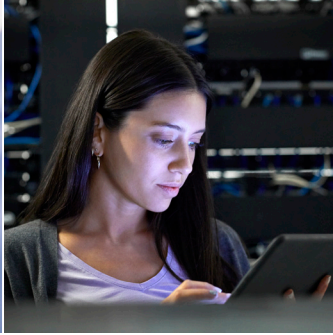




**2024 COLORADO**



# TALENT PIPELINE REPORT



Colorado Workforce  
Development Council



In accordance with C.R.S, 24-46.3-103, this Colorado Talent Pipeline Report was prepared by the Colorado Workforce Development Council (CWDC) in partnership with Colorado’s Department of Higher Education (CDHE), Department of Education (CDE), Department of Labor and Employment (CDLE), including the CDLE’s Labor Standards and Statistics division, Department of Human Services (CDHS), the Office of Economic Development and International Trade (OEDIT), and the Department of Local Affairs (DOLA) State Demography Office. Support was provided by the Governor’s Office, the Colorado Community College System (CCCS), and other partners.

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The Colorado Talent Pipeline Report has been published annually since 2014 by state agency partners as required by 24-46.3-103 C.R.S. as amended by SB14-205. It provides insights on the demand for and supply of talent in Colorado and strategies to align supply and demand. This information is used to inform potential legislation, develop and implement programs, and align partners around the current talent landscape. The report has sections on Colorado's current economic landscape, talent demand and supply, workforce development strategies, and potential policy interventions. There are also appendices containing additional details on topics discussed within the report.

Visit [ColoradoTalentDashboard.com](https://coloradotalentdashboard.com) to examine the data in a more dynamic format.

# COLORADO'S LABOR MARKET:

## A HIGH-LEVEL OUTLOOK

In 2024, Colorado employment levels are higher than the national average, but not as strong as previous years.<sup>1</sup> Unemployment increased by 0.4% during the first two quarters of 2024, to 3.8% as of June.<sup>2</sup> This level is still lower than the national average of 4.1%.<sup>3</sup> Colorado's unemployment rate ranged between 3.1% and 3.8% between June 2023 and June 2024, while the U.S. range has been 3.5% to 4.1%.<sup>4</sup> The labor force participation rate (LFPR) as of June 2024 is, 67.9%, the lowest since December 2022.<sup>5</sup> The LFPR has fluctuated between this December rate and 68.5% over the 12 months between June 2023 and June 2024.

**Despite the slight uptick in unemployment, Colorado continues to experience strong job growth. Forty thousand nine hundred new jobs were created in 2023,**<sup>6</sup> approximately 2,800 fewer jobs created than the prior year. Colorado ranked 11th in the nation for job growth in 2023.<sup>7</sup>

In Colorado, the number of job openings per unemployed worker has dropped from 2.8 in 2023 to 1.2 as of August 2024.<sup>8</sup> The U.S. national ratio is 1.2 openings per unemployed person as of Q2 2024.<sup>9</sup> This suggests **more employers are able to find the talent they need, and that job**

**seekers have fewer options in the job market relative to last year. With a labor market now closer to equilibrium with demand, Colorado demonstrates a continued need for talent because job postings still outpace the total number of people who are unemployed in the state.**

Average hourly earnings continued to climb into 2024, growing from \$35.18 to \$37.82 between June 2023 and June 2024. Colorado's average hourly earnings were \$2.82 higher than average hourly earnings across the nation (\$35.00 per hour).<sup>10 11</sup> This outcome is likely driven by lingering high inflation rates and costs of living in Colorado. Leisure and Hospitality, Professional and Business Services, and Construction sectors have increased average wages the most since 2019, boosting Coloradans' average weekly earnings by approximately 26%, 20%, and 18%, respectively.<sup>12</sup>

Overall, 2024 data trends reported in this section demonstrate a tight labor market, high demand for workers, and lasting employment growth (although slower than 2023 growth rates), all of which will help the economy stay strong into 2025.

# Lingering Tight Labor Market Conditions and Highly Skilled Talent Pools in Colorado

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While Colorado continues to experience new job growth and high job openings, finding enough skilled talent is still a concern for many employers. Employers in 2024 are most concerned about finding **qualified** employees (i.e., having the proper skills to succeed in a particular role) who will remain working for the same company for a longer period of time.<sup>13</sup> Getting more people into credential and training programs for in-demand jobs will be essential to supporting Colorado's future workforce needs.

Data supplied by the [Colorado State Demography Office](#) estimates a projection of **400,000 retirees over the next 10 years in Colorado, resulting in an average of 40,000 additional job openings per year that need to be filled.** This impact, along with lower in-migration (further detailed in the [Supply Section](#)), and a high school population expected to plateau and then decline in the upcoming decade ([due largely to falling birth rates](#)) compound the talent volume issue.

Having a competitive statewide labor market saturated with quality jobs could attract a larger number of individuals to the state for its workforce and help ease the current tight labor market conditions in the state on the horizon. Additionally, ensuring that the labor force already in Colorado is well prepared for the jobs available improves the efficiency of our labor market.

Post-secondary education and training, as opposed to direct entry into the workforce, have increasingly been seen as a primary means to ensure workers have the skills and qualifications required for their jobs. While there are anecdotal reports of a mismatch in employee qualifications and job requirements, available data show that Colorado's institutions of higher education (IHEs) have, for several years, been providing an educated workforce that remains in the state and enters industries related (or unrelated) to their training. According to the [Post-secondary Employment Outcomes Explorer \(PSEO\) data](#), Colorado's IHEs have been successful in training and educating talent that remains in the state after graduation. Table 1 reports the percentage of Coloradan graduates to continue to live in Colorado: one year after graduation (row 2); five years after graduation (row 3); and 10 years after graduation (row 4). Excluding doctoral graduates, **77% of post-secondary completors in Colorado, on average, remain in the state and its workforce for at least one year after graduation.**

**Table 1: Percentage (%) of Coloradan Post-secondary Graduates Who Remain in the State Over Time: 2001-2020**

Source: Post-secondary Employment Outcomes Explorer (PSEO), 2024.

Supplemental data for Table 1: Percentage (%) of Coloradan Post-secondary Graduates Who Remain in the State Over Time: 2001-2020

Years after graduation	Post-secondary certificate <1 YR	Post-secondary certificate 1-2 YR	Associate Degree	Bachelor's Degree	Master's Degree	Doctoral
1 YR After Graduation	84%	74%	82%	75%	70%	53%
5 YR After Graduation	77%	70%	76%	67%	65%	52%
10 YR After Graduation	73%	67%	71%	63%	63%	52%

The percentage of Colorado post-secondary graduates remaining in the state by completion level has not experienced any major upswings or downswings over recent decades. For example, examining two-year cohorts (starting in 2001), the percentage of bachelor's degree earners who stay in Colorado for at least one year after completion ranges between 74% and 77% during those periods.

In addition, the top programs of study chosen by graduates have remained constant over the years. The top three areas of study Colorado learners choose to pursue a post-secondary credential in between 2001 and 2020 include:

- » Education Services;
- » Healthcare Professions and Related Programs; and
- » Business and STEM Programs.

For those who studied and completed a post-secondary credential related to Education Services in Colorado, **75%** attain a job in the education sector and **74%** remain in the state and its workforce five years after graduation.<sup>14</sup> Out of the Coloradan graduates whose focus was in Health Professions and Related Programs, **72%** became employed in the Health Care and Social Assistance industry and **73%** remain in the state's labor market at least five years after completion.<sup>15</sup>

Out of the [Coloradans who chose to study a STEM area of focus](#), **62%** of bachelor's completers across Engineering, Computer and Information, Mathematics and Statistics, and Engineering/Engineering-Related fields chose to stay in Colorado and its labor market at least five years after graduation. It is also worth noting approximately **38%** of graduates attained a job in the related industries of: Professional, Scientific, or Technical Services (31%); Information (5%); and Finance and Insurance (2%), while the remaining graduates are employed in an array of other fields led by manufacturing (18%), construction (10%), and educational services (7%).<sup>16</sup>

According to [Britannica's definition of STEM](#), a STEM field/curriculum is centered on education relating to the fields of science, technology, engineering, and mathematics (STEM).

# Increased Turnover: Part of the New Normal

**Colorado employers are facing headwinds in the labor market retaining employees. Many individuals are deciding at a higher rate to change their roles, company of employment, and/or embrace new career pathways entirely.** According to the [July 2024 State Job Openings and Labor Turnover Summary](#) (JOLTS) released by the U.S. Bureau of Labor Statistics (BLS), during the second quarter of the year, [Colorado ranked second in the nation \(behind Alaska\) in terms of job turnovers.](#) National labor market data aligns with this state-level data: [approximately 78% of workers under 40 in the U.S. have reconsidered their career pathway choice since the pandemic](#), and [nearly 80% of workers currently working in person have considered changing to a role that provides the option of remote work.](#) High turnover rates combined with a rise in unemployment this year has resulted in a more volatile labor market for businesses.

Higher turnover and difficulty hiring qualified workers gives qualified job seekers additional advantages in the labor market when negotiating for wages and flexible work conditions.<sup>17</sup> **Employers who offer higher wages are able to attract a more competitive talent pool; however, by offering higher wages, employers may be less likely to afford the same quantity of employees they had in the past.**

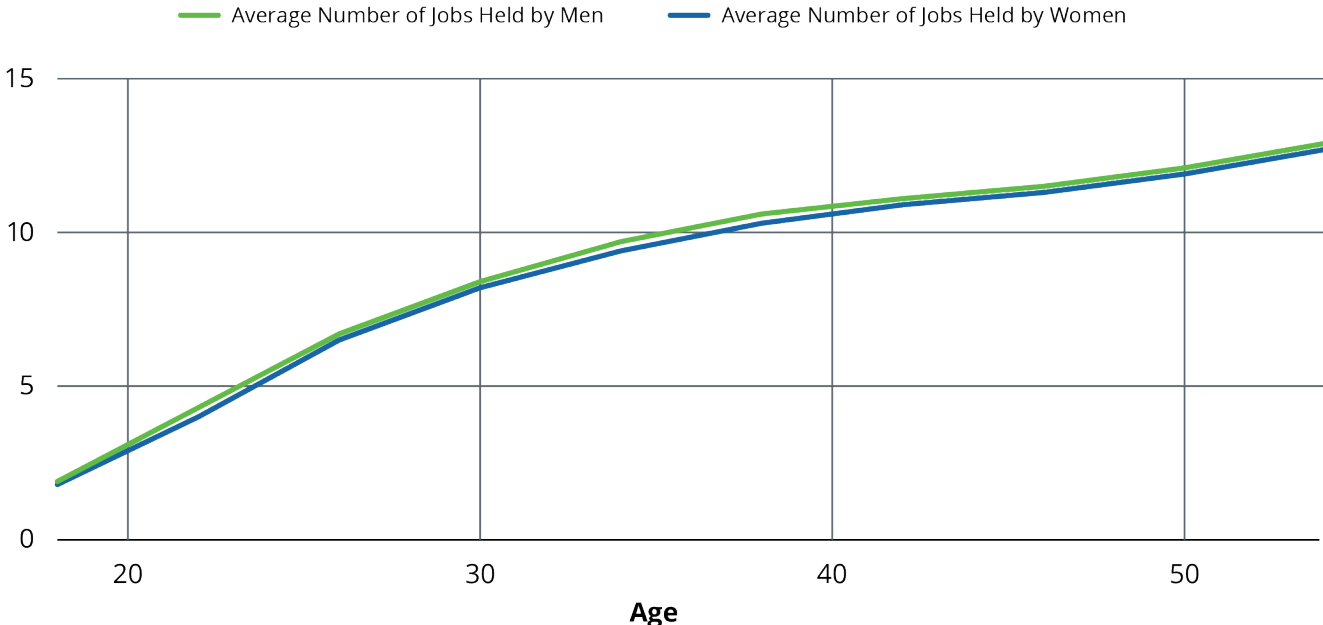
Based on the BLS's [National Longitudinal Surveys](#), the average worker will change jobs nearly 13 times during their lifetime, with younger individuals being more likely to change jobs compared with workers in older age groups.<sup>18</sup>

Figure 1 below displays the number of job changes by the average U.S. worker by sex and age.

**Figure 1: Average Number of Jobs Held by U.S. Workers between the Ages of 18 and 56 Disaggregated by Sex: 1978-2020**

Source: Bureau of Labor Statistics (BLS), 2023.

Table alternative for Figure 1: Average Number of Jobs Held by U.S. Workers between the Ages of 18 and 56 Disaggregated by Sex: 1978-2020.







Based on historical data relating to sex, males tend to change jobs more often during the traditional working age brackets relative to females.<sup>19</sup> Data indicate males without a high school diploma or equivalent are more likely to experience more job changes on average relative to those with a bachelor's degree or higher (14.1 relative to 12.1), while females without a high school diploma or equivalent tend to hold 10.4 jobs between 18 and 56 relative to females with a bachelor's degree or higher in the workforce who held an average of 13.4 jobs during the same period.

Trends linked to job changes as well as new jobs driven largely by technological innovation mean it's more important than ever that workers learn new skills, improve their current skills, and prepare for future skills they will need.

# DEMAND

## Colorado's Top Jobs

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Since 2014, this report has defined and identified Top Jobs in Colorado based on annual data. This list helps to inform job seekers, educate program creators, and guide employers to create quality work environments. These occupations are in high-demand, have above average projected growth over the next 10 years, and are capable of providing a livable wage for the regions.

In 2024, Colorado Top Jobs are occupations that are able to meet or surpass the following:

- » Projected high net annual openings (equal to or greater than 40 per year)
- » Above average growth rate over 10 years (>13%)
- » A livable wage (as defined by the [Massachusetts Institute of Technology \(MIT\) living wage calculator](#))

Colorado has diverse regions, and the cost of living can also vary greatly by county. Regional information on living wages can be seen using the MIT living wage calculator, and lists of Top Jobs based on regional data can be seen in Appendix B. A list of Top Jobs by Tier statewide can be found in Appendix A of this online report.

**Tier 1 Jobs** are benchmarked by an income that can support a family of three in Colorado, with two adults—one working—and one child. This year, MIT defines this amount at just more than **\$84,489.60** per year.

**Tier 2 Jobs** are benchmarked by an income that can support one adult in Colorado. This year, MIT defines this amount at more than **\$51,646.40** per year.

The wage threshold for a Tier 1 Top Job has increased by just over **9%** during the past 12 months. The wage threshold for a Tier 2 Top Job increased a notable **29%** in that same time. These increases have resulted in certain jobs falling off the Top Jobs list because wage gains cannot keep pace with the rising cost of living. The jobs are not paying less than they did previously, but rather the benchmark for a living wage from the [MIT Living Wage Calculator](#) has continued to increase due to inflation.

However, the median annual earnings for Top Jobs far exceed the income threshold to qualify as a Top Job. These jobs exceeded the benchmark significantly in 2024, with median salaries estimated at:

- » **\$103,208.50 per year for Tier 1 Top Jobs;** and
- » **\$64,182.00 per year for Tier 2 Top Jobs.**

**In 2024, there are 62 qualifying Tier 1 Top Jobs and 119 qualifying Tier 2 Top Jobs in the state.** Over the past 12 months, the Tier 1 and Tier 2 Top Jobs lists have each decreased by 14 occupations, which is a year-over-year decline of **-17.3%** and **-10.5%**, respectively (see Figure 2). Many jobs removed from the list in 2024 are **high-need, meaning the industry is experiencing a notable labor shortage, and high-demand, meaning the industry is quickly growing.**

The Top Jobs criteria that is most difficult to meet or exceed is the [MIT livable wage](#) standard. **Lingering inflation, elevated interest rates, and the high cost of living in Colorado are making it difficult for employers to satisfy the Top Jobs livable wage standard. Additionally, these pressures create a strain on Colorado's ability to attract and retain talent.**

**Figure 2: Changes in Amount of Qualifying Top Jobs in Colorado: 2021-2024**

Figure created using data from Colorado Department of Labor and Employment (CDLE); Office of Labor Market Information (LMI), 2024.  
[Table alternative for Figure 2: Changes in Amount of Qualifying Top Jobs in Colorado: 2021-2024](#)

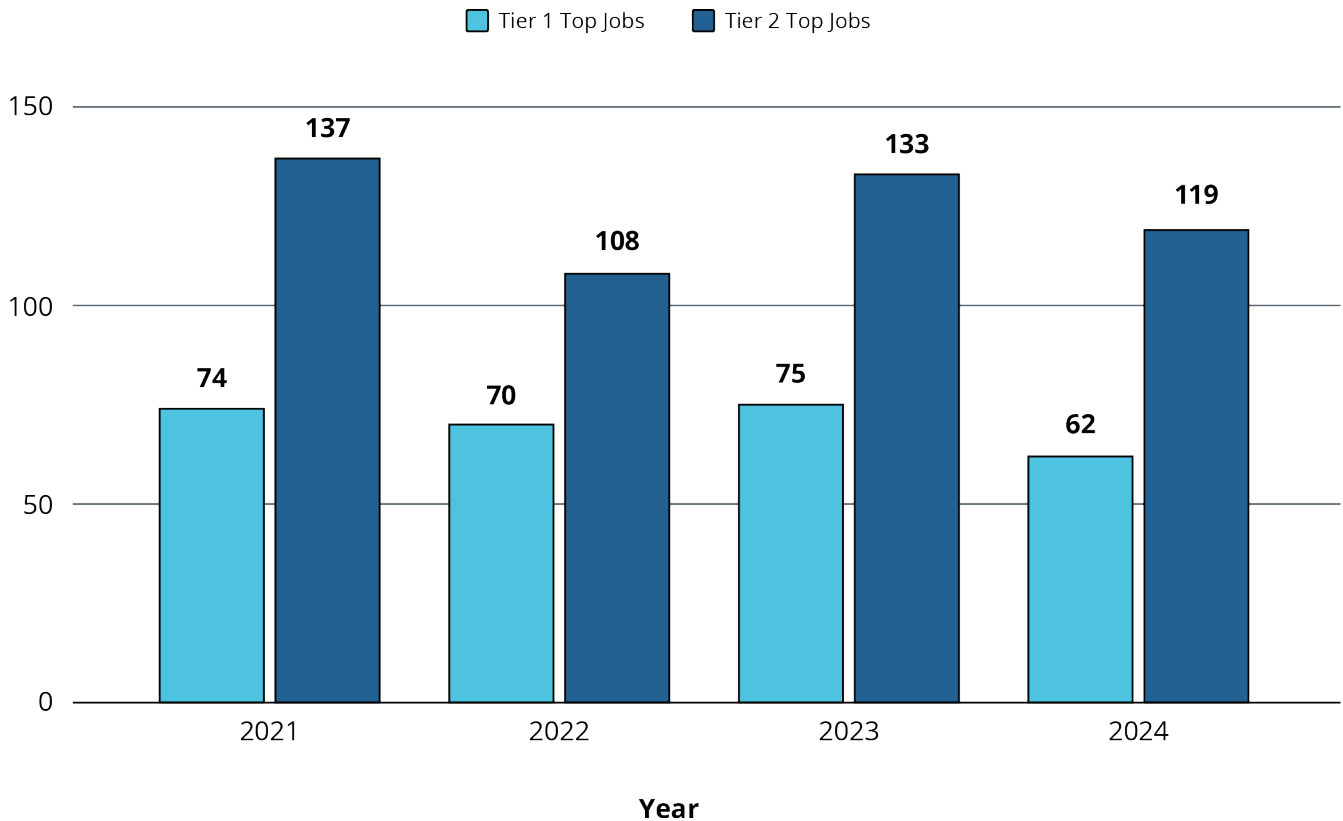


Table 2 displays the occupations added to the Top Jobs list this year. Projected annual openings over the upcoming decade are reported in column 3. Median annual salaries associated with each job are

reported in column 4. Columns 5 through 7 provide information related to the typical educational attainment and training requirements associated with each role.

