



COLORADO  
Department of  
Labor and Employment

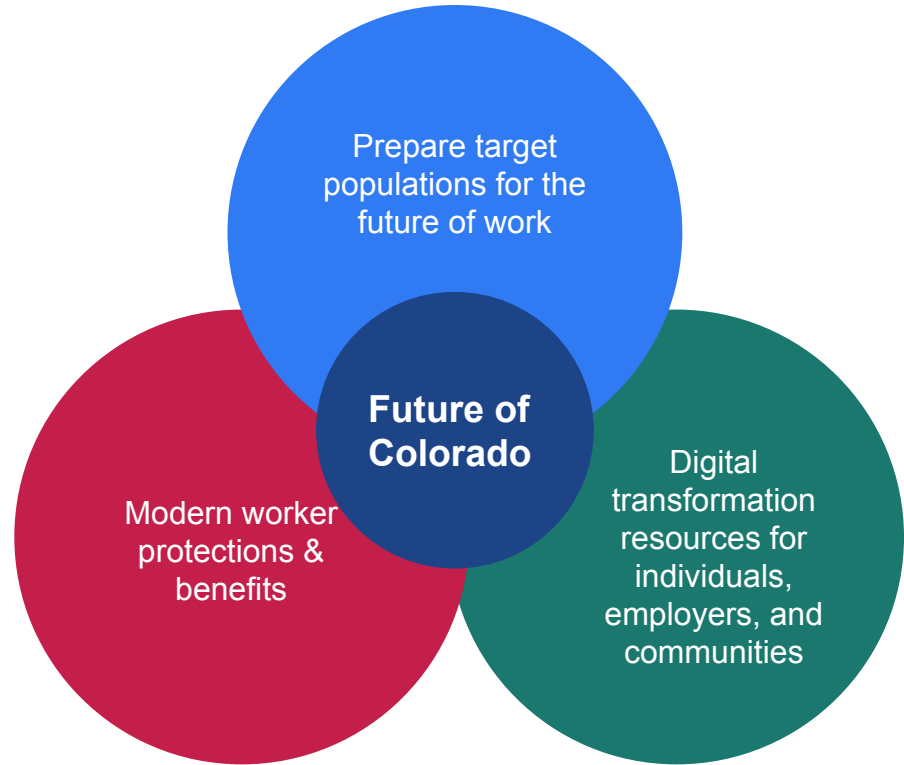
# A new path forward

*Presentation to DSEDP*



# The Office

**Vision:** A future where all Coloradan workers have access to education and skill training that is connected to meaningful and sustainable employment.



User-Centered

Left Behind Coloradans

Regional Diversity

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



# Four forces at work



Globalization

Market  
Forces

Demographic  
Shifts

Technological  
Advances

# Globalization & Market Forces

Extended supply chains

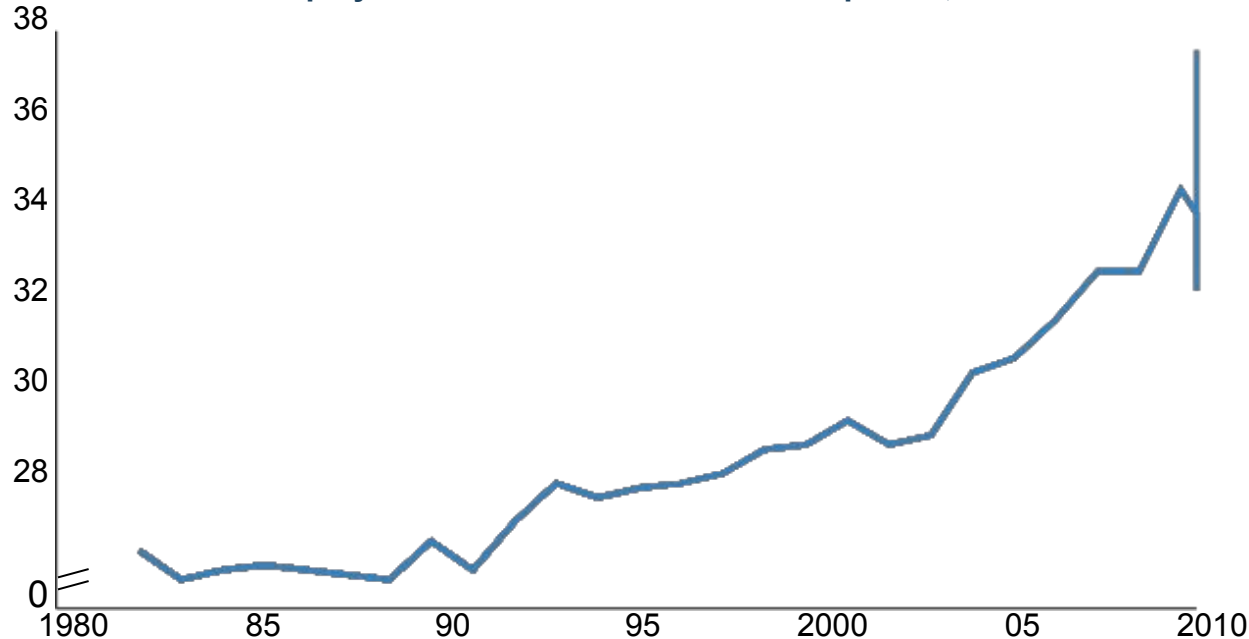
Supply and demand, trade shifts, and government priorities

Growth of on-demand economy and contingent workforce



# Globalization

Employment of the Foreign Affiliates of U.S. Parent Companies as a Share of the Total Employment of U.S. Multinational Companies, 1985-2010

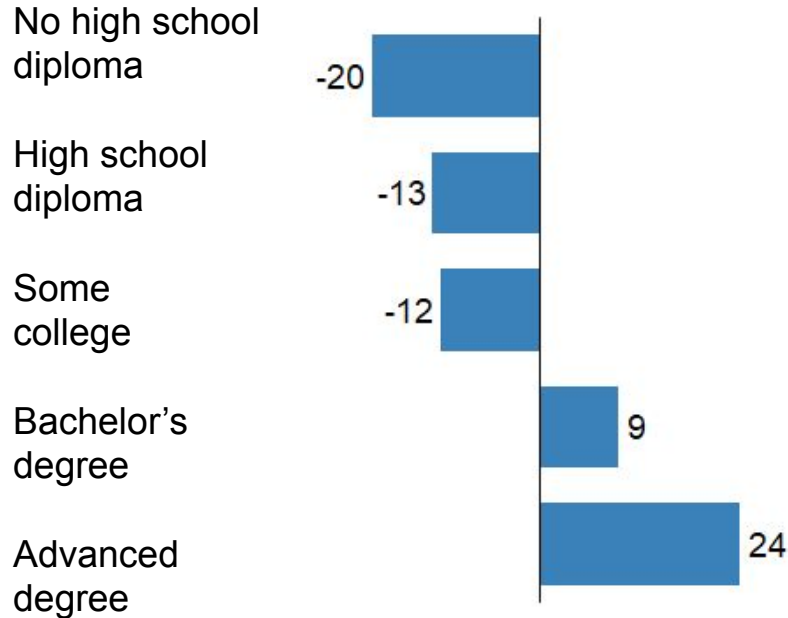


With occasional pull-backs, **the outsourcing of jobs by US companies has grown** over the past 30 years

A significant percentage of **these jobs have been focused in the manufacturing, customer support, and related functions**

# Globalization

% change in hourly wages by educational background (1979-2018)



