



**Junior  
Achievement™**  
Rocky Mountain

# **AI, Automation, and Essential Skills**

Are Your Students Prepared for the Future of Work?

# The Future of Work is Here.



# 39% of skillsets will be outdated in 5 years

due to the rapid introduction of AI and automation.

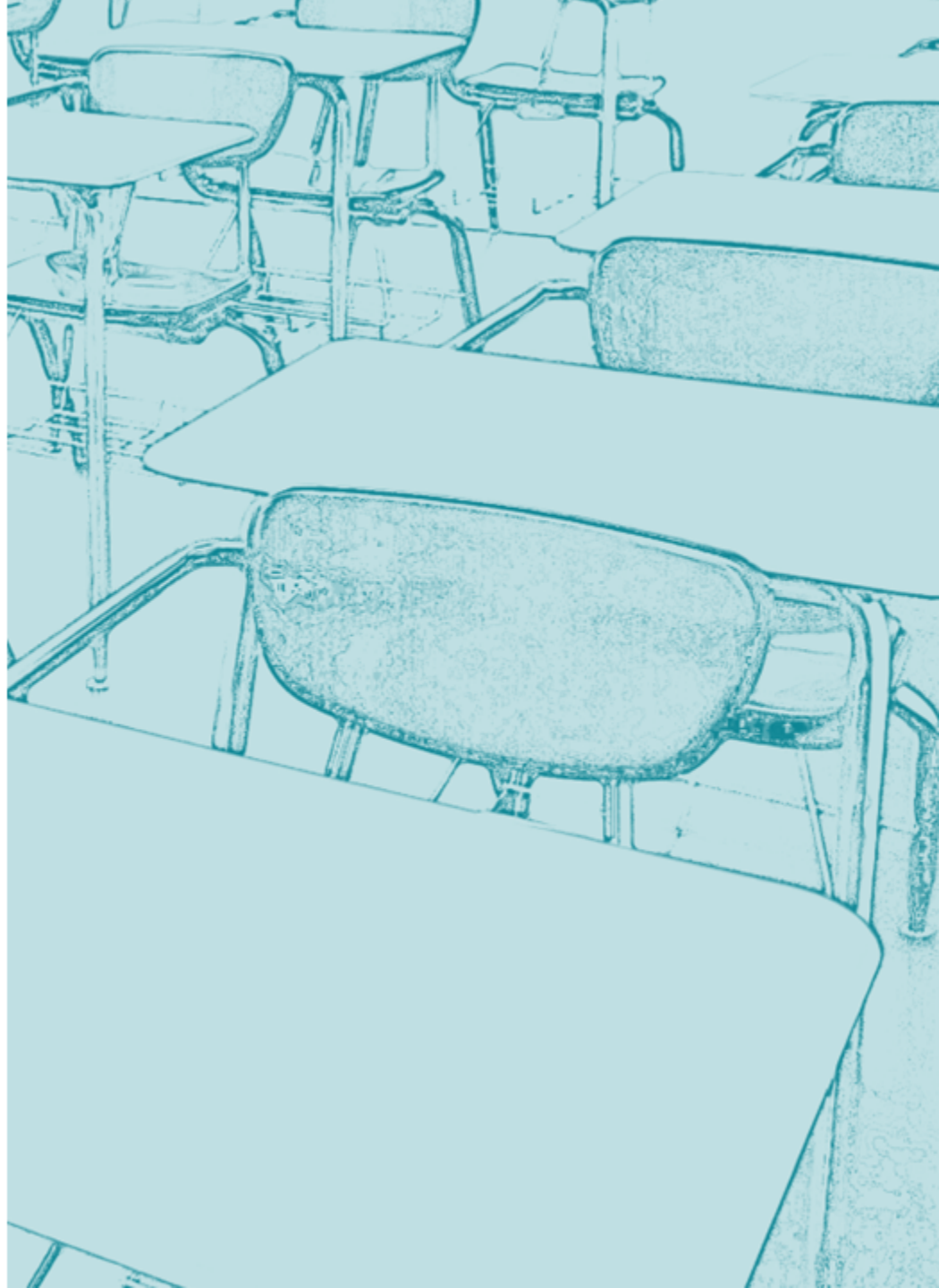
# 45% decline in economic mobility

over the past few decades, based  
on likelihood that children earn  
more than their parents.

FRAMING THE CHALLENGE

**“By 2031, 70% of jobs will require education or training beyond high school. Yet too many students are graduating without a clear path to those opportunities.”**

*— Georgetown University Center on Education and the Workforce, 2022*



Last week, MIT released a study that found that artificial intelligence can already replace 11.7% of the U.S. labor market, or as much as \$1.2 trillion in wages across finance, health care and professional services.

