REVISED DRAFT Subpanel Report Submitted to the Economic Relief and Recovery Task Force

Note that this draft report is subject to revision as the Task Force process continues

Submitted December 3, 2021

Introduction

The subpanel supporting the Economic Relief and Recovery Task Force is pleased to present this REVISED DRAFT report. Please note that as a draft, this document is subject to revision as the Task Force process progresses.

After the *Summary of Findings*, the report is divided into five discrete sections. The organization into discrete sections reflects the organization of the work of the subpanel. In order to expedite our production of the report, the subpanel assigned ourselves areas of analysis and reporting on what we deemed the most important subjects to be covered. Because the report contains a series of discrete sections, it is organized into singly focused sections rather than as a single integrated report. We believe that the totality of these sections provides a substantial overview of the economic baseline and the specific impacts that the pandemic has had on Colorado. Finally, we provide definitions for dimensions in an evaluation metric and demonstrate the metric in illustrative examples of the infusion of funds to the Unemployment Insurance Trust Fund as well as a proposal to make one-time payments to essential workers.

Each of the sections was authored by a different member(s) of the subpanel as follows:

Section 1: Economic Baseline. Authored by Jason Schrock

Section 2: Pandemic's Impact on Industries. Authored by Alison Felix

Section 3: Pandemic's Impact of People and Households. Authored by Elissa Braunstein and Phyllis Resnick

Section 4: Pandemic's Impact on Regions. Authored by Elissa Braunstein

Section 5: Decision Metric and Illustrative Examples of the Unemployment Insurance Trust Fund and One-time Payments to Essential Workers. Authored by Henry Sobanet and Jason Schrock

Per the Task Force's request, the appendix to this report contains a compilation of the uses of ARPA funds in the other states. Thank you to Elizabeth Ramey on the Legislative Council staff for providing this analysis to the subpanel.

Summary of Findings

Although macroeconomic indicators point to a broad economic recovery in Colorado, these indicators mask persistent challenges. One primary challenge is that the overall labor market has yet to fully recover to its pre-pandemic levels. The state's unemployment rate remains elevated and the overall number of jobs in the state has not recovered to its pre-pandemic level. Further, some industries and populations have been disproportionately impacted by the pandemic and are still struggling with the pandemic's effects.

The state's industries with lower wages lost the most jobs with the onset of the pandemic and these industries remain furthest from full recovery. These industries tend to include jobs that involve direct interaction with the public, such as retail trade, private education services, arts, entertainment, and recreation, accommodation and food services, and other services. The accommodation and food services industry is by far the industry with the largest *number of jobs* below its pre-pandemic level.

Early pandemic-related job losses were concentrated in four industries: retail trade; accommodation and food services; arts, entertainment and recreation; and health care and social assistance. Prior to the pandemic, 406,500 households in the state with income under $75,000 had at least one worker over the age of 18 employed in one of these most affected industries. Of those 406,500 households, 223,500 of them were already housing cost stressed and likely the most vulnerable. The profile of these households most affected by pandemic-related job losses is as follows:

- The majority of the households with children are single parent households
- The majority of the households are in rental housing
- As a share of households by race and ethnicity, at least half of the households in every racial and ethnic cohort are housing cost burdened, suggesting that the COVID recession impacted all race and ethnic cohorts
- The workers in these households share the following profile:
    - 66 percent of them lack a college degree
    - 60 percent of them are female

Just over 40 percent of the workers in the aforementioned most affected industries and living in households with income under $75,000 are over the age of 40. This suggests that employment in these disproportionally impacted industries is a career rather than a short-term employment option, perhaps while completing school, making these older workers particularly vulnerable to pandemic related job losses.

While overall jobs have not fully recovered, employers across many industries are struggling with a lack of labor to fill their needed positions. The pandemic has exacerbated labor force shortages that existed pre-pandemic due to several factors. The pandemic has caused an increased number of retirements, which is the largest factor in the decrease in the labor force during the pandemic. There has also been an increase in self-employment, a sharp drop in immigration, and difficulties in accessing childcare have made an increased number of individuals unable to work. Additionally, a larger than usual proportion of individuals are currently not working as they search for improved working conditions and/or higher compensation.

Women over the age of 20 have experienced greater losses in labor force participation and employment rates than men over the course of the pandemic, at both the aggregate level and among White, Black, and Hispanic workers. That women have been more affected than men likely reflects women's disproportionate responsibility for family care. This pattern is similarly reflected in gender differences among prime age workers between 25 and 54. Women are more highly concentrated than men among non-essential face-to-face industries, and so were more likely to face higher rates of job loss due to lock-downs and other safety measures.

Labor market pandemic impacts also differ by race, with Black men and women and Hispanic women experiencing disproportionately high declines in labor force participation and employment. Conversely, the labor force participation rate for Hispanic men has increased. These results are likely connected with the distribution of these workers across different industries, with Hispanic women and Black workers more highly concentrated in industries negatively affected by the pandemic.

The largest losses in labor force participation have been concentrated in workers aged 55 and older, among both women and men. Rising participation for teens has compensated for this loss somewhat, but these two groups of workers are not close substitutes in terms of skills and experience. Research on retirements indicate that the loss of older workers, at least at the national level, have been driven not by an increase in the proportion of workers retiring, but rather by a decline in those transitioning from retirement to employment. To the extent that this decline is driven by pandemic health-related risks, the proportion of older workers in the labor force may increase somewhat as health risks subside.

The pandemic has also had negative impacts on homelessness in the state, especially as housing cost growth has accelerated. The Federal Housing Finance Agency's House Price Index for Colorado was 19 percent higher in the 3rd quarter of 2021 compared with a year ago. Rents are also experiencing increases in the state. For example, apartment rents in Metro Denver increased 14 percent over the year in the third quarter of 2021, according to the University of Denver's Daniels College of Business. Higher housing costs are especially problematic during the pandemic as unemployment remains elevated, particularly for lower-wage workers. The homeless are particularly vulnerable to COVID as many people who are homeless live in congregate settings and are older adults or have underlying medical conditions.

Despite strong consumer spending throughout the recovery, some industries have struggled to fully bounce back. Consumer spending on arts, entertainment and recreation in Colorado is still down about 20 percent compared to pre-pandemic levels. Entertainment venues and movie theaters have particularly experienced sharp losses throughout the pandemic. The travel and tourism industries have also faced significant challenges, with business and international travel especially slow to return. Restaurant spending recovered slowly but has surpassed pre-pandemic levels. However, challenges remain for restaurant owners as cold weather and COVID surges continue to lead to volatile swings in activity.

Many industries have been forced to continually adapt in order to meet customer demand while limiting the spread of COVID. Healthcare facilities, restaurants, retail, hotels, and entertainment venues have faced higher costs to create safe environments and have reduced capacity levels at multiple times during the pandemic. Many businesses in these segments have not fully recouped lost profits during the recovery.

More recently, many industries are struggling to meet robust consumer demand in the face of the severe labor shortages as well as supply chain disruptions. These businesses could help to stimulate the Colorado economy further if these constraints were eased.

Considering regional recovery by the metric of retail sales growth, statewide retail sales grew 9.0 percent in 2019, declined to 1.9 percent in 2020, and recovered to a robust 16.6 percent for the first 6 months of 2021. Much of this recovery was concentrated along the I-25 corridor, but there was also more activity in rural, scenic areas as travel has gotten more localized.

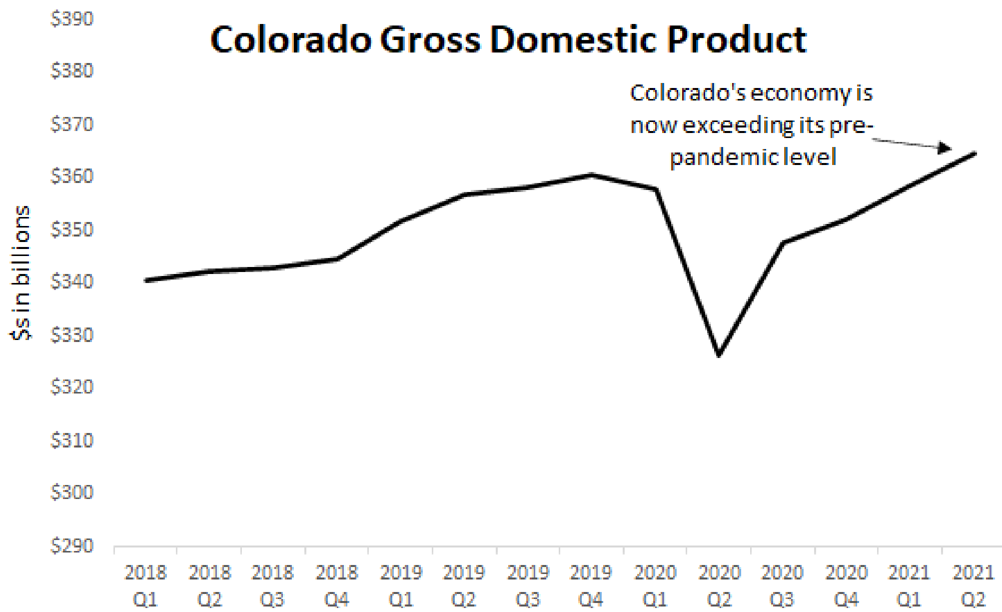
The strong recovery, substantial fiscal and monetary stimulus that have boosted demand, combined with the disruptions in the global supply chain and labor shortages, are resulting in elevated levels of inflation. Inflation is expected to dissipate as fiscal and monetary stimulus subsides and when supply chain conditions and labor market shortages improve.

As the Colorado economy experiences a strong recovery in many sectors, it is critical to note that the state, country, and world continue to battle an evolving pandemic. We find in general that higher public confidence with respect to health risks will promote more economic vibrancy. New variants, additional information about vaccine efficacy, and ongoing public health needs should be considered in tandem with economic goals. Colorado needs to remain committed to strengthening its public health response across the state via the existing approach of partnering with local governments, community partners, nonprofit organizations, and providers to ensure access to vaccines, testing, and specific treatments that aid in the mitigation and prevention of COVID-19.

The pandemic persists but hopefully COVID-19 will soon be endemic. However, once the virus is endemic the state will have continued public health response needs, and the funding outlook from Washington D.C. is unclear to meet those needs. The state’s efforts must be flexible and adaptable in the face of changing circumstances. It is likely that the state will continue to see outbreaks where there are concentrations of unvaccinated Coloradans, such as in schools, and it will need a sustained response with rapid testing and ongoing vaccination efforts. Efforts such as rapid testing to suppress the virus and thereby increase economic activity safely, require resources, yet it is our understanding that FEMA has not been willing to reimburse for the use of rapid tests.

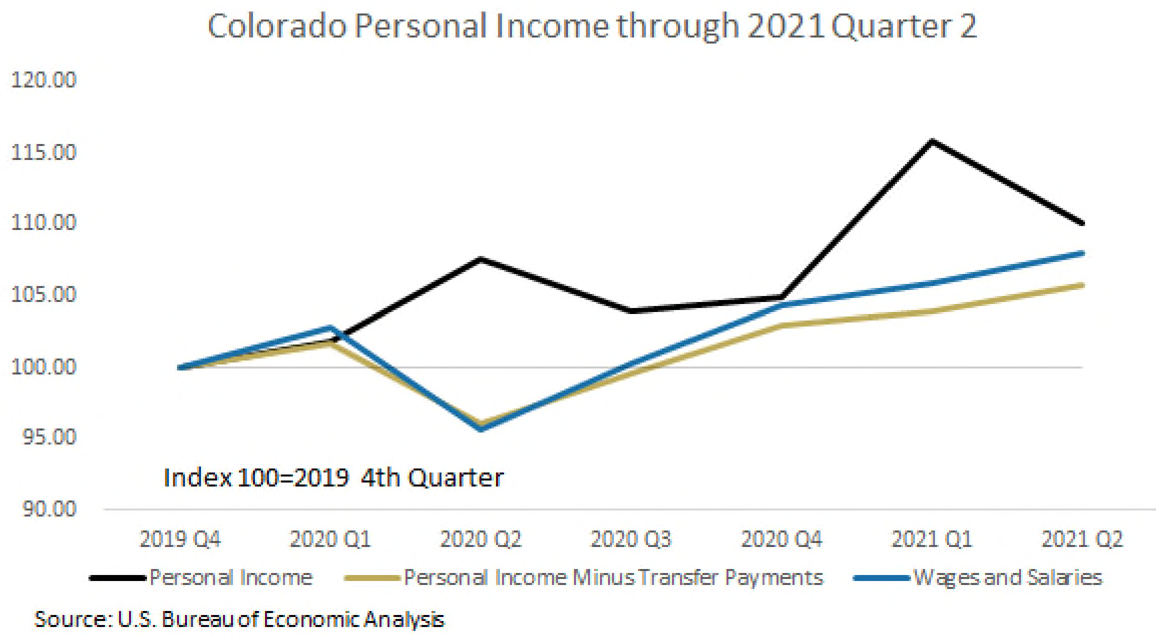
Section 1: Baseline Economic Assessment

Colorado's overall economic output is now exceeding its pre pandemic level starting with the 2nd quarter of 2021, as shown in the figure below. The overall economy is recovering more quickly compared with most previous recessions as the downturn was due to pandemic-induced constraints rather than deeper structural factors. Substantial monetary and fiscal stimulus has also helped the economy to recover more quickly.



