TAACCCCT Round 3 Opportunities

Brent Weil
The Manufacturing Institute
Agenda

- Current status of TAACCCT and expectations for round 3 solicitation
- Lessons learned from previous rounds
- Planned Institute support for round 3
- Preparing for the next solicitation
- Q&A
Objectives

- Make it clear what the Institute plans to support, in what ways—and how you can be situated for support
- Help solidify possible consortia and projected pathways that advance the manufacturing workforce
- Provide resources and best practices
The Bottom Line

- The Manufacturing Institute sees TAACCCT as a vital opportunity to take manufacturing education to scale
- We do not have the capacity to write proposals or manage consortia
- We will support with letters, partnerships, connections, and grant activities
Current Status and Expectations

Gardner Carrick
Vice President of Strategic Initiatives
What Is Expected in Round 3

- Size and scope of grants
- Expected areas of emphasis
- Timing
The SGA Process

- Insights on Solicitations for Grant Applications
- Positioning for best opportunity
- The review process
- Achieving a competitive proposal
Lessons Learned to Date
Round 1

- Round 1 saw a “crowding out”
  - Multiple industries weakened impact for manufacturing
  - Proposals with very large numbers of disparate partners just didn’t get funded
Round 2 was a breakthrough

- Successful consortia focused on advanced manufacturing, including Iowa, Illinois, Wisconsin, Florida, New York
- National Aviation Consortium to build a much-needed pathway
- $175 million of the $500 million in awards went to advanced manufacturing
Other Round 2 Changes

- Language supported industry certification, including strong support for national credentials
- Prior learning assessment
- Evidence took the fore
What Works

- Focused proposals
- Advanced manufacturing and the backing of the Institute
- Geographic focus or strong sector tie-in (such as aerospace or automotive)
What Usually Doesn’t Work

- Very broad proposals (dispersed impact over more institutions) are hard to fit into the solicitation guidelines and score well.
Planned Institute Support
What We Will Support

- Advanced manufacturing proposals that have a major focus on alignment to the NAM-Endorsed Skills Certification System
- Right Skills Now accelerated programs that foster continuation into degree pathways, as well as traditional pathways
- Strong employer engagement, especially with state and industry associations
Expectations for SCS Implementation

- National Career Readiness Certificate as the baseline credential for workplace readiness
- One or more pathways and one or more technical certifications
- Traditional or accelerated pathway (Right Skills Now), or a combination
New Wrinkles

- Types of proposals that might be of interest include:
  - Cross-industry proposals that use as their base the SCS
    - Such as logistics, energy, construction
  - New pathways and extensions of pathways
    - Aviation was successful in this approach
  - Leveraging prior grants
TA Support in Proposals

Some suggested constructs
PROVIDING COMPETENCY-BASED, CUSTOMIZED EDUCATION AND TRAINING FOR THE MANUFACTURING WORKFORCE... TODAY AND TOMORROW
The SCS Aligns Systems

Education Pathway

- Engineering Degree
- High School Diploma

Certification Pathway

PROFESSIONAL
- Engineering: Society of Manufacturing Engineers (SME)

OCCUPATION-RELATED
- Transportation, Distribution and Logistics: Manufacturing Skill Standards Council (MSSC); American Society of Transportation and Logistics (ASTL); Association for Operations Management (APICS)
- Automation: International Society of Automation (ISA)
- Die Casting: North American Die Casting Association
- Fluid Power: International Fluid Power Society (IFPS)
- Mechatronics: Packaging Machinery Manufacturers Institute (PMMI)
- Quality: American Society for Quality (ASQ)
- Lean: Society of Manufacturing Engineers (SME)
- Construction: National Center for Construction Education & Research (NCCER)
- Fabrication: Fabricators & Manufacturers Association (FMA)
- Machining and Metalworking: National Institute of Metalworking Skills (NIMS)
- Welding: American Welding Society (AWS)

CORE TECHNICAL
- Safety, Quality Practices and Measurement, Manufacturing Processes and Maintenance Awareness
- Manufacturing Skill Standards Council (MSSC)
- Certified Production Technician (CPT)

FOUNDATIONAL
- Applied Reading – Applied Math – Locating Information
- ACT National Career Readiness Certificate (NCRC)

Career Pathway

Engineer

Helper/Operator
# Aligning Education, Certification, and Career Pathways

**For the Machining Industry at Lorain County Community College**

## Education Pathway

### Masters and PhD
- **Bachelor of Science / Engineering Discipline**
  - University of Akron
  - Cleveland State University

### Associate in Applied STEM/Science
- 62 Credit Hours / Two Years Full Time
- 22 Courses
- Day / Evening Curriculum

### STEM Diploma Program
- 39 Credit Hours / One Year Full Time
- 15 Courses
- Day / Evening Curriculum

### STEM Certificate Program
- 19 Credit Hours / One Year Part Time
- 8 Courses
- Day / Evening Curriculum

## Certification Pathway

- SME Engineering Technologist
- NIMS
- MSSC CPT
- NCRC
- NIMS
- MSSC CPT
- NCRC
- NIMS
- MSSC Safety
- MSSC Manufacturing Processes
- NCRC
- NIMS
- MSSC Safety
- NCRC