<https://www.cnbc.com/video/2025/11/26/ai-can-already-replace-11-point-7-percent-of-u-s-workforce-mit-study-finds.html>



# Your Role as a School Leader

- Gain insight into the future of work and education and empowering tomorrow's leaders
- Align strategic planning with future needs
- Adopt curriculum and learning experiences that ensure student success



# Workforce Research



# **Colorado Workforce Development Council's 2024 Colorado Talent Pipeline Report**

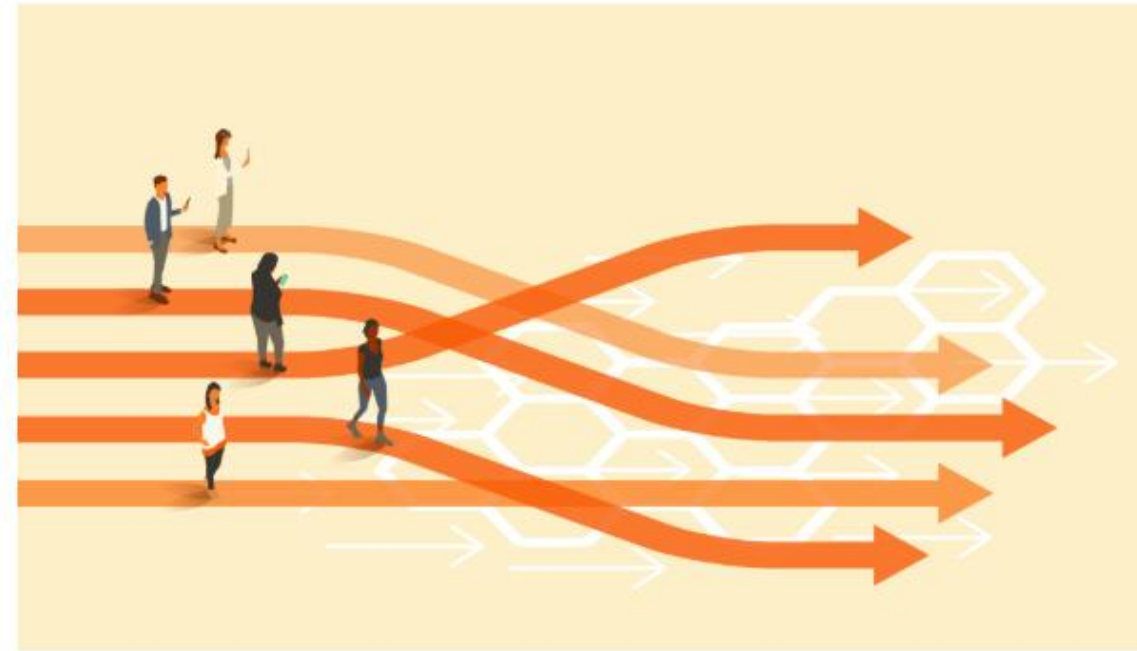
The annual Colorado Talent Pipeline Report identifies areas of growing demand and opportunity, key features of the current labor force, and strategies to balance the supply and demand equation for talent. It also highlights the Top Jobs in Colorado -- jobs with high annual openings, above average growth, and a good wage.

<https://cwdc.colorado.gov/resources/colorado-talent-pipeline-report>



# Increased Turnover: Part of the New Normal

- 78% of workers under 40 in U.S. have reconsidered career pathway choice since the pandemic
- Average U.S. worker will change jobs nearly 13 times in lifetime



# Occupational Employment Projections: Long-term

Occupation	2034 Projected Employment	Total % Change from 2024
Computer and Mathematical	176,953	27.47
Healthcare Support	133,624	26.23
Healthcare Practitioners and Technical	199,655	21.43
Construction and Extraction	189,240	20.57
Community and Social Service	74,592	20.22
Architecture and Engineering	88,246	19.08
Management	237,184	16.74
Legal	35,141	16.60
Transportation and Material Moving	262,386	16.54
Business and Financial Operations	341,307	16.42
Food Preparation and Serving Related	317,391	15.06
Educational Instruction and Library	183,989	14.57
Personal Care and Service	116,820	13.86
Installation, Maintenance, and Repair	133,820	13.54

# Industries to Look Out for in Colorado

Aerospace, Energy, Quantum



# Quantum Science



# Why is this important for Colorado Students?

- Gov. Polis has made advancing CO's Quantum industry a key priority of his administration.
- Quantum Information Science and Technology (QIST) is a rapidly growing field poised to create significant job opportunities.
- Colorado already boasts a strong concentration of quantum activity: significant industry presence, 4 quantum Nobel Laureates, and more quantum-focused organizations than anywhere else in the world.

[Colorado K-12 Blueprint for State Leaders](#)



