





CORD

CENTER FOR OCCUPATIONAL RESEARCH AND DEVELOPMENT

NCPN

NATIONAL CAREER PATHWAYS NETWORK





We Help You:

- Facilitate Industry-Education Collaboration
- Connect the Classroom to the Workplace through Contextualized Teaching and Learning Models
- Design Seamless Career Pathways for Adult Learners

Workshop Agenda and Format



Components

- o Check-up
- Content
- Activities
- Examples, Tools & Resources
- Action Plan
- Table discussion

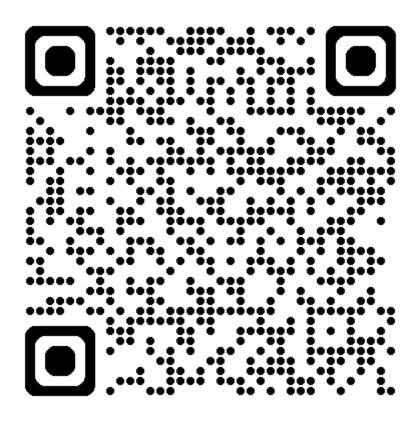
Local Action Plan

Goal, Objective, Priority: What do we want to achieve?	Action Steps: How will we achieve it?	Lead: Who is responsible?	Intended Results: Measurable outcomes?	Timeline: By when?	Notes:			
Partnerships	Partnerships							
Gaps and Opportunities	Gaps and Opportunities							
Employer Engagement								
Gaps and Opportunities								
Stackable Credentials/Car	eer Pathways Program D	esign						
Gaps and Opportunities								
Supporting Completion								
Gaps and Opportunities								



Workshop Resource Toolbox





https://www.cord.org/denver-cpl1-june17-2024/

It's a lot easier to start things than to stop them. Starting feels like growth and adventure, and things feel alive. Stopping can feel like loss and failure, but it shouldn't be.

David C. Baker punctuation.com

Current State - World of Work

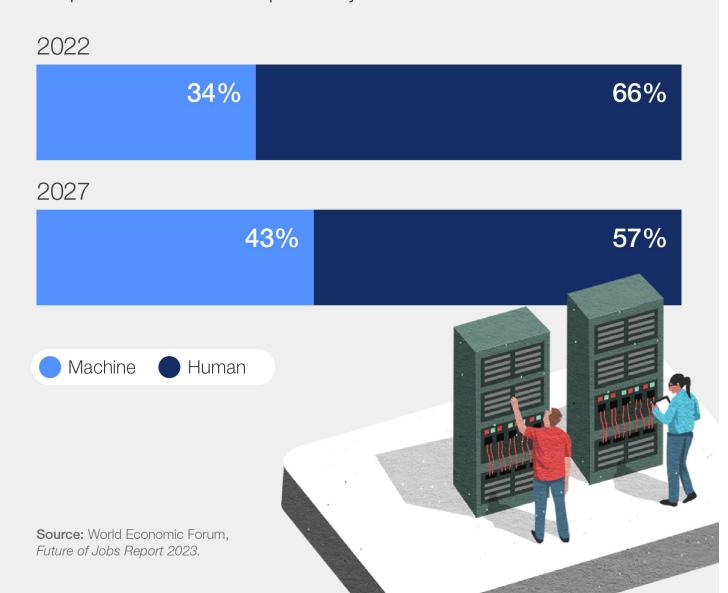
- Nature of work changing at unprecedented speeds
- Technology advancements in machine learning, AI, IoT, and robotics eliminating some jobs, creating others
- Technicians sit at the center of much of this disruption
- Education must keep up
- Our students' career paths will evolve



Human-machine frontier



Proportion of tasks completed by humans vs machines



Reskilling needs



4/4/9/0

of workers' core skills are expected to change in the next five years

Source: World Economic Forum, *Future of Jobs Report 2023.*

Top 10 skills of 2023



1. Analytical thinking	6. Technological literacy
2. Creative thinking	7. Dependability and attention to detail
3. Resilience, flexibility and agility	8. Empathy and active listening
4. Motivation and self-awareness	9. Leadership and social influence
5. Curiosity and lifelong learning	10. Quality control

Type of skill

■ Cognitive skills
■ Self-efficacy
■ Management skills
■ Technology skills
■ Working with others

Source

World Economic Forum, Future of Jobs Report 2023.

Note

The skills judged to be of greatest importance to workers at the time of the survey

Largest growth vs. largest declining jobs



Top 10 largest growth jobs

Top 10 largest decline jobs

1.	Agricultural Equipment Operators	1.	Data Entry Clerks
2.	Heavy Truck and Bus Drivers	2.	Administrative and Executive Secretaries
3.	Vocational Education Teachers	3.	Accounting, Bookkeeping and Payroll Clerks
4.	Mechanics and Machinery Repairers	4.	Security Guards
5.	Business Development Professionals	5.	Building Caretakers and Housekeepers
6.	Building Frame and Related Trades Workers	6.	Cashiers and Ticket Clerks
7.	University and Higher Education Teachers	7.	Material-Recording and Stock-Keeping Clerks
8.	Big Data Specialists	8.	Assembly and Factory Workers
9.	Sheet and Structural Metal Workers, Moulders and Welders	9.	Postal Service Clerks
10.	Special Education Teachers	10.	Bank Tellers and Related Clerks

Source

World Economic Forum, Future of Jobs Report 2023.

Note

The jobs for which employment figures are expected to increase or decrease most quickly in real terms from 2023 to 2027 when survey responses are normalized to labour-market statistics from the ILO.

54% of U.S. adults 16-74 years old (about 130 million people) lack proficiency in literacy, reading below the equivalent of a 6th grade level.

The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn.

Alvin Toffler writer, futurist and businessman

Common Vision

 Programs that match the economic development needs of your community

• Graduates that possess the skills to ensure a high-quality workforce

A community of lifelong learners

Self Check #1

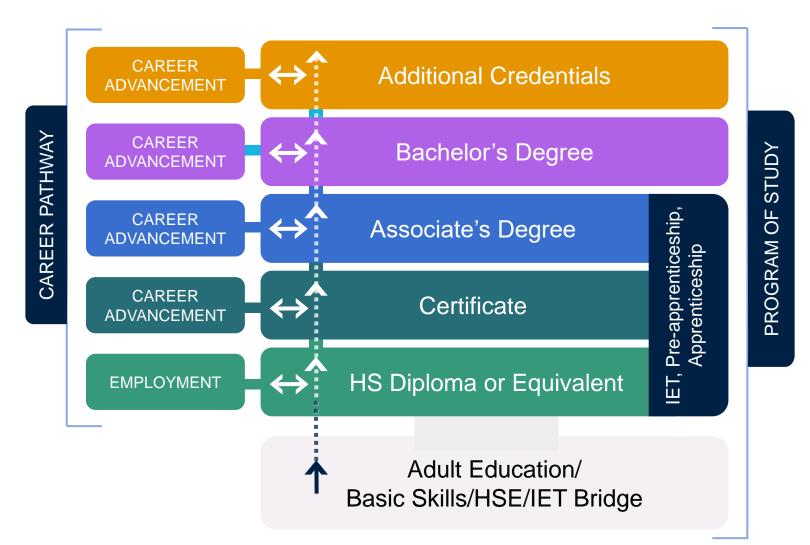
Partnerships that Support Career Pathways



What is a Career Pathway?

- An overarching ecosystem
- Must be for all learners in your community

Career Pathways



Partnerships to Support Career Pathways

- Employer across sectors; collaborate as a team on everything from curriculum to work-based learning experiences; build your community's talent pipeline
- **Organizational** secondary and postsecondary/regional community; align, accelerate, advance; remove barriers
- **Instructional** academic, CTE, and Adult Education faculty as content development partners: interdisciplinary connections, real-world context, employability skills across curriculum
- Holistic Supports government and community organizations provide an array of supports to aid students in completion.

FRAMEWORK FOR CAREER PATHWAYS ALIGNMENT

Framework Essential Components:

- 1. Strategic Employer Engagement through an industry-led model that yields workforce intelligence at a depth and with a frequency to facilitate continuous program improvement and innovation
- 2. Seamless Career Pathways supporting learners of all ages and skill levels, built on stackable credentials aligned to postsecondary and employment opportunities, and collaboratively developed by educators and employers
- 3. Support for Credential Completion that recognizes "all learners as learners" by providing credit for prior learning, course schedules, delivery modes and wrap-around services that support working adults, and efficient program design that accelerates credential attainment





Ecosystem - Where are You?

- No matter where you are, you have a role to play in career pathways.
- You can lead and work towards implementation by bringing the framework to your community.



