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A National Dialogue on Building a Learning-Based Credentialing System

**Landscape Review of Innovations**

**in the U.S. Credentialing Marketplace:**

**A Working Document**

**CONTENTS**

# Common language 3

**Nimble end-to-end quality assurance processes 5**

**Scalable employer engagement approaches 6**

**Flexible Pathways 10**

**Data and Technology 14**

**Initial List of Innovations Related to Scope of Work Group Action**

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| *Type of*  *innovation* | ***#*** | *Brief*  *Description* | *Organization(s) and*  *Funding source(s)* |
| Develop common language to serve as the basis for a connected credentialing system  * -Develop competency-based communications vehicles that increase transparency among credential issuers, holders, and employers * -Improve the interface of credentials across sectors (military/civilian, industry/academic, etc.) * -Develop digital badges to communicate clearly about skills | | | |
| Competency as the common language |  | **Connecting Credentials: Beta Credentials Framework** uses competencies as common reference points to help users understand and compare the levels of knowledge and skills that underlie all credentials – including degrees, certificates, industry certifications, licenses, apprenticeships and badges. The framework is currently being field tested by AACC The Right Signals grantees and others. <http://connectingcredentials.org> | Corporation for a Skilled Workforce, Lumina Foundation |
|  | **Clarifying Competency Based Education Terms: A Lexicon** addresses and defines terms often used in the world of CBE -- not all of which are commonly understood to have an accepted definition. <http://bbbb.blackboard.com/Competency-based-education-definitions>, | ACE-Blackboard |
|  | **The Readiness Project** uses accessible and actionable research and communications to suggest common language for the dynamic abilities people use every day; the high frequency skills, habits and attitudes (competencies) that make-up those abilities; the practices that support the development of those skillsets and mindsets and, the gaps and traps that stand in the way of putting those abilities and practices into effect. | Ford Foundation |
|  | Interactive **Employability Skills Framework website** is central clearinghouse of resources for policymakers, practitioners in education and workforce training, and others where they can identify employability skills and compare the skills identified by various instructional standards and assessments; understand key considerations for selecting an employability skills assessment; create a customized assessment comparison worksheet; and view practical examples of employability skills instruction and assessment. <http://cte.ed.gov/employabilityskills/app/webroot/files/Employability_Skills_Framework.pdf> | Office of Career, Technical & Adult Education, U.S. Department of Education |
|  | Ongoing stream of work that ties degrees, certificates, industry-based certifications, non-credit education, and licenses to labor market value. The work also drills down below the level of degree attainment and/or program to core competencies required for success along education and career pathways. Core occupational competencies include occupational knowledge, skills, abilities, work values, work interests, and personality traits. See following reports: **Recovery 2020**, **College Payoff**, **Certificates** | Georgetown University Center on Education & the Workforce -- Gates, Lumina & Joyce Foundations |
|  |  | **Interactive Employability Skills Framework** – This website, operated by the U.S. Department of Education, is a clearinghouse of resources where policymakers, practitioners in education and workforce training, and others can identify employability skills and compare the skills identified by various instructional standards and assessments; understand key considerations for selecting an employability skills assessment; create a customized assessment comparison worksheet; and view practical examples of employability skills instruction and assessment. <http://cte.ed.gov/employabilityskills/app/webroot/files/Employability_Skills_Framework.pdf> | U.S. Department of Education |
| Competency-based standards in education |  | **Degree Qualifications Profile (DQP) i**s a learning-centered framework outlining what college students should know and be able to do upon completion of associate, bachelors and master’s degrees – in any field of study. Paired with the complementary, discipline-specific process of Tuning, the DQP engages faculty in the work of improving courses and programs of study: <http://degreeprofile.org/> | National Institute of Learning Outcomes Assessment, Lumina Foundation |
|  | **Liberal Education and America’s Promise (LEAP)** is a national advocacy, campus action, and research initiative that champions the importance of a 21st century liberal education for individuals and a nation dependent on economic creativity and democratic vitality: <https://www.aacu.org/leap>. Its efficacy and scalability are being tested in the **Multi-State Collaborative to Advance Learning Outcomes Assessment** led by SHEEO involving about 100 colleges/universities in 12 states. <https://www/sheeo.org/projects/msc-multi-state-collaborative-learning-outcomes-assessment>. **General Education Maps and Markers (GEMs)** shows educators how to apply the proficiencies and competencies articulated in the Degree Qualifications Profile (DQP) to the design of integrative and equity-minded general education programs, from first to final year. Guides from this project are available at [www.aacu.org/GEMs](http://www.aacu.org/GEMs) . Several dozen colleges, universities and community colleges are applying GEMs guidelines through AAC&U grant funded LEAP initiatives. A GEMs report on digital strategies for achieving key learning outcomes will be released in 2016. | AAC&U member contributions -- Gates & Lumina Foundations |
|  | Supports states’ efforts to ensure all students graduate from high school ready for college and careers and is in the early stages of work to understand and make recommendations about the role of k-12 in addressing the “skills gap.” Achieve provides targeted policy and implementation support to a group of states committed to advancing K-12 competency-based pathways (CBP) to college and career readiness for all students. [**CBP State Partnership: Support to States in Advancing Competency-Based Pathways**](http://www.achieve.org/CBP)**.** | Achieve |
| Institutionalizing credentialing in the military |  | **Military Credentialing and Licensing Task Force** oversees and coordinates DOD and Service level initiatives related to credentialing and licensing.<http://blog.dol.gov/tag/defense-department-military-credentialing-and-licensing-task-force/><http://www.nga.org/files/live/sites/NGA/files/pdf/2014/1410VeteransLicensingDoDCredentialing_Cain.pdf>  NGA conducted a Veterans’ Licensing and Certification Policy Academy for states to support this effort. | U.S. Department of Defense, National Governors Association Center for Best Practices |
| Competency-based transcript to increase transparency for employers |  | Postsecondary Electronic Standards Council’s **Task Force on Academic Credit and Experiential Learning** is developing postsecondary electronic standards. | American Association of Collegiate Registrars & Admissions Officers, PESC |
