

COLORADO BUSINESS REVIEW

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Colorado 2016 Midyear Economic Update

Sector Highlights

Richard Wobbekind

Colorado's economy continues to outperform the nation in 2016. Statistics for the advanced 2015 GDP estimates were released in June, showing that Colorado's real GDP had grown 3.6%, outpacing the 2.4% growth in GDP experienced by the United States. Colorado also recorded faster growth in employment, home prices, and personal

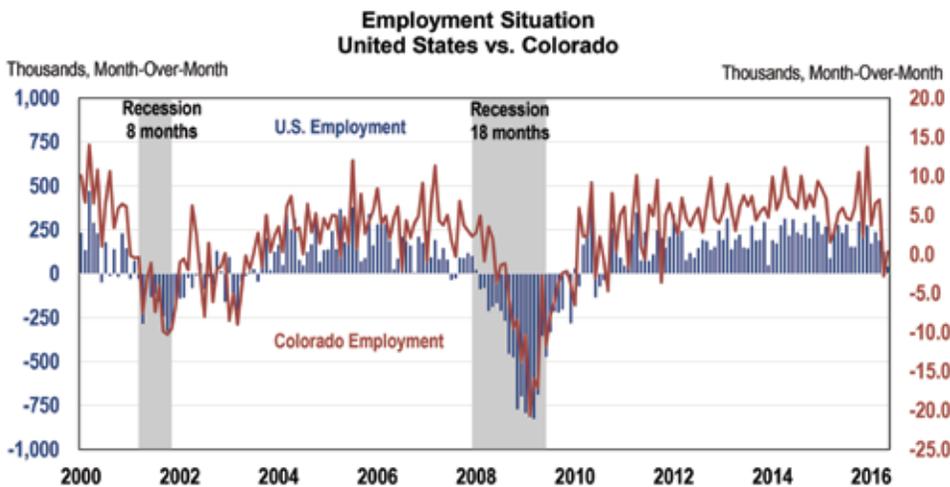
income than the nation in 2015. Following this trend, business leaders in Colorado are more confident in the state economy than the national economy according to the Leeds Business Confidence Index.

In December 2015, the Colorado Business Economic Outlook presented key economic indicators for each sector of the Colorado economy and forecasted that Colorado's employment would increase by 65,000 jobs,

or 2.6%, in 2016. Many of the committee chairs who developed those forecasts for the 2016 outlook met in mid-June to provide updates on their sectors and discuss how forecasts made at the end of 2015 have played out in the first half of 2016.

The forecasts from December estimated an employment increase in every sector except Natural Resources and Mining, which was forecasted to decrease slightly. As of mid-2016, the forecast for overall growth was reaffirmed, but the sources of that growth have changed slightly with some sectors outperforming others. The following paragraphs present a brief look at industry sectors midway through 2016.

Data in the following sections are from the Colorado Department of Labor and Employment, Current Employment Statistics (CES). The May 2016 figures are seasonally



Source: Bureau of Labor Statistics Current Employment Statistics (Seasonally Adjusted).

FROM THE EDITOR

This issue presents a midyear review of the Colorado economy.

The information presented is compiled from remarks made Colorado Business Economic Outlook Estimating Group chairs or their representatives at a roundtable meeting held in mid-June. Industry sector summaries include comparisons of the current economic situation to the forecast presented last December. Key factors influencing recent economic trends are also noted.

We greatly appreciate the time and input from the individuals who contributed to this update; their names are listed on page 10. I also acknowledge the BRD research staff who collected data and conducted additional analysis for this issue.

FIFTY-SECOND ANNUAL COLORADO FORECAST

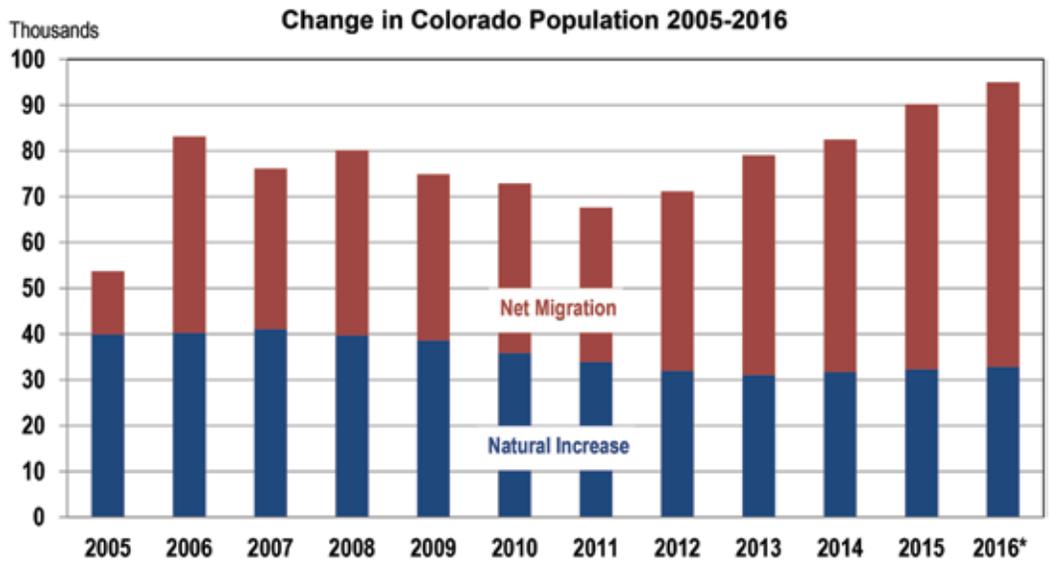
SAVE THE DATE

2017 Colorado Business Economic Outlook Forum —

Mark your calendar to attend the 2017 Colorado Business Economic Outlook Forum on December 5 at the Grand Hyatt Denver. Check colorado.edu/business/brd for event updates.

We are interested in your suggestions for topics of upcoming issues. Please contact me directly at 303-492-1147.

—Richard Wobbekind



Source: State Demography Office and U.S. Census Bureau. *2016 Projection as of Oct. 2015.

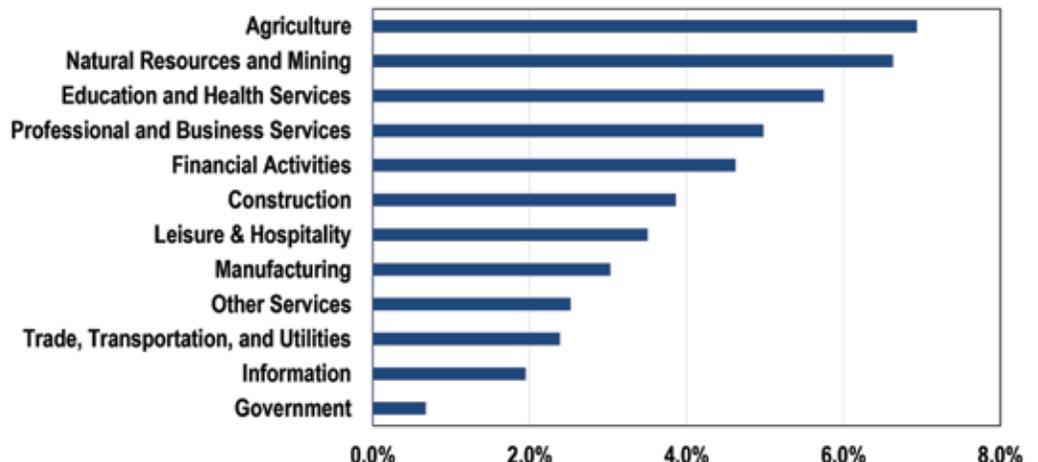
adjusted except where indicated. This issue was compiled prior to the United Kingdom voting to opt out of the European Union.

Population and Employment

According to the State Demography Office, Colorado's population reached nearly 5.5 million in 2016, an increase of 100,708 including upward revisions. Natural increase (births minus deaths) was responsible for about one-third of the total population gain, while net migration contributed two-thirds. In 2015, Colorado was the 2nd fastest-growing state in terms of percent change, at 1.9%, and 7th in total growth. Colorado was 22nd in total population overall.

Colorado's top five fastest-growing counties in absolute terms from 2014 to 2015 were Denver, Arapahoe, El Paso, Adams, and Weld. In percentage change, the five fastest-growing counties were Broomfield, Mineral, Weld, Summit, and Denver. In 2015, only 14 counties experienced a net out-migration, the lowest number since the recession. Seven out of the top 10 fastest-growing cities in Colorado are located in the north Front Range, including Denver, which is now the 19th-largest city in the country, and Broomfield, the 9th fastest-growing city in the nation between 2014 and 2015. Since 2010, Colorado's population has experienced the 5th-highest net migration in the United States, at 250,500. Natural increase since 2010 also ranks high, at 13th, with an increase of 169,500 people.

Colorado Percentage Real GDP Growth by Sector Year-Over-Year 2015



Source: Bureau of Economic Analysis.

The population growth forecast for 2016 is slightly slower than the increase recorded in 2015.

