

LEARN WORK EARN

A Minnesota Advanced Manufacturing Partnership Project

# Minnesota Advanced Manufacturing Partnership

Mission:

Help close the “skills gap” in Minnesota by implementing a restructured academic framework in advanced manufacturing that emphasizes a statewide standardized core curriculum which will lead to stackable, portable academic career pathways and industry recognized credentials while simultaneously working in industry.

WHY ARE WE  
DOING THIS?



**“It’s not a great mission statement,  
but we’ll revise it if things get better.”**

# The National Focus

## President Obama's Advanced Manufacturing Partnership (AMP) Steering Committee 2.0

5 work groups within the AMP initiative:

- Transformative Technologies
- National Network for Manufacturing Innovation (NNMI)
- Scale-up Policy
- Image of Manufacturing
- Demand-driven Workforce Solutions

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# The Business Case

Manufacturers need more technically trained employees

67% moderate-to-severe shortage of qualified workers

56% expect shortage to worsen next 3 to 5 years

5% jobs unfilled due to lack of qualified candidates

MN DEED projected that over 1,500 manufacturing jobs will be available in MN each year for next 10 years.

Source: 2011 Skills Gap Report (The Manufacturing Institute & Deloitte Consulting LLP)  
Think full circle. Think Manufacturing. (n.d.) Retrieved June 13, 2014, from [www.360mn.org](http://www.360mn.org)

# Trade Adjustment Assistant Community College & Career Training Grant

- Consortium of 12 Colleges and 2 Manufacturing Centers of Excellence
- Standardized Core Curriculum
- Aligned to Nationally Recognized Credentials (MSSC, AWS, NIMS, PMMI)
- Manufacturing Apprenticeships
- 15M Award



# LEARN WORK EARN

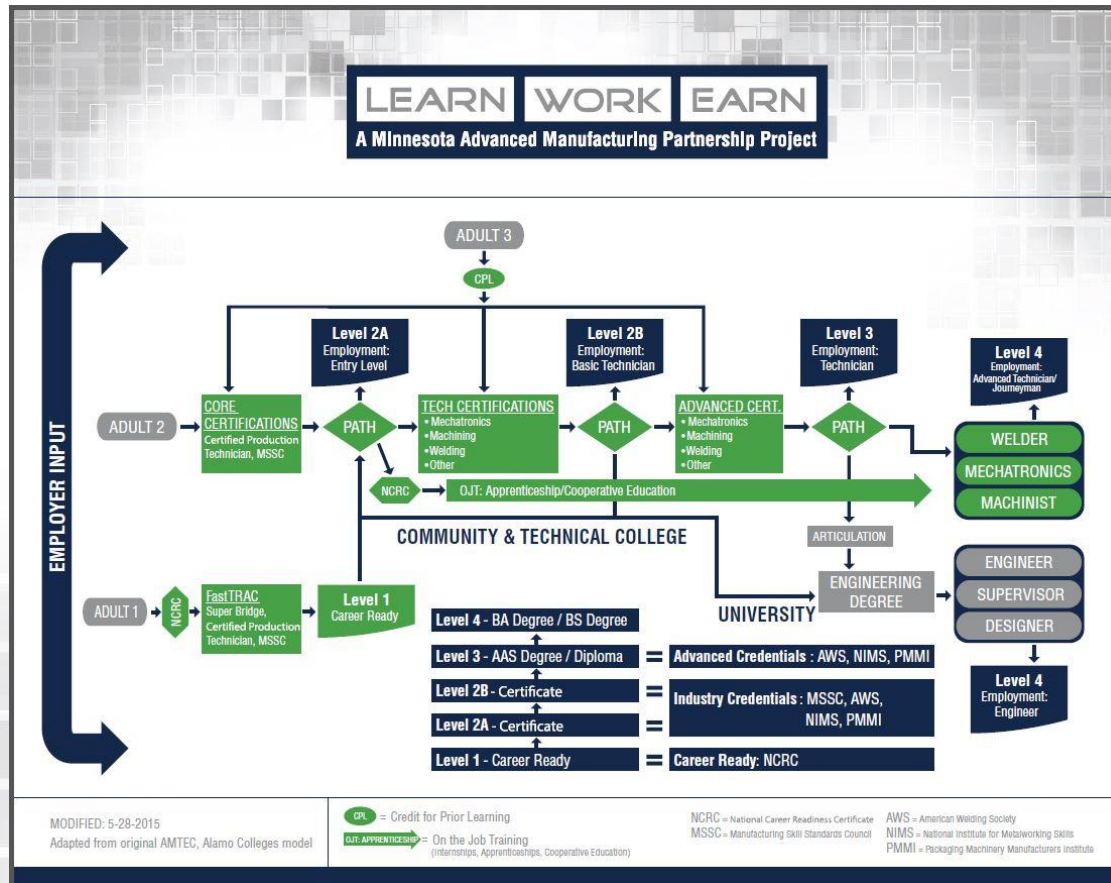
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WORK EARN  
Advanced Manufacturing Partnership Project