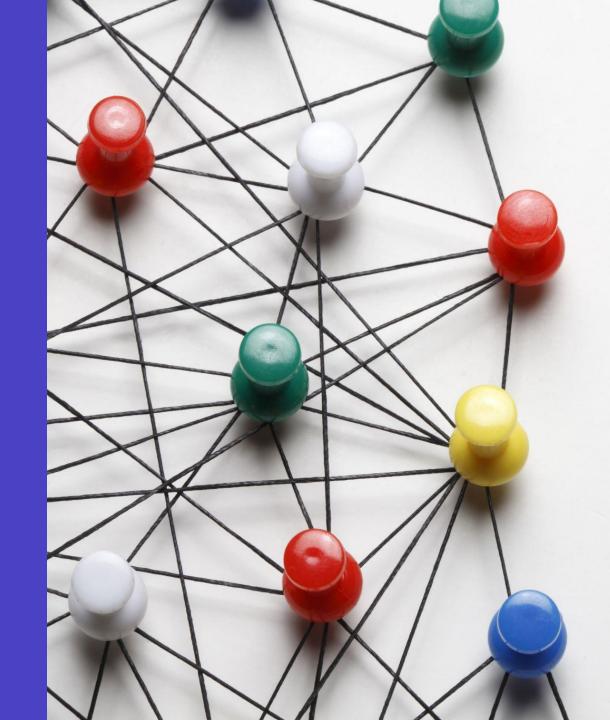
Across the Ecosystem

- We can't know it all.
- We can't do it all.
- We need partners across the community to collaborate in new ways...

to prepare us all for the journey ahead.

POSTER ACTIVITY

Connections & Contacts



Connections and Contacts

Brainstorm and document possible stakeholders connected to your pathway. Include whether they are from Industry (I), Education (E) or the Community (L) and if this is a new contact.

Name	Organization	Industry (I) Education (E) Other (O)	Role in pathway	New Contact (Y/N)



Partnerships Will be Key

- Leverage each other's resources and knowledge
- Connect disconnected systems
- Strengthen/build partnerships to support *your* community

If you are not at the table, you are probably on the menu.

Congressman Glenn Thompson R-PA

If they don't give you a seat at the table, bring a folding chair.

Shirley Chisholm

Politician, educator, first Black woman elected to the US Congress



Build Cross-Agency Partnerships and Clarify Roles

Key Element Components:

- Engage inter-agency and cross-agency partners and employers.
- Establish a shared vision, mission, and set of goals.
- Define the roles and responsibilities of all partners.
- Develop a work plan and/or Memorandum of Understanding for the partnership.
- Maintain partnerships through frequent, scheduled interactions

Action Planning



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Supporting Completion							
Gaps and Opportunities							

Advancing Credentials
THROUGH Career Pathways

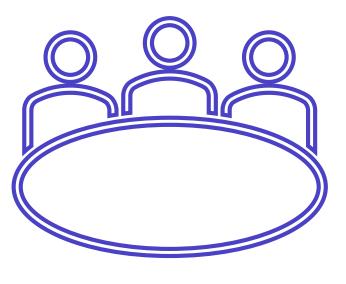


✓ Use Action Plan Template at your table

or

✓ Download Action Plan Template from Workshop Toolbox

Share and Discuss



FRAMEWORK FOR CAREER PATHWAYS ALIGNMENT

Strategic Employer Engagement

through an industry-led model that yields workforce intelligence at a depth and with a frequency to facilitate continuous program improvement and innovation





Self Check #2

Employer Engagement

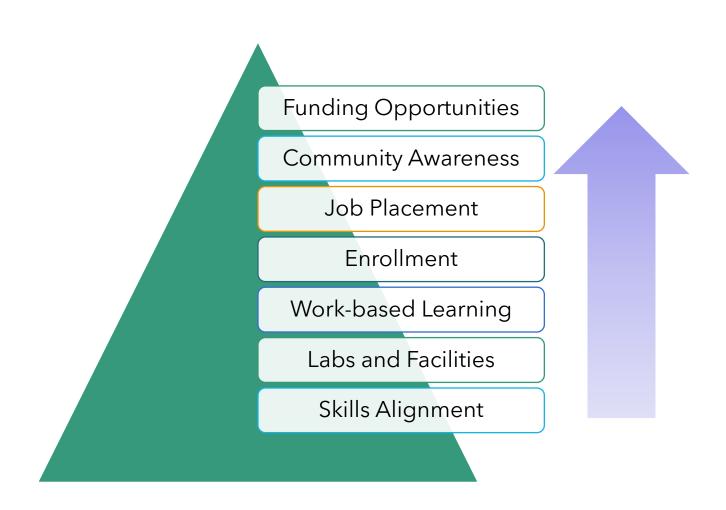


What is Employer Engagement?

- A **strategy** to identify and integrate employer input and feedback into your institution's programs and activities.
- A working **relationship** where employers and institutions view each other as strategic partners.
- A methodology to:
 - keep your programs fresh and relevant
 - place your career-ready graduates into jobs
 - increase your enrollment
 - garner financial and other support
 - join voices for program advocacy



Benefits of Strategic Employer Engagement



POSTER ACTIVITY

Employer Engagement Goals



Poster Activity

- Names of employers with whom you currently have established working relationships and names of employers with whom you **need** to have working relationships.
- How can you help them?
- How can they help you?

Comprehensive Resource:



Home

Using This Toolkit

Knowing Your Audience

Developing Your Program

Mining for Deeper Engagement

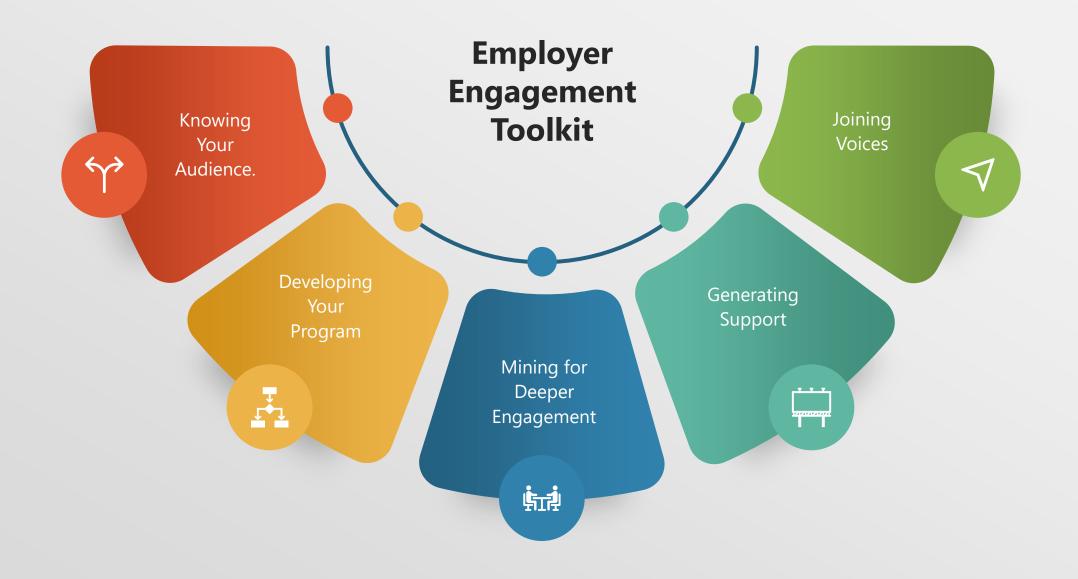
Generating Support

Joining Voices

Contact Us

Introduction

In a time when information is critical to success and budgets are tied to outcomes, the need for strategic employer engagement with colleges has never been greater. No longer can programs thrive with limited input from local employers. All community and technical colleges must stay informed of—and respond to—industry-specific trends that impact skill sets, national standards, and credentials.



The Process Starts Internally

Identify Your Goals Identify the Industry Sector **Identify Internal Connections** Create an Outreach Plan Continuing Outreach Find the Fit for Each Employer

Who is that the Table?

- Who hires the graduates/completers?
- Who provides intel on evolving needs of businesses in the region?
- Who assists in building industry-informed programs?
- Do you know who provides outreach to employers?
- Do you know how information from employer outreach is gathered and shared?



Deepening Engagement

- Tiered approach to employer engagement
- Strategies to increase breadth of engagement
- Testimonials
- Recognition



Employer Engagement Worksheet

EMPLOYER	EMPLOYER CONTACT	Advisory Committee	Career Fair Participant	Tours for Students	Hires Grads	Work- based Learning	Donates supplies / equip	Scholarship Donor	Non-Credit Incumbent Worker Training	Internships	Apprenti ce- ships	Other
Acme Tool & Die	John Smith		X		Χ			X				
Foremost Machining	William Jones	X			X						Χ	

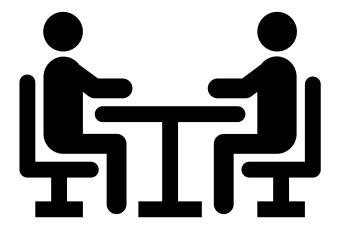
Generating Support

Engaged employers may:

- identify areas where new or updated equipment is called for
- connect you to their suppliers for discounts
- consider donating equipment to help in preparing your students, their future employees
- be open to sponsorship of competitions, clubs, and camps
- cover the cost of industry-recognized credentials/assessments to alleviate the financial burden on students
- provide faculty externship opportunities

Ways to Generate Support

- 1. Ask about employer 'pain points and brainstorm how those can be addressed.
- 2. Recognize employers who interact with your organization
- 3. Be ready to tell the story of increased company visibility gained through supporting programs with equipment, materials, scholarships, and sponsorship.



BUSINESS & **INDUSTRY** LEADERSHIP TEAM M TO TO TO BILT INN VATION



EBILTAnnual Cycle

Recruit BILT Members

Once established, add 1-2 new members annually.

Expand Engagement

BILT members host internships, mock interviews, apprenticeships; serve as guest speakers/lecturers.