Total covered employment in Colorado rose 2.4% year-over-year in May 2016. According to the Bureau of Labor Statistics (BLS), all of the Colorado Metropolitan Statistical Areas (MSAs) experienced employment growth year-over-year in May 2016, with the largest increases in Denver-Aurora-Lakewood (3.1%), Fort Collins (3%), Boulder (2.7%), and Colorado Springs (2.5%). Colorado's seasonally adjusted unemployment rate in May 2016 was 3.4%, with a civilian labor force of 2.9 million, a 2.4% year-over-year increase according to the BLS.

The Colorado Department of Labor and Employment expects total December 2015 employment to be revised downward by approximately 10,700 jobs, or 0.4%. The greatest upward revisions will be applied to Professional and Business Services; Trade, Transportation, and Utilities; and Government, while most of the downward revision will come from Leisure and Hospitality, and Construction.

Colorado's nominal GDP totaled nearly \$315 billion in 2015. Real GDP (in terms of 2009 dollars) grew by 3.6% year-over-year in 2015. Colorado was the 4th fastest-growing state in terms of real GDP in 2015, behind California, Oregon, and Texas. Colorado's total nominal GDP ranks 18th among all states. Within the state, the largest industries in terms of nominal GDP in 2015 were Financial



Photo courtesy of Jill Lambert

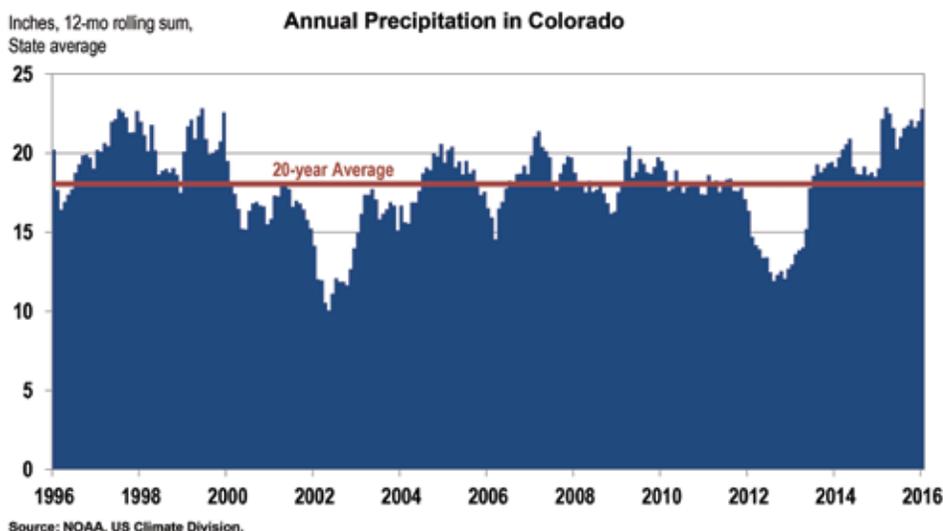
Activities (\$62 billion); Trade, Transportation, and Utilities (\$49.3 billion); and Professional and Business Services (\$45.2 billion). Combined, these top three industries made up 49.7% of the state's total nominal GDP. The industries with the fastest-growing real GDP year-over-year in 2015 were Agriculture (6.9%); Natural Resources and Mining (6.6%); and Education and Health Services (5.7%).

Agriculture

Low commodity prices and a decline in exports in 2016 continue to affect Colorado farmers and ranchers, and

drought conditions have moderately abated. According to the University of Nebraska-Lincoln U.S. Drought Monitor, as of the end of May 2016, an average of 85.3% of Colorado was not experiencing any drought conditions compared to about 43% a year earlier. The Department of Natural Resources reported that Colorado has also been experiencing lower average temperatures and wetter conditions since April. Lower temperatures and higher humidity levels have created a satisfactory year so far for agricultural producers.

Agricultural commodity prices in the state are generally lower than last year. These lower prices are likely to continue and possibly reflect a new normal after several years of record-high prices across almost all segments of the industry. Some of the decrease in prices can be attributed to increases in supply. For example, today's lower wheat prices reflect that global wheat stocks entering the 2016 production season were near an all-time high. The lower prices may have contributed to the decline in value of the agriculture industry to the Colorado economy. According to the Bureau of Economic Analysis (BEA), the industry's contribution to the state nominal GDP decreased from \$2.8 billion in 2014 to \$2.5 billion in 2015, an 11.1% decline.



With improved pasture conditions and lower feed costs, ranchers began rebuilding herd sizes last year. These larger herd sizes resulted in increased marketings, and producers experienced steep decreases in cattle prices in the fall of 2015. Prices have generally continued to trend lower, which can be partially attributed to the increase in herd sizes.

Wheat prices are about 60 cents per bushel (roughly 10%) less than last year. Corn prices are marginally higher than in 2015. Live cattle and feeder cattle prices are 20% and 35% lower, respectively, than in 2015. Milk prices are approximately 20% lower than they were last year as well. The price of hogs is about the same as 2015.

Weather conditions have been mostly favorable with a good amount of moisture in the air leading to good pastures and hay conditions. Recent hailstorms have been fairly isolated.

There were no late frosts this year, so fruit crops on the Western Slope, such as peaches, apples, and berries, have potential for good production.

The redevelopment of the National Western Stock Show site should be beneficial to the agriculture industry in the future. It has the potential to serve as a catalyst for recruitment of new agribusiness to the state and build on the synergies of the food and agriculture innovation cluster emerging along Colorado's Front Range.

Colorado's agriculture exports are down about 10% year-to-date in 2016 compared to 2015. Exports continue to be impacted by changing global market conditions, the value of the dollar, and policy disputes, such as the trade dispute with Mexico. There are some indications that the lawsuits filed by Mexico's producers will be resolved in the near term, allowing U.S. fresh potatoes to be sold throughout all of Mexico rather than just the 26-kilometer free trade zone. Currently, Colorado supplies about 60% of the U.S. fresh potatoes that go to Mexico, and a resolution of the dispute would mean access

to the entire Mexican market. This could have a significant positive impact on the fresh potato industry in Colorado.

Colorado's largest agricultural export is beef, according to the Census Bureau, accounting for 5.3% of Colorado's total exports in 2014 and dropping to 4.3% in 2015. The increased value of the dollar is partially responsible for the decline in beef exports as beef is fairly price sensitive. If the Trans-Pacific Partnership (TPP) is approved, it would lower tariffs on beef in Japan from the current 38.5% to 9% over 16 years. This would have a positive impact on Colorado beef exports to Japan.

The majority of the agriculture industry is not covered by unemployment insurance as most farms are sole proprietorships; thus, the employment data from these establishments do not show up on the Bureau of Labor Statistics due to the fact that they only represent covered employees.

Natural Resources and Mining

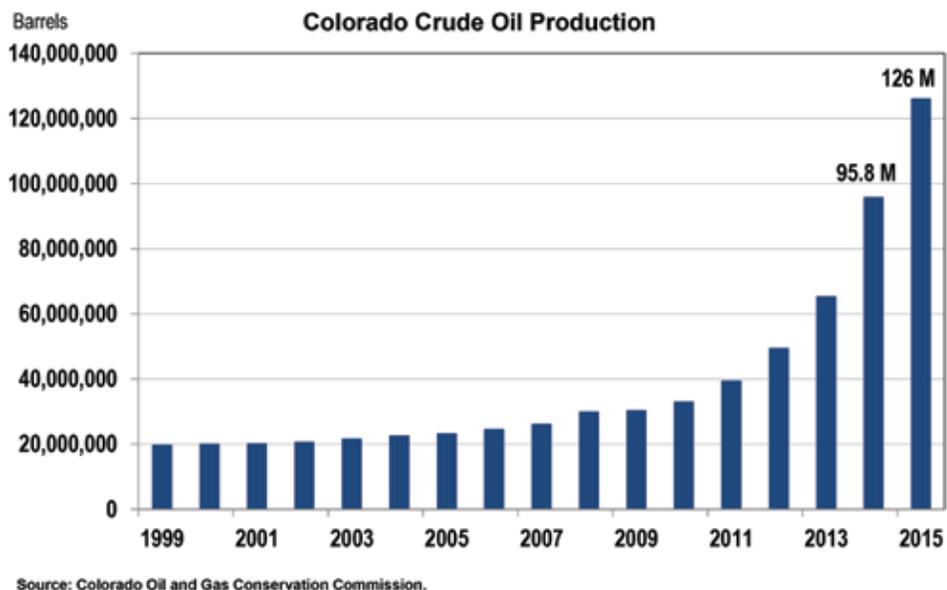
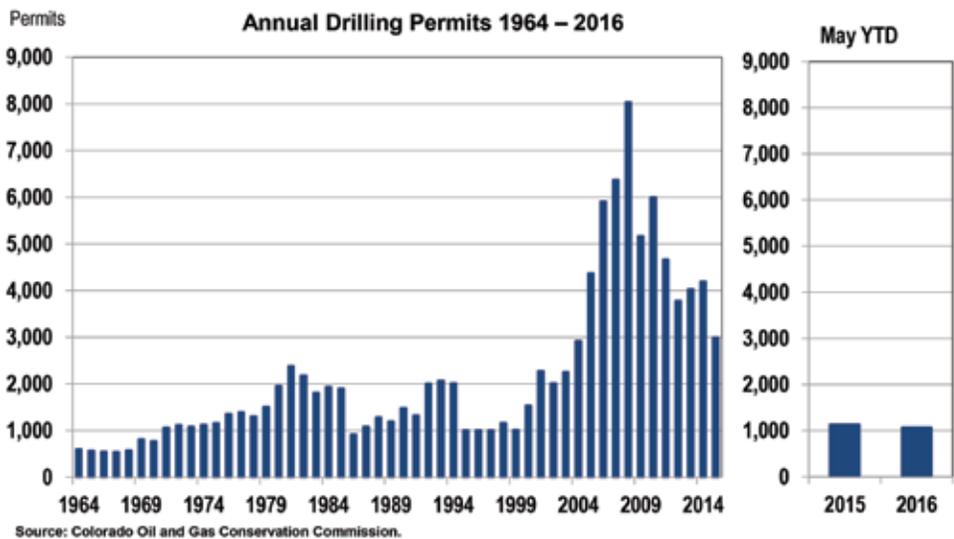
The Natural Resources and Mining Sector comprises establishments that mine naturally occurring mineral solids (e.g., coal); liquid minerals (e.g., crude petroleum); and natural gases (e.g., coalbed methane). According to the Bureau of Labor Statistics, this sector accounted for only 1% of Colorado's total employment; however, these jobs tend to pay approximately 61% above the average pay in Colorado. Colorado has 2.1 times the national concentration of workers in this sector. The Natural Resources and Mining Sector's contribution to the state nominal GDP in 2015 was \$12.1 billion, decreasing 34% year-over-year. However, the sector's real GDP grew 6.6% year-over-year, making it the second-fastest growing industry in Colorado. Lower oil and gas prices and the decline in demand for coal are most likely the leading causes of the decrease in nominal value of the industry. Natural gas

