

Credential As You Go – Mapping Key Learn-And-Work Ecosystem Initiatives/Alliances

August 2023 | Lead Authors: Holly Zanville & Nan Travers



**CREDENTIAL
AS YOU GO**
INCREMENTAL CREDENTIALING



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Preface

Credential As You Go is a national effort to transform our degree-centric learn-and-work ecosystem. Such transformation is needed because the current system—in which postsecondary providers primarily focus on degrees and employers rely on degrees as a proxy for job candidates’ knowledge and skills—is increasingly inefficient. Many recognize the need for change in the ecosystem, and indeed, many of its components are changing. Education and training providers now offer an array of credentials in addition to degrees, including microcredentials, badges, and certificates. Many employers are signaling that they’re moving to skills-based hiring and will no longer require a college degree in some occupations.

Credential as You Go calls for recognizing learning as it is acquired—throughout an individual’s education and career journey. Such a system requires that the learning inherent in degrees or other credentials be unbundled into smaller, recognizable units. The quality of shorter-term credentials must address questions of trust and value throughout the ecosystem and be verifiable within new record keeping systems such as Learning and Employment Records (LERs).

Credential As You Go is one of many initiatives working on various components of these changes, assisted by funding entities that support innovation in education, training, and workforce development. We’re working across three states (Colorado, New York, and North Carolina) on an approach to incremental credentialing rooted in research and development. In short, new incremental credentials are developed; then rigorous research is conducted to assess the outcomes and inform the field whether “credentialing as you go” improves our system.

One of the tasks in our workplan is to identify other initiatives underway in these three states—to allow us to leverage resources, learn from other efforts, and improve and accelerate the work of incremental credentialing. When we identified the many related areas of work in the three states, our State Coordinators provided insights that included: ‘we knew there were a lot, we don’t keep a list of them all, we need this information, they are difficult to coordinate, a small number of us have to go to all the meetings and this has created a challenge for our staff.’ The coordinators acknowledged there is an advantage to have this high level of activity in their states, noting each effort helps accelerate the others and vice versa—though this does create additional work and difficulties of monitoring so many development. In addition, each effort has its own data and reporting requirements based on funder needs.

Although the landscape is becoming crowded, especially in states known for pioneering efforts to innovate such as Colorado, North Carolina, and New York are, all these initiatives are helping to change and evolve the ecosystem. This has been summarized in the *Report on Policies & Initiatives Related to Credential As You Go: Colorado, New York, and North Carolina*. Though admittedly a snapshot in time, it provides an initial inventory for each of the states and shows where efforts overlap.

The states’ report prompted an analysis of key national initiatives/alliances in the learn-and-work ecosystem found in the Learn & Work Ecosystem Library. A survey was designed to collect information on these initiatives/alliances. The subsequent report, *Credential As You Go – Mapping Key Learn-And-Work Ecosystem Initiatives/Alliances*, shares our findings, the many takeaways, and maps the extent of alignment among these initiatives. It is a companion report to the three-state inventory.

We believe these two reports portray the credentialing landscape in new and useful ways—and welcome your feedback and insights about the changing credentialing landscape.

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Introduction

[Credential As You Go](#) is a national movement focused on building an incremental credentialing system that captures and validates all learning. Such a system recognizes that many types of quality credentials (degrees, certificates, industry certifications, licenses, badges, microcredentials) exist to document an individual’s learning. It also recognizes that credentials are awarded by many types of providers (e.g., community and technical colleges, four-year colleges and universities, third-party organizations, employers, the military, and state licensing boards).

To inform the field about initiatives/alliances underway and to facilitate partnerships, Credential As You Go has engaged in two key efforts: (1) build a Learn & Work Ecosystem Library, and (2) map the landscape of related initiatives/alliances.

Launched in December 2022, the web-based Learn & Work Ecosystem Library collects, curates, and coordinates resources to support the learn-and-work ecosystem. With more than 600 articles and artifacts, the Library contains information on more than 160 [initiatives and](#) more than 240 [alliances and intermediaries](#) that are working to strengthen the learn-and-work ecosystem. It also features a [Knowledge](#) section that includes information on the 12 building blocks of the ecosystem, more than 75 related subcomponent topics, and a glossary of more than 110 terms.

Credential As You Go first conducted a landscape review of policies, initiatives, and alliances in each of the three states (Colorado, New York, and North Carolina) that are rapidly prototyping incremental credentials and then researching the outcomes of this approach. The policies are summarized in the Credential As You Go [Policy Playbook](#) launched in April 2023. The Initiatives and alliances in the three states are included in a *Report on Policies & Initiatives Related to Credential As You Go: Colorado, New York, North Carolina*.

The next step was to map related initiatives and alliances. First, we identified key features of initiatives/alliances to determine how much they have in common. Second, we developed a survey containing 56 potential features of initiative/alliances within seven broad categories. These were identified using the results from the states’ landscape reviews.

Categories for Survey	Description of Category
Scale, Scope, Vision	Items in this category focus on planning, vision, mission, and scaling work.
Redesigning Systems	Items in category focus on the design, development, and implementation of the work of the initiatives and alliances.
Partnerships	Items in this category focus on who is conducting the work—the various organizations, alliances, networks, etc.
Research and Data	Items in this category focus on the collection and use of data, and outcomes.
Leadership	Items in this category focus on which organizations are leading the work.
Visibility and Transparency	Items in this category focus on the commitment of the initiatives and alliances to visibility and transparency.
Funding	Items in this category focus on the source of funding for this work.

Survey of Initiatives /Alliances

In March 2023, using a keyword search of the Learn & Work Ecosystem Library, Credential As You Go invited the following 11 initiatives and alliances to participate in the survey (See Appendix C).

The search was informed by the more than 600 articles/artifacts in the Library and included key words/phrases: incremental credentialing, transfer, guided pathways, microcredential pathways, quality and competency-based frameworks, skills-based innovations in learning, data collaboratives to support new credentialing, pathways with an equity focus, and learning and employment records.

