

COLORADO BUSINESS REVIEW

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Colorado 2021 Midyear Economic Update



Overview

The U.S. economy peaked in February 2020, then fell into a two-month recession that rendered the shortest downturn in U.S. history, according to the National Bureau of Economic Research (NBER). This ended a record expansion that began in 2009 and spanned 10 years 8 months. National real GDP declined at an annualized rate of 5.1% in the first quarter and 31.2% in the second quarter of 2020, according to estimates from the Bureau of Economic Analysis (BEA), before recording exceptionally strong growth over the following four quarters (33.8% Q3 2020, 4.5% Q4 2020, 6.3%

Q1 2021, and 6.5% Q2 2021). GDP fully recovered as of the second quarter of 2021, topping prerecession levels. The recession and recovery have been confounding, different from prior cycles in unpredictable ways. Personal income posted strong growth; services took a disproportionate hit due to moratoria on travel, tourism, and other in-person interactions; and select goods surged as people improved their indoor living space and moved to the great outdoors for leisure.

Over the two quarters, personal consumption expenditures have continued to recover, growing 11.2% and

11.4% in Q1 and Q2 2021, respectively. Gross private domestic investment decreased 2.3% and 3.5% in Q1 and Q2, but the subset of fixed business investment increased 13% and 3%. Government expenditures increased at an annualized rate of 4.2% in Q1 but slipped 1.5% in Q2. Imports rose 9.3% and 7.8% over the past two quarters, but exports fell 2.9% in Q1 before rising 6% in Q2.

The labor market has been slower to recover than total GDP. The U.S. lost a record 22.4 million jobs (14.7%) in March and April and gained back 16.7 million jobs from May 2020 through July 2021. However, employment remained down 5.7 million jobs (3.7%) from the prior peak.

Colorado performed modestly better than the nation, losing 13.3% of total employment, or 376,300 jobs, in early 2020 as consumer demand fell and government mandated the closure of businesses to contain the COVID-19 virus. Like the nation, the state's employment recovery began in May—290,400 jobs were added back from May 2020 through July 2021. However, Colorado employment remained down 3%, or 85,900 jobs, from the prior peak.

Heading into 2021, the Colorado Business Economic Outlook estimating committee projected job growth of



FROM THE EDITOR

Coming out of the shortest recession on record, the U.S. and Colorado economies are well on the road to recovery; however, uncertainties remain, ranging from prices and supply chains to human behavior and the virus itself. The Delta variant is wreaking havoc in some parts of the country just as workers are headed back to the office and students are gearing up for the fall term. We present the midyear review of the Colorado economy in this issue of the *Colorado Business Review*, where we evaluate the observed data halfway through 2021 and update our expectations for the remainder of the year. The information presented is compiled from remarks made by Colorado Business Economic Outlook estimating committee chairs at a roundtable meeting held in late June. Industry sector summaries include comparisons of the current economic situation to the forecast presented last December. In addition, key factors influencing recent economic trends are noted.

We greatly appreciate the time and input from the individuals who contributed to this update; their names are listed on the back page. I also acknowledge the BRD research staff— Brian Lewandowski, Jake Dubbert, and Max Olson—who collected data and conducted additional analysis for this issue.

Please contact me directly at 303-492-1147 with any comments or questions.

—Richard Wobbekind

40,500 jobs (1.5%). At a meeting held in late July, the chairs of the 14 Colorado Business Economic Outlook Forum committees collectively reported the recovery from the pandemic. The revised outlook for Colorado employment growth in 2021 is 89,000 jobs (3.4%), with gains spanning nearly every major industry in the state. With the hardship plaguing the labor market shifting from a lack of demand for workers to a shortage of supply, the employment recovery is not a matter of *if* the jobs will come back, but *when*. The Business Research Division pegs the employment recovery in Colorado will occur in 2022.

According to the Leeds Business Confidence Index (LBCI), business confidence remained at record high levels ahead of Q3 2021, driven by record optimism about the state economy, industry sales, and industry hiring; the index remained elevated looking two quarters out to Q4 2021. Optimism was centered around increased demand, reopening of the economy, decreasing COVID cases, and the adoption of the vaccine; however, concerns remained about worker shortages, rising inflation, and supply chain disruptions.

Colorado's unemployment rate spiked from 2.8% in February 2020 to 12.1% in April 2020 but improved to 6.1% in July 2021, ranking the state the 36th-lowest in unemployment in the nation. Initial unemployment claims improved considerably from the 104,572

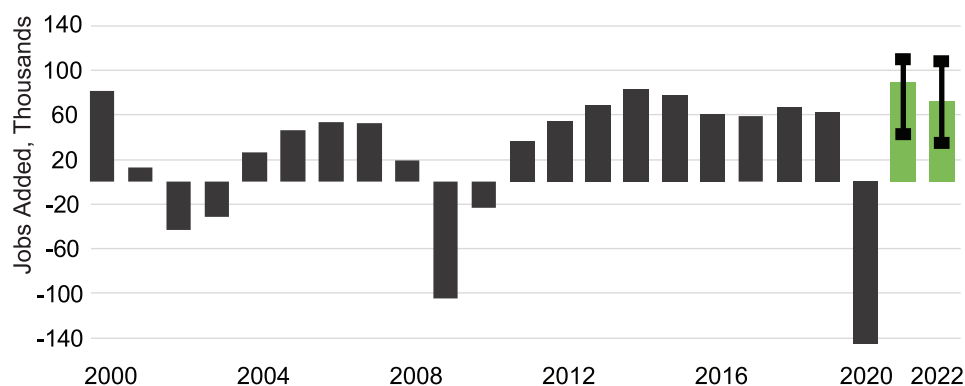
recorded the week of April 11, 2020, with fewer than 4,000 initial claims the week of August 14, 2021. For context, initial claims averaged 1,899 per week in 2019. Data in the following sections are from the Colorado Department of Labor and Employment, Current Employment Statistics (CES).

Population and Employment

According to the State Demography Office, Colorado's population increased by approximately 49,000 between 2019 and 2020. This was slower than expected and represents a continued slowdown driven by the same culprits: fewer births, increased deaths, and lower net-migration. Births totaled 62,000 (down from peak of 70,000 in 2007), while deaths were at 42,000, up from 38,000 in 2019. Natural increase (births minus deaths) slowed to 20,000 in 2020, significantly below the peak of 41,000 in 2007. Counties along the Eastern Plains, San Luis Valley, and Northwest Colorado continue to see population declines.