and oil are currently the most significant products of this sector.

The number of seasonally adjusted jobs in the Natural Resources and Mining Sector has been decreasing since January 2015. The latest statistics, from May 2016, show that there were 26,300 jobs in the industry, down 16.8% from May 2015. The decline in job growth in the industry can be attributed to the continued low prices of oil, natural gas, and coal, as well as the recent idling of the Bowie #2 Mine. The total number of coal miners as of April 2016 decreased 16.1% year-over-year, from 1,506 in 2015 to 1,263 in 2016, according to the Colorado Department of Natural Resources.

Colorado produced 1.7 billion MCF (thousand cubic feet) of natural gas in 2015, up from 1.6 billion MCF in 2014. Production of natural gas in 2016 is not expected to change much from 2015 production. Crude oil production continued to increase, producing 126 million barrels in 2015, making Colorado the seventh-largest producer of crude oil in the United States. Colorado increased its oil production by 31.5% from 2014 to 2015. The committee is projecting that oil production in 2016 will fall to about 115–116 million barrels from the 2015 output. Although the price of oil has begun to increase since the start of 2016, the price as of June 6 (\$49.71) is still down 15.9% from the previous year. The committee expects the price of oil in 2016 will close between \$50 and \$60 per barrel.

A total of 2,987 drilling permits were approved in Colorado in 2015, down from 4,190 in 2014. Year-to-date in June 2016, Colorado is averaging about 240 permit applications per month, which is a 12% decrease from 2015. According to the Colorado Oil and Gas Conservation Commission (COGCC), 1,060 drilling permits have been approved year-to-date June 1, 2016. An average of 18 active drilling rigs were operating year-to-date May 2016, which is down from an average of approximately 39 in 2015 and about 68 in 2014.



The coal industry in Colorado continues to struggle as production declined from 23 million tons in 2014 to 18.7 million tons in 2015. Production continues to fall in 2016 with Colorado mines producing only 3.9 million tons April 2016 year-to-date compared to 6.5 million tons a year earlier. Forecasts for 2016 project that Colorado will produce only 15 million tons of coal, the lowest amount since 1988. Due to decreases in coal prices, Bowie Resource Partners announced in February 2016 that it would idle the Bowie #2 Mine and lay off workers. According to the *Denver Post*,

emission regulations continue to have a significant negative impact on the coal industry in Colorado.

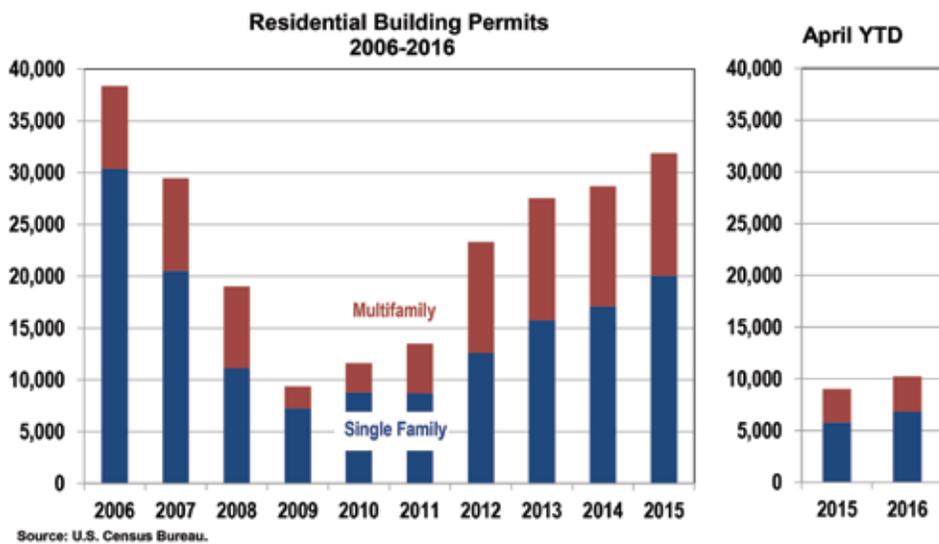
Natural Resources and Mining was a significant driver of Colorado's growth and economic recovery in recent years. However, three ballot initiatives that could be on the November ballot could significantly affect the oil and gas industry. Of these, Ballot Initiative #78 would increase the distance between oil and gas operations and areas such as occupied structures, and waterways and watersheds. According to the COGCC, this would eliminate about 90% of the surface

acreage accessible for drilling. The committee believes that if Ballot Initiative #78 passes it could have a significant negative impact on the oil and gas industry in Colorado.

Construction

The construction industry, which includes firms that engage in the construction of new buildings and engineering projects, as well as subdividing land for sale as building sites, comprises three sectors: residential (e.g., houses, apartments), nonresidential (e.g., retail, medical), and nonbuilding (e.g., water treatment, highway work, infrastructure). The industry had a total of 158,300 jobs as of May 2016, and although employment has been growing since the beginning of 2012, the number of jobs still has not reached pre-recession levels. As of May 2016 employment was still down 6.9% from the peak construction employment in July 2007. The average weekly wage for May 2016 is \$1,093, a 3% increase from the May 2015 wage. The committee expects the industry to grow over the course of 2016 as demand continues to rise. In 2015, nominal GDP totaled \$14.5 billion, or 4.6% of total GDP in Colorado. Real GDP grew 3.9% year-over-year, making it the sixth fastest-growing industry in the state. Data from Dodge Construction Analytics suggest the value of total construction rose 15% in 2015, driven by building construction.

The year-to-date value (April 2016) of total construction in Colorado is 15% above the 2015 value. Residential construction in 2016 year-to-date is 33% above 2015 levels, nonresidential is 45% higher, and nonbuilding construction is 58% lower. Work on several major multiyear projects in Colorado, such as the Gaylord Rockies Hotel in Aurora, roadwork on C-470, and commercial facilities for Panasonic and Amazon will contribute substantially to the value of construction this year. The committee still supports its



forecast of growth in the industry, especially in the value of single-family and multifamily dwellings in 2016. Both nonresidential and residential construction are stable in rural and resort areas and have been growing in Pueblo and Colorado Springs. However, the vast majority of work is taking place along Colorado's Front Range.

Nonresidential building excelled in 2015, and the committee projects that this trend will continue through 2016. The value of nonresidential construction is estimated to total \$4.9 billion in 2016, up from \$4.6 billion in 2015. However, the value has already reached nearly \$2 billion as of April 2016, and new estimates project that it could reach \$6 billion for the year. Commercial projects are still strong, including office space and hospitality facilities. Although hospital construction slowed in the past year, a number of related buildings, including doctor's offices and surgery centers, are being built in surrounding spaces. Commercial infrastructure is beginning to take off on Brighton Boulevard, near the Denver Coliseum, and in the Denver International Airport (DIA) commercial area. As the oil and gas industry has slowed, a number of "shadow vacancies" for office spaces will begin to appear. These spaces will become vacant inventory in the near future as oil and gas firms go out of business.