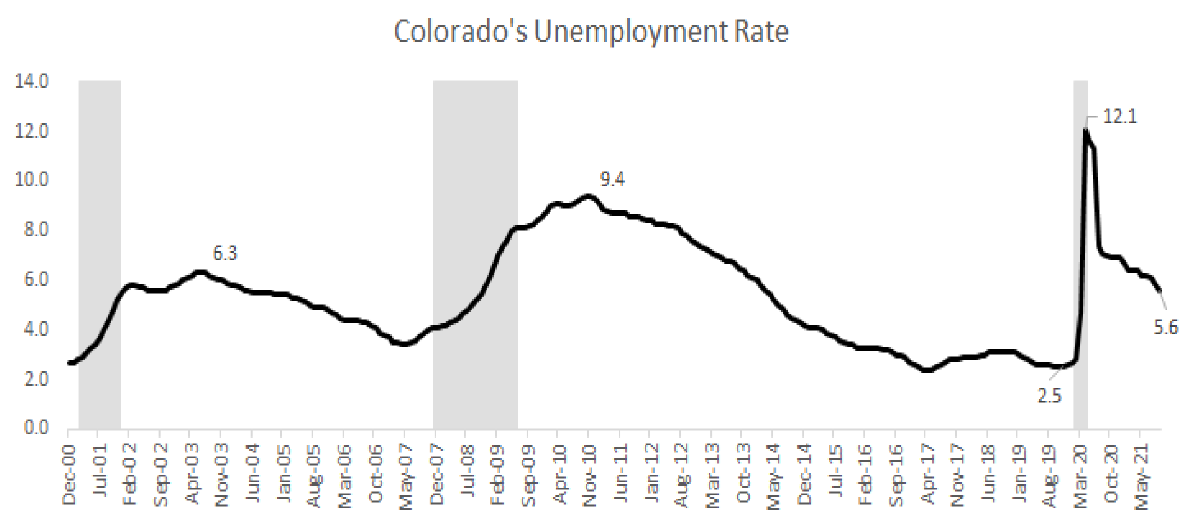
Source: U.S. Bureau of Economic Analysis

Other broad economic indicators, such as statewide total personal income received by Coloradans, also show that the overall economy has rebounded strongly from its recession during the spring of 2020. As shown in the figure below, overall personal income received by Coloradans is above its level before the pandemic, even after excluding the increased income support (transfer payments) provided by the federal government in response to the pandemic, such as the direct stimulus payments to households and enhanced unemployment insurance benefits. The figure also shows total wages and salaries earned by Coloradans exceeding their pre pandemic level. Even with the diminishment of income support from the federal government, personal income is expected to continue to grow, bolstered by growth in wages and salaries due to strong labor demand.



Although macroeconomic indicators point to a broad economic recovery in Colorado, these indicators mask persistent challenges in the state's recovery. For example, some industries, particularly those that provide goods and services directly to the public, such as accommodation, food services and drinking places, and arts, entertainment, and recreation continue to see less activity than before the pandemic. Additionally, certain geographic areas and individuals continue to struggle with diminished income and economic prospects as a result of the disruptions from the pandemic.

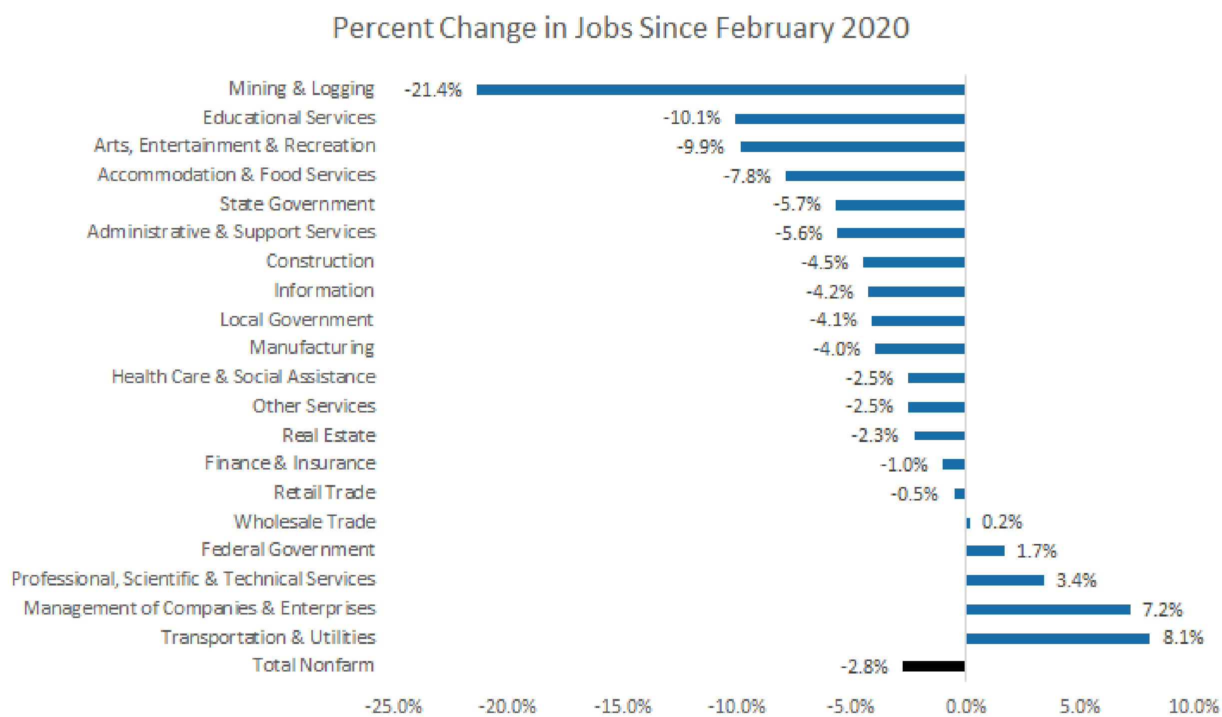
Further, the overall labor market has yet to fully recover to its pre pandemic levels. The state's unemployment rate -- at 5.6 percent in September -- remains above its levels before the pandemic when it consistently posted levels below 3 percent, as shown in the figure below.



Source: U.S. Bureau of Labor Statistics

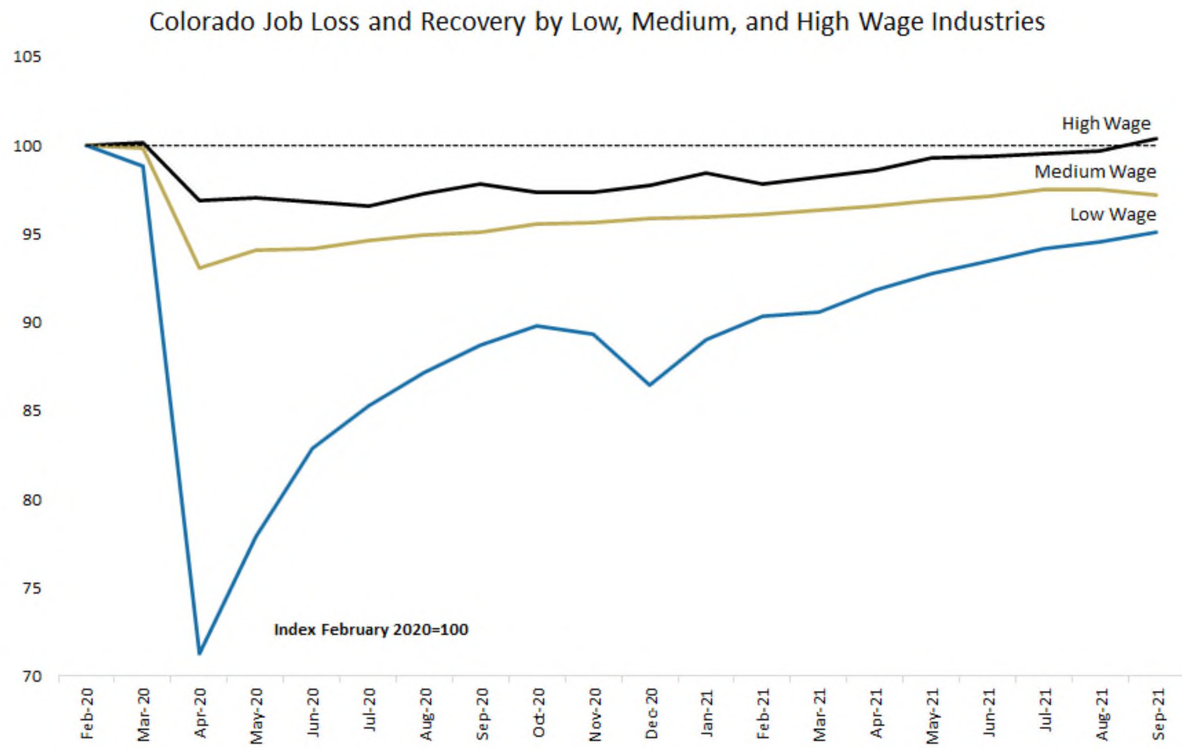
Also, the overall number of jobs in the state remain below their pre pandemic level. In September, the total number of nonfarm jobs was 77,900, or 2.8 percent, lower than in February 2020 before the pandemic-related shutdowns and declines in economic activity resulted in a loss of 375,900 jobs to the state. Through September of 2021, the state has recovered 79 percent of those jobs.

Most industries remain below their pre pandemic level as shown in the figure below. The industries furthest below their February 2020 level include mining and logging, educational services, arts, entertainment, recreation, and accommodation and food services. The accommodation and food services industry is by far the industry with the largest *number of jobs* below its pre pandemic level. In September, the industry was 22,600 jobs below its level in February of 2020, which represents 29 percent of the state's overall jobs shortfall below pre pandemic levels.



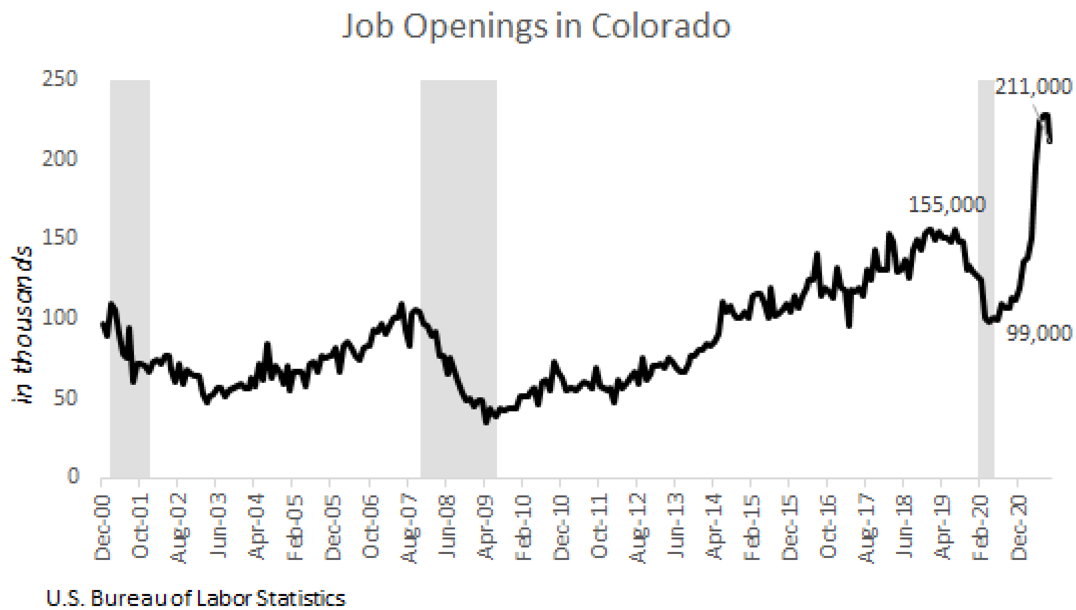
Source: U.S. Bureau of Labor Statistics

As shown in the figure below, the state's industries with lower wages lost the most jobs with the onset of the pandemic and these industries remain furthest from full recovery. These industries tend to include jobs that involve direct interaction with the public, such as retail trade, private education services, arts, entertainment, and recreation, accommodation and food services, and other services. As shown, the state's higher paying industries have regained all their jobs lost during the pandemic recession while the state's medium paying industries are just slightly below their pre pandemic level.

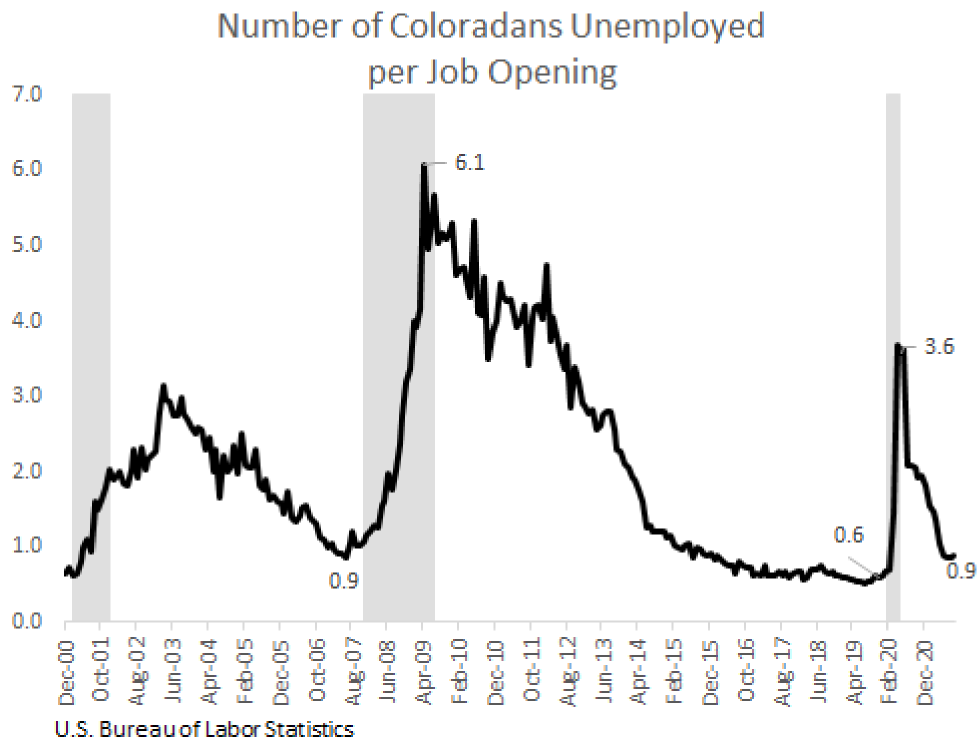


Source: Colorado Department of Labor and Employment; Bureau of Labor Statistics
Data seasonally adjusted. Note: low, medium, and high wage industries are determined by the 2019 state-level average weekly wage estimates from the Quarterly Census of Employment and Wages. Low wage industries include: retail trade; admin support/waste mgmt; private education services; arts, entertainment, and recreation; accommodation and food services; and other services. Medium wage industries include: construction; manufacturing; transportation, warehousing, and utilities; real estate, rental, and leasing; private health care and social assistance; state government; and local government. **High wage industries include**: mining and logging; wholesale trade; finance and insurance; professional and technical services; management of companies; and federal government.