- Century College
- Dakota County Technical College
- Lake Superior College
- Minneapolis Comm & Technical College
- MN State Comm & Technical College
- MN West Comm & Technical College
- Normandale Comm College
- Northland Comm & Technical College
- Ridgewater College
- Riverland Comm College
- St. Paul College
- 360 – Bemidji State
- MNCEME-MSU

# LEARN WORK EARN PATHWAYS



# MnAMP Strategies



<b>Objective 1.0</b>	<b>Create seamless career pathways in advanced manufacturing that offer stackable and latticed industry-recognized credentials in mechatronics, machining, and welding.</b>	
<b>Strategy 1.1</b>	Implement a core curriculum that directly aligns with the Certified Production Technician certificate awarded by the Manufacturing Skills Standards Council (MSSC).	Core Elements 1, 2, and 3
<b>Strategy 1.2</b>	Implement a consistent, competency-based approach to awarding credit for prior learning that aligns with national industry standards and includes formal and informal assessments of military, work, and other life experiences.	Core Elements 1 and 2
<b>Strategy 1.3</b>	Collaborate with MnSCU Centers of Excellence and other four-year institutions to expand/refine articulation agreements.	Core Element 2
<b>Objective 2.0</b>	<b>Create/Update academic programs in advanced manufacturing to match employer needs and industry-recognized credentials.</b>	
<b>Strategy 2.1</b>	Align curriculum in mechatronics, machining, and welding with National Association of Manufacturers (NAM) endorsed credentials (NCRC, MSSC, NIMS, PMMI, and AWS).	Core Elements 1,2,3,and 5
<b>Strategy 2.2</b>	Engage employers, faculty, and other stakeholders in the development of content, coursework, and learning experiences to meet credentialing needs in mechatronics, machining, and welding.	Core Element 6
<b>Objective 3.0</b>	<b>Develop long-term, collaborative partnerships with advanced manufacturing employers.</b>	
<b>Strategy 3.1</b>	Establish employer-driven apprenticeship and cooperative education programs in mechatronics, machining, and welding.	Core Elements 1 and 6
<b>Strategy 3.2</b>	Provide professional development opportunities for employers and other stakeholders designed to communicate and instill the value of industry credentialing and curriculum design.	Core Element 6
<b>Strategy 3.3</b>	Collaborate with national industry partners to enhance the image of manufacturing and raise awareness of available high-wage jobs.	Core Elements 4 and 6
<b>Objective 4.0</b>	<b>Improve time-to-completion and job placement in advanced manufacturing through improved learner supports and wraparound services.</b>	
<b>Strategy 4.1</b>	Create and implement a comprehensive enrollment management plan that emphasizes intrusive advising and job placement services.	Core Elements 3, 4, and 5
<b>Strategy 4.2</b>	Improve basic academic skills of participants through integrated education and language services for underrepresented groups.	Core Elements 2 and 4