Demand is currently high for for-sale homes as Colorado continues to experience strong net migration. The committee estimates over 23,000 single-family housing permits will be issued in 2016, a 16.2% year-over-year increase from 2015. Home values are also expected to continue to increase. Builders are still using available lots to construct larger homes rather than starter units. Multifamily building permits are expected to total just under 14,000 for 2016. Although the number of residential building permits has been increasing each year since 2010, housing construction has not been fully able to match the demand of people moving to Colorado. In 2015, Colorado's net migration totaled more than 70,000 people, many of whom were young prospective homeowners; however, the supply of housing has not been able to match the demand.

Colorado's nonbuilding sector is stable, with a slight upward trend. A number of projects have been recently completed, including the light rail line to DIA and bridges on 6th Avenue, and new projects are beginning to take their place. These include the \$66 million project to replace the I-25 bridge over Arapahoe Road in Arapahoe County and the widening of C-470. Early stages of other projects also contribute to nonbuilding, such as earth moving for the new Gaylord resort before construction on the

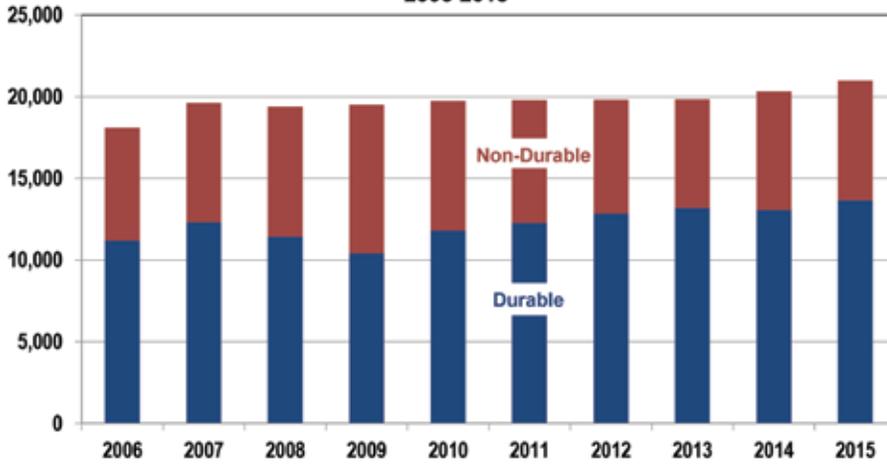
facility begins. Nonbuilding continues to see new projects, and with increasing property values in Denver, and therefore more property tax revenue, local governments may fund new nonbuilding projects.

Manufacturing

Manufacturing is a broad category, comprising all establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. Employment in this sector continues to make gains, increasing 3.5% in 2015 and 1.8% year-over-year in May 2016 for a total of 143,300 Manufacturing employees in the state. Manufacturing employment surpassed committee estimates by 1,100 jobs in 2015. The committee forecasted a 1.6% increase in employment in 2016; however, employment has currently dropped by 0.4% year-to-date through May 2016. Approximately 64% of Manufacturing employment in Colorado is in durable goods. Durable goods manufacturing employment grew 2.1% year-over-year in May 2016, while nondurable employment rose 1.4%. Gains in Manufacturing have now occurred for five-consecutive years following a decade of employment losses. Despite sector growth, Colorado has a relatively low concentration of industry employment; it is 35% below the national concentration as of May 2016. Manufacturing nominal GDP totaled \$23 billion in 2015, making up 7.3% of total GDP in the state. Real GDP grew by 3% year-over-year in 2015, making it the eighth fastest-growing industry in Colorado.

After a steady growth in 2014, nondurable goods continued to outperform expectations in 2015. Examples of nondurable goods include food, chemicals, paper products, and fast-moving consumer

**Manufacturing Real GDP
2006-2015**



Source: Bureau of Economic Analysis.

goods. Employment in the nondurable sector increased 5.2% during 2015, adding 2,500 jobs. Specifically, the manufacturing of food, chemicals, and plastics all did better than expected during the year. A possible explanation for this growth is marijuana-related manufacturing, including edible goods and oils. The beverage and tobacco manufacturing subsector continued to outperform the broader nondurables subsector—9.4% year-over-year in 2015 and 5.6% in May 2016 compared to May 2015. Craft spirits and beer have remained in high demand and buoy this segment of the sector. Nondurable goods made up 38.3% of the total nominal GDP for Manufacturing in 2015.

Durable goods are used over time, and include examples like cars, appliances, machinery, and consumer electronics. Employment in durable goods manufacturing increased 2.6% in 2015 and is growing as expected in 2016. In the first five months of 2016, employment averaged 92,100 jobs. A total of 61.7% of total nominal GDP within the Manufacturing Sector came from durable goods in 2015. The transportation subsector grew moderately, by 6.5%, year-over-year, exceeding committee expectations and reaching 9,800 jobs in May 2016. Much of the manufacturing in the transportation subsector is related to aerospace. Employment in computer and

electronics posted a small increase, to 21,600 jobs, for the first five months of 2016, continuing the recovery seen in 2015 after two years of declines.

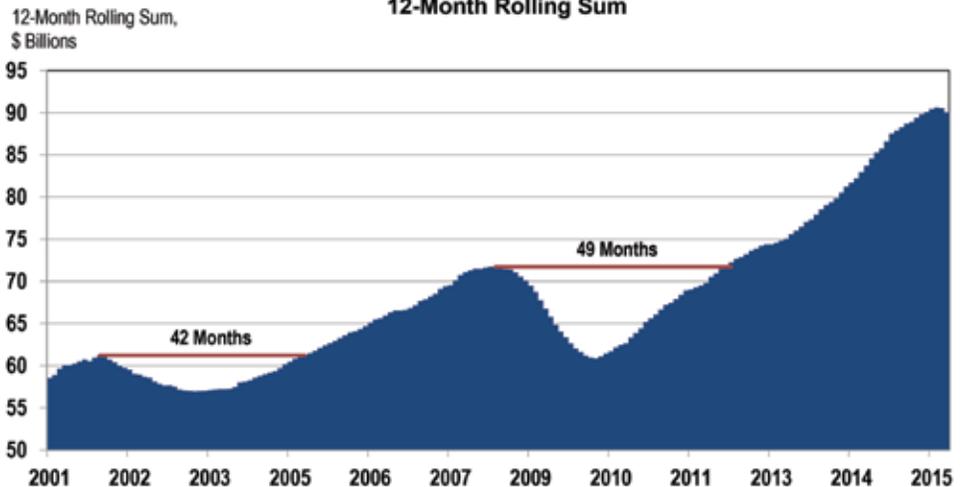
Trade, Transportation, and Utility

Trade, Transportation, and Utilities (TTU) is part of the services-providing supersector and consists of three subsectors: Wholesale Trade, Transportation and Warehousing, and Utilities. It covers many services, including rendering services incidental to the sale of merchandise, establishments engaged in retailing merchandise, industries providing

transportation of passengers and cargo, warehousing and storage for goods, and establishments engaged in the provision of various utility services. The TTU Sector added 12,400 jobs in 2015, an increase of 2.9%. Sector employment was up 1% year-over-year as of May 2016. This sector currently employs 448,900 people and accounts for 17.3% of statewide employment. TTU real GDP also grew in 2015, up 2.4% from the 2014 total.

Activity in the transportation and retail sectors could stagnate growth in TTU. Year-over-year retail trade sales as a 12-month rolling sum grew 5.3% as of November 2015. Slower growth in retail trade is expected to weigh on employment. The legalization of marijuana is expected to continue to drive growth in retail sales and employment, but the impacts are in select areas where it has been legalized. Marijuana sales have shown strong year-over-year growth since it was legalized, and will likely outweigh other activities in the sector, such as the bankruptcy of Sports Authority. Automobile sales are also softening, which will slow taxable retail sales growth. Retail sales from September, October, and November 2015 all recorded negative year-over-year growth. Net taxable retail sales in November 2015 also exhibited a year-over-year decline for the first time in recent memory.

**Colorado Taxable Retail Sales
12-Month Rolling Sum**



Source: Colorado Department of Revenue.

The Wholesale Trade Sector consists of two subsectors: merchant wholesalers – durable goods and merchant wholesalers – nondurable goods. These sectors include the outputs of agriculture, mining, manufacturing, and certain information industries, such as publishing. Since 2010, Wholesale Trade has increased employment each year, from 90,800 in 2010 to 102,900 in 2015, growing 3% year-over-year in 2015. Both subsectors mirrored the five years of consecutive growth recorded by the supersector. Wholesale trade – durable goods accounts for a majority of supersector employment; it grew 4.4% in 2015 compared to 3.2% in wholesale trade – nondurable goods. As of May 2016, durable goods saw no year-over-year growth using nonseasonally adjusted numbers, and nondurable goods declined by 1.4%.

