

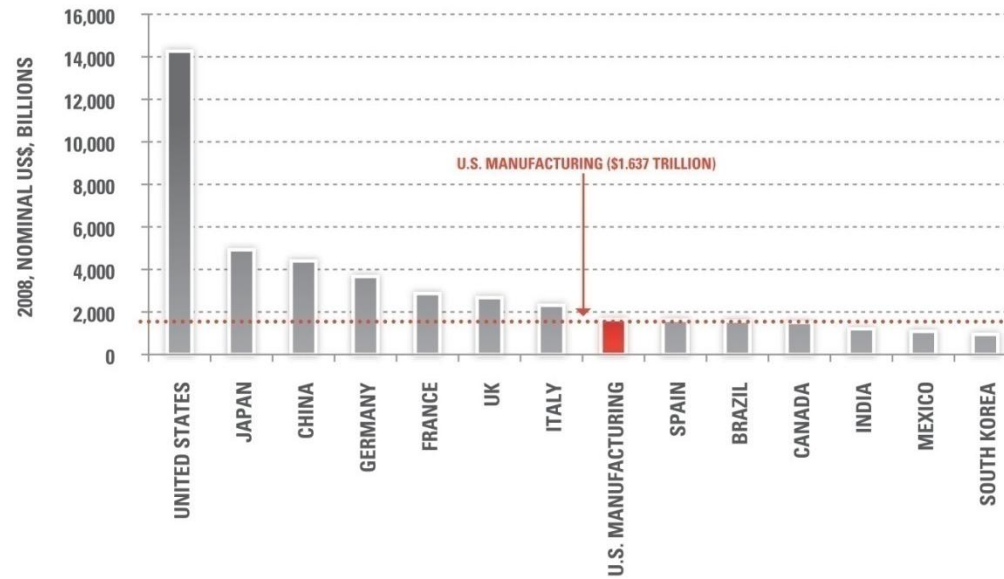


Jennifer McNelly
Senior Vice President
The Manufacturing Institute

U.S. Manufacturing Is Strong

U.S. Manufacturing Sector Is the Eighth Largest Economy

FIGURE 1.

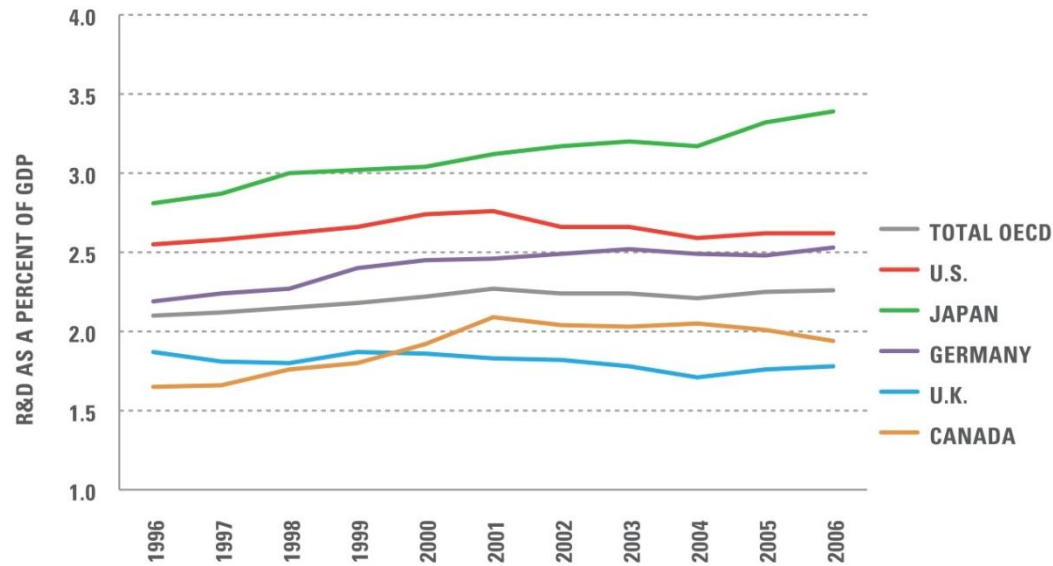


Sources: International Monetary Fund and U.S. Bureau of Economic Analysis

Innovation Drives Manufacturing Strength

U.S. Industrial R&D Outpaces Global Rivals

FIGURE 27.



