Welcome! We’ll begin in about 5 minutes.

- Please keep your microphone muted until Q/A begins.
  - *Do not mute your phone if your system plays music.*
- Online attendees are encouraged to send questions using the chat feature.
- We are recording the presentation today.
Dane Linn
Vice President, Immigration,
Workforce & Education
*Business Roundtable*

Brad Markell
Executive Director
*AFL-CIO Working for America Institute*

Scott Cheney
Executive Director
*Credential Engine*

Eleni Papadakis
Executive Director
*Washington’s Workforce Board*
Board Chair
*Credential Engine*

Marina Parr, Director of Communications, *Washington’s Workforce Board*

Randy Smith, IT and Research Specialist, *Washington’s Workforce Board*

Lew McMurrnan, Future of Work Co-Manager, *Washington’s Workforce Board*
Background on Credential Transparency Initiative

Dane Linn
Vice President, Immigration, Workforce & Education
Business Roundtable
Overview of Credential Engine

Scott Cheney
Executive Director
Credential Engine
Credential Transparency and Literacy in the Marketplace

July 22, 2019
Our Mission and Work

• To bring transparency to all credentials—their content, competencies, assessments, quality indicators, pathways and outcomes.
• To reveal the marketplace of credentials.
• To increase credential literacy.
• To help everyone make more informed decisions about credentials and their value.
The Problem – Lack of Shared Understanding Across All Credentials

The Marketplace of Credentials Is Confusing and Complex:

- Many different types of credentials with variation in content, quality and value.
- The market is expanding - over 730,000 confirmed in the U.S. alone.
- Previously no common language to describe or compare credentials.
- Misalignment between industry needs and educational offerings.
- No mechanism for stacking credentials based on “competencies.”
Why are the searches different?

- Travel industry uses linked data.
- Credentials haven’t, and most still don’t.
- Information is not well-organized or comparable.
- With Credential Engine, we’re moving the credential marketplace to use linked data, allowing credentials to be searched, discovered and compared just like cars, flights, or commercial goods.
- To get there, we need a common language.
- CTDL is going through the process of gaining recognition to become the official schema for credentials.
How We do it: Transparency Through Technology

Credential Transparency Description Language (CTDL) & CTDL-ASN– Common languages that describe key features of credentials, credentialing organizations, competencies, and quality assurance bodies.

Publishing – After creating a user account, organizations use the API, Credential Registry Publisher, bulk upload, or—in the future—harvest structured data to convert organization, credential, and quality assurance information to the common language and publish to the Registry.

Common descriptors will allow for better apples-to-apples comparison between credentials.

Credential Registry – More than a database, the Registry collects and connects credential data described by the CTDL and supports and open applications marketplace.

Developers can create specialized applications to utilize Registry data for different types of audiences, such as employers, veterans, and students.

Credential Finder Beta Application – This serves as a basic search app to view the information stored in the Registry.

The public can use the Finder to see all information published to the Registry.

Community – A wide range of stakeholders receive technical assistance and other services to help them both publish to the Registry and consume the data it houses.

Credentialing bodies, developers, and other users have access to resources such as guides, best practices, and direct staff support.

Open Applications Marketplace
# A Common Language Captures & Structures Credential Data

<table>
<thead>
<tr>
<th>CREDENTIAL</th>
<th>ORGANIZATION</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Type&lt;br&gt;• Description&lt;br&gt;• Competencies&lt;br&gt;• Owned/Offered By&lt;br&gt;• External Quality Assurance&lt;br&gt;• Renewal/Revocation&lt;br&gt;• Connected Credentials&lt;br&gt;• Jurisdiction&lt;br&gt;• Pathways</td>
<td>• Name / Parent Organization&lt;br&gt;• Type&lt;br&gt;• Description&lt;br&gt;• External Quality Assurance</td>
<td>• Price&lt;br&gt;• Cost Types&lt;br&gt;• Payment Information&lt;br&gt;• Residency</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ASSESSMENT</th>
<th>LEARNING OPPORTUNITY</th>
<th>IN DEVELOPMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Name&lt;br&gt;• Competencies&lt;br&gt;• Assessment Type&lt;br&gt;• Delivery Type&lt;br&gt;• Requirements, Duration, and Location</td>
<td>• Types&lt;br&gt;• Competencies&lt;br&gt;• Delivery&lt;br&gt;• Requirements, Duration, and Location</td>
<td>• Employment &amp; Earnings&lt;br&gt;• Aggregate Credential Holder Profiles&lt;br&gt;  • Such as pass-rates&lt;br&gt;• Military-specific descriptors&lt;br&gt;• Employer Requirements, Preferences, or Recognition</td>
</tr>
</tbody>
</table>

*For CTDL’s full vocabulary of 400+ terms, visit www.credreg.net*
Data Interoperability
No single standard does it all.