Employment in Transportation and Warehousing added 2,000 jobs in 2015, an increase of 2.9%. Airlines face headwinds as long waits at security lines may discourage people from traveling. Oil prices continue to rebound, which could cause the cost of transportation to rise. This could result in lower demand for transportation and could have an effect on industry jobs, although that is not expected to happen in the near future. Improvements to Colorado's transportation system could help offset any decrease in demand for transportation. One recent improvement is the University of Colorado A Line between Denver and DIA, which opened on April 22, 2016.

The Utilities Sector, which represents only 1.8% of TTU, added 100 jobs in 2015, a 1.2% increase. Utilities showed flat year-over-year growth in May 2016. Employment has remained steady over the last 10 years, averaging 8,100 jobs since 2006. Black Hills, a natural gas and electric utility, has acquired SourceGas, a natural gas utility that serves people in Colorado and the broader Midwest region. This acquisition could result in layoffs within Colorado's utility industry. Xcel Energy recently announced that it will partner with Vestas to build a 600-megawatt

windfarm, providing energy for up to 180,000 homes in Colorado according to Commercial Property Executive.

Information

The Information Sector has grown extensively in Colorado in terms of output over the past decade. Real GDP growth for the Information Sector rose 1.9% in the state in 2015 and was up in 11 of the last 12 quarters. Industry GDP grew 24.7% over the past 10 years. In terms of real GDP in the state, data processing, internet publishing, and other information services grew 14% in 2014 (most recent data available at the sector level); broadcasting and telecommunications rose 6.1%; publishing grew 0.8%; and motion picture and sound recording industries declined 6.4%. Information real GDP per employee increased 1.4% in 2015 and 4.2% in 2014.

The impact on employment has been less pronounced. Information employment peaked at 113,300 jobs in January 2001 and has declined in 10 of the last 15 years. Total employment in May 2016 was 71,800 jobs, or 36.6% below peak, but up 1.8% year-over-year, recording 37 consecutive months of year-over-year growth. The Colorado Department of Labor indicated only minor downward revisions in the latest Quarterly Census of Employment and Wages (QCEW) analysis—400 jobs for October, 100 jobs for November, and flat for December. The workforce at companies such as Zayo and Level 3 continues to grow, while at CenturyLink and Time Warner it is declining following mergers. Nationally, employment in the Information industry grew 0.9% in 2015, outperforming industry growth in Colorado. National growth continues in 2016.

The publishing industry has recorded 15 years of annual employment declines, standing 45.7% below peak levels recorded in 2000—the last year the sector added jobs.

The Software Publishing Sector added 500 jobs in 2015, while Telecommunications lost roughly 400 jobs during the year.

Software publishing often attracts the largest share of venture capital (VC) funding in the state. A PricewaterhouseCoopers (PwC) *MoneyTree* report indicated that software received \$4.5 billion in VC investment in Q4 2015 and \$5.1 billion in Q1 2016. These amounts are 38% and 42%, respectively, of total VC investment in the nation. In Colorado, software received \$143.9 million in VC investment in Q4 2015 and \$10.6 million in Q1 2016, representing 51% and 24%, respectively, of VC activity. More broadly, when including software, IT services, and media and entertainment, a large amount of VC activity is targeting information-related sectors in Colorado (72% in Q4 2015, 30% in Q1 2016). TapInfluence Inc., a marketing automation service, received \$9.6 million in funding in Q1 2016, the largest investment in the state. Cool Planet, a biocarbon and hydrocarbon engineering company, received \$9.2 million during the quarter, according to the PwC report. These two companies received more than 43% of the total VC investment in the Colorado in Q1 2016.

Financial Activities

The Financial Activities Sector includes establishments primarily engaged in financial transactions, as well as establishments engaged in renting, leasing, or otherwise allowing the use of tangible or intangible assets. The sector continues to post modest gains in employment, growing 3.6% in 2015 and adding 3,500 jobs year-over-year as of May 2016. This sector's value to the economy continues to grow as well. According to the Bureau of Economic Analysis, in 2015, Financial Activities nominal GDP totaled \$62 billion, or 19.7% of GDP in Colorado. Real GDP grew 4.6% year-over-year, making it the fifth fastest-growing

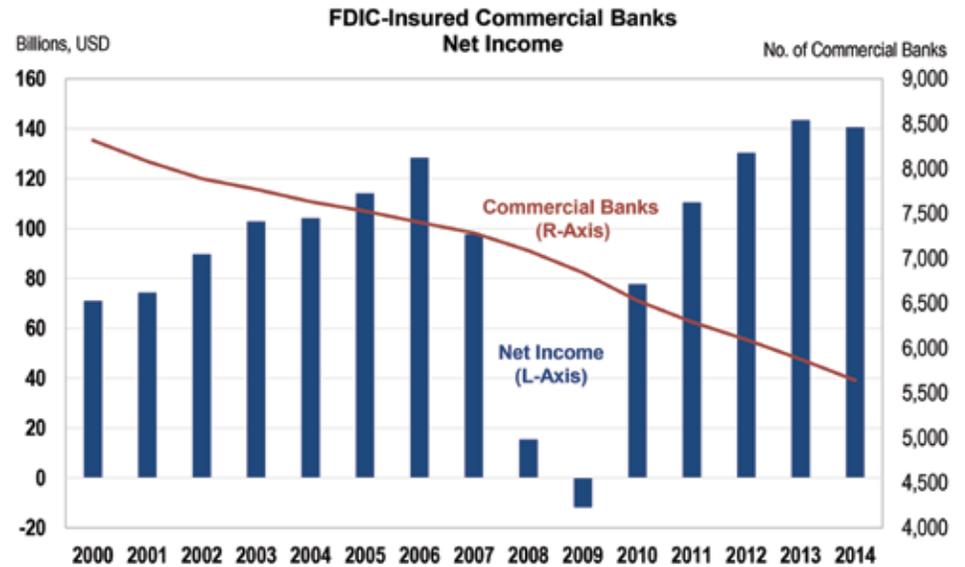
industry in the state. The majority of this increase can be attributed to the growing real estate industry in Colorado.

Interest rates for 10-year government bonds around the world remain low. As of June 9, the United States had one of the highest yield rates among the large global economies, at 1.68%. The United Kingdom, Germany, and Japan had yield rates of 1.24%, 0.03%, and -0.13%, respectively. These low and negative interest rates are making it difficult for investors to make income. They also indicate a lack of confidence in the global economy. If yield rates continue to decline, the banking industry could see a decline in growth as well as lower profits in the future.

On the national level, the banking industry experienced a mixed first quarter. According to the Federal Deposit Insurance Corporation (FDIC), 61.4% of insured institutions had year-over-year growth in the first quarter while only 5% were unprofitable, the lowest percentage in 18 years. However, noncurrent loans increased for the first time in six years, mainly due to low oil and gas prices that are negatively impacting the energy sector.

The Colorado banking industry had a more positive first quarter than the national banking industry. The FDIC reported that the number of Colorado institutions decreased from 95 in Q1 2015 to 91 in Q1 2016. In spite of this, Colorado institutions saw total assets grow year-over-year by 15.9%. Noncurrent loans as a percent of total loans decreased from 0.69% in Q1 2015 to 0.55% in Q1 2016.

Real Estate, Rental, and Leasing employment in Colorado grew 7.5% year-over-year in May 2016, indicating growth in the housing industry. More people are entering the housing market, which has caused construction to pick up as shown in the 33% increase in the value of residential construction year-to-date in April 2016 compared to 2015. Housing prices are also increasing significantly; according to the Federal Housing Finance Agency, Colorado home prices climbed by 9% from Q1 2015 to



Source: Federal Deposit Insurance Corporation.

Q1 2016, ranking fifth in the United States. Single-family home permits and multifamily building permits also increased, 21.4% and 8.9%, respectively, in Q1 2016 compared to 2.9% and -23.2% in Q1 2015. Even with a strong housing market, the noncurrent rate on total real estate loans continues to drop. The rate in Q1 2016 was 2.32%, down from 3.09% a year earlier. The value of the real estate industry grew in 2015 with the contribution to the state GDP increasing by about 8%, from \$40.9 billion in 2014 to \$44.2 billion in 2015.

In 2015, the stock market had a slower year than in 2014. As of June 7, 2016, the S&P 500 and Dow Jones had returns of 3.8% and 3%, respectively, year-to-date, while the Russell 2000 grew 3.9% and the NASDAQ decreased 0.9%. With the election and subsequent change of administration only a few months away, expect the market to become more volatile.

Professional and Business Services

The Professional and Business Services Sector (PBS) is one of the services-providing supersectors. PBS consists of three subsectors: Professional, Scientific, and

Technical Services; Administrative and Support and Waste Management and Remediation Services; and Management of Companies and Enterprises. Statewide, the PBS Sector added 11,300 jobs (2.9%) in 2015. Year-over-year growth in May 2016 was 2.2%, an 8,700-job increase, bringing the sector total to 405,700. Nominal GDP for PBS in 2015 was \$45.2 billion, 14.3% of Colorado's total nominal GDP. Real GDP grew 5% year over year in 2015, making PBS the fourth fastest-growing industry in the state.

