Institutional Guidance Signaling Expectations for Credential Transparency

as of June 2022

The following statement has been developed in consultation with Credential Engine's Higher Education Advisory Group to help communicate institutional expectations for credential transparency. Educational technology products play a key role in managing credential data (such as, official descriptions, costs and fees, courses, assessments, competencies, websites, etc.) and as such it is important for these products to support publishing services. The statement can be inserted verbatim, or modified as needed, with a variety of documents including requests for information (RFI), request for proposals (RFP), procurement policies, public websites, etc.

Credential Transparency Statement

[*Your Organization*] requires educational technology products that manage credential data to also support services for publishing/updating those data with the Credential Engine Registry. The scope of this requirement encompasses any information that can be encoded by the Credential Transparency Description Language (CTDL) and included in the Credential Engine Registry Profile of CTDL. Publishing/updating of these data can occur either via bulk upload or an integration utilizing Credential Engine's Registry Assistant API. Consuming of Credential Registry data can occur either via bulk download, a web-based widget, or graph-based API queries.

Use Cases

Career Exploration and Navigation requirement:

"The career exploration and navigation provider shall support fully integrating Credential Registry data within the supported user experience, such as by incorporating pathways, competencies, and multiple credential types into a search experience."

Credential Data Management requirement:

"The credential data management system shall use the Credential Transparency Description Language (CTDL) schema to consistently define all credential information.The system shall also support a managed workflow enabling the publishing & updating of credential information with the Credential Registry."

Learning and Employment Record (LER) requirement:

> "The Learning and Employment Record (LER) provider shall support the full expressive richness of the Credential Transparency Description Language (CTDL) schema for describing an individual's achievements, such as by including the appropriate URIs to the Credential Registry within the alignment property of the record."

Sample Language of How Organizations Signal Expectations for Credential Transparency

Source: US Department of Education's Education Stabilization Fund-Reimagine Workforce Preparation (ESF-RWP) Grants Program (June 2020)

Funding Opportunity Description
The Department of Education wishes to ensure that individuals, employers, educators and training providers have access to the most complete, current and beneficial information about providers, programs and credentials supported with these grant funds. To this end, the Department requires that information about all credentials (including but not limited to badges, certificates, certifications, licenses, and degrees of all levels and types) and competencies (knowledge, skills and abilities) developed or delivered through the use of these Federal funds be made publicly accessible through the use of linked open data formats that support full transparency and interoperability, such as through the use of credential transparency description language specifications.

Source: US Department of Labor's Strengthening Community Colleges Training Grants (July 2020)

Program Purpose
Core Element 3: Enhanced Career Pathway Programs and Accelerated Learning Strategies

Accordingly, career pathway programs enhanced through SCC will include several of the following accelerated learning strategies:
- **Stacked and latticed credentials**. These credentials can be earned in sequence and build upon previously learned content as individuals progress along a career pathway or up a career ladder. They allow individuals the ability to build a portfolio of credentials as they transition from learning to work or to

different and potentially higher-paying jobs. Any credentials developed through this program must be publicly accessible through the use of linked open data formats that support full transparency and interoperability, such as through the use of the credential transparency description language specifications.

Open Educational Resources (OER)
In addition, the Department aims to ensure that individuals, employers, education and training providers, and others have access to the most complete, current, and beneficial information about providers, programs, credentials, and skills necessary to make more informed decisions. Access includes having such information fully operable on the semantic web and able to be used in modern applications, tools, and services to support better understanding of available pathways; and the development of improved navigation and guidance tools to help individuals make better decisions about which pathways are best for them. To this end, the Department requires that information about all credentials (including, but not limited to, badges, certificates, certifications, licenses, and degrees of all levels and types) and competencies (knowledge, skills, and abilities) developed or delivered through the use of federal funds be made publicly accessible through the use of linked open data formats that support full transparency and interoperability, such as through the use of the credential transparency description language specifications.

APPENDIX E: RESOURCES ON STATEWIDE DATA INTEGRATION AND USE
Credential Engine, https://credentialengine.org/, is a nonprofit that seeks to "create credential transparency, reveal the credential marketplace, increase credential literacy, and empower everyone to make more informed decisions about credentials and their value." Credential Engine "provides a suite of web-based services that creates for the first time a centralized Credential Registry to house up-to-date information about all credentials, a common description language to enable credential comparability, and a platform to support customized applications to search and retrieve information about credentials."

