



# LEARNING AND EMPLOYMENT RECORDS, A PATHWAY FOR RESTORING AMERICA'S WORKFORCE

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Imagine a student moving to a new school and the teacher already knowing how to personalize learning for him. Imagine finishing an online class and earning a credential that automatically conveys to employers that you are qualified to take on a higher paying job. Imagine earning a college degree and not needing to order and send transcripts to your potential new employer because they are already able to access and verify your education accomplishments. Just like Netflix and Hulu know where we left off watching a movie, a learning and employment record keeps track of where you are in your education and workforce journey.

In July 2018, President Trump signed [Executive Order 13845](#) establishing the National Council for the American Worker and the American Workforce Policy Advisory Board (AWPAB). He charged this interagency council and private sector board with drafting the first-ever national workforce strategy, which included identifying a pathway to increased data transparency that would support informed decision-making among American students and workers. The Data Transparency Working Group, led by Governor of Indiana Eric Holcomb and Bill McDermott, Chief Executive Office of ServiceNow, identified Learning and Employment Records (LERs) as an essential way for workers, employers, and education and training institutions to communicate which skills are in demand and which skills potential employees already possess. According to the Council's [research](#), the LER system, created and primarily driven by the private sector, contains verifiable information about a person's achievements spanning an inclusive range of contexts in education, training—both formal and informal—and in the classroom or workplace. The council concluded that there was a critical need for collaboration and support between the private sector and government for LERs to be used across the Nation.

In 2019, COVID-19 brought massive disruption to the workforce, spurring changes in business models and consumer behavior. According to the [Bureau of Labor Statistics 2021](#), there are 8.4 million people unemployed across the United States looking for employment and a record-high 10.1 million job openings. The [McKinsey Global Institute](#) also reports that there will be a greater need for reskilling than before COVID-19, estimating in a 2021 report that 17 million workers may need to completely change occupations by 2030. The sectors of healthcare, medical technology, computer science, IT and software, and advanced manufacturing are in demand, along with plumbers and electricians ([BLS, 2021](#)). The [World Economic Forum](#) predicts that 133 million new roles may emerge globally by 2022. With the changing needs of employers, people will need to depend on experience and training rather than just their educational credentials from when they were younger to sharpen their technical skills. Last year, according to a Wall Street Journal article, enrollment in short term

credential classes increased by 70 percent from the prior year, while freshman college enrollment dropped by 16 percent ([Belkin, 2021](#)). Workers will need to be able to develop lifelong learning skills to adapt to the increasing pace of change.

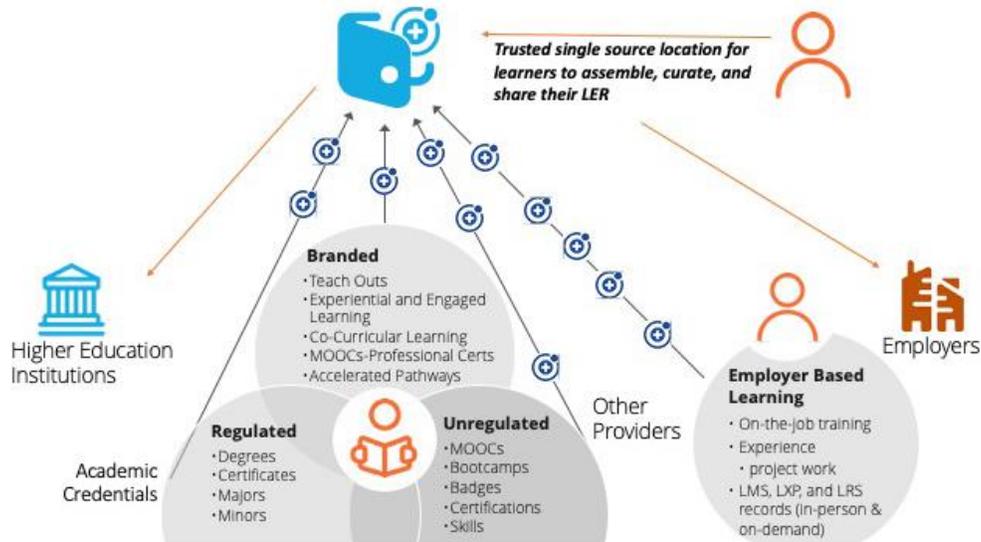
An [inventory of Interoperable Learning Records](#) was created by the AWPAB in 2019. The inventory contains hundreds of entities across the United States that are helping to develop protocols for verification of data, standards, frameworks, pilot programs, and products as part of developing an LER system. While LER's are not well known nationwide yet, there are pilot programs in progress across 150 universities and the Department of Defense, as well as with employers like Walmart, Google, IBM, and Salesforce—a direct result of the innovative efforts led Trump Administration and the AWPAB chaired by Senior Advisor Ivanka Trump and Commerce Secretary Wilbur Ross ([Issues in Science and Technology, 2021](#)). According to the Society for Human Resource Management's (SHRM) [Human Capital Benchmarking Survey](#), the average time for employers to fill a position is 42 days, with an average cost per hire of \$4,129. The pandemic has accelerated the need to help American workers return to work as quickly as possible. Being able to easily identify an applicant's skills and competencies will improve the hiring process. The Trump Administration's National Council for the American Worker laid the groundwork for translating education, training, and work experience into records of transferable skills that help provide opportunities for higher wages. LERs can bridge education, training, and employment to advance careers.

