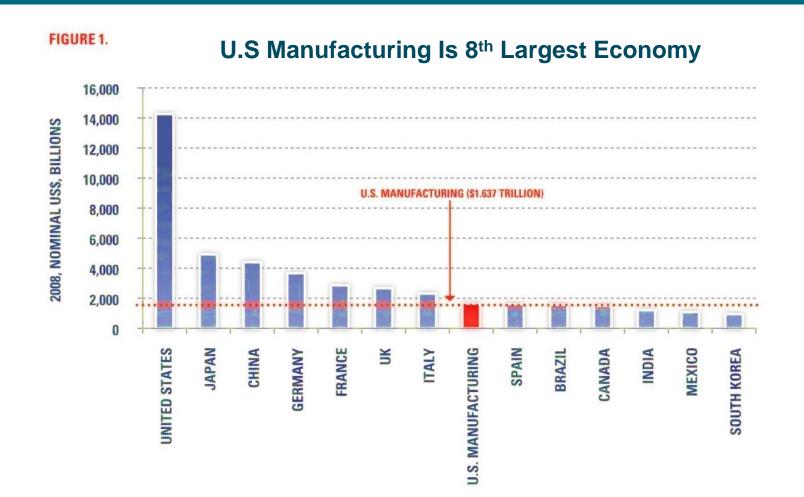
Credentialing the American Workforce

MANUFACTURING Institute

JENNIFER MCNELLY SENIOR VICE PRESIDENT

September 21, 2010 Prepared For: ANSI

U.S. Manufacturing Is Strong



Sources: International Monetary Fund and U.S. Bureau of Economic Analysis

Well Documented Problem



A Million-Dollar Investment

"I advise each of my staff that every worker hired is a million-dollar investment for this company. I'm calculating that most hires are under 45 years old; we intend to keep them for at least 20 years, and our average annual salary/benefits package is \$55,000. In other words, we can't afford to make a mistake—to hire someone without the right skills. Verifiable skills certification programs can make the difference between a good investment and a high-risk."

Dennis Rohrs,

Human Resource Manager Fort Wayne Metals, Inc.

National Dialogue and Dilemma

 Our Education and Workforce Development agenda focuses on implementing quality education reform for the entire continuum:

 Transitioning/ Incumbent in K-12

 STEM Focus in Higher Education

 Transitioning/ Uncumbent Workers

 The Missing Middle: Applied STEM Pathways from High School to Post-Secondary

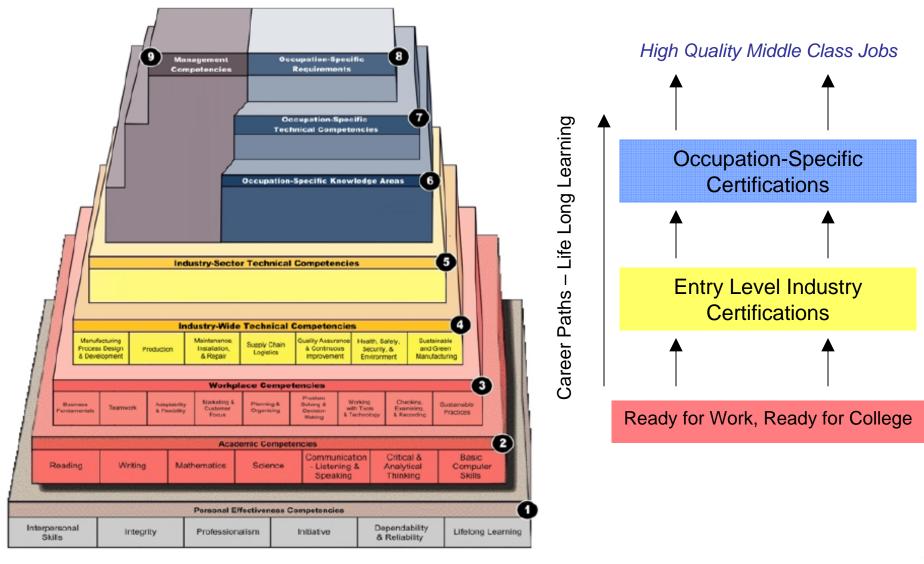
Foundational skills in English language communication, reading, applied STEM, and workplace competencies such as teamwork, work ethic, integrity, and creativity are **necessary** for **all** individuals to pursue **any** career in manufacturing.