# Top 10 In-demand Essential Skills by Colorado Employers

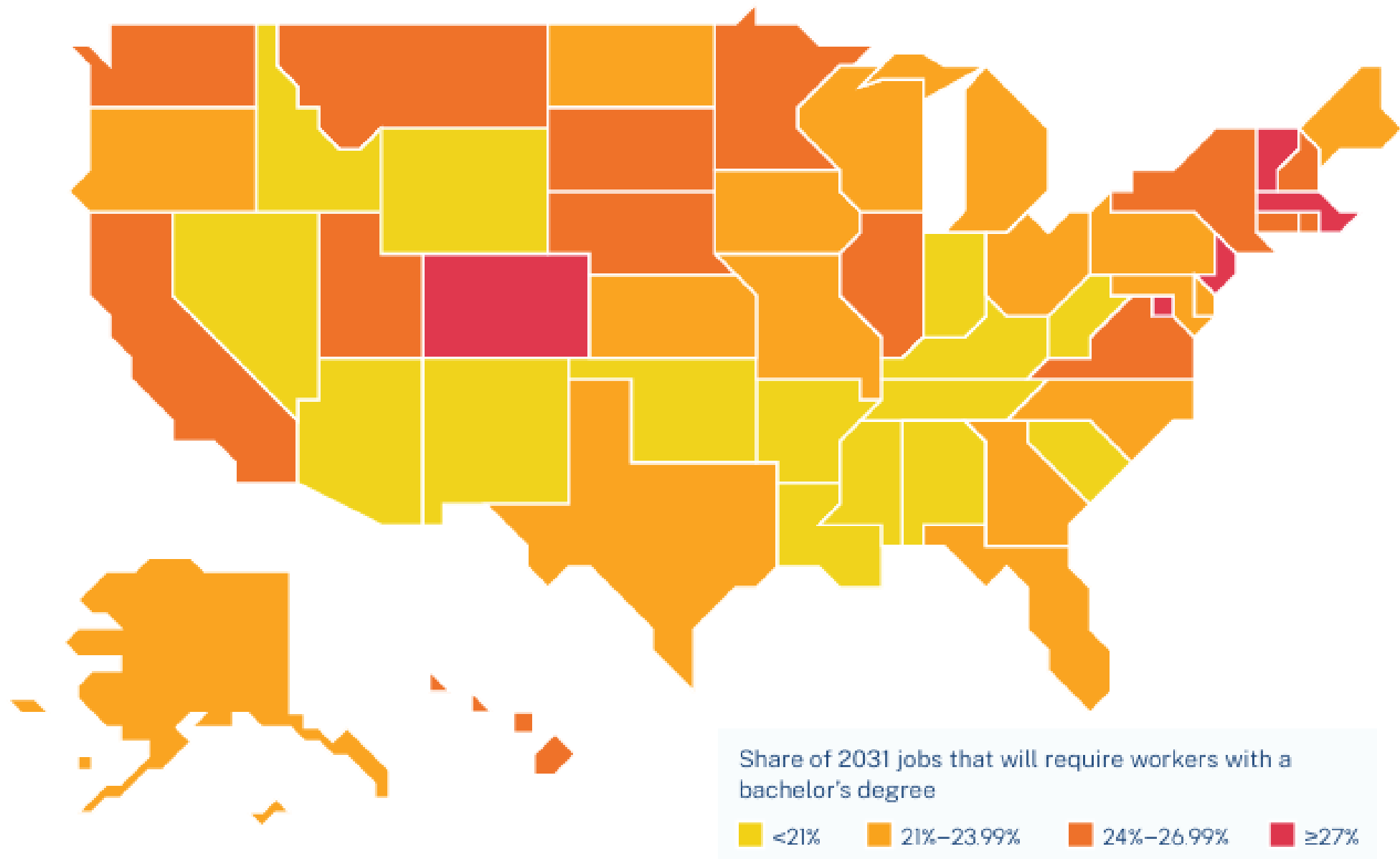
- Communication (verbal and written skills)
- Cooperative/team player
- Customer service
- Organization
- Detail oriented/meticulous
- Self-motivated/ability to work independently/self leadership
- Problem solving
- Adaptability/flexibility/tolerance of change and uncertainty
- Interpersonal relationships/maintain relationships
- Ability to work in a fast-paced environment



# The Importance of Post-secondary Education and Training in Colorado

- Colorado is one of 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.





Source: Georgetown University Center on Education and the Workforce forecast using data from the US Census Bureau and Bureau of Labor Statistics, Current Population Survey (CPS); US Census Bureau, American Community Survey (ACS); US Bureau of Labor Statistics; IHS Markit; and Lightcast.



# World Economic Forum 2025 Future of Jobs Report

The *Future of Jobs Report 2025* brings together the perspective of over 1,000 leading global employers—collectively representing more than 14 million workers across 22 industry clusters and 55 economies from around the world—to examine how these macrotrends impact jobs and skills, and the workforce transformation strategies employers plan to embark on in response.

<https://www.weforum.org/publications/the-future-of-jobs-report-2025/>













# Essential Skills for Tomorrow's Workplace











- <https://www.weforum.org/videos/what-are-the-most-essential-skills-in-the-workplace-of-tomorrow/>



# Core Skills in 2025

1.  Analytical thinking
2.  Resilience, flexibility and agility
3.  Leadership and social influence
4.  Creative thinking
5.  Motivation and self-awareness
6.  Technological literacy
7.  Empathy and active listening
8.  Curiosity and lifelong learning
9.  Talent management
10.  Service orientation and customer service

# Top Fastest Growing Skills by 2030

1.  AI and big data
2.  Networks and cybersecurity
3.  Technological literacy
4.  Creative thinking
5.  Resilience, flexibility and agility
6.  Curiosity and lifelong learning
7.  Leadership and social influence
8.  Talent management
9.  Analytical thinking
10.  Environmental stewardship

# Largest growing and declining jobs by 2030



## Top largest growing jobs

1	Farmworkers, labourers and other agricultural workers
2	Light truck or delivery services drivers
3	Software and applications developers
4	Building framers, finishers and related trades workers
5	Shop salespersons
6	Food processing and related trades workers
7	Car, van and motorcycle drivers
8	Nursing professionals
9	Food and beverage serving workers
10	General and operations managers
11	Social work and counselling professionals
12	Project managers
13	University and higher education teachers
14	Secondary education teachers
15	Personal care aides