## THE BASICS OF LER'S

There are varying names for LERs across multiple sectors of the economy. *Interoperable Learning Records* (ILR) was the original name for them and referred to the interoperability of the learning record to connect education and workforce systems. However, the term was difficult to pronounce and created confusion among many users. LER and ILR can be used interchangeably, as can the term Comprehensive Learning Record (CLR). Broadly, an LER is a learning record that is verifiable information about a person's achievements in education, training, and workplace experience ([American Workforce Policy Advisory Board Digital Infrastructure Working Group, 2020](#)). LER is sometimes also referred to as a digital credential. **Figure 1** depicts the National Student Clearinghouse definition of the LER System. It is important to note that education, academic credentials, employer-based learning, and work experience all contribute to the record and provide a complete picture of the learner's skills and achievement.

Figure 1: The Learning and Employment Record (LER)

## The Learning & Employment Record (LER)



Source: [National Student Clearinghouse, 2020](#)

A micro-credential is shorter than an award course—sometimes called a mini certification—but it can represent from 1 to 100 hours of learning. It is a combination of smaller and verified trainings or courses. Micro-credentials can be stacked towards larger units of competence or capability in a format that is verifiable, secure, and shareable with peers, employers, and educational providers. **Digital badges are the visual representation of the micro-credential.** Common themes or attributes shared by micro-credentials are:

- The acquisition of small units of learning, skills, or competencies, which have a distinct value in the workforce or for professional needs.
- There is verification by a recognized and trusted issuing authority, such as an educational institution or industry body.
- The issuance of a digital artifact, such as a digital badge, would be an alternative to a traditional attestation of learning, such as a formal transcript.

**Figure 2 below provides information about [IBM's micro-credential process](#). The digital badges are representative of workplace proficiency. The IBM program was created to provide a means of verified proof of achievement through the use of a merit or badge representing the achievement.**

**Figure 2: IBM Badge Levels**



Source: [IBM, n.d.](#)

## EXAMPLES OF IMPLEMENTATION

According to [Credential Engine](#), there are 967,734 unique credentials in the United States in 16 detailed credential categories. Currently, only about half of states gather information about the approved credentials. The number and diversity of the types of credentials make it difficult for employers and individuals to understand their value in a consistent way. Policymakers, too, need to know which skills training programs are the best investment for the future. The creation of a transparent credential infrastructure that communicates skill acquisition to employers, learners, and training providers is a critical step in preparing the workforce of the future.

### *Indiana*

Governor Holcomb in Indiana provided leadership by creating a public registry of credentials that is linked to the post secondary education system. To date, the state has published information from its 2 and 4 year institutions and is expanding to include private institutions and non-credit providers. This [new data source](#) will be the foundation for novel state and national tools and applications designed to help individuals easily navigate education opportunities aligned with jobs. Through Governor Holcomb's *Next Level Indiana* initiative, Indiana was the first state to scale up the initiative by publishing information about healthcare credentials. This is a crucial first step in building a system of ILR's, and the credentials are directly aligned with high priority industries. Indiana is now in phase two of its project, collaborating with the Department of Workforce Development to map and publish data from the state's Eligible Training Provider list to the registry. State leaders are also expanding licensing agencies by compiling information from employers who both issue and use credentials.

