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Beyond K12 Unity

Aligning with CEDS and connecting to Workforce (JEDx)

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Interoperability doesn't stop at K-12 – data standards are evolving to support the P–20W pipeline, from early learning through workforce. This session broadens the lens on Unity adoption to see how it fits into the larger ecosystem.

First, we'll examine Unity's alignment with the U.S. national data dictionary, Common Education Data Standards (CEDS).

Unity was designed with support for CEDS built in, allowing states and vendors to implement the standard definitions and even map directly to federal reporting requirements like EDFacts. A state data manager or CEDS representative will discuss how using CEDS in tandem with Unity can ensure semantic consistency across different systems – everyone "speaking the same language" about student data.

Next, the session will explore connecting K-12 data to workforce and employment data via the emerging JEDx (Jobs and Employment Data Exchange) initiative.

A presenter involved in JEDx will explain this public-private effort to standardize job and employment records and how education data (such as transcripts, credentials, or K-12 performance indicators) might flow into that system. We'll discuss how states are beginning to link education and workforce data to better track outcomes and inform policy (sometimes called P20W or longitudinal data systems). By adopting Unity in K-12 and aligning with efforts like JEDx, education agencies can ensure their data can securely follow students into college and careers, empowering learners with their own records in the future.

Session Elements

CEDS Alignment in Practice: Insights on mapping Unity's data model to CEDS elements. How does adopting CEDS help a state simplify data integration and reporting? (e.g. using a common definition for "Graduate" or "AssessmentResult" so that SIS, LMS, state databases all mean the same thing). Challenges and successes from an education agency that has undertaken a Unity–CEDS alignment will be shared.

Portability from K-12 to Workforce: Why connecting education and workforce data is valuable – for example, to show how K-12 experiences impact career outcomes, or to allow students to carry verifiable credentials into the job market. An overview of JEDx and related standards efforts that aim to make job/skills data interoperable with education data .

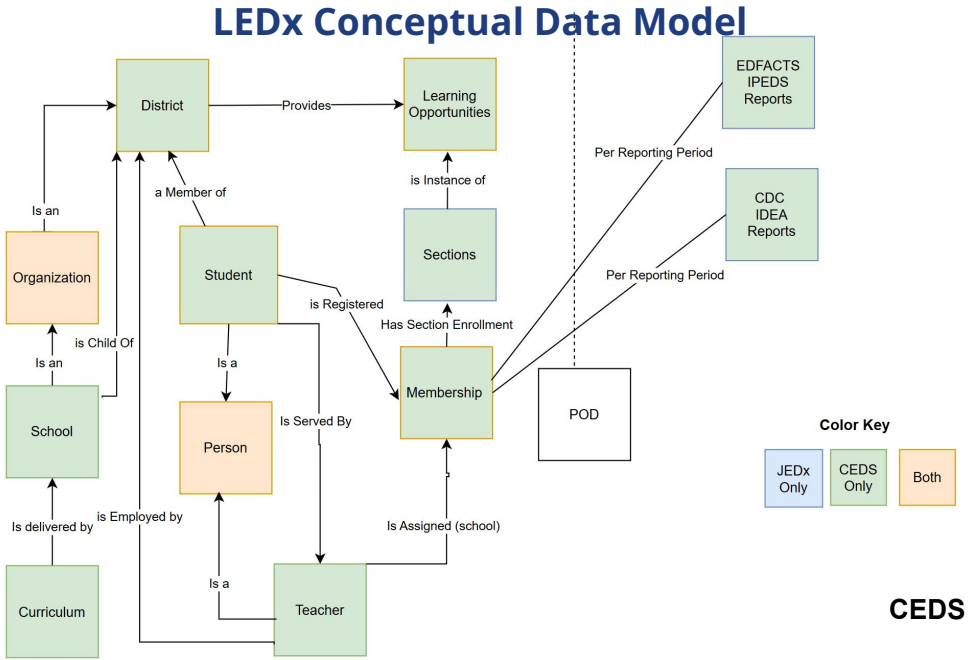
Use Case – Learner Records: Discussion of a potential use case where a student's comprehensive record (courses, certifications, extracurriculars from K-12) could be combined with post-secondary and employment data to create a Learning and Employment Record. What standards and protocols would make this possible? (This ties in JEDx with existing ideas like Learning & Employment Records from T3 Network.)