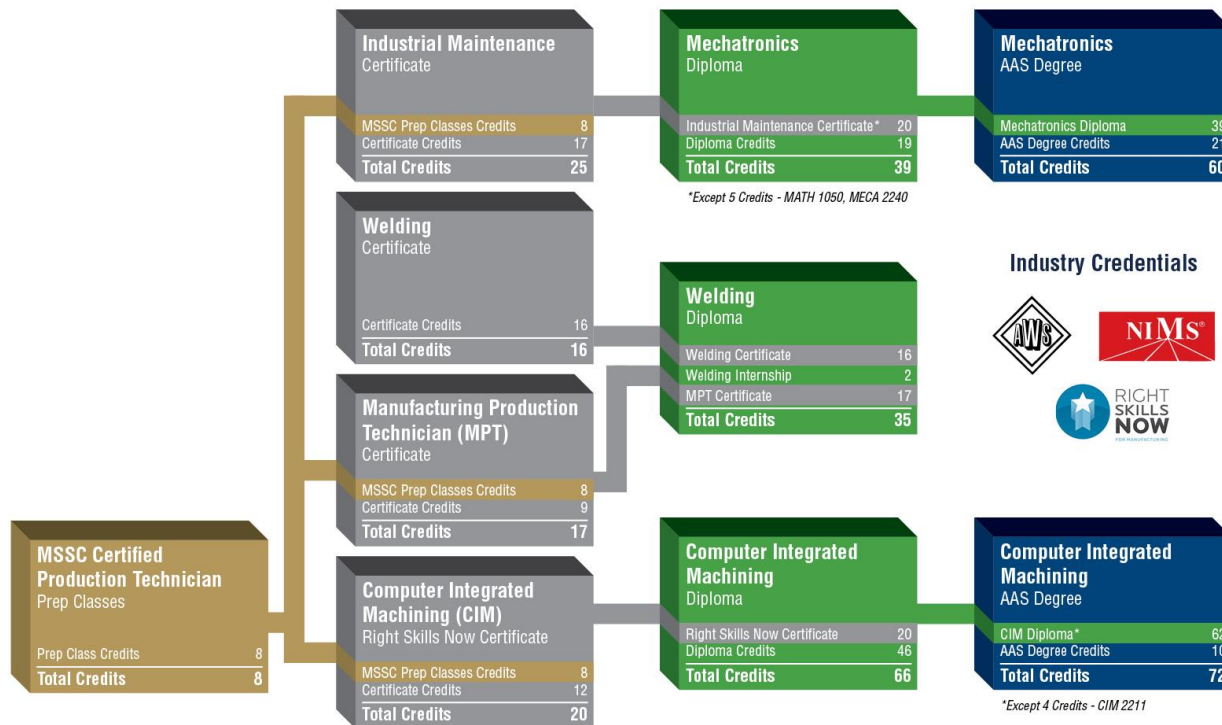
# Outcomes



	Outcome Measures	Y1	Y2	Y3	Y4	total
1	Total unique participants served/enrolled Cumulative total number of individuals entering any of the grant-funded programs offered.	560	1,218	1,273	N/A	3,050
2	Total number of participants who have completed a TAACCCT-funded program Number of unique participants having earned all the credit hours (formal award units) needed for the award of a degree, diploma or certificate.	228	721	967	N/A	1,915
3	Total number of participants still retained in their program of study or another TAACCCT-funding program Number of unique participants enrolled who did not complete and are still enrolled in a grant-funded program of study.	150	592	538	N/A	1,280
4	Total number of participants completing credit hours Total number of participants enrolled that have completed any number of credit hours to date.	320	879	924	N/A	2,123
5	Total number of participants earning credentials Total number of participants earning degrees, certificates or Industry Credentials in grant funded programs of study.	325	896	1,112	N/A	2,333
6	Total number of participants enrolled in further education after grant-funded program of study completion Total number of students who completed a grant-funded program of study and enter another program of study.	91	182	212	N/A	485
7	Total number of participants employed after grant-funded program of study completion Total number of participants (non-incumbent workers only) who completed a grant-funded program of study and entered employment.	0	419	538	765	1,722
8	Total number of participants retained in employment after program of study completions Total number of participants (non-incumbent workers only) who completed a grant-funded program of study and who entered employment and who retained employment the second and third quarter following placement.	0	394	526	544	1,464
9	Total number of those participants employed at enrollment (incumbent workers) who receive a wage increase post-enrollment. Total number of participants who are incumbent workers and who enrolled in a grant-funded program of study who received an increase in wages after enrollment.	94	249	340	170	853