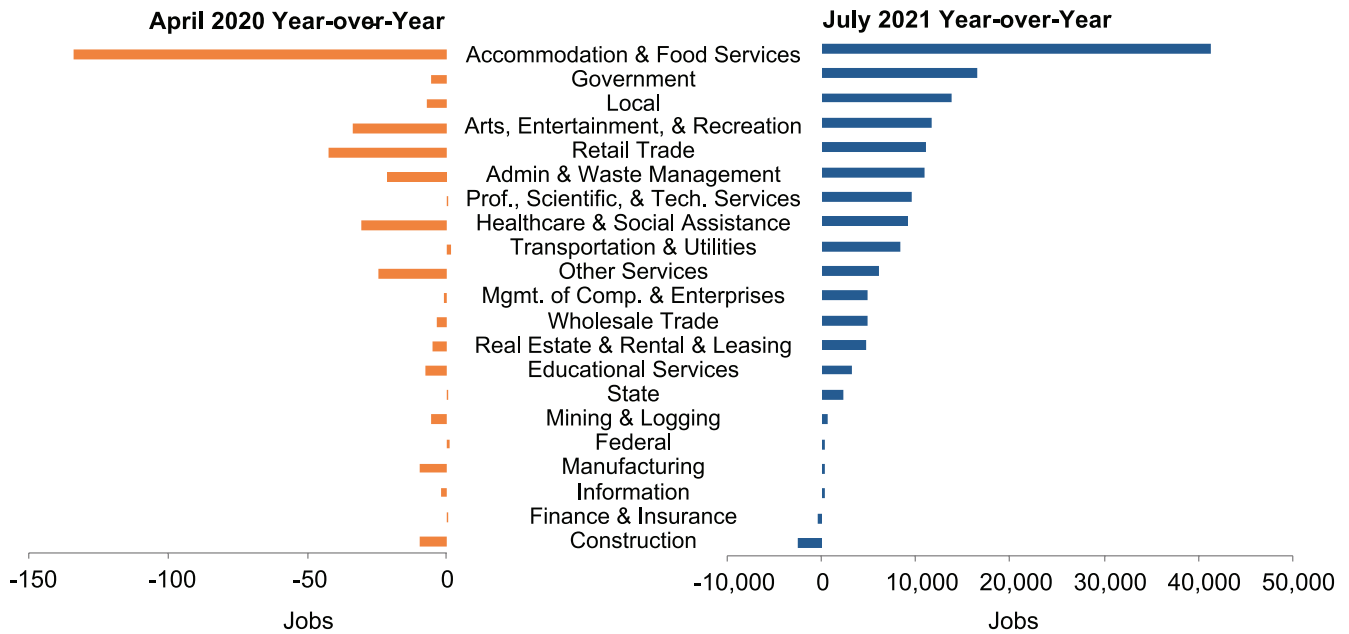
For 2021, births are forecast to be around 61,000, slightly lower than 2020, with a further increase in deaths to 46,000 due to COVID-19. Natural increase is forecasted to be at 15,000—the lowest levels ever observed in the state. Net migration is expected to be around 30,000 in 2021, coming in lower due to a continued slowdown in international migration. Overall population growth in Colorado is expected to be

COLORADO EMPLOYMENT GROWTH



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

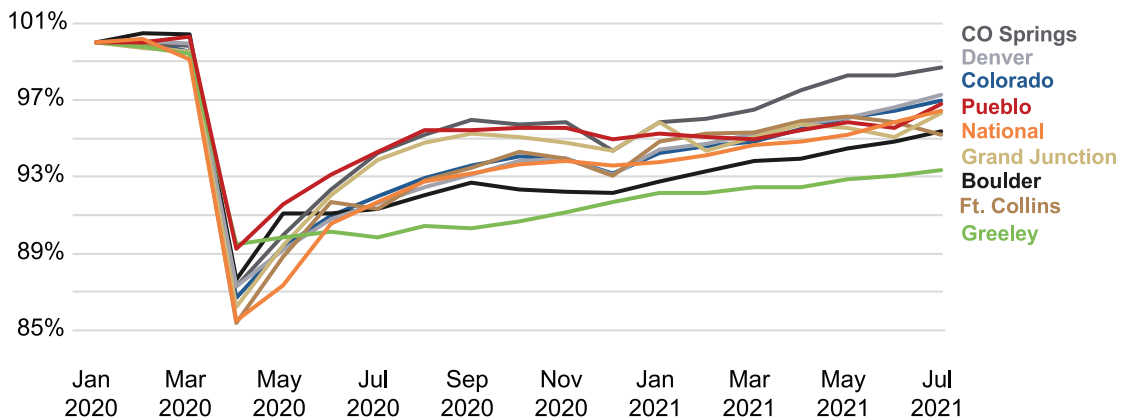
COLORADO EMPLOYMENT CHANGE



Source: Bureau of Labor Statistics.

EMPLOYMENT IN CURRENT DECADE

Percent Change from January 2010



Source: Bureau of Labor Statistics (Seasonally Adjusted).

around 45,000, slightly lower than 2020. Migration to the state is uncertain during the pandemic and as work-from-home and digital nomads gain popularity, more people can move and live where they want, which will challenge the concept of residence. While births have slowed in the state, an uptick in births is expected in the next few years.

Colorado total nonfarm employment in July 2021 was 2.7 million, a year-over-year increase of 5.4%, or 140,500

jobs. While employment has rebounded significantly in the state, it still remains down 3%, or 85,900 jobs, from January 2020. All but one sector in the state posted employment gains year-over-year, with Leisure and Hospitality observing the largest increase (20.7%), followed by Professional and Business Services (6%), and Other Services (5.9%). The revised outlook for 2021 is a gain of 89,000 jobs (3.4%) in the state.

The Denver-Aurora-Lakewood MSA observed the highest year-over-year employment growth in July 2021 (6.2%), followed by Colorado Springs (4.7%), Boulder (4.4%), and Fort Collins-Loveland (4.2%).

Colorado's unemployment rate has significantly retreated from the record highs seen in April 2020 due to the pandemic, sitting at 6.1% in July 2021, giving the state the 36th-lowest unemployment rate in the nation.



The Boulder MSA had the lowest unemployment rate in the state in July at 4.9%, followed closely by Fort Collins (5.1%), Denver-Aurora-Lakewood (6%), Greeley (6.1%), Colorado Springs (6.2%), and Grand Junction (6.3%). The Pueblo MSA had the highest unemployment rate in the state, at 8.6%. Unemployment rates improved across the state in July 2021 from the record lows seen in April 2020 but still remain elevated.

Colorado's nominal GDP was \$390 billion in 2020. In terms of real GDP, Colorado has the 16th-largest overall. In 2020, Colorado's real GDP declined 1.5% year-over-year from 2019 as COVID-19 took a major toll on the economy. However, the state's real GDP observed 1.4% growth year-over-year in Q1 2021, ranking it the 13th-best state for growth in the nation. The three largest industries by real GDP in 2020 were Financial Activities (19%); Professional

and Business Services (16%); and Trade, Transportation, and Utilities (15%). The three fastest-growing industries in 2020 year-over-year were Information (12.5%); Utilities (7.8%); and Financial Activities (1.5%). Real GDP declined year-over-year for the following industries: Agriculture, Mining, Wholesale Trade, Retail Trade, Transportation and Warehousing, Education and Health Services, Arts, Entertainment and Recreation, Other Services, and Government.

Agriculture

According to the Bureau of Economic Analysis, Agriculture, Fishing, and Hunting nominal GDP totaled \$2.5 billion in Q1 2021, but real (inflation adjusted) GDP decreased 23.5% year-over-year.

The COVID-19 pandemic created a highly volatile year for the agriculture industry. Consumer hoarding of foodstuffs at the height of the lockdowns and

supply chain disruptions caused many commodity prices to skyrocket to record highs. While the panic buying of last year has dissipated, severe drought conditions and supply chain disruptions remain in 2021, causing a continuation of elevated prices for commodities.