Collaboration Across Sectors: Panelists will emphasize the need for collaboration between K-12 educators, higher education, industry, and standard organizations. How can the K-12 Unity Community engage with initiatives like CEDS and JEDx so that our standards evolve in harmony? The session will close by identifying action items or interest groups for those who want to contribute to "unity" on an even larger scale beyond K-12

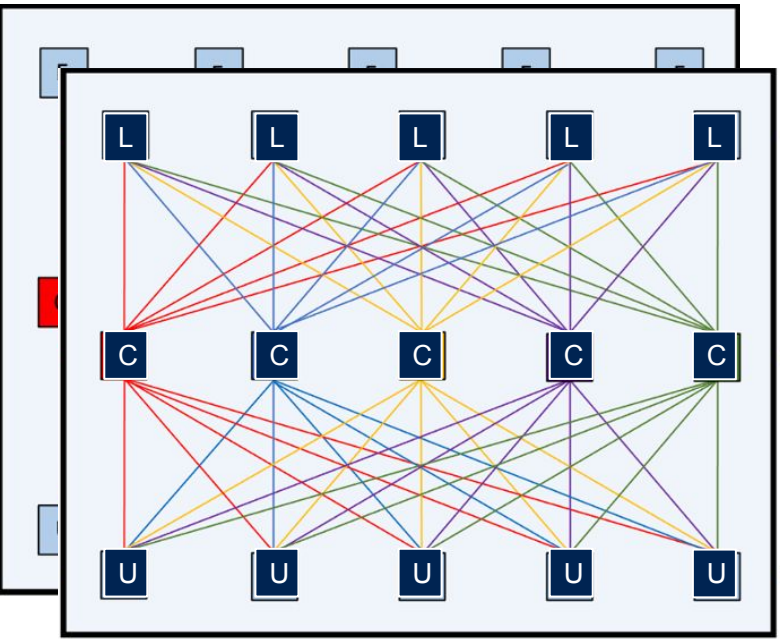
LEDx Approach

Learning and Education Data Exchange (working title)

- Education is further along with standards like CEDS and A4L
- Utilizing JSON-LD data format
- AI-friendly
- Using the CEDS Ontology and standardized data dictionary