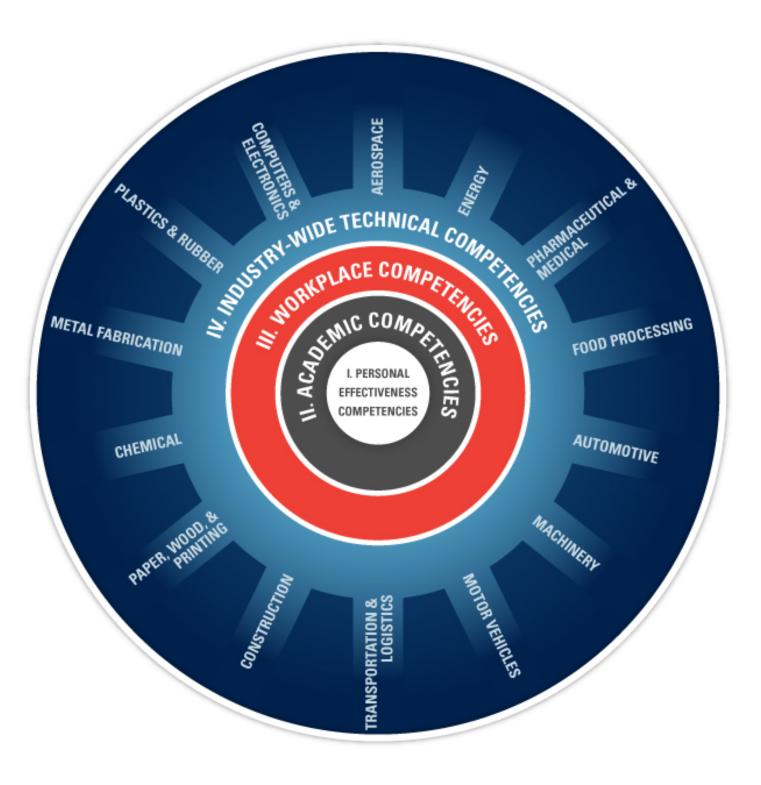
Skills Certification System

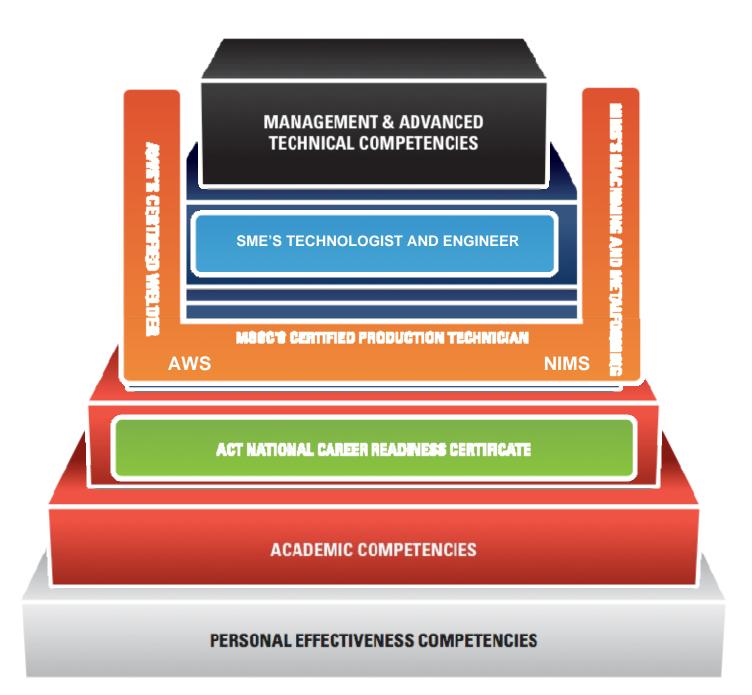
Producing a High-Performance Manufacturing Workforce