Colorado farmers and ranchers are experiencing drought once again. The western half of the state is experiencing extreme to exceptionally dry conditions. However, most of the eastern half of the state is considered to be out of the drought temporarily, which is good for the corn and wheat farmers.

Beef, which holds the largest share of Colorado's agriculture economy, experienced the shutdown of processing plants in 2020 due to COVID-19 outbreaks and is now being affected by record drought conditions. The Colorado drought has affected ranchers, with rangeland conditions worsening and

feed costs increasing, causing cattle producers to sell their herds. Corn prices are at eight-year highs, and while retail prices of beef are lower than all-time highs seen a year ago at the height of the pandemic when panic buying and plant closures skyrocketed prices, beef prices are on the rise again this year.

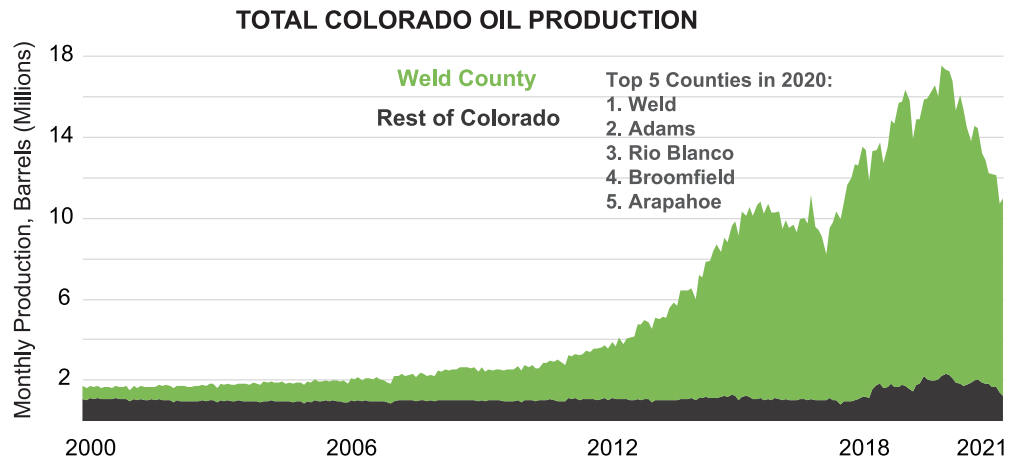
Wheat prices were volatile in 2020, with record drought conditions pushing prices to three-year highs. Record high temperatures and drought conditions in wheat-growing areas throughout the U.S. and Canada has reduced the supply, resulting in higher prices, which may benefit Colorado farmers. The Colorado wheat crop is expected to total 75.9 million bushels in 2021, drastically higher than the 41 million bushels in 2020. Colorado winter wheat production is projected to increase 41% year-over-year in 2021 but will remain 41% below the 2019 production level, according to the USDA.

Colorado food and ag exports are up 31% year-to-date through May 2021 compared to the same period last year, with much of the growth coming from beef exports. Beef is the state's top food and ag export, accounting for nearly 60% of the state's total exports.

According to the USDA, U.S. farm income is projected to fall \$9.8 billion in 2021, to \$111.4 billion. This is mainly due to lower direct government farm payments, which are forecast at \$25.3 billion in 2021, a 45.3% decline from 2020. The federal government protected the agriculture industry from the effects of the pandemic with federal payments that resulted in record farm income in 2020. The Coronavirus Food Assistance Program (CFAP) that was introduced in 2020 to help farmers was recently expanded this year to provide additional payments for eligible cattle and row crop producers.

Natural Resources & Mining

The Natural Resources and Mining sector comprises the subsectors of agriculture, forestry, fishing, and hunting; and mining, quarrying, and oil and gas extraction. This includes mineral solids



such as coal, petroleum extraction, and all natural gases.

Natural Resources and Mining employment declined 24.3% in 2020 but was up 3.6% year-over-year as of July 2021. Industry employment is expected to pick up in the second half of 2021 as oil prices increase and demand returns. The industry is projected to end 2021 down 700 jobs compared to 2020. In Colorado, the average annual pay for a mining and logging job in 2020 was \$91,867 compared to \$66,662 for all industries. The industry made up 0.7% of Colorado's covered nonfarm employment in July 2021, compared to 0.4% for the nation. Industry real GDP decreased 0.8% in 2020 and was down 5.3% year-over-year in Q1 2021.

Since hitting lows in April 2020 not seen since 1999, the average monthly price of WTI oil has increased rapidly over the past year, growing to just over \$71 per barrel as of the end of July—an 86.3% year-over-year increase. The precipitous collapse in oil prices last year was caused by a drop in demand due to the pandemic, as well as an OPEC dispute resulting in Saudi Arabia flooding the market. Eventually OPEC came to an agreement to cut production, but as demand has resurged over the past several months, OPEC has been expected to increase production once again. However, yet another dispute, this time between the United Arab Emirates and Saudi Arabia, has prevented OPEC

from clinching a deal and increasing production. Consequently, oil prices have surged to the highest level since 2014. In late July 2021, OPEC finally came to an agreement to boost production by 400,000 barrels per day starting in August, which could help alleviate the large gains in oil prices seen through the first half of the year.

According to the U.S. Energy Information Administration, Colorado ranked fifth in crude oil production among U.S. states as of April 2021. According to the Colorado Oil & Gas Conservation Commission, Colorado field production of crude oil decreased 10.9% year-over-year to 171.5 million barrels in 2020, with 86.9% of production concentrated in Weld County. In April 2021, oil production in Colorado was down 19.4% year-over-year and 25.8% year-to-date compared to the same period in 2020. The revised outlook for Colorado production in 2021 is now an estimated 138-150 million barrels, a 14%-21% drop from last year. Monthly drilling permits are much lower than average through the first half of the year, due in part to new drilling regulations put in place in January 2021.

The Baker Hughes rig count has not come close to recovering to pre-COVID-19 levels but has begun to rise again after a low of four rigs observed in November 2020. As of July 2021, there were 12 oil rigs in Colorado, with five in Weld County, three in Adams County, two in Rio Blanco County, and one in



both Arapahoe County and Garfield County. A similar trend has occurred in the nation, with both the U.S. and Colorado rig counts approximately doubling since last July.

Natural gas production increased 0.3% year-over-year in 2020, totaling 2,058 billion cubic feet. The revised production outlook for 2021 is 1,800 to 1,950 billion cubic feet. The Henry Hub natural gas spot price doubled in June 2021

compared to the year prior, from \$1.63/million btu to \$3.26/million btu.

Colorado coal production saw a year-to-date decline in May 2021 compared to the same period in 2020, decreasing 5.2% from 4.2 million tons to 4 million tons. There are currently seven coal mines operating in Colorado and seven coal-fueled power plants. The state has begun to phase out coal-fired plants, with most slated to close by 2030. Xcel

Energy remains the only provider with coal plants not being scheduled to close before 2030.

New oil and gas regulations in Colorado have overhauled how the industry operates and could significantly impact industry employment. Senate Bill 19-181, signed into law in the spring of 2019, overhauled oil and gas operations in the state, which introduced hearing procedures, a technical review board, alternative site analysis, cumulative impacts, and many more regulatory hurdles. This is a sign of a change in focus away from supporting oil and gas development to regulating in the interest of public health and the environment. Another large regulatory bill working in conjunction with SB 19-181 is House Bill 19-1261, which sets statewide goals to reduce 2025 greenhouse emissions by 26% from 2005 levels, 2030 emissions by 50%, and 2050 emissions by 90%. This will also have far-reaching impacts on the oil and gas industry for years to come.