Trends

Quarterly meetings focus on industry trends.



Orientation

Welcome new members and set expectations. Explain BILT model and benefits.



Annual Cycle



KSA Analysis Meeting

Prepare pro-forma KSAs and conduct KSA analysis for a single discipline.

Feedback Meeting

Faculty share results of cross-reference process.



Cross-Reference KSAs

Program faculty cross reference prioritized KSAs to existing curriculum.

Communicate the Why

- Approach potential partners with your value proposition
- Lead with the outcome and benefits for the community and the partner, not for you
- Golden Circle principle



Sample Elevator Pitch

The (name of program) helps to prepare graduates to be work-ready employees who are armed with relevant workplace skills. Our goal is to ensure our students are aware of companies like yours and the opportunities that can be provided for fulfilling careers.

With your engagement we can align our curriculum to the specific skills identified by local industry and provide real world opportunities to our learners. We value your willingness to be guest speakers, provide work-based learning options, coordinate tours of your company, provide scholarships, etc., and are asking for your help/support with XXXX (specific ask).

Action Planning



Local Action Plan

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		responsible?	outcomes?					
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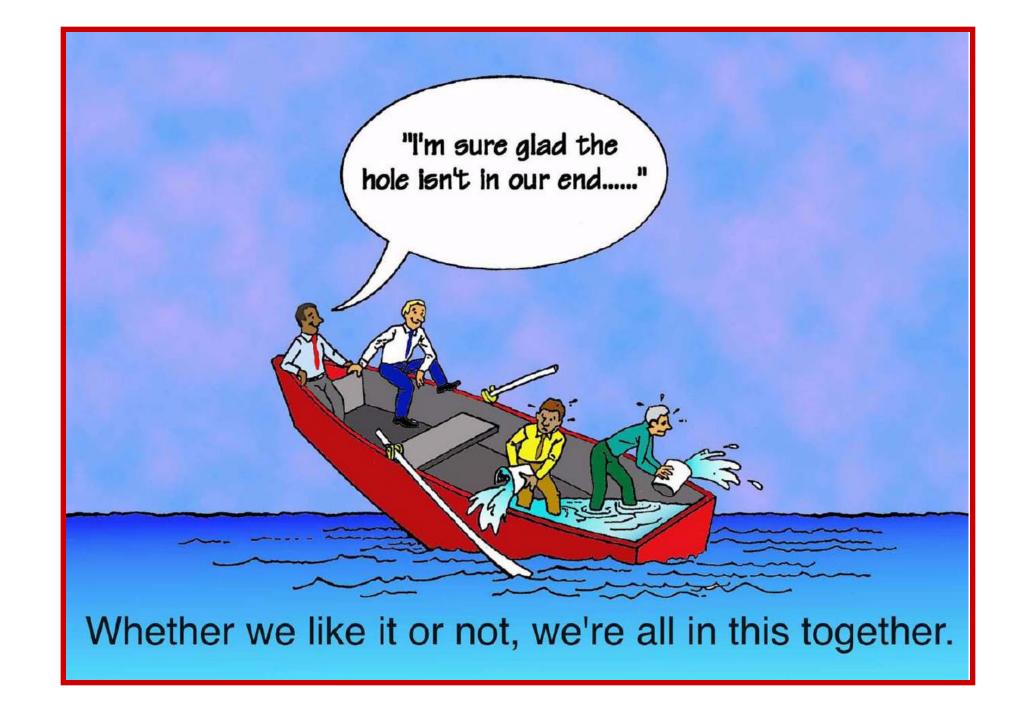
Advancing Credentials
THROUGH Career Pathways



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FRAMEWORK FOR CAREER PATHWAYS ALIGNMENT

Seamless Career Pathways

supporting learners of all ages and skill levels, built on stackable credentials aligned to in-demand skills and employment opportunities, and collaboratively developed by educators and employers





Self Check #3

Designing Career Pathways



Building Bridges Instead of Walls

Align	Prepare	Support	Educate/Train	Organize	Enable	Help
Align with the skills needed by industries in the state or regional economy;	Prepare individuals to succeed in a range of education options, including apprenticeships;	Include counseling to support an individual in achieving the individual's education and career goals;	Include, as appropriate, concurrent education and training opportunities for a specific occupation or occupational cluster;	Organize education, training, and support services to meet individual needs and accelerate educational and career advancement;	Enable individuals to attain a high school diploma or equivalent, and at least one recognized postsecondary credential;	Help individuals enter or advance within an occupation or occupational cluster.

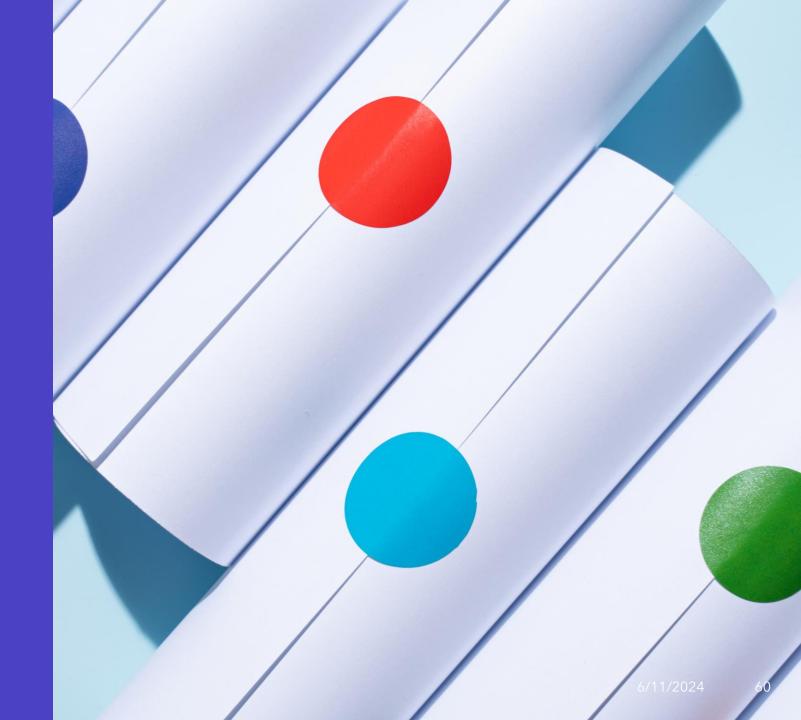
Career Pathway Definition (WIOA/Perkins)

Pathways to Credentials

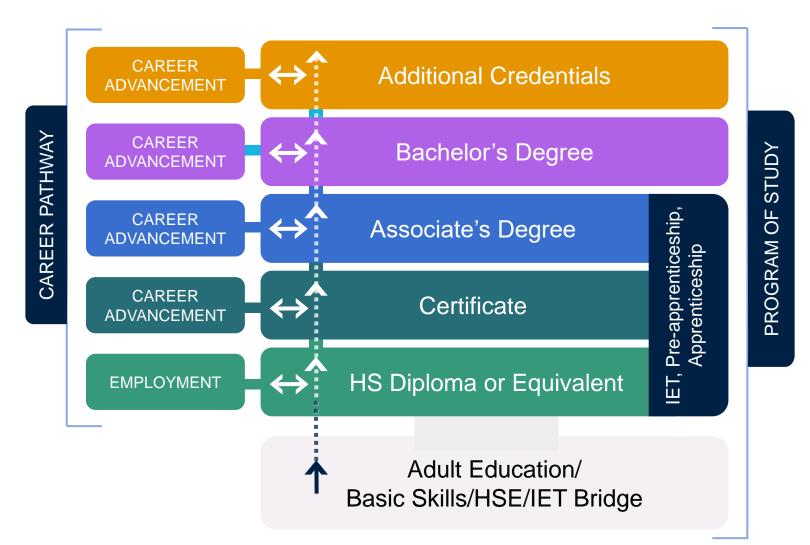
US ED OCTAE Initiative: Build capacity of colleges to improve CTE credential attainment rates by offering **stackable credentials**, a series of incremental milestones, on the path to degree completion. Stackable credentials are...

- Developed through active employer engagement
- Responsive to workforce needs of region
- Link educational certificates to industry certifications
- Support diverse groups of learners
- Provide multiple entry and exit points
- Support earn-and-learn models through flexible scheduling
- Provide credentials with labor market value on the path to a degree

Stackable Credentials



Career Pathways



Career Pathways Embedded with Stackable Credentials



Provide flexibility for **students**



Meet the evolving skill needs of **employers**



Improve the ability of educational institutions and communities to increase credential attainment



Give **educational institutions** tools for continuous upskilling

Mapping Career Opportunities & Economic Mobility



- You're creating a visual story depicting the pathway
- What career opportunities does it comprise?
- What postsecondary credentials can you earn?
- What industry certifications will the pathway prepare you for?

Why Pathway Maps?



- To help learners of all ages understand the opportunities available to them to learn, earn, and realize success in the career path of their choice
- To identify entry points and exit points aligned to credential attainment and advancing levels of employment
- To convey that a seamless pathway of stackable credits and credentials is not only possible, but critical to success in today's labor market

Who Benefits from Pathway Maps?