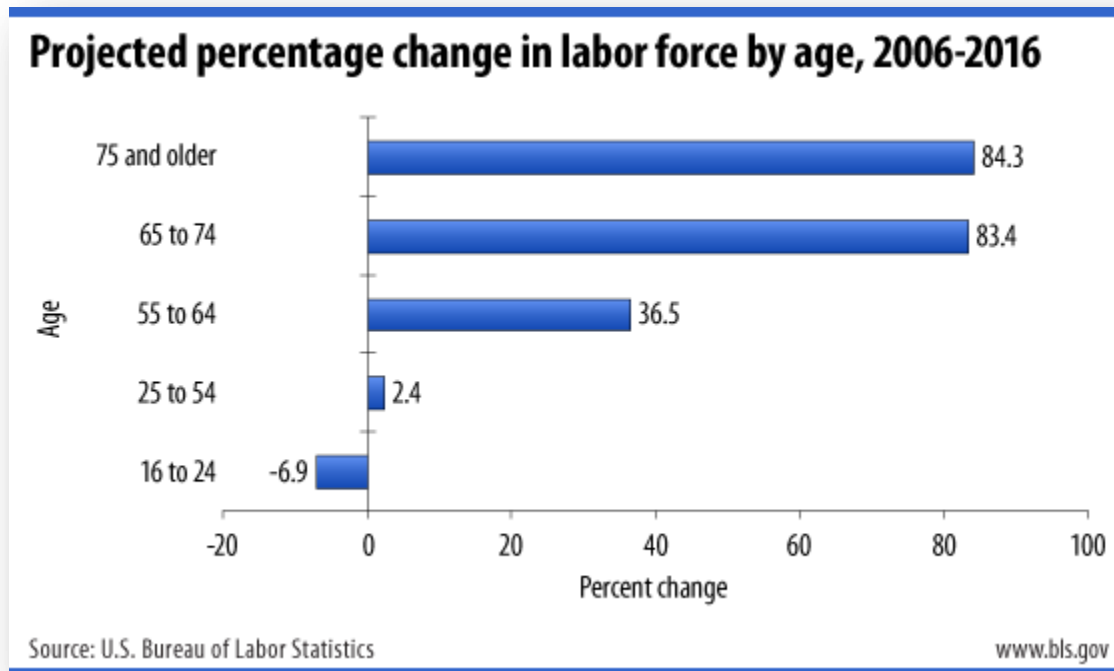
Source: OECD, *Main Science and Technology Indicators*

Workforce Challenges:



- Demographics—The Graying of the Workforce and the Shrinking Pipeline
- Technological Advances in Modern Manufacturing Require More Skills
- Deficits in Our Education System

The Graying Workforce





FOR EVERY 100 9TH GRADERS:



68 GRADUATE ON TIME;



OF THOSE, 40 ENROLL DIRECTLY IN COLLEGE;



OF THOSE, 27 ARE STILL ENROLLED THE FOLLOWING YEAR;

