



THE OFFICE OF THE FUTURE OF WORK

2024 ANNUAL REPORT

DECEMBER 2024



The Office of the
Future of Work

The Office of the Future of Work (OFW) was established through [Executive Order B-2019-009](#) and codified through [SB23-051](#) to raise awareness and identify policy and program solutions that prepare all Coloradans for the future of work. The OFW's vision is a future where all Coloradan workers have access to education and skill training that is connected to meaningful and sustainable employment.

Please note that the State operates on a fiscal year that begins July 1st of each year. While this report primarily focuses on the calendar year (January 2024 - December 2024), some of the information and data included in this report may be more reflective of the fiscal year calendars (July 2023 - June 2024, July 2024 - June 2025).

For questions or requests related to the 2024 Annual Office of the Future of Work Report, please contact:

Katherine Keegan
Director, OFW

katherine.keegan@state.co.us

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INTRODUCTION

As a result of globalization, technological advances, market forces, and demographic shifts the world of work is changing at a rapid pace, leaving many wondering if we are ready to face the transformations tomorrow's economy will bring. That's why the Office of the Future of Work (OFW) was created by an [Executive Order from Governor Jared Polis](#) on September 4, 2019 and codified into law in March 2023 through [SB23-051: Conforming Workforce Development Statutes](#). Housed within the Colorado Department of Labor and Employment (CDLE), the OFW serves as the central point of contact for the State's effort to understand, prepare for, and develop effective policy and programmatic solutions to respond to the changing economy and raise awareness about the future of work. The OFW, led by the CDLE executive director, must submit a report to the Governor with recommendations for potential policy initiatives at least once per calendar year. The OFW's vision is a future where all Coloradan workers have access to meaningful and sustainable employment.

This fifth annual report provides an update on the future of work trends explored in its previous reports. It then provides an update on the OFW activities and an overview of the policy and programmatic priorities in the next year.



FORCES SHAPING THE FUTURE OF WORK

The OFW works to understand the impact of globalization, market forces, technological advances and demographic shifts, and identify policy and program solutions that mitigate their negative impact on the economy. In this section we'll provide an update on the impact of these forces; highlight related reports, datasets, and resources to dive deeper into each.

Definition of "Future of Work"

The future of work refers to the impact of globalization, market forces, technological advances, and demographic shifts on the work we do and how we do it.

DEMOGRAPHIC SHIFTS

The future of work in Colorado cannot be separated from its future workforce. Three overarching trends continue to shape Colorado's labor force. First, Colorado has a rapidly aging population¹ who are retiring at higher rates than expected.² In 2024, 1 in 5 workers in Colorado was over the age of 55.³ The industries with the highest number of workers over the age of 55 in Colorado are health care and social assistance; professional scientific, and technical services; retail trade; manufacturing; and construction.⁴ 55 and older workers also represent the greatest share of workers in utilities; manufacturing; real estate and rental and leasing; agriculture, forestry, fishing and hunting; and wholesale trade.⁵ As older workers retire, these industries are strained for talent. However, many of the jobs in manufacturing, utilities, and construction in particular, do not require a four-year college degree presenting opportunities for a wider candidate pool of people to fill the growing talent gap.⁶ Other occupations facing large numbers of retirement within retail may offer lower quality opportunities that are unattractive to younger generations which could require businesses to explore technology solutions that reduce the human labor required.

At the same time, younger people of color make up the fastest growing portion of Colorado's labor force, and are entering workforce development, education systems, and employment systems that historically result in lower educational attainment rates, employment, and wages, as discussed in the next section, than their white counterparts.^{7 8 9}

These issues are compounded by declining birth rates and lower labor force participation among people in their prime working age across the nation.¹⁰ By 2032, the United States will have more people, but fewer will be working creating an anticipated gap of six million workers.¹¹ In Colorado specifically, the labor force participation rate for 45-54 year olds is 0.1 percent lower than its 2019 rate and has been declining each year since 2021; for 35-44 year olds the labor force participation rate is 1.9 percent higher than the 2019 rate with steady increases since 2021; and for 25-34 year olds, the labor force participation

rate is 0.8 percent lower than its 2019 rate with positive and negative fluctuations each year.¹²

To address these challenges and ensure the labor force participation for prime working age Coloradans, the state should consider an all-of-the-above approach with strategies including:

- » Prioritizing adoption of technology solutions to reduce human labor in low wage jobs
- » Supporting immigrant workers to meet critical roles
- » Developing targeted strategies for employers to reach untapped talent pools through skills-based hiring, investments in supportive services, and resources to support a multi-generational workforce's diverse needs
- » Building career-connected learning for critical industries like healthcare and social assistance, manufacturing, and construction where older workers can help train incoming talent as they prepare for retirement

Additional, in depth data surrounding these demographic shifts were covered in our previous annual reports, are updated in the [Colorado Talent Pipeline Report](#)'s section on Supply, and can be found in the articles below:

- » [Explore The Rising Storm, a Demographic Drought report, from Lightcast](#)
- » [Explore the Trends in Aging presentation from the 2024 State Demography Summit](#)
- » [Explore The Futures Project: Reimagining the Future for Prosperity Across the Life Course from the Stanford Center on Longevity.](#)
- » [Explore the Hidden Workers: Untapped Talent report from Harvard Business School's Managing the Future of Work](#)
- » [Explore STARS Breakthrough from Opportunity @ Work](#) which provides a framework to increase economic mobility for people without a four-year college degree.
- » [Explore STARSights from Opportunity @ Work](#) which allows you to explore the latest national labor market data and STARS data into intuitive visualizations, all in one place.