Students

- Provides information students need for guided learning pathways - on and off ramps
- Identifies program outcomes relative to potential employment opportunities and wages, as well as program duration and stackable credentials
- Depicts career growth alongside education path

Employers

- Identifies multiple entry points for existing employees to upskill
- Validation of skills by industry means graduates are prepared to meet employer needs

Faculty

- Program and career information in one place at-a-glance
- Employer-validated pathways relative to occupations and wages
- Clear depiction of completion options (certificates, diplomas and degrees) within a pathway

Employer Engagement

- ➤ Work with employer partners to:
 - Define job requirements
 - Map the structure of jobs to certificates and degrees
 - Identify related industry certifications
 - Identify career advancement levels within the pathway

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(i.e. Certificate A = Job Title X, Certificate B = Job Title Y, Degree = Job Title Z)
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- ➤ Gather wage data for each job title
- ➤ Repeat process annually





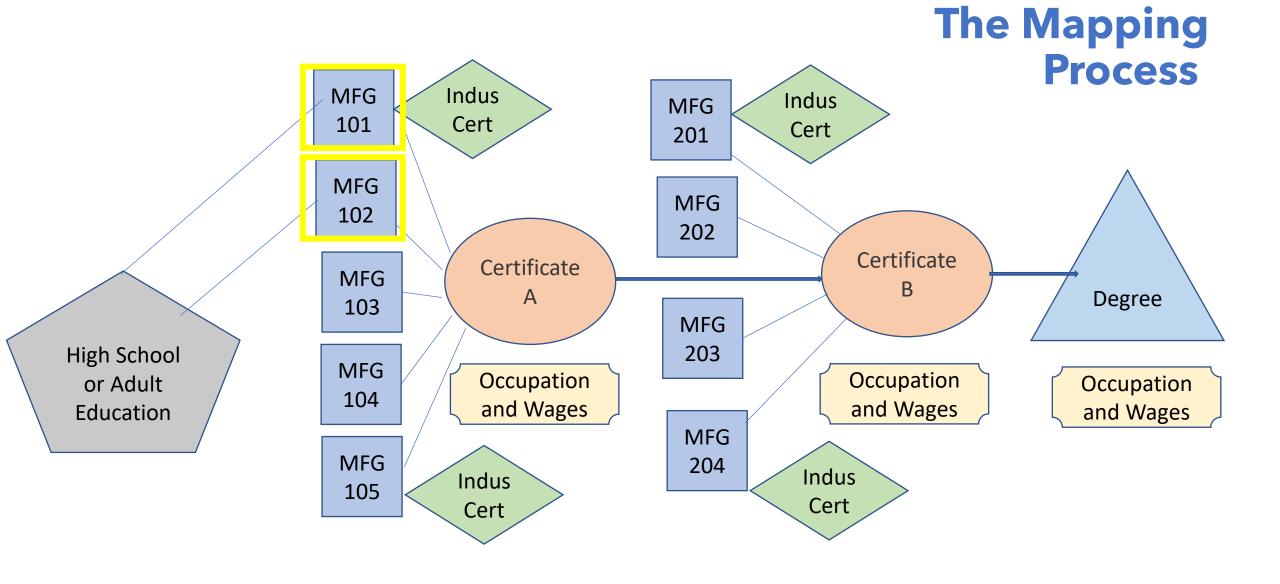


Welcome Back!

Share a key takeaway from Day 1.







Cybersecurity Pathway

Earn Credit for What You Already Know:

Through prior learning assessment (PLA), demonstrate mastery of core skills for college credit, or with industry certifications.

Basic Networking & Security Certificate

20 credits/aligns with Security+, Network+ certifications

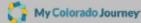
Core sidils: networking, information assurance, network security, cloud computing

See Program Details

Career Opportunities

Entry wages: \$18 perhour With experience: \$27 per hour Potential positions: Computer User Support Specialist Computer Network Support Specialist

Learn more at:



IT Tech & Support Certificate

22 credits/aligns with A+ certification

Core Sidlis: operating systems, project management, help desk skills, A+ technician skills

See Program Details

Career Opportunities

Entry wages: \$18 per hour With experience: \$27 per hour Potential positions: Computer User Support Specialist Help Desk Technician

Learn more at:



Cybersecurity A.A.S.

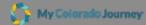
60 credits/aligns with Security+, Network+, Cloud+, Linux+ certifications Core Skills: networking, information assurance, network security, cloud computing

See Program Details

Career Opportunities

Entry wages: \$25 perhour With experience: \$35 per hour Potential positions: Computer Network/Systems Tech Support Engineer

Learn more at:



Computer Science/ Engineering with Cybersecurity concentration B.S.

128 credits

Core Skills: computer architecture, programming and system analysis, cryptography, security system design, risk and policy analysis, investigation techniques, troubleshooting

Career Opportunities

Entry wages: \$30 per hour With experience: \$50+ per hour Potential positions: Computer Network/Systems Architect Cybersecurity Engineer Business/Systems Analyst

Learn more at:



My Colorado Journey



What to Include

Academic Credentials
Within the Pathway
(certificate, diploma,
associate degree)
and # of Credits

Program Duration of Each Credential

Related Industry
Certifications

Employment
Opportunities at
Exit Points
Job Titles /
Wage Range

Credit for Prior Learning (all types)

Articulated 4-year Programs

Who Should Participate?

Employers

Advising and Counseling Staff

Registrar

Staff responsible for High School and University Articulation

Adult Educators

Program Faculty

Recruitment Office Workforce Development Staff

Marketing Department Staff



Inspiration from Sample Pathway Maps

1

Review pathway map examples from other programs/ institutions. 2

Determine best flow of info for your map's target audience(s) and identify visuals/ colors that enhance understanding of pathway components/ personal options. 3

Work with marketing /communication staff to design map graphics that can be used across disciplines.

4

Ask students, parents and employers to review for clarity.



Career Pathways

Health Service Management Associate in Science

Prior Credit

High School Career Pathways Certificate

> Administrative Office Specialist

> > Allied Health Assisting

Applied Cybersecurity

Applied Information Technology

Business Management & Analysis

Digital Design

International Business

Legal Administrative Specialist

Nursing Assistant

Web Development

Industry Certifications

Certified Medical Administrative Assistant (CMAA)

Certified Nursing Assistant (CNA)

Prior Credit

Technical College Certificate

Accounting Operations

Administrative Office Specialist

Medical Assisting

Practical Nursing

Industry Certifications

Certified Medical Administrative Assistant (CMAA)

Registered Medical Assistant (RMA)

College Credit Certificate

Medical Information Coder/Biller (37 credit hours)

Industry Certifications

CCA; CCS; CCS-P; CPC

Career

Average Cost of Program

\$4,100.00

Typical Starting Positions

Medical
Records/Health
Information Technicians,
Insurance/Billing
Specialist,
Coding Specialist,
Coder/Biller,
Insurance Specialist

Average Starting Salary

\$15.67 hourly

College Credit Certificate

Medical Office Management (34 credit hours)

Career

Average Cost of Program

\$3,750.00

Typical Starting Positions

Medical Secretary, Medical Receptionist, Insurance Clerk, Billing Clerk

> Average Starting Salary

\$15.67 hourly

Associate Degree

Health Services Management (60 credit hours)

Industry Certifications

CAHIMS: CMM

Career

Average Cost of Program

\$6,600.00

Typical Starting Positions

Medical Office Manager, Health Services Department Supervisor, Billing Supervisor, Revenue Cycle Analyst

> Average Starting Salary

\$18.00 hourly

Bachelor Degree

Strategic Leadership (120 credit hours)

Career

Average Cost of Program

\$7,200.00

Typical Starting Positions

Medical Practice
Manager,
Health Services
Department Manager,
Revenue Cycle
Supervisor/Manager,
Human Resouce
Specialist,
Entrepreneur

Average Starting Salary

\$25.66 hourly



Career Pathways

Health Service Management Associate in Science

Prior Credit Technical College Certificate

> Accounting Operations

Administrative Office Specialist

Medical Assisting

Practical Nursing

Industry Certifications

Certified Medical Administrative Assistant (CMAA)

Registered Medical Assistant (RMA) College Credit Certificate

Medical Information Coder/Biller (37 credit hours)

Industry Certifications

CCA; CCS; CCS-P; CPC

Career

Average Cost of Program

\$4,100.00

Typical Starting Positions

Medical Records/Health Information Technicians, Insurance/Billing Specialist, Coding Specialist, Coder/Biller, Insurance Specialist

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Career Pathways

Health Service Management Associate in Science

Prior Credit

Experience/ Certificate

Prior Experience

Transfer College Credit

Competency Based Credit

Military Experiences

Industry Certifications

AHIMA - any AAPC - any CMM CMOM CAHIMS CMA/RMA

College Credit Certificate

Medical Information Coder/Biller (37 credit hours)

Industry Certifications

CCA; CCS; CCS-P; CPC

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33cr Coder/Biller 34cr Office Mgmt