**Table 2: New Top Jobs Added in 2024**

Source: Table created using data from Colorado Department of Labor and Employment (CDLE); Office of Labor Market Information (LMI), 2024  
 Notes: Jobs reported in Table 2 are ordered by Top Tier rank and Security Operations Center (SOC) coding. For further information regarding SOC data, please see the Bureau of Labor Statistics (BLS) website.  
 Supplemental data for Table 2: [New Top Jobs Added in 2024](#).

Top Jobs Tier	Occupation Title	Projected Annual Openings: 2024-2033	Median Annual Salary (\$)	Typical Educational Attainment Required	Typical Work Experience Required	Typical Job Training Required
1	Cartographers and Photogrammetrists	127	\$85,411	Bachelor's degree	None	None
1	Bioengineers and Biomedical Engineers	136	\$107,281	Bachelor's degree	None	None
1	Aerospace Engineering and Operations Technologists and Technicians	40	\$118,279	Associate's degree	None	None
1	Chemists	174	\$92,896	Bachelor's degree	None	None
1	Family Medicine Physicians	170	\$234,216	Doctoral or professional degree	None	Internship/residency
1	Dental Hygienists	460	\$103,607	Associate degree	None	None
1	Surgical Assistants	45	\$89,785	non-degree award	None	None

Top Jobs Tier	Occupation Title	Projected Annual Openings: 2024-2033	Median Annual Salary (\$)	Typical Educational Attainment Required	Typical Work Experience Required	Typical Job Training Required
1	Detectives and Criminal Investigators	191	\$97,216	High school diploma or equivalent	Less than 5 years	Moderate-term on-the-job training
1	Elevator and Escalator Installers and Repairers	70	\$109,131	High school diploma or equivalent	None	Apprenticeship
2	Compliance Officers	829	\$80,245	Bachelor's degree	None	Moderate-term on-the-job training
2	Fundraisers	336	\$68,992	Bachelor's degree	None	None
2	Compensation, Benefits, and Job Analysis Specialists	136	\$80,339	Bachelor's degree	Less than 5 years	None
2	Accountants and Auditors	3,963	\$84,202	Bachelor's degree	None	None
2	Property Appraisers and Assessors	4,003	\$62,917	Bachelor's degree	None	Long-term on-the-job training
2	Tax Examiners and Collectors, and Revenue Agents	256	\$64,236	Bachelor's degree	None	Moderate-term on-the-job training
2	Web Developers	336	\$71,120	Bachelor's degree	None	None
2	Architectural and Civil Drafters	331	\$83,097	Associate degree	None	None
2	Clinical and Counseling Psychologists	108	\$61,761	Doctoral or professional degree	None	Internship/residency
2	Health Education Specialists	156	\$84,107	Bachelor's degree	None	None
2	Engineering Teachers	137	\$81,614	Doctoral or professional degree	None	None

Top Jobs Tier	Occupation Title	Projected Annual Openings: 2024-2033	Median Annual Salary (\$)	Typical Educational Attainment Required	Typical Work Experience Required	Typical Job Training Required
2	Nursing Instructors and Teachers	150	\$51,834	Doctoral or professional degree	Less than 5 years	None
2	Museum Technicians and Conservators	47	\$51,834	Bachelor's degree	None	None
2	Graphic Designers	633	\$61,702	Bachelor's degree	None	None
2	Disc Jockeys, Except Radio	80	\$74,194	High school diploma or equivalent	None	Short-term on-the-job training
2	Public Relations Specialists	981	\$74,850	Bachelor's degree	None	None
2	Film and Video Editors	69	\$53,502	Bachelor's degree	None	None
2	Chiropractors	79	\$62,691	Doctoral or professional degree	None	None
2	Cardiovascular Technologists and Technicians	63	\$83,302	Associate degree	None	None
2	Licensed Practical and Licensed Vocational Nurses	503	\$64,716	non-degree award	None	None
2	Manicurists and Pedicurists	639	\$57,659	non-degree award	None	None
2	Insurance Sales Agents	1,331	\$60,857	High school diploma or equivalent	None	Moderate-term on-the-job training
2	Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	4,908	\$79,997	High school diploma or equivalent	None	Moderate-term on-the-job training

Top Jobs Tier	Occupation Title	Projected Annual Openings: 2024-2033	Median Annual Salary (\$)	Typical Educational Attainment Required	Typical Work Experience Required	Typical Job Training Required
2	First-Line Supervisors of Construction Trades and Extraction Workers	2,653	\$78,011	High school diploma or equivalent	5 years or more	None
2	Brickmasons and Blockmasons	114	\$60,686	High school diploma or equivalent	None	Apprenticeship
2	Carpenters	2,313	\$57,782	High school diploma or equivalent	None	Apprenticeship
2	Tile and Stone Setters	112	\$55,211	No formal educational credential	None	Long-term on-the-job training
2	Cement Masons and Concrete Finishers	640	\$58,714	No formal educational credential	None	Moderate-term on-the-job training
2	Operating Engineers and Other Construction Equipment Operators	1,417	\$59,417	High school diploma or equivalent	None	Moderate-term on-the-job training
2	Insulation Workers, Mechanical	100	\$52,463	High school diploma or equivalent	None	Apprenticeship
2	Plumbers, Pipefitters, and Steamfitters	1,298	\$61,876	High school diploma or equivalent	None	Apprenticeship
2	Reinforcing Iron and Rebar Workers	49	\$59,653	High school diploma or equivalent	None	Apprenticeship
2	Roofers	394	\$52,012	No formal educational credential	None	Moderate-term on-the-job training

Top Jobs Tier	Occupation Title	Projected Annual Openings: 2024-2033	Median Annual Salary (\$)	Typical Educational Attainment Required	Typical Work Experience Required	Typical Job Training Required
2	Sheet Metal Workers	275	\$54,434	High school diploma or equivalent	None	Apprenticeship
2	Hazardous Materials Removal Workers	227	\$58,835	High school diploma or equivalent	None	Long-term on-the-job training
2	Mobile Heavy Equipment Mechanics, Except Engines	408	\$64,236	High school diploma or equivalent	None	Long-term on-the-job training
2	Rail Car Repairers	40	\$78,240	High school diploma or equivalent	None	Long-term on-the-job training
2	Wind Turbine Service Technicians	55	\$61,034	non-degree award	None	Long-term on-the-job training

**Although the total number of Top Jobs has decreased this year, the list is not stagnant. Forty-seven new job titles met the Top Job criteria in 2024, aligning with ongoing job creation efforts across sectors.** Nine new occupations are associated with Tier 1 Top Jobs, and 38 are associated with Tier 2 Top Jobs.

Most new jobs titles added this year within the Tier 1 category are linked to STEM, Health Care, and Social Assistance roles - nudging the importance of these high-need roles in the state. The largest share of Tier 2 Top Jobs titles new to the list in 2024 are associated with Professional, Scientific, and Technical; Health Care and Social Assistance; and Construction sectors.

Notably, occupations linked to the Creative Industries sector added several new job titles to the Tier 2 list **during the 12 months between July**

**2023 and July 2024.** These titles include: Museum Technicians and Conservators (associated with 47 job openings over the past 12 months); Graphic Designers (associated with 633 job openings over the past 12 months); Disk Jockeys, Except Radio (associated with 80 job openings over the past 12 months); Public Relations Specialists (associated with 981 job openings over the past 12 months); and Film and Video Editors (associated with 69 job openings over the past 12 months), and representing 1,804 jobs added to Colorado’s labor market.

The creative industry is one of many that the state is watching, as it currently employs approximately **79,160** individuals within the state and has a projected growth rate of **15.24%** through 2023.<sup>20 21</sup> Career pathways for this industry will be published in July 2025.





# SPOTLIGHT:

**Creative Industries Sector Partnership**



The creative sector employs over 25,000 people in the Pikes Peak region. This is a growing industry that is key for business retention and attraction. Recognizing the need for a formalized business-arts collaboration in the community, the Pikes Peak Workforce Center, the Bee Vradenburg Foundation, and the Cultural Office of the Pikes Peak Region collaborated with local businesses and public partners to launch the Creative Sector Partnership in April 2024. This is the first creative industries sector partnership<sup>22</sup> in the state and works to ensure the creative sector's longevity and health in the Pikes Peak Region. Their business-led priorities led to the creation of two action groups: audience development and business development. Industry partners span the creative sector, from performing, visual, and educational artists, to marketing/PR professionals, small business retail, micro-preneurs, and arts nonprofits.

# Colorado's 2024 Top Jobs and Associated Industries

This year there are 21 industrial sectors<sup>23</sup> associated with 2024 Top Jobs. Figure 3 demonstrates the changes in the quantity of occupations by industry in 2024 relative to 2023. Twelve out of the 18 industries (or roughly 67%) experienced a decline

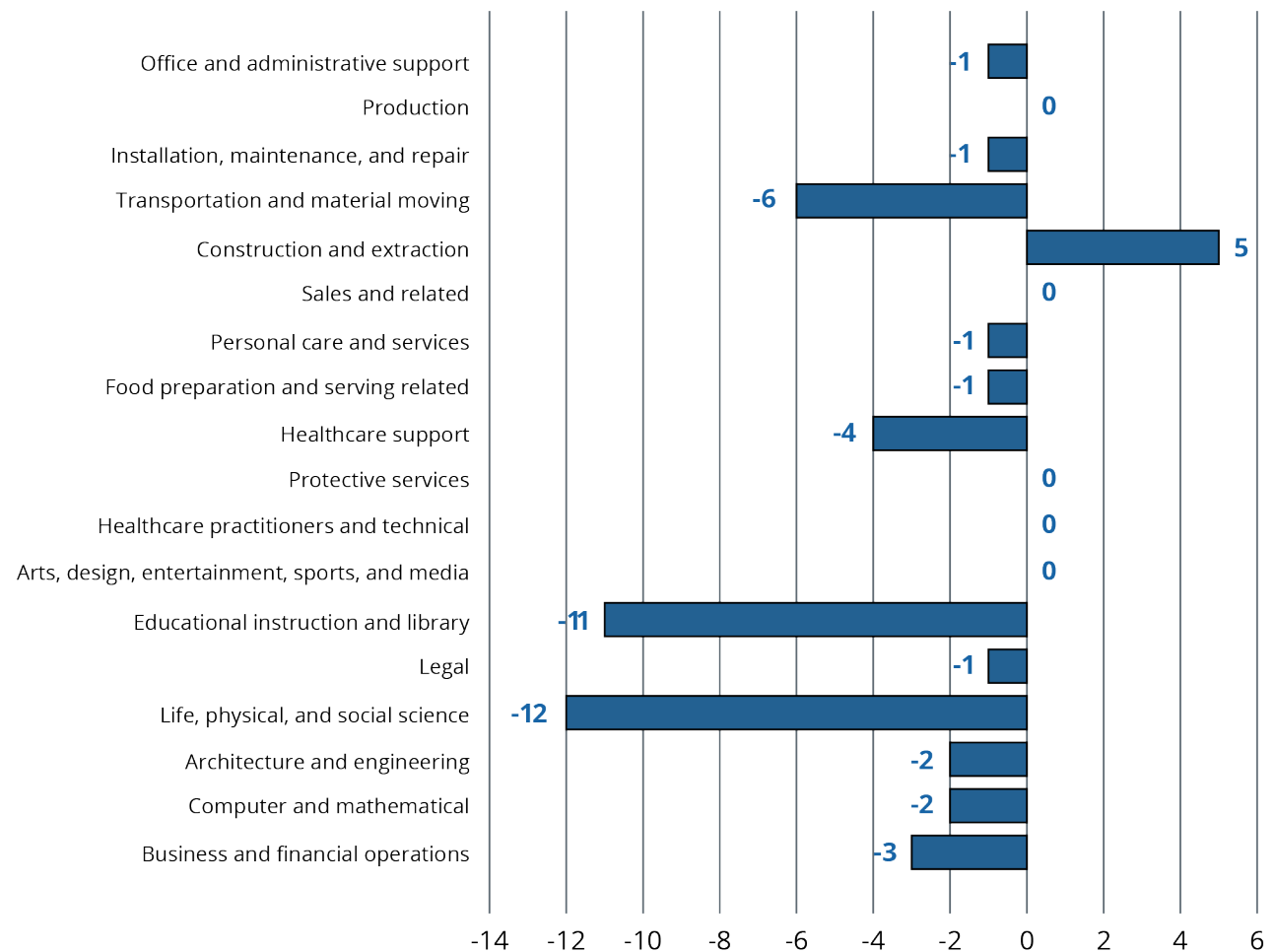
in job titles this year while only one industry (Construction and Extraction) saw a positive change, gaining five more occupations in 2024 versus 2023 and containing a notable 16 occupations that made the list (see Table 3). Five industries reported no change across both years. Industries without a change in quantity between both years are represented by a "0" in Figure 3.

**Figure 3: Change in the Quantity of Tier 1 and Tier 2 Occupations by Associated Industry: 2024 vs. 2023**

Source: Figure created using data from Occupational Employment and Wage Statistics (OEWS); Colorado Department of Labor and Employment (CDLE), 2024.

Notes: Negative numbers indicate a quantity loss during 2024 relative to 2023 in terms of occupational titles. Positive numbers indicate a quantity gain. Industries associated with "0" signify the same level of occupation titles across both years.

[Table alternative for Figure 3: Change in the Quantity of Tier 1 and Tier 2 Occupations by Associated Industry: 2024 vs. 2023](#)



Two industries that had no job titles that met Top Jobs criteria in 2024 included Community and Social Services and Farming, Fishing, and Forestry.

Figure 4 shows Colorado’s estimated job openings by industry between August 2023 and August 2024. Business and Finance Operations; Construction and Extraction; Computer and Mathematical; Healthcare

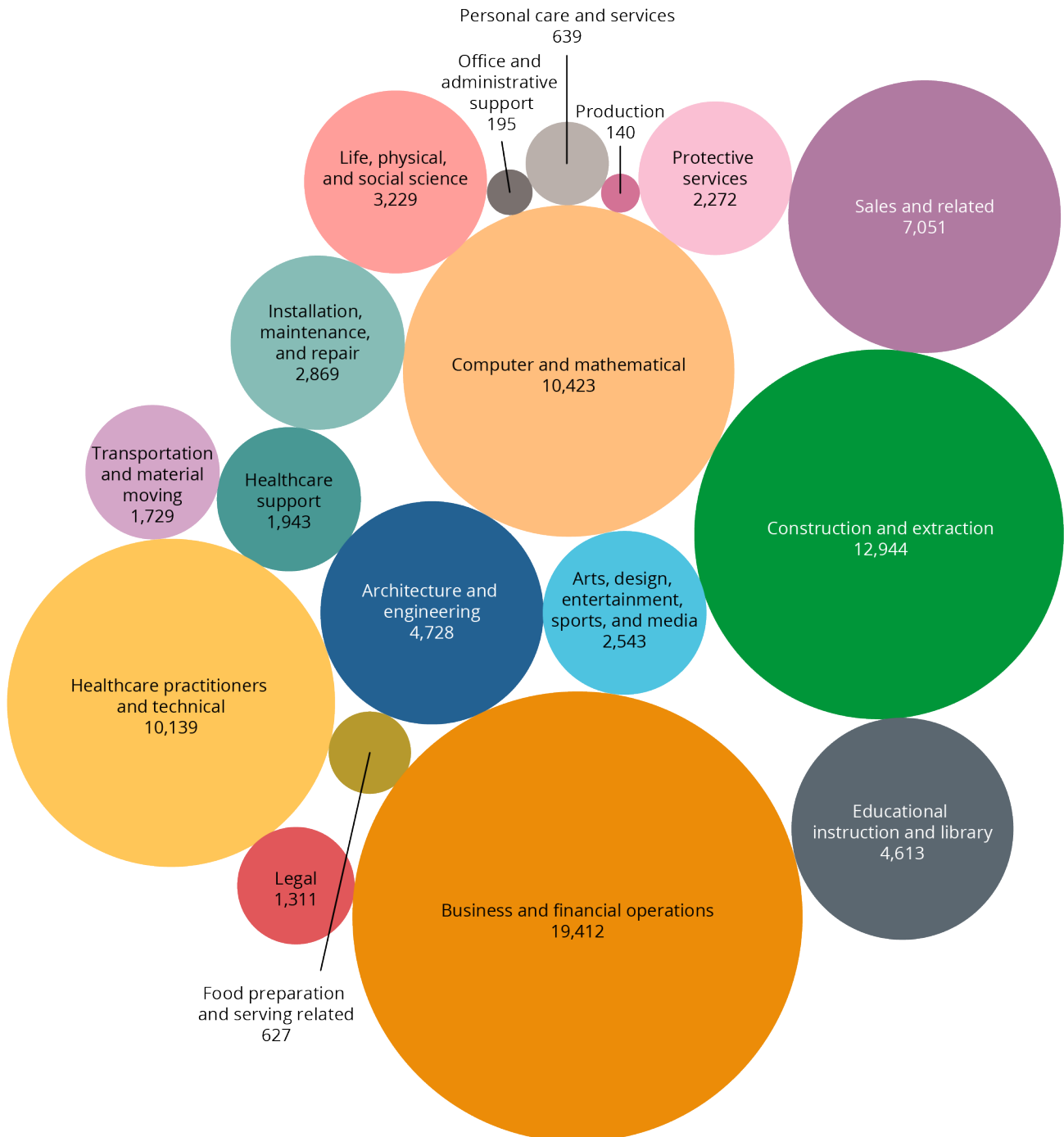
Practitioners and Technical Services; and Sales and Related are associated with the highest Tier 1 and Tier 2 Top Jobs opportunities in 2024.