GLOBALIZATION & MARKET FORCES

Globalization is generally used to describe the increasing internationalization of markets for goods and services, the means of production and supply chains, financial systems, competition, corporations, technology and industries.¹³ In 2024, DHL released the [2024 Global Connectedness Index](#) which provides an overview of the flow of capital, people, information, and trade across the globe. Global connectedness remained at a record high level in 2023 with the globalization of information flows increasing more than capital, people, and trade in the last two decades; this ongoing trend may be impacted by restrictions on data flow as a result of growing tensions and conflict between the United States and China in particular.¹⁴



[Explore the DHL Global Connectedness Index and Country Profiles.](#)



[Explore the Colorado Business Economic Outlook from the University of Colorado Boulder Leeds School of Business.](#)

Market forces refer to the shifts in supply and demand, trade, and government priorities that impact the economy. One result of market forces since the 1980s, is the expansion of low-wage work that limits a significant number of workers' ability to earn a sustainable wage. In 2024, nationwide, about one in five people (23.5 million workers) made less than \$16.02 an hour.¹⁵ People of color make up more than 50 percent of the low wage workforce with Black, Latino, and women workers are most likely to be in these roles.¹⁶ In January 2024, The Economic Policy Institute published a low wage tracker for the U.S. as a whole, states, and to explore historical trends. It shows that 26 percent or 701,000 of Colorado workers were earning less than \$20 per hour.¹⁷ According to the [MIT Living Wage Calculator](#), the living wage for one adult in Colorado is \$24.83 per hour.

[Explore the Interactive Low Wage Workforce Tool from the Economic Policy Institute](#)

[Explore the MIT Living Wage Calculator for Colorado](#)

[Read the Segregation in the Low Wage Workforce report from WorkRise](#)

Another trend resulting from market forces is the increase in the independent or gig workforce. According to McKinsey's 2022 American Opportunity Survey, still the most comprehensive look at Gig Workers, 36 percent of employed respondents (58 million Americans) identify as independent workers, and recent reports show that the number of people earning at least some income from gig work continues to reach new heights.^{18 19}

Though we know this segment of the workforce is growing, there remains significant challenge in securing accurate data on the size, makeup, and earnings of the independent contractor workforce at the national or state level. Without data or reach it is difficult to understand the nature of the independent workforce and build policies and programs to address their needs. In 2024, The Workers Lab and the Aspen Institute Future of Work Initiative published their learning from Phase II of the Gig Worker Learning Project which aims to learn directly from gig workers about their experience in order to build a more robust data set for policymakers, organizations, and researchers to build upon. Their insights highlight the challenges gig workers face with fluctuating income and limited protections as well as the benefits of the agency they have as workers to manage their time.²⁰

- » [Read the Gig Worker Learning Project Phase Two Report from the Aspen Institute and Workers Lab](#)
- » [Read the World Economic Forum's overview of What is the Gig Economy](#)
- » [Explore the Gig Economy Data Hub from the Aspen Institute](#)
- » [Read the Bank of America Institute's report on their users who earned money from the Gig Economy](#)

In light of ongoing economic transformations, workforce development strategies must center on vulnerable worker populations, especially those in low-wage positions, currently unemployed individuals, and workers facing potential job displacement. Comprehensive support should encompass:

- » Targeted interventions that provide holistic career transition support, including personalized career coaching, supportive services skills assessment, quality training, and strategic guidance for securing quality jobs and navigating their evolution
- » Continued advocacy for improving job quality in critical service sectors, with a focus on reducing low-wage employment
- » Policy innovations that modernize worker protections, particularly through developing more flexible benefits systems that accommodate both traditional employment and emerging work arrangements like independent contracting

The goal is to create a more resilient, adaptive workforce that can navigate complex economic shifts while ensuring economic security and opportunity for all workers, especially those most vulnerable to labor market disruptions.

- » [Explore the 2024 American Opportunity Index from the Burning Glass Institute](#) which measures how well businesses maximize their internal talent to drive corporate performance and the growth of their employees.
- » [Read the Launchpad Jobs report from Burning Glass Institute](#) which identifies key 73 roles, termed "Launchpad Jobs," that offer a combination of strong wages, job stability, and upward mobility.
- » [Explore The Future of Good Jobs Projections through 2031 report from Georgetown University's Center on Education and the Workforce](#)
- » [Read "The working class needs quality jobs—and regional leaders need to define what those are" from the Brookings Institute](#)

TECHNOLOGICAL ADVANCES

Note: As a result of HB23-1074, in 2024, OFW contracted with BW Research Partnership to complete a study on automation's impact on Colorado's workforce and to develop recommendations for the work ahead. The automation section of this report and recommendations are excerpted from that report. The entire report is included in [Appendix E](#) and on OFW's website.

Definitions

Automation

Traditional automation refers to technology and technology implementation that reduces the level of human activity needed to complete a particular task by replacing or augmenting specific tasks or processes that are typically repeated and/or can follow a repeated pattern. This could include:

- » **Robotics or programmable machines** that can complete parts of the manufacturing and/or assembly process.
- » **Accounting, administrative, and related software** that replaces elements of accounting, administrative, and business service roles.
- » **Customer service kiosks and/or user interfaces** that replace some tasks completed by customer service workers.

Emerging automation includes Artificial Intelligence (AI), Robotic Process Automation, Large Language Models (LLMs), autonomous systems and Machine Learning which enable machines and/or programs to learn from data, adapt, and make decisions without explicit input from humans. Emerging automation technologies that could potentially impact Colorado's workforce could include:

- » **Large Language Models (LLMs)** that can create an initial draft of memos, code, or summarized reports based on the AI's analysis of datasets and/or summarized information.
- » **Robotic Process Automation (RPA)** and bots that can quickly duplicate human interaction with a computer and duplicate processes related to data entry, database organization, and data analyses.





- » **Autonomous vehicles and mobile robots** that can work in warehouses and transport goods and people both short and long-distances.
- » **Autonomous security and surveillance** include autonomous drones and robotic security guards that can patrol and overlook large areas.