The goal of the survey was to determine relationships across these efforts and to develop a prototype map of their features. Leading staff members at each initiative/alliance responded to the survey by checking off features germane to their effort. The response rate was 100%.

Appendix B contains a description of each initiative/alliance as it is described at the Library.

Managing Organization of the Initiative / Alliance	Title of Effort
Aspen Institute and Community College and Research Center (CCRC)	Rising Up Through Stronger & More Equitable Transfer: Tracking Transfer & Transfer Playbook 2.0 (also called Advancing Racial & Socio-economic Equity in Transfer Student Success)
Community College Research Center (CCRC)	Guided Pathways Reforms
Competency-Based Education Network (C-BEN)	C-BEN's Quality Framework
Education Design Lab (Lab)	Data Collaborative for a Skills-Based Economy (Data Collab)
Education Design Lab (Lab)	Micro-pathways—Community College Growth Engine
Education Strategy Group (ESG)	Racial Equity for Adult Credentials in Higher Education (REACH) Collaborative
Massachusetts Institute of Technology (MIT)	Mapping Learning & Employment Records (LERs)
Massachusetts Institute of Technology (MIT)	Digital Credentials Consortium (DCC)
National Governors Association (NGA)	Skills-Driven State Community of Practice Initiative
SUNY Empire State University; Program on Skills, Credentials & Workforce Policy/George Washington University; Corporation for a Skilled Workforce	Credential As You Go
U.S. Department of Education (OCTAE)	Pathways to Credentials—CTE Technical Assistance

Findings

Initiatives/alliances had features that displayed a “high level of agreement,” “medium level of agreement,” or “low level of agreement,” defined as follows:

Key

Features in **ORANGE** = high levels of agreement (75-100%)

Features in **BLUE** = medium levels of agreement (50-74%)

Features in **GREEN** = low levels of agreement (less than 50%)

Scale, Scope, Vision

- Vision is to improve the learn-and-work ecosystem
- Focus is to accelerate progress and scale
- Has a focus on diversity, equity, and inclusion
- Is a multi-year initiative
- Has multiple partners

- Focus is to try out new ideas/innovations

- Has a focus on “enabling” policy to permit innovations

Redesigning Systems

- Is learner-centric
- Has a focus on design principles and/or frameworks
- Has a focus on educational outcomes
- Has a focus on employment outcomes
- Student support services are a component of the solutions
- Is redesigning education and/or training curriculum, credentials, or pathways

- Has quality-assurance features
- Calls for recognizing learning acquired from multiple sources (not only academic)

- Is worker-centric
- New credentials are part of the outcomes
- Calls for validating learning through comprehensive records (e.g., Comprehensive Learner Records (CLR), Learning and Employment Records (LER), Digital Wallets)

Partnerships

- Educators are partners and engaged
- Uses networks/partnerships within a state or higher education system
- Uses networks/partnerships across multiple states and/or multiple institutions

- Has a focus on links to Eligible Training Provider List (ETPL)
- Outsources some functions to third-party partners (e.g., research, real-time data, technology solutions, websites)
- K-12 are partners
- Community colleges are the primary focus

- Four-year colleges and universities are the primary focus
- Focus on all providers of quality credentials (e.g., higher education, third party)
- Employers are partners and engaged

Research and Data

- Has a focus on data to inform strategy, action, and change
 - Is founded in research or a theory of change
 - Has a focus on data results around employment and/or earner outcomes
- Has a focus on research
 - Has a focus on data results around learner outcomes
- Has a focus on data results around employment and/or earner outcomes
 - Participation requires an IRB approval (research component)

Leadership

- Higher education system led
- State government/agency led
 - Workforce development organization led
 - Intermediary/organization led
 - Alliance/network led
 - Employer led
 - Has a leadership team

Visibility and Transparency¹

- Transparency is a key principle and action
 - Has a website
 - Produces reports, articles, blogs
 - Provides webinars
 - Is presented at major conferences
- Is an initiative listed at the Learn & Work Ecosystem Library
 - Is led by an Alliance/Intermediary that is listed at the Learn & Work Ecosystem Library
 - Has a newsletter

Funding

- Foundation
- Federal
 - State
 - Nonprofit organization
 - Private investor
 - Industry/employer
 - Membership organization

¹ Can also apply to the work of initiatives/alliances broadly, but also to programs and many programs focus on learner/earner transparency and visibility of skills.

Discussion

Initiatives and alliances exhibit many close congruities. The 11 in this prototype mapping effort have 20 features in common (75-100%) across six categories (only leadership lacked some common features). The 100% alignment areas show that all efforts are working to accelerate progress and scale, focus on design principles, and are being presented at major conferences.

Most of the initiatives are led by intermediary organizations or alliances/networks. This demonstrates the importance of intermediaries and networks to provide services needed by a range of partners (e.g., create project plans, secure funding, provide leadership/management, complete the reporting and outcomes research often needed for projects supported by foundations).

Few initiatives/alliances are funded by states, private investors, industry/employers, or membership organizations. A large majority (83%) are funded by foundations; this produces an innovation landscape dependent on philanthropic funding. While innovation can flourish in the learn-and-work ecosystem through foundation support, it's not always sustained. When foundations stop funding these special projects, progress can lag because no replacement funding can be found. For example, there are many examples of websites that have been built with foundation funding to share critical information. Once that funding ends, the data can no longer be properly updated or maintained. Another problem with foundation funding is that the competition for that funding can lead to duplicative or overlapping efforts—at a time collaboration is needed to effect significant change.

The following two graphics map key features of the participating 11 initiatives/alliances by category, for those most in common (75-100% agreement), and for those least in common (50% or less in agreement).

