Leveraging National Certifications in Apprenticeship
Key Takeaways from Today's Presentation:

• How to identify quality stackable credentials and incorporate them into apprenticeship and pre-apprenticeship programs

• How to implement strategies which help individuals navigate the overwhelming number of available credentials

• How to align foundational skills development to work-based learning programs that can lead to industry-recognized credentials, exceptional retention rates, and successful employment
Presenters

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Director of Workforce Development
ACT

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Co-founder & CEO
Manufacturing Skill Standards Council (MSSC)

Cindy Hill
Industrial/Organizational Psychologist
ACT

Tammy Green
Director of Workforce Innovation and IT Career Skills and Adult Education
Metropolitan Community College (MCC)
What are apprenticeships?

- Work-based learning that is a ‘career’ choice
- Consists of both classroom work and on the job training
- Earn & Learn model
- Wealth of content about the uptick in funding for apprenticeship efforts.*

*U.S. Department of Labor https://apprenticeship.gov

$200+ MILLION IN FUNDING

1M NEW APPRENTICES

BY THE YEAR 2022

https://apprenticeship.gov
31 MILLION
estimated skilled trade positions will be left vacant by 2020
When Baby Boomers retire.*

*Adecco Staffing Solutions
Over the past 30 years, the **cost** of a 4-year degree has increased **8x faster than wages.**

Other postsecondary education pathways, **including apprenticeship programs,** are more attractive options for many job seekers.*

30 MILLION JOBS in the U.S. pay an average of $55,000 per year and don’t require bachelor’s degrees.*

Apprenticeship Trends

- Growth in both traditional and emerging markets
- Registered and non-registered programs
  - Industry Recognized Apprenticeship Program (IRAP)
1998-2001: Federally mandated as the “Voluntary Partnership” for all of manufacturing to develop industry-led standards, assessments, and certifications for front-line workers (entry-level through front-line supervisor) for all sectors.

2001: Federal government endorses the MSSC national “Gold” standards, involving over 700 companies, 4000 front-line workers, 300 experts, $9+ million public and private funds—foundation for CPT & CLT.

- **CPT**: Applicable to all front-line production jobs (6 million)
- **CLT**: Applicable to all front-line material handling and distribution jobs (5.3 million)
- Applicable to a broad population of students, incumbent workers, veterans, dislocated workers, unemployed, and returning citizens.
MSSC: 2001 – Today

- Participating Federal Agencies: DOD, DOL, DOED, DOJ, DOC, and VA
- Only National Certification Body Accredited under ISO 71024 (Personnel Certification) and endorsed by NAM for both manufacturing and logistics
- 1,550+ MSSC Authorized Assessment Centers
- 50 States and D.C.
- 2,500+ Authorized CPT and CLT Instructors
- Given over 215,000 assessments
- Issued over 155,000 credentials
Define “industry”: Represents an entire industry, a large industry sector or major occupation

- Choose programs that are 3rd Party Accredited with audits consistent with ISO 17024 (Personnel Certification)
- Certifications that are based on industry-defined, nationally validated, competency-based standards developed in cooperation with a nationally-recognized trade association or other industry body
- Use certifications that have applied legally defensible validation methods
- Focus on certifications that are recognized nationwide (national portability) supported by an infrastructure able to deliver related training and assessments nationwide
- Focus on education and training programs that include “earn and learn” experiences and include attainment of industry-recognized credentials
- Choose programs that use well-qualified, experienced instructors who are themselves certified
- Focus on programs with assessments delivered under strong security safeguards
MSSC: Core Competencies

• Critical Work Functions of Production
  • Safety
  • Quality Practices & Measurement
  • Manufacturing Processes & Production
  • Maintenance Awareness
  • Green Production

• Certified Logistics Associate (Foundational)
  • Global supply chain life cycle, basic terminology, safety, quality, equipment, behavior, teamwork, communication, computers

• Certified Logistics Technician (Mid-technical)
  • Receiving, storing, ordering, packaging, shipping, inventory control, transportation modes, dispatch, tracking, measurement, metric conversion
MSSC: Hands-on CPT + “Skill Boss”

- 4 CPT “Hands-on” Certificates
- Full CPT “Hands-on” Certification
- Covers 55 “Hands-on” skills
- Integrates with CPT virtual e-learning
Pre-Apprenticeship: (720 hours)

- Embeds ACT NCRC “Silver Level” Certificates
- Related CPT Training: 80 hours junior year and 80 hours senior year
- On the Job Learning (OJL): 280 hours (8 weeks) in the summer of junior year and 280 hours (8 weeks) in the summer of senior year, for which the student will receive a stipend from the participating employer.
- MSSC Certificate of Completion at the end of the pre-apprenticeship
Industrial Manufacturing Technician (IMT): (3000 hrs.)