**Figure 4: Estimated Job Openings in Colorado by Industry: Aug. 2023 - Aug. 2024**

Source: Figure created using data from Occupational Employment and Wage Statistics (OEWS); Colorado Department of Labor and Employment (CDLE), 2024.

Notes: To explore this graphic further, please visit CDHE Tableau.

[Table alternative for Figure 4: Estimated Job Openings in Colorado by Industry: Aug. 2023 - Aug. 2024](#)



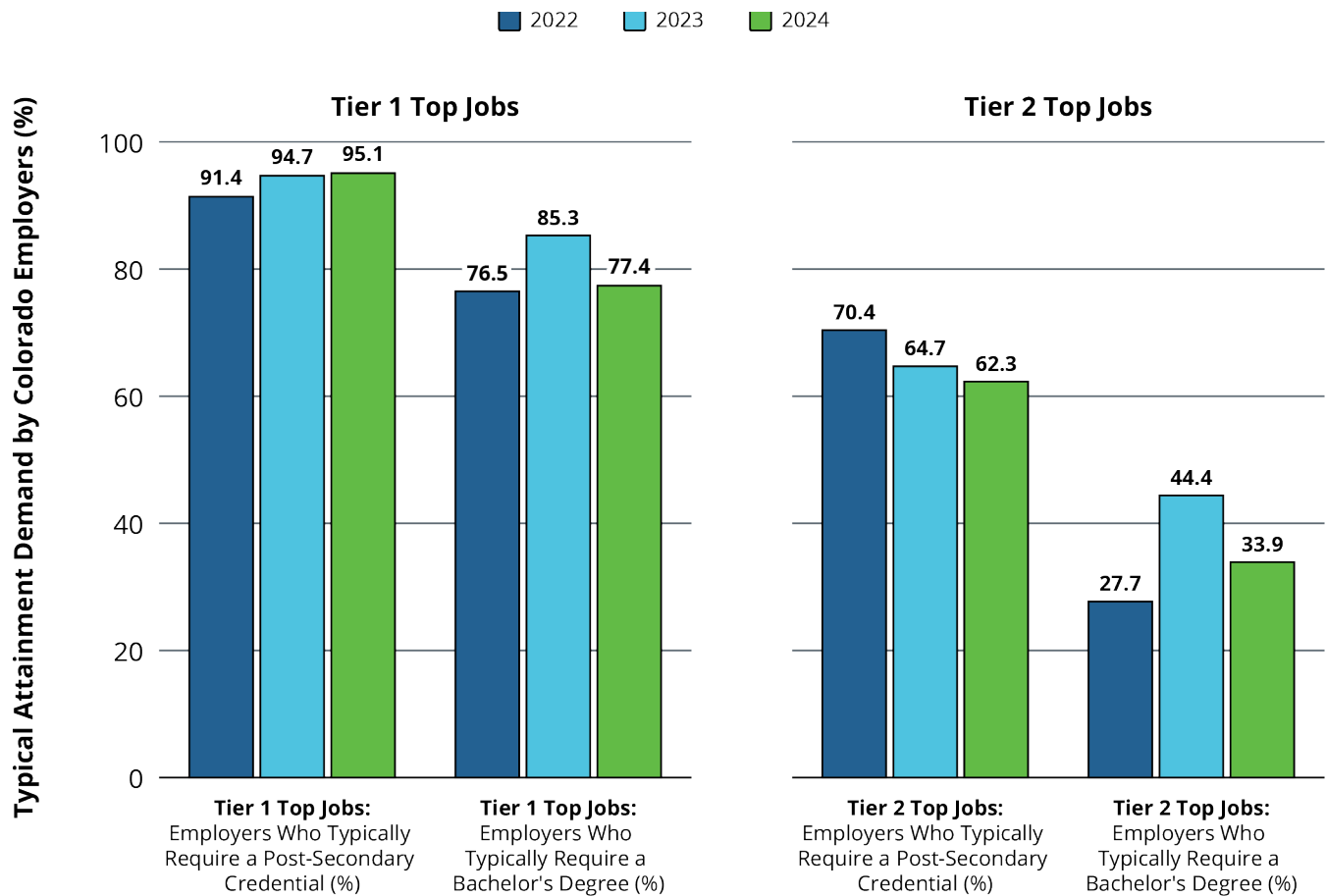
# Educational Attainment Value in the Workplace

**Ninety-five point one percent** of Tier 1 Top Jobs and **62.3%** of Tier 2 Top Jobs required post-secondary education or training in 2024. This represents a 0.4% increase for Tier 1 Top Jobs and 2.4% decrease for Tier 2 Top Jobs compared to 2023. Figure 5 displays typical educational attainment prerequisites across recent years in Colorado.

**Figure 5: Typical Post-secondary Attainment Requirements for Entry into Top Jobs in Colorado: 2022 - 2024**

Source: Figure created using data from Colorado Department of Labor and Employment (CDLE), Office of Labor Market Information (LMI), 2024.

Table alternative for Figure 5: [Typical Post-secondary Attainment Requirements for Entry into Top Jobs in Colorado: 2022 - 2024](#)



While many Colorado employers are continuing to feel the strains of labor shortages, Tier 1 Top Job employers have been simultaneously increasing their reliance on post-secondary attainment to fill high-need, higher-paying jobs. This annual upward trend in Tier 1 Top Jobs associated with post-secondary educational attainment is showcased on the left-hand side of Figure 5.

The slight decrease associated with Tier 2 Top Jobs demand for post-secondary attainment suggests that, in some cases, there is growth in the number of in-demand jobs openings that provide a living wage for one adult but not a family and do not have post-secondary education requirements.



## Post-secondary Training and Workforce Preparedness

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According to [2024 projections from Georgetown University](#), Colorado is one of the four states (not including Washington, D.C.) expected to have the lowest share of jobs for workers with a high school diploma (or equivalent) or less in 2031. By 2031, an estimated **73% of all job openings will be for workers with some type of post-secondary credential**. Roughly **30%** of these jobs are expected to require a bachelor's degree, ranking Colorado **second** in the nation for this projected demand. Strong demand for post-secondary education and training credentials in relation to Tier 1 and Tier 2 Top Job employers is likely to continue in the state's foreseeable future.

These findings suggest that completing post-secondary education or training is important in order to acquire a good paying job and to be considered competitive and workforce ready in Colorado.



# SPOTLIGHT:

**Registered Apprenticeship Programs**



[Registered Apprenticeship Programs \(RAPs\)](#) are an industry-driven, high-quality career pathway where employers can develop and prepare their future workforce. Through RAPs, individuals can obtain paid work experience, classroom instruction, and a portable, nationally-recognized credential. RAPs in Colorado are overseen by the State Apprenticeship Agency, also referred to as [Apprenticeship Colorado](#). Learn more about the registered apprenticeship ecosystem by visiting [Apprenticeship Colorado's Data Dashboard](#) to explore apprentice demographics, top apprenticeship occupations, and program data.





# SPOTLIGHT:

Work-based Learning

**Work-based learning** (WBL) is a powerful equity strategy that advances career pathways and builds professional skills that learners need to navigate and succeed in the workforce.

[Work-based learning is a continuum](#) of activities that occur, in part or in whole, in the workplace, providing the learner with hands-on, real world experience. It combines skill development with training opportunities and is a key strategy in Colorado for developing talent and preparing Coloradans for the workforce and evolving labor market.

These programs equip students and job seekers with the industry-relevant skills, certifications, and credentials needed to pursue higher levels of education and employment.

While data suggests that the [majority of post-secondary learners](#) are employed while completing their studies, [only an estimated 30% are employed in jobs that relate to their field of study](#). Learners may not have the credentials required to be qualified for employment related to their studies while in education or training. However real industry exposure serves two critical functions: one, it provides the learner with more information about the actual employment conditions of the industry they are preparing for; and, two, it prepares the student with entry-level skills for their industry of choice. Early work-based learning experiences ensure a learner is informed and prepared to enter their chosen field upon post-secondary credential completion.

Further research has demonstrated the importance of expanding work-based learning as well. Results from a [2024 Burning Glass Institute report](#) concluded that **completing an internship during a post-secondary program is the biggest predictor of attaining employment after graduation**.

Specifically, the report shows that students who complete an internship during college are 49% less likely to be underemployed after earning their bachelor's degree.

Participation in work-based learning has a long-term return on investment for learners. However, to ensure more learners can access work-based learning, opportunities must be flexible enough to accommodate education and training obligations and financially comparable to other jobs a learner might take while in education and training.

According to the [Colorado Department of Education \(CDE\)](#), being workforce ready means students are prepared and have the in-demand skills to enter the workforce and meet the needs of businesses in Colorado.

# Attainment and Labor Demand

To attract employers to the state and create more high-paying jobs, the number of individuals who have earned post-secondary credentials will need to drastically increase. The number of post-secondary credential holders sat at **62.9%** (or 1,445,510 Coloradans age 25 and older) in 2022. To boost this level by a minimum of **5.5%** by 2034, **Colorado's post-secondary education and training providers would need to supply approximately an additional 38,000 credential recipients over the next 10 years.**<sup>24</sup>

Based on the [Colorado Department of Higher Education's completion data](#), between 2018 and 2022, there were an average of **70,000** graduates per year who graduated from a Coloradan institution of higher education. According to the [University of Georgetown's 2024 projections](#), Colorado's labor market should expect approximately **355,000** job openings per year through 2031, largely due to new job creation and a high level of retirees leaving the workforce. The same report suggests that **73%** of all jobs in Colorado by 2031 will require some type of post-secondary credential as a prerequisite. Using these assumptions, out of the 355,000 job openings per year in the state roughly **259,150** will demand job seekers with a post-secondary credential.

There is a clear gap between the demand for talent with post-secondary credentials and the current number of graduates meeting that need. However, according to the [Lumina Foundation's Stronger Nation Report](#), Colorado's post-secondary attainment rate increased from 60.5% in 2021 to 62.9% in 2022.<sup>25</sup> Data also show promising gains among Coloradans earning bachelor's and graduate degrees. Bachelor's degrees have increased from 24.5% in 2009 to 27.2% in 2018 and 30.5% in 2022. Graduate degree attainment has increased from 12.9% in 2009, 15.1% in 2018, and 16.6% in 2022.

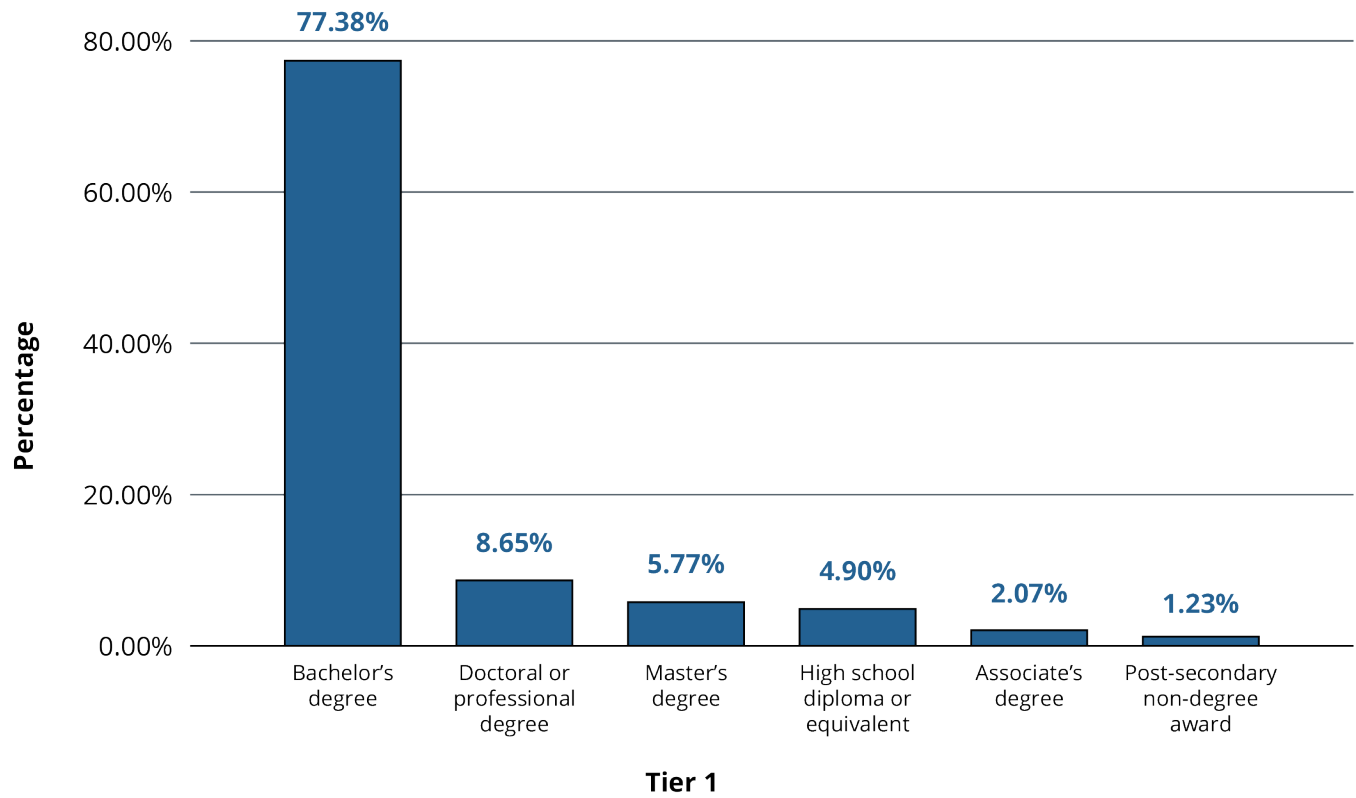


Figure 6 showcases the share of 2024 Tier 1 Top Job openings by educational attainment level. Over the past 12 months, more than three-quarters of these openings have required a bachelor's degree. Meanwhile, positions requiring doctoral, professional, or master's degrees account for over 14% of high-demand, high-paying jobs.

Associate's degrees (responsible for 2.1% of Tier 1 Top Jobs openings) and post-secondary non-degree awards (responsible for 1.2% of Tier 1 Top Jobs openings) are associated with the lowest Tier 1 employer demand this year.

**Figure 6: Percent of 2024 Tier 1 Top Jobs Openings by Educational Attainment**

Source: Figure created using data from Colorado Department of Labor and Employment (CDLE), Office of Labor Market Information (LMI), 2024. [Table alternative for Figure 6: Percent of 2024 Tier 1 Top Jobs Openings by Educational Attainment](#)



Compared to Tier 1, Tier 2 jobs have more diverse demand for post-secondary credentialing. While employer demand for bachelor’s degrees is still the largest share of Tier 2 Top Job openings in 2024, roughly **34%** (or 5,203 openings) of Tier 2 Top Job roles only require a high school degree or equivalent for entry.

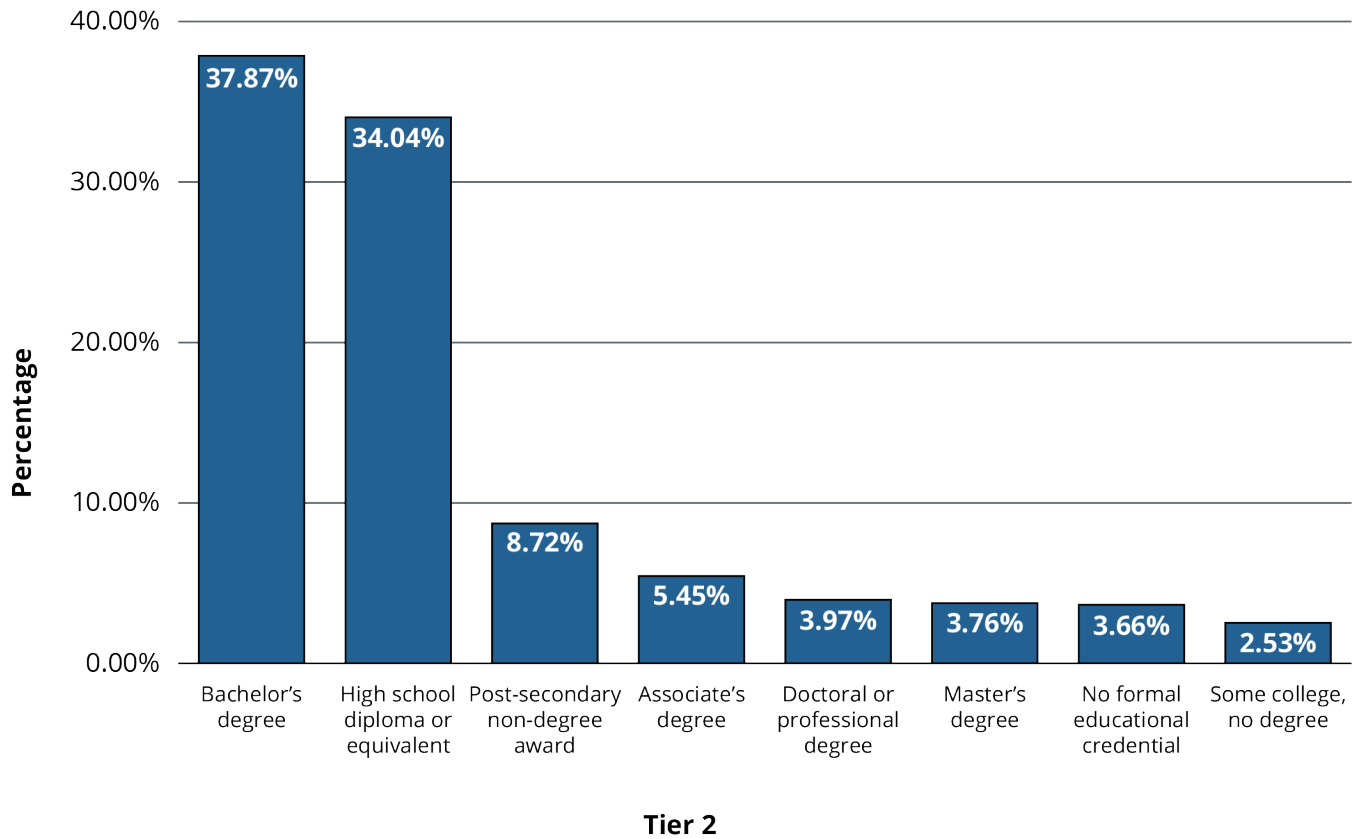
While a bachelor’s degree is still the single most required prerequisite relating to Tier 2 Top Jobs, **the**

**data about Tier 2 credential demand reflects a relatively higher appetite for short-term, non-degree credentials.** This year, nearly **10%** of Tier 2 Top Job openings required a post-secondary non-degree award and roughly **6%** required an associate’s degree as a prerequisite for hiring. Tier 2 jobs that require a non-degree credential or an associate’s degree made up an estimated **8,455 openings** in Colorado during the last 12 months.