Features of Initiatives/Alliances, by Category, Most in Common (75-100%)

Scale, Scope, Vision	Redesigning Systems	Visibility & Transparency	Partnerships	Research & Data	Funding
<ul style="list-style-type: none"> Focus is to accelerate progress & scale (100%) Has multiple partners (92%) To improve the learn-and-work ecosystem (83%) Has a focus on diversity, equity, and inclusion (83%) Is a multi-year initiative (83%) 	<ul style="list-style-type: none"> Has focus on design principles and/or frameworks (100%) Has a focus on educational outcomes (92%) Has a focus on employment outcomes (92%) Is learner-centric (75%) Student Support services are a component of the solution (75%) 	<ul style="list-style-type: none"> Is presented at major conferences (100%) Has a website (92%) Transparency is a key principle and action (75%) Produces reports, articles, blogs (75%) Provides webinars (75%) 	<ul style="list-style-type: none"> Uses networks/partnerships across multi-state and/or multi-institutions (92%) Educators are partners and engaged (75%) Uses networks and partnerships within a state or higher education system (75%) 	<ul style="list-style-type: none"> Has a focus on data to inform strategy, action, and change (75%) 	<ul style="list-style-type: none"> Foundations (83%)

Features of Initiatives/Alliances, by Category, Least in Common (50% or Less)

Funding

Federal (25%)
State (16.67%)
Non-profit organization (33.33%)
Private investor (8.33%)
Industry/Employer (16.67%)
Membership organization (16.67%)

Leadership

State government/agency led (16.67%)
Workforce development organization led (0%)
Intermediary/organization led (33.33%)
Alliance/network led (33.33%)
Employer led (0%)
Has a leadership team (50%)

Visibility & Transparency

Initiative listed at the Learn & Work Ecosystem Library (41.67%)
Led by an Alliance/intermediary that is listed at the Learn & Work Ecosystem Library (50.00%)
Has a newsletter (16.67 %)

Designing Systems

Validating learning through comprehensive records (41.67%)
(Comprehensive Learner Records (CLR),
Learning & Employment Records (LER), Digital Wallets
Now credentials are part of the outcomes (41.67%)
Is worker-centric (41.67%)

Partnerships

Employers are partners and engaged (50%)
Four-year colleges and universities are
the primary focus (33.33%)
Focus is on all providers of quality credentials
(e.g., higher education, third party) (50%)

Research & Data

Has a focus on data results around employment and/or earner outcomes (33.33%)
Participation requires an IRB approval (research component) (44.44%)

Scale/Scope/Vision

Has a focus on “enabling” policy to permit innovations (25%)

Takeaways/Implications for Future Work

There are four main takeaways for innovation work in the learn-and-work ecosystem—and these have many implications for future work in this arena.

Initiatives/alliances have more in common than less. Although the number of initiatives invited to participate in the Credential As You Go prototype mapping effort is small, taken together they represent a significant and innovative body of work in the learn-and-work ecosystem. Three categories—Scale, Scope, Vision; Redesigning Systems; and Visibility and Transparency—had the highest number of common features. This suggests that these initiatives are mostly focused on changing the ecosystem. Many focus on curricular reforms, especially improving credentialing by adding smaller credentials—those that stack or align with degrees or stand alone to meet 21st workforce needs. Several initiatives have a strong technology focus—especially technology that relates to recognizing learning as it occurs, including new credential verification and recordkeeping systems such as Learning and Employment Records (LERs). Others include a policy play, to improve the climate for innovation.

Two categories—Funding and Leadership—had the lowest number of common features. This may suggest the diversity among efforts working in this space in organizing themselves and securing funding.

Whatever the specific focus—be it technology, curriculum, or policy—initiatives/alliances are closely aligned to:

- develop and implement strategies that recognize learning beyond traditional degree programs.
- capture that learning into interoperable and displayable learning and employment records.

The landscape, though ripe for greater collaboration, faces key challenges. A common vision is vital to intentional, effective, and greater coordinated collaboration among organizations—and this study reveals 100% agreement on a common vision to improve the learn-and-work ecosystem. Even though the descriptions of the individual initiatives (see Appendix B) reveal a number of ways in which organizations are working to achieve this vision, the landscape clearly is ripe for greater collaboration.

That said, progress can be hindered by the competition for foundation funding (Credential As You Go National Advisory Board discussion, February 2023). Most of the respondents to the survey noted that their initiatives/alliances are funded through foundations. While many foundations require evidence of collaboration in their grantmaking (discretionary grant proposals, requests for proposals), these collaborations are very different. For example, some organizations collaborate more effectively than others, some work proceeds so quickly that it is difficult for all partners to participate equally effectively, and some collaboratives are so large that meaningful, effective collaboration is difficult, if not impossible. There is also a challenge for the more mature initiatives/alliances to develop a public sustainability plan that can support ongoing efforts beyond the work current foundation funds are being used to stimulate systemic change. An example are efforts working to advance the evolving skills movement, that builds on previously funded efforts.

Although these initiatives do have partners and work toward collaboration, no mechanism exists to coordinate the work across initiatives.

There is growing need for information on key efforts working to improve the learn-and-work ecosystem.

When Credential As You Go initiated this mapping effort, we searched for other sources for information on various initiatives/alliances. We looked to:

- **States to collect information they had.** This information proved limited since it was state-specific and often spotty.
- **Literature on the learn-and-work ecosystem.** We did not find inventories or lists of efforts; most extant material describes what should be considered in the ecosystem. Information about initiatives is not coordinated enough to reveal the direction of the cumulative work underway in higher education and industries.
- **Foundations (as they fund much of the innovation work).** Foundations are required by the IRS to make public the work they fund, but the information they provide is uneven, often hard to find, and rarely summarize how the various initiatives advance the foundation's strategic plan. To synthesize this information, one must visit several foundations to assemble an inventory and analysis—a project in itself. Even reviewing projects funded by foundations would not be complete, as not all key efforts are supported by foundations.

- **Existing collaborative efforts.** We did find a number of networks/alliances comprised of organizations that are working together in various reform areas of the learn-and-work ecosystem. They tended to be organized in discrete thematic areas such as data and standards, curricular reforms, employer hiring of employees, nondegree credential research, and verifications and/recordkeeping. Little insight was gained into how all of these areas fit together.