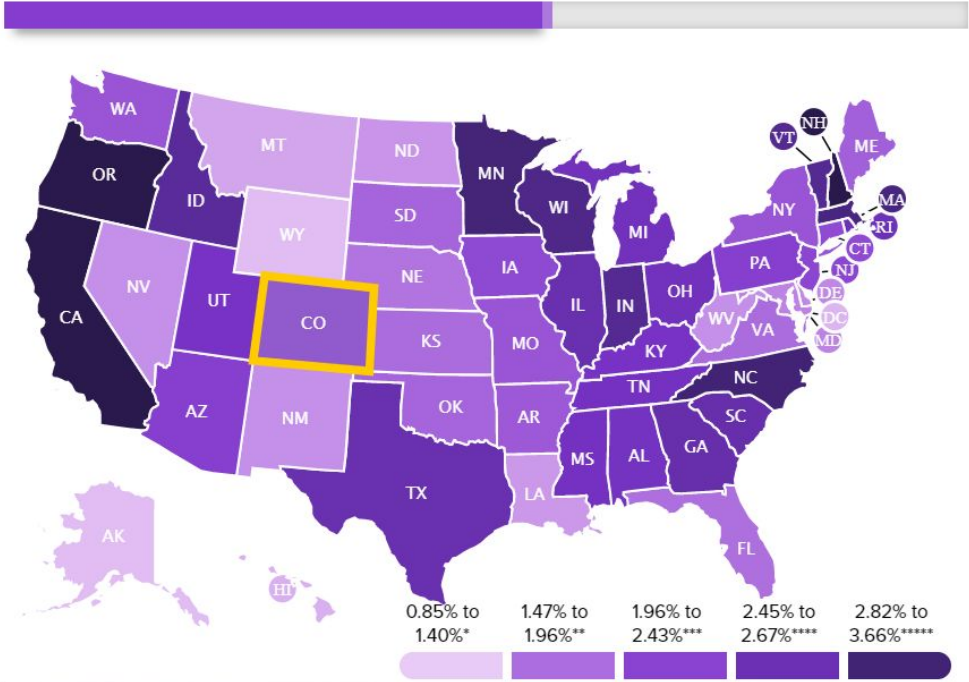
**Workers without college degrees have seen significant drops in wages over the past 30-40 years**

**Globalization has played a significant role in this decline as U.S. workers compete with alternative labor sources from around the world**

# Trade Shifts

Net U.S. jobs displaced due to the goods trade deficit with China as a share of total state employment, 2001–2018

Colorado 2.45%



<https://www.epi.org/research/trade-and-globalization/>



# Low wage work in Denver-Aurora-Lakewood

40%

Percentage of low-wage workers

19.9%

Percent change in low-wage jobs

\$39,114

Median annual earnings

-3.8%

Change in earnings 2008 - 2017

Occupation	#	%
Retail sales workers	35100	7.2%
Information and records clerks	31166	6.4%
Construction trades workers	28954	6.0%
Cooks and food preparation workers	25666	5.3%
Building cleaning and pest control workers	23506	4.8%
Food and beverage serving workers	23048	4.8%
Material moving workers	18746	3.9%
Motor vehicle operators	16874	3.5%
Material recording, scheduling, dispatching, and distributing workers	15944	3.3%
Other management occupations	14585	3.0%
Preschool, primary, secondary, and special education school teachers	13355	2.8%
Supervisors of sales workers	13294	2.7%
Other office and administrative support workers	12704	2.6%
Other personal care and service workers	11578	2.4%
Secretaries and administrative assistants	9593	2.0%

# Self-Employment

**32 million to 44 million** U.S. adults engage in self-employed work

**17%** of adults in 2017 engaged in self-employment work

**Median income is similar** for both self-employed and those who work for employers

**57%** of nonfarm sole proprietors work in professional services, repair and personal services , construction, administrative services, and retail trade

# Technological Transformation

Automation, artificial intelligence, digitalization changing work and requiring new skills and mindsets



# Technological Transformation



## Automation

- Use of technology to reduce the level of human activity needed to complete a particular task by replacing or augmenting labor
- ☐ Because automation occurs at the task level, it often changes jobs partially rather than eliminating them



## Artificial Intelligence

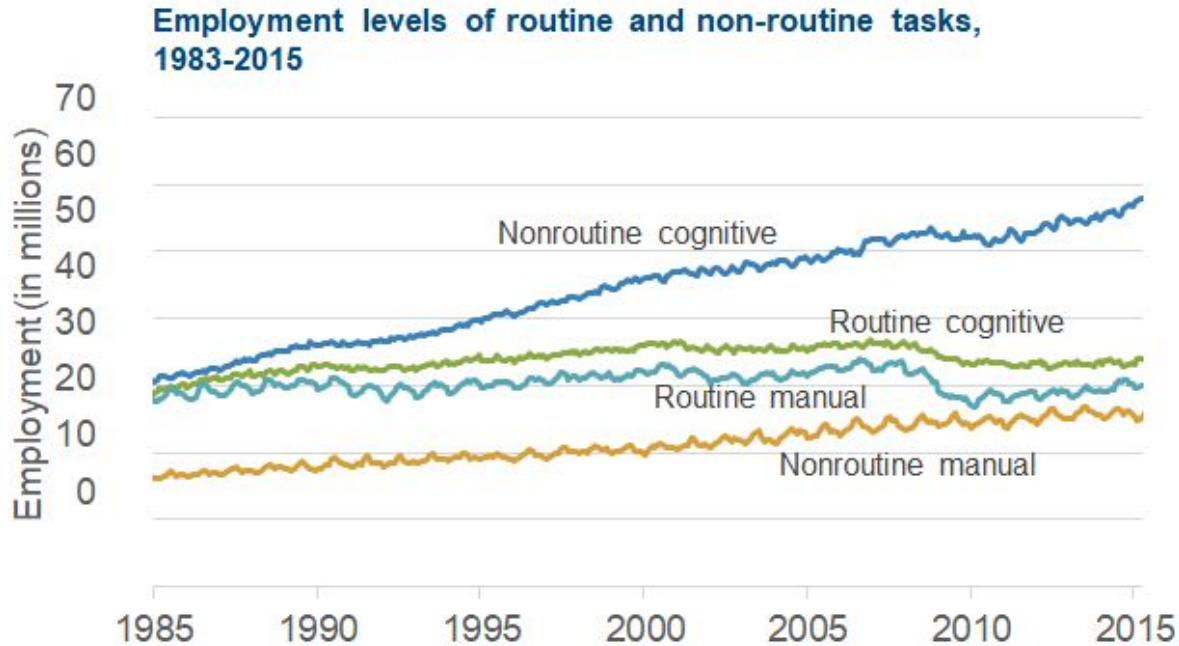
- Computer systems able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, or decision-making
- ☐ Allows for non-human decision making, some forms of analysis, and process management



## Digitalization

- The use of various digital technologies to change / update business or operational processes
- ☐ Often used to optimize a variety of communication, management, design, and logistics tasks (i.e., the use of a GPS tracking system to optimize fleet operations)

# Impact of technological advances by task



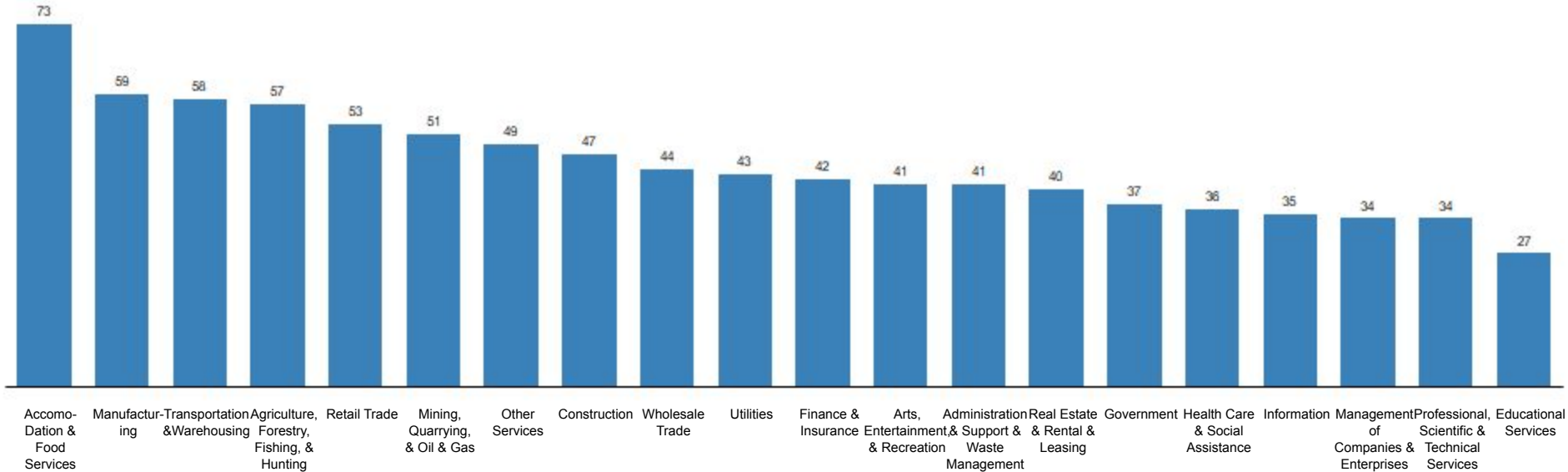
**Nonroutine cognitive:** Management, professional, and related occupations