## Career Pathway

- Manufacturing Engineer
  - Manufacturing Technologist
  - Other Titles: Tool Engineer / Tool Design Engineer
  - 0 – 7 years experience
  - Wage expected $30-47 K/ year
- Computer-Aided Machining Designer / Programmer
  - CNC Programmer
  - Other Titles: NONE
  - 10 years experience
  - Wage okay; varies by experience
- CNC Operator / Programmer
  - Other Titles: NONE
  - 5 - 10 years experience
  - $12.00 / hour more likely for this position
- CNC Operator / Programmer
  - Other Titles: NONE
  - 0 – 5 years experience
  - $10.00 to $15.00 / hour
  - $17.74 too high of a wage

## National Career Readiness Certificate

- Personal Effectiveness
- Academic Competencies
- Workplace Competencies

## Applied STEM (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

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[Key Links]
Fast-Track to Jobs

- Providing workers and students with fast-track skills for employment
- Providing manufacturers just-in-time talent from the lab/classroom to the shop floor
- Accelerating and expanding lifelong learning opportunities for a flexible, technical workforce
One Model: ACT and NIMS

- Personal effectiveness: *show up on time, ready for work*
- Essential academic skills in reading, writing, math, and using and locating information: *communicate effectively and interpret key instructions*
- Workplace skills: *work in teams and problem-solve*

Hands-on experience + practical application of:
- Safety
- Precision Measurement Tools and gages
- Quality Assurance
- Material Composition
- Engineering Drawings, Symbols & Notation
- CNC

Nationally portable, industry-recognized credentials

Right Skills
Now for Manufacturing
Fast track training

1 semester + internship
- Measurement, Materials and Safety
- Job Planning, Benchwork and Layout
- CNC Operator - Turning Level 1
- CNC Operator - Milling Level 1

2+2 Bachelor of Science
Associate of Applied Science (Machine Tool Technology AAS)

Job!
Core Alignment to SGA (Round 2 Critical Factors)

- **Evidence-Based Design:** Early Model Success Based on implementation of the NAM-Endorsed Manufacturing Skills Certification System.

- **Stacked and Latticed Credentials:** Builds on NAM-Endorsed Manufacturing Skills Certification System to Technical Certifications and Aligned Academic Pathways.

- **Online and Technology-Enabled Learning:** Encourages the use of blended delivery mode.

- **Leverages National Assets:** USManufacturingPipeline.com for placement of workers and link to transitioning military.

- **Transferability and Articulation:** Leveraging efforts in other states to align pathway and encourage competency-based transfer of credits across diverse local region(s) to meet local demand for advanced training.

- **Strategic Alignment:** Offers strategic alignment across (i) employers and industry; (ii) the public workforce system; and (iii) educational institutions and other organizations.
Leveraging National Efforts
The Manufacturing Institute

- **Project Elements**
  - Job connection via US Manufacturing Pipeline
  - Right Skills Now model for replication
  - Models of SCS implementation based on early adopter colleges supporting evidence-based design

- **Technical Assistance Activities**
  - Pathway development aligned to stacked and latticed credentials
  - Support for strategic alignment
  - Employer forums and engagement
  - Student engagement via participation in the national Dream It. Do It. network
  - Assessment and curriculum review
Other Considerations

- Role for Prior Learning Assessment for Trade-Impacted Workers (possible support from CAEL)
- Support for Competency-based Evaluation of Certifications for credit (ACE)
  - We can help coordinate across institutions and consortia for maximum efficiency and benefit
Planning for Round 3
Data Collection

- Education and training needs of TAA-eligible workers (adults)
  - Impact of foreign trade in each community
  - Partnerships with TAA agencies
  - Skill levels, barriers to employment
- Labor market analysis of job opportunities
  - Industries and occupations targeted
  - Evidence of employer demand
  - Skills required in manufacturing occupations
- Community outreach
Partnerships

- Employers and manufacturing associations
- Local, county, state agencies and TAA agencies
- Local WIBs
- Labor organizations
- CTE and adult education
- Community-based organizations
- Apprenticeship sponsors
- Economic development
- Previous TAACCCT grantees
Resources
Resources

- Grant awards database and project descriptions:
  http://www.doleta.gov/taaccct/grantawards.cfm
- TA Resources:
  http://www.taconnect.org/
Proposal Development Resources

- Using Data to Write a Compelling Statement of Need:
  [Link](https://dl.dropbox.com/u/91234420/TAACCCT/Using%20Data%20to%20Write%20a%20Compelling%20Statement%20of%20Need%20Webinar%20Slides%2003%2029%202012.pdf)

- TAACCCT Cost Proposals:
  [Link](https://dl.dropbox.com/u/91234420/TAACCCT/Insights%20into%20the%20TAACCCT%20Cost%20Proposal%20Webinar%20Final%2004%202006%202012%2028%2029.pdf)
Pricing SCS Implementation

- Pricing summary of sample implementations:
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