While overall jobs have not fully recovered, employers across many industries are struggling with a lack of labor to fill their needed positions. The figure below shows the level of job openings in the state. In August, the state had 211,000 job openings, a record high in the data series since it began in December of 2000.



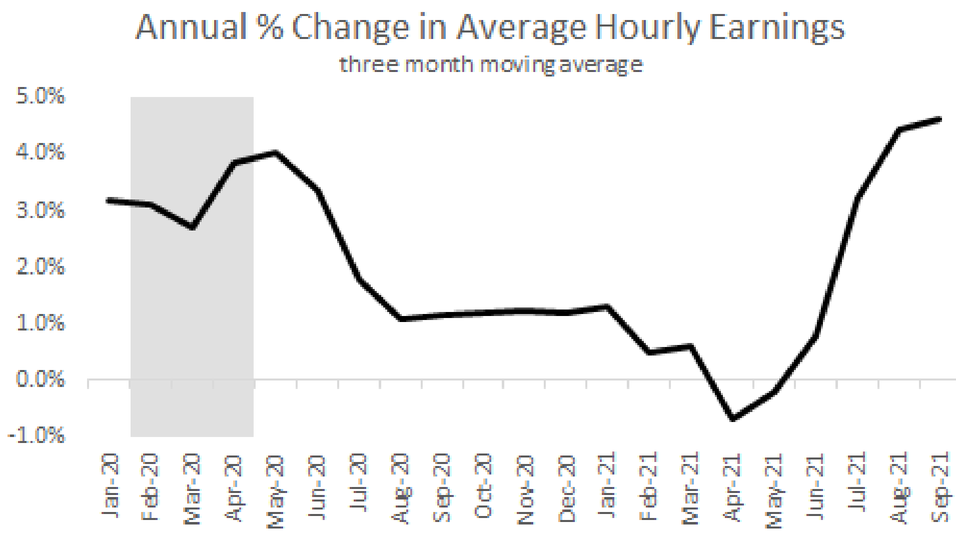
The number of openings is exceeding the number of unemployed Coloradans, which numbered 179,000 in September. The figure below shows the ratio of unemployed Coloradans to the number of job openings in the state over time. The figure shows that the ratio was less than one in August, falling rapidly from a ratio of nearly four unemployed individuals for every job opening at the peak of the COVID-induced recession.



The pandemic has exacerbated labor force shortages that existed pre pandemic due to several factors. The pandemic has caused an increased number of retirements and individuals unwilling or unable to work due to COVID-related health concerns. There has also been a sharp drop in immigration. Further, difficulties in accessing childcare have made an increased number of individuals unable to work. Additionally, a larger than usual proportion of individuals are currently not working as they search for improved working conditions and/or higher compensation. These labor market constraints are expected to ease as public health conditions improve and as household savings, bolstered by federal income support received during the pandemic, are drawn down.

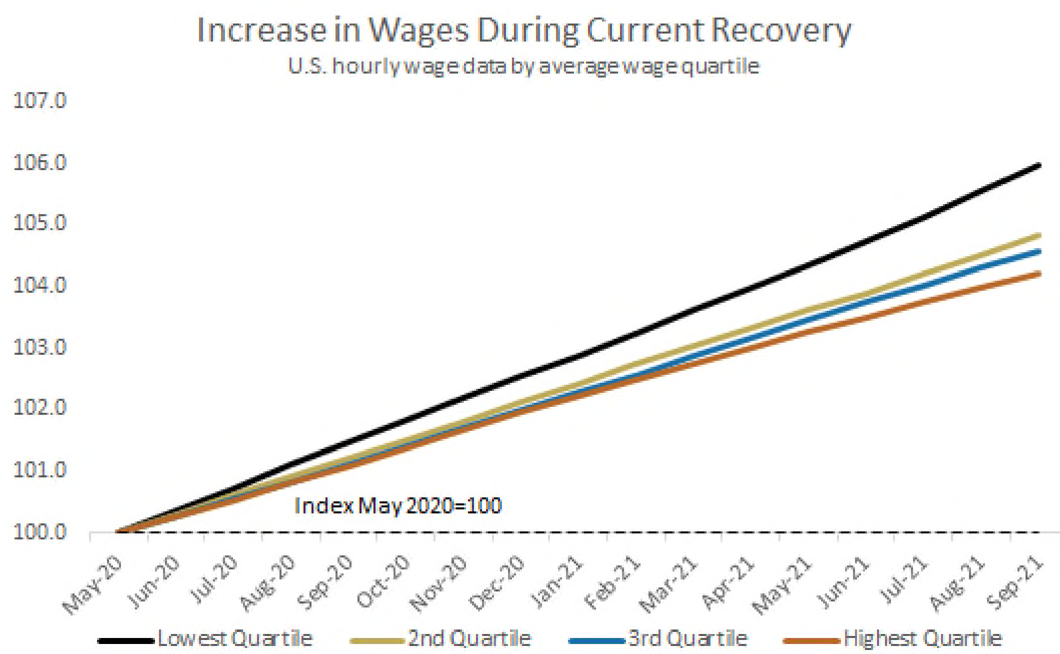
The elevated unemployment rate combined with strong labor demand also indicates that there are matching challenges in the labor market. Employers are struggling to find workers with the skills and attributes they need, while workers are also struggling to find the right fit with an employer based on their interests, skills, and preferred compensation.

The labor shortage is resulting in upward wage pressure as employers need to increase compensation in order to attract and retain employees. Average hourly earnings for employees at private employers in Colorado were up 4.6 percent in September compared with a year ago. The figure below shows the annual percent change in hourly earnings since January of 2020, before the pandemic began.



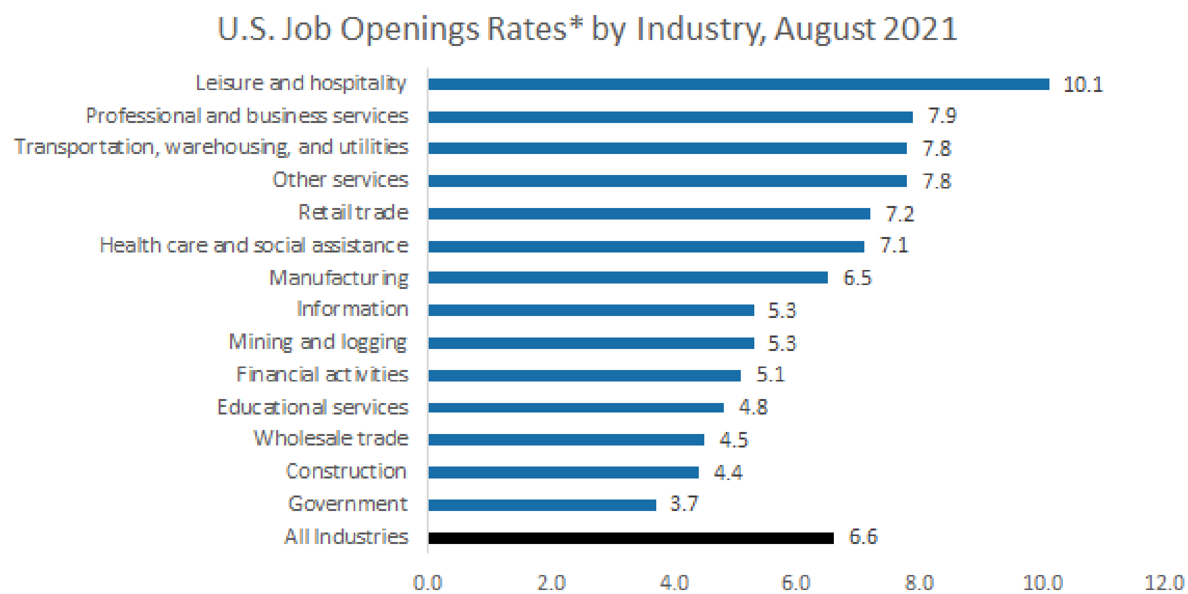
Source: U.S. Bureau of Labort Statistics

The labor shortage and rising wages are occurring across most industries. However, wages for lower wage jobs are increasing the most as they are generally in industries with the most acute shortages. Data nationally indicates that wages for the lowest quartile of wage earners are increasing the fastest among wage groups, as shown in the figure below.



Source: Federal Reserve Bank of Atlanta Wage Tracker; U.S. Bureau of Labor Statistic; Author Adjustments

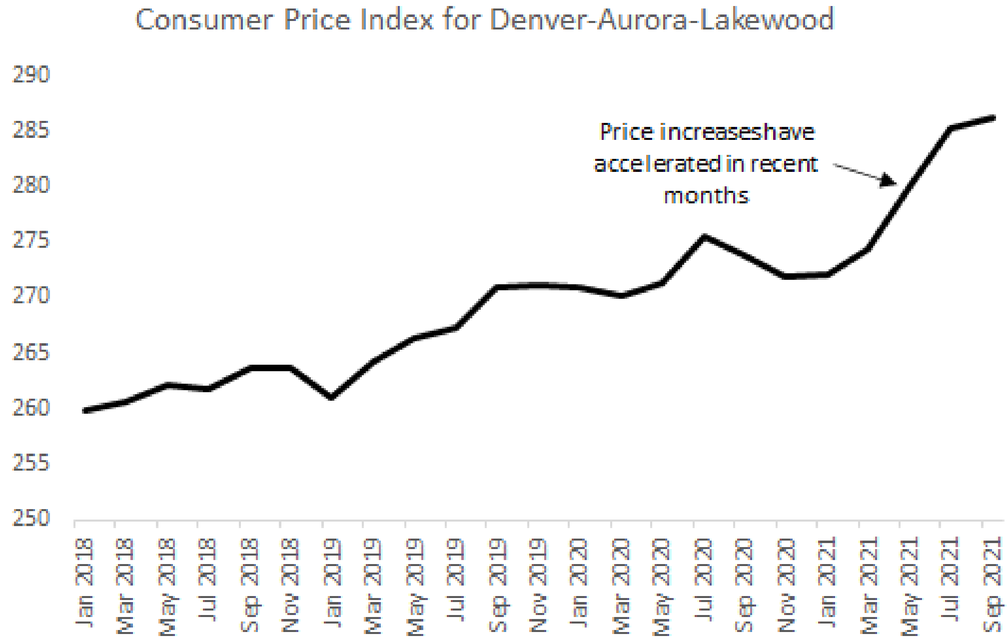
The figure below shows the job openings rate by industry nationally. The leisure and hospitality industry, which includes accommodation and food services and arts, entertainment, and recreation, has the highest job openings rate among all industries according to national data. As a result, the leisure and hospitality industry is particularly seeing large wage increases nationally and in Colorado. Average hourly earnings for all employees in the industry in Colorado were up 13.9 percent in September compared with a year ago, three times the rate of the private industry average.



* The job openings rate is the number of job openings on the last business day of the month as a percent of total employment plus job openings.
Source: U.S. Bureau of Labor Statistics

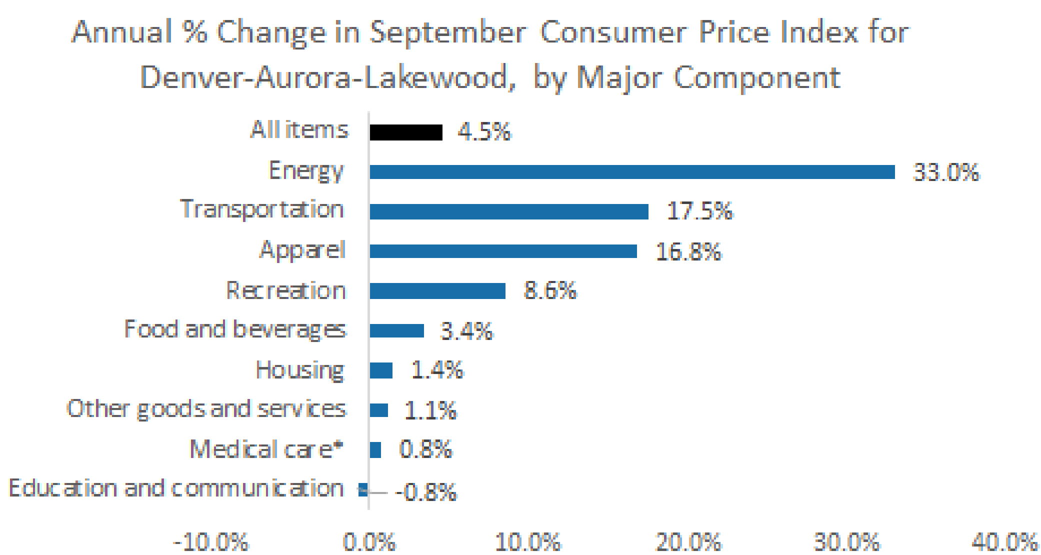
In response to the labor shortages, in addition to increasing wages and bonuses, employers are reporting that they need to increase non-wage compensation, hire and train less qualified workers, increase their advertising of open positions, hire temporary employees, and invest in labor saving automation strategies.

The strong recovery, substantial fiscal and monetary stimulus that have boosted demand, combined with disruptions in the global supply chain, are resulting in elevated levels of inflation in Colorado and the U.S. overall. The figure below shows the consumer price index for Denver-Aurora-Lakewood since 2018.



Source: U.S. Bureau of Labor Statistics

Items in the Denver-Aurora-Lakewood consumer price index that are experiencing the largest price gains are energy, transportation, apparel, and recreation as shown in the figure below. Diminishing federal fiscal and monetary stimulus, along with a lessening in the demand for goods, and an easing of supply chain bottlenecks should cause inflationary pressures to dissipate somewhat over the next year.