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Average Starting Salary

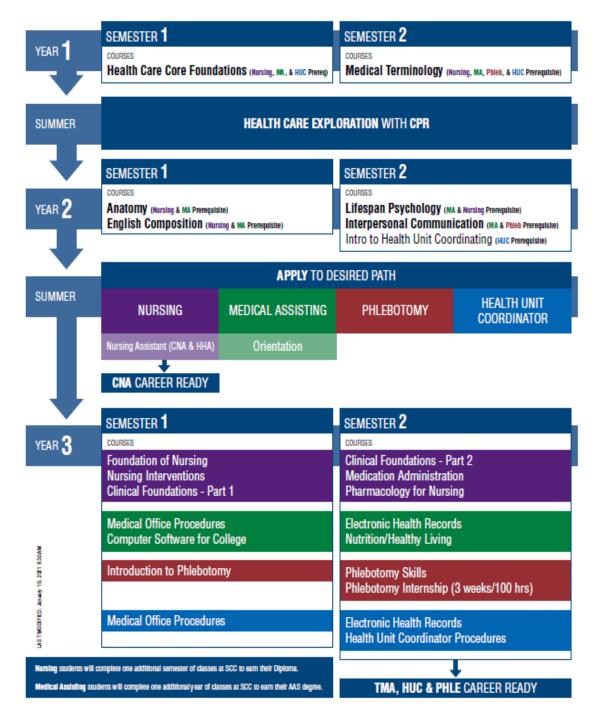
\$25.66 hourly

Academic Awards

- Phlebotomy Certificate
- Health Unit Coordinator (HUC)
 Certificate
- Practical Nursing (LPN) Diploma
- Medical Assisting (MA) AAS Degree

Industry Credentials

- CPR
- Nursing Assistant (CNA or HHA)
- Trained Medication Aid (TMA)











Program Benefits



Time & Cost Savings

Students may earn up to 36 college credits while in high school, which saves time & tuition. Can earn a degree in 1-2 semesters post-high school

Early Entry into Workforce

Students who complete Health Unit Coordinator, Phlebotomy, or CNA (with or without TMA) may enter the workforce

Year 1 Data

- 56 total students enrolled in Year 1 courses
- 22% are Students of Color
- 89% earned an "A" or "B" in the Year 1 Semester 1 course



IT - Computer Support Specialist

Previous Credit

There are many opportunities, both in high school and through previous college, work, and/or military experience, to earn credit at Gateway.

For more information about earning credit in high school and opportunities for credit for prior learning, please see reverse side.

Technical Diploma

IT-Computer Support Technician (32 Credits)

Potential Jobs:

- Personal Computer Technician
- Help Desk Tier 1

Median Income*: \$18.63 per hour \$38,750 annually *Based on locally reported wage data.

Students who complete this program are prepared to earn industry-recognized certifications, including:
- CompTIA A+

Associate Degree

IT-Computer Support Specialist (62 Credits)

Potential Jobs:

- Hardware Analyst
- Computer Support Specialist
- Help Desk Tier 2
- Computer User Support Analyst

Median Income*: \$22.00 per hour \$45,760 annually

*Based on locally reported wage data.

Students who complete this program are prepared to earn industry-recognized certifications, including:

- ITIL IT Infrastructure Library
- ITSM IT Service Management

Career

Students are prepared to enter their career field at any point along the pathway and advance as they complete higher-level credentials.

Bachelor's Degree

Transfer up to 62 credits via existing articulation agreements with colleges such as:

- -Cardinal Stritch University
- -Carthage College
- -Herzing University
- -Lakeland University
- -Ottawa University
- -UW-Parkside
- (A to B agreement)
- -UW-Stout





IT - Computer Support Specialist

GATEWAY TECHNICAL COLLEGE

Have questions or need assistance with getting started?

Gateway's New Student Specialists are ready to help. Call 1-800-247-7122 or stop into any Student Services Center to make an appointment or register for an upcoming new student event.

Elkhorn Campus

400 County Road H Elkhorn, WI 53121

Kenosha Campus

3520 30th Ave. Kenosha, WI 53144

Racine Campus

1001 S. Main St. Racine, WI 53403

Credit for Prior Learning

Experience Pays! You've been there . . . You've done that . . . Let us give you credit for it!

Gateway Technical College recognizes you have knowledge and skills gained through previous educational, life and work experiences. We want to help you receive credit for those experiences saving you time, money and helping you enter your new career more quickly.

There are various ways to earn credit including Degree Course Substitution, Prior Learning Assessment and Transfer Credit, Credit for Prior Learning opportunities for this program include:

107-011 IT in Business

107-193 IT Essentials

154-119 System Software Support

154-113 IT Apps Server & Support

Earn College Credit in **High School**

Get started at Gateway today! Visit gtc.edu to request information

Get an edge by earning college credit before you graduate and save money at the same time.

There are many ways to earn college credit while you're still in high school, including transcripted and advanced standing credit, Start College Now and youth apprenticeship. Suggested courses to take in high school for this program include:

107-011 IT in Business

107-193 IT Essentials

150-145 IT Scripting



Electrical/Industrial Mechanics Career Pathway

Indusmechanics.nctc.edu

Career Overview

Opportunity exists working as an electrician, in manufacturing or in industrial mechanics. Each step in the pathway can lead to industry certifications and licensing. Student can work in many of these fields while attending classes and working toward additional certifications or a degree.

Other Credit

May be awarded from the following areas:

- · Non-credit training
- · Industry certifications
- College credit
- · Military service
- · Work experience
- · Technical schools
- · Study abroad
- Dual Credit

Short-term Certificates

Electrical Skills Course

- Self-paced online
- Potential starting wage is \$14+ per hour
- Potential 3 hrs credit toward Electrical or Industrial Mechanics Level 1 Certificate
- Industry certification through SACA C-201

Mechatronics and Industrial Automation Technician Course:

- · Self-paced online
- Potential starting wage is \$18+ per hour
- Potential 6 hrs credit toward Electrical or Industrial Mechanics Level 1 Certificate
- Industry certification through SpaceTEC® and CTS.

Questions?

ACE@nctc.edu

Level 1 Certificates

Electrical Certificate

- 15 credit hours
- Potential starting wage is \$14+ per hour
- Educational credit toward electrical journeyman licensing through TDLR
- Industry certification through NC3

Industrial Mechanics Certificate

- 30 credit hours
- · Includes Electrical certificate
- Potential starting wage is \$16+ per hour
- Educational credit toward electrical journeyman licensing through TDLR
- Industry certifications through NC3

Questions?

industech@nctc.edu

AAS Degree

AAS Industrial Mechanics

- 60 credit hours
- Potential starting income \$18 per hour
- Educational credit toward electrical journeyman licensing through TDLR
- OSHA certification
- Industry certifications through NC3

Bachelor's Degree

The AAS degree is part of the North Texas Community College Consortium Transfer Collaborative and can lead to BAAS programs at numerous universities.

Visit the site below and input the program title and college to check a pathway: NTXCCC

LEGEND OF TERMS

SACA Smart Automation
Certifications

CTS Credential Testing Services

TDLR Texas Department of Licensing & Regulation

NC3 National Coalition of Certification Centers

OSHA Occupational Safety & Health

Administration.

AAS Associate of Applied Science

BAAS Bachelor of Applied Arts &

Sciences

Questions?

industech@nctc.edu

i • TECH Isothermal Engineering & Technology Academy

Advanced Technology Certificate CCP Certificate Pathway (15 Credit Hours) DFT 151 CAD I EGR 110 Intro to Engineering Technology HYD 110 Hydraulics MAC 141 Machine Applications MEC 161 MFG Processes

Success & Study Skills

ACA 115

Second Year Advanced Technology Diploma CCP Diploma Pathway (37 Credit Hours combined with certificate) Intro to Computers CIS 110 DFT 154 Intro to Solid Modeling **ENG 111** Writing and Inquiry ISC 121 **Environmental Health & Safety** ISC 132 Quality Algebra/Trigonometry I **MAT 121** MEC 180 **Engineering Materials**

Full-Time College Year Manufacturing Technology -Machining Track Associates Degree Manufacturing Technology -M В Manufacturing Track Associates Degree P **Work-Based Learning** Н O G **Mechanical Engineering Technology** Associates Degree M Mechanical Engineering Ε R Technology -Mechatronics Track Ν S Associates Degree **Mechanical Engineering** Technology -Mechanical Drafting Track Associates Degree

Additional Credentials and Activities

"Portable" Industry Credentials
OSHA Card
FANUC Robotics Certification
Tooling-U Certifications
ACT Work Keys NCRC

Career Exploration
Career Research
Guest Speakers
Workplace Tours
Career-Related Projects
Community Service
Internship options in final year

Name of Career Pathway

<Program Hyperlink>

Prior Credit

Use this space to provide information about the opportunities your institution provides for students to earn college credits while in high school, or to earn credit for prior learning such as previous college, work, and/or military experiences.

Career

Provide details or links to external resources for further exploration on career opportunities in this pathway

Certificate

Use this space to identify certificates within this pathway that stack toward the degree.

For each, list:

- Name of certificate
- # of college credits
- Potential job and median income
- Aligned industry certification(s)

Additional Certificate or Diploma

Use this space to identify additional certificates and/or a diploma that stacks toward the degree.

For each, list:

- Name of certificate/diploma
- # of college credits
- Potential job and median income
- Aligned industry certification(s)

Associate Degree

Use this space to describe the remaining credits in the pathway sequence needed to earn an AS or AAS degree.

For the degree, list:

- # of college credits
- Potential job and median income
- Aligned industry certification(s)

Bachelors Degree

Bachelors Degree in _____ at _____ at ______

Example:



Name of Career Pathway

cprogram link>

Prior Credit

Use this space to provide information about the opportunities your institution provides for students to earn college credits while in high school, or to earn credit for prior learning such as previous college, work, and/or military experiences.