## Top largest declining jobs

1	Cashiers and ticket clerks
2	Administrative assistants and executive secretaries
3	Building caretakers, cleaners and housekeepers
4	Material-recording and stock-keeping clerks
5	Printing and related trades workers
6	Accounting, bookkeeping and payroll clerks
7	Accountants and auditors
8	Transportation attendants and conductors
9	Security guards
10	Bank tellers and related clerks
11	Data entry clerks
12	Client information and customer service workers
13	Graphic designers
14	Business services and administration managers
15	Claims adjusters, examiners, and investigators



Proportion of tasks completed predominantly by technologies (machines, algorithms etc.), predominantly by people, or by a combination of the two

Now



By 2030



● Technology ● Combination ● People



Source: World Economic Forum.  
(2025). *Future of Jobs Report 2025*.



# 2026 National Association of Colleges and Employers Job Outlook Report

The NACE Job Outlook survey is a forecast of hiring intentions of employers as they relate to new college graduates. Each year, the National Association of Colleges and Employers (NACE) surveys its employer members about their hiring plans and other employment-related issues to project the market for new college graduates from the current class and to assess a variety of conditions that may influence that market.

<https://naceweb.org/research/reports/job-outlook/2026/>



## Almost 70% of respondents use skills-based hiring

Employer use of skills-based hiring has grown over the last year, with nearly 70% now saying they are using it.