|  | **CBE and eT** (extended transcript) initiative to create and test a conceptual framework and series of prototypes developed in conjunction with IMS members, AACRAO, C-BEN (Competency Based Education Network): <http://www.imsglobal.org/cbe/index.html> | IMS Global |
| Digital badges (digital passports) to communicate clearly about skills |  | Open badges is a technology standard initially developed and incubated at Mozilla, funded by MacArthur Foundation. The work continues under **Badge Alliance** which is promoting a network of organizations to come together to lay the foundation for interoperable digital credentials based on an open technical standard: <http://openbadgespec.org/> | Badge Alliance, MacArthur Foundation |
|  | Building an **ecosystem of micro-credentials for professional educators** through which they can receive formal recognition for skills and competencies they develop throughout their careers. Micro-credentials are awarded based on artifacts and evidence of granular competencies that are assessed by experts and/or peers. | Digital Promise |
|  | **Digital Credentialing Currency Framework Initiative**: By collectively investigating and pursuing a framework for developing social, academic, and professional currency for digital credentials, IMS seeks to ensure that credentials are developed, used, and valued in consequential ways. The framework aims to help organizations, institutions, and individuals develop, issue, earn, and share digital credentials in ways that are readily understandable, easy to reproduce, and that carry value for all stakeholders in a variety of environments, including academia and industry. | IMS Global Members |
|  | The **Get Skills to Work initiative** matches military veterans with jobs in advanced manufacturing through a virtual Military Manufacturing Badge, which pulls up the veteran’s Military Occupational Specialty code (MOS) and information on civilian manufacturing skills the veteran demonstrated in the military; and accelerated training customized to manufacturing careers. [www.getskillstowork.org](http://www.getskillstowork.org) | Manufacturing Institute, GE, Boeing, Lockheed Martin, Alcoa, other partners |
|  | [**21st Century Skills Badging Challenge**](http://eddesignlab.org/badgingchallenge/)is usingdesign thinking methodologies to lead individual universities through multi-phase learning process that will conclude with prototypes of scalable, replicable and transparent methods to create rigorous, competency-based badges that demonstrate students’ 21st century skills. During the 2015-16 academic year “in-market” tests of a suite of badges will be conducted with students and employers and ways to scale beyond the current pilot universities will be determined. | Education Design Lab |
| **Create nimble end-to-end quality assurance processes to support portability and trust of credentials**   * Ensure valid assessment of authentic learning and competencies * Adapt quality assurance mechanisms for competency-based education * Promote innovation in assessment and accreditation * Promote licensing reforms to increase mobility/portability | | | |
| Adapt quality assurance in education to accommodate competency-based education |  | ACE is engaging employer voice in defining a **national quality framework for competency-based education** for signaling competencies gained through competency-based education. From this process ACE will develop a contextual framework for how academia can relay competency attainment to employers and what is needed in the assessment of competencies for employers to consider the evaluation of competencies credible. | American Council on Education, Gates Foundation |
|  | Convened a national group to **develop a quality framework for stackable credentials** which defines key dimensions of quality from four key stakeholder perspectives --consumers, earners, endorsers, issuers. A White Paper based on this work will be issued in late 2015. | ACE, Gates |
|  | Under **Federal HEA Title IV experimental sites** authority, conducting experiments on how to accommodate Prior Learning Assessment, Competency-Based Education and Limited Direct Assessment under federal student financial aid programs: <https://experimentalsites.ed.gov/exp/approved.html> | U.S. Department of Education |
|  | **CBE Landscape Project** designed *10 Shared Design Elements and Emerging Practices of Competency-Based Education*. These design elements are associated with healthy and robust CBE programs in higher education. This project also included a survey of approximately 500 institutions developing or delivering CBE programs, which produced useful information for establishing quality assurances for CBE programs | Public Agenda, Forum for Youth Investment – Gates & Lumina Foundations |
|  | **Common Framework for Defining and Approving Competency-Based Education Programs:** <http://www.wascsenior.org/node/1282> | Council of Regional Accrediting Commissions |
| Licensing  reforms |  | With leadership from the First Lady and Dr. Biden, 23 states passed **pro-military spouse licensing portability** measures. <https://www.whitehouse.gov/blog/2012/06/26/23-states-have-now-passed-pro-military-spouse-license-portability-measures> | Federal |
|  | **Guided Pathways to Success** *--* Complete College America’s  [GPS (Guided Pathways to Success) Direct Seal of Approval](http://completecollege.org/gps-seal-of-approval/) program evaluates ed-tech vendors and their products, awarding the organization’s seal of approval to technology that is shown to help students get through college. The advisory board established to make these awards will judge the companies based on best practices the organization has outlined for its work on degree pathways. The first focus will be on products related to degree mapping, and subsequent awards will recognize companies that address other aspects of guided pathways. Complete College America is supported by the Bill & Melinda Gates Foundation, Lumina Foundation and other groups interested in educational reform. <http://completecollege.org/gps-seal-of-approval/> | Complete College America  Bill & Melinda Gates Foundation  Lumina Foundation |
|  | **Veterans Licensing and Certification Demonstration Project** involves 6 states who are developing and implementing accelerated pathways to civilian licensure in high-demand occupations for transitioning service members. The project supports cross-sector state teams to work with state licensing boards and community colleges to create pathways that avoid or reduce duplicative training for service members with relevant military training and experience. Description/interim findings for project found [here](http://wdr.doleta.gov/directives/corr_doc.cfm?DOCN=3380). | National Governors Association, US Department of Labor |
|  | GU CEW is conducting a 50 state review of the connection between occupational licensing and programs of study. In collaboration with (EDEPS) the Economic Development and Employer Planning System database. | Georgetown University Center on Education and the Workforc, Gates, Lumina & Joyce Foundations |
| Accreditation innovation |  | Accredits clean energy training providers and certifies instructors and master trainers nationally. IREC is currently piloting two new stackable micro-credentials that would be renewed and upgraded over time using a streamlined validation process to lower costs, and provide value in the marketplace. [www.irecusa.org](http://www.irecusa.org) | Interstate Renewable Energy Council |