First 260 hrs. “Related Instructional Component”:
- NCRC Silver Level Applied Math and Workplace Documents
- CPT Certification
- Communication & Teamwork

Full IMT Program:
- Customize for any mfg. sector
- Operate industrial production related equipment,
- Work with manufacturing related tools,
- Perform work processes related to a wide variety of manufacturing settings.
MSSC: Successful Implementation

- Public Private Partnerships: Industry, Secondary, Post-Secondary, WIBs, Associations/Chambers, ED groups, city and state governments
- Imbeds credentials into pre-apprenticeships/apprenticeships
- Imbed credentialing programs in secondary and post-secondary: for-credit, dual-credit, non-credit, approved state lists
- State legislation to reward CTE credentials
- WIBs combine unemployment compensation with skills training
- Veterans programs
- Department of Corrections—CTE for incarcerated = tax payers not tax burdens (DOL Bonding Program)
- Charity Organizations: Good Will, United Way, Easter Seals, Salvation Army
Over 4.5 Million Certificates Awarded

Over 25,000 Employers Recognize
Horizontal and Vertical Skills Credential Integration

Integration Across Sectors

Integration Within Sectors

MSSC: Stackable Credentials
MSSC: Stackable Credentials
What is Curriculum Profiling?

Curriculum Profile

- Identify Learning Objectives
- Identify Knowledge, Skills, and Abilities
- Identify WorkKeys skills and levels for entry and exit from the program
### Curriculum Profiling

Stackable Credentials

<table>
<thead>
<tr>
<th>ACT® WorkKeys®</th>
<th>Curriculum Analysis Report</th>
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<tr>
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### MANUFACTURING PROCESSES & PRODUCTION

<table>
<thead>
<tr>
<th>Objective/ Skill</th>
<th>Applied Math</th>
<th>Graphic Literacy</th>
<th>Workplace Documents</th>
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<tbody>
<tr>
<td>OBJ 9</td>
<td>X</td>
<td>X</td>
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<tr>
<td>SKILL 3</td>
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<td>X</td>
<td></td>
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<tr>
<td>OBJ 10</td>
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<td>X</td>
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<tr>
<td>OBJ 11</td>
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<td>X</td>
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<tr>
<td>SKILL 4</td>
<td></td>
<td></td>
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<tr>
<td>SEGMENT 4 LEVERS AND MECHANICAL ADVANTAGE</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>OBJ 12</td>
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<td>OBJ 13</td>
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<td>OBJ 14</td>
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<td>OBJ 15</td>
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<td>X</td>
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<td>SKILL 5</td>
<td>X</td>
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<td>SKILL 6</td>
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### Unit 39: Mechanical Linkages

### SEGMENT 1 FRICTION

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<tr>
<td>OBJ 1</td>
<td></td>
<td></td>
<td>X</td>
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</table>
• Applied Math for CPT Modules
  • Safety didn’t require any math
  • Manufacturing Process and Production required Level 4 for entry and students should be at Level 5 at completion

• Examples:
  • Determine the hours worked: \( T = (H_s \times D) \times (H_B \times D) \)
  • Calculate machine availability: \( MA = T_A - T_{SD} - T_{USD} \)
  • Estimate product cost: \( C_P = C_{mat} + C_L + C_O \)
  • Calculate productivity: \( P = \frac{N}{T} \)
  • Calculate mechanical advantage: \( MA = \frac{W}{F} = \frac{L}{H} \)
### Skill Level Recommendations for Entry into the CPT Individual Certificate Modules

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<tr>
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<td>4</td>
<td>3</td>
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</tr>
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<td>4</td>
<td>4</td>
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<td><strong>Overall Entry Level</strong></td>
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### Skill Level Recommendations for Exit from the CPT Individual Certificate Modules

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</tr>
<tr>
<td>Manufacturing Processes &amp; Production</td>
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<td>6</td>
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A Proven Strategy to Reduce Turnover and Training Costs

- High Barrier Populations: 74% retention rate, 6 months after employment
- MCC Students: 87% retention rate, one-year after employment
- Industry Average hovers around 50% for most industry sectors: [https://www.bls.gov/news.release/jolts.t16.htm](https://www.bls.gov/news.release/jolts.t16.htm)

- Proven, verifiable means to determine applicant’s job skills
- Increases on-the-job productivity
MCC: Partnership is the Key

**Metropolitan Community College** (MCC) delivers relevant, student-centered education to a diverse community of learners. Metropolitan Community College offers quality, affordable education to Dodge, Douglas, Sarpy and Washington counties, providing a learning environment where students can thrive and reach their academic goals.

**Heartland Workforce Solutions** (HWS) is a non-profit organization made up of agencies from both the private and public sectors, dedicated to expanding employment opportunities for job seekers and employers in Douglas, Washington and Sarpy counties.

**Business and Industry** work to develop pre-apprenticeship and apprenticeship programs that align with their workforce needs.