**Routine cognitive:** Sales and office occupations

**Routine manual:** Production, transportation, and material moving occupations + Installation, maintenance, and repair occupations + Construction and extraction occupations

**Nonroutine manual:** Service occupations related to assisting or caring for others

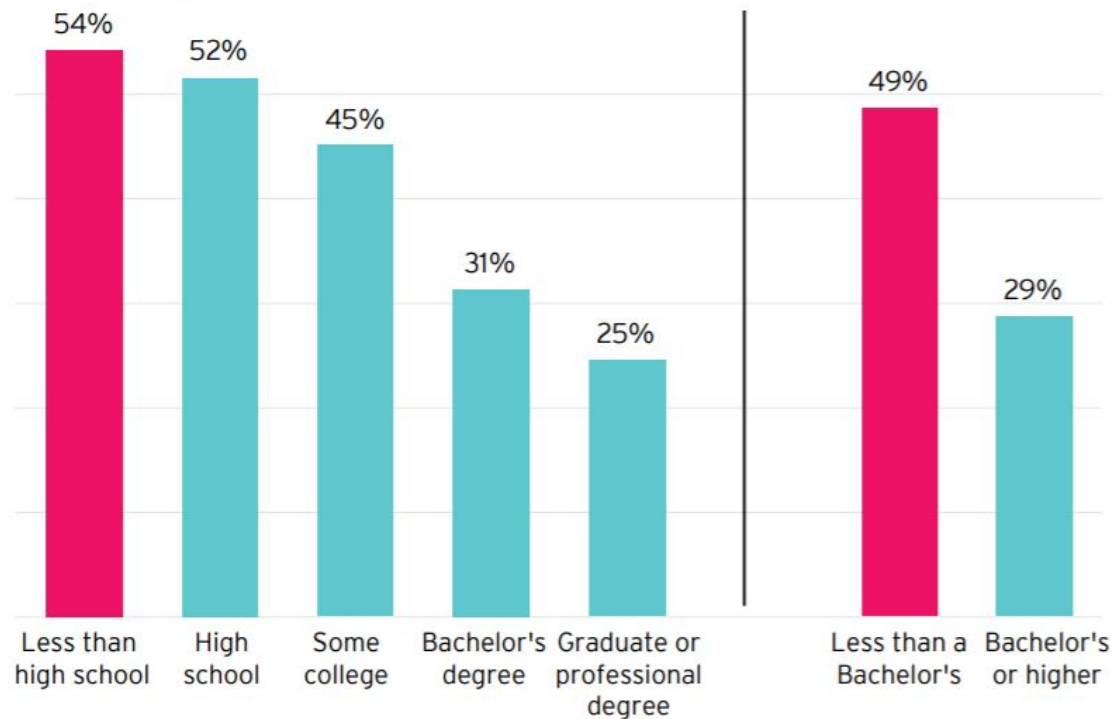
# Impact of technological advances by industry



# Impact of tech advances by education

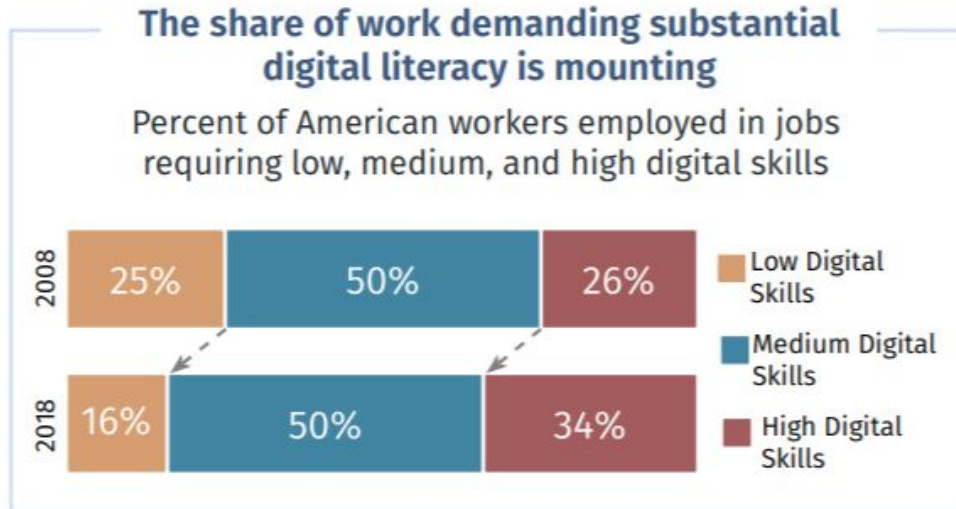
## Non-college workers will see greater job change from automation

Average automation potential by worker educational attainment, 2016



Source: Brookings Analysis of 2016 American Community Survey 1-Year microdata

# Digital skills needed for work

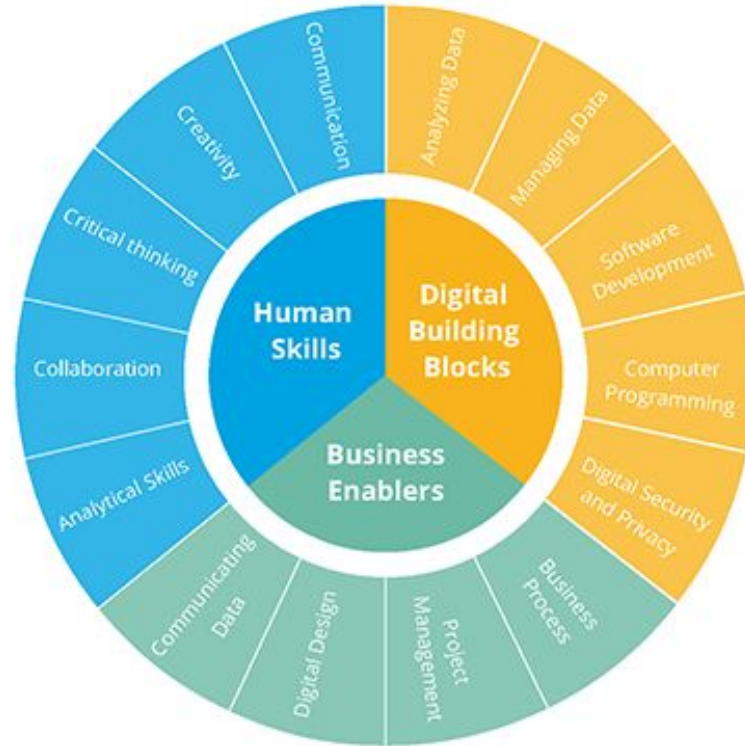


- **Low digital skill jobs represent a declining percentage of the U.S. labor market**, with ongoing drops anticipated
- Medium digital skills jobs have grown dramatically, suggesting the **presence of a required digital baseline that many workers lack**



# Skills of the Digital Economy

## The New Foundational Skills of the Digital Economy



**These 14 skills, already in wide demand by employers, command salary premiums and are crucial for workers who want to keep pace with a changing job market.**