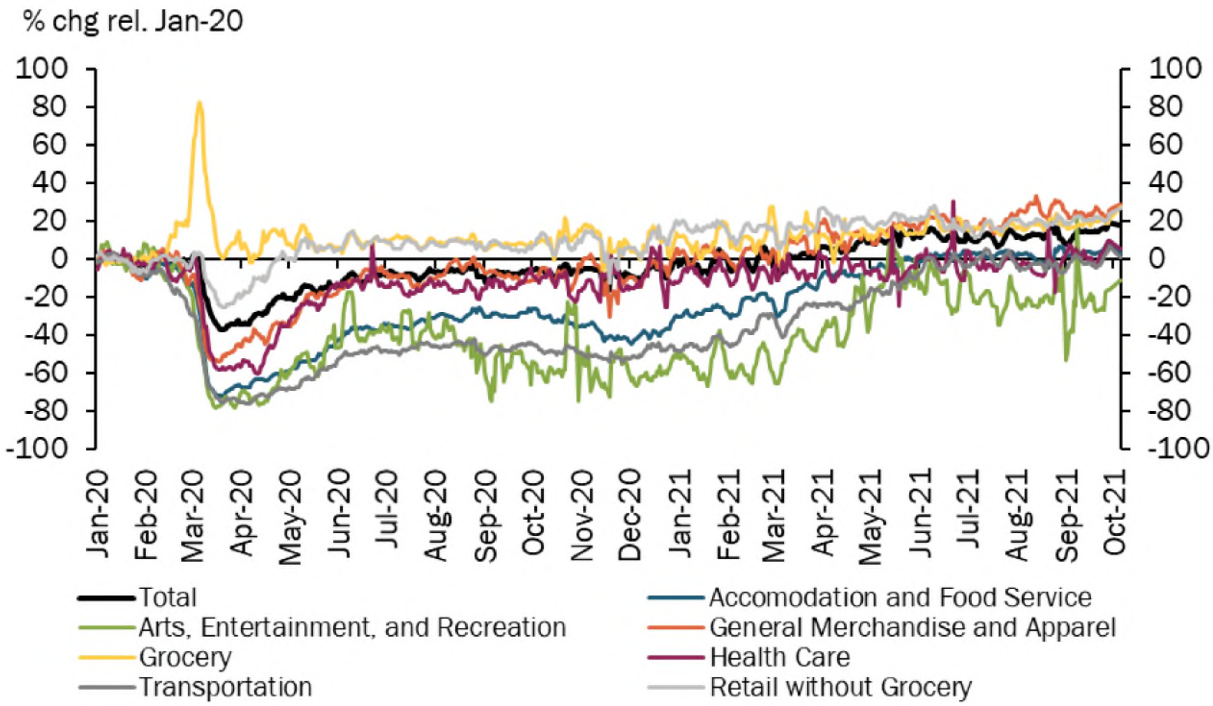
*Price index data for medical care is for July; September data was unavailable at time of publication.
Source: U.S. Bureau of Labor Statistics

Section 2: The Pandemic’s Impact on Industries

Although the Colorado economy has bounced back sharply from the initial stages of the pandemic, the events of the past 18 months continue to affect Colorado businesses in a variety of ways. In a few industries, demand has yet to fully return. In others, businesses and workers have been forced to continually adapt in order to meet customer demand while limiting the spread of COVID-19. More recently, many industries are struggling to meet strong consumer demand in the face of supply chain shortages, rising material costs, and labor shortages.

Despite the severity of the recent pandemic-induced recession, federal stimulus payments and recent wage gains have helped Colorado consumers to surpass their pre-pandemic spending levels by this spring. In October, total credit and debit card spending was about 16 percent above January 2020 levels in Colorado, but large differences exist across industries. Pandemic-sensitive sectors such as restaurants, entertainment venues, hotels, and air transportation have been slower to recover than other sectors. As shown in the chart below, spending on accommodation and food services and transportation improved significantly this summer and has now reached pre-pandemic levels. Spending on arts, entertainment, and recreation also increased earlier this year, but was still down about 20 percent on average in October compared to January 2020 levels. One example within this category is movie theaters which reported that box-office sales were down about 25 percent nationally toward the end of October.

Colorado Credit and Debit Card Spending

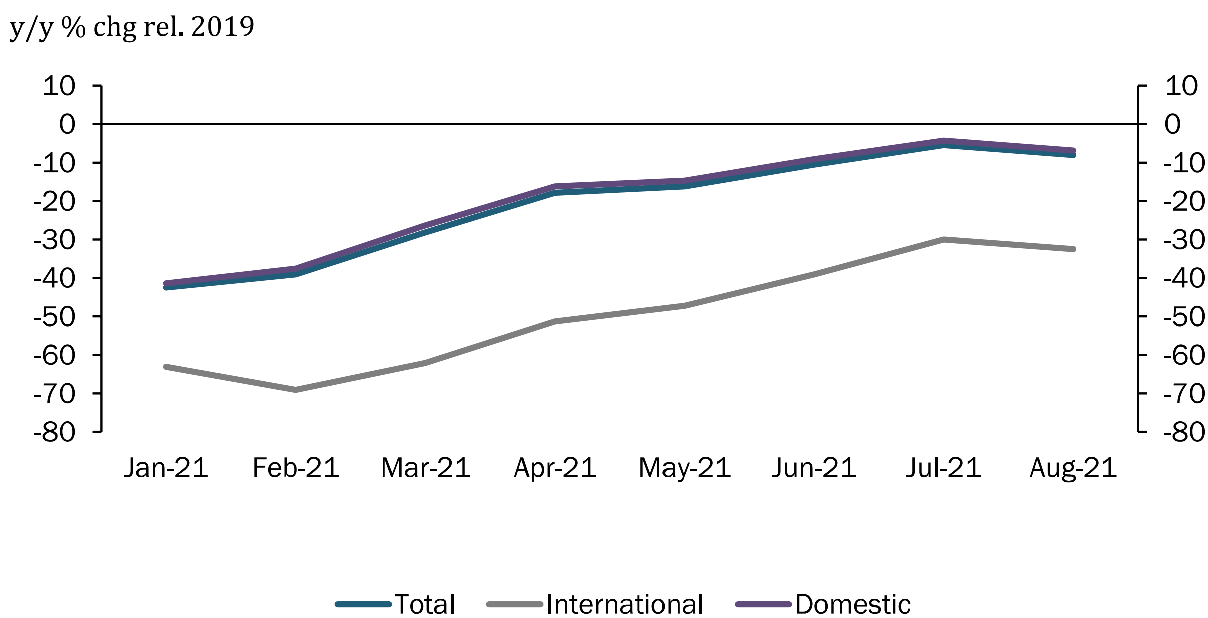


Sources: Affinity Solutions, Track the Recovery

Note: Change is relative to January 4-31 2020. Data through Oct. 17

In addition to the arts, entertainment, and recreation sector, parts of the tourism sector continue to struggle. For example, air travel has been slow to bounce back, especially international air travel. The chart below shows that air travel improved significantly this summer, but domestic passenger counts at Denver International Airport were still down almost 7 percent in August compared to pre-pandemic levels. International passenger counts were down more substantially, with passengers down about 32 percent in August. Anecdotal reports suggest that leisure travel surged this summer, but business travel remains well below pre-pandemic levels. These trends spill over into other tourism-related industries such as hotels, convention and event venues, and restaurant and retail establishments near business-centric areas of the state.

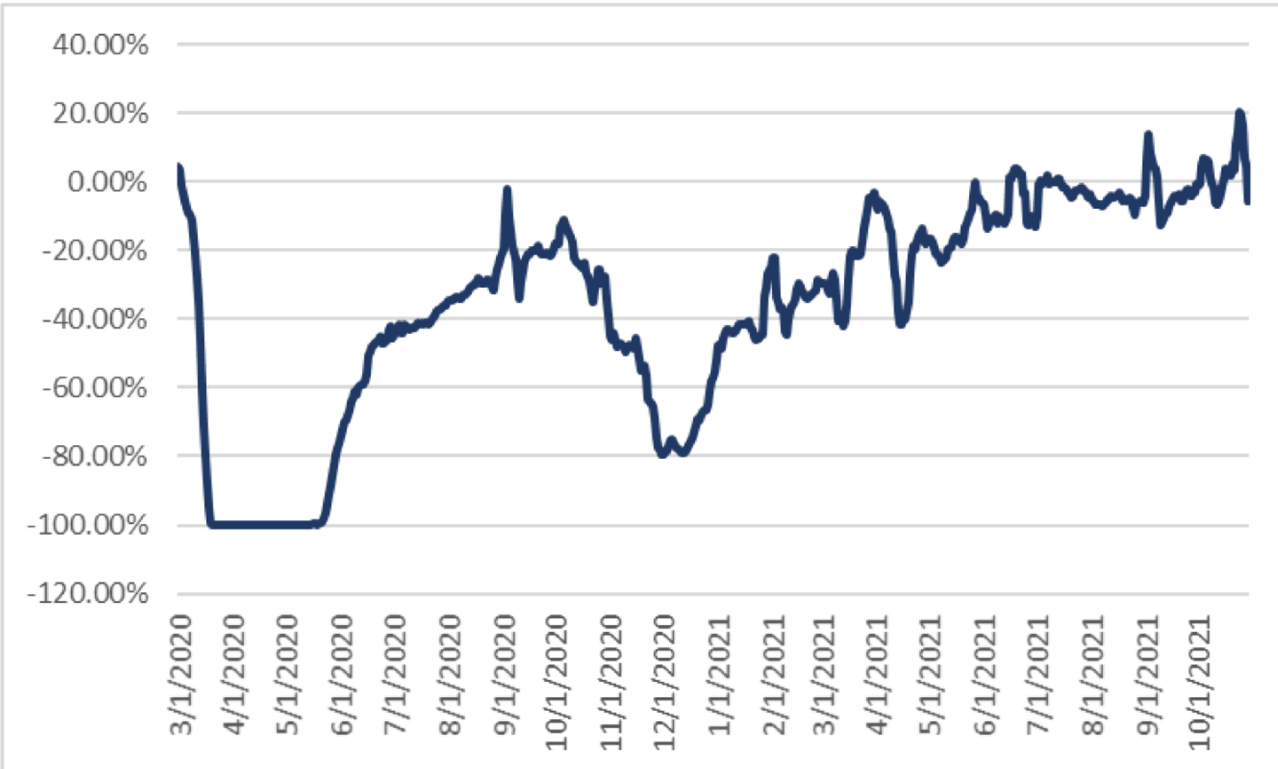
Denver International Airport Passenger Counts



Source: City and County of Denver Department of Aviation

Restaurants were also particularly hard hit during the pandemic. The chart below shows that seated diners in Colorado remained well below 2019 levels until this summer. Over the past month, the number of seated diners in Colorado has been similar to 2019 levels, but restaurant traffic could slow again as the weather turns colder. In addition, restaurants have faced burdens related to health regulations and how best to serve customers while limited staff and customer exposure to health risks. Retail and healthcare sectors have also had to adapt significantly during the pandemic.

OpenTable Seated Diners in Colorado
Percent Change Compared to 2019



Source: OpenTable

Challenges also exist in industries that are experiencing robust demand. In recent business surveys conducted by the Federal Reserve Bank of Kansas City, 95 percent of surveyed manufacturers and 80 percent of services contacts reported facing supply chain disruptions and shortages. In response, firms reported raising prices, delaying projects, turning away business, increasing inventories, and diversifying suppliers. In addition, 36 percent of manufacturers and 43 percent of services contacts expect these issues to persist for more than 12 months. Businesses are also reporting severe labor shortages. In July surveys conducted by the Kansas City Fed, 91 percent of manufacturers and 84 percent of services contacts reported labor shortages. Both supply shortages and labor shortages are putting upward pressure on input costs for businesses.

According to surveys conducted by the National Federation of Independent Business, small businesses, in particular, are also facing numerous challenges. Fifteen percent of small business owners reported that sales are 50 percent or less than they were pre-pandemic, while 18 percent report sales between 51 percent and 75 percent of pre-pandemic levels and only 26 percent have current sales that are higher than pre-pandemic. Like other businesses, small business owners also report significant challenges related to supply chain disruptions and labor shortages. In addition, 20 percent of small employers reported that childcare issues are either a moderate or significant issue, and 29 percent of small employers have had employees quit or reduce hours due to childcare challenges.

Section 3: The Pandemic's Impact on People and Households

The impacts of the COVID recession were not evenly distributed. One disparity was in employment, and since the recession impacted industries in widely different ways it also affected people, the workers in those industries, in widely different ways. Early in the COVID recession, job losses were concentrated in four industries: retail trade; accommodations and food service; arts, entertainment and recreation; and health care and social services. By the summer of 2020, the four industries collectively had shed just under 124,000 jobs from their pre-pandemic levels. Many of the workers in those jobs were among the most likely to have been living with economic stress even before the pandemic disrupted their employment.

According to analysis of the Colorado data from the 2019 American Community Survey one year sample, prior to the onset of the COVID pandemic there were 654,000 housing cost stressed households with income of less than $75,000 and at least one worker in one of the affected industries (households spending more than 30 percent of household income on housing). Another 104,000 households were on the margin of housing cost stress (spending between 25 and 29 percent of their income on housing). Limiting the age of the workers to 18 years or above (to eliminate high school students with part time jobs in an affected industry such as food service), the data show that 406,500 households statewide had least one worker over the age of 18 employed in one of the most affected industries. Of those households, more half of them (223,500) were already experiencing housing cost stress (spending more than 30 percent of their income on housing).

The 406,500 households with reliance on employment in the affected industries contained 517,000 workers. The majority of these households have female workers and workers lacking a college degree. 40 percent of the workers in these households are over the age of 40. The majority of the households are living in rental housing, making them vulnerable to eviction, and half of the households are headed by a single parent. Three of ten of these households contain children under the age of 18. (See addendum to this section for more detail on the socio demographics of affected workers)

Of the 406,500 households, approximately 55 percent of them (223,500) were already housing cost burdened before the recession. The have a similar profile to the larger universe of households with workers in the most affected industries. These households contain 141,500 of Colorado's children, 80 percent of whom are living with a single parent. The majority of the households are renter households and 183,000 of the workers lack a college degree. As a share of households by race and ethnicity, at least half of the households in every racial and ethnic cohort are housing cost burdened. (See addendum to this section for more detail on the socio demographics of affected workers)

Entering the pandemic, many Colorado workers in the industries most affected by the COVID recession already were facing economic stress. Those workers were disproportionally female, workers lacking a college degree, and renters. Contrary to public perception, many of these workers are over the age of 40 suggesting that this employment career employment rather than employment being used to fund other activities such as education. Then COVID hit. Many of these workers lost their jobs, albeit some temporarily. And, as the recovery from the COVID recession progresses, the emerging data suggest that those facing economic stress prior to COVID are facing increasing stress through the recovery.