# Manufacturing Core Pathway

## Advanced Manufacturing Career Pathways

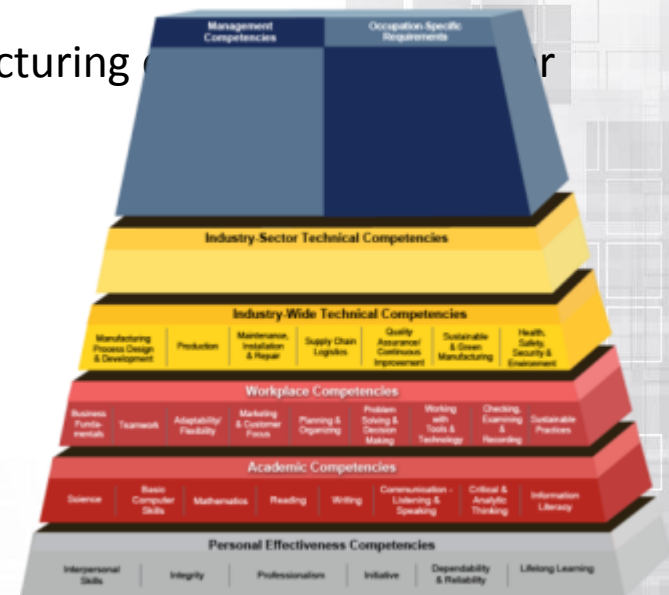


# History of Skills Certification

- The Manufacturing Institute established a consortium of partners to align **industry certification** to an **Advanced Manufacturing Competency Model**, the result is the **Skills Certification System**.
- The System aligns industry competencies to manufacturing pathways.

## Why Certifications Matter....

- Opportunity to elevate and standardize the programs offered by community and technical colleges across the country.
- Credentials also carry a prestige that conveys respect on both those individuals that have earned the credential and the occupations that demand it.