© Burning Glass Technologies

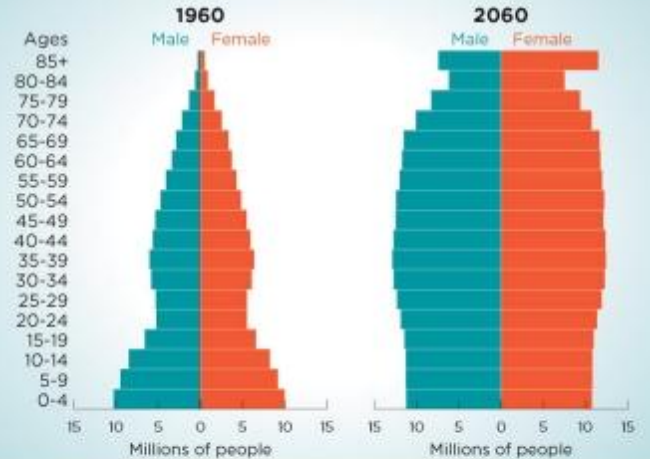
<https://www.burning-glass.com/research-project/new-foundational-skills/>

# Demographic Shifts

Aging and diversifying

## From Pyramid to Pillar: A Century of Change

Population of the United States



United States<sup>™</sup>  
Census  
Bureau

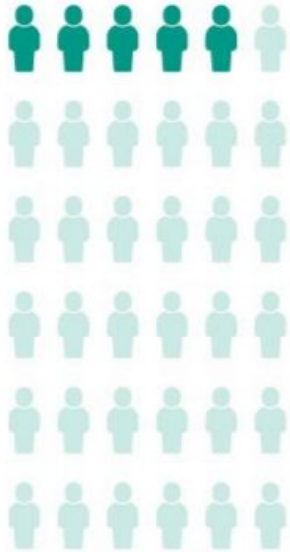
U.S. Department of Commerce  
Economics and Statistics Administration  
U.S. CENSUS BUREAU  
census.gov

Source: National Population  
Projections, 2017  
[www.census.gov/programs-surveys/popproj.html](http://www.census.gov/programs-surveys/popproj.html)



# Percentage of labor force 65+

12%



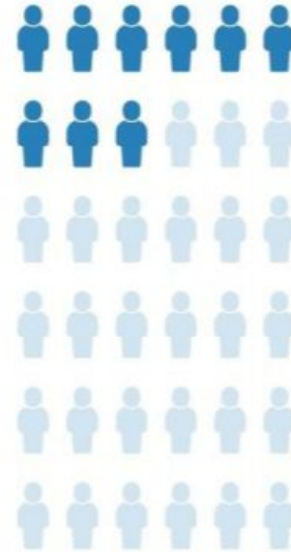
2000

19%



2010

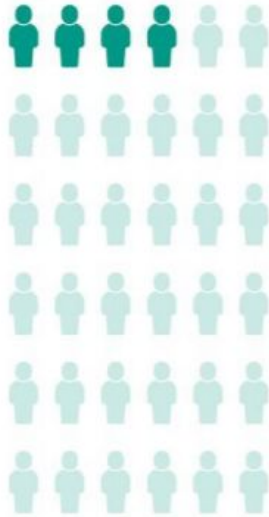
24%



2018

# Percentage of labor force 55+

11%



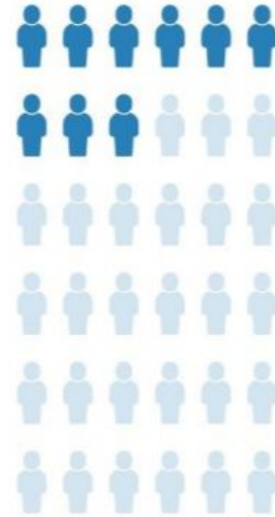
1990

19%



2010

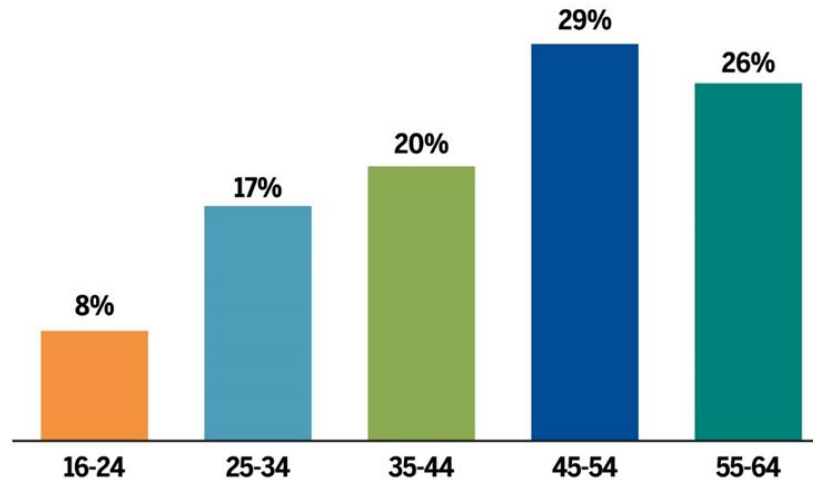
23%



2030

# Workers with digital skills

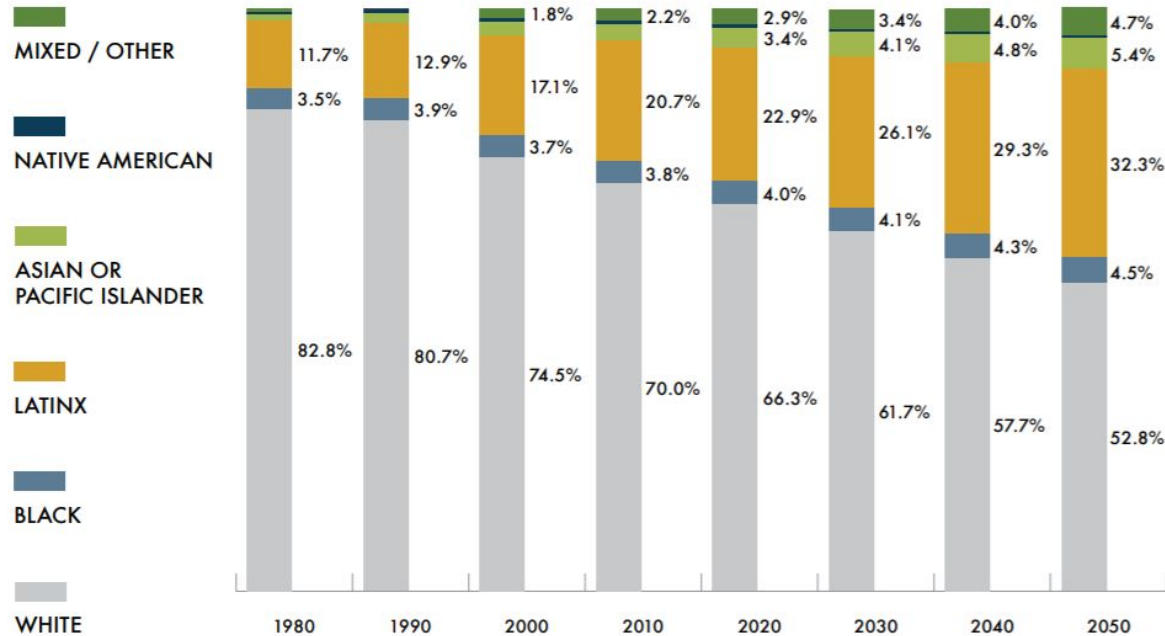
WORKERS WITH NO DIGITAL SKILLS EXIST IN ALL AGE GROUPS, BUT ARE MORE PREVALENT AMONG AGES 45+



Currently employed US workers ages 16-64. Source: OECD Survey of Adult Skills, 2012-14

# Colorado is diversifying

**FIGURE 5.1 COLORADO IS BECOMING INCREASINGLY DIVERSE**  
Race and Ethnicity of Coloradans, 1980-2050



Source: PolicyLink analysis of U.S. Census Bureau data. Available at <http://nationalequityatlas.org/indicators/Race~ethnicity/Trend:32756/Colorado/false/>