Digitalization

Digitalization is the use of technologies to change or update business operational processes in order to optimize a variety of communication, management, design, and logistical tasks. artificial intelligence through models that can “learn” from data patterns without human direction.²¹

Impact of Automation on Colorado’s Workforce

Colorado’s most highly automated industries include Finance and Insurance; Manufacturing; and Transportation and Warehousing. Colorado’s least automated industries include Construction; Agriculture, Forestry, Fishing and Hunting; and Educational Services. The Front Range region has the largest share of employment in the most automated industries relative to other regions, with the most automated industries accounting for one in three Front Range jobs (34.7 percent). The Eastern region has the largest share of low-automated industries (45.9%).

The occupational impacts of automation vary. In highly automated industries such as Manufacturing, workers employed as Packers and Packagers, Hand and Helpers—Production Workers have been displaced by automation. At the same time, the increased implementation of automation has increased the demand for more specialized positions, such as Database Architects and Computer and Information Systems Managers in Colorado’s Finance and Insurance and Information industries. Other occupations have required upskilling as automation replaces low-quality jobs and increases demand for high-quality, highly skilled jobs. For example, the number of Fast Food Cooks has decreased, while the number of First-Line Supervisors of Food Preparation and Serving Workers has increased in Colorado. Furthermore, automation has the potential to help make jobs, especially labor-intensive jobs, more desirable and help resolve hiring difficulties in certain industries, such as agriculture.

More highly automated industries in Colorado have higher paying jobs. Industries with high degrees of automation have a higher share of high wage jobs (39 percent) relative to the statewide average (24 percent), in addition to a higher share of high wage jobs relative to industries with medium (20 percent) or low degrees of automation (18 percent). The average annual wage for high, medium, and low automated industries is \$107,000, \$63,000, and \$57,000, respectively. Highly automated industries are the only category that provides above the required annual wage to support two working adults and two children (\$66,000 per working adult).

Skills such as complex problem solving, writing, mathematics, and operations monitoring are the most important in highly automated industries. Skills such as instructing, learning strategies, service orientation, and social perceptiveness are more important in industries with moderate or low levels of automation.

Over the last ten years, implementation of automation has changed which workforce skills are most in demand. Critical thinking, judgment and decision-making skills have become increasingly important. Troubleshooting and repair have also grown in importance across all industries, especially in highly automated industries. In contrast, programming, science, and mathematics skills have become less important across all industries.

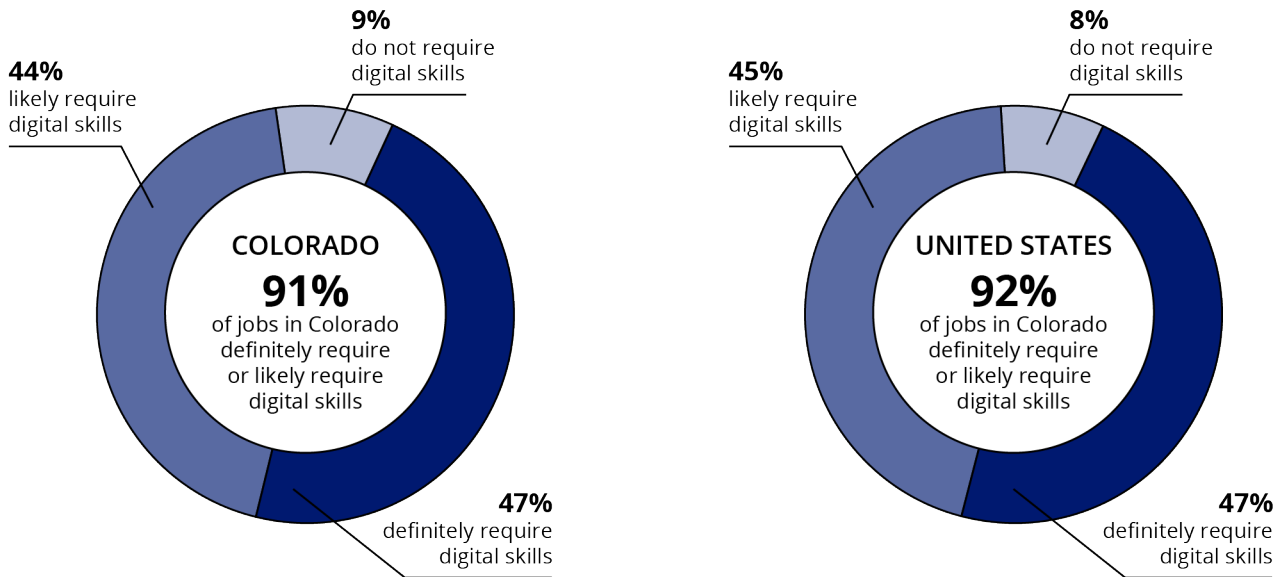
Beyond automation, the demand for basic digital skills are high in almost every occupation including entry level and frontline occupations.²² Specifically, 91 percent of jobs in Colorado definitely or likely require digital skills.²³

Figure 1: Percentage of Colorado Jobs Versus US Jobs that Require Digital Skills²⁴

Source: National Skills Coalition, 2024.

[Table alternative for Figure 1: Percentage of Colorado Jobs Versus US Jobs that Require Digital Skills](#)

91% of Colorado Jobs Require Digital Skills, Close to the U.S. Average



As a result of these findings, it is critical that Colorado:

- 1.** Tracks the evolving impact automation technologies are having on employment across Colorado. Specifically, industry and occupational employment metrics and technology usages/implementation indicators.
- 2.** Develops tools and training resources to support current and future workers to better prepare for an automated future and their evolving employment opportunities. Specifically, focusing on building foundational skills to 'learn how to learn', specialized skills for the specific occupation, and targeted upskilling for incumbent workers.
- 3.** Fosters awareness of and provides access to workforce supports among workers transitioning from declining pathways to growing ones. Specifically, communicating evolving employment opportunities, and promoting reskilling opportunities for transitioning workers should be a key part of this effort.