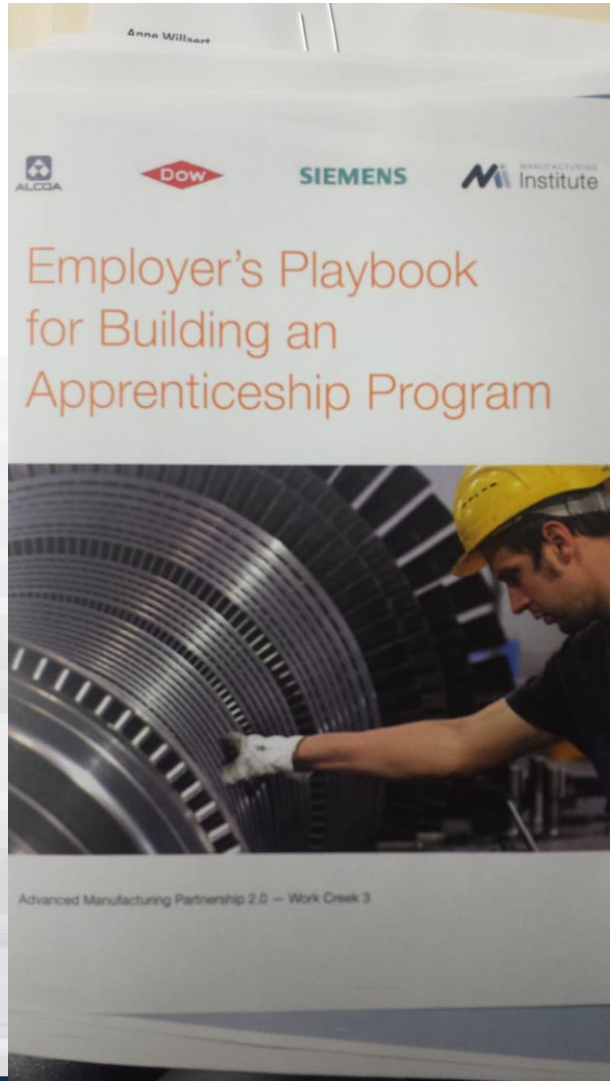


# SKILLS CERTIFICATION SYSTEM

ACT



## Advanced Manufacturing Partnership 2.0

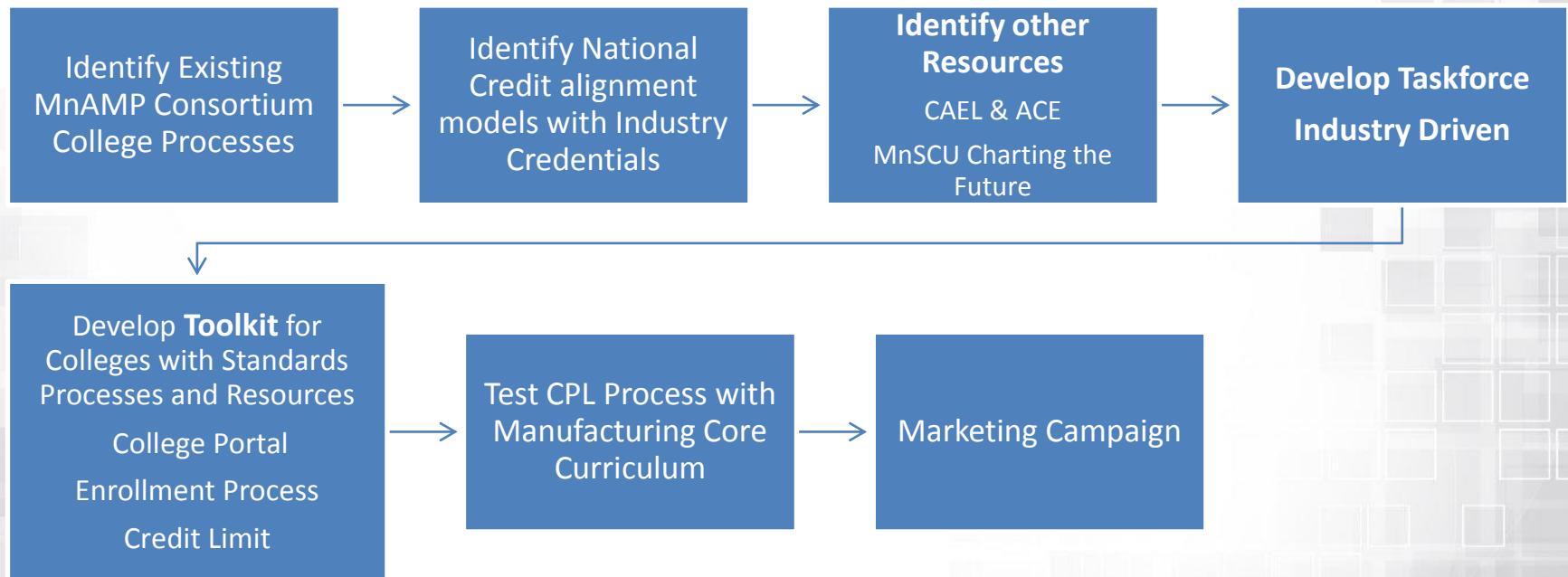


## Playbook to Building an Apprenticeship Program

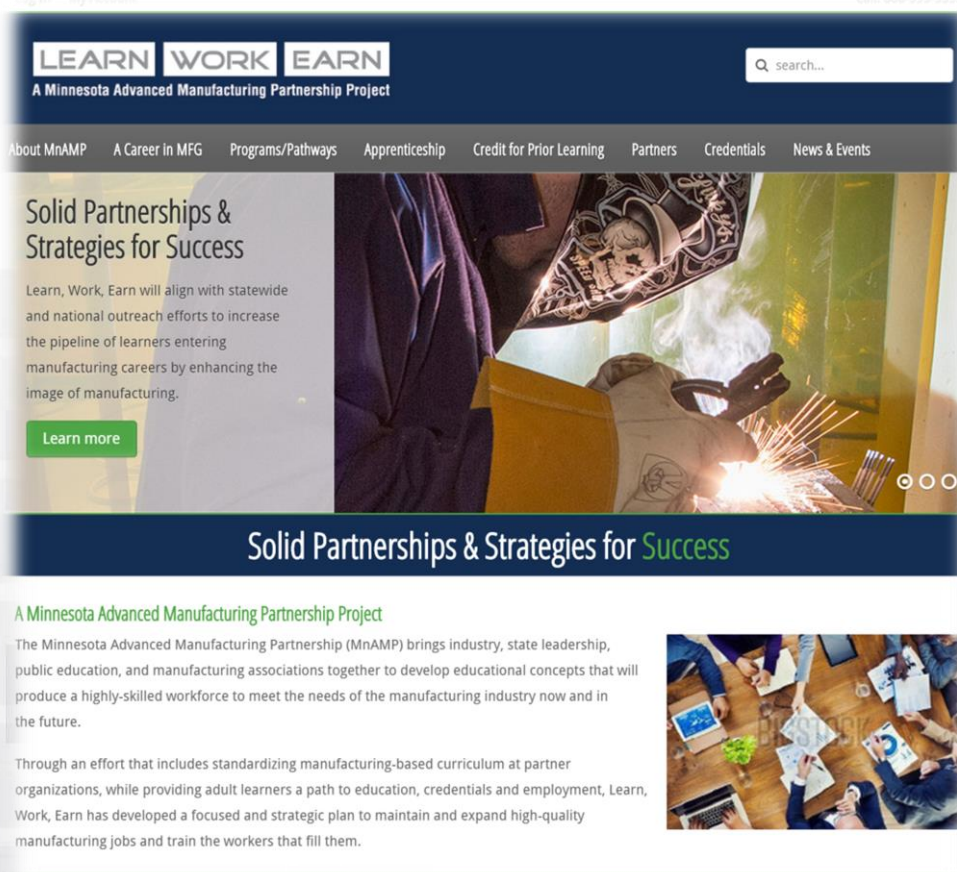


Workforce Planning  
Building the Business Case  
Public/Private Partnerships  
Program Design  
Branding and Marketing  
Selection of Program Participants  
Monitoring Program Performance  
Transition out of Apprenticeship  
Program Evaluation

# MnAMP Credit for Prior Learning Process



# MARKETING



The screenshot shows the MnAMP.net website homepage. At the top, there is a dark blue header with the 'LEARN WORK EARN' logo and the text 'A Minnesota Advanced Manufacturing Partnership Project'. A search bar is located on the right side of the header. Below the header is a navigation menu with links for 'About MnAMP', 'A Career in MFG', 'Programs/Pathways', 'Apprenticeship', 'Credit for Prior Learning', 'Partners', 'Credentials', and 'News & Events'. The main content area features a large image of a person working with a welding torch, with sparks flying. To the left of the image is a text block titled 'Solid Partnerships & Strategies for Success' with a 'Learn more' button. Below the image is a dark blue banner with the text 'Solid Partnerships & Strategies for Success'. At the bottom of the page, there is a section titled 'A Minnesota Advanced Manufacturing Partnership Project' with a paragraph of text and a small image of a group of people in a meeting.

**LEARN WORK EARN**  
A Minnesota Advanced Manufacturing Partnership Project

search...

About MnAMP A Career in MFG Programs/Pathways Apprenticeship Credit for Prior Learning Partners Credentials News & Events

## Solid Partnerships & Strategies for Success

Learn, Work, Earn will align with statewide and national outreach efforts to increase the pipeline of learners entering manufacturing careers by enhancing the image of manufacturing.

[Learn more](#)

## Solid Partnerships & Strategies for Success

### A Minnesota Advanced Manufacturing Partnership Project

The Minnesota Advanced Manufacturing Partnership (MnAMP) brings industry, state leadership, public education, and manufacturing associations together to develop educational concepts that will produce a highly-skilled workforce to meet the needs of the manufacturing industry now and in the future.

Through an effort that includes standardizing manufacturing-based curriculum at partner organizations, while providing adult learners a path to education, credentials and employment, Learn, Work, Earn has developed a focused and strategic plan to maintain and expand high-quality manufacturing jobs and train the workers that fill them.