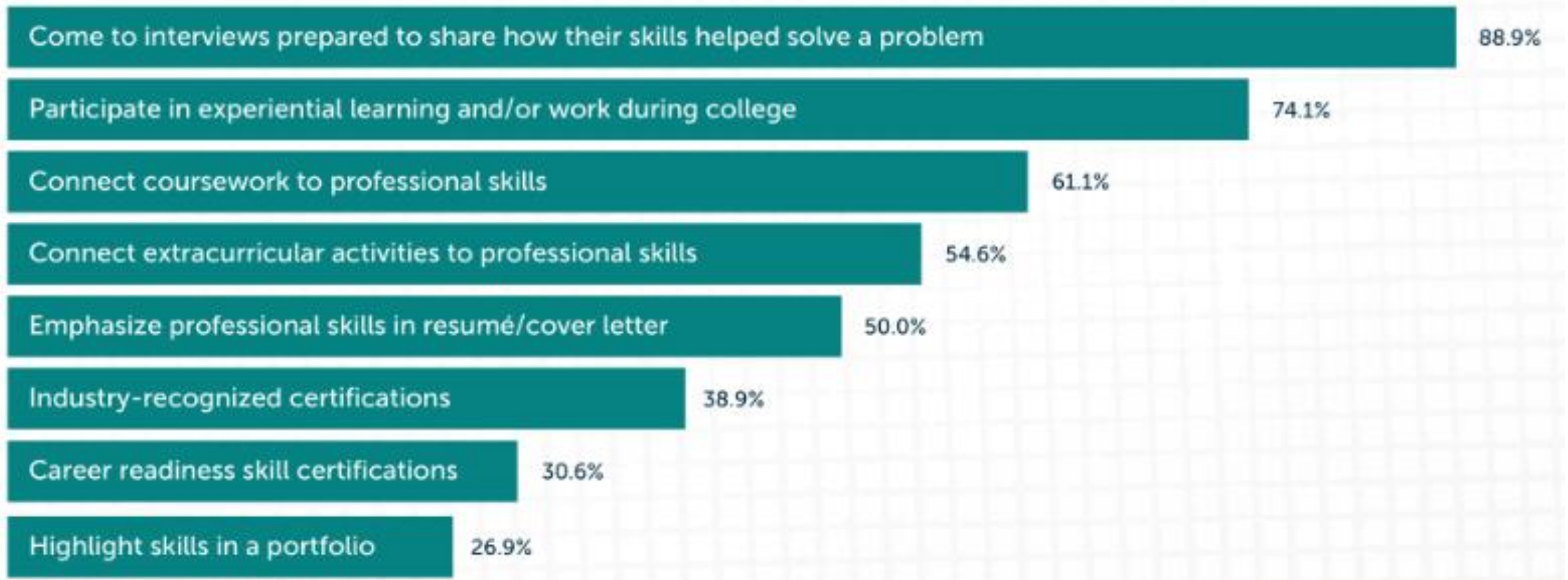


69.5% Yes

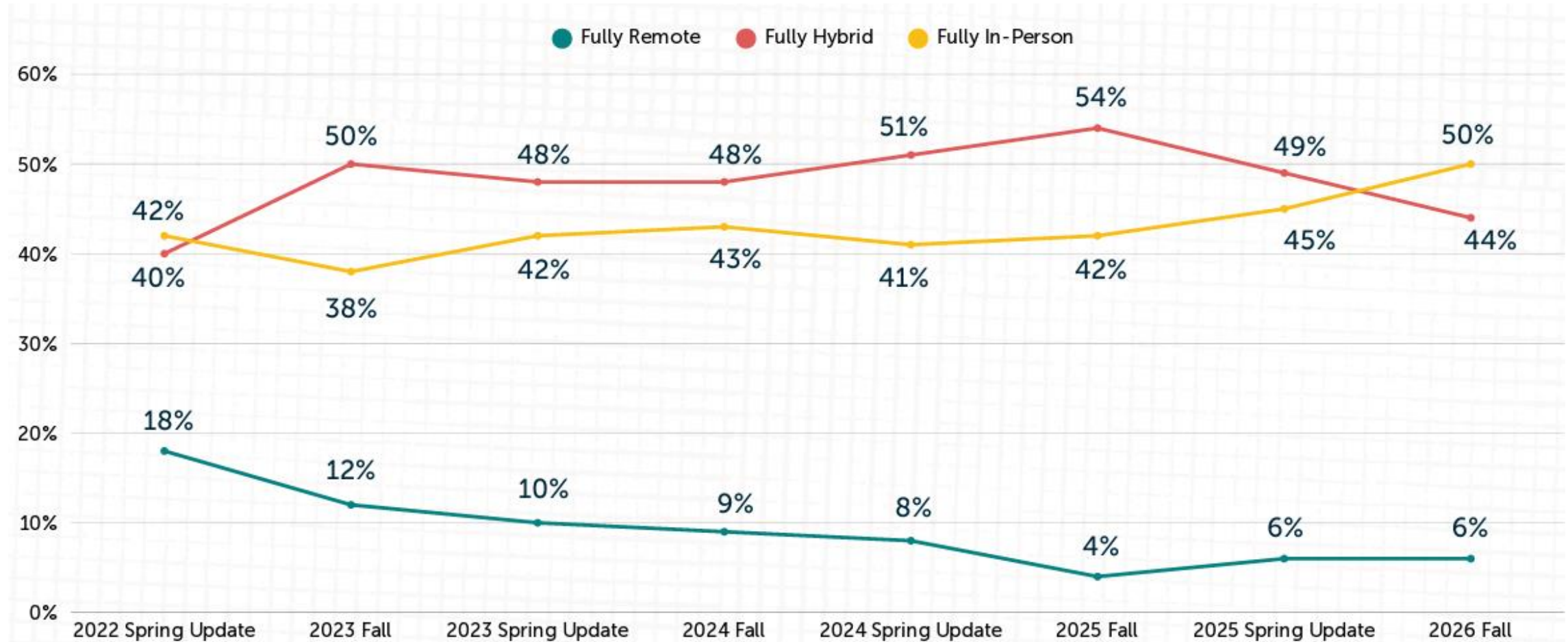
30.5% No



# How can students demonstrate their skills during a skills-based hiring process?



# Modality of Entry-Level Job Positions



**Jobs that now  
require you to  
have AI skills**

**13.3%**

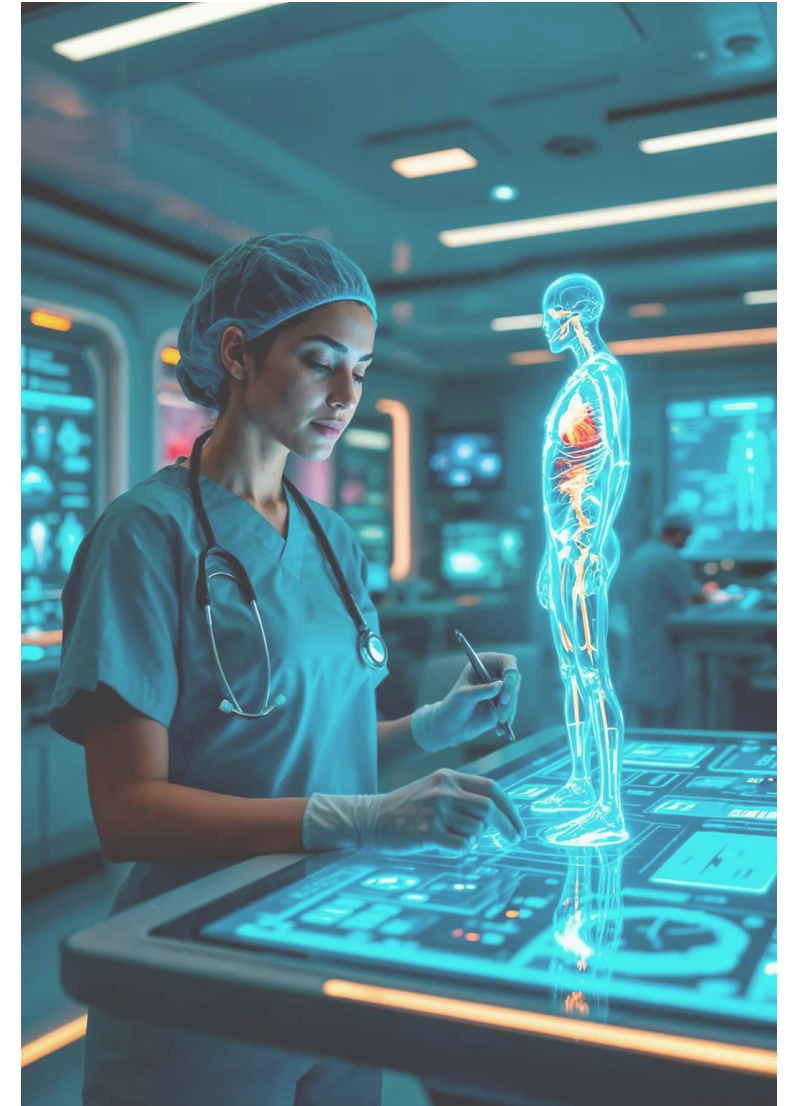
**Entry-level job  
posts that now  
require AI skills**

