRD compiles the Colorado Business Leaders Confidence Index (BLCI) on a quarterly basis. More information about the BLCI is available at [www.blici.com](http://www.blici.com).

**Faculty and Center Research**—The BRD cooperates with other centers in the Leeds School of Business and faculty members to assist them with conducting applied, relevant research that benefits the business community and the Leeds School of Business.

**Student Research**—The BRD provides opportunities for students to gain practical business experience by involving them in business and economic-related research projects.

**U.S. Census Research**—The division provides assistance to members of the business community in finding relevant information from U.S. Census reports by obtaining and using statistical data, summary tape files, and related products. The division is an affiliate in the State Data Center System.

### **Areas of Expertise**

The Business Economic Outlook Forum provides an excellent base of knowledge for the BRD to conduct local, national, and international research for a diverse set of clients. In addition to providing companies and state agencies with information to help them make better-informed business and policy decisions, this research provides the BRD with expertise in a number of areas. Through a variety of research tools (direct mail surveys, telephone surveys, focus groups, and personal interviews), the BRD has conducted research in the following areas:

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## Business Research Division

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### Manufacturing

- Investigated employment trends and issues
- Identified management and operational issues
- Prepared competitive intelligence and industry needs assessment
- Published industry and niche directories
- Identified methods for service providers to provide better service to manufacturers
- Determined the impact of key manufacturers on local economies

### Technology

- Prepared overview of technology in Colorado
- Conducted trend and issue analysis of biomedical, photonics, and renewable energy industries
- Compiled industry and sector directories
- Estimated impact of technology on Colorado

### Health Care

- Performed analyses of drug usage patterns for state Medicaid program
- Conducted customer satisfaction surveys of public and private health plans
- Conducted a comparative analysis of health plans
- Prepared a study of the appropriate information to provide clients using health plans

### State and Local Policy Decision-Making Organizations

- Calculated fiscal impact of state agency on its clients
- Conducted customer satisfaction with state agency programs
- Prepared potential fiscal impact of retail store on city economy
- Identified city and county issues and trends with city and county employees
- Conducted customer satisfaction programs with federal programs to mitigate employment reduction because of defense layoffs
- Calculated fiscal impact of agricultural component on county economy
- Prepared analysis of issues and opinions regarding county growth trends
- Conducted public safety satisfaction/needs assessment study

### Other Areas

- Conducted name recognition study for international financial services company
- Collected competitive intelligence and needs assessment to help company determine feasibility of moving to Colorado
- Prepared association membership satisfaction and needs assessment

### General Economic Information

- Prepared local leading economic indicator series
- Collected local economic data for various city and county organizations

### Business Economic Outlook Forum

- In addition to the outlook forum kickoff event in Denver, targeted presentations of the business economic forecast are typically made to more than 50 local, regional, and national organizations.

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## ***Leeds School of Business: Services to Business and Industry***

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The mission of the Richard M. Burridge Center for Securities Analysis and Valuation is to encourage and support the creation and dissemination of new knowledge about financial markets, with an emphasis on U.S. financial markets. The center

- Facilitates the exchange of ideas and knowledge among students, professional investment managers, finance scholars, policymakers, and the investing public;
- Identifies critical research issues in the theory and practice of security analysis and valuation; and
- Encourages and supports vigorous qualitative and quantitative research on topics relevant and useful to money managers, valuation experts, and finance academics.

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### **Center for Sustainable Tourism**

The Center for Sustainable Tourism is the management unit for the tourism research and service functions of the Leeds School of Business. It also serves as a “virtual think tank,” where students, faculty, tourism industry representatives, community leaders, and government officials, committed to the intelligent and orderly growth of tourism, can come together to share their thoughts, concerns, ideas, research, and solutions.

The focus of sustainable tourism fits the state, national, and international tourism industry experience, where the limelight is regularly focused on balancing an expanding economy with social, cultural, and environmental integrity.

The ultimate goal of the CU Center for Sustainable Tourism is to provide students with the technical and industry knowledge for their eventual role as leaders in the tourism industry. Students participating in the center’s activities will be significantly better prepared to deal with current and future issues facing development resulting from tourism.

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### **University of Colorado Real Estate Center**

Through the dedicated efforts of a committed University of Colorado faculty collegium, the CU Real Estate Center provides a world-class real estate curriculum at both the graduate and the undergraduate levels that prepares students to be leaders in the real estate industry.

The CU Real Estate Center was created in 1996 through the efforts of the CU Real Estate Council. The council consists of more than 275 real estate professionals contributing time, expertise, and financial support to educate the next generation of industry leaders. The partnership between the University of Colorado and the University of Colorado Real Estate Council creates a dynamic relationship that offers beneficial opportunities to further research and student involvement in real estate issues such as land use, growth management, sustainability, capital markets, and other related topics.

Through the CU Real Estate Council, the center provides a rewarding mentorship program designed to benefit both the students and council members. In addition, the center develops meaningful internship opportunities for students through the council network, requiring on-the-job experiences as part of the learning process for all students, with job placement opportunities as the ultimate goal of the program.