Career

Any additional details about career opportunities aligned to stackable credentials along the pathway

Adult Education

Use this space to identify concurrent education within this pathway that stack toward the first post-secondary credential.

For each, list:

- · Name of course or program
- Duration
- Concurrent or Pre-requisite

Certificate

Use this space to identify additional certificates and/or a diploma that stacks toward the degree.

For each, list:

- Name of certificate/diploma
- # of college credits
- Potential job and median income
- Aligned industry certification(s)

Associate Degree

Use this space to describe the remaining credits in the pathway sequence needed to earn an AS or AAS degree.

For the degree, list:

- # of college credits
- Potential job and median income
- Aligned industry certification(s)

Bachelors Degree

Bachelors Degree in ______
University

Example:

Using the Map Template



 Download "Generic Template" from the Workshop Toolbox (PPTX file)

or

Use paper template at your table

Mapping Activity for Secondary Partners

Pick a program offered at your high school

How does it align with your postsecondary partner institution?

What is the next step a student can take after the first postsecondary credential in that career field?

Look up the program for the next step - what is the name of the program and where is it offered?

Where can you find reliable wage and occupation info?

Mapping Activity for Adult Educators

Pick a program offered at your organization

How does it align with your postsecondary partner institution?

Can students concurrently take your program and post-secondary courses?

What is the next step a student can take after the first postsecondary credential in that career field?

Where can you find reliable wage and occupation info?

Mapping Activity for PostSecondary Partners

Pick a program offered at your college.

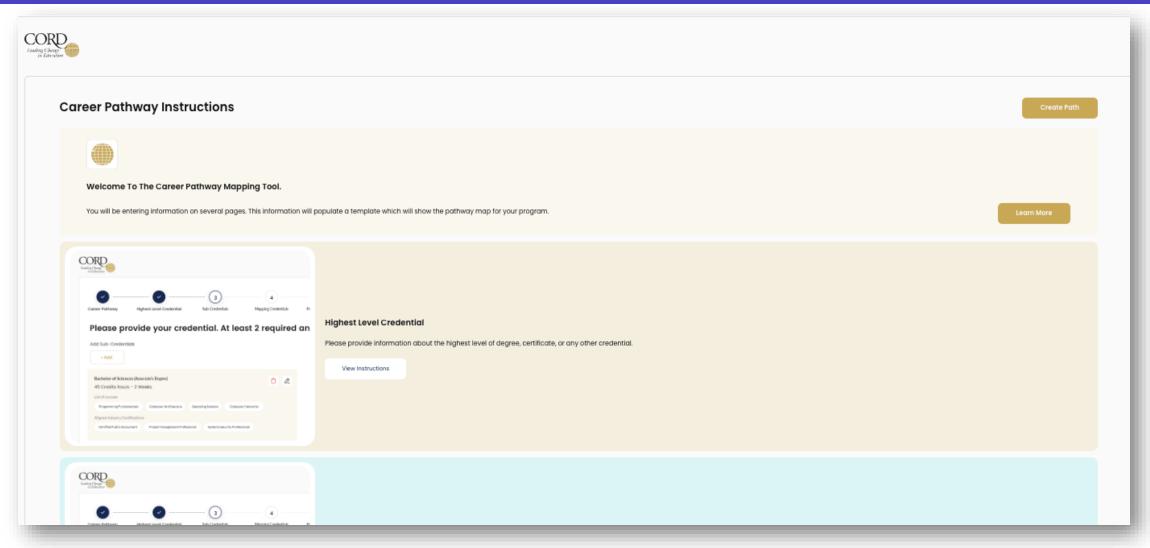
Are dual enrollment and/or concurrent enrollment opportunities for students?

What is the next step a student can take after the first postsecondary credential in the career field?

Do the first credential and all subsequent credentials stack up the next credential?

Where can you find reliable wage and occupation info?

Pathway Planner



Interested in learning more? Contact Debbie Davidson at ddavidson@cord.org.







Accounting

www.gtc.edu/accounting

Students are prepared to enter their career field at any point along the pathway and advance as they complete higher-level credentials.

Accounting

Excel

Prior Credit/

Prior Credit

Type: Industry Certification Income Tax Accounting Accounting Spreadsheet Apps Accounting Principles Payroll Accounting Accounting Software Apps Link: gtc.edu/cfpl

High School

Income Tax Accounting Accounting Spreadsheet Apps Accounting Principles Payroll Accounting Accounting Software Apps Computers for Professionals Link: gtc.edu/highschool.



Assistant Diploma (30 Credit Hours), (2 Semesters) **Industry Certifications:** - Quickbooks Certified User Microsoft Office Specialist -Jobs & Wages: Bookkeeper, \$22 Hr

Certificate

(15 Credit Hours), (1 Semester) Jobs & Wages: Payroll Assistant, \$23 Hr

Bachelor's -> --> Accounting Degree(s)

Associate Degree (64 Credit Hours), (4 Semesters) Accounting Associate, \$30 Hr

BS Accounting UW Parkside Jobs & Wages: Accountant, \$43000 Annual

Download PDF

How Will We Get There?

Consider the gaps moving from one credential or institution to the next:

- What needs to be done to address the gap?
- Is it a barrier related to process or policy?
- Who needs to be at the table to discuss the gap?
- What are the opportunities that haven't been mapped yet?



Action Planning



Local Action Plan

Goal, Objective, Priority: What do we want to achieve?	Action Steps: How will we achieve it?	Lead: Who is responsible?	Intended Results: Measurable outcomes?	Timeline: By when?	Notes:		
Partnerships							
Gaps and Opportunities							
Employer Engagement							
Gaps and Opportunities							
Stackable Credentials/Career Pathways Program Design							
Gaps and Opportunities							
Supporting Completion							
Gaps and Opportunities							

Advancing Credentials
THROUGH Career Pathways

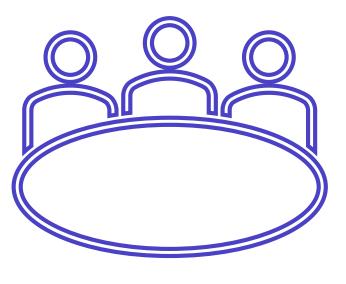


✓ Use Action Plan Template at your table

or

✓ Download Action Plan Template from Workshop Toolbox

Share and Discuss



FRAMEWORK FOR CAREER PATHWAYS ALIGNMENT

Support for Credential Completion that recognizes "all learners as learners" by providing credit for prior learning, course schedules and delivery modes that accommodate the needs of working adults, and efficient program design that accelerates credential attainment





Self Check #4

Supporting Student Completion

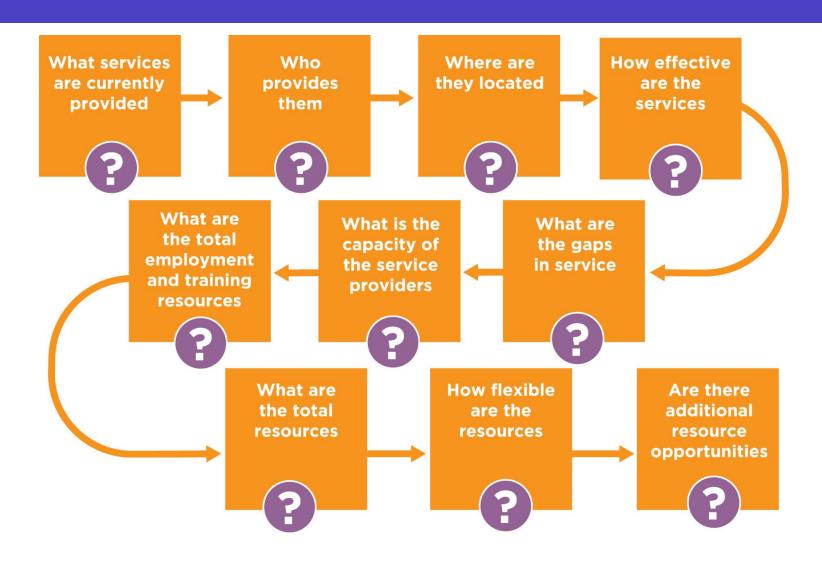


Types of Holistic Support

- **Academic** help learners successfully complete the program and transition to a job or postsecondary education.
- Financial address barriers such as tuition, textbooks and materials that may impact learner ability to afford the training
- **Personal** focus on individual needs such as mental and physical health, childcare, and transportation.



Holistic Support Journey



Holistic Supports







Academic

Aligned to local needs
Industry credentials
Credit for prior learning (CPL)
Flexible class offerings
Tutoring

Financial

Grants (Pell)
Scholarships
Books/materials
Industry certification
fees
Basic needs

assistance

Personal

Student-centered success coaching
Childcare
Transportation
Mental health services

Aligned to local needs

- Associate Accelerated Program (ASAP) helps qualified high school graduates earn a two-year associate degree in just 11 months
- Flexible, fast-track program for **working** adults. Earn a certificate in two semesters (one year) or an associate degree in four semesters (two years).
- The IT Academy allows students to rapidly get in-demand IT training and skills and earn accelerated noncredit certificates of completion through the Academy's regular classes and intense summer boot camps—some as quick as a few days or weeks.