Technical Stack

- Data Dictionary & Vocabulary:
  - CTDL & CTDL-ASN
  - element & expected value definitions
  - different models for different uses
  - e.g. REST

- Data Model

- Protocol

- Serialization

- API
  - e.g. specific JSON or XML binding
  - e.g. specific API calls specified as part of an education data standard

Depth of Systems Integration

Broader Applicability
Example Benefits of Linked Open Data (LOD)

• Breaking down information silos.
• Linking disparate systems to authoritative sources.
• Enabling useful applications.
  • Linked Open Data is essential for modern apps and services on the semantic web, such as
    • Expedia, Travelocity, Mapquest, Car.com, etc.….
https://goo.gl/56oheh
Certificate in Supply Chain Management/Logistics

Ivy Tech Community College of Indiana

About this Credential

Ivy Tech's Supply Chain Management program prepares students to enter the workforce with the skills demanded in industry. It addresses the movement and storage of raw materials, work-in-process inventory, analysis and finished goods. Students are able to study and get familiar with the high technologies and information systems used to track goods and increase efficiencies.

Students will receive short-term certificates that are designed for workforce preparation. They provide access to target training that will be on specific certification exams. Courses in the program also apply toward technical certificates and degree programs.

As part of Governor Holcomb’s Next Level Jobs initiative, the Workforce Ready Grant program provides free training for working-age Hoosiers in the state’s highest demand jobs. These industries have higher median salaried jobs and are rapidly growing in Indiana - including Advanced Manufacturing, Building & Construction, Health & Life Sciences, Information Technology & Business Services, and Transportation & Logistics. For more information, please refer to https://www.nextleveljobs.org/Job-Seeker/Avaliable-Job-Training

Basic Info

Location Info

More Info

Competencies

18
Teaches 18 Competencies

Connections

1
Has 1 Common Condition

Quality Assurance

1
Quality Assurance

3
Owner’s Quality Assurance

Requirements and Recommendations

2
Requires 2 Credentials

1
Requires 1 Learning Opportunity

Estimated Costs

1
Cost

Credential Status Type

Active

Credential Type

Certificate

Learning Delivery Type

In-Person

Online Only

Subjects

Retail_Hospitality_Sector

815 E. 60th Street, Anderson, Indiana 46013, United States

200 Daniels Way, Bloomington, Indiana 47404, United States

4475 Central Avenue, Columbus, Indiana 47203-1868, United States

410 E. Columbus Dr., East Chicago, Indiana 46312, United States

3501 N. First Avenue, Evansville, Indiana 47710, United States
Auxiliary Equipment Technician

### About this Job

**Description**
Auxiliary Equipment Technicians perform organizational and intermediate maintenance as well as advanced systems operations of hydraulic power plants and hydraulic system components, emergency diesel engines, compressed gas systems (co2, oxygen, hydrogen, and nitrogen), sanitation systems, seawater systems, fresh water systems, oxygen-generating equipment, atmosphere control equipment, and submarine salvage equipment (water tight hatches and doors) and supervise operations and maintenance performed by Auxiliary Equipment Operators.

**Identifiers**
- Job Code: 07759
- CTID: 6e-cb546b35-1b47-485f-8b48-bb5a-bd6a-7b5d7
- Short Title (30 characters): AUXILIARY EQUIPMENT TECHNICIAN
- Short Title (15 characters): AUX EQUIP TECH
- Pay Plan Type: ENHANCED
- Rating Code: MMA

**Rating Info**
- Rating: Machinist Mate, Non-Nuclear, Submarine Auxiliary
- Rating Code: MMA
- Rating Version: 2
- Rating Upload Date: 6/18/2017 12:26 PM
- Rating Publication Date: OCT 2017