Source: US Department of Labor's H-1B One Workforce Grant Program (Sept 2020)

Funding Opportunity Description - Program Activities/Allowable Activities
The Department wishes to ensure that individuals, employers, educators and training providers have access to the most complete, current and beneficial information about providers, programs credentials and competencies supported with these public, federal funds. To this end, the Department requires that information about all credentials (including but not limited to diplomas, badges, certificates, certifications, apprenticeships, licenses, and degrees of all levels and

types) and competencies (knowledge, skills and abilities) developed or delivered through the use of these public federal funds be made publicly accessible through the use of linked open data formats that support full transparency and interoperability, such as through the use of credential transparency description language specifications. ETA will provide specific guidance and technical assistance on data elements to include in the published open data, such as information about the credential provider, the credential and its associated competencies, delivery mode, geographic coverage, the industry sector(s) and occupation(s) for which the credential was developed, related assessments, related accreditations or other quality assurances where appropriate, costs, and available outcomes.

Source: US Department of Labor's H-1B Rural Healthcare Grant Program (Sept 2020)

Funding Opportunity Description - Program Activities/Allowable Activities
The Department wishes to ensure that individuals, employers, educators and training providers have access to the most complete, current and beneficial information about providers, programs credentials and competencies supported with these public, federal funds. To this end, the Department requires that information about all credentials (including but not limited to diplomas, badges, certificates, certifications, apprenticeships, licenses, and degrees of all levels and types) and competencies (knowledge, skills and abilities) developed or delivered through the use of these public federal funds be made publicly accessible through the use of linked open data formats that support full transparency and interoperability, such as through the use of credential transparency description language specifications. ETA will provide specific guidance and technical assistance on data elements to include in the published open data, such as information about the credential provider, the credential and its associated competencies, delivery mode, geographic coverage, the industry sector(s) and occupation(s) for which the credential was developed, related assessments, related accreditations or other quality assurances where appropriate, costs, and available outcomes.

Source: Midwestern Higher Education Compact's Digital Credentialing Solutions (e.g. e-transcripts) RFP (Oct 2020)

Proposed Solution
The Midwestern Higher Education Compact (MHEC) is seeking proposals for a Digital Credentialing Solutions (e.g., e-Transcripts)that is flexible enough to meet varying needs amongst different types of eligible organizations where differences in requirements exist. The solution should allow adaptation to the specific needs and

circumstances of each eligible organization as well as streamline and simplify the procurement and distribution process for all. The proposed solution should:

- Describe the interoperability used for the digital credentialing solution transcription services across educational sectors, student information systems at institutions, employers, workforce partners, third parties such as National Collegiate Athletic Association (NCAA), military, scholarship providers, and other stakeholders. Description should address common data standards in the field, for example, Postsecondary Electronic Standards Council, Credential Transparency Description Language, Common Education Data Standards, Schools Interoperability Framework, SPEEDE Server, Electronic Data Interchange, etc. Solutions should be able to integrate with state data warehouses.

Source: Indiana's Career Explorer RFP (Dec 2020)

Scope of Work - Vision
All of the involved agencies and organizations recognize the power of a common tool that can assist the highly motivated individual, but that can also be utilized by various career coaches as they support Hoosiers in navigating a sometimes overwhelming workforce and education terrain. Ultimately, this tool should intuitively engage and connect Hoosiers of various ages and educational attainment levels to career opportunities and provide relevant information on how to best navigate toward that goal. It is important that the architecture of the new *Indiana Career Explorer* enables it to integrate with Indiana's emerging digital credentialing system, based on linked open data, not only today but also tomorrow, as new, planned capabilities are added.

The Vision for the User Experiences	
User Type	**Navigation**
Adult Users ● Job seekers ● Unemployed ● Ex-offenders ● Veterans ● Retirees ● Career Changers ● Adults with disabilities	The **Indiana Career Explorer** assists **adults** in researching and developing a successful career plan. The comprehensive assessments available match your interests, skills set, and work values to high demand occupations, whether you are considering a big career change or strengthening your opportunity for promotion. In Indiana Career Explorer, the goal is to give you a personal and realistic overview to elevate your career to the next level.