Ivy Tech Community College

Indiana Industry Certification

- Statewide community college system with over 40 locations in Indiana
- Developed a certification crosswalk lists amount of credit awarded for industry-based certifications
- Crosswalk includes over 100 industry-recognized certifications
 - Aligned to credit for students wishing to pursue degree programs
 - Incorporate a stackable credential model that starts with 18credit hour certificates that stack into 30-hr technical certificates and then into the Associate's degree



Ivy Tech Industry Certification Crosswalk

ADVANCED MANUFACTURING			
Society of Manufacturing Engineers - Certified Manufacturing Technologist	ADMF 115 Materials and Processes for Manufacturing		
MSSC (Manufacturing Skills Standards Council) Production Technician Certification	ADMF 101 Key Principles of Advanced Manufacturing AND ADMF 102 Technology in Advanced Manufacturing		
MSSC (Manufacturing Skills Standards Council) Safety and Quality Practices & Measurement	ADMF 101 Key Principles of Advanced Manufacturing		
MSSC (Manufacturing Skills Standards Council) Manufacturing Processes & Production and Maintenance Awareness	ADMF 102 Technology in Advanced Manufacturing		
Fanuc HandlingPro and Programming or NOCTI Certification (FCR-01)	ADMF 116 Automation and Robotics I & ADMF 206 ADMF Automation and Robotics II		
Motoman Basic, Accelerated, or Advanced Robotic Programming (Yaskawa)	ADMF 117 Motoman Robotic Programming		
NIMS Duty Area 1 - Maintenance Operations	ADMF 102 Technology in Advanced Manufacturing		
NIMS Duty Area 2 - Basic Mechanical Systems	INDT 203 Machine Maintenance and Installation		
NIMS Duty Area 3 - Basic Hydraulic Systems	INDT 104 Fluid Power Basics		
NIMS Duty Area 4 - Basic Pneumatic Systems	ADMF 222 Mechatronics Pressurized Systems		

Credit for Prior Learning



Credit for prior learning, or CPL, is a term for various methods that colleges, universities, and other education or training providers use to evaluate learning that has occurred outside of the traditional academic environment. It's also sometimes called prior learning assessment (PLA).



It is used to grant college credit, certification, or advanced standing toward further education or training. Other common terms for this process include prior learning assessment (PLA), recognition of prior learning, and recognition of learning.

Source: Council for Adult and Experiential Learning (CAEL)



Types of Credit for Prior Learning

- Registered Apprenticeships
- Industry Certifications and Licensures
- High School to Community College Articulation Agreement
- Military Education and Training
- Standardized Examinations
- Challenge Examinations/Proficiency
- Portfolio Assessment
- Internal Articulation of Non-credit to Credit

Benefits of Credit for Prior Learning

STUDENT PERSPECTIVE	INSTITUTIONAL PERSPECTIVE	EMPLOYER PERSPECTIVE
 Accelerates Completion 	Attracts New StudentsIncreased Enrollments	Clarifies Pathway
 Reduces Duplication of Learning 	 Promotes Retention and Higher Persistence Levels with CPL Students 	 Recognized Industry Credentials
 Lowers Education Costs 	 Results in More Institutional Credits 	 Reduces Employee Time to Degree
 Reduces Student Debt 	 Strengthens Employer Partnerships 	 Lowers Investment of Business and Higher ROI
 Increases Likelihood of Graduation 	 Enhances the Ability to Stay Competitive with Higher Education Institutions 	

Source: Credit for Prior Learning Guide: A Practical Guide for Community Colleges

CPL Promising Practices/Key Takeaways

Organizational Culture & Faculty Development

- Assess organizational culture & faculty
- Single point of contact at institution or group of champions
- Ongoing professional development for faculty and administrators
- Administration and Faculty support of noncredit to credit integration

Student-Friendly Policies

- Application of credits to degree/major requirements
- Number of credits a student can earn/residency requirements
- Credits appear on the student transcript
- No fees charged to students

Source: CPL_Implementation_Guide.pdf (southcentral.edu)

CPL Promising Practices/Key Takeaways

Create CPL Crosswalks

- Related industry recognized certifications
- Continuing education/workforce development courses
- Standardized crosswalk tool

Marketing & Awareness

- Create web portal—list all PLA opportunities in one place
- Create program-specific career pathway maps that illustrate CPL options
- Support student success with trained student and faculty advisors to guide students

ACTIVITY

Non-credit to Credit Integration Worksheet



Examples of Holistic Supports







Academic

Aligned to local needs Industry credentials Credit for prior learning (CPL) Flexible class offerings Tutoring

Financial

Grants (Pell)
Scholarships
Books/materials
Industry certification
fees
Basic needs

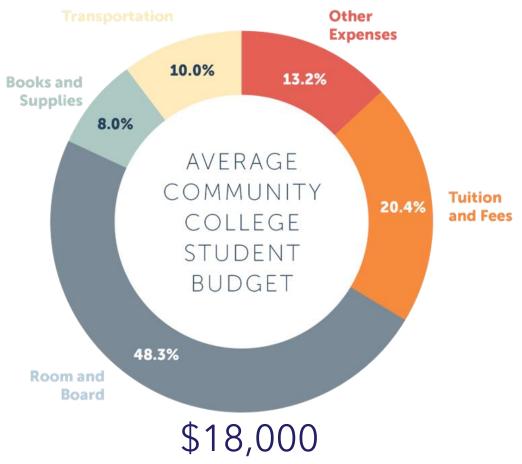
assistance

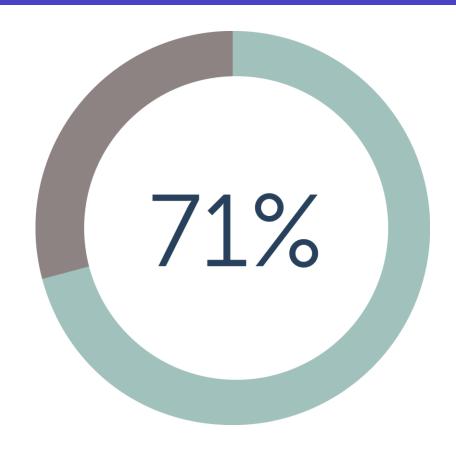
Personal

Student-centered success coaching
Childcare
Transportation
Mental health services

Unmet Need

Average total budget for a community college student in 2019

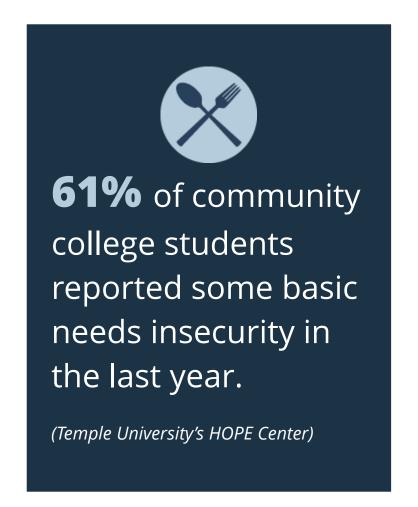




public year students with unmet financial need ¹

Basic Needs Insecurity

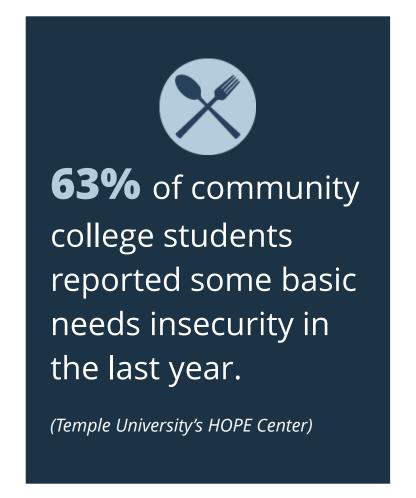
#REALCOLLEGE Survey	2-year Colleges (2020)	4-year Colleges (2020)
Food Insecurity	39%	29%
Housing Insecurity	52%	43%
Homelessness	14%	14%



THE HOPE CENTER SURVEY 2021: BASIC NEEDS INSECURITY DURING THE ONGOING PANDEMIC

Basic Needs Insecurity

#REALCOLLEGE Survey	Portland Community College (2019)	Oregon's Community Colleges (2019)
Food Insecurity	41%	41%
Housing Insecurity	53%	52%
Homelessness	19%	52%



The Hope Center: #RealCollege 2020: Five Years of Evidence on Campus Basic Needs Insecurity and Oregon Community Colleges #RealCollege Survey

Access to Benefits

UNEMPLOYMENT INSURANCE

VETERANS BENEFITS

CHILD TAX CREDIT

SNAP FOOD STAMPS

AMERICAN OPPORTUNITY TAX CREDIT

CHIP

EARNED INCOME TAX CREDIT

HOUSING VOUCHERS

VETERANS BENEFITS

CHILD CARE SUBSIDIES

SOCIAL SECURITY

WIC

TRADE ACT

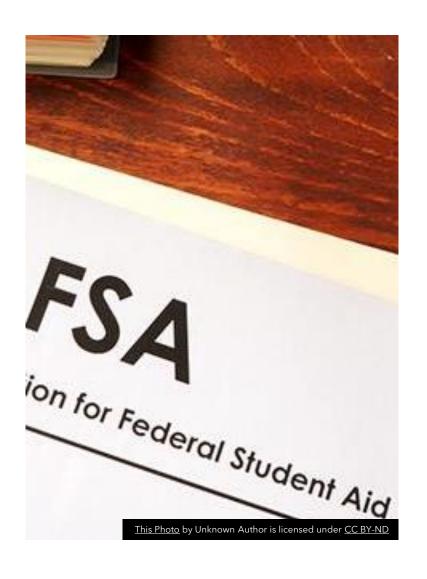
SSI

SNAP

50/50 STUDENT SUPPORT SERVICES

BENEFIT ACCESS = COLLEGE ACCESS

State-level Financial Support



- Nearly 30 states offer tuition-free associate degrees, but the fine print varies widely.
- Eligibility considerations include residency, income, age, even field of study.
- All programs require applicants to complete the <u>Free</u> <u>Application for Federal Student Aid</u> (FAFSA).
- Most provide "last-dollar" grants, which pay remaining college fees after other aid is applied.
- Others are "first-dollar" grants, providing students with college funds upfront, regardless of what other funding they may be eligible to receive.