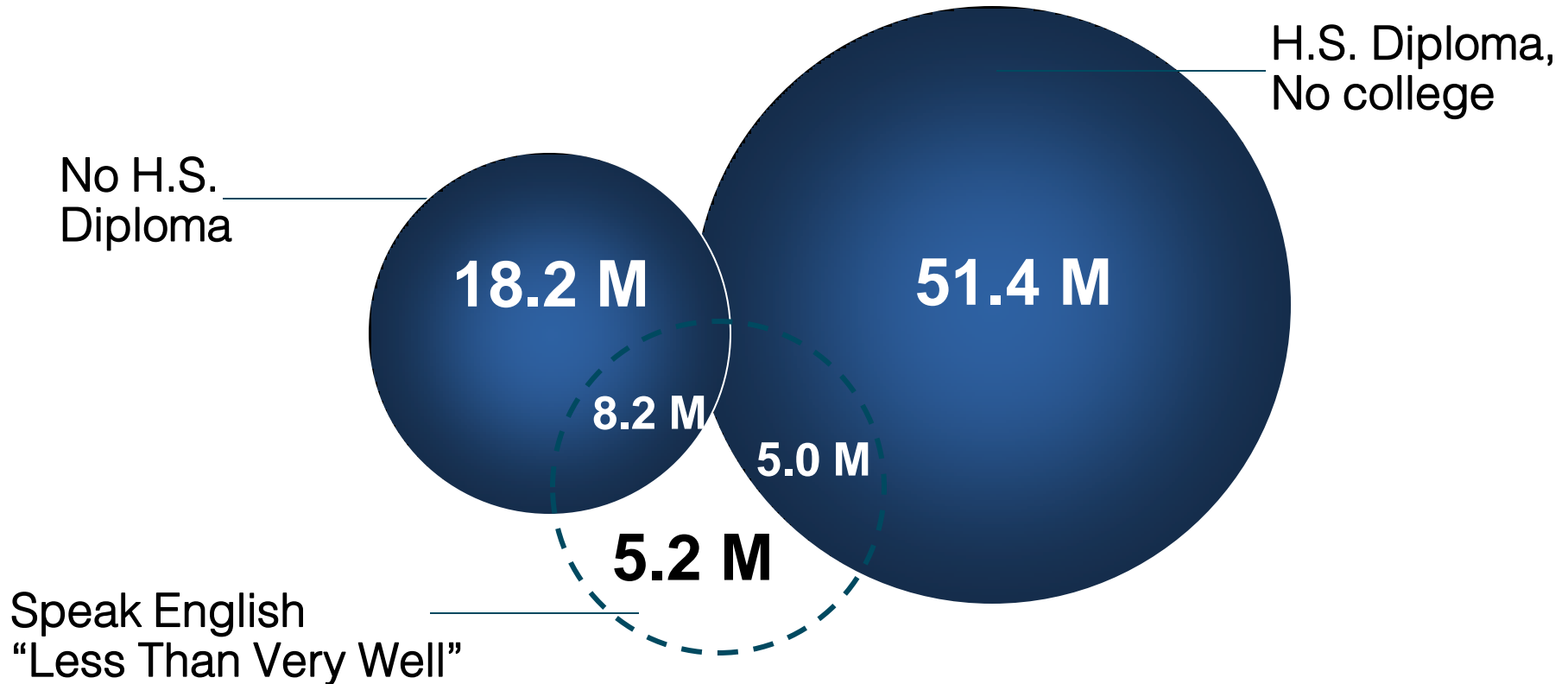


**OF THOSE, 18 EARN AN ASSOCIATES DEGREE WITHIN
3 YEARS OR A B.A. WITHIN 6 YEARS.**

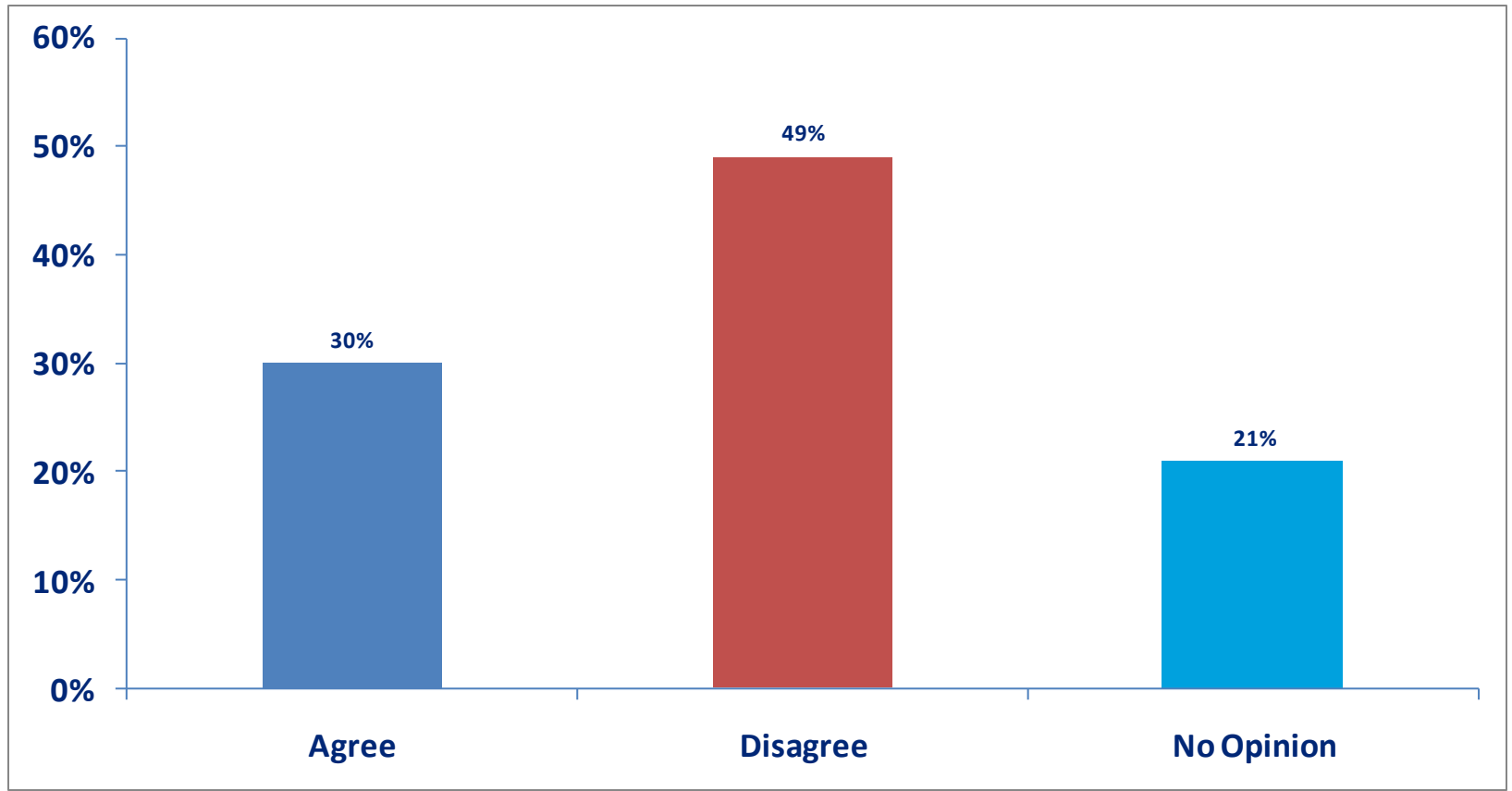
82 DON'T MAKE IT!