In short, we found that pulling information from disparate sources is a big lift. Although the aim may be to gather as many initiatives as possible, without a coherent process or logging system, it could never add up to a whole. That said, the limited number of initiatives/alliances in this study provided us with some initial themes of the work underway to improve the learn-and-work ecosystem.

Throughout this inquiry process, we interacted with many stakeholders who expressed a desire for synthesized information on who else is working in the field. They wanted this for many reasons—to increase their collaborations, learn from one another, and/or compete or partner more effectively for funds. There is also great need to coordinate this work so that the knowledge of the field can advance structures within the ecosystem.

There is a growing role for the Learn & Work Ecosystem Library to inform the field about key developments underway to improve the learn-and-work ecosystem. The source we found most useful in conducting this mapping initiative was the newly emerging Learn & Work Ecosystem Library launched in December 2022. The Library served as our main resource for information on initiatives, alliances, and intermediaries that are working to improve the ecosystem. Although it may appear self-serving—even a possible “conflict of interest”—to position the Library in the center of our mapping initiative², we found no viable alternative. We tried to identify other sources to inform this work, but none emerged as useful as the evolving Library—especially because much of the information was buried in foundations’ reports and websites and were not coordinated. If additional organizations come forward and share their projects and resources in the Library, a larger collection would evolve. Possibly, if foundations and other funding sources required their grantees to contribute to the Library, more meaningful lessons could be shared from initiatives across the country.

Although more than 600 articles/artifacts are now listed in the Library (see Introduction), many more initiatives and alliances/intermediaries are likely working in this area. More and better information about the range and diversity of efforts is needed to help a wide array of stakeholders assess progress in improving the nation’s learn-and-work ecosystem, highlight areas for new attention, and identify potential partners. Better information would also help foundations and other funders make strategic investments, foster collaboration among their funded initiatives, share lessons, and plan new work where most needed.

Conclusion

Credential As You Go’s prototype mapping initiative has identified several urgent needs, including the need to:

- Improve and connect information about the many efforts underway to improve the learn-and-work ecosystem.
- Communicate this information more broadly.
- Better align funding support, given the commonalities of the work, and leverage resources among initiatives/alliances.
- Study these developments in greater depth.

All of these initiatives and alliances—and many hundreds more that are working in the landscape of innovation—are trying to solve many of the same problems. Greater collaboration, better connection of this work, and greater focus of resources would truly help this complex ecosystem take hold and thrive. Mapping the initiatives and the key players in this work is an important first step; more needs to happen.

² The Learn & Work Ecosystem Library has been developed in collaboration with Credential As You Go to meet information needs of Credential As You Go as well as information needs of many other stakeholders working to improve the learn-and-work ecosystem.

Appendix A

Tables of Levels of Agreement by Initiative/Alliance Areas

Table 1: Levels of Agreement by Initiative/Alliance Areas (Order of Survey)

Initiative Area	High Level of Agreement	Medium Level of Agreement	Low Level of Agreement
Scale, Scope, & Vision (7 items)	72%	14%	14%
Designing Systems (11 items)	55%	18%	27%
Partnerships (10 items)	30%	30%	40%
Research and Data (6 items)	17%	33%	50%
Leadership (7 items)	0%	29%	71%
Visibility and Transparency (8 items)	63%	12%	25%
Funding (7 items)	14%	0%	86%

Table 2: Levels of Agreement by Initiative/Alliance Areas
In Descending Order of High Agreement

Initiative Area	High Level of Agreement	Medium Level of Agreement	Low Level of Agreement
Scale, Scope, & Vision (7 items)	72%	14%	14%
Visibility and Transparency (8 items)	63%	12%	25%
Designing Systems (11 items)	55%	18%	27%
Partnerships (10 items)	30%	30%	40%
Research and Data (6 items)	17%	33%	50%
Funding (7 items)	14%	0%	86%
Leadership (7 items)	0%	29%	71%

Table 3: Levels of Agreement by Initiative/Alliance Areas
In Descending Order of Low Agreement

Initiative Area	High Level of Agreement	Medium Level of Agreement	Low Level of Agreement
Funding (7 items)	14%	0%	86%
Leadership (7 items)	0%	29%	71%
Research and Data (6 items)	17%	33%	50%
Partnerships (10 items)	30%	30%	40%
Designing Systems (11 items)	55%	18%	27%
Visibility and Transparency (8 items)	63%	12%	25%
Scale, Scope, & Vision (7 items)	72%	14%	14%

Appendix B

Descriptions of 11 Initiatives/Alliances from Articles at the Learn & Work Ecosystem Library³

Credential As You Go

[External Link](#)

The Credential As You Go initiative focuses on building an incremental credentialing system, recognizing the value in many types of quality credentials, including degrees, certificates, industry certifications, licenses, badges, and microcredentials. All of these credentials—and others—document an individual’s learning, and they are awarded by many types of providers, including community and technical colleges, four-year colleges and universities, third-party organizations, employers, the military, and state licensing boards.

The initiative builds on a two-year planning project funded by Lumina Foundation. That Phase 1 project, undertaken in 2018 by faculty from two- and four-year institutions in the State University System of New York, explored the feasibility of a nationally recognized, transferable, incremental credentialing system. Project team conducted an environmental scan of nearly 90 initiatives across 41 states designed to serve students better and capture what they know. Results indicated that some states, higher education systems, and institutions were already moving toward incremental credentialing, but in different ways. Patterns of credentialing were identified and used to inform the emerging Framework of Incremental Credentialing. From now through 2024, Phase 2 of the project will test the utility of this framework at the undergraduate and graduate levels in three states (Colorado, New York, and North Carolina). Phase 2 is supported by a grant from the U.S. Department of Education’s Institute of Education Sciences. A Phase 3 effort (2022-2023), aided by a grant from Walmart, focuses on systems change for expansion and sustainability of incremental [credentials](#).

The Credential As You Go initiative has many components, all of which are needed to create a nationally recognized, incremental credentialing system. These include: a national campaign to build understanding and support, research to build the evidence for the new system, training and technical assistance, commitment to [equity](#) and inclusion, policy changes, and connections with related initiatives.