|  | The first exclusively online university to receive **accreditation for its competency-based degree programs that lead to teacher licensure** from the National Council for the Accreditation of Teacher Education (NCATE). <http://www.wgu.edu/about_WGU/accreditation> | Western Governors University’s Teachers College |
| **Create scalable employer engagement approaches to improve demand signals and increase relevancy and currency of credentials**  • Improve demand signals to increase the relevance of credentials in a rapidly changing marketplace  • Support collaboratives that are by business, for business and that manage the talent pipeline as a shared activity across employers  • Enhance employer talent acquisition and advancement by improving how they communicate their skill needs and requirements  • Promote accelerated work-based education and training by strengthening performance-driven partnerships | | | |
| Better demand signals to increase relevance of credentials to changing labor market |  | Convened by ACT Foundation and Business Roundtable and supported by the Joyce Foundation, ACT Foundation, Lumina Foundation and Walmart, the [National Network of Business and Industry Associations](http://actfdn.org/national-network) is coordinating cross-sector efforts to close the “skills gap.” Members include leaders in the manufacturing, retail, healthcare, energy, construction, hospitality, transportation and information technology sectors. Their efforts have focused on supporting stackable credentials, **common employability skills** that cut across sectors, and hiring based on competency. <http://actfdn.org/business-industry-groups-advance-efforts-close-skills-gap/> | National Network of Business and Industry Associations --Lumina, Joyce, ACT & Walmart Foundations |
|  | Multiple efforts on the ground (e.g., City of Albuquerque, Governor’s Office of Economic Development, Turning Point WIB, Utah) to pilot **demand- driven validation of core competencies**, with focus on employer hiring based on continually updated and validated skills/competencies. | Innovate+Educate – Joyce and Walmart Foundations |
|  | **Retail+Plus and National Retail Services Competency Model** – Led by Innovate+Educate together with the Walmart Foundation, Retail-Plus seeks to grow a skilled workforce for the rapidly growing retail services sector in Dallas. The project seeks to advance entry-level incumbent workers to supervisory positions based on skills and competencies achieved through training and validated via assessment(s). This is part of a broader effort to leverage competency models for retail services and adjacent industries that will serve as the foundation to educate, recruit, hire, promote, and retain a highly skilled and credentialed workforce. <http://www.innovate-educate.org/#innovate-educate> | Innovate+Educate  Walmart Foundation |
|  | Provides most widely utilized **projections of employer demand for educational degrees and certificates**, nationwide and for individual states. The Center’s projections are used by employer associations to gauge hiring demand and used by state postsecondary systems to create credentialing goals. | Georgetown University Center on Education & the Workforce -- Gates, Lumina & Joyce Foundations |
|  | Works with more than a dozen states to develop **tools that use State Longitudinal Data Systems (SLDS) data** to: (1) Balance enrollments relative to labor market demand. (2) Align curriculum with workforce requirements. (3) Connect counseling to career pathways. (4) Assist in job placement and skill gap analysis. (5) Assist in workforce planning for business expansion and economic development. See report: Recovery 2020 | Georgetown University Center on Education & the Workforce -- Gates, Lumina & Joyce Foundations |
|  | Fourteen states are participating in the Aligning the Education and Training Pipeline to the Needs of the EconomyPolicy academy and as part of that academy, NGA is developing a ***State Policy Guide on Identifying Credentials of Value.***<http://www.nga.org/cms/home/nga-center-for-best-practices/meeting--webcast-materials/page-edu-meetings-webcasts/col2-content/main-content-list/nga-talent-pipeline-policy-acade.html> | National Governor Association Center for Best Practices |
|  | **Essential Competencies Project** *–* Led by the Committee for Economic Development, this project is a four-year study of competency-based hiring by a select group of businesses. Many employers are uncertain about the skills and knowledge that predict job performance and lack reliable ways of assessing applicant skills. As a result, employers rely instead on educational attainment as a predictor of how well qualified the applicant is. This study is examining the feasibility and efficacy of competency-based hiring and potentially provide a “proof of concept” for this innovation. <https://www.ced.org/projects/single/essential-competencies-project/all> | Committee on Economic Development |
| Industry-education partnerships to promote relevance and currency of educational programs and work-based learning |  | Focuses on developing **pathways to achieve high skill workforce outcomes in high demand and emerging fields** | Business Higher Education Forum |
|  | **Trade Adjustment Assistance Community College and Career Training (TAACCCT) grants** are supporting capacity-building to spur innovation and development of model training programs at community colleges and universities, including fully engaging employers and industry organizations in curriculum development; career pathway development; and defining and mapping competencies, credentials and work-based training and hiring. <http://www.doleta.gov/taaccct/applicantinfo.cfm> | U.S. Department of Labor |
|  | **Talent Pipeline Management** *-* The U.S. Chamber of Commerce Foundation is exploring an employer-led, complementary form of accreditation in higher education to help close the skills gap in America. This effort calls for stronger involvement of the employer community in the governance of existing accrediting agencies and for employers to develop a complementary system, led by the business community that recognizes and endorses programs based on their ability to prepare a career-ready workforce. [www.TheTalentSupplyChain.org](http://www.TheTalentSupplyChain.org) | U.S. Chamber of Commerce Foundation |
|  | **AT&T/Udacity Nanodegree program is** a Massive Open Online Course (MOOC). Nanodegree credentials will be awarded for mastery of entry-level software skills needed for high-demand jobs in the tech industry and fully recognized for entry-level software jobs at AT&T. AT&T and Udacity are offering 1200 scholarships that will be distributed by local and national non-profit organizations in order to further ensure traditionally underserved students have access to these credentials. Other leading tech companies, such as Google, are also creating Nanodegree programs with Udacity. <https://www.udacity.com/nanodegree> | AT&T/ Udacity |
|  | Industry-education partnershipthat supports professional development and curriculum development in community colleges and high schools leading to **industry certification in the aviation, transportation, manufacturing and energy sectors**. To date, over 4000 industry certifications have been issued by 375 educational institutions. <http://www.nc3.net/> | National Coalition of Certification Centers |