	Post-Secondary Opportunities Exploration ● Ability to easily and logically explore majors and all credentials (certificates, degrees, etc.) by accessing data from the Credential Engine Registry ● Ability to easily explore transferable credits (see TransferIN for CTL, STGEC, and TSAPs) ● Credential pathways-Next Level Programs of Study
	Other occupational training/ Credential Engine ● Link to ETPL ● Link to OJT and Apprenticeship opportunities
Young Adult Users ● (18-24) ● Ivy Tech/ VU ● College students ● Out of School Youth ● Just out of school	**Navigation**
	The *Indiana Career Explorer* provides a holistic approach to help you navigate your career journey. Starting with self-reflection to understand your values, aptitude, and skills, the *Indiana Career Explorer* will guide you through the career exploration process and showcase the training and education options available in Indiana. The ultimate goal is to provide you with career match connections to help you launch or enhance your career.
	Post-Secondary Opportunities Exploration ● Ability to easily and logically explore majors and all credentials (certificates, degrees, etc.) by accessing data from the Credential Engine Registry ● Ability to easily explore transferable credits (see TransferIN for CTL, STGEC, and TSAPs) ● Credential pathways-Next Level Programs of Study
Students K-12 Users ● Primary (K-3) ● Intermediate (4-5) ● Middle School (6-8)	**Navigation**
	The *Indiana Career Explorer* allows students K-12 to be able to explore their interests and strengths, discover career possibilities and develop an educational track that aligns with their interests, aptitudes and long-term career goals. Students can easily find the college

● High School (9-12) ● Homeschoolers	and/or career information to help guide them with their next steps.
	Post-Secondary Opportunities Exploration ● Ability to easily and logically explore majors and all credentials (certificates, degrees, etc.) by accessing data from the Credential Engine Registry ● Ability to easily explore transferable credits (see TransferIN for CTL, STGEC, and TSAPs) ● Credential pathways-Next Level Programs of Study

Expectations for the New *Indiana Career Explorer* System

Expectation/ Deliverables	Justification
● Connectivity to and collaboration with **Credential Engine**	Indiana is a partnering state and wishes to have all state-available credentials, from the *Eligible Training Provider List* (ETPL) to advanced degrees connected to the open-sourced Credential Registry. The selected vendor will be expected to work with the state and with *Credential Engine* to help forward our mission of credential transparency.

Source: Minnesota's P-20 Education Partnership 2021 Report to the Legislature (Jan 2021)

Data Use & Capacity (DUC)
The P-20 Education Partnership benefited from a year-long effort by the Learner Lifespan Working Group (LLWG), which was created by the Executive Committee to review the current data pertaining to the attainment goal, to create a strategic vision around how data can inform the efforts and goals of the Partnership. Their work and summary report will inform the ongoing work of the Partnership. As such, we plan on transitioning this ad hoc work group into a standing committee of the Partnership to continue to integrate data into all of our work.

DUC Recommendation 2: Build the data use capacity within the P-20 Education Partnership's member organizations, agencies, affiliates and other stakeholders

in Minnesota.

Short-term actions:
- Focus on the need to prioritize trust and transparency around all data efforts; consider creating or adapting an existing set of data principles which lay out values of using data ethically and appropriately to help people.

Credentials of Value (COV)

The P-20 Education Partnership's focus on credentials reinforces the broader need to be more inclusive of the workforce and employers in the Partnership's structure and leadership; this necessitates stronger engagement with DEED, DLI and employers. By fostering stronger crosssector partnerships, the state can develop a shared definition of a high-quality credential, identify a prioritized list of credentials with labor market value, and integrate them into meaningful career pathway programs. The Partnership also expressed the urgent need to keep equity at the center of these recommendations, recognizing that low-income students, and black, indigenous, and students of color have been disproportionately represented in two-year and certificate programs.

COV Recommendation 2: Create a single list of all the credentials offered in the state, and highlight those which meet the state's definition of high quality and have greatest labor market value

Short-term actions:
- Incent adoption of the Credential Transparency Data Language throughout Minnesota to ensure that there is interoperability across all education and training providers and systems and to create ease of comparability across programs

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Source: Florida's Job Market & CTE Data Analytics Tool ITN (Jan. 2021)

Purpose

The program inventory or registry of credentials should indicate, by district, technical college, FCS college, and Workforce Innovation and Opportunity Act (WIOA) partners, and the postsecondary CTE offerings available including: industry recognized certifications, associate in science degrees, associate in applied science degrees, college credit certificates, career certificates, apprenticeships, applied technical diplomas, advanced technical certificates, baccalaureate degrees, educator preparatory institute certificates, other credentials of value identified by the Department and other state stakeholders, and work based learning opportunities. The program inventory should indicate the secondary CTE offerings available, by

district, including: industry recognized certifications, career preparatory, technology education, middle grades, other CTE courses, work-based learning, and capstone projects/opportunities.

Definitions
Credential Registry – an interoperable, cloud-based registry that collects, maintains, and connects information (i.e., program of study performance, and knowledge, skills, and abilities) on all types of credentials. The registry holds detailed information on all types of credentials in an easily accessible format, enabling the end-user to explore competencies, program performance, learning outcomes, and up-to-date market demand and values.