## ***Florida***

Recently, tragedy struck the Florida coast when the Surfside Condominium collapsed in Miami, Florida. One company, [Merit](#), which specializes in digital credentials, partnered with the Florida Division of Emergency Management to enable healthcare first responders, including doctors, nurses, nursing assistants, and other medical professionals, to obtain certified credentials that allowed them to quickly be able to assist in response and recovery efforts. When the collapse of the Surfside Condominium occurred, Merit's incident management team arrived on site within 18 hours of being requested and completed personnel badge printing and verification within 23 hours. They managed the operations of all personnel and registered responders on the premise through their electronic verification system. This same system provides ILR's across the United States. Merit's platform allowed them to track and organize licenses and credentials in real time. The live dashboard enabled critical scene safety, security, and accountability to help bring essential emergency personnel to the scene. Merit currently works with several professional licensing, occupational regulation, workforce development, emergency services, and other credentials throughout the United States.

## ***Connecticut***

The Governor's Workforce Council expanded access to Metrix Learning Licenses and purchased licenses to [180Skills](#) for people receiving unemployment insurance through [SkillUpCT](#). This expansion provides free and available online learning licenses to individuals receiving unemployment insurance. The platform allows residents to enroll in short-term training tracks that lead to more than 100 industry certifications. ILR's are created to help individuals find employment quickly upon completion of certifications. In 2020, Connecticut utilized [Coronavirus Aid, Relief, and Economic Recovery Act](#) (CARES) funding to provide free training for displaced workers seeking quality job openings. The funding includes supportive services for workers, individualized job coaching, and short-term digital credentials. The SkillUp CT program will significantly expand the ability of laid-off workers to upgrade their skills and earn industry recognized credentials. SkillupCT partnered with local employers and created [Skill Up for Manufacturing](#). This program helps students obtain skills specific to the high demand jobs of manufacturing. Students of the program complete 250 hours of hands-on classroom activities and earn 175 pre apprenticeship hours. The model is based on a successful manufacturing pipeline initiative that has placed close to 2,000 people into jobs in Eastern Connecticut at over 100 companies.

## ***Virginia***

Virginia created [FastForward](#), a short-term workforce training program focused on industry credentials for the most in demand jobs. The Community College system provides 6-12 weeks of skills training for high demand jobs. Students are provided a coach to help navigate the training options and then enroll in courses to obtain verifiable credentials. FastForward partners with various businesses throughout Virginia to provide jobs for students upon completion of credentials. The issuance of a digital credential and partnership with local business and industry provides the student with a direct pathway for immediate employment. According to the Virginia Community College system, FastForward graduates earned more than \$81 million dollars last year, a nearly \$15 million increase over their earnings prior to participating in the program. In turn, the government receives a return on its investment in the form of estimated annual income taxes of \$4,004,027 paid by FastForward graduates, according to Virginia Community Colleges.

Additionally, Virginia's Department of Professional and Occupational Regulation (DPOR) created and offered a [digital license and credentials system](#) to provide increased access for industries with job availability. By the DPOR modernizing their agency to provide better services to their residents, they were able to respond quickly when COVID-19 emerged, extending validity for professional licenses within 24 hours, including workers on the frontlines of the pandemic. Their digitalized system could process applications and the paired licenses in 24 hours rather than two to three weeks via paper.

## **GUIDING PRINCIPLES**

In 2020, Laffer Associates conducted [research](#) on the topic of labor market efficiency. Specifically, the team examined the economic benefits that can occur by shortening the time it takes when a worker loses their job and starts new employment. Laffer describes LER's as being a method of instant verification of credentials, which vastly reduces the amount of time it takes to fill job vacancies. The researchers used time and cost figures and combined them with historical and current employment data from the Bureau of Labor Statistics (BLS). Taking into account long-run effects as well as short-term benefits from a faster COVID-19 economic recovery, their report found that, with a full-scale implementation of a digital instant-placement program, the average unemployed worker would benefit by almost \$6,000 and the average firm would benefit by over \$21,000, translating to aggregate gains for the U.S. economy of nearly \$437.6 billion.

In order to prepare the current workforce to thrive in a rapidly changing in demand skills environment with frequent disruption, the United States must pursue a comprehensive job training, retraining, and upskilling strategy centered around public and private sector collaboration that will include the following:

### ***Support Advancing the LER***

Creating a statewide data infrastructure that connects fragmented systems and improves tracking outcomes helps to inform data driven decision making. Governors can promote the use of high-quality data to inform state decision-making and assist employers in investing in training. Most states have already participated in the [Workforce Data Quality Initiative](#), which supports longitudinal administrative databases that integrate workforce data and education data. The Statewide Longitudinal Data Systems initiative, funded by the United States Department of Labor, collects education data and could help build the collection of workforce data and link it with the longitudinal education data for use in developing an LER system. Although LERs are an innovation designed to document skills, private sector industry plays a critical role. A framework with common language that is supported by technology can simplify the process of verifying credentials and connecting that to an individual's learning across school, work and life.