|  | **National Aviation Consortium CertTEC Certification***-* This critical aviation certification, CertTEC Aviation Mechanical Assembly, is a comprehensive assessment of technician skills and knowledge in aviation manufacturing, such as drilling and riveting, sealing application, and electrical bonding and grounding. It is driven by a first-time partnership of major aviation manufacturers across the country, including Boeing, Spirit, and others, to fill an identified gap in the industry. The certification is closely aligned with the curriculum taught at the National Aviation Consortium (NAC) colleges, specifically the National Center for Aviation Training (NCAT). <https://www.certtec.com/aviation-assembly/> | National Aviation Consortium (NAC) |
|  | **Employer-driven Energy Workforce Planning** – With support from the Center for Energy Workforce Development (CEWD), energy industry members in more than 30 states have established employer-led state energy workforce consortia. The consortia focus on state or regional strategic planning, beginning with quantifying job demand and supply in partnership with their education providers and state workforce systems. A goal of state energy workforce consortia is to assist educators with embedding standard energy curriculum and awarding preferred energy industry credentials to ensure a qualified and diverse workforce. <http://www.cewd.org/state-consortia/> | Center for Energy Workforce Development (CEWD) |
|  | **Skills for America’s Future** promotes partnerships between employers and community colleges | Aspen Institute |
|  | **College Employer Collaborative** between community colleges and leading employers enables students to learn in-demand skills through an innovative online curriculum developed by employers and postsecondary education. | Jobs for the Future, CorpU |
|  | Hosts **national industry roundtables** to learn about skill and credential needs of specific sectors and then forms affinity groups with Goodwill members to promote well-informed sector initiatives in local areas. | Goodwill Industries International and Goodwill agencies |
|  | **Scale High-Quality Work-based Learning** is a 2-year project launching this fall that will support 6 states to: elevate the role of work-based learning in connecting students and young adults to middle skills STEM jobs; identify the components of high-quality work-based learning and exemplar programs; and leverage state education and workforce systems to scale participation in those high-quality programs statewide. | Siemens Foundation, National Governors Association Center for Best Practices |
|  | Promotes partnerships, emphasizing **STEM in career readiness** for future jobs. | Skills USA |
|  | Partners with employers nationwide to offer fully accredited associate’s and bachelor’s degree programs to their frontline employees for $2,500 a year, usually paid in full or part by employer’s tuition assistance plan. Students are awarded a degree and diploma from Southern New Hampshire University based on demonstrated mastery of competencies through project-based learning. | College for America |
|  | **Competency-Centric Analysis to Inform Planning** –College for America is pioneering an effort to leverage labor market trends and workforce analytics to identify leading and cross-cutting competencies in an in-demand field. These trends are then validated with partner employers. This information is used to support the development of competency-based programs delivered on flexible learning platforms. These platforms are used to support talent pipelines for partner companies while providing pathways for the advancement of new and incumbent workers. [www.collegeforamerica.org/healthcare-workforce-report](http://www.collegeforamerica.org/healthcare-workforce-report) | College for America |
|  | Working to implement the recommendations of its **Task Force on Improving Career Readiness**, which includes the recommendation that state education leaders “enlist the employer community as a lead partner in defining the pathways and skills most essential in today’s economy.” CCSSO is supporting a network of states as they develop cross-sectoral partnerships and establish these pathways. | Council of Chief State School Officers |
|  | **Northeast Resiliency Consortium** provides competency based training and new coursework in resiliency leading to credentials needed for occupations that build stronger, safer, and more prosperous communities while mitigating the short and long term effects of recent disasters and future threats. | Achieving the Dream, Carnegie Foundation for the Advancement of Teaching, TAACCCT grant, Passaic, Atlantic Cape, LaGuardia, Kingsborough, Housatonic, Capital & Bunker Hill community colleges, employers |
|  | Partners with secondary schools to implement career-focused **STEM** education programs. | College Board |
|  | In 2014, T.E.A.C.H. Early Childhood® (T.E.A.C.H.) raised $400 million public and private dollars to provide scholarships and other supports for professional development of early childhood teachers in 23 states and DC, supporting over 16,000 employees working with 8,110 different employers. Those working on two or four year degrees who completed 14 credit hours while working full time, saw an 8% wage gain and had turnover rates of 4-6 percent, which are low for the industry.. <http://teachecnationalcenter.org/> |  |
| Apprenticeship-specific initiatives |  | The goals of the $100 million **American Apprenticeship Grant program** include creating career pathways that encompass American Apprenticeship in high growth industries and align with other post-secondary educational offerings. | U.S. Department of Labor |
|  | **Technical assistance academy** for recipients of the US Department of Labor’s American Apprenticeship grant program. | National Governors Association Center for Best Practices |
|  | The **Registered Apprenticeship College Consortium (RACC)** is a national network of postsecondary institutions, employers, unions and associations working to provide accelerated pathways to earn an associate’s or bachelor’s degree by giving college credit for apprenticeship program participation:<http://doleta.gov/oa/racc.cfm> | U.S. Department of Education and Labor |
|  | Economist-led **case study of return on investment of registered apprenticeship** for U.S. employers will analyze the training investments of diverse firms to uncover how employers committed to registered apprenticeship account for costs and benefits of the training model. | US Department of Commerce; Joyce, JPMorgan Chase & Annie E. Casey Foundations; Case Western Reserve University |
|  | Issued 5 case studies on **Innovations in Apprenticeship:**  <https://cdn.americanprogress.org/wp-content/uploads/2014/09/ApprenticeshipInnov-report1.pdf> | Center for American Progress |
|  | Issued **Employer Apprenticeship handbook** <http://www.themanufacturinginstitute.org/~/media/14B36E1969704C3BADF11A1BE0F21B3D.ashx> | Siemens, DOW Chemical Company, Alcoa |
| Competency-based hiring |  | Developing **guid**e to help organizations design new industry-recognized credentials and conducting **research to determine the extent to which employers are hiring for competencies.** | National Network of Business & Industry Network, ACT Foundation, Business Roundtable, Lumina Foundation |
|  | Several of America’s top companies have committed to NAFTrack Certified Hiring, a promise to give special consideration to college students and eventual job applicants who as high school students earned NAFTrack Certification which is based on a rigorous and comprehensive assessment of students’ academic proficiency, project execution and internship performance. [**http://quality.naf.org/naftrack-certified-hiring**](http://quality.naf.org/naftrack-certified-hiring) | National Academy Foundation |