Data from the Colorado Department of Labor, the US Bureau of Labor Statistics, and the Current Population Survey support that the pandemic's labor market disruptions have had disproportionate impacts on certain demographic groups in Colorado.

Tables 3-1 through 3-3 and Figures 3-1 and 3-2 detail changes in labor force participation rates and employment-to-population ratios (referred to as "employment rates") by race, age and gender over the course of the pandemic. Starting with Table 3-1, percentage point changes give the difference in labor force participation (or employment) rates in 2019 relative to the average for the year leading up to September 2021. Percent changes are included to give a more precise sense of magnitude (smaller percentage point changes can have larger percent impacts for lower values of labor force participation for instance, as often happens when comparing women and men). For Coloradoans aged 16 and older, labor force participation is down 1.4 percentage points (or 2.0 percent) overall. Coloradoans between the ages of 16 and 19 have actually increased their labor force participation and employment rates through the course of the pandemic, attenuating the impact of participation and employment losses among older workers on aggregate patterns.

Considering the breakdown by race, these general patterns of teen increases and declines for those in the 20+ range hold for White workers, but Black workers of all ages have experienced large declines in both labor force participation and employment rates. The percent losses for Black workers are particularly large for Black teens, and for employment rates across all age groups. The latter suggests that unemployment is particularly serious for Black workers over 20 years of age. For Hispanic workers, labor force participation stayed about level across age groups, though employment rates are down suggesting less success in finding work.

Table 3-2 disaggregates Table 3-1 by gender. Focusing on adults (20+) of all races, women had higher losses in labor force participation than men: -3.6 versus -1.8 percent respectively. The gender gap in employment rates is lower than that of labor force participation, however, suggesting that the probability of unemployment (formal or not) is closer by gender. Looking to differences by race and gender, patterns for White women and men largely conform to the aggregate numbers, in line with their being nearly 90 percent of the sample. Black men have experienced labor force participation rate losses in magnitudes that are within one percentage point of the losses of White men, but their employment rates have declined by much more, suggesting significant challenges in finding employment. Labor force participation for Black women, both teens and adults, declined the most of any demographic category in Table 3-2; for those aged 16 and older, labor force participation declined 16.2 percent (10.7 percentage points), and employment by 25.8 percent (15.8 percentage points). Black men experienced smaller declines in labor force participation, but the next highest losses in employment rates. Though their losses are not as high as that of Black women, Hispanic women have the next largest decline in labor force participation and employment rates, with losses concentrated among Hispanic teen women. Conversely, Hispanic men experienced increases in labor force participation, the only demographic group to do so.

In order to get a more precise sense of where changes in aggregate labor supply are coming from, Table 3-3 breaks down changes in labor force participation by gender and detailed age group. The right-hand column gives the contribution of the changes in the rows to the aggregate change in labor force participation by gender. For instance, for men aged 16-19, labor force participation increased by 3.0 percentage points or 6.8 percent, ending at a labor force participation rate of 46.8 percent. This increase contributed 0.6 percentage points to the aggregate percentage point change in men's labor force participation over the period, which equaled -1.4 percentage points (see Table 3-1). Very quickly we can see that teens made an important contribution to Colorado's labor force over the period, with contributions of 0.6 percentage points for men and 0.9 percentage points for teen women.

We can also see that losses in labor force participation were highly concentrated among the 55 and older group, contributing to a loss of -1.1 percentage points for men and -1.3 percentage points for women, suggesting that older women and men withdrew from the labor force in response to the pandemic. This could connect to health-related concerns, or increases in wealth from the stock market and higher home values that made retiring early a more attractive prospect. Considering the resultant changes in the age distribution of the labor force suggests one reason that employers may be finding it difficult to find workers in certain sectors: older, more experienced workers have left the labor force, and new teen labor force entrants are likely insufficient substitutes, creating a sort of skills or experience mismatch.

Contextualizing these trends in recent research on retirement is important for making future projections. Rather than retirement indicating a permanent shift in labor force status, many Americans who retire engage in what economists term "unretirement," rejoining the labor force after officially retiring. The proportion of unretirees among older Americans is substantial: a 2015 study by the RAND Corporation found that 40 percent of employed workers over age 65 said that they had retired at some previous point (Rand 2017: 12). Looking more specifically at how the pandemic has affected these trends, research from the Federal Reserve Bank of Kansas City tracks the drivers of the increasing share of retirees in the U.S. population over the course of the pandemic (Nie and Yang 2021). Interestingly, they find that this increase was driven not by more people transitioning from employment to retirement, but rather by fewer people transitioning from retirement to employment, hypothesizing that the latter was driven primarily by pandemic health-related risks. Given that health-related risks are likely to subside, they also expect that retire-to-employment transitions will recover as the health-related risks of the pandemic recede. However, even if transitions out of retirement to employment returns to its pre-pandemic pace, they estimate, it would take more than two years to unwind the increase in retirements.

Focusing on the prime working ages of 25 – 54, adding together the total impact of changes in labor force participation we get -0.3 percentage points for men and -0.9 percentage points for women. Higher rates for women are probably related to women's disproportionate responsibilities for provisioning care in the household, whether it be for the care of children or elders.

By way of summary, key findings for Colorado include:

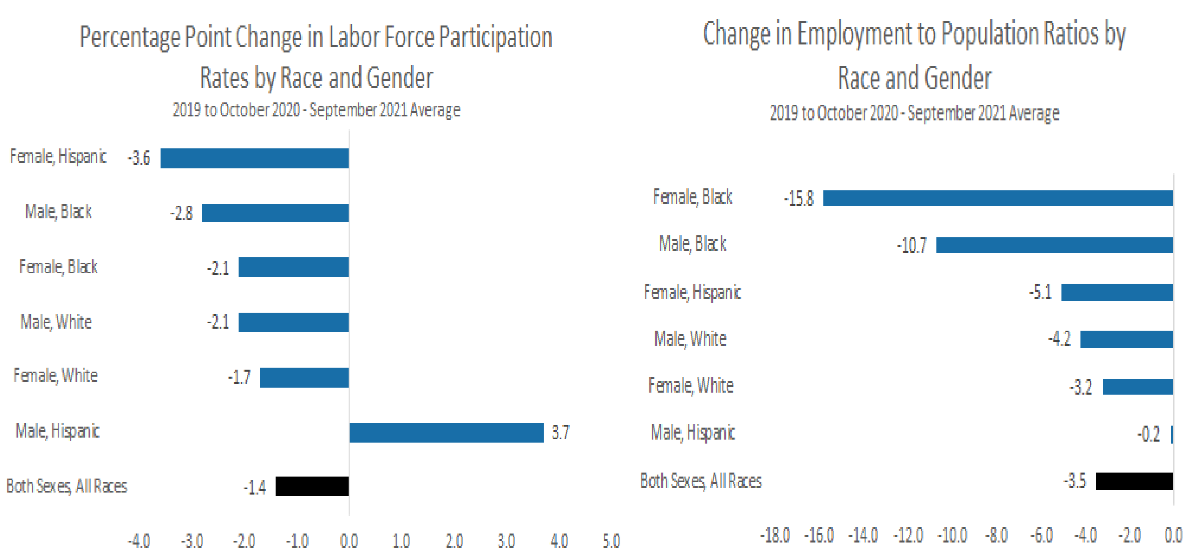
- Women over the age of 20 have experienced greater losses in labor force participation and employment rates than men over the course of the pandemic, at both the aggregate level and among White, Black, and Hispanic workers. That women have been more affected than men likely reflects women's disproportionate responsibility for family care. This pattern is similarly reflected in gender differences among prime age workers between 25 and 54. Research early in the pandemic also found that women are more highly concentrated than men among non-essential face-to-face industries, and so were more likely to face higher rates of job loss due to lock-downs and other safety measures (Arora et al. 2020).
- Impacts differ by race, with Black men and women and Hispanic women experiencing disproportionately high declines in labor force participation and employment. Conversely, the labor force participation rate for Hispanic men has increased. These results are likely connected with the distribution of these workers across different industries, with Hispanic women and Black workers more highly concentrated in industries negatively affected by the pandemic.
- Disaggregating by age, the largest losses in labor force participation are concentrated in workers aged 55 and older, among both women and men. Rising participation for teens has compensated for this loss somewhat, but these two groups of workers are not close substitutes in terms of skills and experience. Pandemic-era research on retirements indicates the loss of older workers, at least at the national level, has been primarily driven by a decline in those transitioning from retirement to employment. To the extent that this decline is related to concerns about pandemic health-related risks, the proportion of older workers in the labor force may increase again as health risks subside.

Table 3-1. Colorado changes in labor force participation and employment by race/age

	Labor Force Participation Rate				Employment to Population Ratio		
	Percentage point change	Percent change	Latest Level		Percentage point change	Percent change	Latest Level
All Races							
Age 16+	-1.4	-2.0%	67.6		-3.5	-5.2%	63.7
Age 16-19	8.1	20.0%	48.6		5.6	14.8%	42.9
Age 20+	-1.9	-2.7%	68.9		-4.0	-5.8%	65.1
White							
Age 16+	-2.0	-2.9%	67.3		-3.7	-5.5%	63.9
Age 16-19	7.6	17.4%	51.4		5.6	14.1%	45.8
Age 20+	-2.5	-3.5%	68.4		-4.2	-6.1%	65.1
Black							
Age 16+	-6.6	-9.6%	62.0		-13.2	-20.1%	52.6
Age 16-19	-6.8	-21.1%	25.5		-6.9	-21.3%	25.6
Age 20+	-5.2	-7.4%	65.0		-12.4	-18.4%	54.9
Hispanic							
Age 16+	-0.2	-0.3%	70.8		-2.9	-4.2%	65.6
Age 16-19	0.3	0.6%	47.3		-2.9	-7.0%	39.4
Age 20+	0.1	0.1%	73.6		-2.5	-3.5%	68.8

Note: Based on CPS data on employment status of civilian institutional population. Change between 2019 and October 2020-September 2021 average; the latter time period is the latest level.

Figure 3-1. Colorado changes in labor force participation and employment by race/age



Source: Colorado Department of Labor and Employment and U.S. Bureau of Labor Statistics

Table 3-2. Colorado changes in labor force participation and employment by gender, race, and age

	Labor Force Participation Rate				Employment to Population Ratio		
	Percentage point change	Percent change	Latest Level		Percentage point change	Percent change	Latest Level
Male, All Races							
Age 16+	-1.4	-1.9%	73.7		-4.1	-5.5%	69.3
Age 20+	-1.4	-1.8%	75.7		-4.1	-5.4%	71.5
Female, All Races							
Age 16+	-1.3	-2.1%	61.6		-3.0	-4.9%	58.1
Age 20+	-2.3	-3.6%	62.3		-3.8	-6.1%	58.9
Male, White							
Age 16+	-2.1	-2.8%	73.7		-4.2	-5.7%	69.8
Age 20+	-2.3	-3.0%	75.3		-4.4	-5.8%	71.6
Female, White							
Age 16+	-1.7	-2.7%	61.2		-3.2	-5.3%	58.1
Age 20+	-2.6	-4.0%	61.8		-4.0	-6.4%	58.9
Male, Black							
Age 16+	-2.8	-3.9%	68.3		-10.7	-15.3%	59.5
Age 20+	-2.0	-2.7%	71.0		-10.7	-14.8%	61.4
Female, Black							
Age 16+	-10.7	-16.2%	55.2		-15.8	-25.8%	45.4
Age 20+	-8.5	-12.7%	58.6		-14.3	-23.0%	47.8
Male, Hispanic							
Age 16+	3.7	4.7%	82.3		-0.2	-0.2%	76.3
Age 20+	3.3	4.0%	85.4		-0.4	-0.6%	79.7
Female, Hispanic							
Age 16+	-3.6	-5.7%	59.5		-5.1	-8.4%	55.3
Age 20+	-2.9	-4.5%	61.9		-4.3	-6.9%	58.1

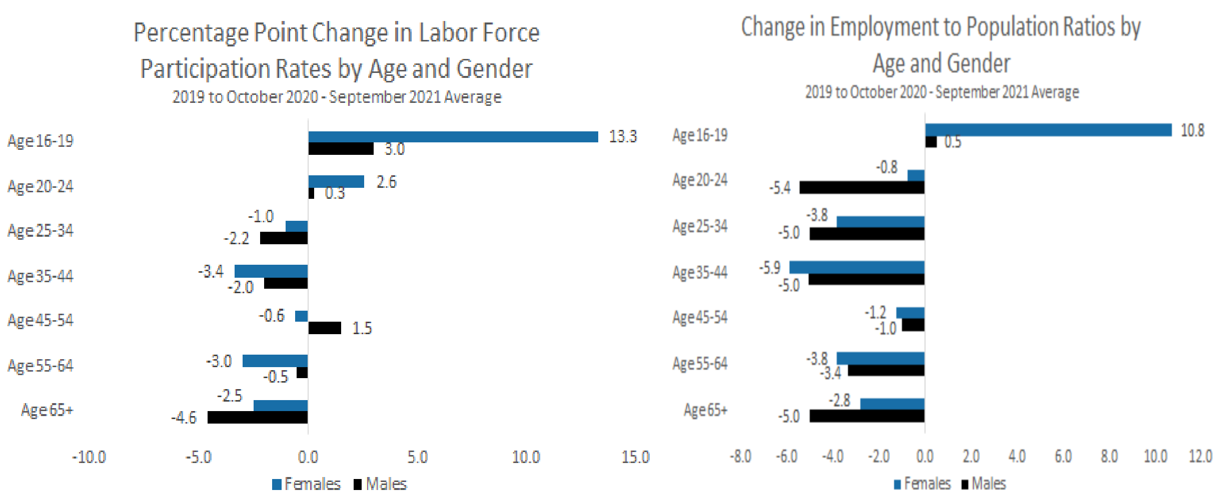
Note: Based on CPS data on employment status of civilian institutional population. Change between 2019 and October 2020-September 2021 average; the latter time period is the latest level.