To address the continuum of technological transformation in Colorado, OFW will build upon the Automation & World of Work findings and recommendations in 2025 alongside the implementation of the [Digital Access Plan](#) which aims to close the digital divide in Colorado.

- » [Read the Generative AI and the Future of Work from Brookings Institute](#)
- » [Explore the October AI Report from Burning Glass Institute](#)
- » [Read the Generative Artificial Intelligence and the Workforce report from SHRM and Burning Glass.](#)
- » [Read the Technological Disruption in the US Labor Market report from the Aspen Economic Strategy Group.](#)



OFW APPROACH & PURPOSE

APPROACH

Based on the OFW's examination of the forces shaping the future of work as well as feedback from thought leaders, state agency partners, and stakeholders, the OFW identified key areas of exploration and guiding questions for its work. These areas, which are described in more detail on the [OFW's website](#), are:

Transformation preparation: The changing nature of work requires that Colorado's workers, employers, and communities take a proactive approach to ensure their success

- » How can we support workers, employers, and institutions leverage technology to its fullest potential?
- » How can we close the digital divide for all Coloradans so they can fully participate in a digital world?
- » As the climate changes, what do workers and businesses need to prepare for its impact?

Supporting historically excluded populations:

Colorado faces a demographic drought due to declining birth rates, lower labor force participation, and a rapidly aging population. To ensure full participation in the evolving economy, it is critical to understand the impact of the future of work forces on historically excluded populations and how we can bring more people into the workforce.

- » How do we increase career-connected learning and access to high quality training for all workers?
- » How do we reach untapped talent pools and better connect them to quality training and employment?

Modernizing worker protections and benefits:

Worker protections and the social safety net need to be modernized to address the fissuring workplace, to ensure all types of workers are protected and have access to a living wage as work continues to evolve.

- » How can we reduce the number of low-wage jobs in the economy, and make transitions from low-wage jobs to better pathways more viable?
- » How can we better understand alternative work arrangements and their role in a modern worker's career?

PURPOSE

As defined by C.R.S. 8-15.8-103, OFW's purpose is to:

- » Identify opportunities for Colorado's communities to transition effectively to emerging industries and, where appropriate, consult with the just transition office and other state agencies to align such efforts.
- » Ensure the inclusion of key stakeholders from all sectors and engage partnerships across public and private sectors, including industry, academia, employers, employees, nonprofit organizations, and government.
- » Host, organize, and convene task forces, summits and other appropriate meetings with diverse stakeholders, designed to improve the state's understanding of the social and economic impacts of the changing nature of work.
- » Explore ways that the state can prepare for current and future impacts, including through the modernization of worker benefits and protections, the development of a skilled and resilient workforce through coordination of Registered Apprenticeship Programs (RAPs) in Colorado, and the identification of new policy and program solutions
- » As funding allows, undertake studies, research, and factual reports to gather insight and to formulate and present recommendations to the governor, state agencies, and the general assembly related to issues of concern and importance to Colorado's future workforce

The Approach and Purpose shape the projects OFW pursues and are the basis for the two key initiatives it leads: Apprenticeship Colorado (the State Apprenticeship Agency) and the state's Digital Equity, Literacy and Inclusion initiatives.



OFW STRUCTURE

The OFW has three work units which include the Apprenticeship Colorado, Organizational Services, and FOW Labs (see *Figure 2*). Organizational Services consists of staff members that support the cross-cutting operational and administrative functions of the OFW. FOW Labs refers to projects and initiatives the OFW conducts that may result in their own work units within the OFW or at other organizations (e.g. pilots that move to other divisions or departments), or may sunset upon their completion (e.g. research projects). FOW Labs aims to be an incubator for projects so that the OFW can have the flexibility to explore emerging trends, respond to legislative or other partner research/pilot requests, and consider the most appropriate next step for each new effort.

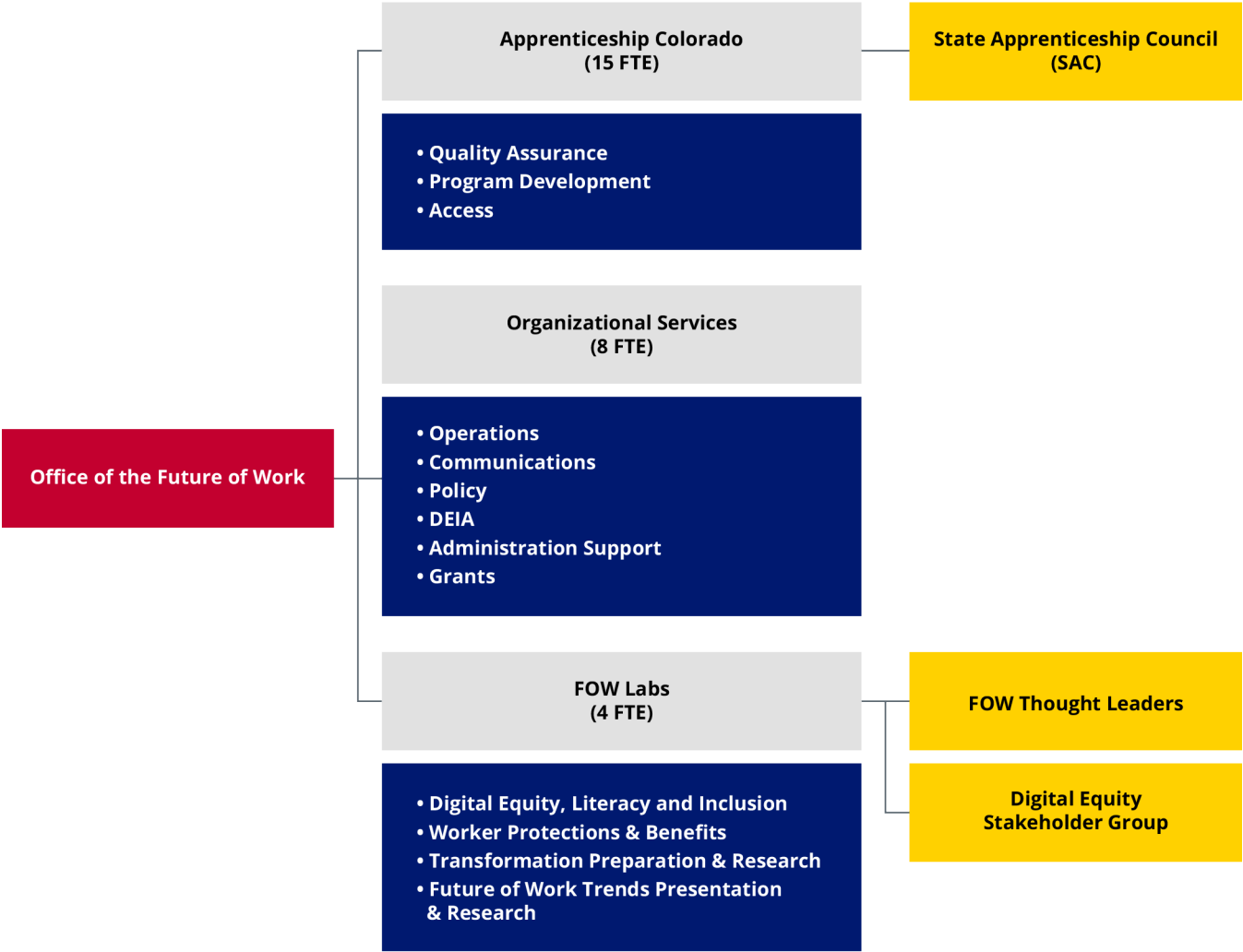
Within Apprenticeship Colorado, there are three teams:

- » The Quality Assurance Team is responsible for ensuring compliance of all RAPs with state and federal regulations.
- » The Program Development Team is responsible for developing new and expanding existing RAPs and providing technical assistance to apprenticeship partners, including intermediaries.
- » The Access team is responsible for connecting RAP sponsors to talent and resources to implement inclusive programs; building awareness of apprenticeship opportunities in Colorado; reducing the cost of apprenticeship for the job seeker, sponsor, employer; and measuring equitable access and success in apprenticeships for all Coloradans.

The OFW's organizational chart can be viewed in the figure below or in full in [Appendix A](#).

Figure 2: Office of the Future of Work Organizational Chart

Source: The Office of the Future of Work, 2024
[Table alternative for Figure 2: Office of the Future of Work Organizational Chart](#)





2024 OFW ACCOMPLISHMENTS AND 2025 PLANS

This section dives deeper into the OFW's major activities and highlights in 2024 for each work area; status of the 2024 goals set; and the goals for 2025. Where applicable, it includes reference to CDLE's department-wide Wildly Important Goals.

APPRENTICESHIP COLORADO (STATE APPRENTICESHIP AGENCY)

Areas of Exploration: Transformation Preparation; Support for Historically Excluded Populations

In an economy transformed by technological advances and demographic shifts, there's a need to expand accessible pathways into quality employment. RAPs help workers gain skills and education while earning a paycheck, and ensure that employers have a reliable workforce pipeline to ensure their long-term success. The OFW houses the State Apprenticeship Agency, [Apprenticeship Colorado](#), which is responsible for:



Serving as the primary point of contact with the United States Department of Labor's (USDOL) Office of Apprenticeship concerning apprentices and RAPs



Accelerating new apprenticeship program growth and assist in promotion and development



Registering and overseeing apprenticeship programs



Providing technical assistance to current and prospective Sponsors



Aligning the registered apprenticeship system with Colorado's workforce, education, and economic development priorities

This year marked the one year anniversary of Colorado's recognition from USDOL as a State Apprenticeship Agency. Colorado continues to build its infrastructure and implement its [Five Year Plan \(Appendix B\)](#) for a sustainable, innovative, equitable, accessible and high quality apprenticeship system in Colorado. In particular, many of Apprenticeship Colorado's efforts this year were focused on enhancing the state's apprenticeship ecosystem through a few key initiatives:

» **Qualified Apprenticeship Intermediaries:**

In 2024, Apprenticeship Colorado [recognized 34 Qualified Apprenticeship Intermediaries](#) to create access to RAPs for more career seekers and employers. Industry Apprenticeship Intermediaries, focus on addressing employer needs through apprenticeship by providing industry focused program design/curriculum development, reducing administrative burden, and support with the implementation of apprenticeships. Talent Apprenticeship Intermediaries focus on career seeker and/or apprentice needs, especially those facing employment barriers, by increasing awareness of apprenticeships, providing direct connections to opportunities and providing the resources necessary to retain apprentices in their program. Twelve organizations were recognized as both Industry and Talent Intermediaries.

» **Youth Apprenticeship:** Colorado was selected to join the [National Governors Association Policy Academy on Youth Apprenticeship](#) to explore opportunities to grow and align state efforts to connect more youth to RAPs and build materials

for [students, school practitioners, and families](#).

In May 2024, Colorado celebrated the first [National](#) and [State](#) Youth Apprenticeship Week with events throughout the state. Throughout the year, Apprenticeship Colorado continued its implementation of the Outreach Specialist pilot, funded by HB23-1212, to connect graduating students with RAPs. Through one-on-one appointments, events, and communications materials, the two Outreach Specialists in Weld RE-3J and Colorado Springs D11 have reached hundreds of students. [In October, Apprenticeship Colorado's Outreach Specialist](#) hosted an Apprenticeship Career Fair with over 300 students and 200 different Sponsors of Registered Apprenticeship Programs representing over 45 different apprenticeable occupations and 11 different industries.