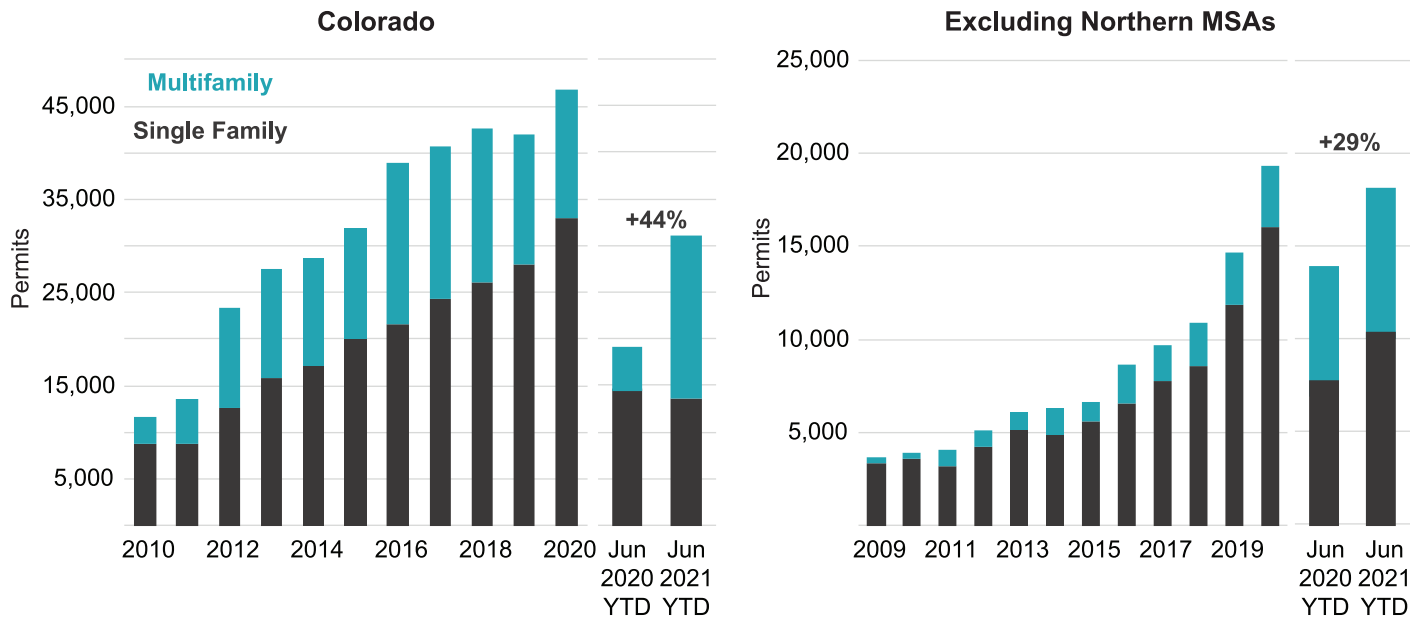
Construction

The Construction sector encompasses industries including Construction of Buildings, Heavy and Civil Engineering, and Specialty Trade Contractors. The Construction sector in July 2021 employed 170,300 people in Colorado, the seventh-largest sector in the state with 6.2% of total employment. Employment in the sector was down 1.5% (2,600 jobs) year-over-year in July, lagging far behind the nation, which grew 3.1%. However, construction industry employment is expected to undergo a positive revision to the jobs estimates; the industry is projected to end 2021 up 2,900 jobs.

Construction is composed of three subgroups: residential, including single family homes and multifamily units like apartment complexes; nonresidential, including office, commercial, retail buildings or hospitals; and nonbuilding, including infrastructure projects. The entire sector was buoyed by the robust housing market, which experienced a historically strong start to the year.

Looking at residential construction, specialty trade contractors made up 66.5% of construction employment in

RESIDENTIAL BUILDING PERMITS



Sources: U.S. Census Bureau and the Colorado Business Economic Outlook Committee. Northern MSAs include Denver, Boulder, Fort Collins, and Greeley.

Colorado in July 2021 and lost 0.3% (300 jobs) year-over-year. As a consequence of a slowdown in the commercial real estate sector, the industry has benefited from labor leaving the commercial sector and joining the residential sector; however, this may only be temporary as pay is better in the commercial sector. Colorado residential building permits have grown 44% year-over-year through June fueled by fervent demand and low interest rates; if this growth continues, the number of permits could reach levels not seen since 2006. Residential construction spending, likewise, has grown 44.6% through July compared to the same period last year. Young adults have even begun to buy homes—the homeownership rate among people 35 and under has grown from 34.7% in Q1 2016 to 38.1% in Q1 2021, peaking at 40.6% in Q2 2020. All this activity over the past year has pushed home prices up dramatically. The FHFA All-Transaction Index measures the movement of single-family home prices. In Q1 2021, the index increased 7.4% year-over-year.

Nonresidential has underperformed comparatively in 2021. COVID-19 has shaken up the sector and has left a lot of

uncertainty, especially regarding the future of office space and commercial retail buildings. Nonresidential construction spending in Colorado was down 6.1% year-to-date through July 2021 compared to July 2020 year-to-date; the lack of large projects along the Front Range and uncertainty have held the industry back.

In the nonbuilding industry, there are hopeful signs for a strong recovery on the horizon, like the prospect of infrastructure funding from the federal government. However, nonbuilding construction spending was up 23.9% year-to-date through July 2021 compared to the same period in 2020, according to data from Dodge Data and Analytics. Looking ahead, the nonbuilding industry could be bolstered by a new highway tranche that was recently released along with two sizable water projects—Gross Dam and Chimney Hollow Reservoir.

The Colorado Demography Office estimates a decline in net migration from 43,300 in 2019 to 28,600 in 2020, then forecasts a gradual increase to around 30,000 in 2021. As the number of people migrating to Colorado slows over the next few years, the demand for future development could be reduced.

Manufacturing

The Manufacturing sector is composed of durable goods and nondurable goods. Durable goods last for a significant period of time, whereas nondurable goods are typically consumed quickly. In Colorado, manufacturing employment declined 2.7% in 2020 year-over-year but was up 0.2% (300 jobs) year-over-year in July 2021. The industry is projected to lose 1,200 jobs in 2021.

Manufacturing is the eighth-largest employment sector in Colorado, with 145,900 jobs, or 5.3% of total employment. The pandemic was harder on manufacturing than previously thought, as the job losses were greater and the recovery has been weaker than forecasted. Colorado manufacturing has also lagged behind the nation, with national manufacturing growing 2.7% year-over-year. That said, there have been a few bright spots, such as computer and electronics, transportation equipment, and beverage manufacturing, which have each posted solid recoveries.