Table 3-3. Colorado changes in labor force participation by gender and age

	Percentage Point Change	Percent Change	Latest Level	Contribution to Aggregate Percentage Point Change
Male, All Races				
Age 16-19	3.0	6.8%	46.8	0.6
Age 20-24	0.3	0.4%	76.6	-0.5
Age 25-34	-2.2	-2.3%	91.5	-0.6
Age 35-44	-2.0	-2.1%	92.7	-0.4
Age 45-54	1.5	1.7%	91.7	0.7
Age 55-64	-0.5	-0.7%	74.2	-0.4
Age 65+	-4.6	-15.9%	24.4	-0.7
Female, All Races				
Age 16-19	13.3	35.7%	50.6	0.9
Age 20-24	2.6	3.4%	78.7	-0.3
Age 25-34	-1.0	-1.2%	81.7	-0.5
Age 35-44	-3.4	-4.4%	73.7	-0.1
Age 45-54	-0.6	-0.7%	80.0	-0.2
Age 55-64	-3.0	-4.9%	58.7	-1.0
Age 65+	-2.5	-12.3%	17.9	-0.3

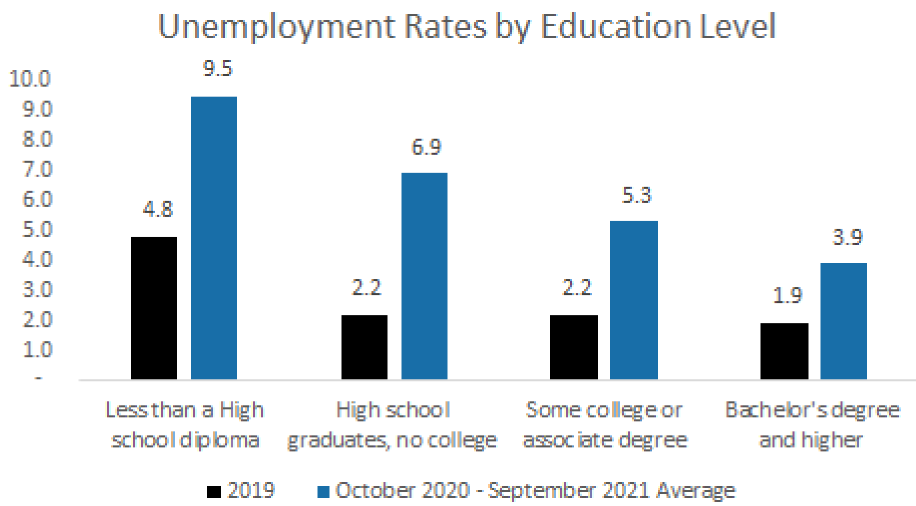
Note: Based on CPS data on employment status of civilian institutional population. Change between 2019 and October 2020-September 2021 average; the latter time period is the latest level. Contribution to aggregate percentage point change refers to the impact of the age group row on the total percentage point change in labor force participation for men or women. The latter was figured by using population weights to decompose changes into those contributed by changes in labor force participation and changes in the share of that segment in the total population.

Figure 3-2. Colorado changes in labor force participation by gender and age



Source: Colorado Department of Labor and Employment and U.S. Bureau of Labor Statistics

Although the unemployment rates for individuals are elevated for all cohorts compared with the levels before the pandemic, Coloradans with higher levels of education continue to post lower unemployment rates compared with individuals with less education.



Source: Colorado Department of Labor and Employment and U.S. Bureau of Labor Statistics

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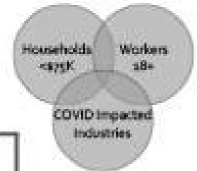
Addendum to People and Households Section:
Socio Demographics of Workers in Affected Industries

Full report available at: https://www.coloradofuturescsu.org/wp-content/uploads/2020/09/COVID_HousingJobsVulnerabilityBrief_FINAL.pdf

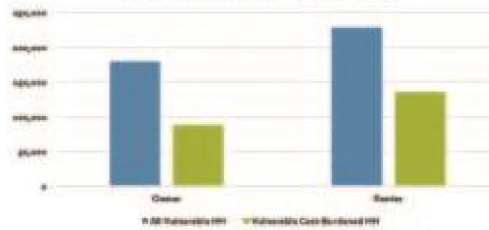
Who Are the 406,500 Households?
(containing 517,000 workers)



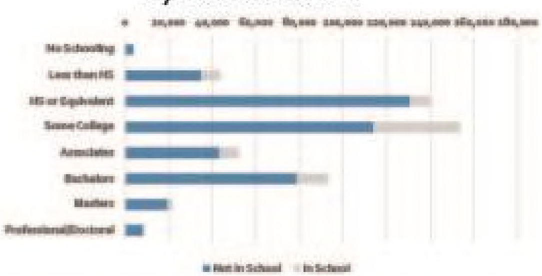
The majority have female workers, living in rental housing and lacking a college degree. Over four in ten workers are over age 44.

40% 60%

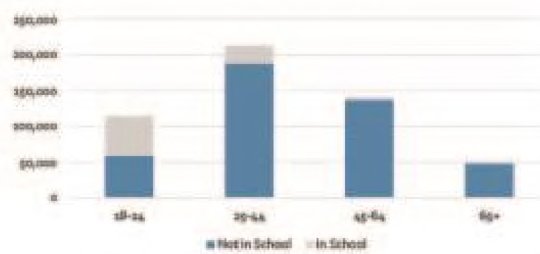
Households by Tenure



Educational Attainment by School Status



Worker Age by School Status



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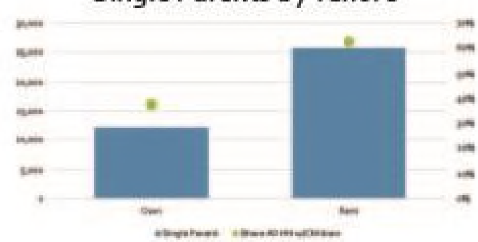
3 in 10 Households have Children

Single Parents

50%

Single Parents by Tenure



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1 in 4 Households of Color* vs **1 in 6 White/Asian Households**

*125,000 households of color, excluding Asian or Pacific Islander

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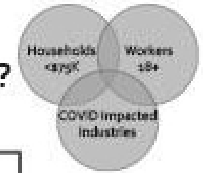
Who Are the 223,500 Already Cost-Burdened Households? (containing 278,600 workers)



They house 141,500 children, almost 80 percent with a single parent. Two-thirds of these workers lack a college degree.

40% 60%

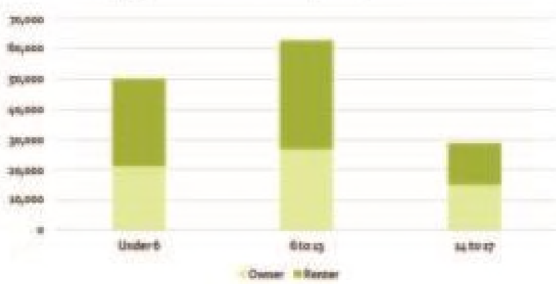
Owners
87,500

Renters
136,000

183,000 Workers

Lack a college degree

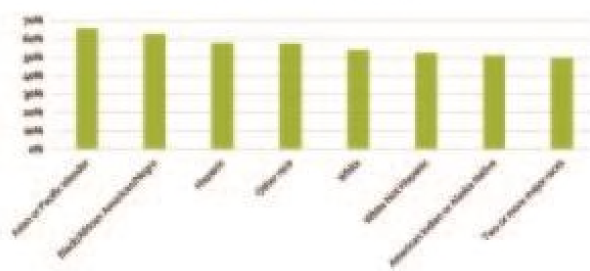
141,500 Children by Age and Tenure



Single Parent Households

3 in 10
Housing
110,000 Children

Cost-Burden by Race | Ethnicity



As a share of total households by race/ethnicity, at least half of all households in every racial/ethnic cohort are cost burdened.

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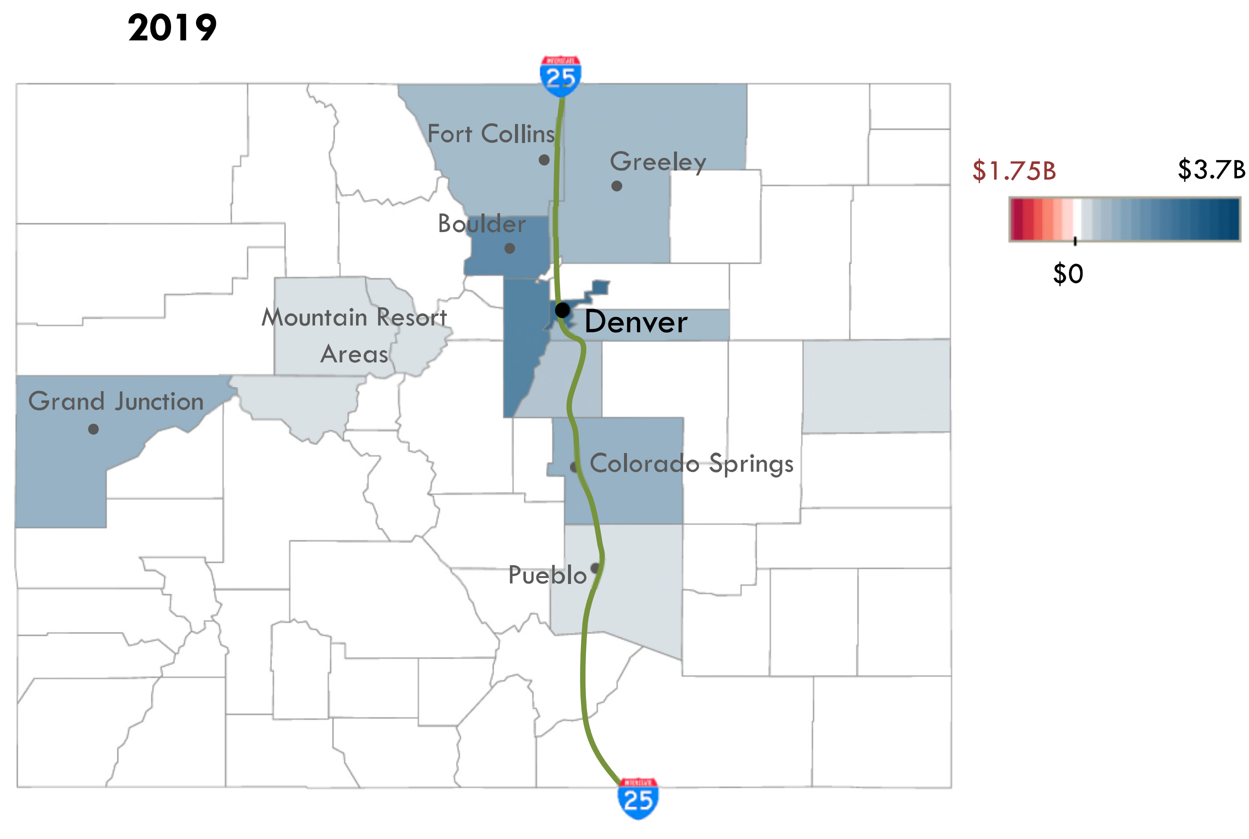
Section 4: The Pandemic's Impact on Geographic Regions

The impact of the pandemic on economic activity has differed by region. One way to consider that distribution is through changes in retail sales. Figure 4-1 illustrates these changes by county for 2019, 2020, and January-June 2021. Looking at the first map for 2019, we can see that before the pandemic in 2019, consumer activity was concentrated along the I-25 corridor. Statewide retail sales growth that year was 9.0 percent. The second map for 2020 shows how consumer activity declined in the more populated areas of the state, with statewide retail sales growth of just 1.9 percent. The last map for 2021 illustrates retail sales recovery along the I-25 corridor, as well as more activity in rural, scenic areas as travel has gotten more local. Statewide retail sales growth for the first six months of 2021, relative to the same period in 2020, was a robust 16.6 percent.

To get a more specific sense of these changes, Table 4-1 lists retail sales growth and unemployment rates for all Colorado counties beginning in 2019. Percent changes in retail sales tend to be higher and more volatile in more rural counties, in line with lower levels of retail sales where even small changes in the business landscape can have significant impacts. Looking at the connection between retail sales growth and unemployment, one way to measure the extent to which the series move together is by calculating a correlation coefficient, which represents the strength of the association between sales and unemployment. Values vary between -1.0 and 1.0. Correlation coefficients reveal two patterns. First, the correlation coefficient between sales growth and unemployment for 2019 is -0.28, indicating that higher sales growth was moderately associated with lower unemployment in 2019. The value for 2020 was 0.06, indicating little connection between sales growth and unemployment. For the first six months of 2021, however, the correlation coefficient is 0.18, indicating a somewhat positive relationship: higher sales growth is weakly associated with higher unemployment. The latter effect is likely connected with more workers entering the labor force to look for work in 2021 relative to 2020, and indicates that it will take some time for economic activity to translate into more employment.