Partners: SUNY Empire State College; Corporation for a Skilled Workforce; Program on Skills, Credentials & Workforce Policy at George Washington University; the states of Colorado, North Carolina, New York, and Alabama; USDOE IES; a National Advisory Board whose members represent 135 organizations.

Links to Resources: <https://credentialasyougo.org/>

Data Collaborative for a Skills-Based Economy (Data Collab)

[External Link](#)

The Data Collaborative for a Skills-based Economy (Data Collab) is a data hub that connects and aggregates data across a range of data sources to uncover how new education-to-work models can support economic mobility for [new majority learners](#). The data collaboration infrastructure enables the Education Design Lab which manages the initiative and its partners to ask and answer deeper questions about equitable learner outcomes in non-credit programs. Originally formed to support the [Community College Growth Engine](#), the Education Design Lab (the Lab) has designed and deployed the new data collaborative with a growing set of innovative higher education institutions that are rolling out, at scale, data infrastructure for evaluating “what works” in the world of micro-credentials, alternative pathways, skills assessments, and other short-term, non-credit programs.

³ A link to the Library article is embedded in the title of each initiative/alliance, and the external link is provided as well.

The Data Collab partners (see below) established the data infrastructure and the technical, governance, and legal frameworks to support data collaboration across education institutions, government agencies, community-based organizations, and others.

The Data Collab lives at the intersection of design and data. Its work has shown that (1) education providers, policymakers, learners, and employers are eager for insights on the impact and return on investment of short-term or non-credit programs; and (2) learners need better data on what programs are available and what their investment of time, money, and energy will yield for their own economic mobility.

Examples of the Data Collab’s accomplishments include:

- Built an infrastructure for gathering data, monitoring progress, and researching the impact of innovative alternative, [short-term credentials](#) and pathways.
- Created and executed data sharing templates with colleges and national partners.
- Developed data guides with submission templates identifying key data elements including (L)earner Enrollment + Progression, (L)earner demographics, and Programs (Competencies, Courses, [Credentials](#), Pathways).
- Performed a gap analysis of missing individual (l)earner demographic data and developed protocols for gathering this information in innovative ways.
- Established the data architecture, data privacy, data protection, data security, and data governance to ensure compliance and elevation of individual rights to data privacy.
- Established collaborative partnerships with national organizations to maximize data standards and minimize duplicative data efforts.
- Established a multi-pronged model for incorporating wage and employment outcome data elements.

Six developing areas of work are focused on more fully leveraging data to evaluate learner impact and generate new insights on non-credit programs:

- Data Dashboard Products for Insights
- Standardization of Non-credit Credential Data
- Test and Support Integration of K-12 Data
- Data Capacity-Building Support
- Employment and Wage Data Integrations
- [Inclusion](#) of Industry Certification and Non-Credit Credential Data

Partners: The Lab, Brighthive (technical administrator), National Student Clearinghouse (Postsecondary Data Partnership submission), an external project research group (evaluator) currently Education & Employment Research Center (EERC), Burning Glass Institute, and Credential Engine (data schema and mapping) established the data infrastructure as well as the technical, governance, and legal frameworks to support data collaboration across education institutions, government agencies, community-based organizations, and others.

Digital Credentials Consortium (DCC)

[External Link](#)

The Digital Credentials Consortium (DCC) was founded in 2018 by leading universities with expertise in the design of verifiable digital credentials. Together, the partners are designing an infrastructure for digital credentials that can support the education systems of the future.

DCC has issued a white paper: “[Building the digital credential infrastructure for the future.](#)”

Projects underway to explore a digital credentials infrastructure include:

- [Learner Credential Wallet](#)—Open source mobile wallet to store learner credentials
- [Install Learner Credential Wallet App](#)
- [Learner Credential Wallet Specification](#)
- [Mobile App Github Repository](#)
- [Digital Credentials Consortium Github Repository](#)
- [Project Report](#)
- Beyond the Wallet—Broadening access and impact of digital [credentials](#)
- [Credentials to Employment: The Last Mile](#)
- Web Verifier+ (coming soon)

Founding members of DCC include:

- Delft University of Technology (The Netherlands)
- Georgia Institute of Technology (USA)
- Harvard University (USA)
- Hasso Plattner Institute, University of Potsdam (Germany)
- Massachusetts Institute of Technology (USA)
- McMaster University (Canada)
- Tecnologico De Monterrey (Mexico)
- TU Munich (Germany)
- UC Berkeley (USA)
- UC Irvine (USA)
- University of Milano-Bicocca (Italy)
- University of Toronto (Canada)

Guided Pathways Reforms

[External Link](#)

As noted at the [Guided Pathways Initiative site](#) at the Center for Community College Research (CCRC) at Teachers College, Columbia University: *Guided Pathways* is a “whole-college redesign model designed to help all students explore, choose, plan, and complete programs aligned with their career and education goals efficiently and affordably. Hundreds of colleges are implementing guided pathways reforms to improve student completion rates, close [equity](#) gaps, and increase enrollments in an increasingly competitive environment.”

The movement seeks to streamline a student’s journey through college by providing structured choice, revamped support, and clear learning outcomes—ultimately helping more students achieve their college completion goals. The reform recognizes that the current self-service model of community colleges leads many students to unintended dead ends or unforeseen detours in the form of excess or out-of-sequence credit. There are four pillars of guided pathways: (1) clarify pathways to end goals, (2) help students choose and enter pathways, (3) help students stay on path, and (4) ensure students are learning. One reason the initiative is so challenging to implement is the lack of clarity about what it is; the pillars outline its basic principles but leave the specifics of implementation up to interpretation by the colleges.

The 2015 book, *Redesigning America’s Community Colleges* (Thomas Bailey, Shanna Smith Jaggars, Davis Jenkins) spearheaded the movement for colleges to undertake wholesale restructuring of their programs and student supports. Since the book’s publication, there has been growing evidence on how to effectively [implement guided pathways](#), [promote equity](#), and [measure impacts on students](#).