|  | **TechHire** is national initiative (as of August 2015 of 31 regional labor markets and 400+ employers) to better connect employers across multiple industries that need to hire and fill jobs in IT occupations to individuals who possess the skills and the motivation to be successful hires, but whose non-traditional pathways to acquiring those skills render them “invisible” to traditional recruiting processes in the IT field. Employers agree to hire (or offer paid apprenticeships with the intention to hire) on the basis of a range of demonstrations of competence or readiness – whether by alternative credentials or by assessments and/or capstone projects that can serve as “proxy credentials” with market value | Opportunity @ Work |
|  | Collaborates with designers, online talent platforms, employers, and educational institutions to build online platform to aggregate tools employers require to hire successfully based on demonstrations of competencies and on the “non-traditional” credentials that align to those competencies. Such tools include the **Inclusive Hiring Playbook for IT Jobs**, created in partnership with Corporate Executive Board (CEB), and an engine of employer feedback (quantitative and qualitative) on success of candidates sourced through TechHire’s “non-traditional” channels and hired based on competencies and alternative credentials, building national database with comparative employer feedback across hiring sources. | Opportunity @ Work |
|  | Developing demand-driven**, competency-based and research-backed training and hiring model** across regions and states that pilots cognitive ability (learn how to learn) as core foundational skills for jobs across multiple sectors. | Innovate + Educate |
|  |  | The Computing Technology Industry Association (CompTIA) is the voice of the world's information technology industry. Its members are the companies at the forefront of innovation; and the professionals responsible for maximizing the benefits that organizations receive from their investments in technology. CompTIA is dedicated to advancing industry growth through its educational programs, market research, networking events, professional certifications, and public policy advocacy. The association’s work has focused on building credentialing pathways for the IT industry that leads to high-growth careers. [www.CompTIA.org](http://www.CompTIA.org) | CompTIA |
| Create flexible credentialing pathways leading to family-sustaining jobs to increase equity  * Advance system alignment of career pathways initiatives and stackable credentials connecting adult education, developmental education, youth, employers, and community based organizations.  Pathways initiatives and stackable credentials include:  high school to college, adult education to college, college to career, career to credential. * Scale stackable credentials promoting articulation and transfer. * Strengthen academic and career guidance and navigation supports, including efforts to reduce stigma about education, pathways, and training. * Incorporate Credit for Prior Learning (CPL) into career pathways and stackable credentials. * Promote research and study of stackable credential completers to understand impact and drive continuous improvement. | | | |
| Clear pathways  from high school to college to career |  | **The Alliance for Quality Career Pathways** is a partner-driven, CLASP-led initiative that developed a consensus framework to establish a common understanding of quality career pathways and systems, including stackable credentials, to help state and local/regional partnerships strengthen their career pathway systems. <http://www.clasp.org/resources-and-publications/files/aqcp-framework-version-1-0/AQCP-Framework.pdf> | Joyce & James Irvine Foundations, Greater Twin Cities United Way |
|  | Supports the development of **career pathways and stackable credentials**. <http://www.workforceinfodb.org/PDF/CareerPathwaysToolkit2011.pdf>  <http://2rs11m47n9nefk1rmiofa51a.wpengine.netdna-cdn.com/wp-content/uploads/2015/05/The-Evolution-and-Potential-of-Career-Pathways.pdf> | U.S. Departments of Education and Labor |
|  | **Linked Learning pathways** integrate rigorous academics with career-based learning, real-world workplace experiences and comprehensive support services to prepare students to take credit-bearing college-level courses and be university admissible upon graduation from high school, maximize articulation between high school and postsecondary programs of study, and facilitate and accelerate completion of stackable postsecondary credentials, certificates, and degrees. | James Irvine Foundation, California Department of Education, California Community Colleges |
|  | **Pathways to Prosperity program** works with 12 states in promoting statewide systems of career pathways for grades 9-14 linking high school, work and community college. In addition, the **Policy Leadership Trust for Student Success has a Task Force on Credit Transfer and one on 'Building Pathways to Credentials** which works with community college presidents and state leaders to inform and influence the policy conditions and state infrastructure that support community college efforts to build clear pathways to credentials. | Jobs for the Future |
|  | **Bridge the Divide** program facilitates course content alignment from high school to community college to career. This fast track process results in the clear articulation of knowledge and skill accumulation and learning outcomes across courses and programs of study. It engages and empowers faculty to examine, analyze and operationalize curricular alignment within an academic discipline. The program can be customized and configured to benchmark against any standards framework, including Common Core State Standards, DQP, and LEAP. <http://www.epiconline.org/what-we-do/bridge-the-divide/> | Educational Policy Improvement Center |
| Academic and career guidance and navigation supports |  | **Career One Stop Credentials Center** offers credentials, licenses and apprenticeship finders, other career guidance materials, and the Competency Model Clearinghouse. <http://www.careeronestop.org/credentials/index.aspx> | U.S. Department of Labor |
|  | **SCTrac**  helps guide prospective and enrolled students navigate and stay on track with twelve hundred degree pathways offered by thirty three two and four year institutions with real-time academic progress reporting, transfer check and tracking. <https://www.sctrac.org/> | South Carolina Commission on Higher Education, AcademyOne |
|  | **Florida Shines** helps prospective and enrolled learners browse schools, programs of study, review academic transcripts, check requirements with progress to completion, search libraries, find and register for online transferable courses, explore career pathways, scholarships and more. Florida Shines utilizes a real-time interconnected platform developed by AcademyOne with 40 participating State colleges and universities. <https://www.floridashines.org/> | Florida, AcademyOne |
|  | **MyBestBets** is a web and mobile application that supports low-income young adults in answering important career questions by guiding them to the right choices when it comes to postsecondary education and training pathways. | JFF, YouthBuild |