» **Teacher Degree Apprenticeship Program:**

SB23-087 directed the Colorado Department of Education and Apprenticeship Colorado to develop [Teacher Degree Apprenticeship Programs](#) that create pathways to teacher licenses for those without a college degree. Through the collaborative effort, in 2024 the application was launched and in August 2024, Careerwise was approved by the State Board of Education as the first Teacher Degree Apprenticeship Program Sponsor.

» In November 2024, Colorado celebrated [Apprenticeship Month and National Apprenticeship week](#) including its seventh annual [Apprenticeship Awards](#) which honored 15 individuals and organizations dedicated to advancing apprenticeships.



The 2024 legislative session resulted in four pieces of legislation related to Apprenticeship Colorado:

- » [SB24-104](#) provided staffing to OFW and to the Career and Technical Education Division of the Colorado Community College System in order to align CTE programs and Registered Apprenticeship Programs in critical industries.
- » [HB24-1439](#) created a [tax credit](#) for employers who hire apprentices in New and Emerging Industries; continued investment in the Scale Up Grant program initially funded through a federal grant; and established a new grant program for Qualified Apprenticeship Intermediaries.
- » [SB24-143](#) directed the state to align credentials for training programs using the International Standard Classification of Education (ISCED). The bill directs the OFW to create equivalencies between Registered Apprenticeship Programs and 'traditional' postsecondary education. Implementation kicked off in November and is led by the Colorado Department of Higher Education.
- » [SB24-218](#) directed the OFW to establish a grant program for lineworker registered apprenticeship programs to increase their capacity which will be launched in November.

2024/2025 GOALS

Quality: Designed for Colorado, integrated into the National Registered Apprenticeship System.

- » Successfully transition existing RAPs to Colorado's State Apprenticeship Agency through technical assistance and guidance as evidenced by improved data in RAPIDS: **Ongoing through June 30, 2025.**
- » Launch an updated Apprenticeship Resource Directory with additional data points per SB23-146. **Completed for January 2024 Directory update.**
- » Publish a Certified Contractor List per SB19-196. **Complete. Published April 30, 2024.**

Expansion: Prioritization of in-demand occupations and access to RAPs in all corners of Colorado.

- » Launch or Expand 100 RAPs (this is a CDLE strategy under its Wildly Important Goal to increase youth labor force participation rates in Colorado for 2023/24 and has been renewed for 2024/25).
 - Launch or Expand 100 RAPS in 2023/24. **Complete. 101 programs approved by June 30, 2024.**
 - At least five new programs in state agencies: **Complete. 6 new programs were created by June 30, 2024.**
 - 60 percent of new/expanded programs aligned with Colorado's in-demand/priority occupations: **Complete. As of December 6, 2024, 67% of new programs were in in-demand/priority occupations.**
 - *New Goal:* Launch or Expand 100 RAPs by June 30, 2025. This is a strategy under its Wildly Important Goal to increase youth labor force participation rates for 2024/25.
- » Launch the RAP Construction Grant Program per HB23-1246: **Complete. Launched July 24, 2024.**
 - *New Goal:* Launch Scale Up Grant Program.
 - *New Goal:* Launch Qualified Apprenticeship Intermediary Grant Program.
 - *New Goal:* Launch Lineworker Grant Program.

2024/2025 GOALS

Equity: Focused strategies for increased participation and support of underrepresented Coloradans in RAPs.

- » Ensure 100% of new, eligible RAPs will receive technical assistance to develop Affirmative Action Plans, be in compliance with EEO (29 CFR 30), and receive supplemental resources to support their diversity, equity, inclusion, and accessibility goals. **Ongoing through June 30, 2025.**
- » Integrate DEIA into program development and quality assurance service delivery. **Ongoing through June 30, 2025.**
- » Develop a career services infrastructure to support access to and completion of RAP by target populations. **Ongoing through June 30, 2025.**
- » Develop state-level reporting for analysis of apprenticeship data on access, completion, wage, and credential attainment. **Ongoing through June 30, 2025.**
- » *New goal:* Close the educational achievement gap through the increased attainment of USDOL or SAA certificate of completion and decrease wage gaps across all racial and ethnic groups and gender.
- » *New goal:* Increase the percentage of youth 24 and under enrolling in a registered apprenticeship program by 25% from 1,413 to 1,766 by June 30, 2025. This is a WIG for 2024/2025

Innovation: Develop policies, programs, and partnerships that ensure the State Apprenticeship Agency is agile, and future ready while reflecting Colorado's needs.

- » Define and operationalize Qualified Intermediaries. **Complete. Launched July 2, 2024.**
- » Define and operationalize Youth Apprenticeship. **Ongoing through June 30, 2025.**
- » Define and operationalize Pre-Apprenticeship. **Ongoing through June 30, 2025.**
- » Implement HB23-1212 - Outreach Specialists. **Ongoing through June 30, 2025.**
- » Align the registered apprenticeship system with Career and Technical Education. **Ongoing. Education Specialist to be hired by January 2025.**

FOW LABS

Raising Awareness and Participation in Aligned Efforts

In 2024, the OFW continued its efforts to raise awareness of the impact of the future of work in Colorado; promote, partner, and align/inform with efforts related to the OFW's areas of exploration. OFW partnered with the Colorado Business Roundtable to raise awareness of future of work trends for hundreds of Coloradan at the [Future of Work: Maximizing Human Potential](#) event which focused this year on tapping into untapped talent pools. Below are a few highlights of other strategic initiatives that OFW participated in over the last year:

LAUNCH: In September, the Office of the Future of Work attended a convening of [LAUNCH](#), a national college and career pathways initiative that strives for every learner to have access to and succeed in high-quality and equitable pathways. Our Impact Cohort, led by the Colorado Department of Education, shared progress on Colorado's efforts to ensure every student can earn a quality, in-demand non-degree credential, earn 12 college credits that count toward a postsecondary credential, and participate in one high-quality work-based learning opportunity.