Durable goods manufacturing makes up the larger share of the two subsectors in the state at 61.1%, or 89,800 jobs. Within this subsector, there is manufacturing of wood and metal



products, machines, including computers, electronic parts and aerospace materials, transportation equipment. Computer and electronic product manufacturing performed well through the recession, having lost relatively few jobs at the height of the pandemic and adding 700 jobs (3%) in July 2021 year-over-year. Transportation equipment manufacturing fell by 400 jobs (3.5%) year-over-year. Fabricated metal manufacturing in the state, meanwhile, faltered through the pandemic and was down 4.1% (600 jobs) in July 2021 year-over-year.

Nondurable manufacturing, which consists of food and beverages, makes up the other half of Colorado's manufacturing industry, with 38.9% of total manufacturing employment, or 57,100 jobs, in July 2021. Within nondurable manufacturing is beverage

manufacturing, which has nearly twice the proportion of manufacturing jobs than the nation. Nondurable manufacturing employment increased 4.2%, or 2,300 jobs, year-over-year in July.

Among the Colorado MSAs, the number of Boulder manufacturing jobs has grown notably, increasing 7% year-over-year in July 2021. Pueblo, on the other hand, lost manufacturing jobs year-over-year, decreasing 4.5%; and Greeley gained just 0.7%. The disparity across geographical regions is likely a reflection of the types of manufacturing jobs in those areas; Greeley and Pueblo are more dependent on the oil and gas industry—which has had a lackluster year—while Boulder has a higher presence of the tech and aerospace industries, which is growing year after year.

Nationally, manufacturing has rebounded well from the lows of the pandemic-induced recession and appears to be heading for a strong year in 2021. The ISM Manufacturing Index measures manufacturing activity through a monthly survey of purchasing managers at manufacturing firms. In June 2021, the index recorded a reading of 60.6, a decrease of 0.6 points from May and slightly above the 12-month average of 59.1. The Kansas City Fed also produces a manufacturing survey of its own, which identifies manufacturing activity, such as production and shipments, as well as price changes of raw materials and finished goods. The composite index registered a reading of 27 in June 2021, a 26-point increase from June 2020's reading of just 1.

Trade, Transportation, and Utilities

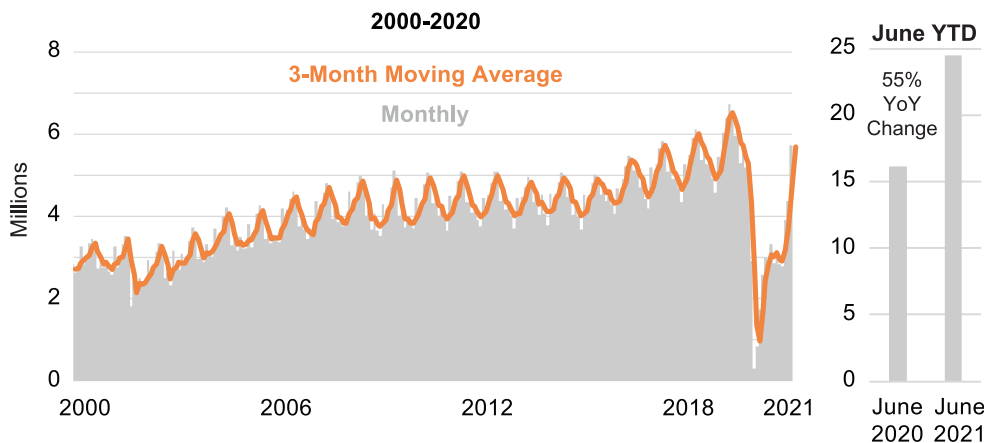
Within the Trade, Transportation, and Utilities sector, the trade subsector consists of wholesale and retail trade firms. Wholesale trade sells large quantities of goods to professional users and retailers, which in turn resell to consumers. Wholesale trade is made up of durable goods—items that last for a considerably long time—and nondurable goods, which are consumed immediately.

National retail sales were up considerably year-over-year, growing 15.8% in July 2021 compared to the same period in 2020. Granted, the first half of last year was disastrous for retail after lockdowns were put in place across the country and most brick and mortar stores were forced to close. The second half of 2020 and the first half of 2021 have recovered strongly, and consequently, the industries that suffered the worst of the pandemic have seen the greatest year-over-year percentage growth.

Overall, Trade, Transportation, and Utilities employment in Colorado has increased 5.2% (24,200 jobs) year-over-year in July 2021, bringing employment 1.1% above levels observed in January 2020. This is the largest employer in the state, consisting of 17.9% of total employment. The industry is projected to add 11,800 jobs in 2021.

Transportation and Utilities observed large job gains year-over-year in July 2021, increasing 8.5% (8,300 jobs). This growth has been bolstered by trucking, couriers, and warehousing; however, a new delivery tax and higher fuel costs could negatively impact the industry. Air transportation witnessed the largest growth in the subsector, at 16.1%, but it is still down 1.7% from its pre-pandemic employment peak. Truck transportation, couriers and messengers, and warehousing and storage have also performed well year-over-year, growing 5.5%, 13.8%, and 8.7%, respectively. However, all of these industries are adversely impacted by the rapidly rising cost of fuel, which could hinder employment gains the rest of the year.

DIA ENPLANEMENTS AND DEPLANEMENTS



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

Retail trade employment grew 4.3% year-over-year in July 2021, resulting in an increase of 11,100 jobs. This is the result of the slow process of reopening from initial lockdowns, weathering multiple subsequent waves of COVID-19, and vaccination efforts, which has allowed brick and mortar retail to return (relatively speaking) to normal. Nevertheless, online retail has exploded as a consequence of the pandemic, and the trend away from brick and mortar retail looks to continue. E-commerce retail sales grew 16.8% year-over-year in the first quarter of 2021 and comprises 13.6% of total retail sales. Colorado retail sales have followed a similar pattern to that of the nation: total retail sales in the state are up 34.6% year-over-year in April 2021, with clothing stores increasing 280.6% and sporting goods, hobby, musical instrument, and bookstore increasing 137.8%. Gas station sales were up 72.4% year-over-year in April amid rapidly growing gas prices. Colorado net taxable sales grew 51.2% in April 2021 compared to April 2020. Year-to-date in April 2021, taxable sales are up 16.9% and 9.3% compared to the same periods in 2020 and 2019, respectively. This is a welcome sign for local governments after seemingly dire budgetary pressures at the start of the pandemic, and combined with substantial support from the federal government, the state has a brighter financial outlook compared to last year.

Wholesale trade experienced a 4.5% growth rate in July 2021, up 4,800 jobs year-over-year. The industry is back to levels observed in March 2020, the pre-pandemic peak.

According to the Federal Aviation Administration, Denver International Airport ranked as the third-busiest airport in the nation in 2020, with 16.2 million enplanements and was outperformed by only Dallas-Fort Worth International (2nd) and Jackson Atlanta International (1st). Despite a disastrous year for air travel last year, DIA has been recovering well in 2021, with passenger traffic in June up 55% year-over-year.

Information

Information employment decreased 3.2% in 2020, but increased 0.4% year-over-year in July 2021. Employment in the Information sector is still 6% below January 2021 levels. By component, Telecommunications, the largest employment subsector, posted a 3.5% decline in employment in July 2021 year-over-year, Publishing declined 2.3%, and Software Publishers fell 0.6%.