**10.5%**

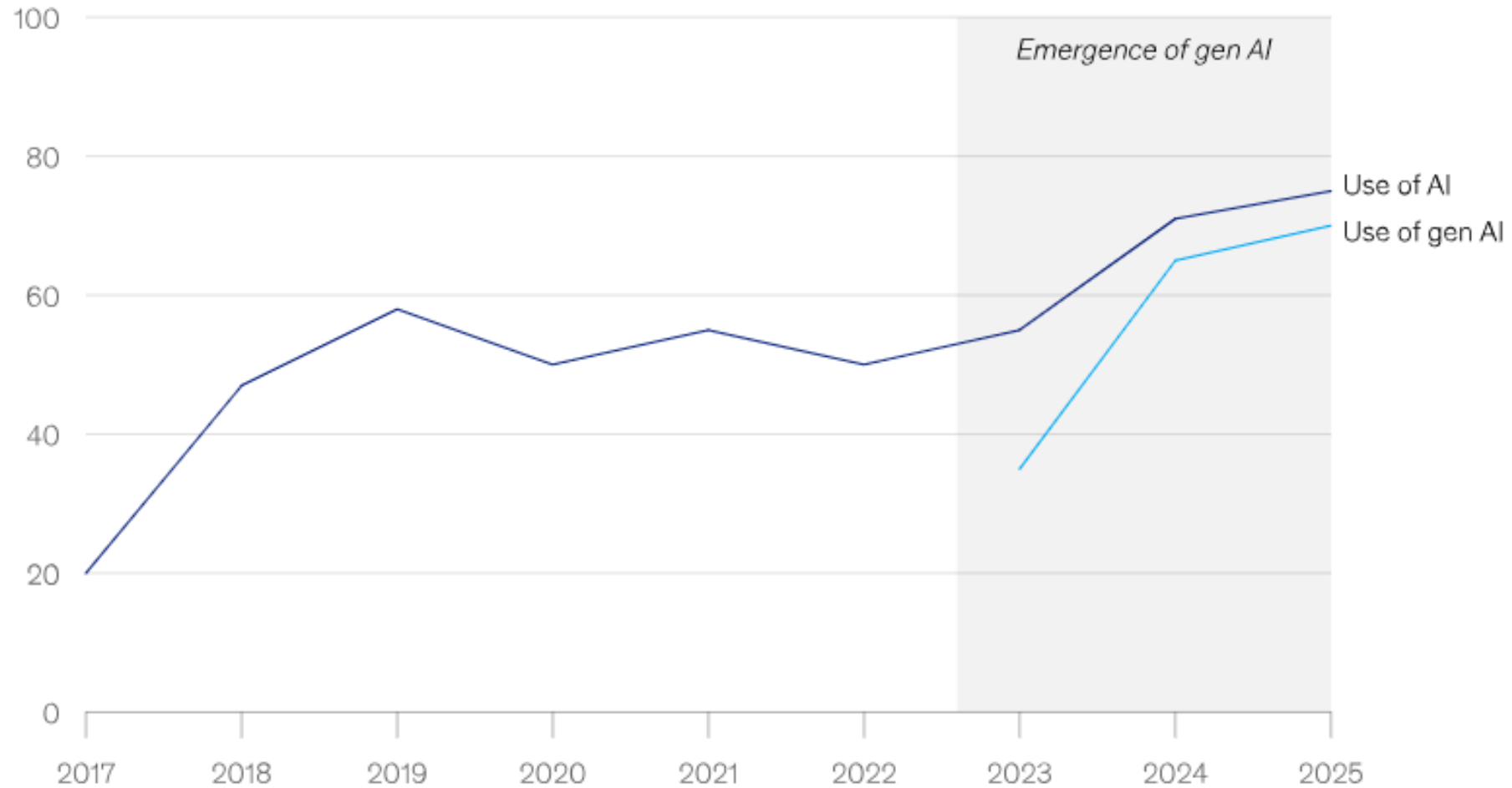


# Subfields of AI

- Generative AI: creates content, requires a prompt for action
- Agentic AI: can independently plan, decide, and execute actions to achieve goals with minimal human oversight.
- They can intersect and complement each other by generating ideas and then implementing them autonomously.



## Organizations that use AI in at least 1 business function,<sup>1</sup> % of respondents



<sup>1</sup>In 2017, the definition for AI use was using AI in a core part of the organization's business or at scale. In 2018–2019, the definition was embedding at least 1 AI capability in business processes or products. Since 2020, the definition has been that the organization has adopted AI in at least 1 function.

Source: McKinsey Global Surveys on AI

# JA's Research

While AI offers unprecedented opportunities, it also brings new anxieties.

Over half of teens say that the rise of AI has made them feel less confident about their career futures.