# COVID-19 Impact on Future of Work Trends

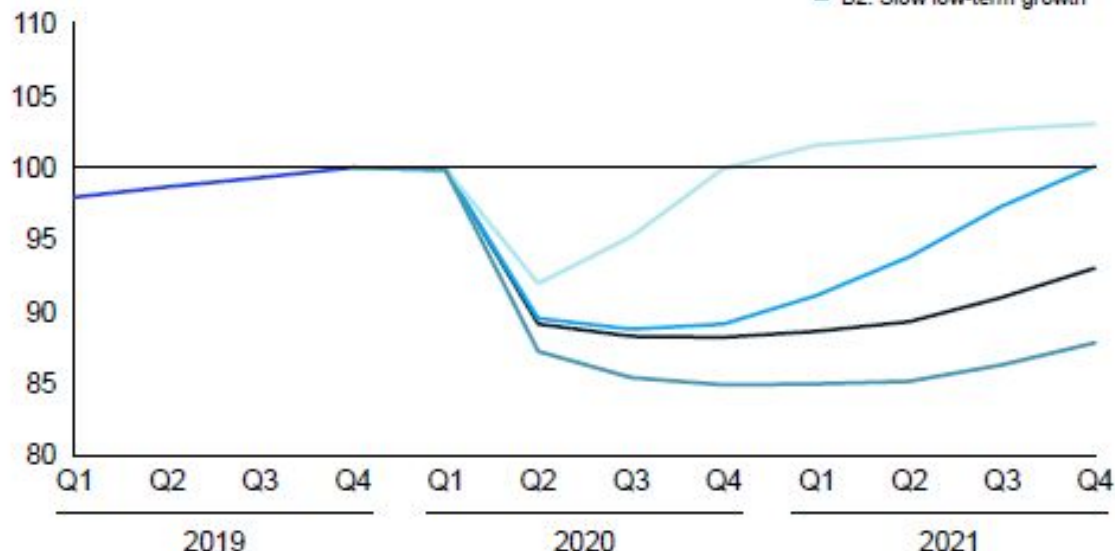


# If the virus is contained, we expect a quick recovery after Q2; if not, GDP growth in Colorado could be ~ -10% for the year

Real GDP, Indexed

Real GDP Growth – COVID-19 Crisis  
Indexed, 2019 Q4=100

- History
- A1: Muted recovery
- A2: Strong global growth
- A3: Virus contained
- B2: Slow low-term growth



1. The Virus Contained scenario (A3) assumes a rapid and effective control of the virus globally. The Muted Recovery scenario (A1) assumes there is a virus resurgence and a muted recovery through 2022 globally
2. Average annual percent change

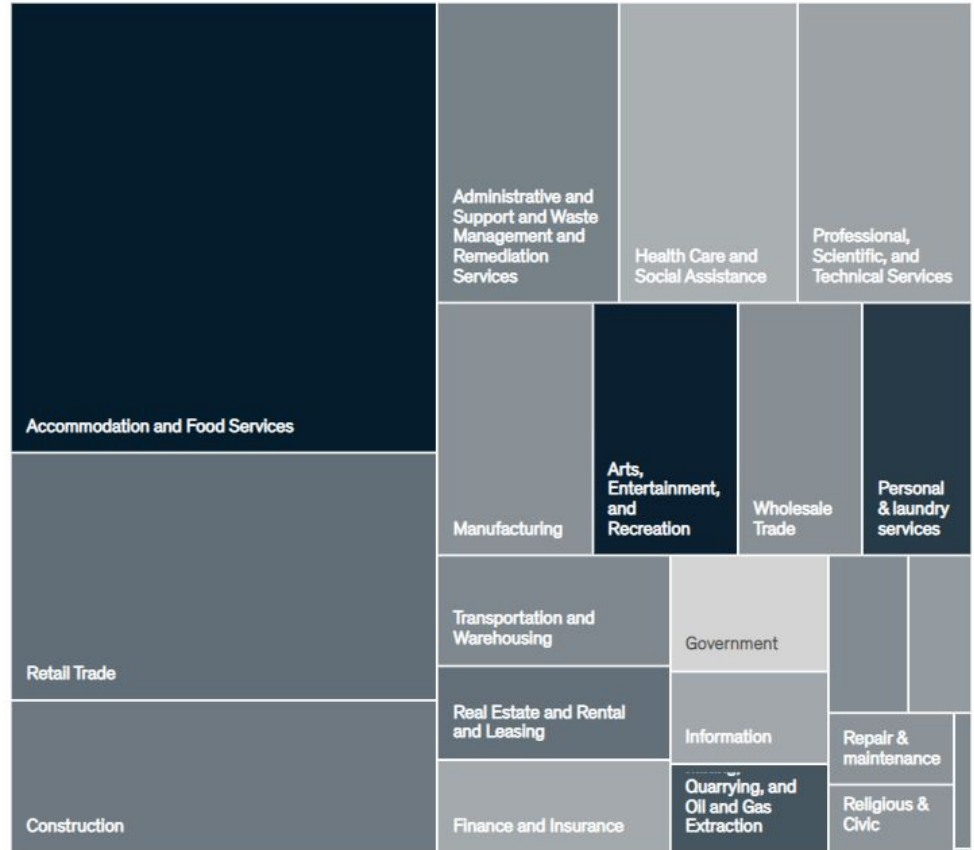
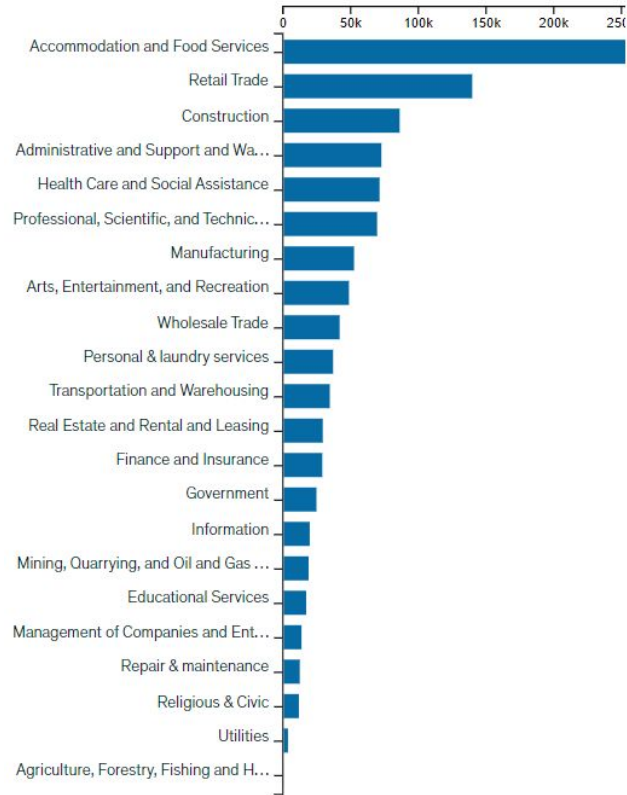
Source: MGI Economics analysis based on scenarios generated by McKinsey in partnership with Oxford Economics, input from Moody's Analytics data

	Real GDP Drop 2019Q4-2020Q2 % Change	2020 GDP Growth <sup>2</sup> % Change
Virus contained	<b>-8.1%</b>	<b>-2.3%</b>
Strong global growth	<b>-10.5%</b>	<b>-7.3%</b>
Muted global growth	<b>-10.9%</b>	<b>-7.7%</b>
Slow long-term growth	<b>-12.8%</b>	<b>-9.8%</b>