**Figure 7: Percent of 2024 Tier 2 Top Jobs Openings by Educational Attainment**

Figure created using Colorado Department of Labor and Employment (CDLE), Office of Labor Market Information (LMI), 2024.

[Table alternative for Figure 7: Percent of 2024 Tier 2 Top Jobs Openings by Educational Attainment](#)



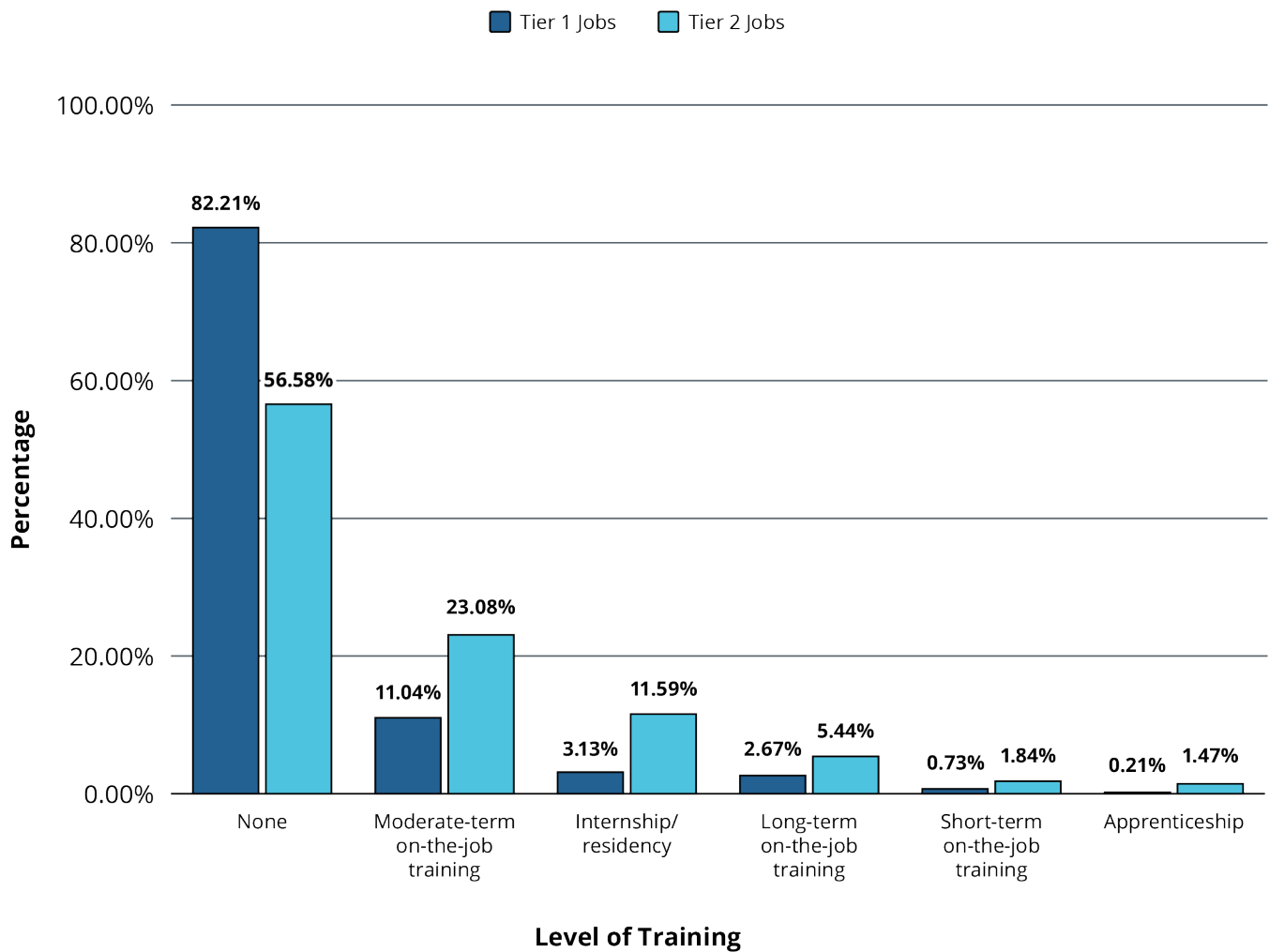
# Workforce Training & High-paying, High-demand Jobs

Most Tier 1 and Tier 2 Top Jobs require no on-the-job training. Roughly **11%** of Tier 1 and nearly **25%** of Tier 2 job openings mandate on-the-job

training once hired. Of those jobs **with** training requirements, moderate-term on-the-job training represents the largest Tier 1 and Tier 2 employer demand relative to other training levels (see Figure 8). This accounts for roughly **14,000** job openings in 2024.

**Figure 8: 2024 Top Job Openings and On-the-job Training**

Figure created using data from Colorado Department of Labor and Employment (CDLE), Office of Labor Market Information (LMI), 2024. [Table alternative to Figure 8: 2024 Top Job Openings and On-the-job Training](#)



Internships are the second most common training requirement among Colorado employers. Between June 2023 and June 2024, openings for positions requiring internship experience represented nearly

**1,100** job opportunities in the state. Occupations associated with internship requirements often also require some type of post-secondary completion.

# Colorado's Thriving and Surviving Industries

Between June 2023 and June 2024, [Colorado's Government sector added 21,100 jobs, the most jobs added to the labor market during that period.](#)

Government roles are represented across most occupational categories, and thus can aid in bridging a share of the supply and demand gaps within the state's workforce. Private Healthcare and Social Assistance (+10,200); and Professional and Technical Services (+7,400) added the second and third most jobs, respectively, over that period.

**These three industries accounted for 75% of total nonfarm payroll job increases amongst the 11 industries that experienced positive job growth over the period.**

The industry sectors with the largest declines between June 2023 and June 2024 were:

- » Construction (-4,200);
- » Transportation, Warehousing, and Utilities (-4,200); and
- » Information (-3,000).

This marks a shift from data published in the [2023 Talent Pipeline Report](#), which showed Accommodation and Food Services as the top-growing sector with 23,000 new jobs; followed by Government (16,700 new jobs); and Professional, Scientific, and Technical Services (10,800 new jobs) between August 2022 and August 2023.

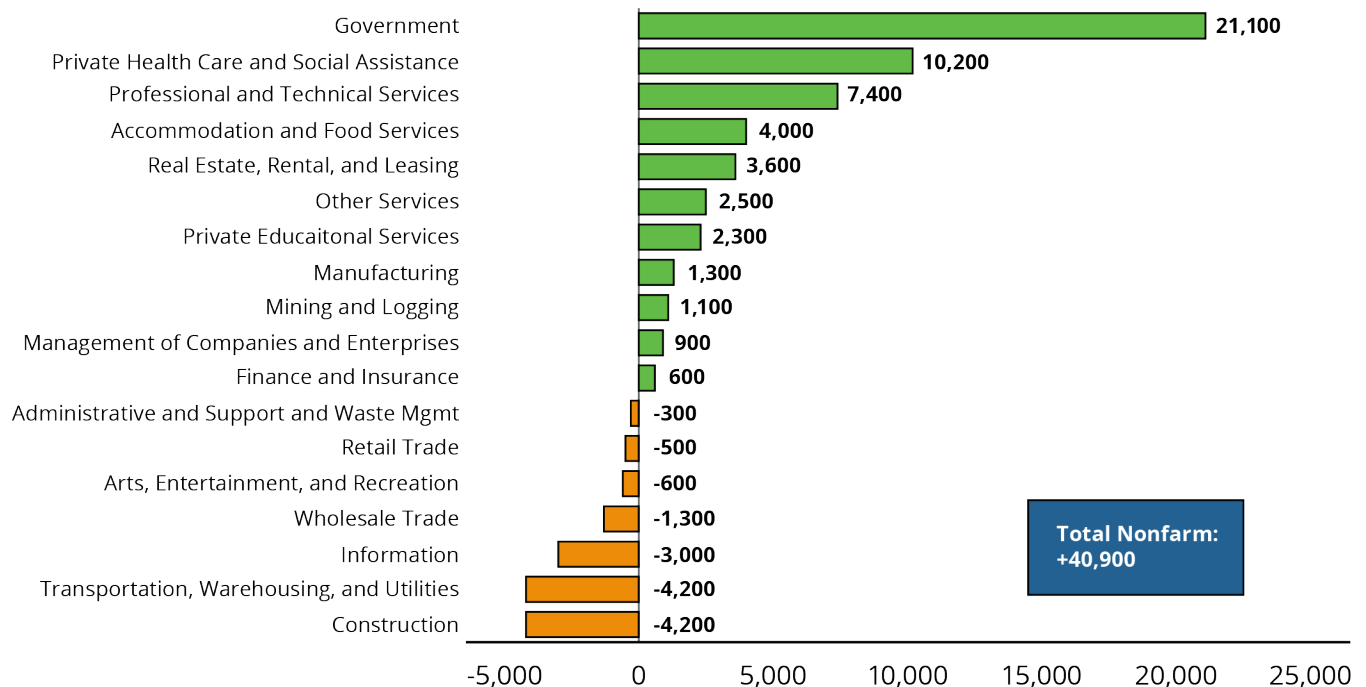
Figure 9 below displays the changes in statewide nonfarm payroll jobs<sup>26</sup> between June 2023 and June 2024.

**Figure 9: Change in Job Growth by Sector: June 2023 - June 2024**

Source: [Colorado Employment Situation - June 2024](#) p. 12 published by the Colorado Department of Labor and Employment (CDLE), Office of Labor Market Information (LMI); Bureau of Labor Statistics (BLS), 2024.

Notes: Data reported in Figure 9 is seasonally adjusted.

[Table alternative for Figure 9: Change in Job Growth by Sector: June 2023 - June 2024](#)



# Growth Patterns in Colorado's High-Wage Industries: June 2022 - June 2024

Sectors classified by CDLE as high-wage industries in 2024 include: **Mining and Logging; Wholesale Trade; Information; Finance and Insurance; Professional, Scientific, and Technical Services; Management of Companies and Enterprises; and**

**Federal Government** jobs. As of June 2024, five out of the seven sectors have experienced positive job growth relative to June 2022. Finance and Insurance and Information sectors experienced declines.<sup>27 28</sup>

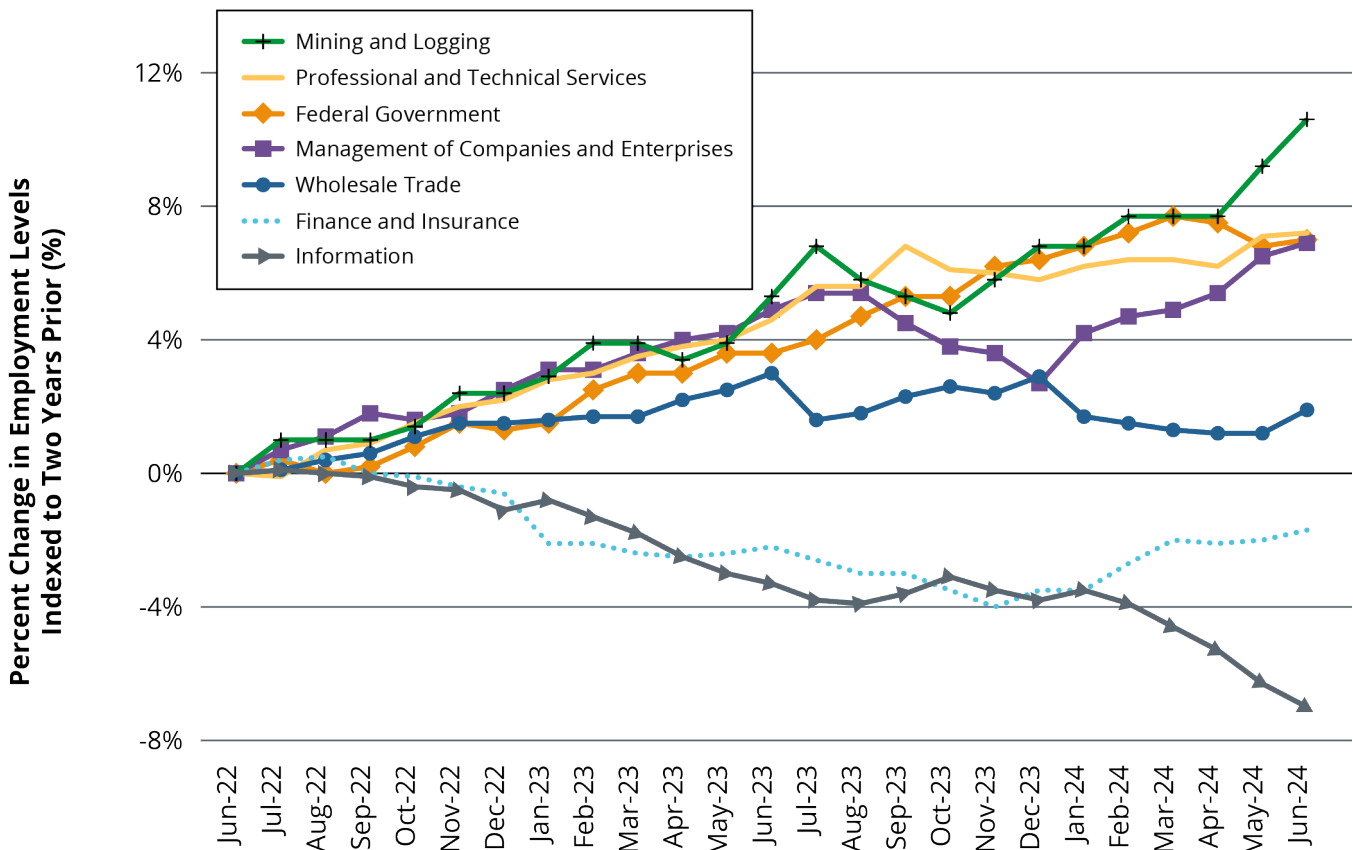
Figure 10 reports job growth trends for Colorado's high-wage industries across recent years. Values above zero percent indicate employment levels have increased relative to June 2022, while values below zero percent indicate employment levels have decreased.

**Figure 10: Job Growth for Colorado High-Wage Industries: June 2022 - June 2024**

Source: *Colorado Employment Situation - June 2024* p. 17 published by the Colorado Department of Labor and Employment (CDLE), Office of Labor Market Information (LMI); Bureau of Labor Statistics (BLS), 2024.

Notes: Data reported in Figure 10 is seasonally adjusted. High-wage industries are determined by the 2019 state-level average weekly wage estimates from the Quarterly Census of Employment and Wages (QCEW).

Table alternative for Figure 10: *Job Growth for Colorado High-Wage Industries: June 2022 - June 2024*



Mining and Logging has the fastest growth rate for high-wage industries between June 2022 and June 2024, at **10.6%**. As a share of *total employment*, however, relative to 2020 levels, the Mining and Logging sector has fallen by 15.7%.<sup>29</sup>



# Shifts in Colorado's Employment Demand by Occupation and Skill Need

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The information in Table 3 is based on the average unique monthly online job postings that were active in Colorado between August 2023 and August 2024, according to Lightcast Econometric Modeling platform.

**Table 3: Top 10 Occupation Titles Associated with Highest Average Unique Job Postings Compared to the Level of Average Monthly Hires: August 2023 - August 2024**

Source: Lightcast Econometric Modeling, Q3 2024.

Notes: Lightcast Econometric Modeling platform ensures to the best of its ability that no “double-counting” errors are included in the data represented in Table 3. Through this methodology, job ads are counted once if they are indicated as “unique,” meaning that this posting by specific employer and occupation title has not been reposted on hiring platforms during an estimated timeframe. Thus, if an employer reposts a job position due to not acquiring the talent needed, Lightcast will not recognize that observation as a new/unique posting.

[Supplemental data for Table 3: Top 10 Occupation Titles Associated with Highest Average Unique Job Postings Compared to the Level of Average Monthly Hires: August 2023 - August 2024](#)

Occupation Title	Average Monthly Unique Postings	Average Monthly Hires
Registered Nurses	4,529	1,668
Retail Salespersons	2,765	6,716
Computer Occupations, All Other	1,354	323
First-Line Supervisors of Retail Sales Workers	1,298	1,428
Heavy and Tractor-Trailer Truck Drivers	1,282	2,152
Customer Service Representatives	1,239	3,486
Software Developers	1,196	1,416
Maintenance and Repair Workers, General	1,008	1,467
General and Operation Managers	956	2,473
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	933	2,405



**Registered Nurses continue to hold the top position for most active job postings for the third year in a row.**

**Relative to 2023, occupation titles that are new to the list of highest average unique postings this year includes:**

- » **Computer Occupations, All Other** (ranking 3rd out of the top job posting occupational titles in the state during 2024);
- » **Heavy and Tractor-Trailer Truck Drivers** (ranking 5th out of the top job posting occupational titles in the state during 2024);
- » **Customer Service Representatives** (ranking 6th out of the top job posting occupational titles in the state during 2024);
- » **General and Operation Managers** (ranking 9th out of the top job posting occupational titles in the state during 2024); and
- » **Secretaries and Administrative Assistants, Except Legal, Medical, and Executive** (ranking 10th out of the top job posting occupational titles in the state during 2024).

Based on current unique statewide job postings that specify a minimum educational attainment level, nearly 54% require a bachelor's degree or higher between August 2023 and August 2024.

Table 4 below reports the leading skills sought by Colorado employers between July 2023 and July 2024. Columns 1 and 2 report Colorado employer demand for technical skills columns 3 and 4 report Colorado employer demand for essential skills.

**Table 4: Leading 10 In-demand Skills by Colorado Employers - Technical Skills vs. Essential Skills: June 2023 - June 2024**

Source: Chmura Econometric Modeling, Q3 2024.

Notes: Chmura Econometric Modeling platform ensures to the best of its ability that no “double-counting” errors are included in the data represented in Table 4. Through this methodology, job ads are counted once if they are indicated as “unique,” meaning that this posting by specific employer and occupation title has not been reposted on hiring platforms during an estimated timeframe. Thus, if an employer reposts a job position due to not acquiring the talent needed, Chmura will not recognize that observation as a new/unique posting.