Concerns about automation, job displacement, and the need for constantly evolving skill sets are top of mind.

Teens and the Future of Work



# How do we prepare students for an AI-driven workplace?

- **Integrate AI literacy into the curriculum**
  - Understanding of AI concepts
  - Data literacy, how to use recourses and evaluate AI outputs for bias
  - Hands-on experience interacting with AI tools
- **Develop uniquely human skills that AI cannot easily replicate**
  - Critical thinking and problem-solving
  - Creativity and collaboration
  - Ethical reasoning and empathy
  - Adaptability and lifelong learning
- **Empower teachers and foster industry partnerships**



# Careers in the Age of AI

## Highly Technical

### Machine Learning Engineer

Computer Science, Calculus, Statistics

### Data Scientist

Computer Science, Statistics, Mathematics

## Interdisciplinary

### AI Ethicist

Social Studies, Civics, English

### AI Product Manager

Economics, Business, Speech/Debate

## Creatively Focused

### Prompt Engineer

English, Creative Writing, Logic/Philosophy

### AI Content Strategist

Journalism, Marketing, English



Myth: The most valuable skills for students in an AI-driven world are technical, like coding and programming.

Reality: The most valuable skills are uniquely human abilities that AI cannot replicate.



# Essential Skills for the AI Era

- **Discernment:** the ability to assess AI outputs for accuracy and value
- **Curation:** refining and applying AI-generated ideas
- **Analytical literacy:** using simulations and data wisely
- **Critical thinking:** ability to connect technology to business value

<https://coloradosucceeds.org/resource/how-ai-is-changing-the-workforce-and-the-role-of-pathways/>



# Insights

MIT Professor's advice  
on an essential skill  
new workers can  
cultivate to thrive in an  
AI world.



<https://connect.ja.org/ai-literacy/ai-prompt-power/perfecting-prompts>



# Career Connected Learning

- **Colorado Talent Pipeline Report Recommendation:** Increase the availability of career-connected learning opportunities.
- Career Connected Learning combines the rigor of academic instruction with real-world experiences and application.
- Research shows that when learning is relevant and applicable, students demonstrate stronger levels of engagement, improved academic performance, higher graduation rates, increased post-secondary enrollment, and advanced college and career readiness.



# Colorado's Big Three for HS PWR

By 2029, 100% of high school graduates will have achieved at least one of the following:

College  
Credits as part  
of a PWR  
Pathway

Quality Work  
Based Learning  
Experience

An in-demand  
Industry-  
Recognized  
Credential

[Senate Bill 25-315](#)

[Sept. 2025 State Board of Ed Presentation](#)



# Work Based Learning

- 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.
- WBL programs are instrumental in quality career pathways that enable students and job seekers to secure industry-relevant skills, certifications, and credentials and advance to higher levels of education and employment.

# COLORADO'S WORK-BASED LEARNING CONTINUUM

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.

## LEARNING ABOUT WORK

Career awareness and exploration helps individuals build awareness of the variety of careers available and provides experiences that help inform career decisions.

- Career Counseling
- Career Planning
- Career Fairs
- Career Presentations
- Industry Speakers
- Informational Interviews
- Mentoring
- Worksite Tours
- Project-based Learning

## LEARNING THROUGH WORK

Career preparation supports career readiness and includes extended direct interaction with professionals from industry and the community.

- Clinical Experiences
- Credit-for-work Experiences
- Internships
- Pre-apprenticeship
- Industry-sponsored Project
- Supervised Entrepreneurship Experience

## LEARNING AT WORK

Career training occurs at a work site and prepares individuals for employment.

- Apprenticeship
- On-the-job Training
- Employee Development

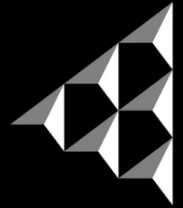
Education Coordinated



Business Led

## OUTCOMES:

Skilled Talent for Business + Meaningful Careers for Students & Job Seekers



Junior  
Achievement™

EDUCATION FOR  
*WHAT'S NEXT™*



**JA is uniquely positioned to deliver end-to-end solutions that accelerate economic opportunity and mobility**



**AUTHENTIC & ENGAGING  
REAL-WORLD CONNECTIVITY.**



**TRACK RECORD OF EXPERTISE  
IN EXPERIENTIAL LEARNING.**



**TRUST & CREDIBILITY WITH  
SCHOOL DISTRICT PARTNERS.**



**UNDERSTANDING OF SKILLS  
NEEDED FOR FUTURE OF WORK.**



Junior  
Achievement™

# No-Cost Solution Provider

- Junior Achievement helps districts implement key Postsecondary and Workforce Readiness priorities including ICAP, the Big Three, and Personal Financial Literacy with high fidelity and high impact.
- Provides ready-to-use programs, teacher training, and on-the-ground support that make state and district goals achievable in every classroom.
- Powered by a statewide network of employers, volunteers, and community partners who bridge classrooms to careers, provide students with real-world experiences, mentorship, and exposure to future opportunities, grounding every program in the needs of Colorado's economy and communities.