Before

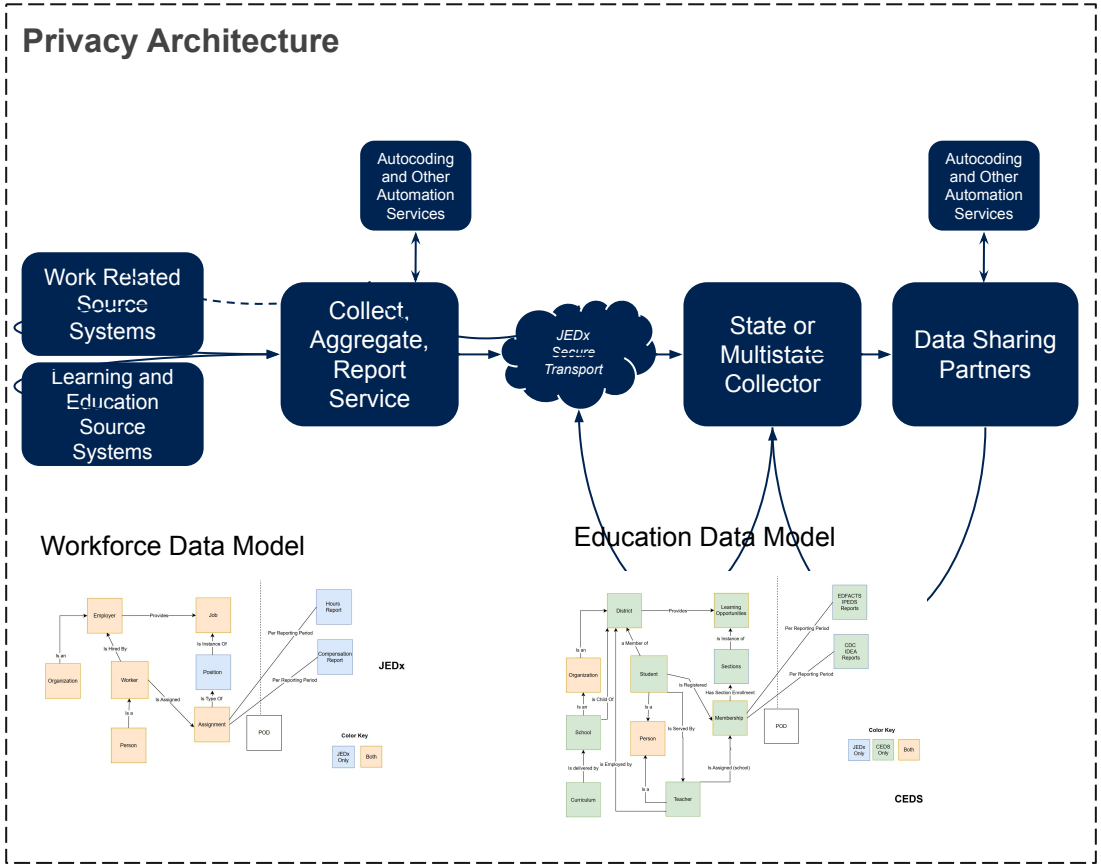


170 EDFacts data groups

12 IPEDS survey components

100s of employment record reports

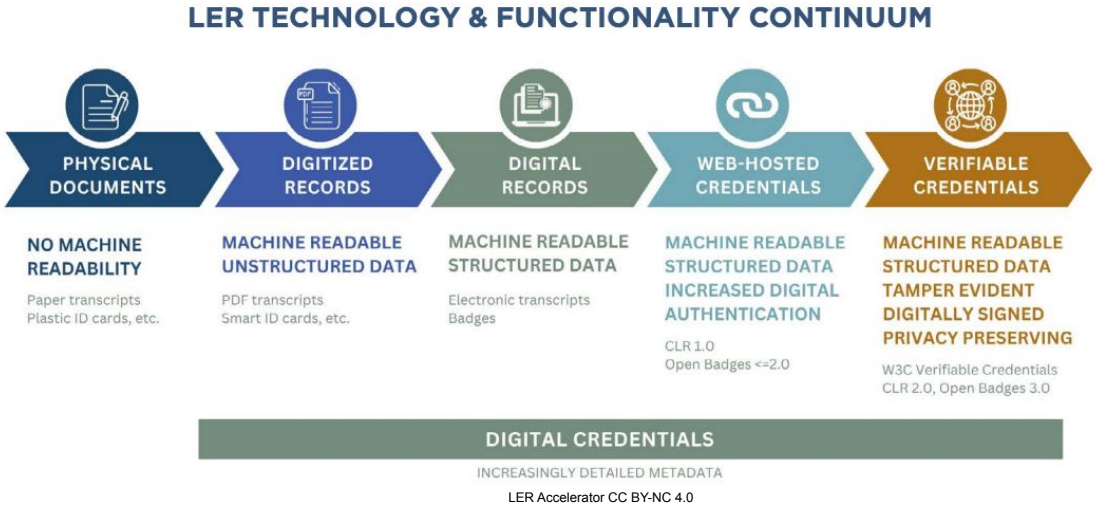
After



New Data Paradigm

What are LERs?