[Supplemental data for Table 4: Leading 10 In-demand Skills by Colorado Employers - Technical Skills vs. Essential Skills: June 2023 - June 2024](#)

Technical Skill Title	Active Job Postings	Essential Skill Title	Active Job Postings
Microsoft Platforms (in terms of demand level: Office; Excel; Outlook; Work; Powerpoint)	226,450	Communication (Verbal and written skills)	422,068
Sales	44,964	Cooperative/Team Player	267,666
Teaching/Training for the Workforce	34,793	Customer Service	184,976
Customer Relationship Management (CRM) and Hospitality	33,025	Organization	132,813
Presentation and Agility	32,502	Detail Oriented/Meticulous	115,143
Spanish	23,158	Self-Motivated/Ability to Work Independently/Self Leadership	111,252
English	18,370	Problem Solving	111,145
Teaching/Training, School	17,762	Adaptability/Flexibility/Tolerance of Change and Uncertainty	106,354
Mathematics	17,213	Interpersonal Relationships/Maintain Relationships	96,286
Python (Programming Language)	14,864	Ability to Work in a Fast-Paced Environment	94,401

Of the 10 most in-demand skills listed by Colorado employers in 2024, **essential skills account for nearly 72% of total demand**. This is in part due to the fact that essential skills transcend any particular industry and are foundational to success in the workplace. Essential skills are largely consistent across industries, as noted in the [2023 Talent Pipeline Report](#), meaning they are easily transferable.

Table 5 shows the leading software skills expected to see increased employer demand in Colorado between September 2024 and September 2026. These estimates are displayed in column 2. Column

3 of Table 5 reports the percentage of job seekers statewide who listed that specific skill on their online profiles.

**Table 5: Top Projected Growing Software Skills by Coloradan Employer Demand vs. Percentage of Coloradan Job Seekers Profiles**

Source: Lightcast Econometric Modeling, Q3 2024.

Notes: Lightcast Econometric Modeling platform’s skill projection growth categories are determined by comparing the forecasted 2-year change in national demand of individual skills with the forecasted 2-year change in national demand for all skills. Categories are assigned based on the distribution of growth rates across all skills and the corresponding ranges that best represent the data. As distributions change over time, these definitions and ranges may also shift.

[Supplemental data for Table 5: Top Projected Growing Software Skills by Coloradan Employer Demand vs. Percentage of Coloradan Job Seekers Profiles](#)

Software Skill Title	Projected Skill Growth Demand (%): September 2024 - September 2026	Total Job Seeker Profiles that Satisfy Industry Demand (%): September 2023 - September 2024
Microsoft Azure	28.9%	0%
Microsoft PowerPoint	26.1%	7%
Microsoft Outlook	25.0%	2%
Dashboard	25.3%	1%
Python (Programming Language)	24.5%	2%
Salesforce	24.7%	2%
Microsoft Office	24.2%	12%
JIRA	24.1%	1%
Amazon Web Services	24.0%	1%
Operating Systems	22.6%	1%

Eight out of the top 10 technical skills projected to see the highest growth in employer demand over the next two years in Colorado were listed on only 0% to 2% of job seekers’ online profiles between September 2023 and September 2024.

To see the leading technical skills as reported by job seekers in Colorado, go to the Supply Section of this report.

# Industries to Look Out For in Colorado

## Aerospace Product and Parts Manufacturing

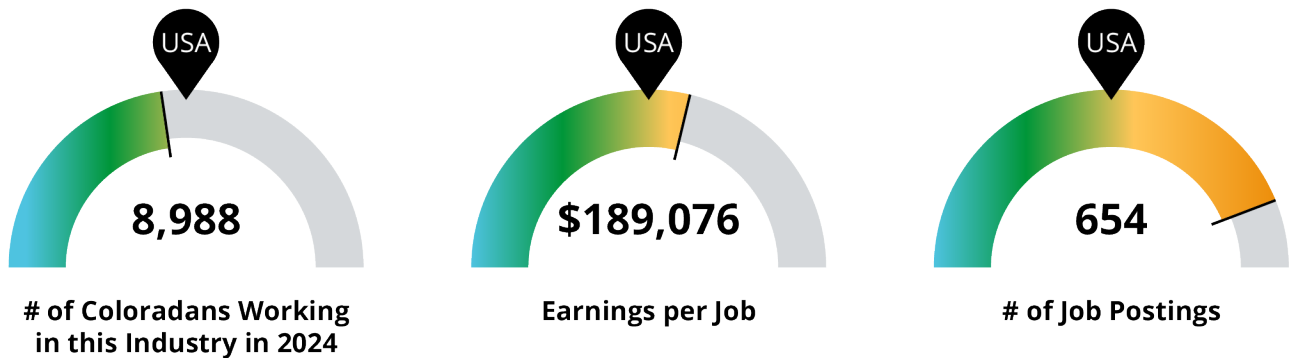
In 2024, the aerospace industry saw intense competition among employers for talent, indicating a need for more trained and skilled individuals in this sector. Figure 11 below showcases these trends in Colorado, relative to national averages, through supply, earnings, and demand channels.

**Figure 11: Aerospace Product and Parts Manufacturing Trends in Colorado Compared to National Averages: September 2023 - September 2024**

Source: Lightcast Econometric Modeling, Q3 2024.

Notes: Supply and demand numbers represent average monthly estimates between September 2023 and September 2024.

[Table alternative for Figure 11: Aerospace Product and Parts Manufacturing Trends in Colorado Compared to National Averages: September 2023 - September 2024](#)



Based on the national average, the data suggest that there are not enough Coloradans with the skills in the Aerospace Industry to keep up with demand. This indicates a **need for more aerospace-related training opportunities**, which are often associated with post-secondary attainment. For example, Aerospace Engineers - a Tier 1 Top Job in 2024 - typically require at least a bachelor's degree or higher. Aerospace Engineering and Operations Technologists and Technicians - another Tier 1 Top Job in 2024 - usually require at least an associate's degree or higher.

Earnings per job (i.e., the total industry earnings divided by the number of jobs in the industry) are above the national average. For regions with

a similar workforce size to Colorado, the national average salary for Aerospace Product and Parts Manufacturing is \$146,452. However, in Colorado it is \$189,076.<sup>30</sup> This outpaces the national average by **\$42,624** per year and surpasses thresholds associated with Tier 1 and Tier 2 Top Jobs in 2024 by **\$105,076 and \$138,076**, respectively.

**Demand is high for talent in the aerospace industry.** This is based on unique online job postings specific to the Aerospace Product and Parts Manufacturing industry. The national average for an area of similar workforce size to Colorado's is 218 job postings per month. Colorado's monthly job postings specific to this industry are roughly **three-times higher than the national average**.

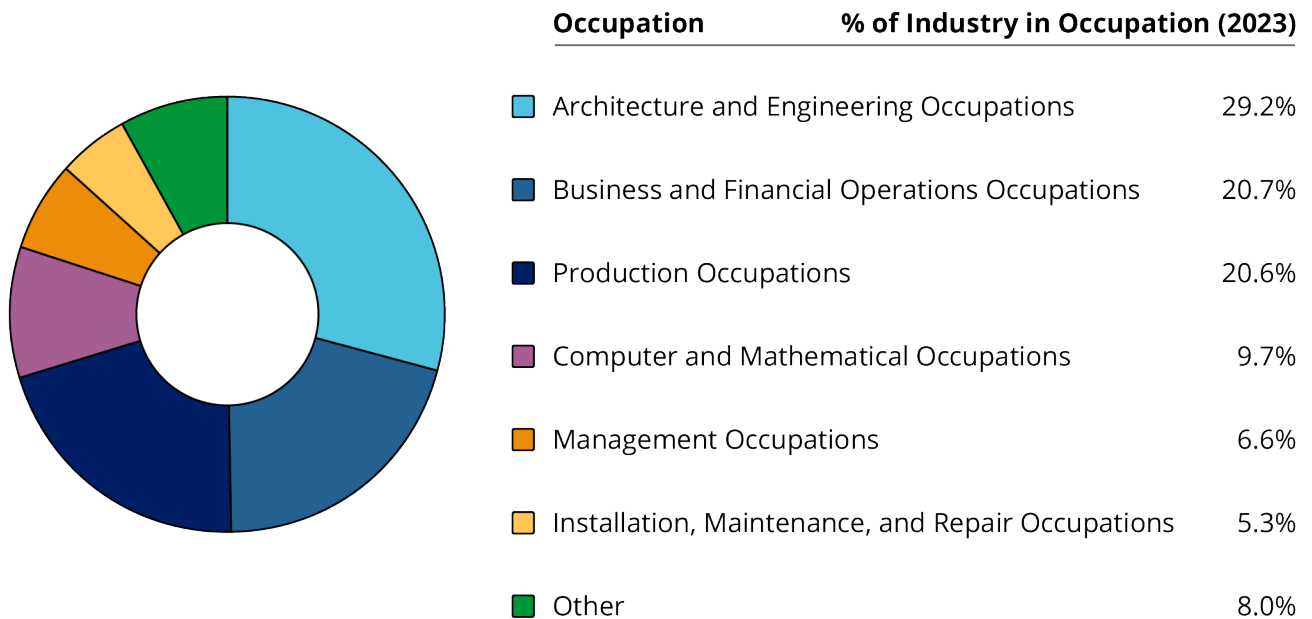
According to Lightcast Econometric Modeling, there were **52 employers** in Colorado who posted aerospace jobs between September 2023 and September 2024. The top employers include:

- » **Lockheed Martin:** 2,613 unique postings;
- » **Sierra Nevada Corporation:** 1,569 unique postings;
- » **Blue Origin:** 950 unique postings;
- » **Woodward:** 462 unique postings; and

The aerospace industry experienced a growth rate of **17%** in Colorado between 2018 and 2023 and is expected to grow by **7%** between 2023 and 2028. **Over half** of Colorado employees in this sector are between the ages of 25 and 44. Only **25.4%** are female and approximately **80.2%** identify as white or caucasian, indicating the need for further diversity. Most jobs falling into this category in Colorado are found in the Architecture and Engineering Occupations Industry Sector (see Figure 12).

**Figure 12: Aerospace Occupations in Colorado**

Source: Lightcast Econometric Modeling, Q3 2024.  
 Table alternative for Figure 12: [Aerospace Occupations in Colorado](#)



Colorado is committed to developing intentional and strategic workforce efforts which ensure all Coloradans have the opportunity to thrive and access this sector. Recent efforts to support the aerospace talent pipeline have resulted in

the creation of an [aerospace career pathways map](#), investments in K-12 aerospace [youth apprenticeships](#), and the growth of [teacher externships](#) in STEM fields.

# Energy

Similar to national trends, Colorado’s energy sector is experiencing contrasting outcomes, with renewable energy jobs growing rapidly while jobs in non-renewable energy decline as the global transition to clean energy accelerates. Figure 13 below displays these trends in Colorado as well as national averages. The first row shows workforce

trends in Colorado for clean energy sectors including **Hydroelectric Power Generation; Solar Electric Power Generation; Wind Electric Power Generation; Geothermal Electric Power Generation; and Biomass Electric Power Generation.** The second row shows workforce trends in Colorado for occupations in **Fossil Fuel Electric Power Generation.**

**Figure 13: Contrasting Trends in Colorado’s Energy Generation Sector per Month Compared to National Averages: September 2023 - September 2024**

Source: Lightcast Econometric Modeling, Q3 2024.

Notes: Supply and demand numbers represent average monthly estimates between September 2023 and September 2024.

[Table alternative for Figure 13: Contrasting Trends in Colorado’s Energy Generation Sector per Month Compared to National Averages: September 2023 - September 2024](#)

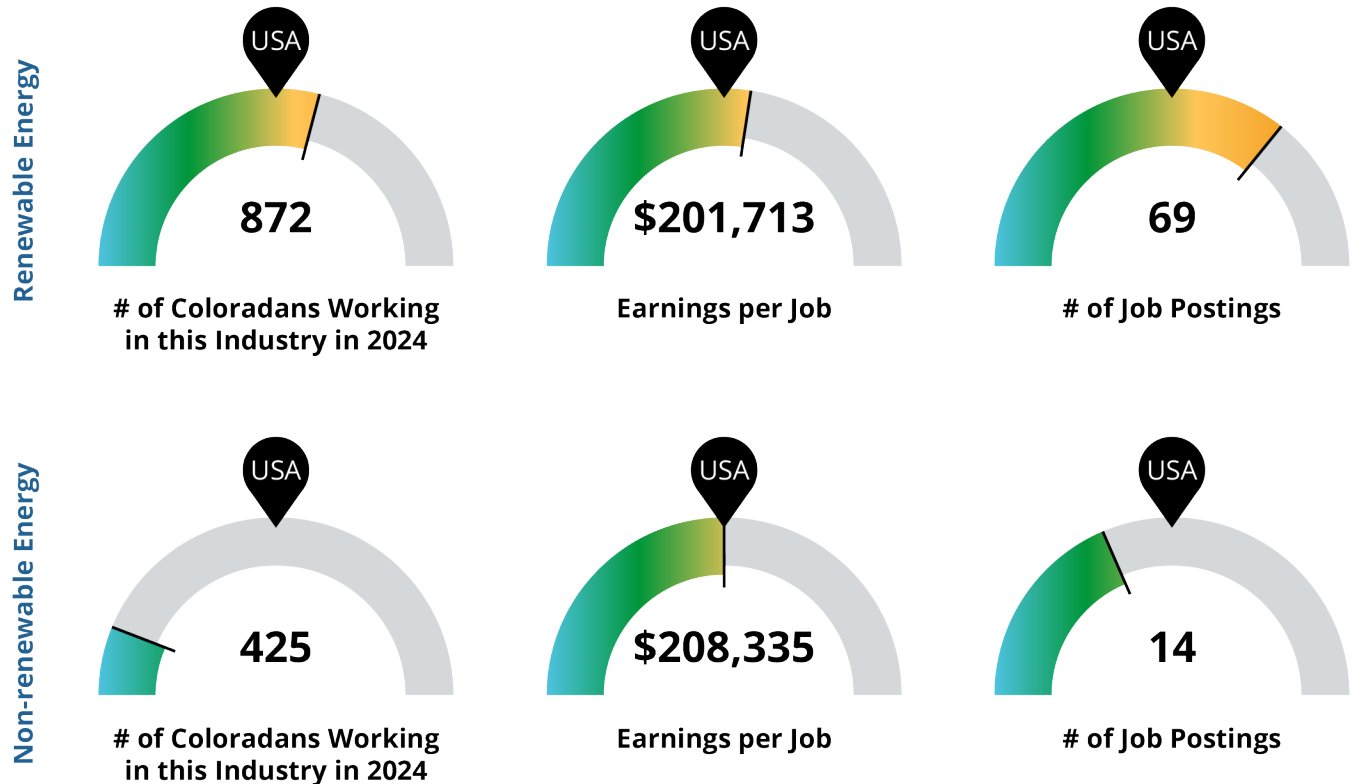


Figure 13 suggests that **renewable energy production is experiencing a robust boom in Colorado compared to non-renewable energy production.** Some of the key factors driving this

trend are lower costs associated with renewable energy, supportive clean energy legislation, and shifting public perceptions that favor sustainability.<sup>31</sup>



Colorado's renewable energy sector outpaces national averages in terms of talent supply, annual wages, and employer demand, suggesting that the state is a hotspot of this kind of talent and the industry is thriving. There are **872 Colorado employees filling high-demand jobs in this sector who earn well above the annual thresholds that define Tier 1 and Tier 2 Top Jobs**. Retirement risk is lower than the national average, with **173 employees out of 872 who are 55 and older**.

The state's job market for these types of occupations is competitive, with unique job postings outpacing the national average by roughly double. **This sector experienced a notable growth rate of 141% between 2018 and 2023, and is projected to grow by an additional 42% between 2023 and 2028**. Between September 2023 and September 2024 there have been **879** unique monthly job postings related to this sector in the state.

State efforts to support workforce development in the clean energy sector include the creation of the Strengthening Photovoltaic and Renewable Careers ([SPARC](#)) Workforce Development Program, the development of a clean energy career [pathways map](#), delivery of a Zero Emissions Vehicle (ZEV) Workforce Development Grant,<sup>32</sup> and cross agency partnerships between the Department of Labor and Employment and the Colorado Energy Office.





# SPOTLIGHT:

**Leveraging Federal Investments in Quantum**

The U.S. Economic Development Administration (EDA) Tech Hubs Program was enacted as part of the CHIPS and Science Act of 2022. The Tech Hubs Program will invest directly in regions with the assets, resources, capacity, and potential to transform into globally competitive innovation centers in approximately 10 years, while catalyzing the creation of good jobs for American workers at all skill levels, equitably and inclusively.

In October 2023, President Biden announced the designation of the inaugural 31 Tech Hubs, including **Elevate Quantum**, a Colorado and New Mexico led Hub. Following this designation, EDA announced \$504 million for 12 Tech Hubs, including a **\$41 million award for Elevate Quantum in July 2024**.

The Elevate Quantum Tech Hub seeks to solidify the region's global leadership in quantum information technology to enable progress in areas such as artificial intelligence, climate tech, and healthcare.

Tapping into regional expertise and assets, including leading national laboratories, this Tech Hub will bolster existing relationships between the regional research community and private sector to unlock transformative technologies needed to move quantum-based products to market.

The Elevate Quantum Tech Hub seeks to strengthen its quantum information technology sector by focusing on commercial-ready applications in sensing, computing, networking, and enabling hardware. The consortium aims to expedite lab-to-market translation by establishing globally unique quantum labs and fabrication facilities, reducing the time and cost of commercializing quantum innovation; lowering barriers to quantum entrepreneurship; and building a workforce ready to meet the needs of this growing sector.

EDA recommended this Tech Hubs receive grant funding of approximately \$41 million to implement three projects, including:

- » Constructing open-access quantum labs and fabs to enable rapid prototyping and low-volume manufacturing of critical quantum technologies;
- » Providing inclusive workforce development programming across colleges, universities, and companies to ensure a skilled and diverse talent pool in the region; and
- » Coordinating the consortium's overall strategy, stakeholder and investor engagement, and executive management to execute the Tech Hub's vision.

Elevate Quantum anticipates strong job growth to result from its efforts, with grants projected to support **11,000+ annual jobs** across Colorado, Wyoming, and New Mexico.<sup>33</sup> This will generate **~\$910M in labor income**, positively impacting local families, and **~\$1.2B in additional economic value**, yielding **over ~\$2.1B in total output**.<sup>34 35</sup>

Through its workforce development efforts, Elevate Quantum is focused on training individuals for jobs with family sustaining wages. Quantum is cutting-edge and requires a broad range of skills to sustain the quantum workforce. Nearly half of quantum jobs **don't require advanced degrees**.<sup>36</sup> Quantum-related jobs are high-paying, with the **average job paying over \$125,000 per year**.<sup>37</sup> Elevate Quantum is partnering to dramatically expand community college and certification programs to provide access to quantum jobs.