Education Barriers:

88 M Adults have at least one education barrier



3 out of 10 Want Children to Pursue Manufacturing Career



Modern Manufacturing Requires More Skills

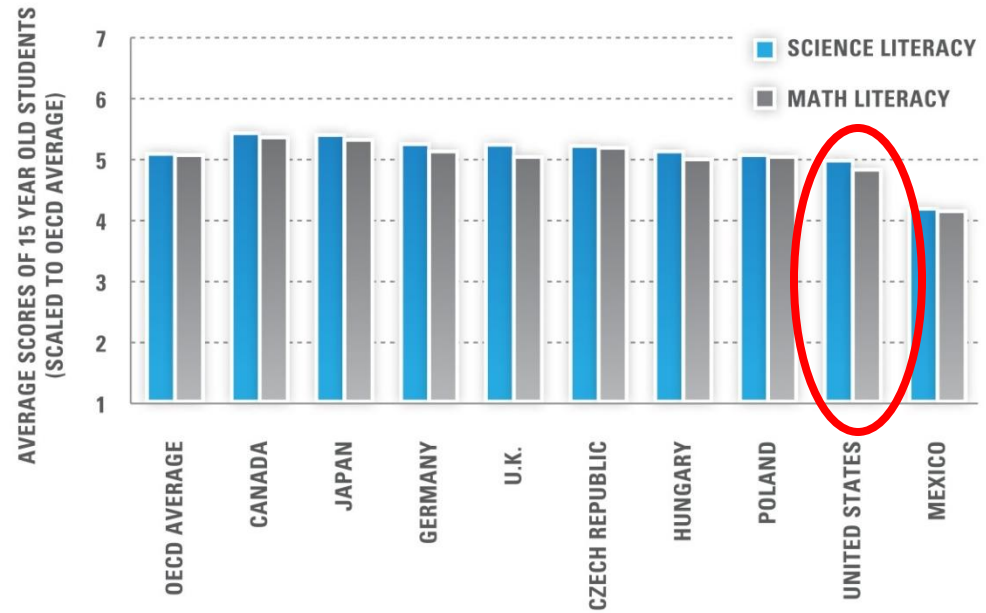
...[W]e also know that in the coming years, jobs requiring at least an associate degree are projected to grow twice as fast as jobs requiring no college experience. We will not fill those jobs – or keep those jobs on our shores – without the training offered by community colleges.

--President Barack Obama, Warren, MI

Educational Deficits

The U.S. Workforce Suffers from a Math and Science Skills Deficit

FIGURE 43.



Source: U.S. National Center for Education Statistics, 2006

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.”