Learning and Employment Records (LERs) are **machine-readable records** about a **person's learning** and **work experiences** and **achievements**

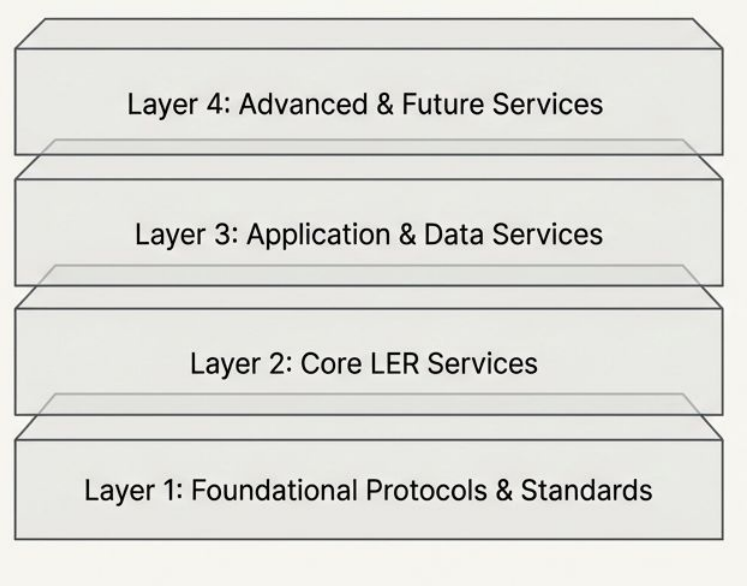


LER Value Proposition

- Tamper evident (verifiable with a ‘click’)
- Certainty of identity
- Guaranteed Interoperability
- Skills claimed can be aligned with a framework or ontology
- Data in them is structured & computationally actionable
- Supports Linked Data
- All of this gives holders of credentials greater *agency*
    - You can choose when, to whom & what to send (including selectively revealing what they wish to share from within a credential)
- And, there is no need to ‘phone home’ to the issuer to verify them

A Layered Architecture for Implementation Planning

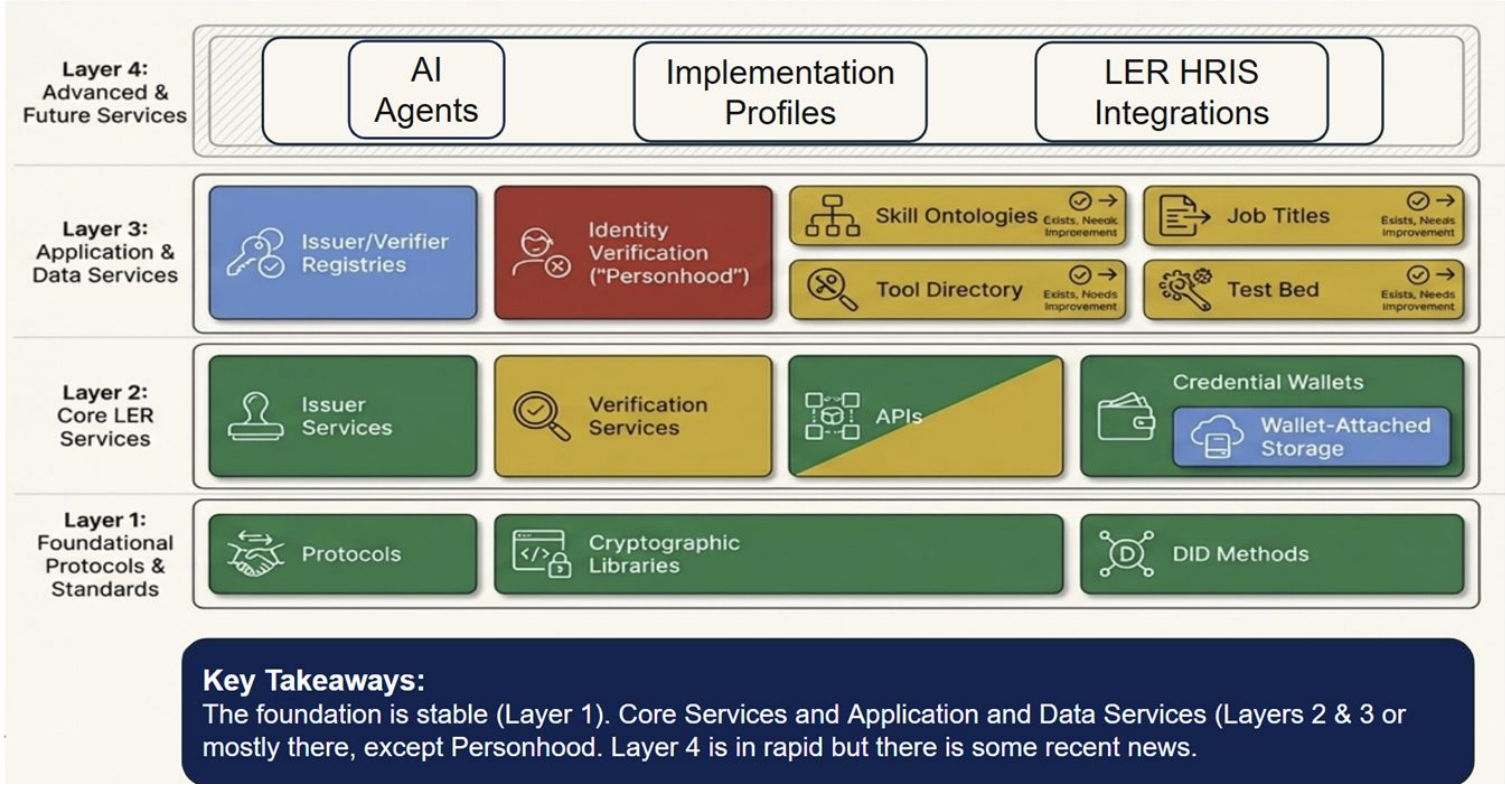
This is an assessment of the current LER ecosystem is presented as a four-layer technology stack, from foundational protocols to future-state services. Each component is presented in terms of its readiness to guide technical decision-making.