In this next phase of work funded by the EDA and others, Elevate Quantum anticipates a variety of outcomes in advancing innovation, national security and clean energy applications, private sector successes and investment, as well as inclusion across all levels of the workforce and diverse areas of the state.

# SUPPLY

## Job Seekers in Colorado

Table 6 reports the leading skills that Colorado job seekers have between September 2023 and September 2024. Data reported is based on active online profiles statewide.

**Table 6: Leading 10 Skills by Colorado Job Seekers - Technical Skills vs. Essential Skills: September 2023 - September 2024**

Source: Chmura Econometric Modeling Platform, 2024.

[Supplemental data for Table 6: Leading 10 Skills by Colorado Job Seekers - Technical Skills vs. Essential Skills: September 2023 - September 2024](#)

Technical Skill Title	Online Profiles	Essential Skill Title	Online Profiles
Teaching/Training, Job	158,242	Supervision/Management	206,290
Sales	151,667	Communication (Verbal and written skills)	129,688
Marketing	105,040	Organization	119,992
Finance	85,979	Researching	96,415
Spanish	77,261	Customer Service	85,221
Health/Wellness	58,184	Cooperative/Team Player	76,215
Recruiting	54,045	Coaching/Mentoring	73,017
Social Media	41,947	Leadership	70,595
Accounting	36,128	Efficiency	63,319
Laboratory	36,023	Consulting	51,244

Relative to demand estimates reported in Table 5 in the previous section, many of the skills showcased by job seekers are misaligned with employer needs. Skills mismatches across Table 4 and Table 6 show supply and demand gaps across employers and job seekers. In terms of essential skills, data suggest deficiencies between labor market supply and demand.

Table 7 reports the top 10 software skills job seekers in Colorado have showcased on their online profiles between September 2022 and September 2024 (column 2) and compares them to the percentage

of unique job postings with those listed skills during the same period (column 3).

Column 4 of Table 7 displays the projected growth rate in employer demand between September 2024 and September 2026. Any skills above 24% are considered to be **rapidly growing** as defined by Lightcast Econometric Modeling platform.<sup>38</sup> Skills with a projected growth rate between 15% and 24% are considered to be **growing**. Skills with a projected growth rate between 5% and 14% are considered to be **stable**.

**Table 7: Leading Software Skills Showcased on Coloradan Job Seeker Profiles: Technical Skills vs. Essential Skills: September 2022 - September 2024**

Source: Lightcast Econometric Modeling, Q3 2024.

Notes: Lightcast Econometric Modeling platform ensures to the best of its ability that no “double-counting” errors are included in the data represented in Table 7. Through this methodology, job ads are counted once if they are indicated as “unique,” meaning that this posting by specific employer and occupation title has not been reposted on hiring platforms during an estimated timeframe. Thus, if an employer reposts a job position due to not acquiring the talent needed, Lightcast will not recognize that observation as a new/unique posting.

[Supplemental data for Table 7: Leading Software Skills Showcased on Coloradan Job Seeker Profiles: Technical Skills vs. Essential Skills: September 2022 - September 2024](#)

Technical Skill Title	% of Total Profiles	% of Total Postings	Projected Skill Growth: September 2024 - September 2026
Microsoft Office	12%	8%	18.5%
Microsoft Excel	10%	7%	17.7%
Microsoft Word	8%	2%	7.2%
Microsoft PowerPoint	7%	4%	26.1%
Microsoft Outlook	2%	4%	25.0%
Python (Programming Language)	2%	2%	24.5%
Salesforce	2%	1%	24.7%
SQL (Programming Language)	2%	1%	6.4%
Spreadsheets	1%	1%	22.2%
SAP Applications	1%	1%	21.6%

# Certification Supply and Demand Across Job Seekers and Employers in Colorado

Certificates and short-term credentials offer unique educational and training opportunities that can meet individual advancement needs at different times throughout a worker’s lifespan. Table 8 below reports the leading 15 certification data that job seekers showcase on their resumes relative to the certifications that employers require on job postings over this 12 month timeframe in Colorado.

**Table 8: Leading 15 Certificates Attained by Colorado Job Seekers vs. Leading 15 Certificates in Demand by Employers: September 2024**

Source: Chmura Econometric Modeling, Q3 2024.

Notes: Chmura Econometric Modeling platform ensures to the best of its ability that no “double-counting” errors are included in the data represented in Table 8, Column 4. Through this methodology, job ads are counted once if they are indicated as “unique,” meaning that this posting by specific employer and occupation title has not been reposted on hiring platforms during an estimated timeframe. Thus, if an employer reposts a job position due to not acquiring the talent needed, Chmura will not recognize that observation as a new/unique posting. [Supplemental data for Table 8: Leading 15 Certificates Attained by Colorado Job Seekers vs. Leading 15 Certificates in Demand by Employers: September 2024](#)

Certificate Name - Attained by Job Seekers	Online Job Seeker Profiles (September 2024)	Certificate Name - Demand by Employers	Active Job Postings (September 2024)
Certification in Cardiopulmonary Resuscitation (CPR)	19,867	Basic Life Support (BLS)	27,631
First Aid Certification	16,529	Certification in Cardiopulmonary Resuscitation (CPR)	23,227
Basic Life Support (BLS)	10,261	Registered Nurse (RN)	19,407
Project Management Professional (PMP)	7,402	Secret Clearance	8,665
Certified Public Accountant (CPA)	5,761	Advanced Cardiac Life Support Certification (ACLS)	8,294
Registered Nurse (RN)	5,381	First Aid Certification	8,183
Certified ScrumMaster (CSM)	5,333	Commercial Driver's License (CDL)	5,215
CompTIA Security+ Certification	5,284	Certified Public Accountant (CPA)	4,447
Advanced Cardiac Life Support Certification (ACLS)	4,318	Licensed Practical Nurse (LPN)	4,264

Certificate Name - Attained by Job Seekers	Online Job Seeker Profiles (September 2024)	Certificate Name - Demand by Employers	Active Job Postings (September 2024)
Notary Public	4,005	Certified Nursing Assistant (CNA)	4,087
Licensed Professional Engineer	3,966	The American Registry of Radiologic Technologists (ARRT) Certification	3,617
Certified Nursing Assistant (CNA)	3,352	Licensed Clinical Social Worker (LCSW)	3,348
CompTIA A+ Certification (A+ Certification)	3,339	Licensed Professional Counselor (LPC)	2,994
Network+ Certification	3,139	Pediatric Advanced Life Support (PALS)	2,816
Six Sigma Green Belt Certification (SSGB)	3,057	Project Management Professional (PMP)	2,362

As of September 2024, 13 out of the top 15 in-demand certificates have demand greater than the supply of workers. The largest deficiencies are associated with the Health Care Industry. Project Management Professionals (PMP) and First Aid Certifications are the two certifications that stand out as surpluses across job seekers and employer demand.

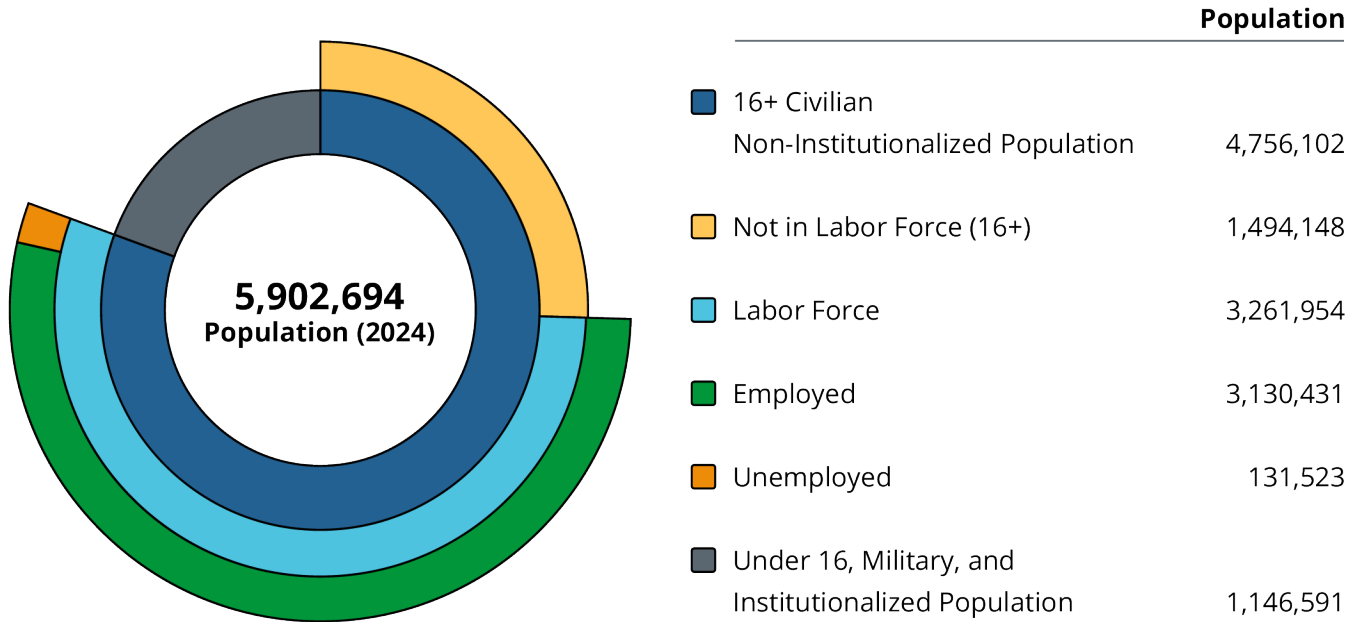
# Colorado's Labor Force & Population Update

Between 2018 and 2023, Colorado's population has increased by 3.1% , adding 178,684 new Coloradans. The population is expected to increase by roughly 2.2% between 2023 and 2028, adding 132,104 new Coloradans, with **the largest share of the population growth expected to be from the 65+ population. The high school aged population is expected to slow and decline over the next two decades due, in part, to declining birth**

**rates.** Colorado is not unique in having an aging population. The United States is projected to, "shift the age structure of the population so that there will be more adults age 65 or older compared to children under age 18."<sup>39</sup>

As of June 2024, Colorado's population totals nearly 6 million, with 3,261,954 individuals participating in the labor force (see Figure 14 below).

**Figure 14: Labor Force Breakdown: June 2024**  
 Source: Lightcast Econometric Modeling, Q3 2024.  
 Table alternative for Figure 14: Labor Force Breakdown: June 2024



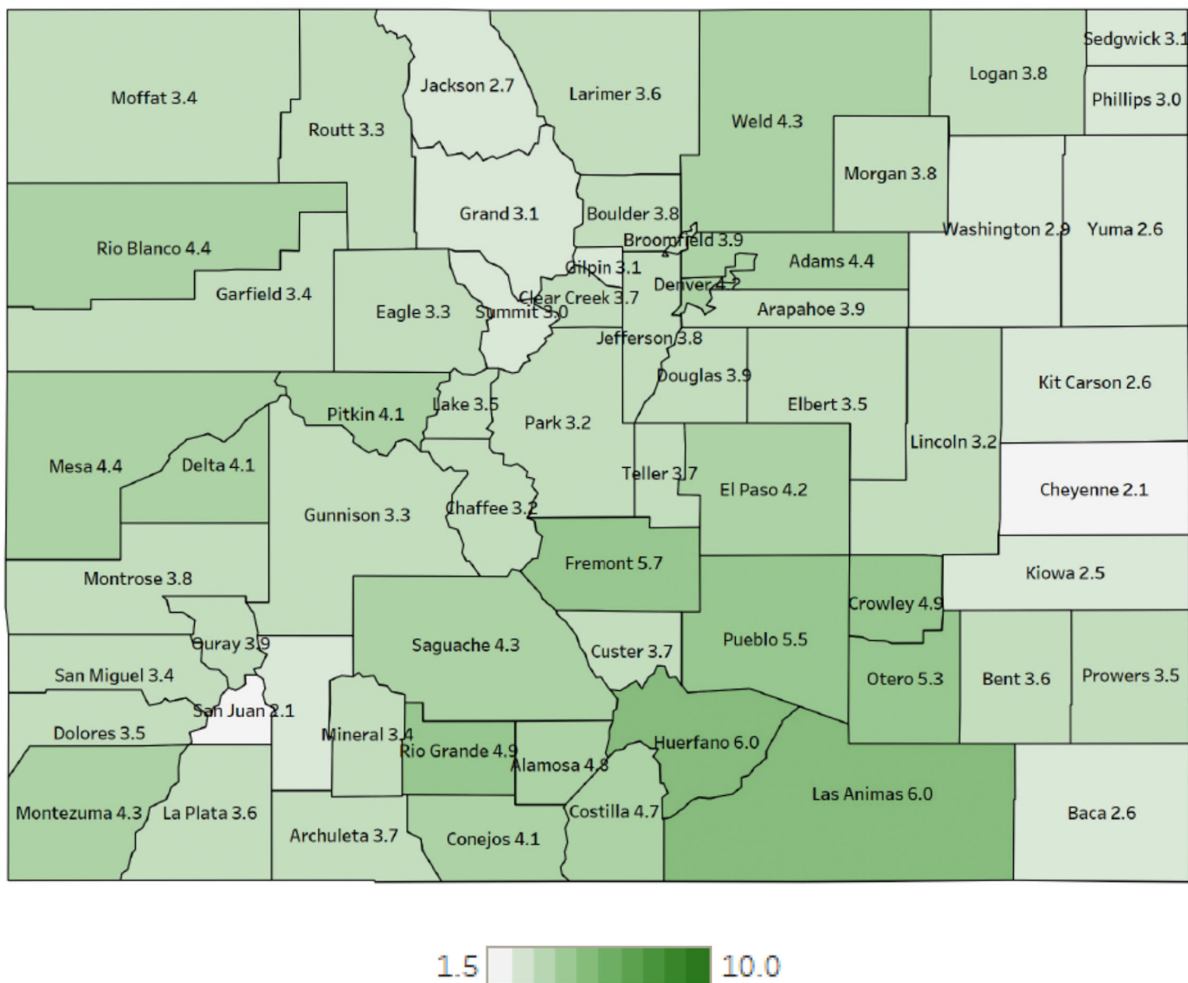
Unemployment rates are highest in rural areas of the state generally in the southeastern region (see Figure 15). Interestingly, the counties associated with the lowest unemployment rates are also considered rural, with San Juan and Cheyenne counties both reporting a **2.1%** unemployment rate. Data estimates also suggest that rural counties

furthest east of the state have lower unemployment rates relative to other regions of Colorado, with many counties rates ranging between **2.1% and 2.9%**. Unemployment rates associated with metropolitan counties along the front range vary between **3.1% and 4.0%**.

**Figure 15: County Unemployment Rates: June 2024**

Source: Office of Labor Market Information (LMI), CDLE, 2024.

Notes: Data is not seasonally adjusted. Because the data has not been seasonally adjusted, some of the variance between counties may simply reflect seasonal variation. [Explore CDLE's accessible unemployment rates by county in a table format.](#)



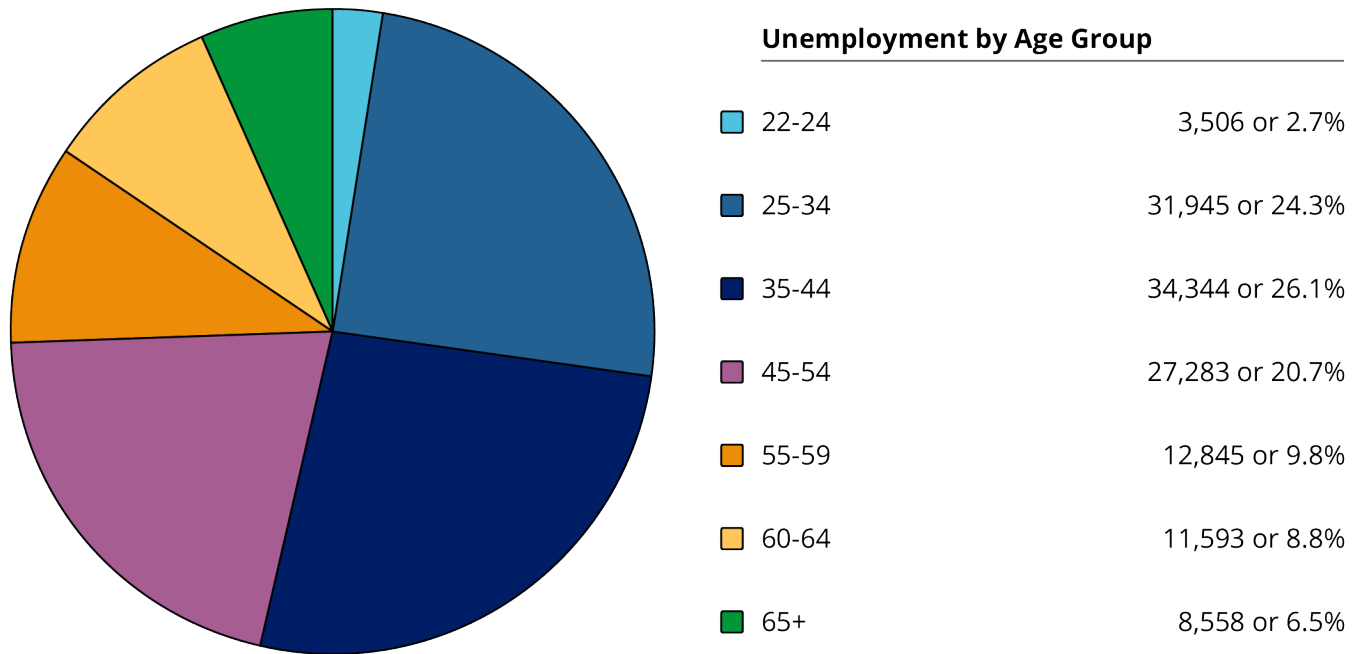


When disaggregating unemployment by age groups, data indicates that the largest share of unemployed people is composed of individuals between **35-44** (see Figure 16).