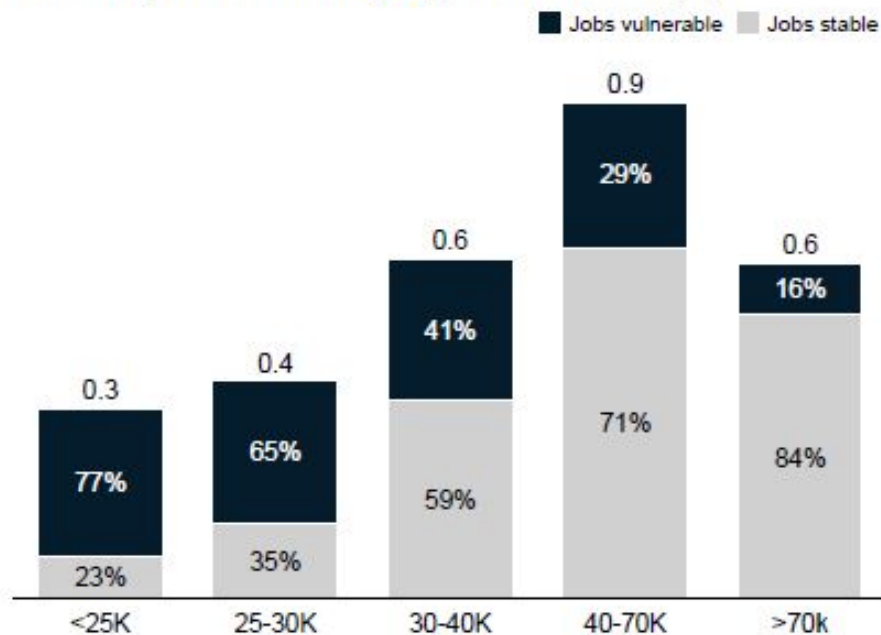
# Vulnerable jobs by industry, occupation

Vulnerable Jobs,<sup>1</sup> by industry, net of jobs created  
Number of jobs at risk

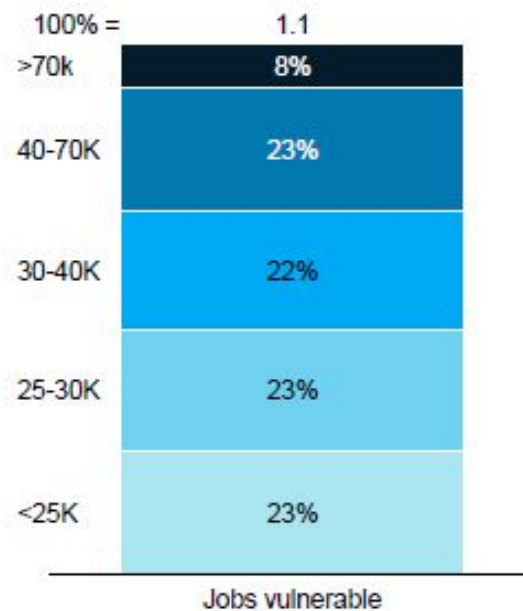


## 68% of vulnerable jobs pay less than \$40,000 a year

Level of job vulnerability, by income band (M)



Vulnerable jobs, by income band (M)



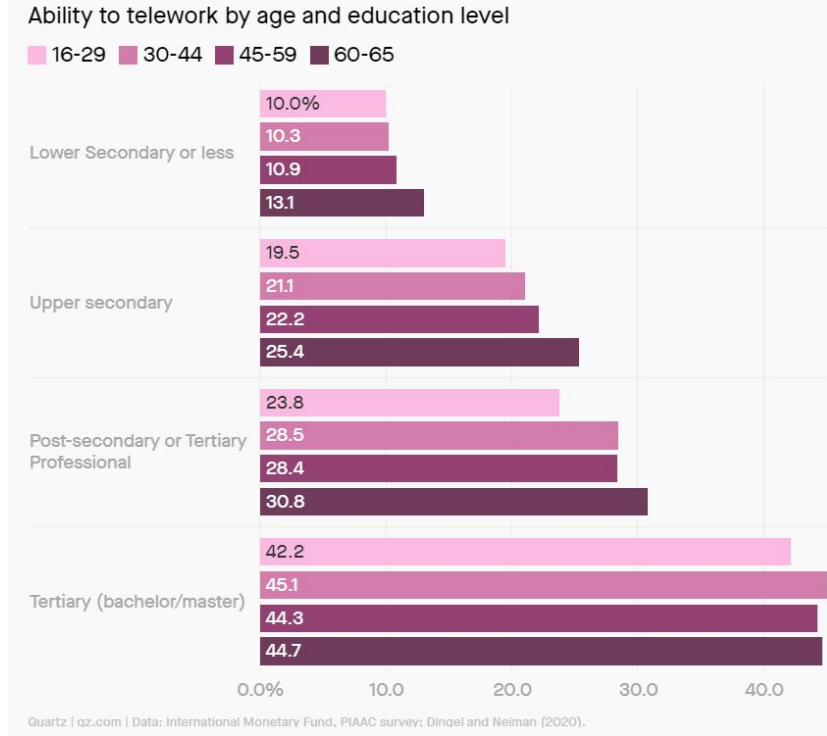
Note: Vulnerable jobs are those predicted to be furloughed, laid-off, or otherwise unproductive (e.g., kept on payroll but not working) during periods of high social distancing

Source: LaborCUBE; McKinsey Global Institute analysis

McKinsey & Company

# COVID-19 and Technological Advances

- Automation Forcing
- Industries at high risk for displacement faring worse
- Digital literacy and access gaps
- Remote work and digitalization



# COVID-19, Globalization, and Market Forces

## Globalization

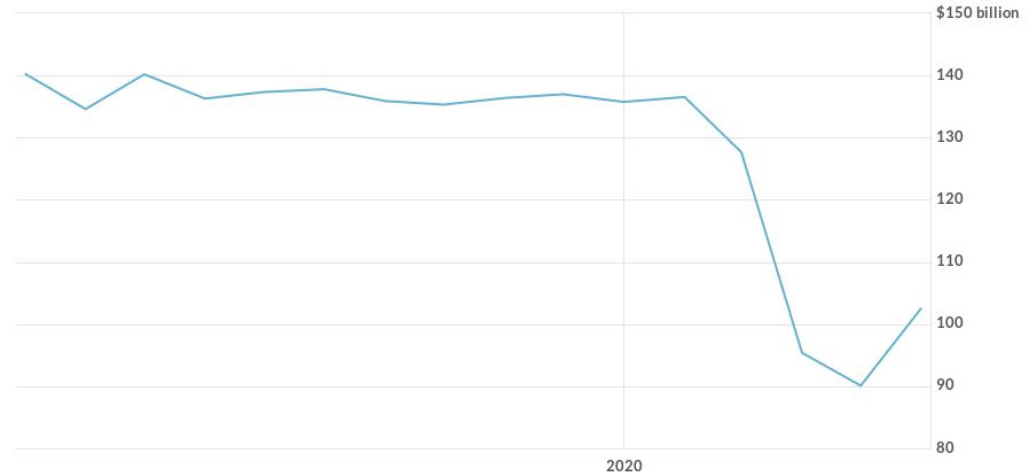
- World Trade Organization believes COVID-19 could cause global trade to fall by as much as one-third
- UN Conference on Trade and Development predicts the pandemic will reduce flows of foreign direct investment by as much as 40%.

## Market Forces

- Shifted market demands immediately.
- Reliance and awareness of gig workers.
- Exacerbated pressure felt by rural communities and industries in decline
- Small businesses suffering most.