|  | **Purpose First** initiative focuses on better aligning academic and career plans from the start of degree or credential program. It will include advising, use of relevant tools, connection to labor market information, inclusion of career guidance in the curriculum, and connections to employers for work-based learning opportunities. The **GPS** strategy also focuses on structuring programs to allow students to easily navigate via academic maps and default schedules, as well as to receive critical support and guidance via intrusive advising and a funneling process to determine career interests early in a program. | Complete College America, USA Funds (for Purpose First), multiple sources (for GPS) |
|  | **Siemens Technical Scholars** program highlights, profiles, and markets successful millennials in STEM programs at top performing community and technical colleges with the goal of promoting awareness and a positive perception of the middle-skill jobs available with such credentials to millennials. | Siemens Foundation, Aspen Institute |
| Credit for  Prior Learning |  | **Multi-State Collaborative on Military Credit** (MCMC), a 13-state initiative to identify policies and practices to help military service members, veterans, and their families to overcome barriers to access, participation, and completion of a postsecondary credential and entrance into the workforce. | Midwestern Higher Education Compact– Lumina Foundation |
|  | **Global Learning Qualifications Framework** -- assists students to document their verifiable college/university-level learning for academic credit and to provide an academic framework to evaluate student learning. <http://www.esc.edu/suny-real/global-learning-qualifications-framework/> | SUNY Empire State College – Lumina Foundation |
|  | Offers on-line credential service for **prior learning assessment (PLA), advising services** and promotes competency-based college and local programs. | Council for Adult and Experiential Learning |
|  | **Learning Counts** is a comprehensive one stop prior learning assessment (PLA) resource for adult learners, offering PLA guidance, prior learning portfolio development courses, and portfolio assessment services. It focuses on translating the experience and knowledge adult learners acquire outside the classroom into college credit. <http://www.learningcounts.org/> | Council for Adult & Experiential Learning –Lumina & Kresge Foundations |
|  | **Alternative Credit Project™** encourages greater acceptance of students’ alternative credit and create a more flexible pathway towards post-secondary education attainment. As of August, 2015, 37 colleges/universities and three systems agreed, up-front, to accept ACE CREDIT recommended courses from non-accredited providers in this project for transfer credit. Institutions agree to provide anonymized data to ACE regarding amount of credit their institution accepts through the Alternative Credit Project (ACPE), as well as persistence and success rates of students transferring in courses from this project. ACE will track number of ACPE courses a student requests through an ACE transcript, receive data from receiving institution about credit acceptance, and student retention, persistence, and success at the institution. [www.acenet.edu/AlternativeCreditProject](http://www.acenet.edu/AlternativeCreditProject) | American Council on Education, Gates Foundation |
|  | **Community College/Career Collaboration (C4)** promotes Goodwill/community college partnership that uses PLA to accelerate student completion of credentials. Goodwill’s Operation: GoodJobs skills attainment and employment program for veterans and military families urges Goodwills to facilitate access to PLA opportunities. | Goodwill International, American Association of Community Colleges, Achieving the Dream.  Walmart |
|  | **College Credit Fast Track** - a collaborative partnership between Pennsylvania Community Colleges has launched an online workflow helping current and prospective students obtain college credit at Pennsylvania community colleges based on prior learning & work experiences. <https://www.ccfasttrack.org/> | Pennsylvania, AcademyOne |
|  | **P360** - an international platform launched to help global institutions address petitions for academic credit by linking sources of learning to target competencies, outcomes and units of learning that may satisfy pathway requirements leading to credentials. Currently, P360 is being piloted by Australian Universities working with the Australian Qualification Framework. Student progress checking is built-in an online modeler and calculator allowing pathway comparison, program of study plans and approval. | AcademyOne |
|  |  | **Consortium for the Assessment of College Equivalency** Established standards for assessment of credentials from non-collegial sources to award credit toward a degree through a Memorandum of Agreement signed by six colleges. Participating colleges accept notarized documents from credential source (a transcript is not required). Organizations: Consortium for the Assessment of College Equivalency (includes Empire State, Excelsior, Thomas Edison, Granite State, Community College of Vermont, Charter Oak). |  |
| Articulation  and transfer |  | **Interstate Passport Initiative** is developing the passport as a new framework for block transfer of lower-division general education based on learning outcomes and transfer-level proficiency criteria thereby improving graduation rates, shortening time to degree, and saving students money. <http://www.wiche.edu/passport/home> | Western Interstate Commission for Higher Education – Gates & Lumina Foundations |
|  | **Reverse transfer automated workflow** with public two and four year Institutions sharing common platform to determine pathway eligibility and completion.http://www.tntransferpathway.org/reverse-pathways/tennessee-reverse-transfer. | Tennessee, AcademyOne |
|  | **Interstate transfer capacity building,** a national system through which institutions can easily and successfully communicate course, grade and credit information while respecting student privacy in order to award degrees when appropriate. | National Student Clearinghouse, Lumina Foundation |
|  | **Credit When It’s Due** is a 16-state initiative aimed at increasing associate’s degree conferral for transfer students who meet associate’s degree requirements while on route to baccalaureate degree at 4-year institution. In addition to increasing associate’s degree attainment, CWID has impacted transfer & articulation policies more broadly, improving inefficiencies in processes/policies, removing barriers to degree completion, and strengthening technology infrastructure to support transfer and articulation. Several reports available on website: [http://occrl.illinois.edu/projects/cwid/](https://webmail.illinois.edu/owa/redir.aspx?SURL=vN6B7fakZpqlO6sY0VWL08vheRc5VnKwoNPi8HPoYZNUd-.&URL=https%3a%2f%2furldefense.proofpoint.com%2fv2%2furl%3fu%3dhttp-3A__occrl.illinois.edu_projects_cwid_%26d%3dAwMGaQ%26c%3d8hUWFZcy2Z-Za5rBPlktOQ%26r%3dUzq-2Uu5eOt-6jUdVTn_Yr9VSUMGPGa6EFYwk07VHY8%26m%3dMBgiOZnkkEmIvQ-z_BXOSS5wSMRsNcd1NkItF553wd0%26s%3dUJyLgslRy3gD1he0rcC9WNjWqykiyNXrXRuLCsBWS4A%26e%3d) | Office of Community College Research & Leadership; Gates, Greater Texas, Helios, Kresge & Lumina Foundations + USA Funds |
|  | The T.E.A.C.H. Early Childhood® National Center 10-state project worked with teams of policymakers, two- and four-year faculty and state early childhood leaders in Alabama, Arizona, Florida, Indiana, Iowa, Michigan, North Carolina, Ohio, West Virginia, and Wisconsin to improve articulation) in each state. The Early Childhood Articulation Compendium provides a summary of this journey, guiding principles, a framework for looking at early childhood articulation, state profiles and lots of other resources <http://teachecnationalcenter.org/center-initiatives-and-resources/center-initiatives/articulation/> | W.K. Kellogg Foundation |