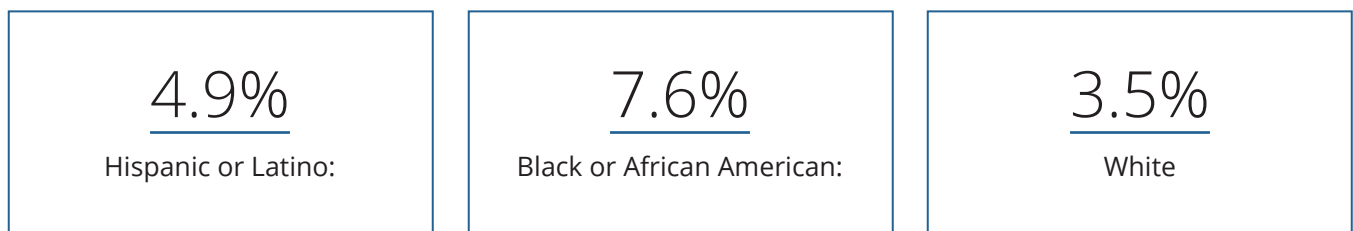
**Figure 16: Share of People Unemployed by Age: June 2024**

Source: Lightcast Econometric Modeling, Q3 2024.

[Table alternative for Figure 16: Share of People Unemployed by Age: June 2024](#)



According to the Current Population Survey (CPS), when disaggregating unemployment by race and ethnicity,<sup>40</sup> unemployment rates by Coloradans ages 16+ between September 2023 and August 2024 are the following:



## Colorado's Population Characteristics

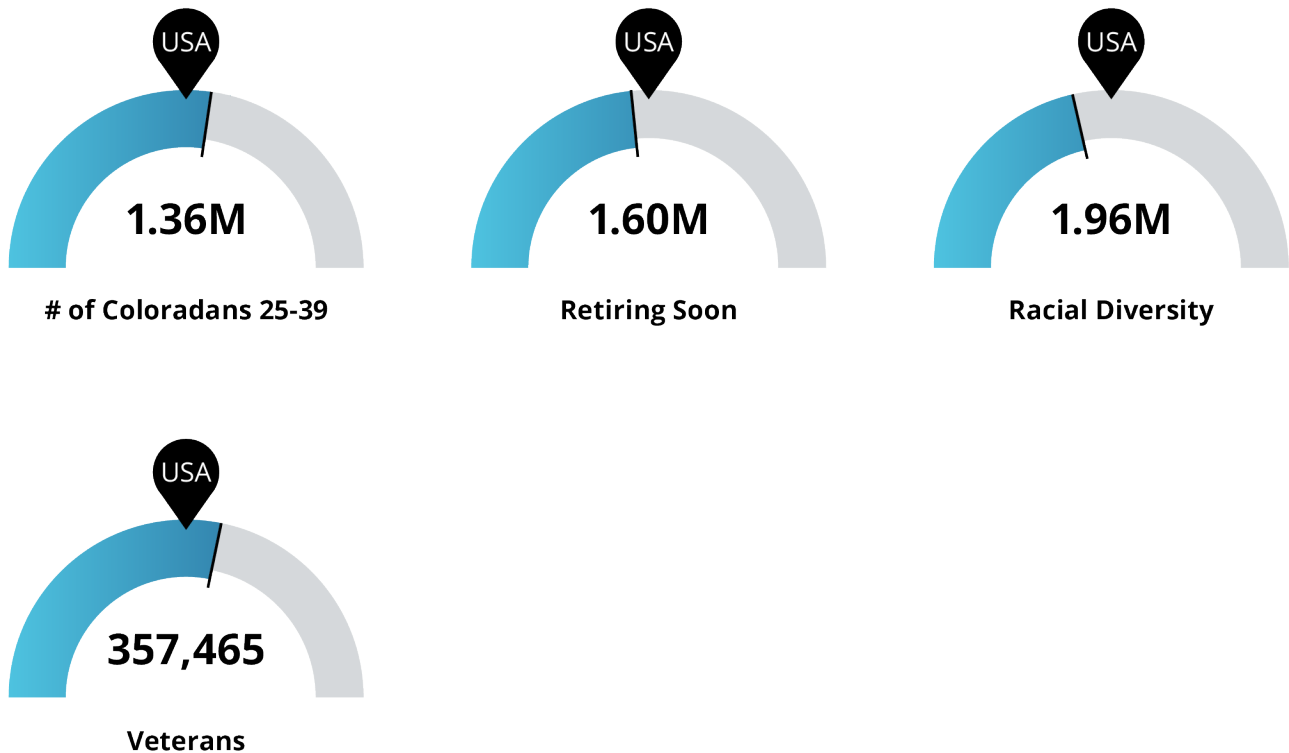
Figure 17 displays some prominent attributes of Colorado's population relative to national averages. As of September 2024, Colorado has 1,358,582 residents ages 25 through 39. This is an important group for Colorado's labor market, as individuals within this age group fall within the traditional "prime working age" bracket.<sup>41</sup> The national average for an area this size is 1,187,465. Thus, Colorado's 25 - 39 population is **13%** larger, on average, relative to other areas of similar size.

The national average of people 55 or older for an area this size is 1,750,121, while there are 1,597,894 here. That means the retirement risk in our workforce is about **average** in the state relative to the nation. While retirement levels are relatively normal as of 2024, projections from the [Colorado State Demography Office](#) estimate that over the **next five years, there will be 200,000 additional retirements in the state, as the share of Coloradans 55 years and older continues to increase.**

**Figure 17: Colorado's Population Components Compared to National Averages: September 2024**

Source: Lightcast Econometric Modeling, Q3 2024.

[Table alternative for Figure 17: Colorado's Population Components Compared to National Averages: September 2024](#)



Projections from the [Colorado State Demography Office](#) estimate that **Colorado's population will grow significantly more racially and ethnically diverse in the upcoming decade.** The national average for an area this size is 2,401,618 individuals who identify as Black or African American; Hispanic or Latino; Asian; American Indians or Alaska Native; or Native Hawaiian or Other Pacific Islander, while there are 1,958,048 in Colorado.

As of September 2024, Colorado has 357,465 veterans which represents about **9%** of the total state population.<sup>42</sup> Approximately **13,000 veterans in Colorado** are currently seeking employment and are unable to be placed in the workforce. The national average for an area this size is 298,557.

# Inbound and Outbound Migration

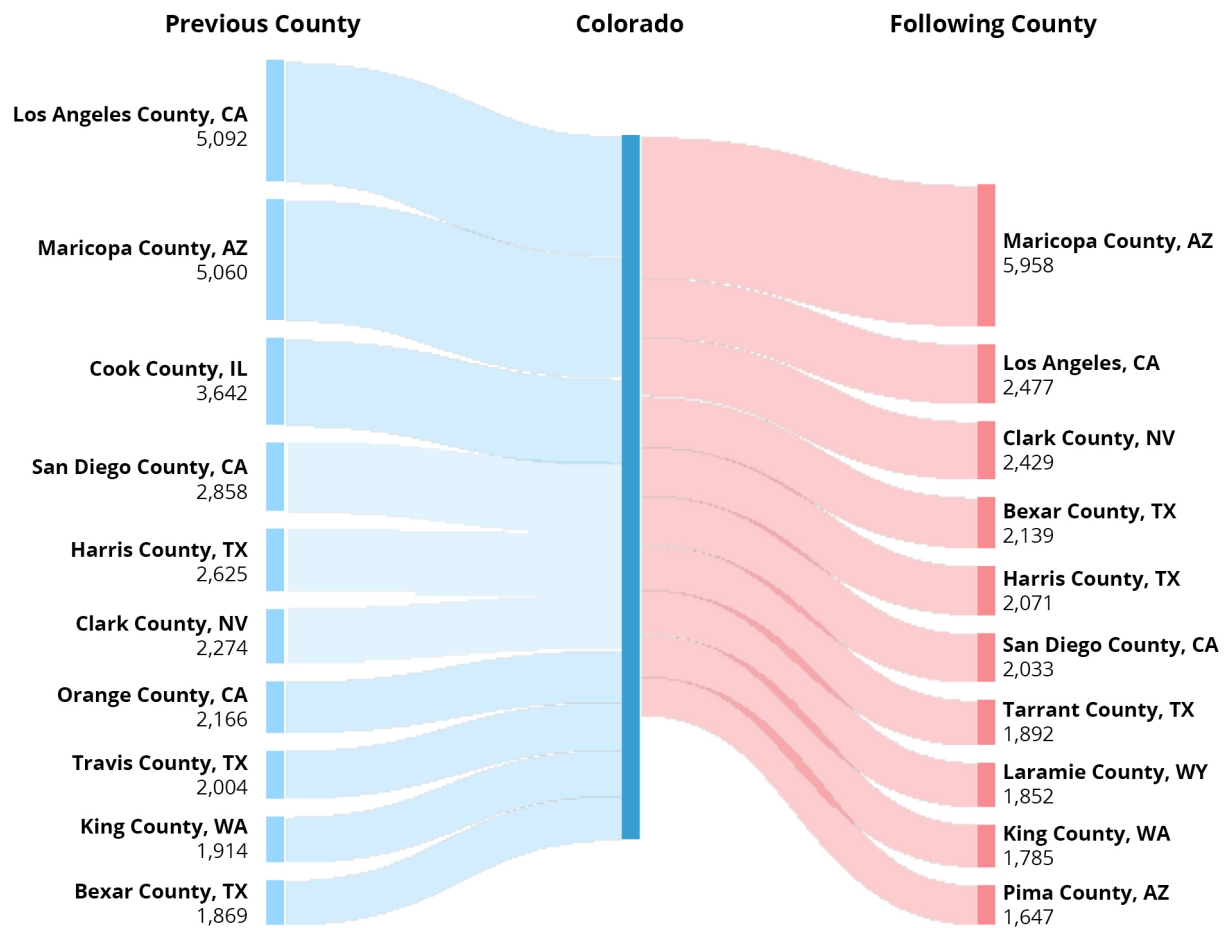
Figure 18 analyzes past and current residents of Colorado. The left column shows residents of other counties migrating to Colorado. The right column shows residents migrating from Colorado to other counties.

**Figure 18: Inbound and Outbound Migration: 2021**

Source: Lightcast Econometric Modeling, Q3 2024.

Note: Data used to populate this figure is sourced from 2021, which is the most recent year with data available.

[Table alternative for Figure 18: Inbound and Outbound Migration: 2021](#)



The total net migration for Colorado in 2021 was slower than prior years. During 2021, **5,092** people migrated from Los Angeles County, CA, to Colorado. In the same year, **5,958** people left Colorado migrating to Maricopa County, AZ.

As birth rates continue to slow in the state, there is **a greater need for higher net migration to**

**satisfy the workforce demand and ensure long-term economic growth.** According to the State Demography Office, in-migration a decade ago averaged to 74,000 people per year and, as of October 2024, has declined to fewer than **27,000**. This is critical, given that Colorado has long been a net importer of talent.<sup>43</sup>

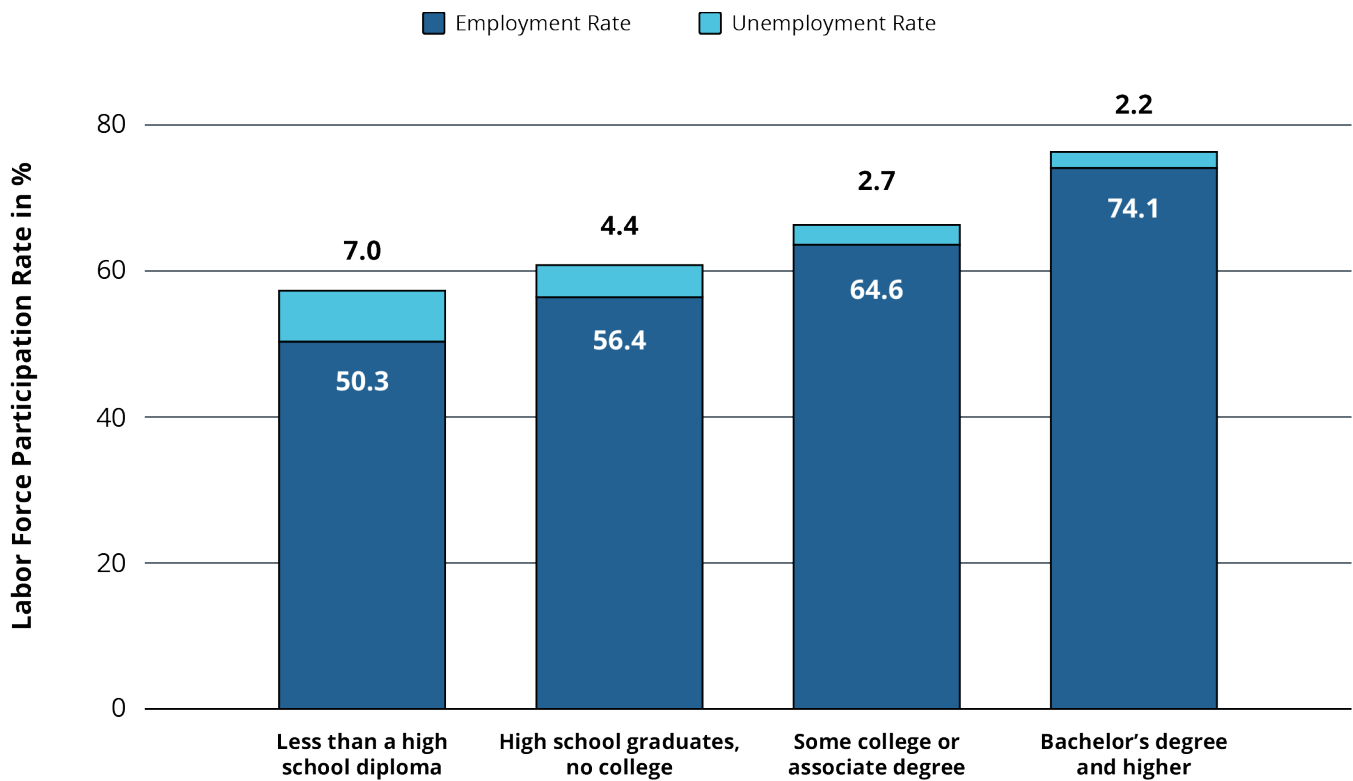
# Post-secondary Educational Attainment and Training in Colorado's Talent Pool

Mirroring current national trends, statewide data collected by the Current Population Survey (CPS) illustrates a contrasting relationship between employment and education level. Figure 19 shows the Colorado employment and unemployment rates by post-secondary attainment. The data reported in this figure displays an inverse correlation between education and unemployment in Colorado during 2023 and 2024 – thus, **as Coloradans further their educational attainment, they are more likely to be employed and less likely to be unemployed.** This suggests that the more education and training a Coloradan gains, the more likely they are to participate in the labor force.

**Figure 19: Employment Status of Coloradans Ages 25+ by Educational Attainment, April 2023 - March 2024**

Current Population Survey (CPS), 2024.

*Table alternative to Figure 19: Employment Status of Coloradans Ages 25+ by Educational Attainment, April 2023 - March 2024*



Individuals with less than a high school diploma or equivalent are more than three times more likely to be unemployed compared to those with a bachelor's degree or higher. Coloradans who have completed a high school education or equivalent are two times more likely to be unemployed relative to those who have completed a bachelor's degree or higher.



# SPOTLIGHT:

**Career and Technical Education (CTE)  
Programs for Workforce Readiness**



There are approximately **351,066** learners who are participating in Colorado's Career and Technical Education (CTE) programs that ready them to join the talent pool. This number is broken out by K-12 and adult students below:

276,290

students (K-12) are enrolled in CTE programs in 401 Colorado high schools; and

74,776

students are enrolled in 18 community college CTE programs.

CTE programs train individuals to be workforce ready through the development of necessary knowledge, essential and industrial skills, and abilities required to succeed in the workplaces. Because these programs are specifically designed to create strong partnerships between learners and industry representatives while educating students on their local community's needs and future talent landscape, it is possible **many CTE completers will stay in Colorado and its workforce after graduating.**



# SPOTLIGHT:

**New Americans in Colorado**

As defined by state law, New Americans are immigrants, refugees, and their children. This definition welcomes an inclusive and highly diverse representation of immigrants and refugees. New Americans in Colorado represent nearly 10% of the state's population and over 83% of Colorado's New Americans are of working age. New Americans have incredible talents and, if engaged, can fill critical workforce gaps to positively impact Colorado's economy.

[Over 12% of Colorado entrepreneurs have immigrant or refugee backgrounds and their businesses hold approximately \\$1.8 billion in total business income.](#) New Americans are educated; 34% of Colorado's immigrants and refugees aged 25 and older hold an advanced degree (bachelor's or higher) and 79% report being proficient in English.

New Americans working in Colorado represent:

- » Nearly **21%** of the construction labor force
- » Over **21%** of home health-aides and 8% of nurses
- » Over **11%** of STEM workers

As our colleges and universities prepare for new cohorts of students, it is important to seriously consider the diversity of New Americans in Colorado. Nearly 10,000 international students in Colorado account for over \$392 million in economic contributions to the economy and support over

3,600 jobs. Engaging with this talented pool of educated young professionals could present many opportunities.

Colorado's diverse New American-led households bring an estimated \$2 billion in contributions to state and local taxes annually and hold a spending power of over \$19 billion and there are opportunities to increase these numbers. States across the U.S. are seeking ways to improve career integration pathways for New Americans and Colorado continues to innovate and there are opportunities yet untapped. For example, Colorado's Integration of International Medical Graduates program creates a pathway for international medical professionals to address gaps in our healthcare workforce while honoring U.S. medical standards. With [over 20% of Colorado's New Americans aged 25 and older with at least a bachelor's degree,](#) there is an opportunity to innovatively integrate internationally trained professionals into various skilled or technically trained professions.

This past year, Colorado has experienced a migration influx, some of these individuals will migrate to other states and many will remain and establish Colorado as their new home. With Colorado's need to fill essential roles in many industries, there is opportunity for many of our new Coloradans to fill a range of critical workforce gaps and to positively impact Colorado's economy and growth.



# STRATEGIES

## **PROGRESS UPDATE ON WORKFORCE INNOVATION AND OPPORTUNITY ACT (WIOA) STRATEGIES**

In July of 2024 the US Departments of Labor, Education, and Health and Human Services approved Colorado's four year plan for talent development activities under the Workforce Innovation and Opportunity Act. While that act does not govern all of the education and workforce programs that are publicly funded in Colorado, the vision outlined by the WIOA state plan harmonizes many lanes of effort. Colorado has made progress toward that vision by pursuing workforce development strategies that advance Affordability, Equity, Quality, and Access goals.