Professional, Scientific, and Technical Services (PST) accounted for 51.2% of total PBS employment in May 2016. PST also accounted for the majority of the GDP within the supersector, 62.4% in 2015. The Management, Scientific, and Technical Consulting Services (MST) subsector is the second-smallest subsector but was the top year-over-year performer, increasing 7.5% in 2015. The committee anticipates strong continued growth in MST due to significant in-migration of transplant millennials. The largest subsector, computer systems design and related services, added 2,800 jobs from 2014 to 2015, rising 5.5%. Legal services did not experience any job growth in 2015. Firm consolidation, automation, and globalization within the legal industry appears

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Continued from page 9

to be balancing any increased demand for legal services. Employment in architectural, engineering, and related services rose 1.6% in 2015, the slowest growth since 2011. This may be attributed to the slowdown of the oil and gas industry. Many projects have been put on hold as companies await a recovery in oil prices. Other factors include more technology and automation of certain tasks within engineering companies.

Administrative and Support and Waste Management and Remediation Services accounted for 39.5% of total PBS employment in 2015 and increased by 3,000 jobs in 2015, a gain of 1.9%. Services to buildings and dwellings increased by 3.4%, or 1,400 jobs, in 2015. Colorado's housing boom is likely driving this growth as the number of housing units and occupied units increases. This subsector should continue to grow as long as the state's housing market remains strong, but slowing could occur if more buildings become vacant. Business support services declined in 2015 by 4.4%, and employment services increased by 1.3%.

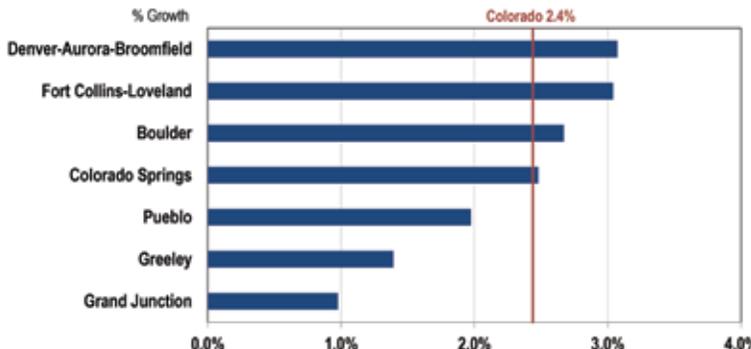
Management of Companies and Enterprises (MCE) gained 1,200 jobs in 2015, growing 3.4% year-over-year. However, this sector has lost jobs for four-consecutive months ending in May 2016, indicating that growth may be flatter in 2016. MCE is difficult to estimate because it is generally composed of holding companies operating in a vast array of areas. Examples of firms in this sector include Vail Resorts and Texas Roadhouse, two companies operating in very different fields. Growth within this sector depends on the success of the components held by each individual company.

Education and Health Services

The Education and Health Services (EHS) Sector includes establishments that provide instruction and training by private schools and universities, as well as establishments that

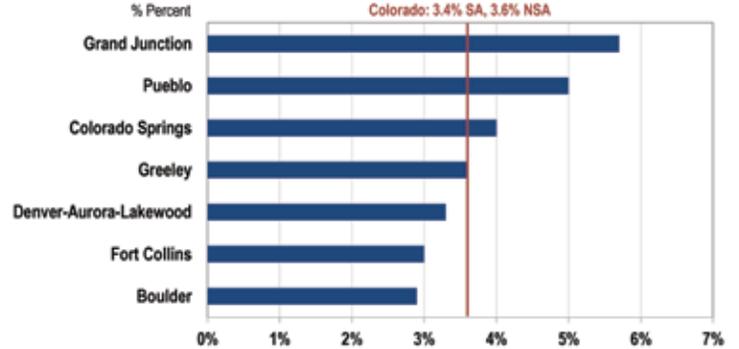
Colorado MSA Metrics

Employment Growth YoY Change by MSA – May 2016



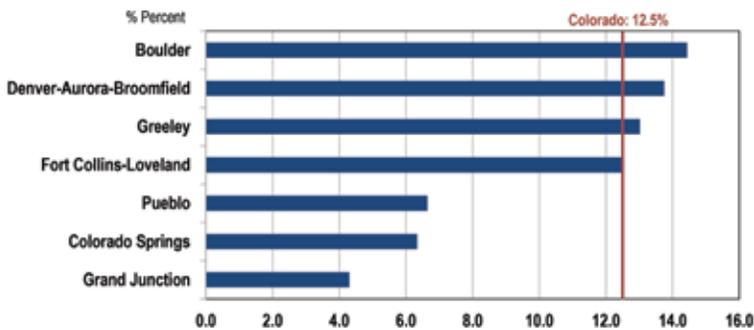
Source: Bureau of Labor Statistics, Current Employment Statistics (Seasonally Adjusted).

Unemployment Rate by MSA – May 2016



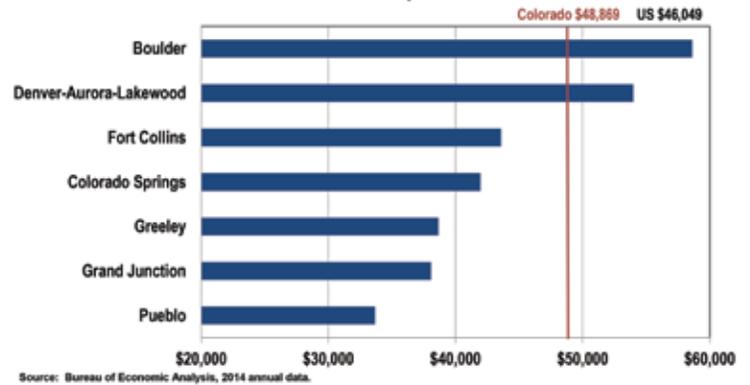
Source: Bureau of Labor Statistics, Current Employment Statistics (Not Seasonally Adjusted).

FHFA Home Prices Q1 2015 – Q1 2016



Source: Federal Housing Finance Agency, All Transactions Indexes (Not Seasonally Adjusted).

Colorado Per Capita Personal Income



Source: Bureau of Economic Analysis, 2014 annual data.

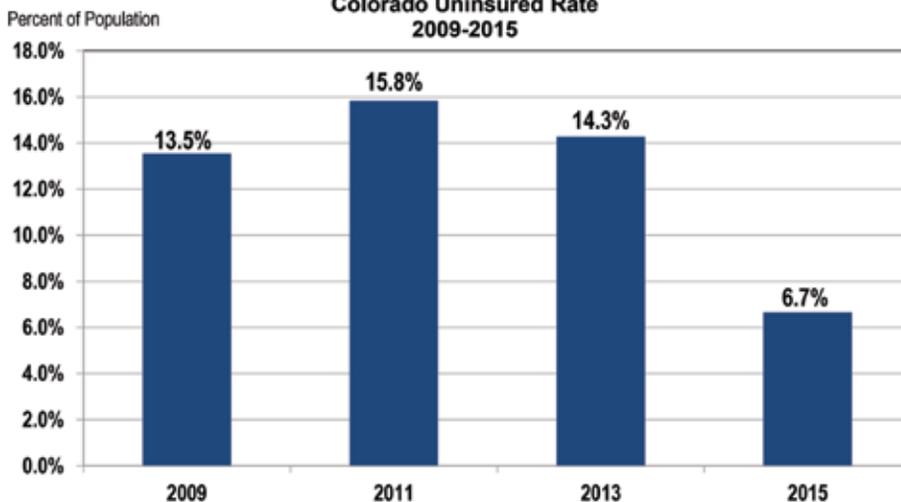
provide health care and social assistance to individuals. This sector did not suffer major employment losses in the recession; Health Care and Social Assistance has shown uninterrupted growth over the past decade, and Educational Services has grown steadily

since a slight four-month dip in 2009. Employment in EHS was 321,100 as of May 2016, growing by 3.1% year-over-year. In 2015, the average annual wage of \$47,152 for this industry was 2.8% higher than the average wage in 2014. Colorado has a lower

concentration of EHS employment compared to the nation (83% of the national average). In 2015, nominal GDP for EHS totaled \$22 billion, equaling 7% of total GDP in Colorado. Real GDP grew by 5.7% year-over-year, making EHS the third fastest-growing industry in the state.

Accounting for nearly 88% of the EHS Sector's employment, Health Care and Social Assistance grew by 7,300 jobs (2.7%) year-over-year in May 2016, continuing its trend of steady growth. The primary drivers of employment growth are Ambulatory Health Care Services, growing 3.9% year-over-year in May 2016, and Hospitals, rising 4.2% in the same period. Other contributors to the growth include Nursing and Residential Care Facilities and Social Assistance, increasing 1% and 1.9% year-over-year, respectively.

Colorado Uninsured Rate 2009-2015



Source: Colorado Health Institute.