**Framework Connections**
- DoD Group: Shipboard Propulsion
- DoD Code: 565000
- SOC Title: Maintenance and Repair Workers, General
- SOC Family: Installation, Maintenance, and Repair
- SOC Code: 49-9071.00

### Related Organizations

**Job Origin and Management**
- US Navy
- Descriptive text for this organization
- Creator: Copyright Holder
- Sub-Organization/Department Name: Descriptive text for this organization Management

### Related Information

**Job Connections**
- 2 Other Jobs in this Rating
- 16 Related NEC Codes
- 4 Bill Positions

**Education and Training**
- 11 Related Credentials
- 2 Related Assessments
- 1 Related Learning Opportunities
- 112 Training Tasks
- 11 Performance Objectives

**Related Systems and Components**
- 2 Related Systems

**Related Tasks**
- 110 Occupational Tasks
- 142 Maintenance Tasks

**Raw Data**
- JSON Data
Partnerships for Scaling Up

States
- Kansas just published 2,400+
- MI is highlighting apprenticeships and pathways
- NJ is integrating into their ETPLs
- IN is most extensive: e-transcript; articulation; veterans; pathways; …

Federal Partners
- Navy Personnel & Training
- White House Learner Record initiative
- Dept. of Ed’s Scorecard

Employers & Unions

Institutions

Third Party Publishing

行业协会

Industry Sectors
Retail & Hospitality Credentials Initiative

National Retail & Hospitality Initiative Initiative:
- Identify, collect, and publish retail, restaurant, and hospitality credentials—from badges to degrees and everything in between—to the Credential Registry.
- Engage certification bodies, industry associations, community colleges, unions, apprenticeship programs, employers, and more in publishing credentials.

RHCI Working Group Priorities:
- Contribute to the credential inventory (180+ initial credentials identified) and outreach to credential issuers.
- Recommend applications and tools that ensure the data gets into the hands of employers, workers, students, and more.
- Participate in breakout groups tackling different topics (e.g. career pathways, employers, credential quality).
- Recommend next steps or “phase two” of the project.
Who Benefits from the Credential Registry Data?

Credentialing Organizations can
• Differentiate their programs to help them stand out in the vast credential marketplace, as well allow both students and employers to better understand their credentials and how they connect to education and career pathways.

  • Students, workers, guidance counselors, and veterans can access comprehensive and comparable data which empowers them to make informed education and career pathway decisions.

Employers and HR systems can
• Integrate Registry data to help find, signal, and understand the credentials that have value to their business needs, and add context to the hiring process.

Policymakers can
• Make better decisions about how to address economic, workforce, and education challenges, as well as break down data silos.
A State Roadmap to Credential Transparency

Make the Case *(that this is about improving labor market outcomes for everyone!)*
1. Communicate clear use cases to benefit students, workers, employers, educators, programs, and key policy goals.
2. Identify what data about credentials is necessary to be transparent and publicly available.

Align with Existing Education and Workforce Data Commitments
3. Ensure that this roadmap is integrated with, complements, and extends on-going P-20-W data efforts underway in the state to ensure continuity and effectiveness.

Catalog and Publish the Credentials Offered and Sought in Your State
4. Inventory all credentials in the state.
5. Publish all credentials and their competencies to the Credential Registry and the open web in CTDL and CTDL-ASN.

Turn these Data into Actionable Information
6. Link and align credential data with other essential data in the state.
7. Support the creation of end user tools, services and systems with robust navigation and guidance capabilities.
8. Ensure sustainability of credential transparency through legislative, agency and institution policies that continuously improve credential transparency for the benefit of its citizens and markets.
9. Establish the necessary infrastructure for enduring data transparency.
State Policy Options

• Identify a state lead to oversee credential transparency work
• Assist major education and training providers, systems and coordinating boards with publishing rich credential & competency information
  • Have the same adopt official positions toward this goal
• Integrate use of these data into state tools to identify credentials of quality that are eligible for certain uses
• Consider legislative language that promotes and rewards transparency
A Few Notes…

- Public Service Non-Profit.
- No Fees to Publish Data.
- No Fees for Non-Commercial Use.
- Our language is an open, Creative Commons Licensed schema.
- Our role is NOT to define quality, but to provide appropriate ways to have quality described and determined by appropriate entities (i.e. accreditors, state agencies, etc.).
- We do not collect or track individuals or their data.
For more information

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scheney@credentialengine.org