## Strategic Priority:

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Increase AFFORDABILITY of career-connected education and training for Coloradans of all skill levels who have completed or left the K-12 education system

Challenges and perceptions around rising higher education costs have escalated statewide efforts to make **higher education within reach for all households regardless of income**. In 2024, legislative actions in Colorado have made it possible for middle- and lower-income households to have access to affordable/no-cost burden options for learners. Specifically, under [HB24-1340](#), eligible students working towards their first 65 credits in certificate, associate, and bachelor's degree programs at Colorado's public institutions will benefit from a refundable state income tax credit (starting in the academic year 2024-25 and tax year 2025) that covers tuition and fees for those with annual family incomes of \$90,000 or less. This legislation, called **Colorado Promise: Two Free Years of College Expanded, reimburses the cost of tuition and fees for the first two years of a post-secondary degree** for Colorado students who fall within this income bracket.

This funding is available for students who attend any public post-secondary institution within the state, including community colleges, four-year colleges and universities, area technical colleges, and local district colleges. In addition to this tax credit program, many public institutions have recently developed promise programs, which cover a student's tuition and/or fees up front for those who fall below a certain income threshold. [Learn more about both the tax credit and institutional promise programs on the CDHE website.](#)

Learn more about complementary legislation passed this year surrounding post-secondary affordability options available to all Colorado learners:

- » **Student Educator Stipend Program** ([HB24-1290](#)); and
- » **EmpowerEd** ([HB24-1403](#)) - Financial aid for students who experienced homelessness.

## Strategic Priority:

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Enhance ACCESS to programming by creating more seamless connections between high school, post-secondary education, and the workforce

Colorado is a [national leader](#) in connecting education and workforce systems. In recent years, the State has worked with educational and industry partners to diversify pathways between high school graduation and post-secondary enrollment. Starting with the students whose anticipated year of high school graduation is 2029,<sup>44</sup> 100% of graduating students will have achieved at least one of the following:

- » Earned a [quality, in-demand non-degree](#) certification
- » Earned 12 college credits that count toward a post-secondary credential
- » Participated in one high-quality work-based learning (WBL) opportunity (from the Learning Through Work and Learning at Work sections of the [Work-based Learning Continuum](#))

Now learners in high school are provided with vast opportunities to receive post-secondary education and industry-recognized quality credentials.

[Career and technical education \(CTE\)](#), Colorado's [Concurrent Enrollment Programs](#), the [Career Development Incentive Program](#), and other programs support Colorado K-12 learners with options to receive college credit, industry certifications, and work-based learning experiences while in high school.



Findings from a 2023 [CDHE legislative report](#) provided the following statistics:

- » **Forty-four percent** of high school graduates completed a CTE program during their time as a K-12 learner, receiving a post-secondary and/or industry-recognized training credential.
- » **Eighty-six percent** of dual enrollment students completed college credits as part of the state's Concurrent Enrollment program.
- » A total of **2,172** graduates completed a credential in high school during 2021, with the number of high school graduates graduating with an industry-recognized credential increasing by more than **1,185%** in the past 13 years.

Embedding credential and credit attainment opportunities in high school is a critical strategy Colorado is pursuing to increase access to workforce development opportunities. During the 2024 legislative session, several new bills passed to increase access to high quality workforce development by blurring the lines between high school, post-secondary, and the workforce:

- » **Education-Based Workforce Readiness (HB24-1364)** - funds the development of a statewide longitudinal data system to track the success of programs from early childhood education through college and into careers.
- » **Credential Quality Apprenticeship Classification (SB24-143)** - requires the state to adopt the [International Standard Classification of Education \(ISCED\)](#) and align models of education and training to skill acquisition and competency. This will create equivalencies between traditional and non-traditional credentials and learning experiences that can translate to employers looking for skilled talent.

- » **Financial Incentives Expand Apprenticeship Programs (HB24-1439)** - provides tax credits to employers in new and emerging industries who hire apprentices in Registered Apprenticeship Programs. It also provides funding for grants to [Qualified Apprenticeship Intermediaries](#) and to organizations looking to launch or expand a Registered Apprenticeship Program for employers who are scaling up these efforts.
- » **Career & Technical Education & Apprenticeships (SB24-104)** - mandates that the Office of the Future of Work (OFW) at CDLE and the CTE Division of the Community College System work together to create statewide advisory boards to connect CTE Programs and competencies to Registered Apprenticeship Programs. This will expand the number of aligned pathways to get students into work-based learning and prioritizes fields identified in the [Talent Pipeline Report](#).

Aligning CTE and Registered Apprenticeship Programs provides seamless transitions between high school, post-secondary education, and the workforce in Colorado that ensures learners move from education and training to well-paying jobs.

# Strategic Priority:

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Increase the QUALITY of upskilling opportunities, jobs, and career pathways

## Reskilling, Upskilling, Next-skilling

CDLE's [Reskilling, Upskilling, Next-skilling \(RUN\) workers program](#) helps COVID-impacted individuals access training to earn an industry-recognized credential, in accordance with [HB21-1264](#). For some, this means returning to school to earn an additional credential or license to advance them in their current career—such as a Licensed Practical Nurse enrolling in training to become an RN, which increases both earning potential and career opportunities.

For others, the RUN program assists them in pursuing a new career path that allows them to earn more working in a field they love, which includes persons seeking training to receive a Commercial Driver's License, forest conservation work, or protective services. The only requirement to enroll? The individual must have experienced negative economic effects as a result of the pandemic, and have a desire to re-enter the workforce.

As of August 2024, **RUN programs have enrolled 5,710 individuals in vocational training, resulting in 4,629 Coloradans completing training programs**, and several hundred still working towards completion. RUN programs have an **81.1%** completion rate and have grown enrollment by nearly **4%** between June 2024 and August 2024. The majority of enrollments are associated with Heavy and Tractor-Trailer Truck Drivers, RNs, and Nursing Assistants - three occupations that are high-need, high-demand in Colorado.

RUN funding has also enabled many Coloradans to access digital literacy training, workforce readiness classes, and even programs to earn a high school equivalency diploma. While a large portion of RUN enrollees are based in metropolitan areas, the program has seen several hundred trainees in rural Colorado.



If you are interested in learning more about the RUN program, or to learn more about the comprehensive services offered in local workforce centers, [visit this page to find the workforce center closest to you.](#)

# By the Numbers

## Colorado's Public Workforce System Impact



**137,928**

Job seekers utilized the public workforce system in PY2023



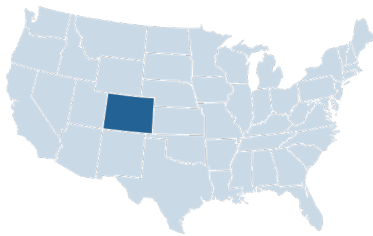
**65%**

of job seekers from the prior year were successfully employed six months after accessing services



**6,320**

Businesses were served by the public workforce system in PY2023



**59,211**

in-person services through our statewide network of workforce centers, such as resume assistance and interview skills in PY2023



**6,761**

individuals were enrolled in more extensive training programs in PY2023



**660,504**

jobs posted



**71%**

employment rate for individuals enrolled in WIOA programs in PY2023

If you are interested in learning more about the comprehensive services offered in local workforce centers, [find the workforce center closest to you.](#)

## Paving Access to Careers and Employment (PACE)

Colorado's SNAP Employment and Training program, known as Employment First (EF), promotes long-term self-sufficiency and independence by preparing SNAP applicants and recipients for meaningful employment through work-related education and training activities. Every year, approximately 40,000 (0.1%) SNAP recipients and applicants in Colorado are determined to be work-ready by county human services department's eligibility technicians. These individuals receive information and referrals from their eligibility technician to employment and training resources, including Employment First (EF). However, only 17.5% engage in the EF program. Currently, the EF program is administered in Colorado counties at local county human/social services offices and through community organizations around the state, known as Third-Party Partners.

The Colorado Department of Human Services (CDHS) and the Colorado Department of Labor and Employment (CDLE) have collaborated to develop and fund the Paving Access to Careers and Employment (PACE) Program utilizing [Workforce Enterprise Funds (WEF), formerly] Supplemental Employment Support Funds (ESF) and Colorado's Employment First funding.

This will enable Program Ambassadors to provide Supportive Services that will increase the number of SNAP applicants and recipients that engage and enroll in ESF or other local employment and training programs. PACE will leverage existing expertise in Colorado's workforce development system and build upon already established employment and training-focused partnerships to assist SNAP clients in reducing significant employment barriers, such as lack of childcare or stable housing, to become economically self-sufficient.

## Engaging Businesses in Regional Solutions

Another recently-passed law that will enhance the quality of workforce training is **Opportunity Now Regional Talent Summits & Tax Credits (HB24-1365)**. This law aims to support Colorado's workforce system by resolving labor market supply and demand gaps through [regional talent summits](#) hosted across the state where employers, training providers, economic developers, and educators can work collaboratively to outline the programs and resources needed to address industry-specific regional workforce shortages. This bill also created a [workforce shortage tax credit](#) to support employers with acute workforce demand as a result of the game changing federal investments of the IIJA, IRA, and CHIPS Act. The tax credit will help employers cover the costs of facilities and equipment needed to train the workforce that will deliver on our national construction, clean energy, and advanced manufacturing goals.



## Strategic Priority:

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Increase **EQUITABLE** economic opportunity for individuals who experience barriers based on race, ethnicity, gender, ability, age, zip code, and/or socioeconomic status

### **2024 Efforts from the Office of New Americans (ONA)**

The [Office of New Americans \(ONA\)](#) at CDLE serves as the point of contact for state agencies, the business community, and the public to advance the seamless integration and inclusion of New Americans in Colorado.

It is estimated that just over 1% of individuals receiving WIOA services in Colorado are New Americans. With New Americans representing nearly 10% of Colorado's total population and nearly 83% of those are working age, ONA is dedicated to and actively engaged in implementing strategies across the state's workforce ecosystem to address this inequity.



# POLICY RECOMMENDATIONS

Colorado has made significant investments in workforce development over the course of the last decade. These investments have blurred the lines between K-12, higher education, and workforce training; improved the accessibility of training by providing free credential opportunities and promoting additional modes of training like apprenticeship; and strengthened demand-driven approaches to talent development. The Colorado Talent Pipeline Report builds off of a portfolio of work across the public, private, and nonprofit sectors; makes sense of these efforts; and suggests where there are new opportunities to support Colorado learners and businesses succeed in the talent marketplace.

During the 2024 legislative session, Colorado lawmakers passed several bills to strengthen our state's talent development ecosystem. Items directly connected to the policy recommendations in last year's Talent Pipeline Report include authorizing a statewide longitudinal data system ([HB24-1364](#)) and expanding the Opportunity Now program through new tax credits and talent summits ([HB24-1365](#)). The themes brought forth last year continue to be relevant as state agencies move into implementation of these pieces of legislation, and two of those themes are carried forward this year: 1) Strengthen Support for Employers' Talent Development, and 2) Increase the Availability of Career-connected learning opportunities.

In order to continue expanding Colorado's talent pipeline and to support economic growth, three recommendations are being brought forward.

## Recommendation One:

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### Strengthen support for employers' talent development

Colorado's strong record of economic growth over the past 15 years is due in part to our focus on demand-driven talent development strategies. The current pace of change and need for skill development can at times, however, run faster than the necessary timeline for curriculum development in many educational settings. Employers are often best positioned to inform upskilling programs for their specific industry, and our state benefits when business and industry are co-producers of talent with education and skill development partners.

The Regional Talent Summits Act, established by [House Bill 24-1365](#), aims to address workforce shortages by convening state and regional stakeholders to discuss the economic and workforce needs of Colorado's diverse communities. This program will bring together regional industry, business associations, community-based organizations, talent development practitioners, local workforce centers, local education providers, institutions of higher education, and state agencies to identify and prioritize the skills needed in a particular community. These convenings will build important local relationships to ensure that skill

development is aligned to economic development goals and real business needs. One objective of these convenings is to produce two and five year tactical plans that develop career pathways in specified fields facing regional workforce challenges. These plans will be shared in future Talent Pipeline Reports and used to inform additional state policy work.

In addition to strengthening business' voice in talent development, these summits will also help create stronger links between the state and local implementers. The summits will be led by regional hosts, who will help identify the right changemakers in their community and carry partnerships forward. Regional hosts will also contribute to an annual progress report by working with their local workforce board to track outcomes from the summits. By working in concert with well organized local contributors, the state will be better positioned to execute workforce policy in the future.

We recommend that legislators stay attuned to the work of these summits and the plans that will be developed to inform future policy work.

## Recommendation Two:

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### Increase the availability of career-connected learning opportunities

Policy makers have championed several bills over the past four years that are transforming the pathways from secondary education to the workforce. We encourage the legislature to continue its support of the statewide longitudinal data system and to act on the recommendations that will be brought forth in the financial study on post-secondary and workforce readiness programs. The continuous improvement of programs that serve

Colorado's youth will strengthen our supply of talent and enhance Colorado's economic competitiveness. As legislators consider additional actions beyond those already in motion, the [report released in December 2023](#) by the Secondary, Post-secondary and Work-Based Learning Integration (1215) Task Force provides the best roadmap for actions supported by a wide array of stakeholders in the system.

## Recommendation Three:

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### Ensure the Design of Colorado's talent development ecosystem is optimized for innovation, governance, and results

Federal and state legislation that guides workforce development, education, and skill development is scattered across multiple agencies, divisions, and offices. Guidance and funding then comes into our state through a web of agencies and service providers who are connected by formal and informal agreements. While Colorado's education and training system has helped thousands of

Coloradans attain the skills they need for the jobs they want, there are opportunities to break down silos and make the system more efficient, high performing, responsive to industry, and user centered. Additional analysis should be done to identify where Colorado's education and training system can reduce barriers for learners, earners, and employers.

As chair of the National Governors Association, Governor Jared Polis announced his **Let's Get Ready! Initiative** in 2024. This initiative is helping Governors address economic opportunities and challenges in order to advance economic mobility for Americans. Let's Get Ready! focuses on how Governors can better measure outcomes in the education and workforce system to tackle shortages in the workforce, skills mismatches, and widening opportunity gaps. This initiative, much like the Talent Pipeline Report, asks thoughtful questions about how to evaluate an education and workforce development system that is more deeply connected, focused on outcomes, and aligned to the needs of our economy. [Learn more about Governor Polis's NGA initiative.](#)

# APPENDICES

## **APPENDIX A:**

[2024 Colorado Top Jobs Statewide](#)

## **APPENDIX B:**

[2024 Colorado Top Jobs by Region](#)

## **APPENDIX C:**

[2024 Sector Strategies Update](#)

## **APPENDIX D:**

[Career Development Incentive Program \(CDIP\) List of Approved Programs - HB16-1274](#)

## **APPENDIX E:**

[Post-secondary and Workforce Readiness \(PWR\) Coordinator Update, HB15-1770](#)

## **APPENDIX F:**

[Career Pathways Annual Report - HB15-1274](#)

## **APPENDIX G:**

[2024 My Colorado Journey Progress Report](#)

## **APPENDIX H:**

[PY23 Workforce Innovation and Opportunity Act \(WIOA\) Annual Report](#)

## **APPENDIX I:**

[2024 Update on Reskilling, Upskilling, and Next-skilling \(RUN\) – HB21-1264](#)

Please visit [cwc.colorado.gov/talent-pipeline-report](https://cwc.colorado.gov/talent-pipeline-report) to access this year's appendices.

# REFERENCES

1. For comparison, total nonfarm employment growth rates for Colorado and the U.S. a year prior were 3.0 percent and 2.4 percent, respectively.

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7. [Job Growth by State, Seidman Institute, Arizona State University, 2024.](#)

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8. [Office of Labor Market Information Tableau Dashboard](#), CDLE, 2024.

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9. [Colorado Sun](#), August 2024.

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12. Lightcast Econometric Modeling, Q3 2024; Bureau of Labor Statistics (BLS), 2024.

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13. [Colorado Sun](#), June 2024.

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14. [Post-secondary Employment Outcomes Explorer \(PSEO\)](#), 2024.

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15. [Post-secondary Employment Outcomes Explorer \(PSEO\)](#), 2024.

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17. [Colorado Sun](#), June 2024.

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18. [Bureau of Labor Statistics News Release](#), August, 2024.

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21. Colorado Department of Labor and Employment, Office of Labor Market Information.

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22. An industry-specific regional partnership led by business in partnership with economic development, education, and workforce development.

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23. Based on the [Standard Occupational Classification System](#) (SOC) Code.

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24. Lightcast Econometric Modeling, Q3 2024.
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25. The Lumina Foundation defines post-secondary education as learning that takes place after high school, and includes degrees, certificates, and industry certifications.
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26. Nonfarm payroll jobs estimates are based on a survey of business establishments and government agencies, and are intended to measure the number of jobs, not the number of people employed.
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27. **Colorado's 2024 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.
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28. **Colorado's 2024 low-wage industries include:** Retail Trade; Administrative and Support and Waste Management Services; Private Education Services; Arts, Entertainment, and Recreation; Accommodation and Food Services; and Other Services.
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29. [Common Sense Institute](#), August 2024.
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30. Lightcast Econometric Modeling, Q3 2024.
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31. [From Xcel, the largest utility in Colorado](#), "We've added nation-leading amounts of clean energy to the grid, which saves customers money because wind and solar generate electricity without fuel costs. From 2017 through 2022, the company's wind farms alone saved customers \$3 billion in avoided fuel costs and tax credits."
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32. [codot.gov/programs/innovativemobility/grants](#)
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33. Includes direct, indirect, and induced employment as measured in job-years. Job-years is a unit of measure used by BLS and BEA to capture the mix of full-time, part-time, and seasonal employment.
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34. Economic impact estimates of output based on change in industry output from industry activities expressed based on different variables, such as jobs created, labor income, other property income, taxes on production and imports from IMPLAN software
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35. [OEDIT Press Release July 2, 2024](#)
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36. IMPLAN and validated with employer surveys
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37. IMPLAN and validated with employer surveys
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38. Lightcast skill projection growth categories are determined by comparing the forecasted 2-year change in national demand of individual skills with the forecasted 2-year change in national demand for all skills.
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39. [U.S. Census Bureau](#)
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40. Due to constraints of data demographics specific to the CPS, we are unable at this time to report on additional race/ethnicity demographics here.
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41. Colorado's prime age (25-54 year olds) labor force participation rate is consistently higher than that of the United States, ranging between 1.2 percentage points higher (2000) and 4.2 percentage points higher (2017, 2019, and 2021).
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42. Lightcast Econometric Modeling, August 2024.

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43. [Census Job-to-Job Explore \(J2J\)](#), 2024.

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44. [Colorado Department of Education Strategic Plan](#)

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**2024 Colorado Talent Pipeline Report**

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