Photo courtesy of VISIT DENVER

The demand for health care continues to increase due to an aging population and the availability of more health care options under the Affordable Care Act. Colorado's uninsured rate dropped from 14.3% in 2013 to 6.7% in 2015. This change is largely due to the expansion of Colorado's Medicaid Program and improvements to Connect for Health Colorado, the state's online health insurance marketplace. In previous years, the website was plagued with technical issues that made registration difficult. In November, Colorado residents will also be voting on Amendment 69, also known as ColoradoCare, which, if passed, would establish a taxpayer-funded, single-payer health care system for all Colorado residents.

Looking forward to 2017, individual health plan premiums are expected to rise significantly as the demand for health care increases and certain providers plan to drop their individual options altogether. According to a June 2016 article in the *Denver Post*, the highest rate increases will reach between 25% and 40%. UnitedHealthcare and Humana Insurance will be exiting the

individual market as a whole while Anthem Blue Cross and Blue Shield will now only offer an HMO plan. The increased demand for available health care options requires more talent and improved infrastructure, making it more challenging for health care providers to earn a profit. The market is expected to reflect these challenges through price increases. Premiums that are more expensive may cause some consumers to put off medical treatment due to prohibitive costs.

The private education subsector has been shrinking slightly through May 2016, but shows signs of stabilization. According to the Colorado Department of Higher Education, Colorado has 90 private colleges as of May 2016, a 5.9% drop from one year ago. Private, nonprofit schools, including the University of Denver and Colorado College, continue to show strong enrollment. Occupational schools have experienced growth of 2.6% year-over-year, with 356 schools currently operating. Employment within Educational Services totaled 40,000 in May 2016, up 6.1% year-over-year. The committee projects employment to remain

flat or experience slight growth throughout the remainder of 2016.

Leisure and Hospitality

The Leisure and Hospitality Sector covers establishments in the tourism, travel, and recreational industries.

Leisure and Hospitality employment in Colorado increased 5% year-over-year in May 2016, with absolute growth of 15,500 jobs. Leisure and Hospitality made up 4.8% of Colorado's 2015 nominal GDP, and the industry recorded 3.5% real GDP growth year-over-year.

Denver Tourism

According to Longwoods International, Denver experienced a record-setting year for tourism, making up about 50% of all overnight travel spending in Colorado. Denver welcomed 16.4 million overnight visitors in 2015, up 6% over 2014. Nationally, total overnight trips increased by just 2%. A total

of 13.8 million visitors traveled to Denver for leisure, while 2.6 million visited for business and conventions. Business travel to Denver grew 9% year-over-year in 2015, while national numbers were flat. Overnight visitors spent a record \$5 billion in 2015 (9% more than 2014), over \$1.5 billion on hotels and lodging, and more than \$1 billion on food and beverages. Business travelers spent \$149 per day on average in 2015, while leisure visitors spent \$136 per day. Denver's image as a travel destination improved, too, with nearly 8 of every 10 visitors agreeing that Denver is a place they would "really enjoy visiting again." Top attractions for out-of-state visitors included Red Rocks Park and Amphitheatre, the Denver Zoo, and sporting events. Denver tourism experienced a slow start in 2016. Due to the sluggish oil and gas markets, a number of energy-related conventions slated to take place in Denver were cancelled, resulting in lower hotel occupancy and visitation. However, the forecast for the remainder of 2016 is more positive, especially around the Labor Day holiday.

DIA remains the fifth-busiest airport in the nation, growing 3.6% year-over-year in April 2016 in total passengers. The Colorado Springs Airport had a loss of approximately 933 total passengers, or 2.1%, year-over-year in March 2016. Three hub airlines and increased service from low-cost carriers have helped rank Denver as a destination offering



Photo courtesy of Rich Grant and VISIT DENVER

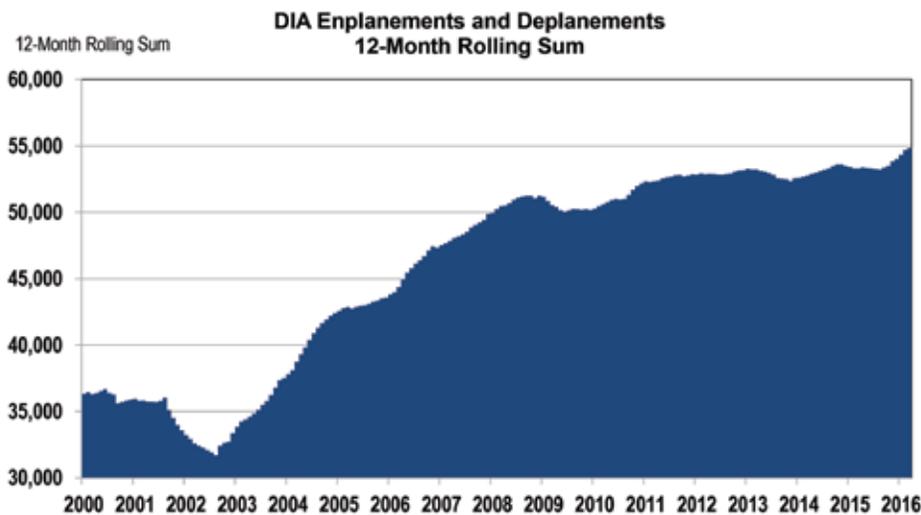
competitive airfare pricing. Delta Airlines continues to experience the greatest success of any airline operating in Denver, increasing total passenger traffic by 14.9% year-over-year in April 2016. Other airlines experienced moderate increases or decreases in total passenger traffic in the same period. The University of Colorado A Line began operating in April 2016, providing direct commuter rail service from Denver's Union Station to DIA. The line provides a cost-effective and convenient way for visitors to travel from

the airport to downtown Denver. The Westin Denver International Airport hotel opened in November 2015, providing more than 500 rooms and a 37,500-square-foot conference center connected to the airport.

According to Colorado Parks and Wildlife, state park visitation reached a record 12.5 million visitors in 2015, an increase of 4.3% from 2014. National Park Service data indicate that national park visitors in Colorado reached 7.1 million in 2015, up 17.3% from 2014. Rocky Mountain National Park visits were brisk in the first half of 2016, around 485,000 visitors through April. All national parks are expected to see continued strong visitation as the National Park Service continues to celebrate its 100th anniversary through August. This celebration should increase tourism and visits to both national and state parks.

Colorado Ski Industry

After a stagnant 2014–15 ski year, Colorado's ski industry rebounded during the 2015–16 season. Colorado Ski Country USA (CSCUSA) reported that 7.4 million



Source: Denver International Airport.

skiers visited its 21-member resorts during the 2015–16 season, a nearly 5% increase from the 2014–15 season. Combined with increased skier visits to the four Colorado ski areas operated by Vail Resorts, the industry reached an all-time high of 13 million skier visits in the 2015–16 season. Nationally, skier visits rose a mere 0.05% due to poor weather conditions across the country. Colorado benefited from well-timed storms and a significant amount of snow early in the ski season. The state's ski resorts accounted for 24% of the U.S. skier market in 2015–16.

Other Services

Establishments in the Other Services Supersector are services not specifically categorized elsewhere in the classification system. The three subsectors in this supersector are highly fragmented and diverse as a result. Car washes, beauty salons, religious organizations, funeral homes, grantmaking foundations, and labor unions are just some examples of the type of industries in this sector. Population demographics and disposable income are the main influencers of industry growth.

Other Services make up 4% of total state employment. The sector added 2,300 jobs in 2015, a growth rate of 2.3%. Strong gains in the Repair and Maintenance (5.6%) and Personal and Laundry Services (4.4%) subsectors outweighed stagnation in the largest subsector, Religious, Grantmaking, Civic Professional and Similar Organizations. Repair and Maintenance added 1,300 jobs in 2015 and Personal and Laundry Services added 1,100 employees. The Religious, Grantmaking, Civic Professional and Similar Organizations Sector constitutes 49.8% of the Other Services Supersector, and typically experiences growth in years with general elections and declines in years without them. It is followed by Personal and Laundry Services (26.4%) and Repair and

Maintenance Services (23.8%). Demand will continue for repair and maintenance of cars purchased in recent years as auto sales continue to show growth.

Nominal GDP for the Other Services Supersector totaled \$7.3 billion in 2015, equaling 2.3% of total GDP in the state. Real GDP grew 2.5% year-over-year in 2015, making it the ninth-fastest growing industry in Colorado.

Government

The Government Supersector comprises federal, state, and local government employees, including state university and school employees. In 2015, the Government Supersector made up 16.4% of total employment in Colorado, employing 416,700 people. Sector employment has surpassed pre-recession levels. Moderate revenue growth should buoy government employment. During 2015, the Government Supersector in Colorado made up \$38.1 billion of the total nominal GDP. Government contribution to real GDP grew 0.7% from 2014 to 2015.