| Policy and technical assistance organizations |  | Works in regions across the Southeast to help workforce development systems respond to employer needs with a particular emphasis on providing opportunities for disconnected youth. <http://www.mdcinc.org/> | MDC |
|  | Addresses income and racial inequality in the credential attainment by advocating for policies and practices that create accessible on­ramps to marketable secondary and postsecondary credentials for low­skill, low­income youth and adults. For publications see: <http://www.clasp.org/issues/postsecondary/pages/credentials> | Center for Law and Social Policy; Gates, Lumina, Joyce & Irvine Foundations |
|  | Conducts research to inform policy that promotes college access and success, especially for traditionally underserved students. For publications, see: <http://www.ihep.org/research/publications> . | Institute for Higher Education Policy |
|  | Goodwill’s **Excel Center** adult high schools co-enroll students in community colleges in Indianapolis, IN, Austin TX, Memphis TN and Greater Washington DC (planned). The Goodwill **Access Center** in Winston-Salem NC partners with Forsyth Community College to award high school diplomas and college credit. The **college readiness curriculum, College 101**, developed by Seattle Goodwill Industries, will soon be available to all Goodwills. **GCF LearnFree** and **GCF ApprendeLibre**, supported by Goodwill Industries of Eastern North Carolina (Durham) and available worldwide, provide free online education, including instructor-supported courses eligible for CEUs. All break down the structural barriers to postsecondary education for nontraditional and working learners. | Goodwill |
|  | Operates middle skills in retail program that is using competency based assessments to customize training for students and communicate abilities of job applicants to employers. | Goodwill Industries, Walmart Foundation |
|  | Works closely with academic partners, corporate sponsors, and companies to provide career and educational opportunities to underserved high school graduates and veterans. It identifies skill sets in demand, recruits students and designs selective certification programs that are specifically designed for corporations’ needs. | Workforce Opportunity Services |
|  | Implemented outcomes-focused continuous improvement process called **Pathways to Results (PTR**) that focuses on equity and outcomes assessment rooted in analysis of data. Practitioner teams identify equity gaps by analyzing student-level outcomes data that are disaggregated by race, gender, income, and other characteristics that matter to college success and then use these results to test new processes that may boost sub-group success. PTR has been implemented in 46 of the 48 community colleges in Illinois, with over 80 projects completed or in process to improve career pathways and programs of study. PTR has also been extended to other community colleges in the United States that are recipients of Trade Adjustment Act Community College and Career Training Act (TAACCCT) grants and in the year ahead, will be extended to further support localized implementation, scaling, and impact evaluation. [http://occrl.illinois.edu/projects/pathways/](https://webmail.illinois.edu/owa/redir.aspx?SURL=w_rklpdzUlhfQ2NePpWiG7V-ByufJZ79o1SUdXlQRfVUd-..&URL=https%3a%2f%2furldefense.proofpoint.com%2fv2%2furl%3fu%3dhttp-3A__occrl.illinois.edu_projects_pathways_%26d%3dAwMGaQ%26c%3d8hUWFZcy2Z-Za5rBPlktOQ%26r%3dUzq-2Uu5eOt-6jUdVTn_Yr9VSUMGPGa6EFYwk07VHY8%26m%3dlPfAuV5Hd6TDKnQCcJ-c8poHFrXDbP5-6coyesqw9Oo%26s%3djrqU30dxNTy2zIkG8f-yZgujx_DU5PY7ejcGhmIcdMY%26e%3d). | Illinois Community College Board, Office of Community College Research & Leadership, Federal (TAACCCT) |
|  | Working with Hispanic community groups to develop Spanish language material for college and career counseling. Spanish language tools to help Latino parents and students to understand college and career choices. Hispanic Initiative to launch on CEW website in mid-September: <https://cew.georgetown.edu/> | Georgetown University Center on Education & the Workforce, Gates, Lumina & Joyce Foundations |
|  | **Working Students Success Network**(in 19 community colleges in WA, CA, AR, and VA) intentionally integrates education and training, work supports, and financial literacy and coaching to prepare low income students, including those with dependent families, for credentials paying family sustaining wages. | Achieving the Dream. Lumina, Annie E. Casey, W.K.Kellogg, Kresge, MetLife & Bank of America Foundations; WA, CA, AR, VA |
|  | **LRNG** is a social enterprise that brings together innovative leaders in Connected Learning with schools, businesses, cities, and community institutions such as libraries and museums to close the opportunity gap by building an ecosystem of learning that combines in-school, out-of-school, employer-based, and online learning experiences into a seamless network that is open and inviting to all youth. | Collective Shift & John D. and Catherine T. MacArthur Foundation |
|  | Developing **equity policy framework** designed to connect vulnerable populations to a 'guided pathways to credentials' policy framework. The framework will tackle policy obstacles specific to on-ramps to, persistence in and completion of guided pathways to credentials for opportunity youth, veterans, undocumented immigrants, and justice-involved individuals. JFF also is convening a group of national thought leaders and developing a paper exploring how online and hybrid competency based education models can better incorporate best practices that ensure better outcomes for low-income, academically underprepared learners. | Jobs for the Future |
| **Use real-time data and technology to empower credential users and create continuous feedback mechanisms**   * Develop a shared vision of the interoperable data infrastructure needed to support a connected credentialing system; * Identify why and how the basic components of this infrastructure need to interconnect; and * Recommend ways to connect multiple initiatives in this arena to increase interoperability.   The workgroup’s work will start with consideration of the following building blocks of an interconnected data:   * On-line learning systems * Credential holder documentation * Individual-level longitudinal data systems * Information about credentialing organizations and the credentials they issue * Labor market information and statistics * Employer human resources data systems | | | |
| Credential  Registry |  | **Credential Transparency Initiative** aims to create greater coherence, and transparency in the U.S. credentialing marketplace by: developing a common terminology for describing key features of credentials; creating a voluntary, web-based “registry” for sharing the resulting information; and testing practical “app” options to help produce searches that would benefit employers, students, educators and others. <http://www.credentialtransparencyinitiative.org/> | George Washington Institute of Public Policy, WorkCred – an affiliate of the American National Standards Institute, Southern Illinois University – Lumina Foundation |
| Individual level data analysis |  | Publishes the most widely used and widely recognized tool for tracking the **value of 137 college majors** nationwide and in individual states. | Georgetown University Center on Education & the Workforce -- Gates, Lumina & Joyce Foundations |