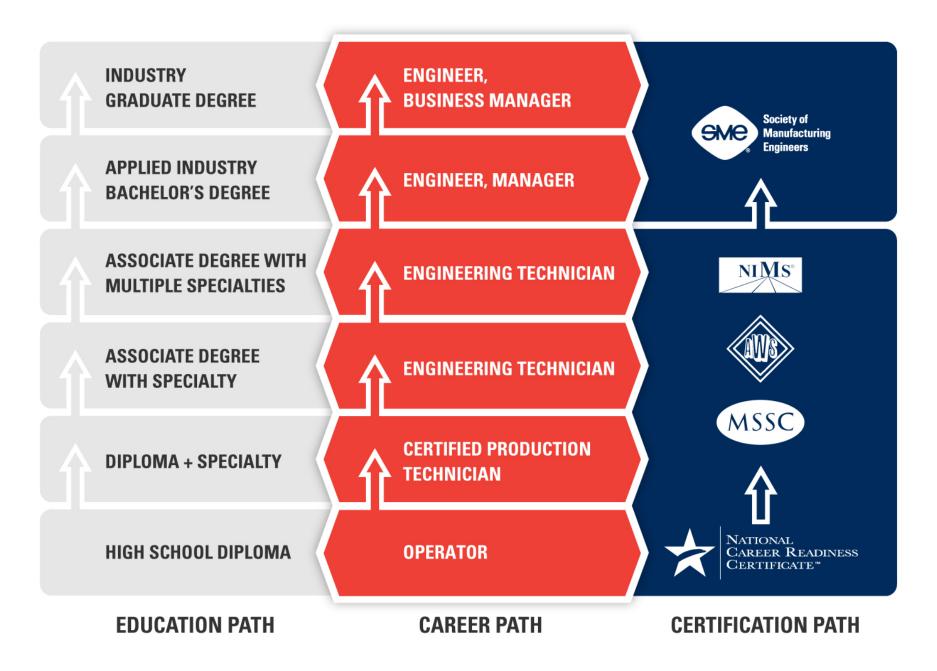
Providing competency-based, customized education and training for the manufacturing workforce...today and tomorrow

Advanced Manufacturing Competency Model









ALIGNING EDUCATION, CERTIFICATION, AND CAREER PATHWAYS For the Welding Industry at Lorain County Community College