### U.S. exports 24% below year-ago levels

Global trade has suffered a massive blow from the coronavirus



Source: U.S. Census

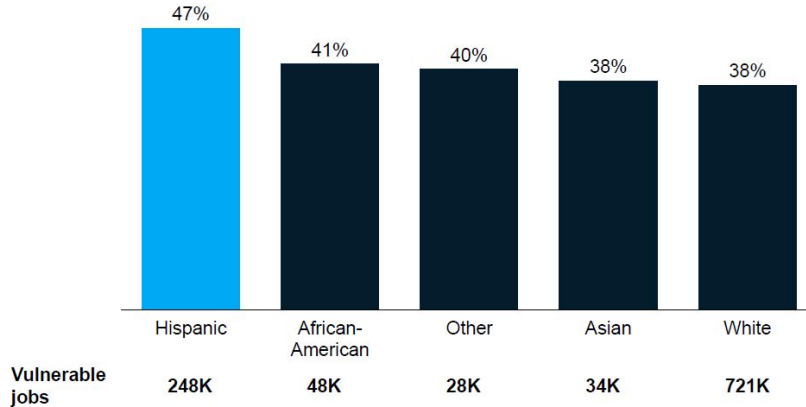
# COVID-19 and Demographic Shifts

## Demographic Shifts

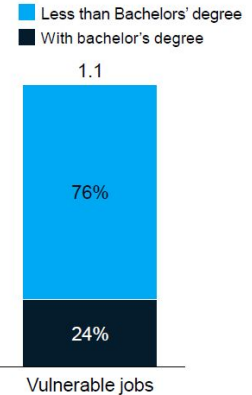
- Exacerbated challenges for certain populations especially those in low-wage professions.
- Health risks, and discrimination for older workers put them at more of a disadvantage for securing work in new normal

## Vulnerable jobs are concentrated disproportionately among Hispanics and workers without college degrees

Share of vulnerability, by race/ethnicity (%), M



Share of total vulnerable jobs by educational attainment (%), M



# What does it all add up to?

**An opportunity** to build resilience.

*Individuals* can adopt a lifelong learning mindset, build their digital skills, and will have the wraparound supports needed to transition roles.

*Employers* can invest in their workers and their workforce planning using data-informed strategies and the assets in their community to build back better.

*Communities* can diversify their economies, build on their assets, and create opportunities for all their residents.

*Government* can be reimagined to better serve its residents in times of abundance and in times of crisis.



# Thanks!

Any questions?

Contact Katherine Keegan at  
[katherine.keegan@state.co.us](mailto:katherine.keegan@state.co.us)



Colorado Workforce  
Development Council



# RENISE WALKER

Renise.walker@state.co.us

303.229.1008



# CWDC Vision, Mission, and Values



**Vision:** Every Colorado employer has access to a skilled workforce and every Coloradan has the opportunity for meaningful employment, resulting in individual and statewide economic prosperity.

**Mission:** Enhance and sustain a skills-based talent development network that meets the needs of employers, workers, job seekers, and learners for today and tomorrow.

**Values:** Equity, agility, integration

# Strategies for Equitable Workforce Recovery



- Reset not a restart
- Focus on skills
- Employee assistance and resource navigation
- Upskilling and reskilling
- Apprenticeships

# Upskilling & Reskilling



- **Upskilling**- A workplace strategy focused on continuous learning and development. Companies invest in training programs that help employees develop new abilities and minimize skill gaps.
- **Reskilling** is the process of learning new skills so you can do a different job, or of training people to do a different job.
  - On the job training- apprenticeship, internship, externships etc.
  - Certifications and credentials
  - High school equivalency
  - Basic skills training

# Lives Empowered



[Lives Empowered](#) brings together retail businesses interested in working collaboratively to increase economic mobility for frontline workers across Colorado and contribute to a strong economy.

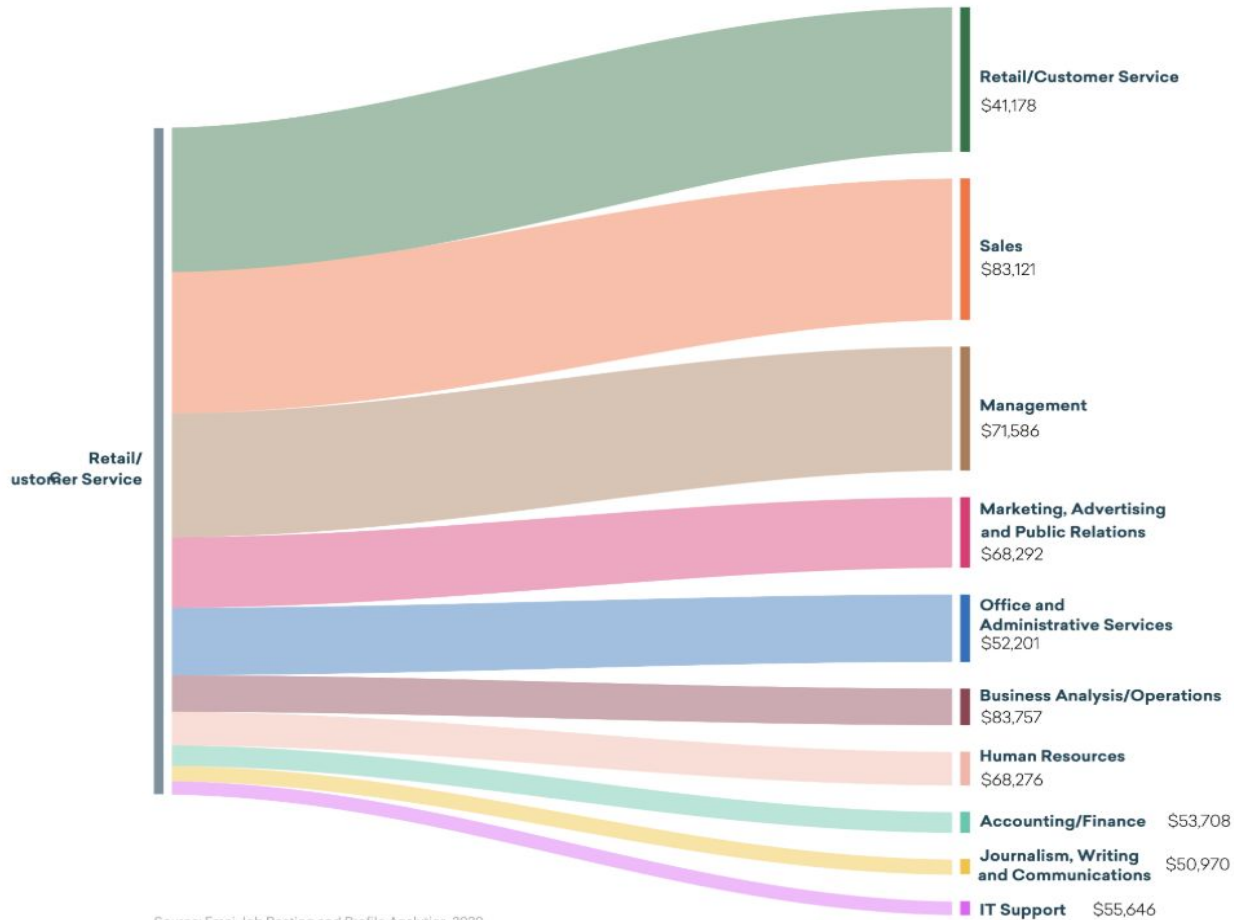
## Programs and resources:

- Training Academy
- Enrich financial services
- WorkLife employee services
- Retail career pathways



## TOP 10 TRANSITIONS

# RETAIL AND CUSTOMER SERVICES



Source: Emsi Job Posting and Profile Analytics, 2020



CWDC

Click on a career to explore competencies

TRANSITION OUT OF

**Retail** ▼

Choose a starting career to transition from



#### SHARED COMPETENCIES

These are the skills anyone transitioning would likely already have

Finance/Accounting

Leadership

Personal Attributes

Communication/Writing/Journalism

Customer Service

#### NEEDED COMPETENCIES

These are the skills anyone transitioning will need to learn

Design/Animation

Digital Marketing

Product Management

Data Science/Analytics

Business Planning/Contingency

# Employee Assistance



**WorkLife Partnership is the only organization partnering directly with employers to address the challenges faced by frontline workers that lead to disengagement and distracted working.**

## WORKLIFE NAVIGATOR SERVICES

### One-on-one support for employees when life gets tough

WorkLife Navigators work side-by-side with employees to help them find long-term solutions to life's toughest challenges including:



**Affording energy & housing expenses**



**Accessing reliable transportation**



**Establishing a household budget & plan for managing debt**



**Finding resources for mental & behavioral health**



**Affording food**



**Managing stress**

First, WorkLife Navigators help employees address any immediate concerns. Then, they develop a plan so employees are better prepared to handle similar situations in the future.