|  | Provides stream of data in all reports that show access to particular awards and fields of study by sex, race, ethnicity, and class. This is crucial in the building of a credentialing system to ensure that it does not exclude particular people or create labor market shelters that create artificial barriers to entry that are inefficient. See Reports: [**S**](https://cew.georgetown.edu/report/separate-unequal/)eparate and Unequal. See Book Chapters from: [The Future of Affirmative Action;](https://cew.georgetown.edu/achieving-racial-and-economic-diversity-with-race-blind-admission-policy2/) [Rewarding Strivers;](https://cew.georgetown.edu/how-increasing-college-access-is-increasing-inequality-and-what-to-do-about-it-2/) [The Century Foundation's America's Untapped Resource](https://cew.georgetown.edu/socioeconomic-status-raceethnicity-and-selective-college-admissions-2/)  White House Initiative on Educational Excellence for Hispanics: Forthcoming paper: Latinos in the Workforce & The Economic Value of Postsecondary Fields of Study: College Completion for What**?** | Georgetown University Center on Education & the Workforce -- Gates, Lumina & Joyce Foundations |
| Enhancement  of data  systems |  | Works to develop/validate national measures of the participation in and credentialing of education and training for work, and to build government-wide consensus for adoption of these measures in key federal data collections. GEMEnA is engaged in a rigorous process of survey item development to validate core items on 1) attainment of non-degree credentials including industry-recognized certifications, occupational licenses, and educational certificates, and 2) enrollment in education and training that prepares people for work. See overview of federal data collections that include questions on education, training, and non-degree credentials for work. <https://nces.ed.gov/surveys/gemena/surveys.asp> | Federal Interagency Working Group on Expanded Measures of Enrollment & Attainment (GEMEnA) |
|  | **Certification Data Exchange Project** is working to expand and improve data exchange between industry certification organizations and state longitudinal data systems. Industry partners include CompTIA, ACT, Automotive Service Excellence/National Automotive Technicians Education Foundation and the Manufacturing Skill Standards Council. <http://www.acteonline.org/certification_data> | Federal (OCTAE), Association for Career & Technical Education (ACTE), other national & state partners |
|  | **Postsecondary Data Collaborative** (PostsecData), comprised of more than 30 organizations, advocates for high-quality postsecondary data to improve student outcomes. <http://www.ihep.org/research/initiatives/postsecondary-data-collaborative-postsecdata> | Institute for Higher Education Policy |
|  | **Workforce Credentials Coalition** is agroup of over 20 states seeking to develop joint data standards and data-sharing agreements with industry and professional certifying bodies to improve alignment of academic and industry credentials. | California Community Colleges North Carolina Community Colleges |
|  | **Workforce Data Quality Campaign** advocates for improvements to publically-supported data systems, including better information about non-degree credentials. | National Skills  Coalition |
|  | **Multistate Longitudinal Data Exchange** is buildinga system to exchange individual-level education and workforce data among at least 10 states. Project builds on previous work to share data among four states. <http://www.wiche.edu/longitudinaldataexchange> | Western Interstate Commission for Higher Education – Gates Foundation |
|  | **The State Workforce and Education Alignment Project (SWEAP)** is helping to develop system-wide information about workforce education and training programs for state policy leaders | National Skills  Coalition |
|  | **Inter-Organizational Task Force** is focused on Academic Credentialing and Experiential Learning to identify strategies for capturing potential skills and talents not included in the traditional digital record. | Postsecondary Electronic Standards Council |
|  | **Current Term Enrollment Estimates** published in December and May provide institutions and the education community with a view of current enrollment trends. **StudentTracker** enables secondary and postsecondary institutions, outreach organizations, States and other education organizations to understand student outcomes for their populations. **Signature & Snapshot reports** provide timely, national view of student educational pathways | National Student Clearinghouse |
|  | Established 7 MOU and data agreements with states and is working with numerous other governors’ offices on implementation of **systems to measure degree quality and project education demand.** | Georgetown University Center on Education & the Workforce -- Gates, Lumina & Joyce Foundations |
|  | **Workforce Credentials Coalition (WCC)** The Workforce Credentials Coalition is a coalition of twenty states that are working together to improve alignment between academic and industry-based credentials. The Coalition is establishing joint data standards, data sharing agreements, and a single data repository, so that information on certification outcomes can be more easily shared with community colleges across the nation. Organizations: Leads: The California Community Colleges Chancellor's Office and the North Carolina Community College System. lead this coalition |  |
|  | **Technical Interoperability Project (TIP)** A competency-based technology solution that is identifying the needs of institutions moving toward CBE and the vendors who can fill those needs. Using a twenty-seven question survey, TIP is analyzing data to find common issues across program types and software vendors. Organizations: Public Agenda, funded by Gates Foundation |  |
|  | **Education Performance Data System**-The National Association of Manufacturers and the Manufacturing Institute, in partnership with the National Student Clearinghouse and the U.S. Census Bureau, and with initial funding from USA Funds, are designing a system to match student education records with employment and wage data and third-party credential attainment records. |  |
|  | Works with private data suppliers including Burning Glass Technologies and the National Association of State Workforce Agencies (NASWA) in the use of **real time job ads data**. See Reports: Online College Labor Market and Ranking the States | Georgetown University Center on Education & the Workforce -- Gates, Lumina & Joyce Foundations |
| Incorporate, generate and capture  Increasing  levels of evidence |  | Working to evaluate noncredit workforce-oriented training through state-level transcript and wage analysis in several states: [https://cew.georgetown.edu/](https://cew.georgetown.edu/%20) | Georgetown University Center for Education & the Workforce -- Gates, Lumina & Joyce Foundations, OCTAE |
|  | **College and Career Readiness Evaluation Consortium** is creating arepository operated by National Student Clearinghouse to assess impact of common interventions utilized across multiple Gear-Up participating states. <http://www.edpartnerships.org/college-and-career-readiness-evaluation-consortium-ccrec> | National Council for Community and Education Partnerships |
|  | Middle skills training program is tracking the quality of the training **outcomes and employer satisfaction** with new and incumbent worker preparation via a third-party evaluator. | Goodwill Industries International, Walmart Foundation |