**Dual clientele:**
1. Job Seekers (Human Service Agencies, GED, ESL, Re-entry, Unemployed, Under-employed)
2. Businesses (H3- High Demand, High Wage, High Skill)
3. Training Programs
4. Adult Basic Education Programs
MCC: Funding & Program Support

• US Department of Labor TAACCCT Grant
• City of Omaha Funding: Career Readiness to Eliminate Disparities
• GAP Assistance Dollars
• Private Foundation Funding
MCC: How We Got Started...

Heartland Work Ready Community  https://youtu.be/vpAlc3LHxpc
MCC: Apprenticeship Initiatives

- ICATT Apprenticeship Model
- Habitat for Humanity Apprenticeship
- **Industry Sector Strategy:** Regional employer-driven partnerships of industry, education and training, and other stakeholders that focus on the workforce needs of key industries in a regional labor market
  - Manufacturing
  - Information Technology
  - Transportation/Distribution/Warehousing/Logistics
  - Construction
  - Healthcare
  - Financial Services

MCC Student Capstone Project
MCC: Essential Elements

- Credit for Prior Learning
- Package Credit/Noncredit Classes resulting in stackable credentials and certifications
- Work readiness and life skills training
- Employment and support
- Access to MCC locations and resources
Common Elements

Individuals who experience one or more of these life situations in less than two years:

- Poverty
- Individuals with Disabilities
- Ex-Offender
- Homelessness
- Foster Care Youth
- English Language Learners
- Low Levels of Literacy
- Exhausting TANF
- Single Parent
- Long Term Unemployed
MCC: Career Skills Coaching

Participants are leveraging the ACT National Career Readiness Certificate (NCRC™) to measure and close the skills gap — and building common frameworks that link, align, and match their workforce development efforts.

- Establish partnership with industry/employers
- Key component of pre-apprenticeship
- Provide essential skill training customized for specific positions
- Assistance with pre-employment activities for potential candidates
- Connect with Adult Education students to establish Career Maps
- Coordinate Career Maps with resume and workforce training workshops
- Coordinate with Educational Pathways
Pre-Apprenticeship Timeline

1. Identify 20-25 potential candidates - October 2018

2. Week 1 - Basic Needs Advocate (Sustainability building & Case Management) - October 29 - November 2

3. WorkKeys Education Training - November 12-15

4. Week 2 - MCC Certification Class & Employment Offer - November 5-9

5. Week 3 - Individual is employed - November 12-16

December 2018
- Job Coach follows up 6 months
- Employer Connections Follow-Up
- On-going Communication

6. Week 4 - Team review & Plan next class - November 19-21
Skill Gap Identification:
National Career Readiness Certificate (NCRC)

The credential is awarded in four levels and verifies skills proficiency in:

- Problem solving and critical thinking
- Reading and using work-related text
- Applying information from workplace documents to solve problems
- Applying mathematical reasoning to work-related problems
- Setting up and performing work-related mathematical calculations
- Locating, synthesizing, and applying information that is presented graphically
- Comparing, summarizing, and analyzing information presented in multiple related graphics

Case studies and research show that employers benefit:

- Better quality hire
- Reduced turnover
- Reduction in time to hire
- Shortened training periods
- Increased performance ratings for skilled workers
- Improved employee morale
- Decreased operator error
- Improving promotional procedures
Skills Based Approach

Career Placement Program
- Career Mapping
- ACT National Career Readiness Certification (NCRC)
- ACT WorkKeys Curriculum: Individualized Training Program
- Basic Computer Certification
- Customer Service Certification
- Work Ethics Certification

Short Term Certifications
- Based on Career Mapping
- High Demand, High Wage
- CDL, Welding, Production Technician, Sheet Metal
About Job Profiling

- Brings the specifics of a job into focus
- Provides users with useful information for hiring, promotion, and training
- Establishes content validity for the ACT WorkKeys Assessments
- Helps users feel confident in using them to make selection, advancement, and training decisions

Used to Develop:

- Curriculum
- Individualized training/certifications
- Levels link skill sets with jobs/positions
How National Certificates Help Apprenticeship Programs

- Employers need a reliable way to measure skills to ensure that they are hiring the most qualified, trainable candidates.
- Identify and invest in employees who can make real contributions.
- Find qualified workers: Connect to under and unemployed individuals served through ABE programs
- Streamline Applicant Screening
- Employees have the employability/soft skills and technical skills and certifications
- Proven ROI
#ACTWorkforce for APPRENTICESHIPS
ACT Workforce Solutions for Apprenticeship

• Help build, expand, and improve the success of pre-apprenticeship and apprenticeship programs.

• WorkKeys NCRC can validate and ensure individuals have the foundational skills necessary to be successful.

• WorkKeys-Aligned Curriculum can close the skill gaps and ensure readiness.

RESOURCE:
Apprenticeship Landing Page
https://pages2.act.org/apprenticeships
Workforce Solutions for Apprenticeship

1. Job Profiling
2. WorkKeys Assessments
3. WorkKeys Curriculum
4. Credentialing
5. Matching Qualified Applicants to Jobs
6. Trained Workforce, Thriving Communities
Live Q&A

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Thank you! We hope to connect with you soon.