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erafal@credentialengine.org

Jen Briones  Project Manager  
jbriones@credentialengine.org

: info@credentialengine.org
: credentialengine.org
Technical Information: www.credreg.net/
Credential Finder Search App Prototype: http://credentialfinder.org
Credential Transparency from the Business Perspective

Dane Linn
Vice President, Immigration, Workforce & Education
Business Roundtable
Credential Transparency from the Workers’ Perspective

Brad Markell
Executive Director
AFL-CIO Working for America Institute
Credential Transparency

Q&A Session

Workforce Training and Education Coordinating Board
Building Credential Transparency with Credential Engine partnership

Marina Parr, Workforce Board Communications Director
Randy Smith, Workforce Board IT and Research Specialist
CareerBridge.wa.gov is a state website that connects to over 6,500 Washington education programs in one place.
Education Details

Information Security
Award type: Certificate of Completion
Edmonds Community College

Consumer Report Card
This program is grouped with other closely related programs at Edmonds Community College.

<table>
<thead>
<tr>
<th>Employment, wages and completion for all programs related to Information Security at Edmonds Community College</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Type: Computer and Information Systems Security/Information Assurance</td>
</tr>
<tr>
<td>Competition Rate</td>
</tr>
<tr>
<td>Employment Rate</td>
</tr>
<tr>
<td>Typical (Median) Hourly Earnings</td>
</tr>
<tr>
<td>Typical (Median) Annual Earnings</td>
</tr>
</tbody>
</table>

View statewide earnings and employment trends for jobs related to programs of this type.

<table>
<thead>
<tr>
<th>Industry of employment for all programs related to Information Security at Edmonds Community College</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Type: Computer and Information Systems Security/Information Assurance</td>
</tr>
<tr>
<td>Industry</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>Professional, Scientific, Technical Services</td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Administrative Support</td>
</tr>
<tr>
<td>Manufacturing</td>
</tr>
</tbody>
</table>
### Student Characteristics

This program is grouped with other closely related programs at Edmonds Community College.

#### Student Characteristics for all programs related to Information Security at Edmonds Community College

**Program Type:** Computer and Information Systems Security/Information Assurance

<table>
<thead>
<tr>
<th>Enrollment</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of students completing the program</td>
<td>154</td>
</tr>
<tr>
<td>Completion Rate</td>
<td>77%</td>
</tr>
<tr>
<td>Average number of students who completed each year</td>
<td>51</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>77%</td>
</tr>
<tr>
<td>Female</td>
<td>23%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian or Alaska Native</td>
<td>1%</td>
</tr>
<tr>
<td>Asian or Pacific Islander</td>
<td>6%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>9%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>7%</td>
</tr>
<tr>
<td>White</td>
<td>71%</td>
</tr>
<tr>
<td>Multi-racial</td>
<td>4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 20</td>
<td>0%</td>
</tr>
<tr>
<td>20 to 29</td>
<td>22%</td>
</tr>
<tr>
<td>30 to 39</td>
<td>30%</td>
</tr>
</tbody>
</table>
Career Bridge - Credential Engine

Washington Career Bridge
Find the education & training you need to get the job you want

Credential Engine
New language to describe credentials

- Career Bridge data model: School-Location-Program-Occupation
- Credential Transparency Description Language (CTDL)
- Credential Registry allows Third-Party Publishers
- Workforce Board will continue to evaluate performance
Workforce Board partners with Credential Engine to:

- Develop technology to upload thousands of WA education programs from Career Bridge to Credential Engine.
- Help employers make better hiring decisions based on actual skills/competencies.
- Help schools understand value of marketing their programs to national audience.
- Build a sustainable project that encourages continued participation from schools.
Potential policies to explore

- How to transition current credentialing system into a common language that highlights skills and abilities?

- How to ensure what we’re credentialing is what the employer is looking for?

- How to track the value of all credentials to employers and participants through performance analysis?

- Occupational data needs to be collected from WA businesses to more accurately show connection between training and employment.
Looking Ahead

- Stakeholder engagement
- Ongoing research
- Policy formation
- Three Task Force meetings remaining
- Final recommendations due December 1, 2019

Upcoming 2019 Task Force Meetings
August 8th, Spokane
October 10th, SeaTac
November 7th, Olympia
Thank you!
Learn more at www.wtb.wa.gov

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