Nearly 400 community colleges are implementing guided pathways reforms as part of formal national or statewide initiatives in 16 states, while many other colleges are doing so on their own.

Mapping Learning & Employment Records (LERs)

External Link

The [Digital Credentials Consortium](#) (DCC), hosted at MIT Open Learning, is partnering with NationSwell (a B Corp dedicated to providing essential support to impact-driven leaders and organizations through a unique membership community and leading impact studio) and a number of organizations to [map the Learning and Employment Records](#) (LERS). The initiative, launched in early 2023, seeks to increase the uptake of digital learning and employment records.

Digital LERs contain verifiable information about a person’s achievements and skills. These can include diplomas, transcripts, industry certifications, or licenses that are gained through both formal and informal education and in the workplace. LERs have the potential to increase access to career pathways and make learning, career, and life transitions more equitable. But there are many barriers to adoption. Many of these were highlighted in DCC’s 2022 report, [Credentials to Employment: The Last Mile](#). These include (1) ensuring interoperability across emerging standards, (2) connecting with existing trust providers such as [accreditation](#) bodies, and (3) developing tools that make it easier to issue standard credentials in digital formats.

One of the key recommendations from the “Last Mile” report was to take a more coordinated ecosystem approach toward widespread adoption. The initiative is interviewing a wide range of stakeholders and holding workshops to ensure that a variety of perspectives are represented.

The first version of the map will be released in the summer of 2023. The map is being designed as a living document so it can be continually updated.

Partners: Digital Credentials Consortium (DCC) hosted at MIT Open Learning; American Association of Collegiate Registrars and Admissions Officers (AACRAO); Brookings Institution; Competency-Based Education Network (C-BEN); Digital Promise; Jobs For The Future (JFF); National Association of Workforce Boards (NAWB); National Governors Association (NGA); T3 Innovation Network (initiative by the U.S. Chamber of Commerce Foundation); Society for Resource Management Foundation (SHRM); Walmart

Links to Resources:

- digitalcredentials@mit.edu
- <https://medium.com/open-learning/mapping-the-ler-ecosystem-to-drive-adoption-and-collaboration-in-service-of-learners-and-earners-5f837d59d896>

Micro-pathways—Community College Growth Engine

External Link

The Community College Growth Engine focuses on the creation of employer-validated micro-pathways. These pathways are defined as two or more stackable credentials, including a 21st century skill microcredential, that are delivered in such a way that they can be earned in less than a year and result in a job that pays at least the local median wage. These micro-pathways are designed to connect low-wage and entry-level workers to in-demand jobs that pay at-or-above median wage and put them on a path toward a degree.

Cohort 1 + 2 Partners (Cohort 3 Partners currently Onboarding): CUNY, Ivy Tech Community College, Prince George’s Community College, Austin Community College, Seattle Colleges, Pima Community College, Colorado Community College System, Maricopa County Community College System, Community College of Philadelphia, Bunker Hill Community College

Links to Resources: <https://eddesignlab.org/project/growthenginefund/>

Pathways to Credentials—CTE Technical Assistance (U.S. Department of Education)

External Link

The [Pathways to Credentials Technical Assistance Cohort](#)—supported by the U.S. Department of Education, Office of Career, Technical, and Adult Education (OCTAE)—recognized that the stackable credentials approach can help students progress along the education continuum and obtain a postsecondary credential with labor market value. From May 2020 through July 2021, the initiative aimed to build the capacity of community and technical colleges to embed stackable, industry-recognized [credentials](#) within technical associate degree programs. The initiative provided customized technical assistance to help colleges advance efforts in stackable credential design, including components such as employer engagement, industry certification alignment, and non-credit/credit integration. The cohort included:

- Community College of Aurora/Colorado Northwestern Community College (Colorado)
- University of District of Columbia Community College (Washington, DC)
- Lake-Sumter State College (Florida)
- Leeward Community College (Hawaii)
- Malcolm X College (Illinois)
- Southern University—Shreveport (Louisiana)
- Ocean County College (New Jersey)
- Onondaga Community College (New York)
- Community College of Allegheny County (Pennsylvania)
- North Central Texas College (Texas)

College teams worked with a technical assistance coach, other subject matter experts, and sector-focused sub-groups on action plans specific to the workforce needs of their communities while benefiting from the cohort’s peer learning opportunities.

In addition to providing technical assistance, Pathways to Credentials published [Introduction to Stackable Credentials](#). This report and related tutorials supported community and technical colleges across the U.S. with resources, tools, and promising practices (practical steps for enhancing employer engagement, designing programs with [stackable credentials](#), supporting student completion, and sustaining programs responsive to employer needs). The publication built on the [2018 Stackable Credentials Toolkit](#).

Partners: Center for Occupational Research and Development; Social Policy Research Associates

Links to Resources: <https://cte.ed.gov/initiatives/about-pathways-to-credentials>

C-BEN’s Quality Framework

[Also known as Quality Framework for Competency-Based Education Programs]

External Link

C-BEN is a network of institutions, employers, and experts who believe competencies can unlock the future of learning, making postsecondary education and training more flexible, responsive, and valuable. C-BEN supports an array of organizations to implement competency-based solutions using C-BEN’s Quality Framework for Competency-Based Education Programs.

Released in 2017, C-BEN’s Quality Framework is the only such framework designed for CBE programs. The goal of is to provide guidance to the field about the design, implementation, and scale of high-quality programs that lead to greater completion and employment. C-BEN members from 30 institutions and four state university systems offer feedback, but over 100 other individuals from around the country provided guidance that informed this final version. C-BEN’s Quality Framework informs the services provided to various clients such as state systems, educational institutions, employers,

ed tech firms, and policymakers. These services include sessions at Exchange, toolkits, webinars, and other resources available to the public broadly to support capacity building.

Partners: C-BEN has helped hundreds of institutions—directly or indirectly—to focus on quality CBE programs. It now supports five state systems and their institutions, as well as over 30 individual institutions in their efforts to provide competency-based education.