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## Services to Business and Industry

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### The Robert H. and Beverly A. Deming Center For Entrepreneurship

The Robert H. and Beverly A. Deming Center for Entrepreneurship continues its national leadership status. *U.S. News and World Report's* 2006 ranking of business specialties among graduate school entrepreneurship programs places the center 14th nationally. *Entrepreneur* magazine's 2005 annual survey of peer program directors, faculty, and alumni at the top 100 entrepreneurial colleges and universities in the nation ranks the overall Deming program (graduate and undergraduate) 9th. In 2003 the Deming Center for Entrepreneurship was one of three national recipients of the NASDAQ Center of Entrepreneurial Excellence Award. The center supports entrepreneurship undergraduate and graduate students, faculty, and staff at CU-Boulder's Leeds School of Business.

As part of the CU-Boulder campus, the Deming Center is positioned to access one of the nation's most dynamic entrepreneurial communities. The center's Front Range location enables it to offer a unique, practical, and rewarding entrepreneurship education.

The Deming Center collaborates with the College of Engineering and Applied Science on cross-listed engineering and business curriculum at the graduate and undergraduate level. Additionally, the center works with CU-Boulder's Entrepreneurial Law Clinic, the College of Music Entrepreneurship Center, and the University Technology Transfer Office. Externally, the center is connected to the local community through partnerships with the National Renewable Energy Laboratory, the Boulder Innovation Center, CTEK Venture Centers, and businesses.

The Leeds School of Business at CU-Boulder is one of seven universities representing entrepreneurship education in the United States, Spain, Sweden, Norway,

Australia, Canada, and Denmark as charter members of the International Entrepreneurship Development (IED) summer school program in entrepreneurship at the Aarhus School of Business in Aarhus, Denmark. The IED program will be offered to MBA students throughout the world who specialize in entrepreneurship. The program connects international entrepreneurship experts, entrepreneurs/owners, providers of capital, and students.

The Deming Center's mission is to deliver a world-class entrepreneurship curriculum and experiences, combined with rigorous academic research on topics relevant and useful to entrepreneurs. It creates a "connected learning environment" via established relationships in business.

The center's goal is to have a profound impact preparing students with an enhanced entrepreneurial mindset to pursue careers with new and emerging growth companies. The Deming Center is a catalyst and supporter of research and discovery in the field of entrepreneurship. Partnerships are encouraged between the university faculty, students, and practitioners who create, build, and operate entrepreneurial companies. Deming Center graduates are well-educated entrepreneurial thinkers, whose probability of success with entrepreneurial ventures has increased as a result of their experiences through the center's programs.

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### Evening MBA Program

The Leeds School of Business Evening MBA program offers working professionals the opportunity to advance their careers and accelerate their professional growth by earning an MBA degree while maintaining full-time employment. The opportunity to immediately apply concepts learned in the MBA classroom to the work environment is a powerful tool to advance individual careers and maximize the value of the educational experience. Taught by the same nationally renowned faculty who teach in our full-time MBA program, the Evening MBA Program gives students and their companies access to the latest cutting-edge business knowledge and practices. Students in the evening program attend classes two nights per week for eight consecutive semesters. The program's dedication to superior administrative support provides evening students the ability to focus on their education.

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## Executive Development Programs

Executive Development Programs (EDP) is an executive education provider with a national presence. Established as a partnership between the Leeds School of Business and the Division of Continuing Education and Professional Studies, EDP specializes in short, noncredit, certificate programs. From three-year high-level management courses to three-day basic finance and accounting courses, our programs build better business leaders.

EDP also specializes in custom programs, providing specific tools to help organizations achieve their unique goals. Led by our internationally recognized faculty, your organization will be better able to assess corporate strategies and to analyze the gaps between where your company is currently and where it wants to go. Our customized programs provide solutions and alternative measures to specific business problems. In addition, we provide custom courses with an emphasis on change management, finance and accounting, and everything in between.

Come explore the many opportunities that EDP offers.

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## Colorado Association of Manufacturing and Technology (CAMT)

CAMT (formerly MAMTC) is a not-for-profit organization designed to help small and mid-size manufacturers improve business performance and profitability. Project directors located in Denver, Boulder, Fort Collins, Colorado Springs, Durango, and Grand Junction provide on-site assessments to identify projects that improve a firm's competitiveness. Projects focus on areas that can impact the bottom line, including process and quality improvement (lean manufacturing), plant layout, cost measurement, inventory control, product design, and software selection.

By tapping into a vast network of public and private resources, project directors help companies meet business challenges by delivering quality solutions at a reasonable price.

Supported in part by the NIST Manufacturing Extension Partnership, CAMT also offers a number of valuable services, including technical seminars, sponsored events at local manufacturing associations, and other programs that support the manufacturing industry in Colorado.

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## Rocky Mountain Trade Adjustment Assistance Center (RMTAAC)

RMTAAC is an independent, nonprofit organization offering technical and professional assistance to small and medium-size manufacturers adversely affected by import competition.

The center is staffed by professionals with extensive private-sector experience in marketing, management, and engineering. RMTAAC project managers work closely with manufacturers to identify cost-effective strategies that enable them to compete with foreign producers.

In addition, project managers locate outside technical consultants to implement projects that require specialized expertise. Up to 50% of the total project cost is funded by the U.S. Department of Commerce.

Since 1981, RMTAAC has helped hundreds of manufacturers in a number of industries, including circuit board assembly, recreational equipment, material handling, testing equipment, building materials, apparel, and jewelry.

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Colorado  
University of Colorado at Boulder