Readiness Legend

- **Present & Stable.** Production-ready components.
- **Exists, Needs Improvement.** Functional components exist, but more robust or open options are needed.
- **In Test.** Components are in pilot or testing phases in the US. Production status in the EU & elsewhere.
- **Missing.** Critical components that are not yet developed or available.

Core LER Architectural Blueprint: A Readiness Snapshot



Critical Gaps: The Missing Components to facilitate wider, easier adoption

Two key services have been absent from the current ecosystem. Addressing this absence will be necessary for successful adoption of LERs and simplify their installation.

Good News!

In development!

Recommended Implementation Profiles

Impact:

Lack of standardized profiles means implementers must make many low-level technical decisions, increasing the risk of creating non-interoperable 'Lego blocks.

In development!

Employer LER-HRIS Integration

Impact:

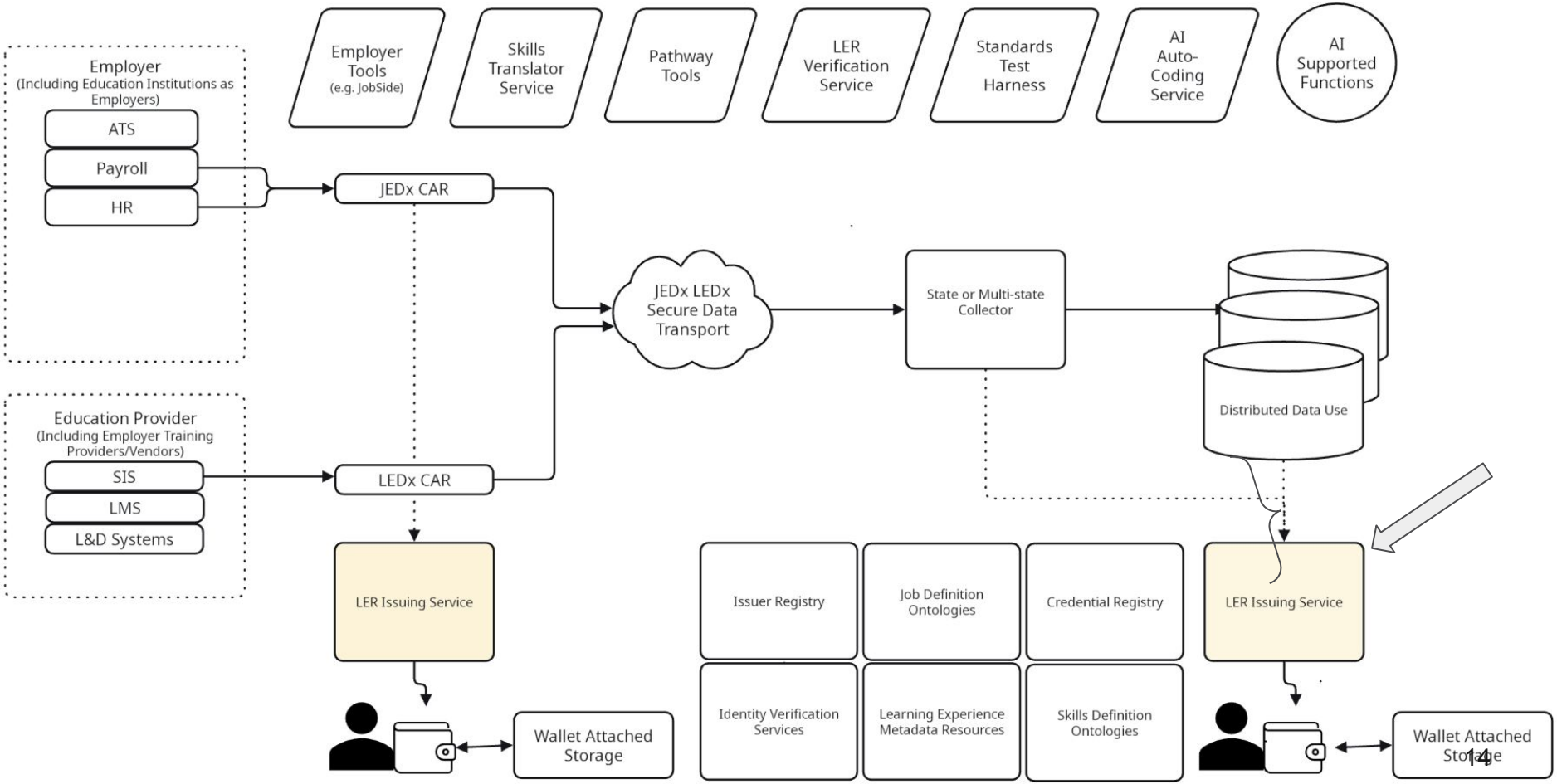
Adoption barrier to LER use and value for learners, workers, and employers. Classic innovator's dilemma. Need a few demonstrable integration examples with open source HRIS software to catalyze adoption

Future Services In Test or On the Horizon

Beyond the core infrastructure, a new wave of services is emerging that will deliver significant value but are currently in early stages of development.

In Development/Test	Future	Future
Issue & Verifier Registries	**Identity Verification (Personhood)**	**AI Agentic Services**
Registries of organizations issuing credentials who, depending on the their governance policies, convey confidence the issue claims can be trusted. Verifier registries offer validation the credentials conform to their spec &, for signed credentials, are tamper evident.	Establishes a verified connection between a human person and the the unique identifier that represents them in the digital world. This the role of digital fiduciary.. Existing providers of background checking services do similar things but not digital identity.	Autonomous agents that could act on behalf of the user to find jobs, apply for credentials, etc. The field is early but changing rapidly.

Functional Diagram



Why Connect Administrative and LER Data?

- **Transparency:** Providing workers the right and ability to see their own administrative records similar to federal requirements for electronic medical records which lead healthcare providers to offer on-line accounts for patients to access their records

- **Providing Universal Access to LERs Based on Administrative Data:** Providing universal access to the basic employment and education data as LERs

- **Personalized Guidance:** Providing personalized guidance for exploring options and pathways to opportunities leveraging large-scale administrative data on pathways relevant to personal goals and work and education experiences and achievements

- **Consistency and Standardization**: Ensuing what is communicated in administrative data and what is communicated in LERs are consistent and based on common language (e.g., data element names and definitions)