Links to Resources:

- C-BEN’s Quality Framework: <https://www.cbenetwork.org/wp-content/uploads/2022/02/CBEN-22-004-Quality-Framework-Update-No-Tabs.pdf>
- Quality Framework User Guide: https://www.cbenetwork.org/wp-content/uploads/2022/02/CBEN-22-005-Quality-Framework-for-CBE-Programs-A-User_s-Guide.pdf

Racial Equity for Adult Credentials in Higher Education (REACH) Collaborative

External Link

The Racial Equity for Adult Credentials in Higher Education (REACH) Collaborative is a national initiative of Lumina Foundation. It focuses on creating pathways designed for Black, Hispanic, and Native American adults to earn quality credentials that lead to a degree. The initiative supports community colleges in six states in creating pathways to high-quality non-degree credentials that are embedded in associate degree programs. These pathways are designed to make it possible for adults to pursue better job opportunities while continuing to progress toward a degree. Six states—California, Colorado, New York, North Carolina, Texas, and Virginia—were selected for their efforts to serve and support adult learners and their demonstrated commitment to equitable student success.

REACH has three main components—Credentials to Degrees Pathways, Bundled and Sequenced Supports, and Culturally Sustaining Practices—that are intentionally designed to work together to support adult students of color, addressing their specific needs and experiences. REACH employs sequenced student supports and culturally sustaining practices in its approach. This ensures (1) that academic, financial, and wraparound supports are purposely embedded and made available to students throughout their enrollment, and (2) that these experiences specifically account for the needs of adult students of color. Weaving these elements together is essential but rarely done, especially as students move from workforce training into associate degree programs.

The two-year initiative seeks at least a 2% increase in the attainment of high-quality [credentials](#) and outcomes.

Projects within REACH:

- 23 of California’s 116 community colleges are participating through a community of practice launched by the Success Center for California Community Colleges. The colleges are implementing pathways-based reforms and supports specifically aimed at adult students of color. This work complements the state’s focus on promoting [equity](#), supporting adult learners, and adopting guided pathways.
- All 13 of Colorado’s community colleges are participating in REACH. The state’s robust policy of awarding credit for prior learning also positions these colleges well to serve adult learners. Colorado’s State Board for Community Colleges and Occupational Education also recently launched a \$5 million program focused on closing racial equity gaps by targeting classroom practices over the next three years. Community College of Aurora’s success in closing equity gaps using data, faculty coaches, and professional development to foster inclusive, culturally relevant, and high-quality teaching and instruction serves as a model for all 13 Colorado community colleges.
- 16 of New York’s 35 community colleges are bringing their experience with translating noncredit to credit programs to the state’s work in REACH. In addition to participating in Credential As You Go, the State University of New York administers apprenticeship and workforce development programs that incorporate credit and noncredit pathways to associate degrees. The New York collaborative is adopting guided [pathways](#) with the support of coaches. It also is committed to statewide implementation of culturally responsive curriculum.

- 24 of North Carolina’s community colleges are working to engage and support adult learners and match program offerings with workforce needs. Through the NC Workforce Credentials initiative, the state uses a research-based process to identify and validate high-value, non-degree credentials. The state’s Better Skills Better Jobs program, which aims to recruit more adult students into pathways and connect them with local employers, also is also an asset for the REACH colleges.
- 48 Texas community colleges are part of the Texas Pathways strategy that supports building pathways to high-value credentials and serves as a firm foundation for the state’s REACH Collaborative work. Texas Reskilling and Upskilling through Education (TRUE)—which aims to expand certificate and microcredential programs leading to high-demand job fields, particularly for displaced workers—also will be leveraged. Texas community colleges that participated in a recent basic needs assessment with the Hope Center for College, Community, and Justice can use those insights to inform the creation of bundled supports for adult students of color at REACH colleges.
- 15 of Virginia’s 23 community colleges are participating. Virginia’s current efforts with noncredit to credit programs and bundled supports align well with aspects of the REACH framework. The FastForward program provides [short-term training](#) for in-demand industries, allowing noncredit credentials to be translated into academic credit. The Get Skilled, Get a Job, Get Ahead (G3) initiative, a tuition-free community college program for low-and middle-income students who pursue jobs in high-demand fields, provides wraparound financial assistance to help eligible students. Virginia’s participation in the Talent, Innovation, and Equity (TIE) initiative, supported by Lumina Foundation, gives participants access to research, funding, and other support in addressing racial disparities. This is essential to Virginia’s specific focus on serving the state’s Native American adult students.

Partners: Lumina partners with the [John M. Belk Endowment](#), [Education Strategy Group \(ESG\)](#), the [Office of Community College Research and Leadership \(OCCRL\)](#) at the University of Illinois, [the University of Pittsburgh Council for the Study of Community Colleges \(CSCC\)](#), and evaluation consulting firm [DVP-PRAXIS LTD](#) to lead the collaborative, coordinate technical assistance to institutions, and evaluate the effectiveness of these efforts at participating community colleges in six states.

Links to Resources: <https://reachcollab.org/>

Rising Up Through Stronger & More Equitable Transfer: Tracking Transfer & Transfer Playbook 2.0 (Aspen Institute, Community College Research Center)

[Also known as Advancing Racial and Socio-economic Equity in Transfer Student Success]

[External Link](#)

[The Aspen Institute College Excellence Program](#) and [Community College Research Center](#) launched a two-year new project in fall 2022 to deliver the “second edition” of the Transfer Playbook, made possible by improvements in national data collection. With new data from the National Student Clearinghouse, the project will be able to identify colleges that are delivering excellent transfer outcomes and doing so equitably for all students. The project will also publish an updated version of Tracking Transfer with new, national and state-level measures of effectiveness disaggregated by race/ethnicity and income. Based on what is learned from the community college and university transfer partnerships which are delivering the strongest outcomes for students of color, the project will produce an updated Transfer Playbook in 2024 that gives every college and university in the nation a road map to delivering better transfer outcomes and remedying longstanding inequities in transfer.