Technical Advisory Committee: OFW represents CDLE on the Technical Advisory Committee (TAC), which was established by HB22-1035 and aims to coordinate state agencies who support older adult programming and advise on the multi-sector plan on aging. The goals of the technical advisory committee include:

- » Identifying overlapping strategies and programming across state agencies to support the Lifelong Colorado Initiative
- » Collaborating to streamline service delivery for older Coloradans
- » Sharing best practices and brainstorming solutions
- » Identifying innovative funding opportunities create efficiencies in service provision





Colorado Resiliency Working Group: OFW represents CDLE on the Colorado Resiliency Working Group convened by the [Colorado Resiliency Office](#) which works to

- » Improve Collaborative Cross-Department/Program Systems that Foster Strategic Action
- » Minimize Duplication & Improve Awareness of Similar Efforts
- » Improve Funding Coordination & Service Delivery to the Local Level to Strengthen Resiliency

Skills Based Hiring: OFW works with CDLE's Employment and Training Division and Department of Personnel Administration to increase adoption of skills-based hiring across state government. The state's efforts were highlighted in a case study published by the [National Governor's Association and Opportunity @ Work](#).

Digital Equity, Literacy, and Inclusion

Areas of Exploration: Transformation Preparation; Support for Historically Excluded Populations

Digital skills, devices, and access to affordable internet are necessary to work, learn, and fully participate in daily life in the future of work. With the advances in automation, artificial intelligence and digitalization, it is imperative that we close the digital divide. This is why the OFW houses Colorado's [Digital Equity, Literacy, and Inclusion Initiative](#). The OFW, Colorado Broadband Office, and Office of eHealth Innovation make up the Digital Equity Team which works with partners to ensure all Coloradans have the digital skills, devices, and affordable access to the internet needed for full participation in our society, democracy, and economy.

After a period of public comment, OFW's [Digital Access Plan](#) was submitted and [approved by the National Telecommunications and Information Administration](#) (NTIA). This began the preparation for the State Digital Equity Capacity Grant which will provide Colorado with approximately \$12 million over five years to implement the Digital Access Plan. Once these funds are released, the Digital Equity team will:

1. Support the creation of [Regional Digital Inclusion Coalitions](#) by funding Fiscal Access Partners to oversee the fiscal responsibilities for coalitions and identifying counties and/or regions interested in forming digital inclusion coalitions;
2. Improve the functionality of the digital inclusion community partnership relationship platform created by Visible Network Labs;
3. Create a toolkit with digital access plan templates, reproducible marketing materials, and other resources for newly created coalitions;
4. Deploy Digital Inclusion Coalition Liaisons to support communities in forming coalitions; and
5. Identifying potential funding sources for coalition projects.

In Fall 2024, OFW hired two Digital Inclusion Coalition Liaisons to support the creation of Regional Digital Inclusion Coalitions and the implementation of the Digital Access Plan.





Digital Navigator Program

The [Digital Navigator Program](#) launched in March 2023 with \$1.7 million in funding from state legislation, [SB 22-140](#), administered by OFW and a match from Serve Colorado/ AmeriCorps. Additionally, Comcast has contributed \$600,000 for the two-year period of this program. In 2024, OFW launched a second phase of the pilot program and hired additional digital navigators to work in rural workforce centers with the Colorado Rural Workforce Consortium and with immigrant and refugee serving organizations in the Front Range. From October 2023 through October 2024, 42 digital navigators have had over 4,000 appointments with community members at 67 locations across the state. During the initial 350 appointments for the CDLE Digital Navigators, the top five requests during appointments were:

- » Finding affordable laptops or Chromebooks
- » Finding affordable internet service
- » Using smartphones
- » Searching for employment online, including navigating online employment applications and uploading a cover letter and resume
- » Using email, including unsubscribing from emails and reporting spam

Starting in May 2024, all Digital Navigators providing services as part of the statewide pilot program have access to telephone interpretation services paid for by SB 22-140. Below is some data about the use of telephone interpretation by digital navigators.

- » 198 total number of phone interpretation sessions
- » 14 total number of languages in which interpretation was provided in (Amharic, Arabic, Dari, Farsi, Fulani, Kinyarwanda, Lithuanian, Pashto, Pulaar, Rohingya, Somali, Spanish, Tigrinya, Wolof
- » 85% of interpretation sessions were for Pulaar/Fulani (163) and Wolof (6)
- » 9,665 Total minutes of interpretation provided
- » 48.8 minutes is the average call length
- » \$8,186.45 total dollars spent



To support digital navigators across the state, OFW expanded its Colorado Navigator Community of Practice with a listserv and monthly meetings and more than 80 members. OFW held two events to support and highlight the contributions of Digital Navigators in Colorado:

- » In June, nearly 30 digital navigators and 30 other staff with government agencies, libraries, and non-profit organizations across Colorado attended the inaugural Colorado Digital Navigator Summit. Keynote Speaker, Abi Waldrup, Digital Navigator Program Manager with the National Digital Inclusion Alliance (NDIA), spoke about the history and evolution of digital navigation services. The Summit also recognized the training and support the Denver Public Library Digital Navigator Program provided as the OFW designed and implemented the Digital Navigator Pilot Program.
- » For National [Digital Inclusion Week](#) in October, over 50 people attended a celebration of the one-year anniversary of the Digital Navigator Program. Lieutenant Governor Dianne Primavera gave opening remarks on the state's commitment to closing the digital divide in Colorado. John Kelly, Executive Director of Serve Colorado, highlighted the importance of community engagement and service to fellow Coloradans. Leaders from the digital navigator programs at the OFW, The Learning Source and Loveland Public Library thanked the digital navigators for all they do to bring digital access to the members of our community. During National Digital Inclusion Week, OFW also recognized [Digital Inclusion Champions across Colorado](#).