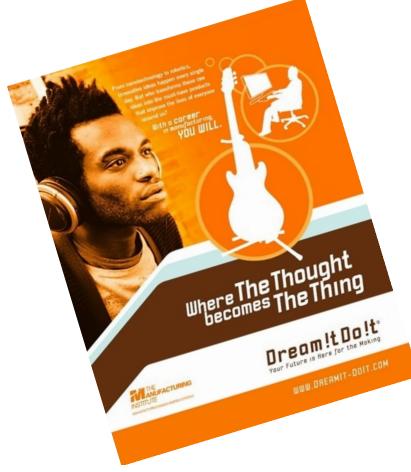
EDUCATION PATHWAY	↔	CERTIFICATION PATHWAY	\leftrightarrow	CAREER PATHWAY
 BACHELOR OF SCIENCE / ENGINEERING DISCIPLINE Ohio State University Cleveland State University 	÷	 SME Engineering Technologist AWS D1.1 Multiple Processes/ CWI 	÷	 Welding Engineer Welding Technologist \$35.68 / hour (17-2190)
 ASSOCIATE IN APPLIED SCIENCE 66 Credit Hours / Two Years Full Time 23 Courses Day / Evening Curriculum 	÷	 AWS D1.1 Multiple Processes ASME Section 9 / API 1104 MSSC CPT 	\leftrightarrow	 Welding Technician Manufacturing Engineering Technician \$22.64 / hour (17-3026)
ONE YEAR TECHNICAL CERTIFICATE 37 Credit Hours / One Year Full Time 14 Courses Day / Evening Curriculum 	↔	 AWS D1.1 Multiple Processes MSSC Safety 	\leftrightarrow	 Welder (Entry Level) Welder/Cutter/Solderer/Brazer \$15.84 / hour (51-4120)
 SHORT TERM TECHNICAL CERTIFICATE 19 Credit Hours / One Year Part Time 8 Courses 	÷	 AWS D1.1 Multiple Processes NCRC 	\leftrightarrow	• Welder (Entry Level) \$15.84 / hour (51-4120)
National Career Readiness Certificate Personal Effectiveness - Academic Competencies - Workplace Competencies				
High School Dual Enrollment - Career Academy – Youth Development Programs		Out of School/Low Skill Youth/Adults WIA/Career Centers – ESL/VESL - GED/ABE "Bridge" and Foundation Programs		Skilled Adults Retraining/Lay Offs – Continuing Education Company Specific Apprenticeship

Produced with support from Key Links

Recruiting Students Into STEM Careers

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Dream!tDo!t®



- Promotes understanding of advanced, high-tech manufacturing and its contribution to innovation
- Promotes a modern image of manufacturing
- Promotes strong regional, cluster-oriented, promanufacturing partnerships
- Serves as an initial channel into aligned educational pathways in post-secondary education and career pathways

Deployment and National Scope

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States funded by foundation support for deployment of the Skills Certification System (Indiana, Ohio, North Carolina, Texas and Washington)

States with grassroots efforts advocating for deployment of the Skills Certification System (Alabama, Arkansas, California, Connecticut, Florida, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New York, Pennsylvania, Tennessee, Wisconsin)

Sites part of the Dream It! Do It! network

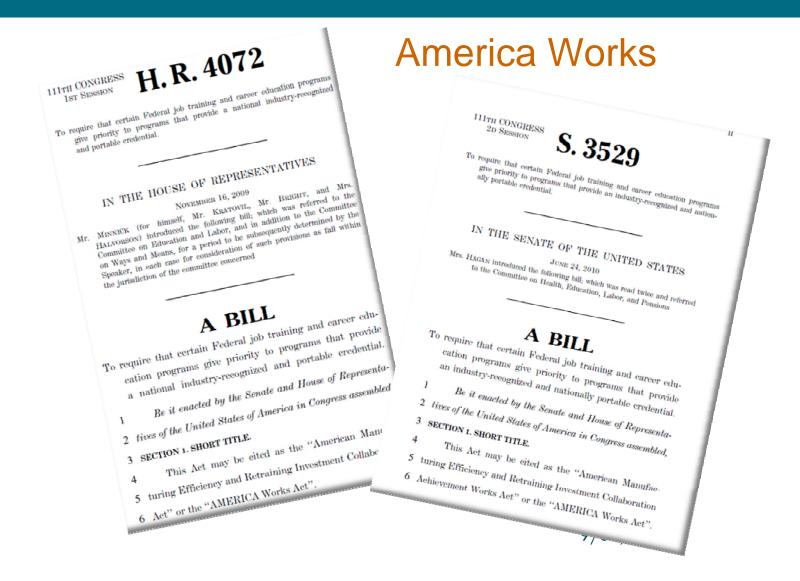
Expanding the Model

Priority Sectors Include:

- Aerospace/Defense
- Automation
- Life Science: Biotechnology, Pharmaceutical & Medical Device
- Construction
- Energy
- Plastics and Composites
- Transportation, Distribution, and Logistics



Championing National Legislation



A "Win-Win" Scenario

