The National Network of Business and Industry Associations (National Network) believes the learning world and the working world should be meaningfully connected, and one way to do that is through quality industry credentialing programs.

While quality industry credentials are essential to strengthening connections between working and learning, the marketplace is full of so-called “solutions,” making it hard for employers, educators and students to understand which credentials have real value. That is where the National Network comes in. Representatives from more than 10 high-demand industry sectors have identified the attributes of high-value, standards-based, industry credential programs. While this list refers mostly to certifications, a type of industry credential, it is a first step in defining the qualities that make programs valuable to consumers—employers, workers and students. Quality credential programs have:

- An independent, third-party governing body that operates with impartiality
- A scope statement for the credential that is publicly available
- Current job task analyses or other standards on which a program is based
- A validation process for the job task analysis
- A process for examination development, maintenance and administration
- Eligibility requirements or prerequisites
- Alignment of learning objectives with assessments
- Credential and training that are industry recognized
- A code of ethics*
- Policies that guide all credentialing decisions, including due process
- Protection of intellectual property, including examination, logos and marks
- Stakeholders that provide ongoing systematic input
- Separation of training from testing*
- Evaluation of program against program performance objectives
- A complaints and appeals process
- Ongoing professional development to maintain credential*

These characteristics allow any industry to understand what quality credentials entail, but that is just a starting point. Outlined on the following pages are three unique, but interconnected processes articulated by National Network members to help industries develop quality credentialing programs of their own. These processes and steps may not be applicable to all industry credentialing programs, but they are representative of how current credentialing programs have ensured rigor, quality and value.

These processes are:

1. Development of Skills Standards;
2. Development of Credentialing Programs; and

* The attributes of certifications and certificates differ, and those stated above refer mostly to certifications. As the work continues to create the most valuable credentials in the marketplace, these attributes will be refined to reflect variations in industry credentialing types and processes. The starred attributes are applicable to only certifications, not certificates. Certifications require an “independent third party” assessment of competencies; the organization that trains cannot be the organization that certifies.
<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
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<tr>
<td>1</td>
<td>Industry Organization Authorizes Job Task Analysis (JTA) to Develop Skill Standards for the Industry</td>
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<tr>
<td>2</td>
<td>Industry Organization Forms Technical Work Group (includes a national and regional representation of employers, employees, industry educators and often a JTA consultant or psychometrician)</td>
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| 3    | Technical Work Group Meets (in-person or by conference call)  
- Identifies and confirms Technical Work Group tasks  
- Drafts performance requirements  
- Identifies knowledge, skills, abilities and other characteristics  
- Compiles all into draft JTA |
| 4    | If Needed, Technical Work Group Conducts Regional Validation of the JTA by Industry Employers and Employees (feedback is captured through in-person meetings or by conference call)  
- Critique draft JTA  
- Propose changes  
- Address issues of accuracy and performance assessment |
| 5    | Technical Work Group Reconvenes (in-person or by conference call)  
- Consider changes proposed by the regional industry validation process  
- Revise JTA accordingly  
- Submit revised JTA to association board |
| 6    | Industry Organization Reviews Revised JTA, Approves as Interim Standard(s) or Remands to Technical Work Group for Changes  
- If approved, industry organization authorizes a survey of employers and employees to validate JTA |
| 7    | Nationwide Industry Validation Survey of Employers and Employees  
- Separate survey instruments for employers and employees  
- Survey sample companies within industry  
- Survey sample target populations |
| 8    | Industry Organization Reviews Validation Survey Results  
- Approves validated JTA as final Skill Standards  
- Authorizes publication of final Skill Standards  
- Sets frequency for Skills Standards to be reviewed |
| 9    | Skill Standards Published and Distributed |
**Skill Standards Approved for Publication After Undergoing Development Process**

**Form Voluntary Credentialing Development Committee**
- Test developer
- Industry subject matter experts
- Industry educators
- Industry organization staff

**Determine Credentialing Approach for Performance Assessment**

**Set Guidelines for Test Development**
- Test structure
- Total number of questions
- Exam performance options
- Question format
- Test delivery method (online or in-person)

**Develop Performance Evaluation Procedures**
- Identify pilot sites
- Conduct pilots
- Revise procedures, if necessary

**Pilot the Performance Evaluation Procedures**
- Identify pilot sites
- Conduct pilots
- Revise procedures, if necessary

**Written Test Development**
- Array all topics based on the Skill Standards
- Determine importance of each topic
- Allocate number of questions per topic
- Draft questions
- Compile and examine for redundancies

**Validate Written Test**
- Evaluate for reading level
- Evaluate for language bias
- Identify pilot test sites
- Conduct pilot tests to time and validate each test item

**Analyze Validation Results**
- Item analyses
- Analyses by participant categories and geography
- Rewrite test items where necessary
- Set cut scores

**Validated Credentialing Exams**
## EXAM PROCEDURES DEVELOPMENT PROCESS

1. Voluntary Credentialing Development Committee Establishes Requirements to Qualify to Sit for the Exam

2. Voluntary Credentialing Development Committee Develops the Exam Registration Process

3. Voluntary Credentialing Development Committee Recommends Exam Security Protocol

4. Voluntary Credentialing Development Committee Recommends Procedures for
   - Notification of exam results
   - Exam retesting
   - Delivery of credential

5. Industry Organization Reviews and Approves Exam Requirements, Exam Registration Process, Exam Security, Delivery of Exam Results, Retesting and Delivery of Credential

6. Draft Candidate Handbook is Developed and Contains
   - Exam requirements
   - Exam security procedures
   - Retesting procedures
   - Exam registration process
   - Delivery of exam results
   - Delivery of credential

7. Voluntary Credentialing Committee Reviews Candidate Handbook

8. Necessary Revisions Are Made to Candidate Handbook and it is Pilot Tested With Credential Candidates Sitting for Exam

9. Pilot Test Concludes, Revised Candidate Handbook is Published