This work will update two previous efforts:

[The Transfer Playbook](#), published by Aspen and the Community College Research Center in 2016, is based on original research into the practices of six highly effective community college-university partnerships, describes how institutions can improve transfer student outcomes through three core strategies: (1) prioritizing transfer, (2) creating clear transfer program maps, and (3) establishing dedicated transfer advising. The report provides examples of essential strategies and a checklist for getting started.

[Tracking Transfer](#) was published in 2016 to complement the Playbook. The report contains a comprehensive set of five measures to track which institutions effectively serve transfer students and which states have a robust transfer pipeline from community colleges to four-year schools. Using this common set of metrics, the report examines the average outcomes for students who first started college at two-year institutions by a variety of institutional characteristics including geography, student socioeconomic status, and selectivity (at four-year institutions).

Key components of the 2022-2024 project include:

- Working with National Student Clearinghouse’s data.
- Delivering actionable and disaggregated data, public accountability, and evidence-based strategies with the goal to pave the way for stronger, more equitable transfer outcomes across institutions, states, and the nation.
- Working with state and institutional leaders in North Carolina and California and national organizations to help policymakers and college presidents nationwide devote the attention and resources needed to realize the full promise of community college transfer as an engine of opportunity and [equity](#).
- Developing a Transfer Playbook that includes programs, practices, and initiatives that are helping achieve stronger and more equitable outcomes for transfer students.

Partners: The lead researchers come from the Community College Research Center and the Aspen Institute College Excellence Program. Support for the project is coming from the Belk Center, ECMC Foundation, College Futures Foundation, and the Kresge Foundation.

[Skills-Driven State Community of Practice Initiative \(NGA\)](#)

[External Link](#)

The National Governors Association (NGA) is supporting states in developing skills-based pathways to opportunity. These efforts are focused on quality assurance, data collection, and the connection to good jobs. In the Skills-Driven State Community of Practice initiative, the National Governors Association Center for Best Practices (NGA Center), in partnership with Jobs for the Future (JFF), has launched a project to help governors’ offices and other senior state officials better connect skills-based training to skills-based hiring practices. The project also encourages officials to consider promising design elements of Learning and Employment Record (LER) systems. This peer learning opportunity supports states in preparing their employers, education and workforce systems, data systems and policies to design and implement digital wallets and LER projects as a tool for equitable economic mobility.

Participating states include Alabama, Arkansas, Colorado, Connecticut, Indiana, Kentucky, New Hampshire, North Dakota, Oklahoma, Virginia, Washington, Wyoming

- [Community of Practice—Participating States](#)
- [National LER Advisory Council—Leadership Board](#)
- [Resources For Skills-Driven States](#)

Partners: Jobs for the Future, C-BEN, Brookings, U.S. Chamber Foundation, Digital Promise, Credential Engine, SHRM, Business Roundtable, Goodwill, Markle Foundation

Links to Resources: <https://www.nga.org/projects/skills-driven-state-community-of-practice/>

Appendix C

Survey of Key Features

National Landscape Map of Key Initiatives Survey

Thank you for completing the National Landscape Map of Key Initiatives Survey!!

Please check all of the following that are features of your initiative. We ask that you complete one survey per initiative using the link in the email sent to you.

1. What is the name of your initiative?

2. Please provide your name, organization, and email so we can contact you if we have any questions.

For each of the following categories, please select all that apply to your initiative.

3. Scale/Scope/Vision

- Vision is to improve the learn-and-work ecosystem Focus is to accelerate progress & scale
- Focus is to try out new ideas/innovations
- Has a focus on diversity, equity, and inclusion
- Has a focus on “enabling” policy to permit innovations Is a multi-year initiative
- Has multiple partners
- Other (please specify)

4. Designing Systems

- Is learner-centric Is worker-centric
- Has a focus on design principles and/or frameworks
- Has a focus on educational outcomes
- Has a focus on employment outcomes
- Has quality assurance features
- Is redesigning education and/or training curriculum, credentials, or pathways
- Calls for recognizing learning acquired from multiple sources (not only academic)
- New credentials are part of the outcomes
- Calls for validating learning through comprehensive records (e.g., Comprehensive Learner Records (CLR), Learning and Employment Records (LER), Digital Wallets)
- Student support services are a component of the solutions
- Other (please specify)

5. Partnerships

- Educators are partners and engaged Employers are partners and engaged
- Uses networks/partnerships within a state or higher education system Uses networks/partnerships across multi-states and/or multi-institutions
- Has a focus on links to Eligible Training Provider List (ETPL)
- Outsources some function to 3rd party partners (e.g., Research, Real-time Data, Technology Solutions, Websites)
- K-12 are partners
- Community colleges are the primary focus
- Four-year colleges and universities are the primary focus
- Focus is on all providers of quality credentials (e.g., higher education, third party)
- Other (please specify)

6. Research and Data

- Has a focus on research
- Has a focus on data results around learner outcomes
- Has a focus on data results around employment and/or earner outcomes
- Has a focus on data to inform strategy, action, and change
- Participation requires an IRB approval (research component) Is founded in research or a theory of change
- Other (please specify)

7. Leadership

- State government/agency led Higher education system led
- Workforce development organization led Intermediary/organization led Alliance/network led
- Employer led
- Has a leadership team
- Other (please specify)

8. Visibility and Transparency

- Is an initiative listed at the Learn & Work Ecosystem Library
- Is led by an Alliance/Intermediary that is listed at the Learn & Work Ecosystem Library Transparency is a key principle and action
- Has a website
- Produces reports, articles, blogs
- Has a newsletter
- Provides webinars
- Is presented at major conferences
- Other (please specify)

9. Funding

- Federal State Foundation
- Non-profit organization
- Private investor
- Industry/Employer
- Membership organization
- Other (please specify)

10. What other features would you like to share about your initiative?

11. In addition to your initiative, which others would you suggest to be included in the national landscape map?

12. Do you have any other comments that you would like to share?

Thank you for your participation!