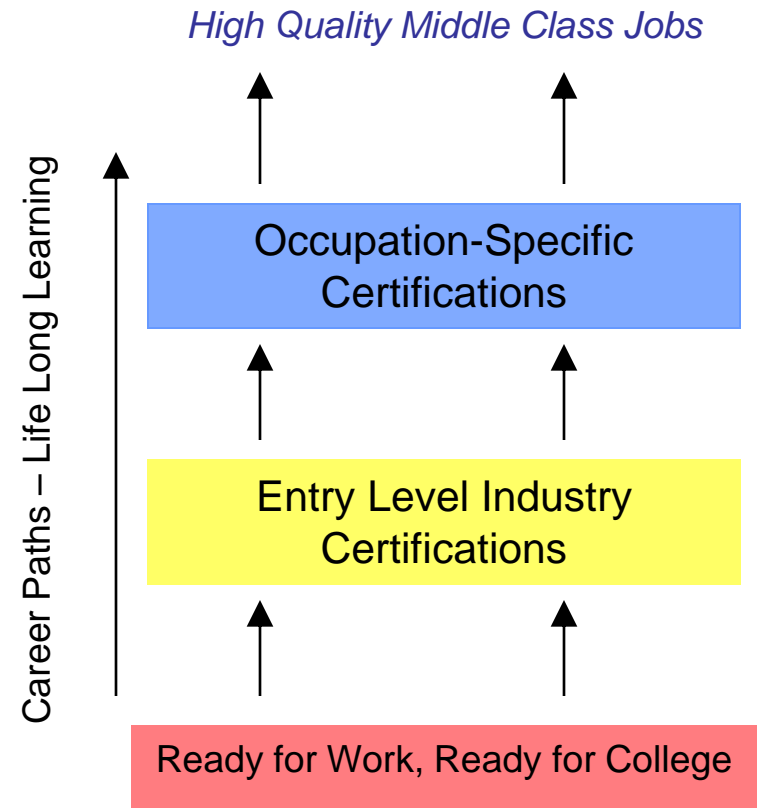
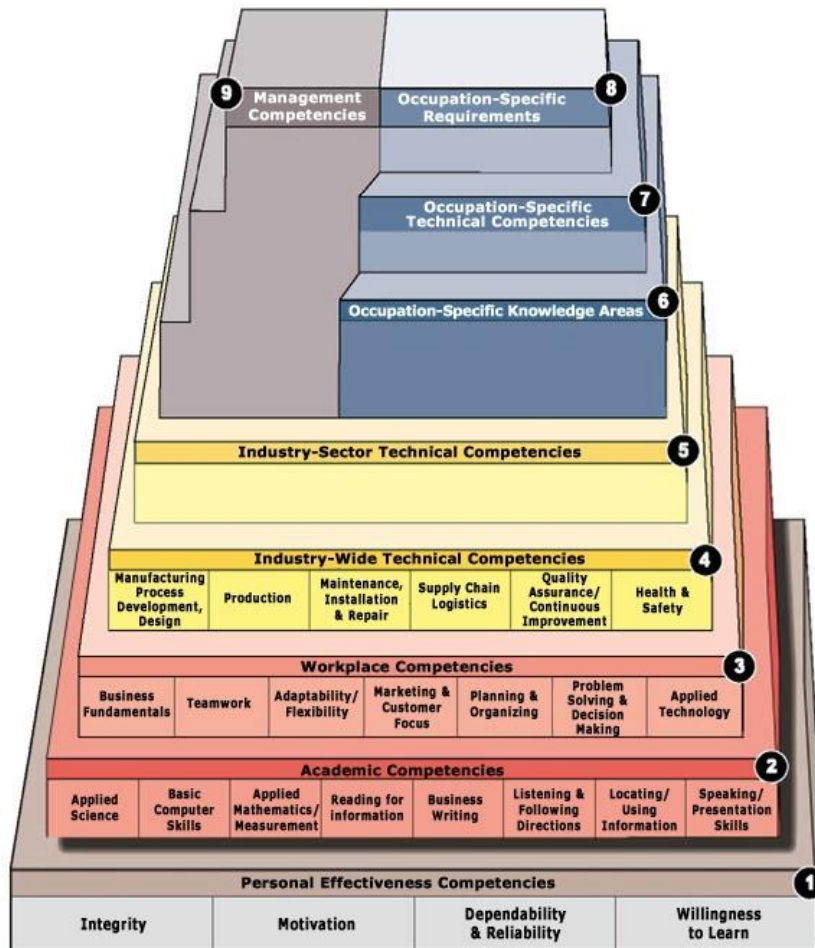
*Dennis Rohrs,
Human Resource Manager
Fort Wayne Metals, Inc.*