**MnAMP.net**

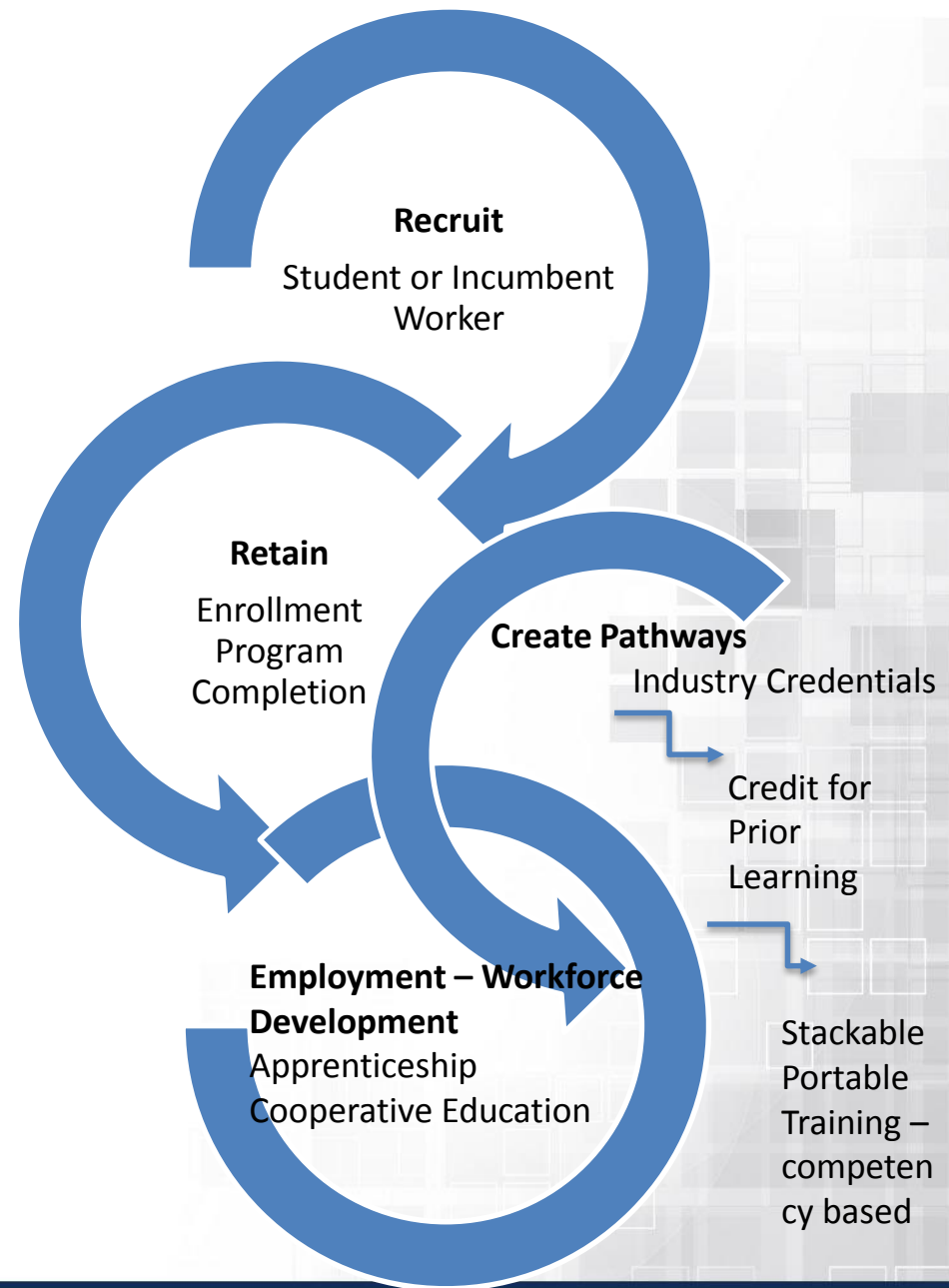
# Workforce Innovation and Opportunity Act (WIOA)

- Improves workforce system align with regional economies and strengthen the network to deliver more services focusing on a job-driven approach to training and skills development by building closer ties among key workforce partners.
  - Needs of businesses and workers drive workforce solutions
  - One-stops excellent customer service
  - Workforce system supports strong regional economies and active in workforce development



# Next Steps in Partnership with WIOA

1. Leverage funding
2. Increase workbase training opportunities
3. Educate industry on industry credentials, apprenticeships, OJT, credit for prior learning, portable and stackable training opportunities, competency based training and assessment
4. Return on Investment – cost of training vs. turnover and replacement cost
5. Regional Summits – organize and create regional visions that are employer driven, create partnerships (one-stops, industry, educational institutions, state and national associations in manufacturing, DOL, DOLI, others)
6. Identify lead industry partners – preferably with multiple locations (champions)
7. Enhance the image of Manufacturing and raise awareness



## Contact Information

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