# K-5 Programs

- Meets grade-level CDE standards for financial literacy and economics
- STEM problem-solving process is the focus of one session per grade level
- Critical thinking and creativity infuse other activities
- 5 lessons easily infused into existing curriculum

**Biomechanical Engineer**  
Design and develop hearing devices  
Education Level: 4

**Knowledge and Skills**

- Technology
- Health science
- Working with machines
- Teamwork
- Design

**Company**  
HearWell

**Location**  
Seattle, WA

**Income**  
\$ \$ \$ \$ \$

**Career Cluster**  
Science, Technology, Engineering, and Mathematics (STEM)

JA Our City® | Session 3

**Problem Solving with STEM**

JA Our Nation® | Session 2

**S** **T** **E** **M**

**SCIENCE**

1. Observe. Ask a question.
2. Research. Make an educated guess.
3. Experiment.
4. Analyze the results.
5. Reach a conclusion.

**TECHNOLOGY**

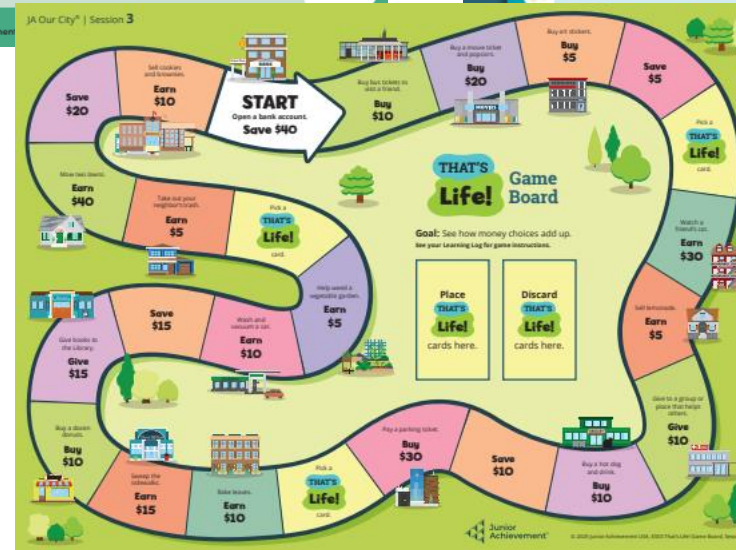
1. Identify the problem. Gather and analyze digital data.
2. Brainstorm possible solutions using digital technology.
3. Evaluate solutions with rubrics, scoring, or checklists.
4. Implement solutions and manage the project.

**ENGINEERING**

1. Define the problem.
2. Conduct research.
3. Brainstorm ideas.
4. Draw or build a simple prototype.
5. Choose an idea and finalize.
6. Test, analyze data, and make improvements.

**MATHEMATICS**

1. Identify the problem.
2. Find and analyze patterns.
3. Apply math knowledge and skills to solve.
4. Check if the solution works.



# Middle School

## JA DREAM ACCELERATOR



## JA BUSINESS QUEST

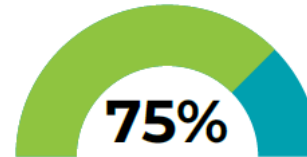
Presented by Amazon



An interactive virtual simulation where middle school students are tasked with starting a new business and making decisions based on community events, market structures, and the global economy.



Equips students with foundational business concepts and empowers them to navigate the complexities of the modern economy and become informed decision-makers in an increasingly interconnected world.



of participating students agree they understand how global events can impact a business

“My students responded to JA Business Quest very well. The engagement level was as high as it has been all year.”  
-- Seth Carroll, Oberon Middle School

# HS: Future Ready Leaders

- Quality WBL that is scalable, meaningful, and enjoyable
- Skill-development sessions facilitated by industry leaders and educators: Leadership skills, workplace communication, critical thinking & problem solving, and cultural agility
- Students demonstrate their learning through a hands-on experience organized by JA
- Concludes with an industry-led structured reflection activity



# HS: Essential Skills for Work

- Students participate in a mock internship for a fictional company.
- They work in teams to complete a series of department-related challenges and a project.
- Upon completion of the program, students take a series of assessments to measure knowledge, skills and abilities.
- Students can earn microcredentials and the Essential Work Skills credential.



# Meeting PFL Graduation Requirements

- In May 2025, the governor signed HB 25-1192. This law states that high schools “shall incorporate all the financial literacy standards into a course that is required for high school graduation” (C.R.S. 22-32135(4)(a)).
- All the high school financial literacy standards must be included in a course that is either already a graduation requirement or that is made a graduation requirement going forward.
- **JA’s Finance Park curriculum and budgeting simulation meets all PFL standards and can be easily implemented within an existing course. JA provides all materials and educator support.**

**JUNIOR ACHIEVEMENT IS  
BRINGING EXPERIENTIAL  
PROGRAMS TO MORE  
STUDENTS!**

# JA MOBILE EXPERIENCES

Junior Achievement-Rocky Mountain is excited to expand its reach by introducing two mobile experiential learning units.

## **JA Dream Accelerator**

The Daniels Fund JA Dream Accelerator is an interactive and responsive career exploration experience that inspires high school students to develop a plan to pursue a meaningful career and future.

## **JA Finance Park**

Robert & Judi Newman JA Finance Park, presented by Transamerica, helps students build a foundation for making intelligent and lifelong personal financial decisions through a hands-on, simulation experience.



# Thank you!

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