NAM-Endorsed Skills Certification System

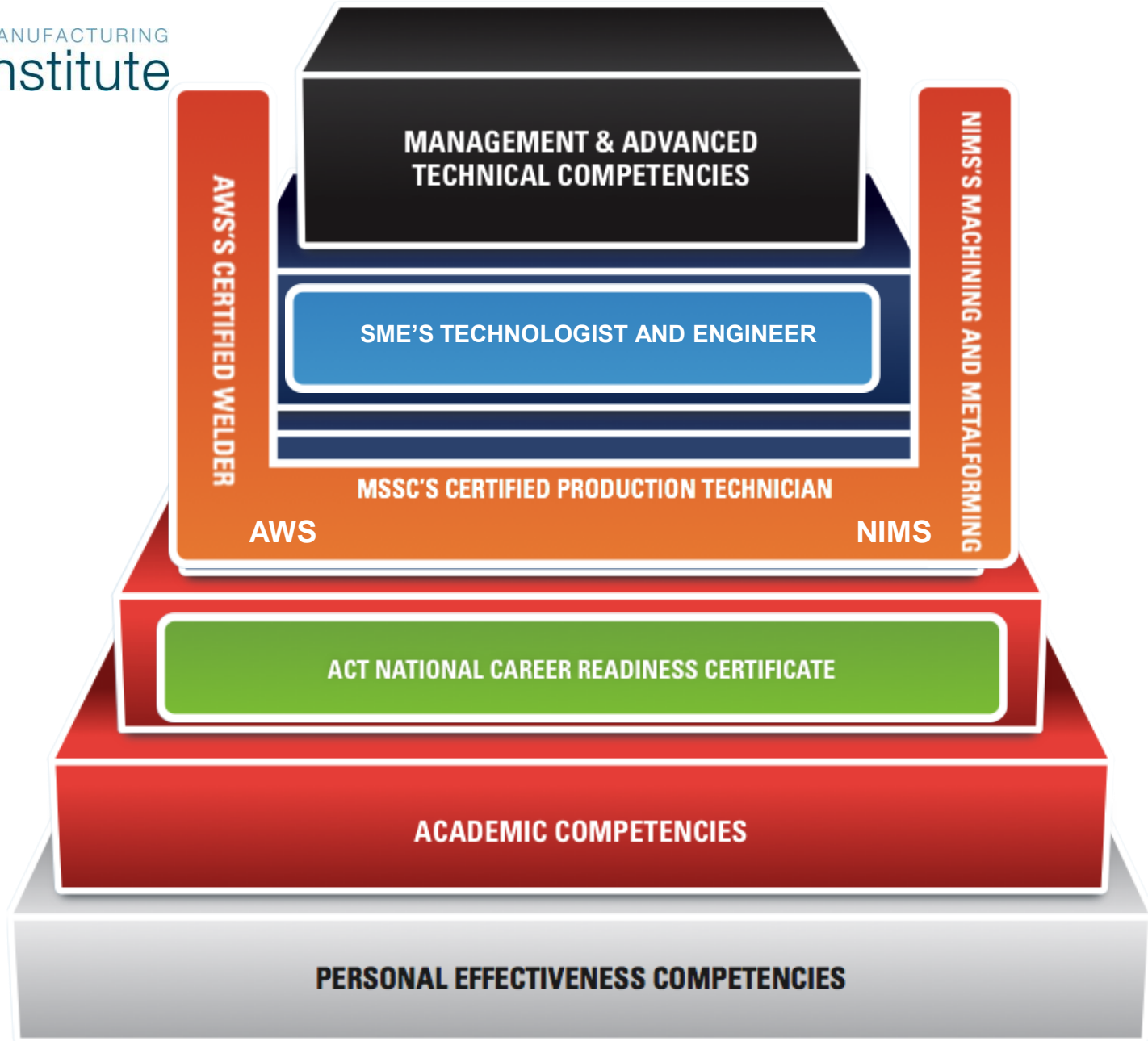
Producing a High-Performance Manufacturing Workforce

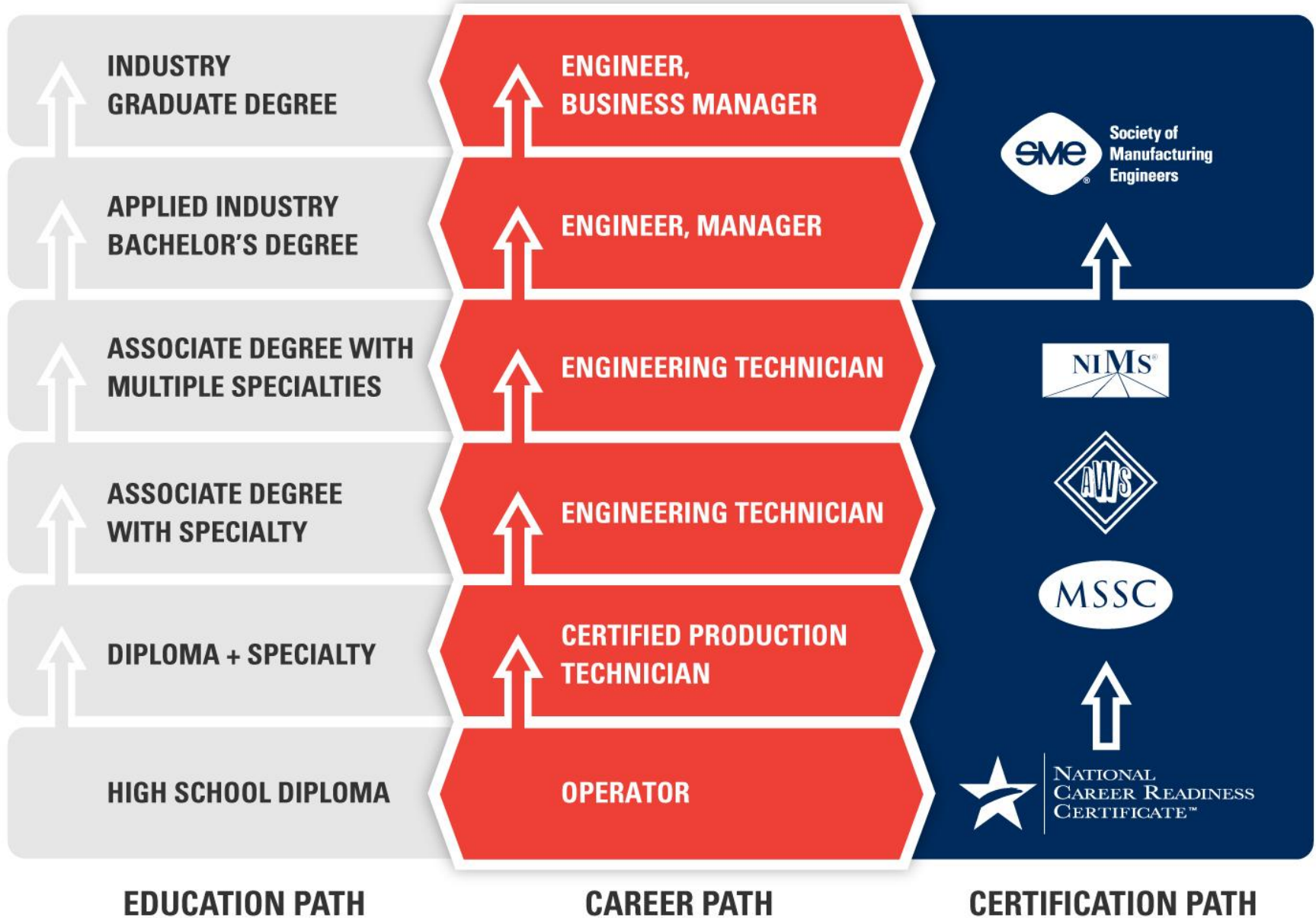
**Providing competency-based,
customized education and
training for the manufacturing
workforce...today and tomorrow.**