Employment losses in 2020 cut across the Information subsectors of publishing, motion picture, broadcasting, and telecom, but were most pronounced in the Motion Picture and Sound Recording subsector (notably, movie theaters, where employment fell 56.6%, or 1,900 jobs)

Despite the pandemic, industry real GDP grew 12.5% in 2020 and 9% year-over-year in Q1 2021, continuing a trend of growth in output, but not in employment, suggesting dramatic changes in productivity.

Year-over-year growth was recorded in both small and large firms. Google is expected to add to its Boulder workforce over the next couple years. However, with the pandemic, the company has moved to allow 20% of their employees to telecommute permanently, and further work-from-home arrangements could deter any added employment. Information is projected to add a modest 800 jobs in 2021.

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. Financial Activities employment fell 1.2% in 2020 but was up 2.5% year-over-year in July 2021. The industry is projected to add 4,700 jobs in 2021. Industry real GDP grew 1.5% in 2020 and is up 14% year-over-year in Q1 2021.

In 2020, sector employment in Colorado declined by 1.2%, or about 2,000 jobs, performing relatively better than most sectors in the state. Employment has since increased in 2021, up 2.5%, or 4,300 jobs, year-over-year in July 2021.

The employment gain in July in this sector came from Real Estate and Rental and Leasing (9%), while Finance and Insurance employment declined 0.3%. As of July 2021, Finance and Insurance employment was only 0.4% below January 2020 levels, while Real Estate and Rental and Leasing was still 1.4% lower. Even though there has been a surge in activity in residential real estate and capital markets, employment gains in these sectors aren't necessarily following suit.

Capital markets experienced a great deal of volatility in 2020 due to COVID-19 and the recession. The S&P 500 dropped



34% early in the pandemic, but recovered by the end of the year up 15.3%. The S&P 500 has continued to have a good year in 2021, with the index up 18.9% year-to-date as of July 27 and near record highs. The NASDAQ followed suit in reaching record highs and is up 15.5% in 2021 year-to-date as of July 27. Stock indices have performed well due to record liquidity in search of yield and record stimulus. With the Federal Reserve cutting interest rates to the lower bound, bond yields aren't very attractive to investors, so equities offer a much better alternative. Capital markets could remain elevated as the Fed looks to keep rates low for the foreseeable future, liquidity will take a while to dissipate, and additional stimulus could be on the horizon.

The economy and markets have been supported by the Federal Reserve to ease the pain of the COVID-19 pandemic. The Fed made two emergency rate cuts in March, setting short-term interest rates at the 0-0.25% level, where they currently stand in 2021. Inflation has been rising throughout 2021, which raises uncertainty around whether the Fed will have to suddenly raise interest rates; however, the Fed maintains that the recent large increases in inflation are transitory. The Fed also announced other sweeping supportive measures in 2020 to support

the economy, including an open-ended commitment to purchasing corporate bonds, treasuries, and mortgage-backed securities, as well as establishing the Main Street Lending Program to support small and medium-size businesses. Record government stimulus in 2020 in response to the COVID-19 pandemic has shot the federal budget deficit to record levels, over \$3 trillion. Debt to GDP in the U.S. has also risen to record levels, sitting at 127.5% in Q1 2021, according to the Federal Reserve Bank of St. Louis. This is set to rise even further with the large government spending legislation the Biden administration is pushing.

Interest rates fell to record lows in the U.S. and around the world in 2020, and while they have increased from last year's lows, they remain at depressed levels in 2021. As of end of July 2021, the 10-year government bond yield in the U.S. was 1.25%, still one of the highest yields in the world. Comparatively, Germany maintains a -0.45% 10-year government bond yield, the United Kingdom is at 0.57%, and Japan maintains a 0.01% yield. These low interest rates make it difficult for investors to make income and significantly impact profits in the banking industry. Mortgage rates hit record lows in 2020, and have remained low in 2021.

Commercial banks in the U.S. have

seen a record influx of deposits since COVID-19. According to the Federal Reserve, from January 2020 to July 2021, commercial deposits have increased by almost \$4 trillion, or 29.6%, as of July 14. Total assets held in Colorado banks increased by 21.2% year-over-year in Q3 2020. The number of banking institutions has been on a steady downward trend in Colorado, decreasing to 67 in Q3 2020 from 74 in 2018. The banking industry was hit hard due to the COVID-19 pandemic and record low interest rates, with earnings declining substantially. According to the Federal Reserve, net income for commercial banks in the U.S. was down 52.4% in Q3 2020 year-over-year to levels not seen since 2010. Net income for commercial banks in Colorado was much less impacted, declining only 1.5% in Q3 2020 year-over-year.

The residential housing market in Colorado has been booming over the past year as demand has outstripped supply, pushing prices higher and leading to the Denver metro area having the lowest average days on market in the nation. According to the Federal Housing Finance Agency (FHFA) all transactions index, Colorado housing prices continued to increase in 2021, continuing a growth trend since 2012. In Q1 2021, Colorado's house price index grew 7.4% year-over-year, just higher than national growth of 7.2%. The Pueblo MSA observed the highest growth rate among Colorado MSAs in Q1 2021 year-over-year with 12.3% growth, followed by Colorado Springs (10.3%), Grand Junction (10.2%), Denver-Aurora-Lakewood (7.4%), Greeley (6.1%), Fort Collins (5.6%), and Boulder (4%).

Professional and Business Services

Professional and Business Services (PBS) encapsulates a diverse set of subsectors such as professional, scientific, and technical services that includes legal services, accounting, architectural services, computer, and software design, and consulting. Moreover, the sector also contains

the management of companies and enterprises, as well as a variety of administrative services that include waste management, building support, business support, and employment services.

The PBS sector employs the second-most workers in Colorado, with 447,900 employees in July 2021, or 16.4% of total employment. PBS is currently outperforming the state. In July 2021, PBS employment grew 6% year-over-year (25,300 jobs). The industry is projected to add 18,200 jobs in 2021. While employment growth is expected to remain strong through the rest of the year, challenges to the sector include increasing costs of doing business, supporting remote workers, preventing ransomware attacks, and higher fees and taxes.

The Professional, Scientific, and Technical (PST) subsector, which employed 247,300 people (55.2% of total PBS employment) in July 2021, has outperformed last year's forecasts by threefold. PST employment grew 4% year-over-year in July 2021. Despite this impressive growth, PST employment growth in Colorado underperformed compared to the nation, with national PST employment growing 5.8% year-over-year in July. The best performing subsector within PST was Management, Scientific, and Technical Consulting

Services, with 10.1% growth year-over-year in July.

Computer Systems Design and Related Services experienced the slowest growth among the PST industries, growing just 2.4% year-over-year in July.

Management of Companies and Enterprises is another industry within PBS that has proved to be resilient through the pandemic, growing a substantial 11.6% year-over-year in July 2021. After seeing a slight decline in employment in April of last year, job growth accelerated at the end of 2020 and into 2021; the industry in July 2021 was up 6.7% above January 2020 levels. This is not especially surprising, however, as employees in this industry are C-suite executives who were relatively safe from the brunt of the pandemic's economic burden.

Administrative and waste services have made headway in recovering, having suffered the worst losses in the sector during the pandemic but outperforming forecasts from last year. In July 2021, the sector grew 7.7% year-over-year, or by 11,000 jobs. In 2020, despite making up 34.5% of PBS employment, Administrative and Waste Services consisted of only 18.6% of total wages. Employment in the Employment Services industry, meanwhile, grew 17.1% year-over-year—a consequence of the low levels recorded in 2020—but remains





below the pre-pandemic peak. Business Support Services were flat year-over-year in June, and Services to Buildings and Dwellings and grew 0.6%.