Based on data from the BLS and estimates from the Colorado Business Economic Outlook 2016, each subsector at the federal, state, and local level within Government performed better than forecast in 2015, from 200 to 1,500 jobs. The only exception was local general government, which declined by 500 jobs. The slowdown in the oil and gas industry will weigh on government revenue as severance taxes decline due to lower oil and gas prices alongside lower resource production (oil, gas, and coal) in some areas. Rising residential and commercial property values could help offset the loss in severance taxes as the Colorado real estate boom continues. Colorado has reached its TABOR limit, meaning that any tax revenue growth that exceeds population growth plus inflation will have to be returned to the taxpayers under the 1992 amendment. Tight state

budgeting will dampen employment growth and state spending. Colorado's general fund has increased each year since 2010, and is forecast to do so through the end of 2018. Through May 2016, current levels of employment in the Government Sector are 7,000 jobs (1.7%) above the committee estimate of 418,200.

In 2011, federal government employment began declining, but reversed the trend in 2015, adding 700 jobs for year-over-year growth of 1.3%. The committee's expectation of 53,200 total jobs was exceeded by 200 jobs in 2015. Federal government jobs are the smallest subsector of government jobs in Colorado, making up just 12.8% of the state total.

State government is adding more jobs than expected. State educational services constitutes 74.1% of state government, adding 2,000 jobs in 2015. Enrollment at public institution (community, two-year, and four-year colleges) continued to decline in 2014, by 3,203 students, following a decrease in 2013. Four-year public colleges were the only state education institutions that saw an increase in enrollment. Continuing a 2013 trend of adding jobs while enrollments decline, state educational services employment grew by 2%, adding 1,300 jobs in 2014. State government educational services has been recording positive year-over-year growth since 2007. General state government employment grew by 700 jobs (1.6%) in 2015 as well.

Local government employment grew in 2015 for the second-consecutive year, adding 4,700 jobs (1.9% increase). This subsector accounted for a majority of Colorado's government employment in 2015, 60.2% of government jobs. General local government employment added 1,300 jobs in 2015, an increase of 1.1%, marking the third year of positive growth since 2010. Local government educational services grew by 2.6% in 2015, representing 3,400 jobs. Elementary school enrollment declined in 2015 and 2016, but middle school and high

school enrollments increased over that same period. These changes resulted in a net K–12 enrollment increase of 12,568 students (1.4%) in 2015 and 10,078 students (1.1%) in 2016.

The most recent report from the Colorado Office of State Planning and Budgeting (OSPB) estimated that the general fund will increase each year through 2018. The June 2016 report discussed weaker revenue growth stemming from a weaker oil and gas industry, less stock market gains, a slowing global economy, and increasing value of the dollar causing corporate profits to decline.

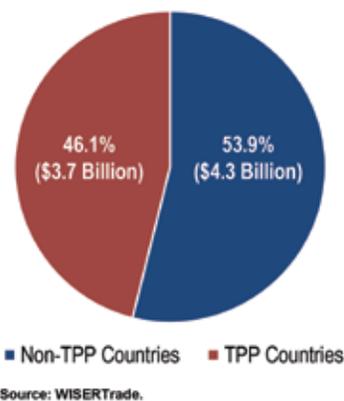
Home values in Colorado continued to rise in 2015 and in the beginning of 2016. Demand for housing is increasing as more people migrate to the state. Higher home prices increase revenue from property taxes, benefiting local government institutions that depend on property and sales taxes for revenue. The increase in revenue from property taxes has been mitigated by the lower ad valorem tax revenue from the oil and gas industry due to decreasing prices. The home price increases are focused in urban areas and cities; however, local governments outside of those areas may not benefit from the boom.

International Trade

Based on data from the BEA, U.S. net exports in Q1 2016 declined by 3.7% from Q1 2015, due to a larger increase in imports than exports over that period. Both imports and exports have declined for two consecutive quarters ending in Q1 2016. According to WISERTrade, in 2015 Colorado's top five export markets were (in order): Canada, Mexico, China, Japan, and Malaysia.

In 2015, exports from Colorado declined by 4.9%, from \$8.4 billion in 2014 to \$8 billion in 2015, a drop of \$408.1 million. Year-to-date through April 2016, Colorado exports were down by 11.1% compared to the same period the year prior. Trade with Canada, Colorado's top export partner, has continued its steep decline that began in

Percentage of Colorado International Trade to TPP and Non-TPP Countries – 2015



2014. Exports to Canada fell by 20.3% in 2014 and 14.4% in 2015, and the April 2016 year-to-date value is 15.1% below April 2015 year-to-date. A rebound in oil and gas prices will begin to soften the decline in exports to Canada, though they will remain below previous levels due to lower prices and weaker demand. Japan also saw a decline in 2015 of 8.3%, while Mexico, China, and Malaysia each increased by 0.8%, 1.3%, and 5.6%, respectively. Malaysia is Colorado's only top five export partner to show an increase in trade for year-to-date in 2016, recording an 11.4% gain.

Optical, photographic, medical or surgical instruments, Colorado's top export commodity, declined 3.8% in 2015, followed by industrial machinery including computers, which fell 0.1%; electric machinery increased 1.9%; meat and edible meat slid 15.7%; and photographic or cinematographic goods dropped 4.2%. Electric machinery is the only export commodity in Colorado's top 10 to grow in 2015 (1.9%) and is also the only export in the top 10 to show year-to-date growth in April 2016, 2.7%, compared to the same period in 2015. Miscellaneous articles of base metal is a growing export for Colorado, ranking 11th in April 2016 year-to-date exports and recording 53.9% and 48.2% growth in 2014 and 2015, respectively.

The top three import countries for Colorado, in order, are Canada (\$3.2 billion), China (\$2.4 billion), and Mexico (\$1.7 billion). Imports in 2015 declined by 5.3%

(\$751.7 million) overall, led by Colorado's top importing partner, Canada, which dropped 25.6%. Industrial machinery including computers is now Colorado's top import, replacing the mineral fuel, oil, etc.; bitumen substitutes; mineral wax commodity after it experienced a precipitous 38.1% decrease in 2015. Electric machinery; optical, photographic, medical or surgical instruments; and aircraft, spacecraft, and parts round out Colorado's top five import commodities; these categories grew by -9.1%, 4.9%, and 114.9%, respectively, in 2015.

The Trans-Pacific Partnership (TPP) is an important trade agreement as it will affect Colorado exports; it includes 12 member countries: Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the United States, and Vietnam. TTP-member nations accounted for 46.1% of Colorado exports in 2015, a percentage that would only increase should the agreement be approved. TPP strives to eliminate tariffs and other trade-inhibiting laws that affect the movement of goods internationally. According to the Office of the United States Trade Representative, "The Trans-Pacific Partnership (TPP) levels the playing field for American workers and American businesses, leading to more Made-in-America exports and more higher-paying American jobs here at home." 

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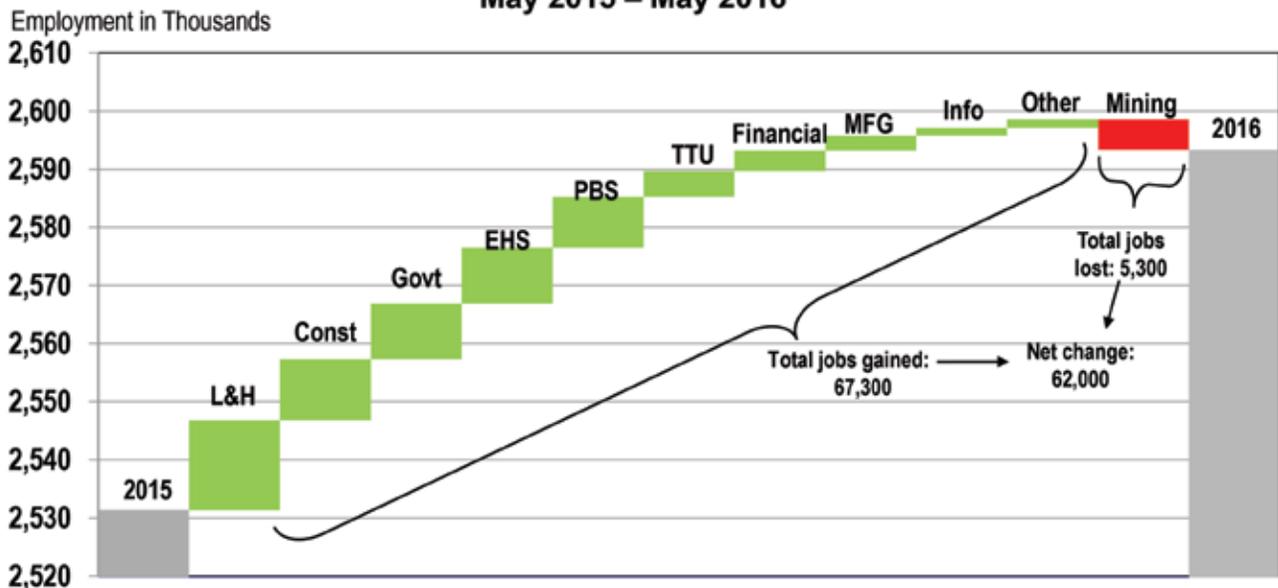
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**Colorado Employment Change
May 2015 – May 2016**



Source: Bureau of Labor Statistics, Current Employment Statistics (Seasonally Adjusted).