The Digital Navigator Program is a pilot program and the dedicated funding will expire June 30, 2025 at which point the work will continue through local regional coalitions, ServeColorado, and through locally funded efforts. A final report on the impact of the pilot program will be published in 2025.



Transformation Preparation for Workers, Employers, and Communities

Areas of Exploration: Transformation Preparation; Support for Historically Excluded Populations, Modernize Worker Protections and Benefits

OFW undertakes research to gather insight related to issues of concern and importance to Colorado's future workforce as directed by the legislature, Governor's Office, or based on a gap related to future of work trends. In the 2023 legislature session, [HB23-1074](#) passed, which directed the OFW to conduct two studies on industry transformation: an Assessment of the Oil and Gas Workforce and Emerging Opportunities and Automation and the World of Work which explored the impact of automation across Colorado's workforce, as discussed earlier in this report. These studies were submitted to the legislature and Governor's Office on December 2, 2024 and were published on OFW's website in December 2024 (Appendix D & E).

Below are summaries of the additional research conducted by OFW over the last year:

Future of Work in a Climate Changed Colorado: OFW partnered with the Governor's Office of Climate Preparedness and Disaster Recovery and a group of Masters of the Environment students at the University of Colorado at Boulder to:

- » Identify occupations in Colorado that are likely to be disproportionately exposed to climate change hazards;
- » Analyze existing policies and resources in place within the United States to determine best practices for protecting workers from climate hazards; and
- » Create educational materials for the Colorado workforce and employers.
- » In 2025, OFW will publish the resources on its website, provide training to partners on the resources created, and partner with local providers to build upon them.



Work-Based Learning Research: OFW Partnered with The Attainment Network to conduct an initial landscape analysis, research, and interviews to explore promising work-based learning programs across Colorado. This work will be built upon in 2025 to create tools and resources published on OFW's website and distributed through partners across the state.

Essential Skills Research: OFW partnered with Jobs for the Future and the Colorado Department of Education to conduct a literature review and interviews to inform updates to 21st Century Skills required by SB08-212.

2024/2025 GOALS

Raising Awareness and Participation in Aligned Efforts

Goal	Status
Continue its efforts to raise awareness about the future of work through the ongoing publication of articles and resources on the OFW and CDLE websites, hosting convenings and listening sessions throughout the state, and presentations to service providers, businesses, associations, state and local agencies, and other community partners.	Ongoing.

Digital Equity, Literacy, and Inclusion

Goal	Status
Expand the Digital Navigator Program in partnership with the Colorado Rural Workforce Consortium and immigrant serving organizations.	Complete. 42 digital navigators across Colorado. Funding expires June 30, 2025 and a final report will be published.
Expand Digital Navigator Community of Practice.	Complete. 85 members as of December 6, 2024.
Develop plan for Digital Equity Capacity Funds to be released FY 24/25, including the transition of funding from OIT to CDLE.	Complete. Application submitted May 28, 2024, award expected January 2025.
Implement the Broadband Workforce Plan.	Ongoing. Led by the Colorado Broadband Office.
Pilot digital tools and best practices with local partners to develop resource libraries. Update Digital Competency Framework and Digital Skill Catalog based on research and feedback from partners. Publish case studies highlighting best practices to build digital equity into service delivery.	Ongoing through June 30, 2025.

2024/2025 GOALS

Identify Fiscal Access Partners to support local Digital Access Coalitions.

New Goal

Creating a toolkit with digital access plan templates, reproducible marketing materials, and other resources for newly created coalitions

New Goal

Transformation Preparation for Workers, Employers, and Communities

Goal	Status
Conduct a study on the impact of automation on Colorado's workforce.	Complete. Submitted December 2, 2024.
Conduct a study on oil and gas worker job transformation.	Complete. Submitted December 2, 2024.
Build a thought leadership group and convening strategy to raise awareness about the impact of AI.	Ongoing through June 30, 2025.
Partner with the Colorado Department of Education to update to the 21st Century Skills required by SB08-212 to reflect future of work trends and career-connected learning.	Ongoing. Research completed 9/30/2024, and next steps will take place through June 30, 2025.
Develop a strategic plan for the OFW's independent contractor and portable benefits work. This plan will guide fundraising, staffing, and the creation of specific deliverables related to the growing independent workforce in Colorado.	Ongoing through June 30, 2025.
Develop A Blueprint for Employing, Retaining, and Advancing Older Workers Across Colorado	<i>New Goal</i>

2024/2025 GOALS

Train workforce development partners on Future of Work in a Climate Changed Colorado.

New Goal

Develop a resource hub to highlight work-based learning models, templates, best practices, and other tools to increase adoption of work-based learning across Colorado.

New Goal

APPENDICES

Appendix A: OFW Organization Chart

Appendix B: State Apprenticeship Expansion Formula Five Year Plan

Appendix C: State Apprenticeship Council 2024 Annual Report

Per C.R.S. 8-15.7-103 and C.R.S. 8-15.7-104: The Committee on Apprenticeship in the Building and Construction Trades (CABCT) and the Committee on Apprenticeship in New and Emerging Industries (CANEI) shall provide an annual report to the executive director with apprenticeship data disaggregated by age, race, gender, veteran status, disability, and industry. Data presented reflects counts between November 1, 2022 through October 30, 2023. These data are not live and were extracted from the USDOL Registered Apprenticeship Partners Information Database System (RAPIDS) on November 1, 2023.

Appendix D: HB23-1074: Assessment of the Oil and Gas Workforce and Emerging Opportunities

Appendix E: HB23-1074: Automation and the World of Work

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COLORADO
Department of
Labor and Employment

The Office of the Future of Work

Colorado Department of Labor and Employment
633 17th Street, Suite 1200 | Denver, CO 80202-3660

For more information, visit the OFW website at
cdle.colorado.gov/future-of-work