Figure 4-1. Year-over-Year Change in Retail Sales Levels ($billions)



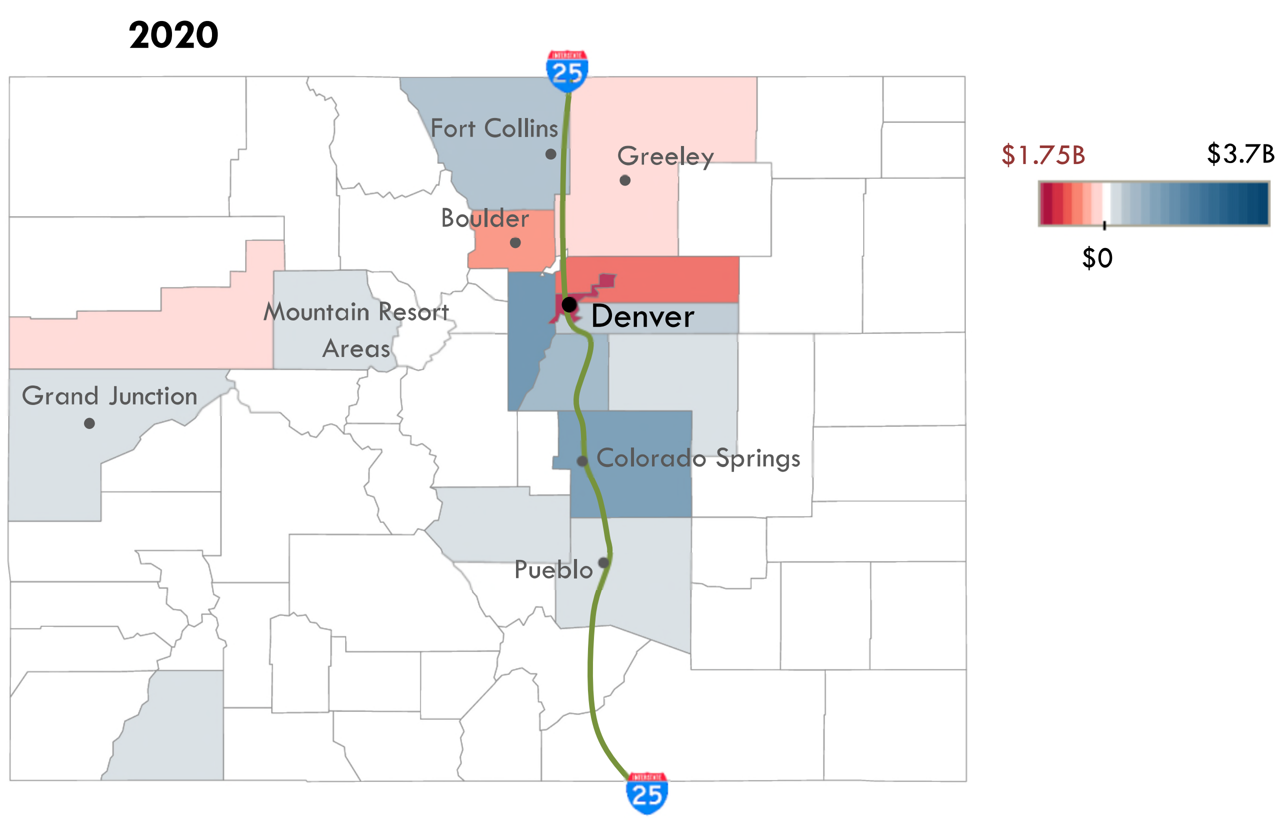
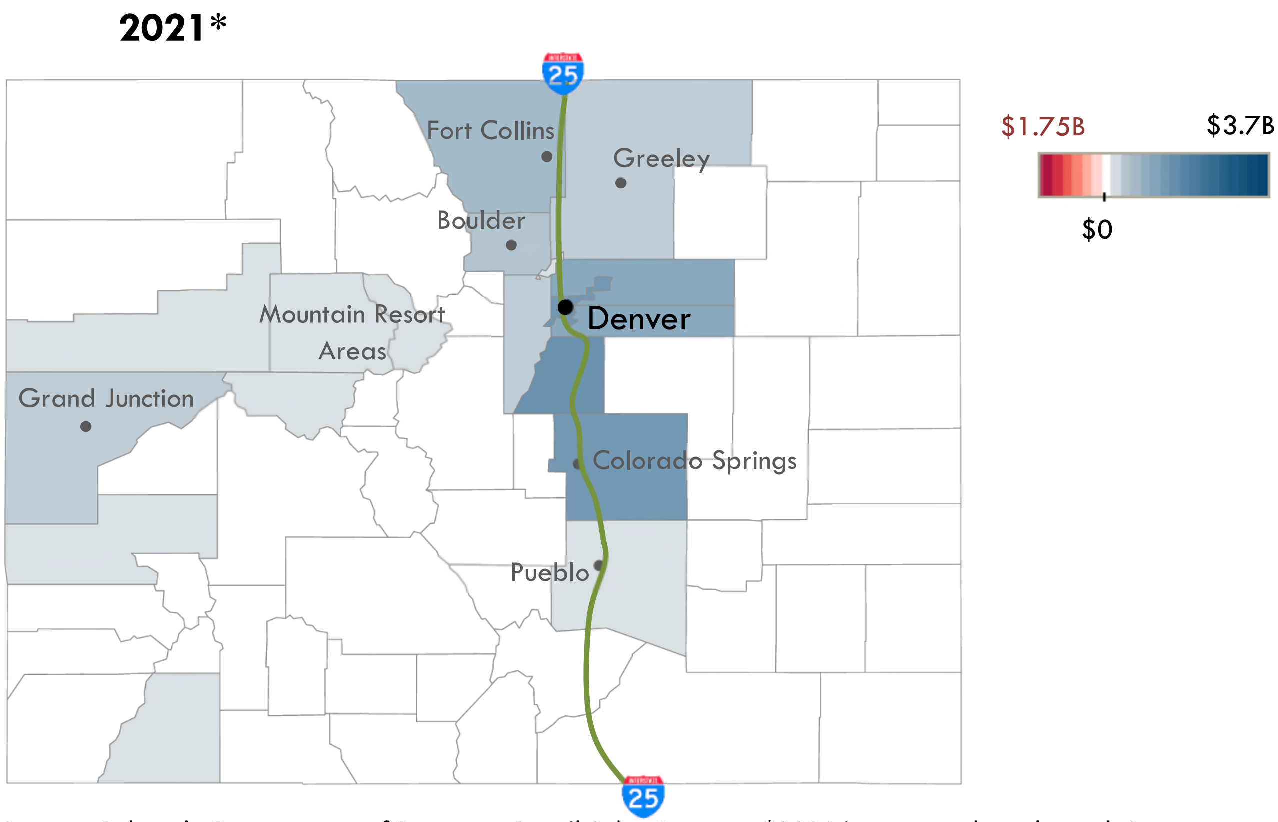


Figure 4-1 continued, Year-over-Year Changes in Retail Sales



Source: Colorado Department of Revenue, Retail Sales Reports. *2021 is year-to-date through June.

Table 4-1. Retail Sales Growth and Unemployment by County (percent)

	Retail Sales Growth			Unemployment Rate		
County	2019	2020	2021*	2019	2020	2021*
Adams County	-0.2	-3.7	14.0	2.8	8.1	6.8
Alamosa County	1.2	5.3	19.2	3.4	6.4	6.0
Arapahoe County	4.7	2.1	15.0	2.6	7.8	6.5
Archuleta County	11.3	17.5	41.4	3.0	7.6	5.2
Baca County	22.5	17.4	23.8	1.6	2.3	2.6
Bent County	40.8	16.6	4.9	2.7	4.4	6.1
Boulder County	21.4	-5.6	14.5	2.3	6.1	5.2
Broomfield County/City	4.9	-1.0	15.2	2.4	6.6	5.4
Chaffee County	7.0	12.5	30.8	2.3	6.3	4.6
Cheyenne County	92.4	-13.9	-14.1	1.6	2.5	2.9
Clear Creek County	19.8	1.9	29.0	2.4	8.5	6.1
Conejos County	13.4	42.4	27.9	3.5	5.7	5.1
Costilla County	9.1	37.5	17.1	3.8	7.3	6.8
Crowley County	19.8	42.9	25.6	4.1	5.4	5.4
Custer County	18.6	12.2	65.9	2.9	5.0	4.6
Delta County	5.0	9.0	19.7	3.2	6.6	5.5
Denver County/City	12.2	-5.2	14.9	2.6	8.2	6.7
Dolores County	9.2	47.8	-12.0	2.9	6.8	5.4
Douglas County	7.1	9.0	40.3	2.3	5.7	4.9
Eagle County	9.2	6.5	25.0	2.2	9.0	5.5
El Paso County	6.5	8.6	20.7	3.2	7.3	6.2
Elbert County	17.8	34.9	8.4	2.1	4.7	4.2
Fremont County	8.1	16.0	21.6	4.4	7.8	7.2
Garfield County	3.8	-7.5	25.3	2.6	6.8	5.2
Gilpin County	33.4	-13.8	54.1	2.3	10.8	6.9
Grand County	16.6	7.5	23.8	2.1	8.2	5.2
Gunnison County	-0.1	-0.4	28.6	2.5	7.0	6.3
Hinsdale County	19.0	31.2	20.1	2.1	6.4	4.3
Huerfano County	36.3	-19.3	31.7	3.3	4.1	4.8
Jackson County	4.8	-35.8	13.3	5.5	9.6	8.4
Jefferson County	15.3	10.0	5.2	2.3	4.2	3.5
Kiowa County	14.8	2.5	27.1	2.5	7.1	5.8
Kit Carson County	40.6	-19.5	-0.8	1.5	2.3	3.3
La Plata County	4.1	8.2	26.0	1.6	2.8	2.9
Lake County	24.6	10.9	21.6	2.4	6.9	5.7
Larimer County	9.6	7.6	18.6	2.3	7.9	5.5
Las Animas County	12.1	3.4	18.6	2.3	6.3	5.3
Lincoln County	17.7	-12.7	12.7	3.8	7.5	7.2
Logan County	7.9	10.0	10.2	2.2	4.5	4.7
Mesa County	26.7	3.5	19.4	2.3	4.8	4.8

Mineral County	7.6	9.2	49.6	3.3	7.6	6.4
Moffatt County	10.4	5.4	11.9	2.4	5.7	4.8
Montezuma County	6.3	10.6	20.7	3.3	6.1	5.0
Montrose County	4.8	6.3	24.9	4.0	7.3	6.0
Morgan County	10.2	-3.4	16.7	3.0	6.7	5.3
Otero County	-1.3	7.4	9.1	2.5	5.4	5.3
Ouray County	18.0	23.5	59.4	3.9	6.3	6.5
Park County	23.5	35.7	42.3	2.8	7.9	5.3
Phillips County	14.9	-10.8	-3.7	2.4	5.7	4.5
Pitkin County	17.8	-3.4	25.0	1.5	2.7	3.3
Prowers County	-5.2	22.2	7.5	3.0	10.1	7.4
Pueblo County	7.3	2.9	12.2	2.5	4.5	4.9
Rio Blanco County	7.2	5.6	19.1	3.9	8.2	8.4
Rio Grande County	5.1	4.1	32.1	3.5	5.5	5.8
Routt County	9.5	7.5	14.4	4.0	7.2	6.5
Saguache County	14.5	-0.5	14.9	2.1	7.5	5.0
San Juan County	17.5	12.0	82.3	3.9	7.1	6.8
San Miguel County	18.9	8.6	35.5	2.9	6.6	4.4
Sedgwick County	10.4	11.6	19.3	2.7	10.2	7.6
Summit County	8.8	-3.6	34.9	1.9	3.4	3.6
Teller County	16.6	18.9	24.6	1.8	9.2	5.3
Washington County	25.4	23.1	4.2	3.0	7.4	5.6
Weld County	8.9	-2.3	6.9	1.9	3.1	3.1
Yuma County	14.1	-0.7	5.3	1.5	2.8	3.2
Colorado	***9.0***	***1.9***	***16.6***	***2.7***	***7.3***	***6.0***

Source: Colorado Department of Revenue, Retail Sales Reports and US Bureau of Labor Statistics, LAUS (household survey). *2021 is year-to-date through June 2021.

Section 5: Metric for Evaluating Options and Evaluation of the Unemployment Insurance Trust Fund Option and One-time Payments to Essential Workers in the Construct of the Metric

Evaluation Glossary

Relevance to Affected Group

There are several ways to categorize groups of people, businesses, regions, and levels of government that are still experiencing direct effects of the pandemic or are not well-positioned or lagging the recovery that others are experiencing.

So for a given intervention, a qualitative assessment of relevance would be the recommended approach for this dimension.

Multi-year Benefit

The sub-panel and task force have all expressed the desire for the one-time nature of these funds to contribute to a multi-year benefit. While some interventions will be appropriate to address immediate crisis situations, we expect most ideas that come to the task force can be evaluated for their longer-term implications. For example, an upgrade to a water system would rate higher on long-term benefits than purchasing a single year of supplies for an office.

Economic Multiplier Effect

Economic analysis sometimes uses “multipliers” to assess the overall economic impact resulting from a change in spending (and sometimes changes in taxation). In this case, the additional stimulus dollars available are treated as an infusion with no assumed change in tax burden. The principle is that different types of spending create different changes in other spill-over spending that then generate economic activity beyond the first dollar of impact.

We recommend that this criterion include discussion around a break-even analysis or a return on investment if possible.

Low Administrative Burden

In order to maximize the speed at which the ARPA dollars are expended as well as maximize their beneficial impact on affected parties, interventions should be evaluated with this issue in mind. Administrative Burden includes, but is not limited to, issues such as time to evaluate applications, eligibility determination, fraud prevention, method of delivery of services, or approvals from other entities.

Note: a high rating here should be viewed as favorable. We adjusted this category from the first draft so that all high ratings would be comparable to each other.

Low Start-up Costs

It is likely that there will be requests for new ideas to receive ARPA dollars. And similar to the issue with Administrative Burden, high start-up costs will diminish beneficial impact to affected parties. It is further conceivable that the time required to start a new program will not maximize impact especially given the expiration date of the dollars. Consideration should be given here if a new program can be sustained post-ARPA dollars and if the new administrative structure would benefit the state long-term.

Note: a high rating here should be viewed as favorable. This is a similar concept to evaluating "low administrative burden".

Leverages Other Efforts

Throughout the discussion around strategies for allocating ARPA dollars, the idea of leveraging other sources of funds or combining efforts with other partners has been consistently mentioned. At this time, we believe this is a qualitative metric and could be simple as only using "low" for no leverage and "high" for some leverage.

Ease of Federal Reporting / Accountability

The ARPA dollars have both federal rules to follow and policy makers will want to demonstrate accountability for their allocation well before audits are conducted. This category could be broken into two evaluations, but the principle is the same: can the dollars (and even better their application to the problem as intended) be tracked?

Financial Sustainability

Proposed interventions should rate high on this category if, once the expenditure of funds is complete, there will not be an expectation or need for continuing funding from the State or relevant recipient. More precisely, the exhaustion of these funds will not create "cliff effects" for beneficiaries. To the extent all parties are aware of the expiration, this could mitigate a low ranking.

Feasibility to Achieve

Given the deadlines of the ARPA dollars, a general assessment of feasibility to complete relevant tasks or achieve outcomes by the deadlines is the intended use of this metric.

Appropriate for one-time funds

If an intervention starts a new program or does not have a plan for resources when the funds are fully expended, it is likely that one-time dollars are not appropriate.

Unemployment Insurance Trust Fund Repayment Evaluation

At the first meeting of the ERRTF, one of the presentations covered the various issues surrounding the solvency status of the Unemployment Insurance Trust Fund (UITF). Based on information provided by the Colorado Department of Labor and Employment, some important high-level data about the status quo scenario include:

- The UITF balance reached a peak of $1.2 billion in March of 2020.
- The UITF balance fell into deficit in August of 2020 and just over $1.0 billion has been borrowed to cover UI benefits.
- The status quo scenario for the fund includes interest surcharges, a solvency surcharge, and rate schedule shifts.