Education and Health Services

The Education and Health Services Sector includes private-sector establishments that provide instruction and training by private schools and universities, as well as establishments that provide health care and social assistance to individuals. Approximately 12.7% of Colorado's workforce is employed in the EHS Sector, the fourth-largest sector in the state; the national average is 16.1%.

Education and Health Services recorded year-over-year employment growth in July 2021 of 3.7%. Educational Services experienced an 8.4% employment increase year-over-year, while Health Care and Social Assistance grew 3.1%. Educational Services has recovered a total of 6,000 jobs since

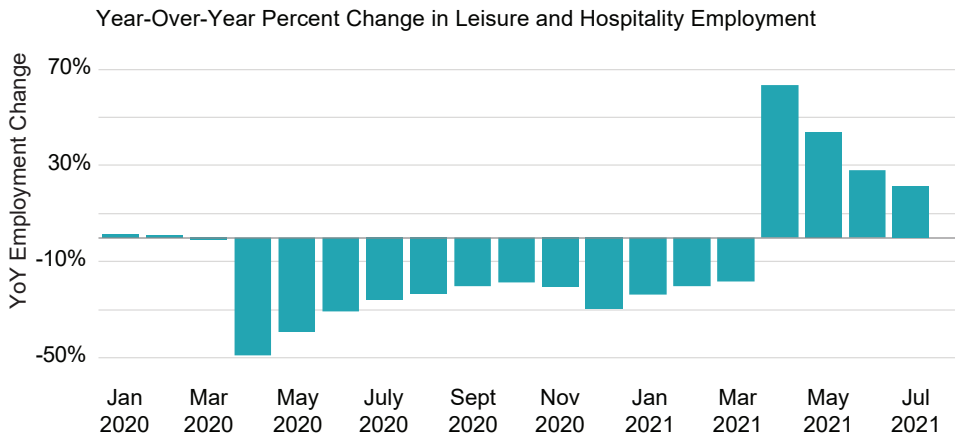
last year. That said, the subsector is still 3,300 jobs fewer than its pre-pandemic peak, and job gains have been somewhat diminished since the start of 2021. Industry employment is projected to increase 8,800 in 2021. In terms of 2020 annual real GDP, Educational Services and Health Care and Social Assistance GDP declined 4.9%.

Notable developments that will impact the sector have been made on a national scale, specifically with the Biden Administration's American Rescue Plan Act (ARPA) as a response to COVID-19 and the preservation of the Affordable Care Act (ACA) by the Supreme Court. In an effort to support those who suffered job losses or underemployment, ARPA offers healthcare plans to anyone who received unemployment benefits in 2021. In addition, ARPA extended the COVID-19 Special Enrollment Period until August 15. This has led to over 200,000 Coloradans signing up for a plan that provides coverage through

the year via the state's health insurance marketplace, according to Connect for Health Colorado. ARPA also expanded ACA subsidies for low-income individuals; anyone between 150% and 400% of the federal poverty line will receive an increase in the amount they are eligible for. In addition to providing relief to people on the individual market, ARPA provides 100% premium assistance from April through September for people enrolled in COBRA programs who have lost their jobs or have had their hours reduced.

Another key piece of federal legislation—the Families First Coronavirus Response Act—has prohibited any state from disenrolling anyone from Medicaid and has granted each state's federal medical assistance percentage a 6.2 percentage point boost. Consequently, Colorado now has approximately \$100 million in additional General Fund assistance each quarter. However, once the state of emergency expires at year's

LEISURE AND HOSPITALITY EMPLOYMENT



Source: Bureau of Labor Statistics, CES.

end, millions of people across the nation and almost 320,000 Coloradans could lose their Medicaid coverage by the end of the year. As of May 2021, 1.5 million Coloradans were enrolled in Medicaid.

Important legislative changes that will impact the sector have been made at the state level as well. Perhaps the most talked about healthcare legislation last session was the Colorado Public Option. After much political debate on Capitol Hill, the “Standardized Health Benefit Plan Colorado Option” is not really a public option in the technical sense. Rather, the state government has set premium reduction targets of 15% by 2025. If carriers cannot meet this target, the Colorado Division of Insurance may decide to rate-set, with a 155% of Medicare floor for hospitals and a 135% of Medicare floor for insurance providers. The law goes further by also requiring private insurers to offer a highly regulated plan in gold, silver, and bronze in every county they operate in, starting in 2023.

While stimulus spending is primarily focused on public sector education, the private education subsector should see indirect effects as the overall economy improves. Biden’s proposal to provide free community college education could negatively impact private two-year schools, but private four-year colleges and universities are currently moving their focus to graduates from the community college system. Overall enrollments in private education are expected to observe slow to modest growth.

Leisure and Hospitality

The Leisure and Hospitality sector covers establishments in the tourism, travel, and recreational industries. The sector was one of the hardest hit during the pandemic as restaurants closed and limited patrons, national parks closed, and events were canceled. Employment in the sector was up 20.7% (53,100 jobs) year-over-year in July 2021, a reflection of the depressed levels recorded a year ago. Although a strong rate of growth, the sector is still down 10.6% from January 2020. This is the fifth-largest sector in Colorado, making up 11.3% of total employment. Industry employment is projected to increase 31,800 in 2021. Industry real GDP fell an astounding 24% in 2020 year-over-year and was down 14.5% year-over-year in Q1 2021.

Within the Leisure and Hospitality sector are the Arts, Entertainment, and Recreation industry and Accommodation & Food Services industry, the former increasing 29.3% year-over-year and the latter increasing 19.1% year-over-year. Accommodation and Food Services make up the majority of the sector, accounting for 83.3% or 258,500 jobs. Much debate has been held surrounding the labor shortages preventing these industries from fully recovering. Potential causes aside, restaurants, hotels, and other hospitality employers have lamented being short-staffed in 2021. Some Colorado mountain towns, Crested Butte for instance, have had to pull

their summer ads amid fervid crowds of tourists and a lack of service workers and infrastructure to support them.

In July 2021, food services and drinking places gained 35,100 jobs since last July. According to data gathered by the U.S. Census Bureau, national sales at food services and drinking places surged 27.6% in June 2021 year-to-date compared with the same period in 2020, an increase of more than \$80 billion. Sales first passed their pre-pandemic peak in April and have grown each month thereafter, passing \$70 billion for the first time ever in June.

According to the National Park Service, recreation visits to Colorado’s national parks totaled 6 million in 2020, a 22.2% decrease from 2019. This is unsurprising as national parks were forced to close for extended periods of time last year, and even upon reopening had to limit visitations. However, visits to Colorado national parks in 2021 have been off to a hot start, with total year-to-date visits already at 949,900 at Rocky Mountain National Park, a 138.1% increase compared to the same period in 2020 and 17.8% higher than the level recorded in 2019.

