MEP National Network™
The Go-To Experts for Advancing U.S. Manufacturing
What MEP Centers Do

Work with small and medium-sized manufacturers to help create and retain jobs and sales, increase profits, and save time and money.

Focus on meeting manufacturer’s short term needs, but in context of overall company strategy.

Reach over 26,300 manufacturers and complete over 8,000 projects per year.

Provide companies with tailored services including:

- Supply Chain
- Technology
- Workforce
- Export
- Lean and Quality
- Innovation and Growth
- Product Development
- Sustainability
Examining the Quality, Market Value, and Effectiveness of Manufacturing Credentials

• Sponsored by MEP in coordination with NIST SCO, conducted by Workcred, an affiliate of ANSI
• The goals of the research were to:
  • Examine the quality, market value, and effectiveness of manufacturing credentials
  • Examine the need for new or improved credentials to advance U.S. manufacturing and keep up with changing skill needs
• An online survey using NIST MEP Centers to distribute across the U.S. and Puerto Rico – 945 companies responded, 94% <500
• Responses represented most Manufacturing industry sectors, and were from across the country
• Focus groups comprised of respondents
• Desk research and analysis
• Key findings
Overall Research Questions

1. How are credentials used in the manufacturing industry?
2. Which credentials are the most prevalent in the manufacturing industry?
3. How are credentials valued, and are there differences in terms of the size of manufacturers?
4. What knowledge, skills, and abilities are manufacturers looking for when hiring?
5. How do manufacturers use credentials to assess potential hires and make promotion decisions?
6. What type of credentials are required and/or preferred by manufacturers and why?
7. What support do individuals receive to obtain a credential after they are hired?
8. What training is conducted to up-skill individuals who hold credentials versus those who do not?
9. What is the relative importance of soft skills versus technical skills?
Key Findings

• Many manufacturers do not appear to know what credentials are available or how they might be relevant to their workplace

• Credentials have uneven use in the manufacturing industry and are not routinely required or even used as a major factor in hiring or promotion decisions

• Larger manufacturing facilities are more likely to prefer credentials for employment than smaller facilities. The size of the facility appears to influence credential use:
  – Large manufacturing facilities are more likely to prefer credentials for employment than smaller facilities
Key Findings

• Manufacturers do not see credentials as the most relevant tools for them to use to either identify new skilled personnel or as incentives that might improve the quality of their incumbent workforce.

• Manufacturers often need to train new employees, regardless of whether they possess a credential or not.

• Manufacturers could not quantify whether credentials provided added value in terms of reduced cost or reduced training time for people possessing credentials.

• Manufacturers believed that credentials could serve as a critical resource if they could be made more in line with skills needed in their facilities and were better understood.
How Credentials Are Used in Manufacturing Facilities

![Pie Chart showing the percentage of responses for each category: Preferred (45%), Not used in our facility (30%), Required for employment (11%), Required for promotion (8%), Required to maintain the job (8%).]

<table>
<thead>
<tr>
<th>Response</th>
<th>Very Small</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred</td>
<td>42%</td>
<td>56%</td>
<td>62%</td>
<td>82%</td>
</tr>
<tr>
<td>Not used in our facility</td>
<td>46%</td>
<td>40%</td>
<td>33%</td>
<td>9%</td>
</tr>
<tr>
<td>Required for employment</td>
<td>17%</td>
<td>8%</td>
<td>18%</td>
<td>14%</td>
</tr>
<tr>
<td>Required for promotion</td>
<td>6%</td>
<td>6%</td>
<td>15%</td>
<td>18%</td>
</tr>
<tr>
<td>Required to maintain the job</td>
<td>7%</td>
<td>9%</td>
<td>12%</td>
<td>18%</td>
</tr>
</tbody>
</table>
## Reasons Credentials Are Not Used

<table>
<thead>
<tr>
<th>Response</th>
<th>Very Small</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not relevant to jobs in my facility</td>
<td>39%</td>
<td>31%</td>
<td>31%</td>
<td>...</td>
</tr>
<tr>
<td>Make no difference in performance</td>
<td>34%</td>
<td>27%</td>
<td>13%</td>
<td>50%</td>
</tr>
<tr>
<td>Cannot find individuals with relevant credentials</td>
<td>16%</td>
<td>24%</td>
<td>27%</td>
<td>50%</td>
</tr>
<tr>
<td>Credentials do not exist</td>
<td>14%</td>
<td>20%</td>
<td>13%</td>
<td>...</td>
</tr>
<tr>
<td>Other</td>
<td>25%</td>
<td>27%</td>
<td>38%</td>
<td>...</td>
</tr>
</tbody>
</table>
Reasons Why Credentials Do Not Make a Difference in an Individual’s Performance

- **66%**: Experience is a better predictor for performance
- **36%**: Individuals have to be retrained anyway
- **32%**: More cost effective to create our own credentials
- **30%**: No difference in performance
- **23%**: Individuals don’t have the knowledge and skills as claimed
- **19%**: Increase in salary associated with credentials is not cost effective
- **17%**: The individual has knowledge but can’t perform
- **6%**: Other
### Most Commonly Cited Credentials Identified in the Survey

<table>
<thead>
<tr>
<th>Credential</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA Forklift</td>
<td>22%</td>
</tr>
<tr>
<td>Certified Welder, American Welding Society (AWS)</td>
<td>21%</td>
</tr>
<tr>
<td>Certified Quality Inspector, American Society for Quality (ASQ)</td>
<td>17%</td>
</tr>
<tr>
<td>Other</td>
<td>16%</td>
</tr>
<tr>
<td>Apprenticeship - Machinist</td>
<td>16%</td>
</tr>
<tr>
<td>OSHA 10-hour</td>
<td>15%</td>
</tr>
<tr>
<td>OSHA 30-hour</td>
<td>15%</td>
</tr>
<tr>
<td>IASSC Certified Green Belt™</td>
<td>14%</td>
</tr>
<tr>
<td>Facility-specific Credential</td>
<td>13%</td>
</tr>
<tr>
<td>Apprenticeship - CNC Programmers</td>
<td>13%</td>
</tr>
<tr>
<td>IASSC Certified Black Belt™</td>
<td>12%</td>
</tr>
</tbody>
</table>
Ways Credentials Can Be Improved

- Credentials should focus more on hands-on skills: 64%
- Credentials should cover soft skills: 42%
- Credentials should be more aligned to job-specific tasks: 36%
- Other: 9%
Overarching Recommendations

• Improve understanding about the content and value of credentials
• Expand the use of quality standards for credentials
• Strengthen relationships between manufacturers, education and training providers, and credentialing organizations
• Add employability skills components to existing and new credentials
• Create credentials that focus on performance and address new roles
• Increase the number of apprenticeships and expand apprenticeships to more occupations
• Develop more flexible learning opportunities
• Increase opportunities to demonstrate workplace behaviors
• Develop credentials for growing and evolving roles
Potential Areas for Further Research

- Analyze supply and demand for workforce competencies
- Validate the need for new credentials
- Examine other factors that impact use of credentials
- Compare existing manufacturing certifications with validated manufacturing skills
- Increase the quality and efficiencies of on-the-job training in small manufacturers
- Conduct an in-depth analysis of employability skills
- Study the impact of performance exams on job performance
- Examine facility-specific credentials
- Study the return on investment of work-based learning for manufacturers
What comments do you have?

What questions do you have?