# Apprenticeship

An employer-driven model and form of experiential learning that combines on-the-job learning as a paid employee with related classroom instruction in order to increase an apprentice's skill level and wages.





# CO-HELPS

## Colorado Healthcare Experiential Learning Pathways to Success

*Overview:*

<https://www.cccs.edu/co-helps/>

*Questions?*

[CO-HELPS@cccs.edu](mailto:CO-HELPS@cccs.edu)

## OVERVIEW

July 2019- July 2023

5,000 Adult Apprentices

28 Healthcare occupations

\$12 million from USDOL

\$7 million in-kind from Industry

1 of 4 awards nationally

## AT PRESENT

10 program development funding awards

4 colleges

5 employer partners

5 occupations

93 apprentices

\$402,719 in commitments

# CO-TECH

## USDOL Closing the Skills Gap Grant

USDOL announcement:

<https://www.dol.gov/newsroom/releases/eta/eta20200218>

CCCS Information:

<https://www.cccs.edu/co-tech/>

Questions? [CO-TECH@cccs.edu](mailto:CO-TECH@cccs.edu)

March 1, 2020-March 1, 2024

1,600 Adult Apprentices

14+ IT & Cybersecurity  
occupations

\$2 million from USDOL

\$900,000+ in-kind from Industry

1 of 28 awards nationally

# Who can help?

- Sector Partnerships
- Workforce centers
- Community colleges
- Community organizations



# Talent Development Playbook



New strategies released monthly

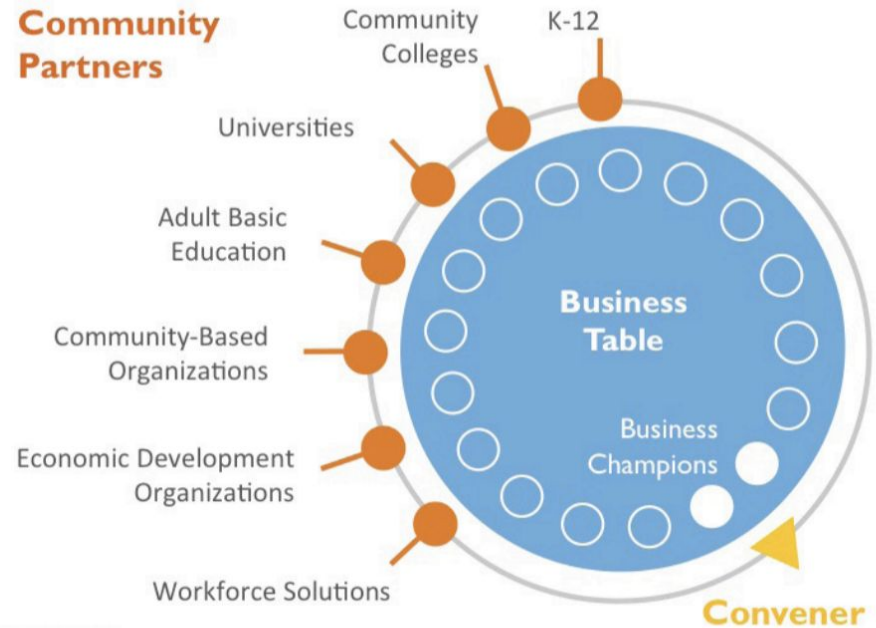
- **June**-Apprenticeships & Career Pathways
- **July**- Strategic Workforce Planning and remote work
- **August**- Recruitment & Retention
- **September**- Diversity, Equity & Inclusion
- **October**- Partnering for success
- **November**- Purpose & Profits
- **December**- Putting it into Action

# Sector Partnerships

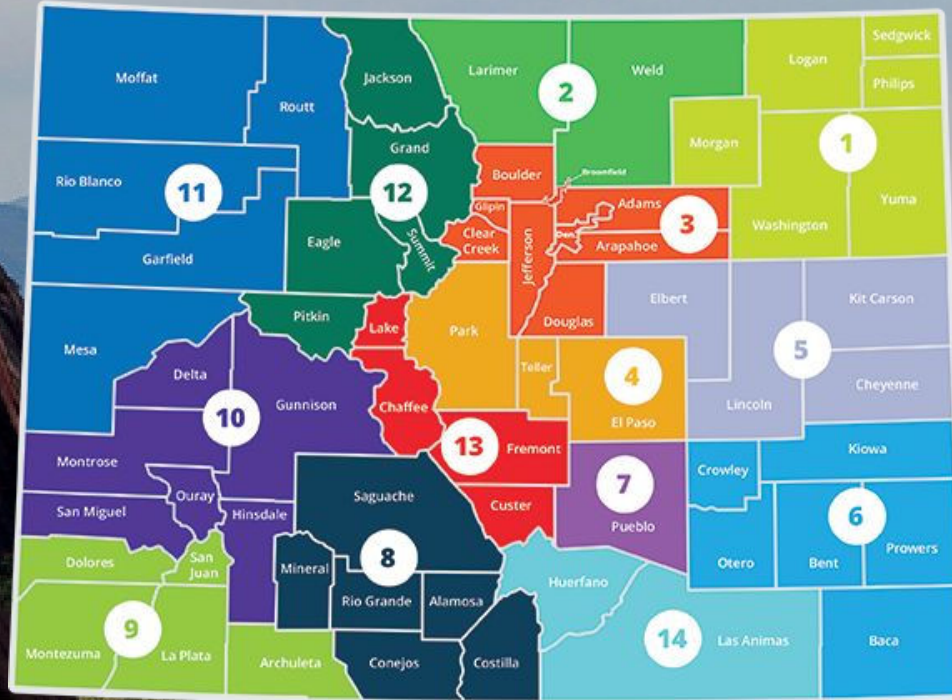
- Regional, public-private partnerships targeting key industries in CO
- Led by industry

## Resources

- [Background & directory](#)
- [Webinars](#)



# Welcome Colorado Sector Partnership Network



- R3 Metro Denver Retail
- R3 Metro Denver Construction
- R 3 Denver Metro Technology
- R3 Media
- R3 Metro Denver Manufacturing
- R3 Greater Metro Denver Healthcare
- R3 Metro Denver Early Childhood
- R 3 Boulder/Broomfield Technology
- R3 Boulder Healthcare
- R3 Transportation



Sector Partnerships

# Coming up...



- **Talent Development Thursdays**  
Talent Development Playbook- Recruitment and Retention  
August 27, 2020  
2-3pm
  
- **Business strategy webinar with Jon Schallert, The Schallert Group**  
September 17, 2020  
2-3pm

# Resources



- [Onward Colorado](#)- *One stop resource for those impacted by job loss during Covid (life supports, retraining, work)*
- [Location Neutral Employment](#)- *Incentive for businesses hiring remote employees in rural Colorado*
- [Lives Empowered Training Academy](#)- *Credentials to support essential skill development and nationally recognized credentials from the National Retail Federation to help frontline workers advance*
- [Enrich Financial Services](#)- *Free financial education and training for individuals and businesses*
- [Worklife Partnership](#)- *Resource navigator services to support employees facing daily challenges during COVID-19*



# Connect with the CWDC



Search 

About > Strategies > **WICA** > Get Involved > Resources > News & Events >

## Colorado Workforce Development Council




Welcome to the new CWDC website! [Learn more about the site.](#)

The **vision** of the Colorado Workforce Development Council is that every Colorado employer has access to a skilled workforce and every Coloradan has the opportunity for meaningful employment, resulting in individual and statewide economic prosperity.


The CWDC's **mission** is to enhance and sustain a skills-based talent development network that meets the needs of employers, workers, job seekers, and learners for today and tomorrow.

The CWDC's **values** are equity, agility, and integration. [Learn more.](#)

### Job Seeker or Student?

 [Find a Workforce Center](#)

 [Visit TalentFOUND](#)

 [Visit My Colorado Journey](#)