Other Services

The Other Services industry includes automotive repair, car washes, nail salons, barber shops, religious organizations, funeral homes, grantmaking foundations, and labor unions, and others. This subsector has been seen as a proxy for the resumption of normal business activity, so it will be key to observe over the coming months. At the start of the pandemic, many of the subsector’s notable industries, such as hair, nail, and skin care services, were deemed non-essential and forced to temporarily close, causing a major shock to the subsector’s employment. As Colorado businesses emerged from lockdowns, these services were tasked with finding ways to effectively socially distance.

Industry employment was up 5.9% in July 2021 year-over-year but was still down 5.4% from January 2020. The Repair and Maintenance subsector was up 1.2% in July, year-over-year; Personal



and Laundry Services was up 9.6%; and the largest subsector, Religious, Grantmaking, Civic, Professional, and Similar Organizations, was up 4%. Employment in the Other Services industry is projected to increase 4,600 for the year.

Government

Government employment fell 3.1% in 2020 but was up 3.8% year-over-year in July 2021 as federal, state, and local government all gained jobs. Employment is projected to increase 5,000 jobs for the year. Annualized industry nominal GDP totaled \$48.2 billion in Q1 2021 but real industry GDP was down 2.9% year-over-year.

The Government supersector comprises federal, state, and local government, including higher education institutions and public schools. In July 2021, the Government Sector employed 447,700 individuals, a year-over-year

increase of 3.8%. The state government subsector includes state agencies and departments, such as the Colorado Department of Transportation and the Colorado Department of Regulatory Agencies, and public universities. State government employment totaled 126,100 in July. State government is expected to begin rebounding with the resumption of in-person instruction at state universities and the rehiring of student workers. The local government subsector includes city, county, school, and special district employees. Local government employment totaled 267,300 in July. Federal government employment in Colorado was bolstered in 2020 by the hiring of employees to conduct the 2020 Census. With the Census data collection completed, it is likely that federal government employment will shrink in the state in 2021. Federal government employment totaled 54,300 in July.

International Trade

International trade began 2020 with moderate growth, before being derailed by the COVID-19 pandemic. The pandemic-induced recession significantly impacted international trade in Colorado, leaving goods exports at their lowest value since 2010, service exports at their lowest value since 2012, goods imports at their lowest value since 2014, and service imports at their lowest value since 2011. As international trade rebounded significantly in both the U.S. and Colorado from the 2020 recession lows and is expected to further recover, there remains headwinds that could impact trade in the year ahead.

COVID-19 cases have begun to rise once again in United States—although vaccinations have undoubtedly helped. Worldwide, however, cases are still relatively high and have been rising in Europe, the Americas, and Southeast

Asia. If the U.S. is able to keep case counts stable, this could lead to greater investment in the dollar, making the dollar more expensive, and resulting in decreased exports. The Biden administration has held fast to Trump era protectionist tariffs and has remained on the offensive against China. The Section 232 steel and aluminum tariffs, Section 301 to combat China's unfair practices, and the Boeing/Airbus WTO tariffs are all still in place. The administration has also made promises to focus on including provisions around environmental standards and workers' rights in trade agreements, which could also impact the outlook of international trade. In Colorado, the drought along the Western Slope has adversely affected livestock herds and crop yields. The eye-catching export growth in oil and gas commodities can be explained through rising prices and a low supply of oil, but the recent OPEC agreement to increase production will likely curtail this growth.

According to data from the BEA, U.S. exports grew 0.6% in May 2021 year-over-year and imports fell 1.3%. The nation's top five trading partners through May 2021 were Mexico (14.7% of total trade), Canada (14.5%), China (13.9%), Japan (4.8%), and Germany (4.5%).

Colorado exports decreased 2.8% in 2019 year-over-year then increased 0.9% in 2020 year-over-year, according to the U.S. Census Bureau. In May 2021, exports grew 65.4% year-over-year, but year-to-date were only 2.5% higher than the same period in 2020. Colorado's top five export markets in 2020 were (in order): Canada (15.7% of total exports), Mexico (12.8%), Malaysia (6.4%), South Korea (6.4%), and China (6.1%). Of these, Malaysia was the only country to see export growth in 2020, increasing 12.4% year-over-year. Exports to Canada fell 11.3%, exports to Mexico fell 1.1%, exports to South Korea fell 3.8%, and exports to China fell 4.9% year-over-year in 2020.

Year-to-date through May 2021, Colorado exports to Canada increased somewhat modestly by 4.7%, while exports to Mexico surged 50.9%

COLORADO RANK AMONG OTHER STATES

Metric	1-Year	3-Year	5-Year	10-Year
Real GDP Growth	13	4	4	3
Employment Growth	18	11	6	4
Population Growth	12	9	9	8
Personal Income Growth	44	32	9	5
PCPI Growth	47	41	16	6
PCPI	11	11	14	22
Average Hourly Wage % Growth	7	36	26	26
Average Annual Pay % Growth	21	6	8	8
Average Annual Pay	8	9	12	12
Unemployment Rate	36	5	2	32
Labor Force % Growth	6	6	5	4
LFPR	4	8	5	11
FHFA Home Price Index Growth	19	19	6	6

Data Sources: Bureau of Economic Analysis (2020), Bureau of Labor Statistics (7/21), U.S. Census Bureau (2020), Bureau of Labor Statistics (2020), Federal Housing Finance Agency All Transactions Index (Q1 2021), BRD calculations. *Unemployment rate for the last month.

compared to the same period in 2020. Malaysia also recorded strong growth of 12.1% year-to-date through May 2021 compared to the same period last year. The country also became Colorado's third-largest export market in 2020, overtaking South Korea and China. Exports to South Korea through May 2021 year-to-date were up 7.6%; exports were up 92.4% year-over-year in May alone. Exports to China, Colorado's fifth-largest export market in 2020, increased 90.6% year-to-date through May 2021 compared to the same period in 2020. While exports to Colorado's largest trading partners are having a good start to 2021, it is important to note that May 2021 year-to-date growth rates are being compared to a period in 2020 that incurred the worst of the economic fallout from the COVID-19 pandemic.

Colorado's top four exports in 2020, accounting for about 64.7% of the total value of state exports, were (in order):

- Computer and Electronic Products
- Food and Kindred Products
- Machinery, except Electrical
- Chemicals

There were a select few commodities that recorded astronomical growth through May 2021. Exports of Fish and Other Marine Products increased by 726.8% year-to-date through May 2021,

compared to the same period last year; Oil and Gas increased 690.7%; and Primary Metal Manufacturing increased 107.4%. Meanwhile, Minerals and Ores fell 59.6%; Forestry Products decreased 47.1%; and Transportation Equipment decreased 47%.

Colorado imports declined 8.2% in 2020 year-over-year but are up 30.3% through May 2021 year-to-date compared to the same period last year. In April 2021 alone, imports expanded 85.3% year-over-year, resulting from the recovery of international trade from the near complete shutdown a year ago. The top three countries that Colorado imports from are (in order): Canada (24.4% of total imports), China (13.9%), and Mexico (10.3%). The value of imports from Canada declined 21.6% in 2020 but were up 56.3% year-to-date through May 2021 compared to the same period in 2020. Imports from China declined 4.4% in 2020 and increased 22% year-to-date through May 2021. Despite being the state's second-largest import market, imports from China have declined for the past five years. The value of imports from Mexico fell 18.1% in 2020 year-over-year but grew a modest 2.9% year-to-date through May 2021. Imports from Mexico have declined the last six years.

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