Advanced Manufacturing Competency Model





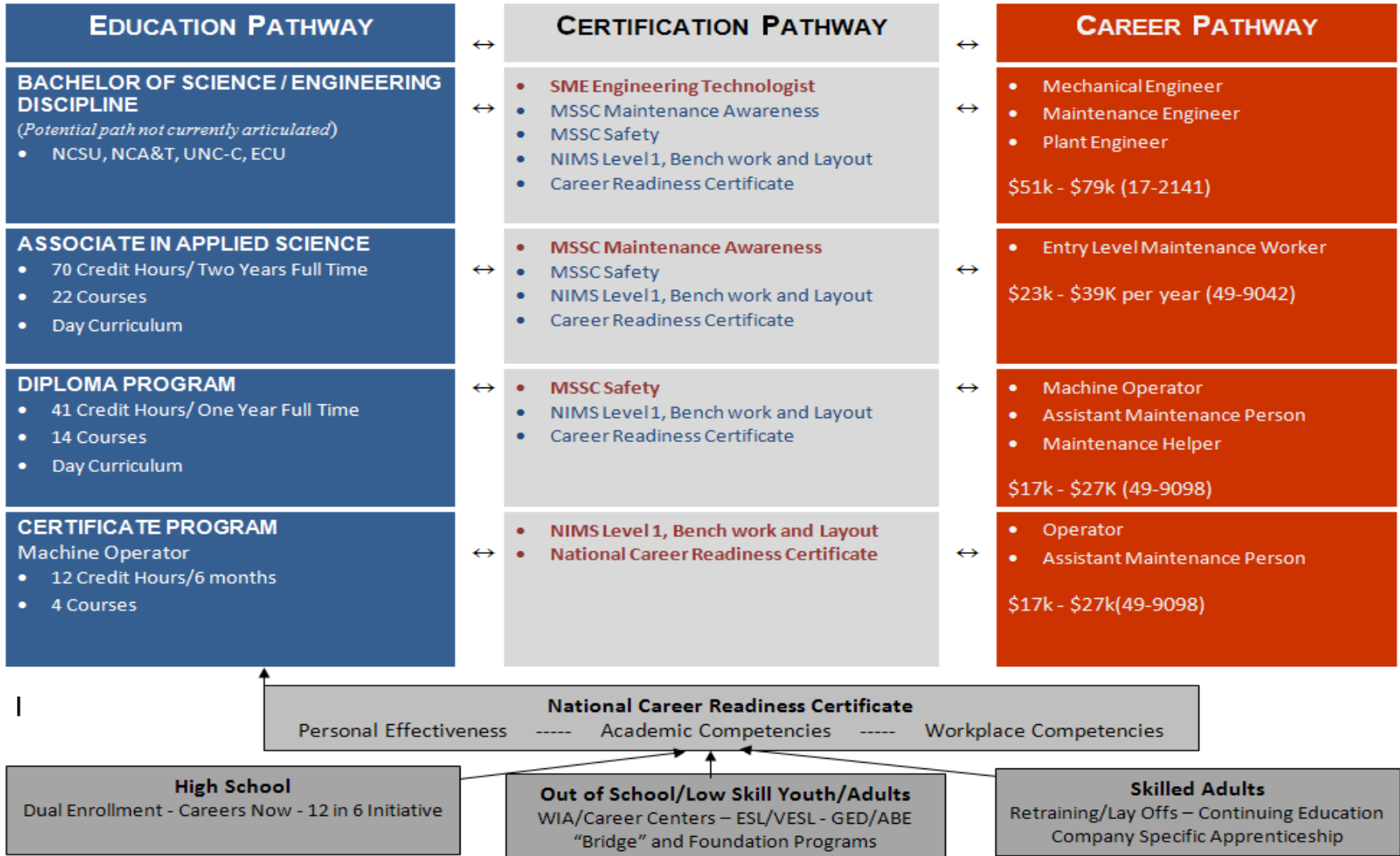




ALIGNING EDUCATION, CERTIFICATION AND CAREER PATHWAYS

Industrial Systems Technology

Forsyth Tech, Greensboro, North Carolina



Expanding the Model

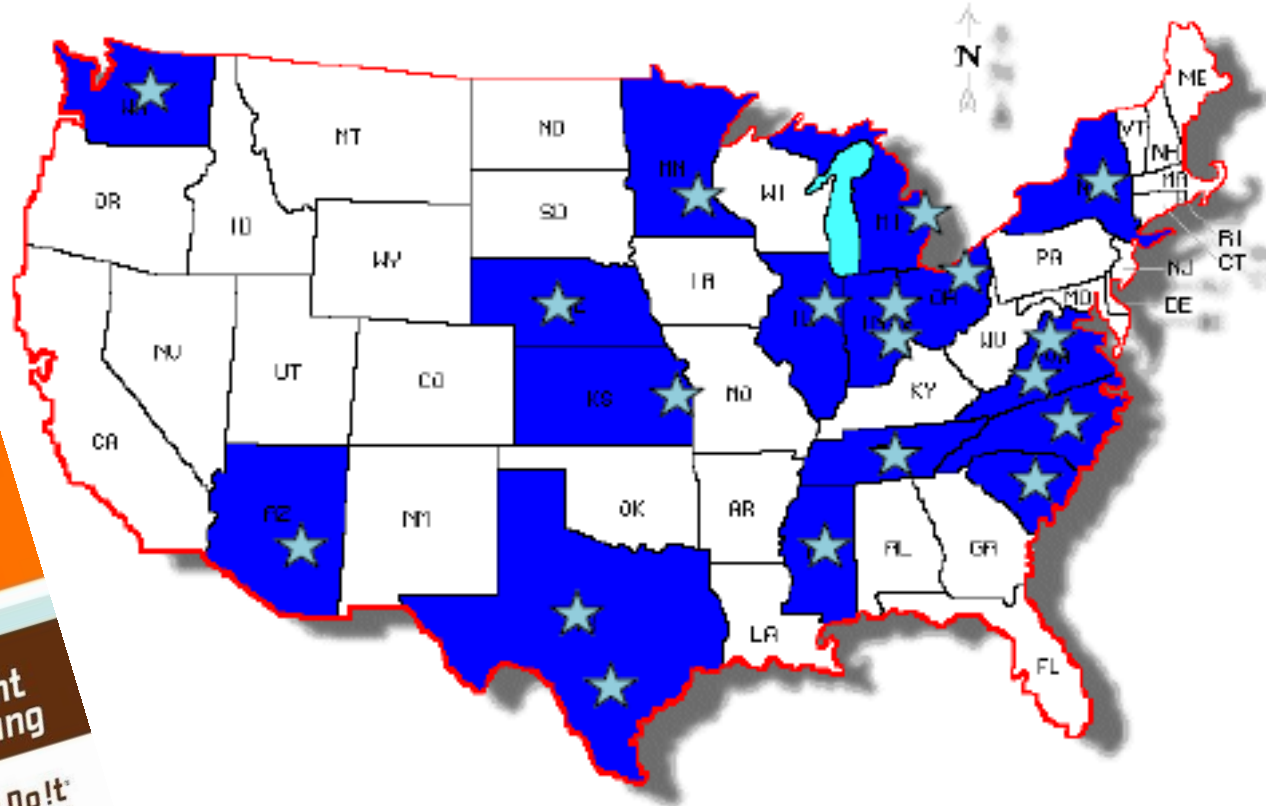
Priority Sectors Include:

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



Recruiting Students

Dream!t Do!t®



Championing National Legislation

America Works Act



National Champions

Regional
Champions

Industry Expansion

Role of Champions

Role: Serve as national champions for deployment of the NAM-Endorsed Skills Certification System

- Endorse the systemic approach
- Encourage and lead manufacturing education alignment in their state
- Implement the credentials within corporate hiring process
 - Encouraged for hiring
 - Preferred for hiring
 - Required for hiring
- Implement for incumbent workers, where appropriate
- Support alignment of Federal and state policy

A “Win-Win” Scenario