Scope of Services
Credential registry for all public postsecondary education providers, and any other eligible WIOA providers, for all credentialing award types, including non-degree and work-based learning opportunities

Deliverables
Building an Interoperable Credential Registry - Develop and execute a process for making information on all credentials (including badges, certificates, certifications, licenses, and degrees of all levels and types) and competencies (knowledge, skills, and abilities) publicly accessible through the sourced technology solution. The technology solution should assume the development of a linked open data format that supports full transparency and interoperability. Such information must include the industry sector for or by which the credential was developed, the entities (presumably the education agency) involved in the development of the credential, the competencies or skills assessed in awarding the credential, the form of assessment used to verify the individual's eligibility to be awarded the credential, and the body engaged in overseeing the awarding of such credentials. The process for building such a registry would include mechanisms for regular updating and publishing, by means of the sourced technology solution or website.

Source: Vermont's Customer Relationship and Information Management System RFI (Jan 2021)

High-level Goals
The Division is interested in creating and maintaining a highly functional, adaptive, and integrated job board, credential registry, education and training opportunity inventory, and customizable information about available career pathways for user.

Functional Requirement
Education and training provider program information, including data published from Credential Engine's Credential Registry.

Technical Requirement
The following databases, systems and products are not currently connected to the Division's software, but would bring benefit to customers and service providers if the solution included ways to integrate and include:
- Credential Engine's Credential Registry and Credential Transparency Description Language

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Source: Alabama's Develop Competency-Based Frameworks RFP (Jan 2021)

Scope of Services
Contribute to the conception and development of a publicly available, searchable, and interoperable database of competencies based on the standardized competency description frameworks. This database will need to be compatible with the Credential Transparency Description Language (CTDL) schemas and the Achievement Standards Network (ASN) Description Framework schema.

Qualifications
The successful candidate must:
- Demonstrate extensive knowledge of and facility with education and credentialing data and linked data formats, such as CTDL and ASN schemas.

Source: Texas Workforce Commission's Credential Library Invitation to Bid
Jan 2022

SCOPE OF WORK:
- Vendor will support the development and maintenance of the Credential Library using linked, open, interoperable data formats based on the Credential Transparency Description Language (CTDL) family of specifications. Credentials are understood to include diplomas, digital badges, certificates, apprenticeships, certifications, licenses, and degrees of all types and levels. Information about such credentials includes, to the degree possible, the provider and owner, competencies, costs, quality indicators, occupation and industry alignment, education and career pathways, transfer values, outcomes, links to job skills, etc.
- Vendor's technologies will include linked open data schemas that provide a

proven, common language for describing credentials and competencies (the Credential Transparency Description Languages, or CTDL), tools and an open API for publishing information as Linked Open Data, and a national Credential Registry for making the data available and transparent.

- Vendor must work with TWC to:
    - Identify and engage specific state agencies to work with in the launch of the Credential Registry;
    - Publish required and essential information in the Credential Registry as linked open data, thereby establishing the Texas Credential Library, and
    - Develop a sustainable plan for ongoing maintenance of the information.
- The Texas Credential Library must be a specific instance of the larger Credential Registry, and TWC and its partner agencies must be able to include in the Library any credential, including those from Texas-based providers as well as any others that meet the state's requirements, needs, and use cases.
- Vendor must provide strategy, project management, and technical services to help achieve credential transparency and utilize linked open data and other technologies to meet statewide and regional goals.

- Requested below activities and timelines for service period:
    - Mapping the existing Agency data to the CTDL family of specifications and identifying gaps between available data and the minimum data policy.
    - Developing recommendations for opportunities to utilize this data through training and job search tools, navigation and pathway services, digital Learning and Employment Records (LERs), and other tools to use in outreach and marketing to potential participants.
    - Establishing data maintenance practices and data currency policies and procedures for maintaining the most up-to-date Library possible
    - Exploring agreements and RFPs to support use and integration of data in tools and services for students, workers, employers, counselors, educators, policymakers, and others
    - Publishing credential data to the Credential Registry
    - Providing a credential library public interface to show only Texas credentials.
    - Providing technical assistance and training to build internal capacity to carry this work forward in addition to project management and strategic planning support.

Vendor will also work with individual institutions, providers,systems and others to support additional data publishing directly to the Registry to add data not specifically reported to and housed by a state agency and that will improve the value of the data to all users and beneficiaries.

Along with project implementation, strategy, and technical assistance, this would include general support and maintenance of vendors technologies and platforms, including continued development of the CTDL, maintenance of the Registry, updates to tools for publishing and data consumption, coordination with data interoperability partners such as T3 and Schema.org, partnerships with data standards organizations, federal policy work, and other activities.