### ***Align State Leaders Under a Shared Strategic Vision***

To prepare the workforce and support LERs, state leaders must review and restructure, when necessary, education and training systems to meet the needs of workers today. State agencies and external partners need a shared vision that builds pathways that include on and off ramps for education and training. The use of LERs can support the ongoing needs of the future workforce by enabling lifelong learning across every sector. States can support education and workforce through investing in portable and stackable credential systems that align with private sector implementation of LERs. As described in the [research of the American Workforce Policy Advisory Board](#), businesses and their employees have a critical

role in the development of LERs and can help promote the expansion of LERs through skills based hiring practices. Creating a transparent infrastructure that communicates the completion of skills training is a critical step in preparing the workforce of the future.

### ***Adopt Digital Standards for Learner Records***

Data standards are the rules by which data are organized, described, formatted, transmitted, and made available for different uses. Data standards include data models, data elements, data formats, and data protocols. LER's attempt to document learning wherever it occurs. It is critical that the multiple stakeholders and systems are all aligned to standards of quality. Implementing data standards makes it easier to publish, share, and use data across diverse communities. Data standards can also boost data quality, open new markets, lead to the creation of innovative tools and services, lower costs for data production and use, support policy implementation, encourage collaboration, and more.

## **CONCLUSION**

We are in an era of an unprecedented changing job market. It is clear that digital credentialing presents a crucial avenue for workers to upskill and states to consider standardizing the process for helping people find jobs. The vast landscape of digital credentials offers individuals more choice and much greater affordability. American workers deserve to own a dynamic and lifelong record of their learning and work experiences and achievements that can be instantly verified and shared directly and easily with educational institutions and employers.

## **AUTHOR BIOGRAPHY**

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## WORKS CITED

- American Workforce Policy Advisory Board, (2020) *Learning and Employment Records*, <https://www.commerce.gov/sites/default/files/2020-09/LERwhitepaper09222020.pdf>
- Anderson, M., and Madhumitha K. (2019). *Digital Divide Persists Even as Lower-Income Americans Make Gains in Tech Adoption*, Pew Research Center. <https://www.pewresearch.org/fact-tank/2021/06/22/digital-divide-persists-even-as-americans-with-lower-incomes-make-gains-in-tech-adoption/>
- Bureau of Labor Statistics. (2021) *Employment Projections: 2020-2030 Summary*. <https://www.bls.gov/news.release/ecopro.nr0.htm>
- Cardenas-Navia, I., and Shalin J. (2021) Everything You've Ever Learned. *Issues in Science and Technology*, 37(4) 59-63
- Centre for New Economy and Society Insight (2019) *Towards a Reskilling Revolution: Industry-Led Action for the Future of Work*, <https://www.weforum.org/whitepapers/towards-a-reskilling-revolution-industry-led-action-for-the-future-of-work>
- Credential Engine (2019) *Counting U.S. Postsecondary and Secondary Credentials*. Washington, DC: Credential Engine <https://credentialengine.org/wp-content/uploads/2019/09/Counting-US-Postsecondary-andSecondary>
- Pickard, L. (2018) *Analysis of 450 MOOC-based Microcredentials Reveals Many Options but Little Consistency*, <https://www.class-central.com/report/moocs-microcredentials-analysis-2018/>
- McKinsey and Company, (2021) *Building workforce skills at scale to thrive during and after the Covid-19 crisis*. [https://www.mckinsey.com/~/\\_/media/mckinsey/featured%20insights/future%20of%20organizations/the%20future%20of%20work%20after%20covid%2019/the-future-of-work-after-covid-19-report-vf.pdf?shouldIndex=fal](https://www.mckinsey.com/~/_/media/mckinsey/featured%20insights/future%20of%20organizations/the%20future%20of%20work%20after%20covid%2019/the-future-of-work-after-covid-19-report-vf.pdf?shouldIndex=fal)
- U.S. Government Accountability Office (2017) *Higher Education: Students Need More Information to Help Reduce Challenges in Transferring College Credits*, <https://www.gao.gov/assets/690/686530.pdf>
- World Economic Forum (2017) *Accelerating Workforce Reskilling for the Fourth Industrial Revolution*, [www.weforum.org/whitepapers/accelerating-workforce-reskilling-for-the-fourth-industrialrevolution](http://www.weforum.org/whitepapers/accelerating-workforce-reskilling-for-the-fourth-industrialrevolution)