We are presenting a discussion of adding money to this fund based on the evaluation criteria as well as a few other contextual considerations.

Please note that the evaluation criteria scores reflect the considerations of the sub panel and do not reflect a recommendation either for or against the idea. Rather, as other ideas come before the ERRTF, the ratings and evaluation considerations illustration could be used to assess relative merits of competing proposals.

This section provides an evaluation of infusing the UITF with $600 million. We include commentary for each rating criterion as well as a ranking along low-medium-high.

Relevance to Affected Group: High

The results of the draws on the UITF are well-documented as are the impact to employers from the change in rate schedules and other charges. Though many employers received PPP loans that were forgivable, the continuing repayment costs for the depleted UITF can be calculated.

Multi-year Benefit: Potentially High, with some risk

All else equal, based on the calculations provided by the CDLE in a hypothetical small firm example, an infusion of $600 million to the UITF will lower UI premium tax rates for 4 out of the next 5 years. Based on different growth forecasts, there are scenarios where the total benefit to employers could exceed $600 million by 2027 but also scenarios that fall short of that timeline. (This is discussed further below.)

Multiplier Effect: Likely medium

It is not possible to know how the costs avoided of lower premiums will be spent. It is more likely than not that the spending will average around the consumer multiplier and so this rating is likely medium.

Low Administrative Burden: High

The operational impact of this infusion is low and the policy can be implemented within existing resources.

Low Start-up Costs: High

There are likely near zero start-up costs for this initiative.

Leverages other efforts: Low

An infusion of $600 million to the UITF does not appear to leverage other initiatives.

Ease of Federal Reporting / Accountability: High

It will be easy for the State to demonstrate the allocation of these funds to external stakeholders, including the audit process.

Financial Sustainability: High

This proposal does not create a cliff effect for the UITF or for employers.

Feasibility to Achieve: High

This proposal can be implemented quickly within the deadlines allowed.

Appropriate for one-time funds: High

As a one-time transfer, this proposal clearly rates high.

Additional Commentary and Considerations

Another criterion to consider is a standard return on investment or break-even calculation. The infusion of $600 million to the UITF is a good candidate for this type of analysis because of the ability to assess outcomes with and without the intervention. However, because of the number of variables in play for this issue, the break-even test does have some uncertainty.

The CDLE prepared a hypothetical scenario of a 10-employee firm. With a $600 million infusion to the UITF the firm would save a total of $1,896 from 2022-2026, assuming all 10 employees make at least

$30,600 annually or a payroll of at least $306,000. If every employee earned $30,600, this is 0.62% of one year of the hypothetical firm's payroll and is an annual average of 0.12% of the payroll over 5 years. Actual firm experience will vary based on many factors including total payroll, the range of employee salaries, and firm experience ratings. *(The current proposal in the November 1, 2021, budget request from Governor Polis also proposes a legislative change to turn off the solvency surcharge in 2023; we removed these savings for this comparison.)*

To get a sense of the impact on the whole system, we reviewed scenarios covering the entire UITF provided by the CDLE. There are small margins of error between a break-even more than being achieved (over $600 million in premiums avoided by 2027 with an infusion) and over the same time period not achieving $600 million in premiums avoided. The variance in these scenarios relate to forecasts of rate schedules, the presence (or not) of the FUTA credit, and if the solvency surcharge is avoided or not.

Again, the timeline of break-even may or may not be the basis of deciding on the intervention, rather it can be used comparatively to other options.

Because of the potential variation in time to achieve a break even or better situation with more certainty, the State could delay this decision until the forecasts have more certainty, as the baseline costs for employers overall are not materially improved in the early years of the analysis.

We summarize this proposal using the evaluation table below.

Evaluation Scores of UITF Infusion Proposal

	Rating		
	High	**Medium**	**Low**
Criterion			
Relevance to Affected Group	x		
Multi-year Benefit	See Discussion		
Economic Multiplier Effect		x	
Low Administrative Burden	x		
Low Start-up Costs	x		
Leverages other Efforts			x
Ease of reporting and audit	x		
Financial Sustainability	x		
Feasibility to achieve	x		
Appropriate for one-time Funds	x		

Evaluation of Hero Pay Proposal (Providing one-time payments of $1,500 to eligible "essential" workers in the state).

Relevance to Affected Group: High

Essential workers have experienced difficult working conditions during the pandemic, generally are paid lower wages, and are often the most vulnerable to the pandemic. The U.S. Department of the Treasury in its interim final rule on the use of the Coronavirus State and Local Fiscal Recovery Funds cites essential workers as having been disproportionately impacted by the pandemic, and the Department encourages the funds to go towards disproportionately impacted populations. One-time payments of $1,500 for each eligible essential worker in the state would be meaningful compensation to recognize the challenges these workers have faced.

Multi-year Benefit: Low to Medium

Although the proposal is for a one time payment, the payment may be sufficient to cause some essential workers who were considering quitting to remain in their positions. It is unknown how many workers would remain in their jobs for longer as a result of the payment who were considering quitting. To the extent the proposal results in more essential workers staying in their jobs, it would reduce turnover costs for employers and the economy beyond the immediate benefit of the payments to workers. However, this dimension is rated as low to medium as the beneficial impacts are most likely to be shorter term in nature. The one-time payments are unlikely to have an impact on turnover if pandemic conditions were to persist beyond another year.

Multiplier Effect: Medium

It is assumed that some of the one-time payments to essential workers will be spent in the economy while the remaining amount will be saved or used to pay down debt. Assuming that half of the $550M ($275M) would be spent by households receiving the payment, using the U.S. Bureau of Economic Analysis's final-demand multipliers for Colorado, gross output is estimated to increase by $357.8M, and employment, which includes both full- and part-time workers, is estimated to increase by 2,600 jobs in the state. If three-quarters of the money ($412.5M) were spent, gross output is estimated to increase by $536.7M, and employment is estimated to increase by 3,900 jobs. The multiplier effect dimension is rated as medium (not high) as the household multiplier is lower than the multiplier for many of the state's industries.

Low Administrative Burden: Low to Medium

The administrative burden is rated as low to medium. Although the Department of Revenue has operational experience administering payments to households (e.g., state income tax refunds), this program would be new and would require a new application, changes to IT systems, and new staff to administer. Evaluating applications, eligibility determination, and fraud prevention regarding administering the payments to around 371,000 applicants would take substantial time and resources.

Low Start-up Costs: Medium

There will be start up costs for the Department of Revenue. Although the Department currently makes payments to households (e.g., state income tax refunds), making payments to eligible essential workers would be a new program and would require a new application, changes to IT systems, and new staff to administer.

Leverage: Low

Distributing $550 million to essential workers does not appear to leverage other initiatives.

Federal Reporting / Accountability: Medium to High

Distributing one-time payments to essential workers is clearly an eligible use of the funds. The State will be able to demonstrate how the funds are allocated to individuals, including documentation of eligibility. However, reporting and eligibility documentation would be somewhat burdensome given the large number of individuals that would receive the payments.

Financial Sustainability: High

Given that the proposal is for one-time payments, there would be no expectation that it would require ongoing funding. Thus, financial sustainability is rated as high.

Feasibility to Achieve: High

The Department of Revenue can establish processes for distributing one-time payments to eligible individuals within the deadlines of ARPA dollars.

Appropriate for One-time Funds: High

The proposal is rated as high under this dimension given that it is intended to solely make one-time payments to eligible individuals.

We summarize this proposal using the evaluation table below.

Evaluation Scores of Hero Pay Proposal

<table>
<tr><th></th><th colspan="3">Rating</th></tr>
<tr><th></th><th>High</th><th>Medium</th><th>Low</th></tr>
<tr><th>Criterion</th><td></td><td></td><td></td></tr>
<tr><td>Relevance to Affected Group</td><td>x</td><td></td><td></td></tr>
<tr><td>Multi-year Benefit</td><td></td><td colspan="2">x</td></tr>
<tr><td>Economic Multiplier Effect</td><td></td><td>x</td><td></td></tr>
<tr><td>Low Administrative Burden</td><td></td><td colspan="2">x</td></tr>
<tr><td>Low Start-up Costs</td><td></td><td>x</td><td></td></tr>
<tr><td>Leverages other Efforts</td><td></td><td></td><td>x</td></tr>
<tr><td>Ease of reporting and audit</td><td colspan="2">x</td><td></td></tr>
<tr><td>Financial Sustainability</td><td>x</td><td></td><td></td></tr>
<tr><td>Feasibility to achieve</td><td>x</td><td></td><td></td></tr>
<tr><td>Appropriate for one-time Funds</td><td>x</td><td></td><td></td></tr>
</table>

Appendix: States' Use of American Rescue Plan Act (ARPA) Funds

October 26, 2021

TO: Economic Recovery & Relief Task Force Subpanel

FROM: Elizabeth Ramey, Principal Economist, 303-866-3522

SUBJECT: States' Use of American Rescue Plan Act (ARPA) Funds

Summary

This memorandum summarizes the use of American Rescue Plan Act (ARPA) funds by state and category of use based on data and information made available by the National Council of State Legislators and National Association of State Budget Officers. This information reflects funding allocations based on available information to date for 39 states. Funding allocations are subject to change.

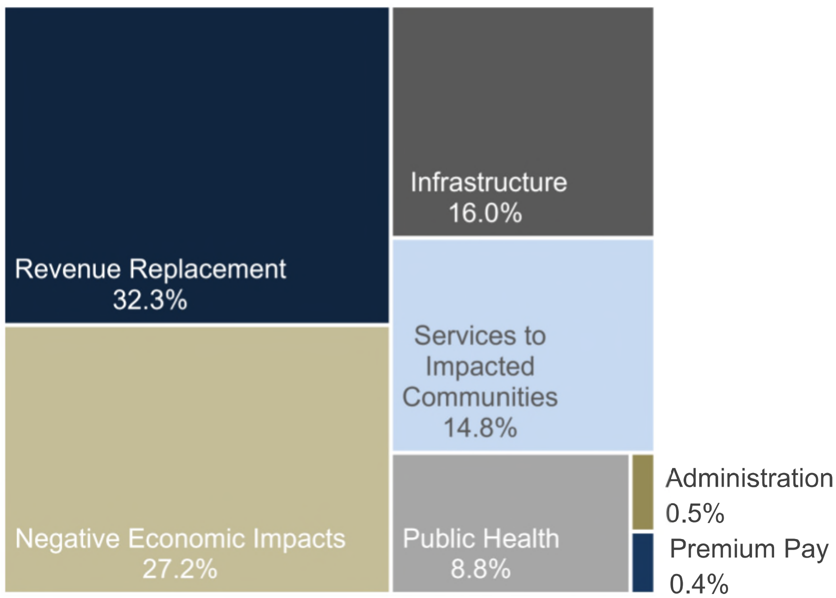
States' Uses of Fiscal Recovery Funds

The American Rescue Plan Act (ARPA), signed into law on March 11, 2021, allocated a total of $350 billion in Coronavirus State and Local Fiscal Recovery Funds to state, local, territorial, and Tribal governments, of which $195.3 billion was allocated to the states and the District of Columbia. States must allocate the funds by December 31, 2024, and spend them by December 31, 2026. Based on a review of recovery plans for 39 states, the District of Columbia, and two territories, the following provides information on how these funds are being spent.

Planned fund uses span seven categories, including supporting the public health response, addressing the negative economic impacts caused by the public health emergency, serving disproportionately impacted communities, providing premium pay to essential workers, investing in broadband, water, and/or sewer infrastructure, replacing lost public sector revenue, and administrative and other costs associated with managing ARPA funds. Uses range from funding the immediate response to COVID-19 and meeting specific needs of households and businesses to supporting a strong and equitable recovery, and investing in long-term capacity and resiliency.

As shown in Figure 1, revenue replacement accounts for the largest share of total funds allocated (32.3 percent), followed closely by mitigating negative economic impacts (27.2 percent). The smallest shares of funding have gone for administrative costs (0.5 percent) and premium pay to essential workers (0.4 percent). Table 1, shown on page 3 of this memorandum, presents the number of states reporting allocations and examples of funding uses in each of the seven broad categories.

Figure 1
State Allocation of ARPA Funds



Source: National Association of State Budget Officers.

Table 1
Examples of ARPA Fund Uses by Category

Spending Category	Number of States	Examples
Revenue Replacement	17/39	• Funds may be allocated to replace lost state revenue due to COVID-19 • Support for general fund expenditures • Support for specific program areas including higher education, long-term care facilities, transportation, and conservation projects • Funds may not be used to offset revenue losses due to state tax cuts or deposited into a pension fund
Negative Economic Impacts	26/39	• Household assistance including eviction prevention and food bank/food assistance programs • Unemployment benefits and unemployment insurance trust funds[1] • Job training assistance • Small business assistance • Aid to tourism, travel, or hospitality • Aid to other impacted industries or geographies
Infrastructure	21/39	• Water and sewer infrastructure including energy and water conservation • Broadband infrastructure including "last mile" connections
Services to Disproportionately Impacted Communities	17/39	• Assistance to address educational disparities • Child care assistance • Housing support • Assistance to address social determinants of health
Public Health	24/39	• COVID-19 vaccination and testing • Behavioral and mental health services • prevention in congregate settings • other COVID-19 response costs • improving health equity • investments in public health infrastructure
Administration/Other	9/39	• staffing and other additional capacity to implement and oversee ARPA allocations
Premium Pay	4/39	• premium pay for essential workers, including state police and National Guard

Source: National Association of State Budget Officers and National Conference of State Legislatures.

[1] At least 15 states have used ARPA funds to shore up depleted Unemployment Insurance Trust Funds and/or to repay outstanding loans from the federal unemployment account, including Arizona, Connecticut, Hawaii, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Nevada, New Mexico, Ohio, Utah, Virginia, and Washington. These expenditures range from Maine's $80 million to Ohio's $1.5 billion. At least 23 states have allocated Coronavirus Aid, Relief, and Economic Security (CARES) Act funding for these purposes, totaling about $7.5 billion. Eleven states have outstanding federal loan balances, totaling $45.9 billion as of October 15, 2021.