Source: <u>Is Community College Free? Yes, in These 31 States</u>, BestColleges, 2022

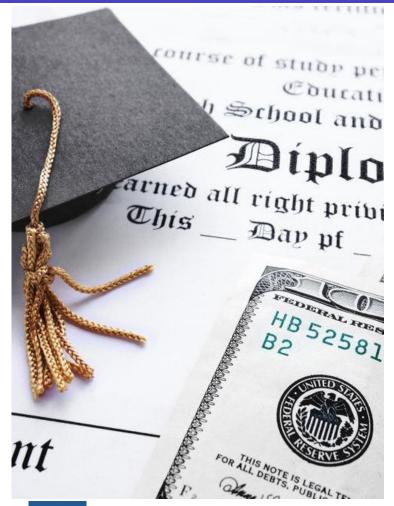
Federal Financial Support

Pell Grant

- Must have already received a high school diploma or (G.E.D.) certificate
- Capped at \$6,895 per year
- Cannot be used for more than 12 full-time or equivalent terms over an individual's lifetime

Ability to Benefit

- Available to adult education students without a high school diploma or equivalent
- Students must prove their "ability to benefit," such as by passing a test

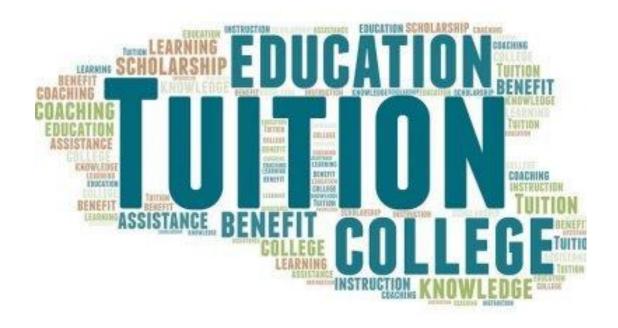




State-level Financial Support

• <u>Is Community College Free? Yes, in</u> <u>These 31 States | BestColleges</u>





Make college more affordable

Strategies at RCCC

- Map coursework to industry recognized professional certifications.
- Update course content where needed to better address student learning outcomes from those professional certifications.
- Formalize a process for paying for/funding certifications.
- Use Credit by Professional Certification in NC to award credit when possible.
- Have multiple entry and exit points for students interested in Information Technology



Test Fest at RCCC

To increase student participation in certification testing, RCCC organized an Annual Event called "Test Fest"

- Faculty Proctor exams for 1 day each year.
- Tests are provided free of charge for students.
- Students can take as many exams as they like in the 8-hour period.
- Credit by Professional Certification is awarded as appropriate.

Test Fest Certification Exams

Rowan-Cabarrus Community College

Course	Exam Type	Exam Name		
CIS-110	IC3	IC3 Exam (Global Standard 5)		
CIS-115	MTA	Introduction to Programming Using Python - Exam 98-381		
CSC-139	MTA	Software Development Fundamentals (VB Version)- Exam 98-361		
CSC-151	MTA	Introduction to Programming Using Java - Exam 98-388		
CSC-153	MTA	Software Development Fundamentals (C# Version) - Exam 98-361		
CTI-120	MTA	Networking Fundamentals - Exam 98-366 AND Security Fundamentals - Exam 98-367		
CTS-130	MOS	Microsoft Office Specialist – Excel Core		
CTS-230	MOS	Microsoft Office Specialist – Excel Expert		
DBA-110	MOS	Microsoft Office Specialist - Access		
DBA-120	MTA	Database Administration Fundamentals - Exam 98-364		
NOS-130	MTA	Windows Operating System Fundamentals- Exam 98-349		
NOS-230	MTA	Windows Server Administration Fundamentals - Exam 98-365		
OST-136	MOS	Microsoft Office Specialist – Word Core		
OST-236	MOS	Microsoft Office Specialist – Word Expert		
WEB-110	MTA	Introduction to Programming Using HTML and CSS - Exam 98-383		

What are some other ways to provide financial support to learners?





Examples of Holistic Supports



Academic

Aligned to local needs
Industry credentials

Credit for prior learning (CPL)

Flexible class offerings

Tutoring

Cohort learning



Financial

Grants (Pell) Scholarships

Books/materials

Industry certification fees

Childcare and transportation



Personal

Student-centered success coaching

Mental health services

Social and emotional support

Physical well-being

Adult Learner Centered & Equity Framework (ALCEF)

ALCEF led by Council for Adult and Experiential Learning (CAEL) and funded with Federal funds from the U.S. Department of Agriculture.



Three-year initiative to increase access to education and training opportunities that improve SNAP program efficiency

Build and foster holistic collaboration among community colleges, workforce development boards, employers, workforce and human service providers, and other components

Partners:

- <u>Seattle Jobs Initiative</u>
- Grant Associates
- <u>American Public Human Services Association</u> (APSHA)



Monroe Community College

- Monroe Community College Schools@MCC
- <u>Guided Pathways at Monroe Community College</u> <u>Guided Pathways (monroecc.edu)</u>
- The model:
 - connects students to an academic home and the people who will support their personal success at the College.
 - provides distinct community of inspiring faculty, helpful staff, and like-minded students connected through similar academic interests and professional aspirations

Colorado Health Care Careers Academy

- Open Access: Free to anyone who is 16 or older and interested in healthcare
- **Academic:** Curriculum includes post-secondary certification pathways focused on some of the fastest-growing health occupations in Colorado
- **Career:** Students who complete the academy gain support from navigators to get hired into entry-level positions with healthcare partners and navigating higher education
- **Financial:** Eligible students can participate free of charge students who complete the academies receive \$500 deposited into their College Invest account.
- **Personal:** Students gain knowledge on health career opportunities, become self-aware of their aptitudes and interests, and obtain direct experience in the industry through virtual and in-person formats



Colorado Health Careers Collaborative (CHCC) | Arapahoe Community College

CHCC Partnerships: A Key Component

- A/D Works!
- Arrupe Jesuit High School
- Aurora Public Schools
- Boys & Girls Club Metro Denver
- Cherry Creek School District
- Colorado Early Colleges Aurora
- Colorado Early Colleges Douglas County
- Denver Public Schools
- Douglas County School District
- DPS Family and Community Engagement

- Emily Griffith Technical College
- Englewood School District
- ► Elbert School District
- ► Elizabeth School District
- ▶ Jefferson County Public Schools
- Kiowa School District
- Littleton School District
- Sheridan School District No. 2
- ▶ STEM School Highlands Ranch
- Zero Dropouts

AND some of the largest health employers in Colorado

- Centura Health
- DaVita
- HealthONE
- Kaiser Permanente



POSTER ACTIVITY

Holistic Supports Inventory

- 1. List three holistic supports you already have in place.
- 2. List three holistic supports you would like to implement.
- 3. Note if the supports you list are **A** (academic), **F** (financial) or **P** (personal).
- 4. For the three new supports what action steps are needed to implement these supports and who could you partner with to help you with these supports.

Holistic Supports Inventory

Description	Type (A, F, P)	In-house (Y/N)	Existing Partnership (Y/N)	Main Contact	Action Step

Presentation title 20XX

126

Action Planning



Local Action Plan

Goal, Objective, Priority: What do we want to achieve?	Action Steps: How will we achieve it?	Lead: Who is responsible?	Intended Results: Measurable outcomes?	Timeline: By when?	Notes:
Partnerships					
Gaps and Opportunities					
Employer Engagement					
Gaps and Opportunities					
Stackable Credentials/Care	eer Pathways Program D	esign			
Gaps and Opportunities					
Supporting Completion					
Gaps and Opportunities					

Advancing Credentials
THROUGH Career Pathways



✓ Use Action Plan Template at your table

or

✓ Download Action Plan Template from Workshop Toolbox

Goals, Reflections and Next Steps





Refocus Our Perspective

- Industry Informed
- Viewed through Student Lens

The greater danger for most of us lies not in setting our aim too high and falling short; but in setting our aim too low, and achieving our mark.

Michelangelo



Contact Us

Thank you for spending these two days with us!

Please let us know how we did!

Facilitators:

Claudia Maness, NCPN/CORD cdmaness@cord.org

Kaye Sharbono, Consultant kayesharbono@gmail.com

