



THE COMPETENCY-BASED EDUCATION

Ecosystem Framework

DECEMBER 2015

Introduction

Competency-based education (CBE) programs are on the rise. These postsecondary credentialing programs—where learners move ahead based on what they know and can do, rather than time spent in class—have grown rapidly over the past few years.

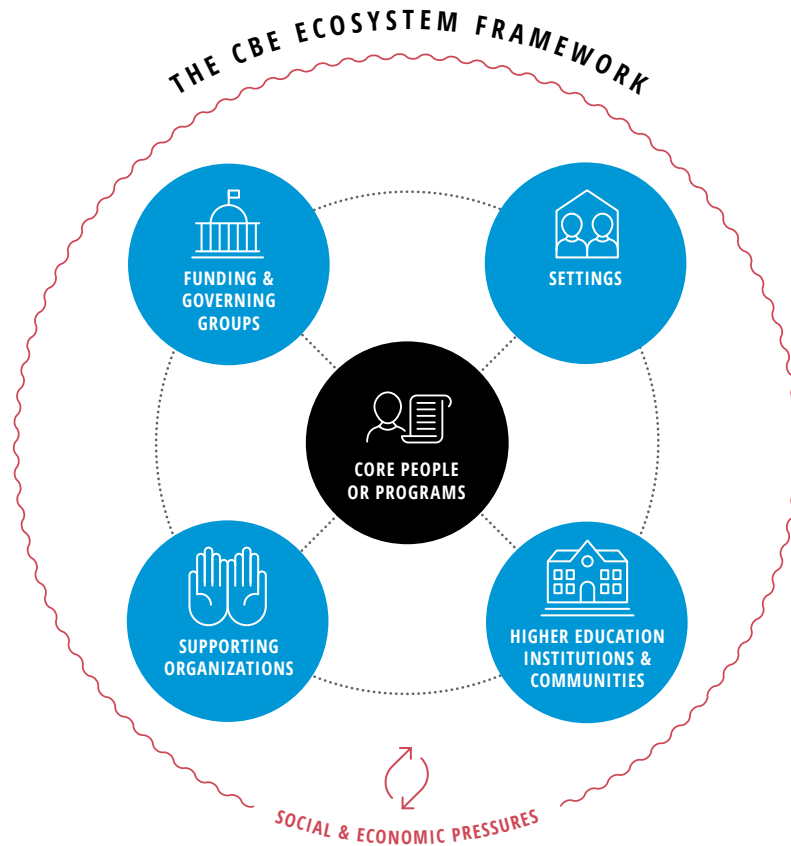
In 2012, there were about 20 CBE higher education programs in the United States.ⁱ Today there are more than 500.ⁱⁱ Not a new concept,ⁱⁱⁱ CBE has reemerged in higher education as a viable and needed alternative to traditional postsecondary credentialing programs where time and place are fixed.^{iv}

This explosion of growth has led to the rapid development of a new education ecosystem. Many players are involved, each with their own interests, roles and relationships. This ecosystem is complex. It is made up of educators, service providers, funders, regulators, administrators, business leaders, thought leaders and more. All of these players simultaneously compete and cooperate, vying for limited resources, visibility, legitimacy and prestige.^v

The Competency-Based Education Ecosystem Framework was created to capture and make sense of all the activity and dynamics in this ecosystem. This set of organizing frames tells a complete story of the CBE landscape—as it is now—from three different perspectives: the learner, the CBE program professional and the CBE program. These frames are designed to adjust as the ecosystem changes.

We hope this framework provides you with:

- + A baseline understanding of the CBE ecosystem
- + A lexicon of the major players and pressures making up the CBE ecosystem
- + An accessible and actionable framework to use for your study, analysis and decision making



Framework Overview

The *Competency-Based Education Ecosystem Framework* is a set of organizing frames to help make sense of the perspectives, players and pressures involved in CBE programs.



CORE PEOPLE OR PROGRAMS

Those directly administering or participating in CBE programs.



SETTINGS

Places where CBE gets designed, delivered and demonstrated.



HIGHER EDUCATION INSTITUTIONS & COMMUNITIES

Universities, colleges, companies and communities offering CBE programs.



SUPPORTING ORGANIZATIONS

Organizations and companies involved in CBE, but not directly offering or funding CBE programs.



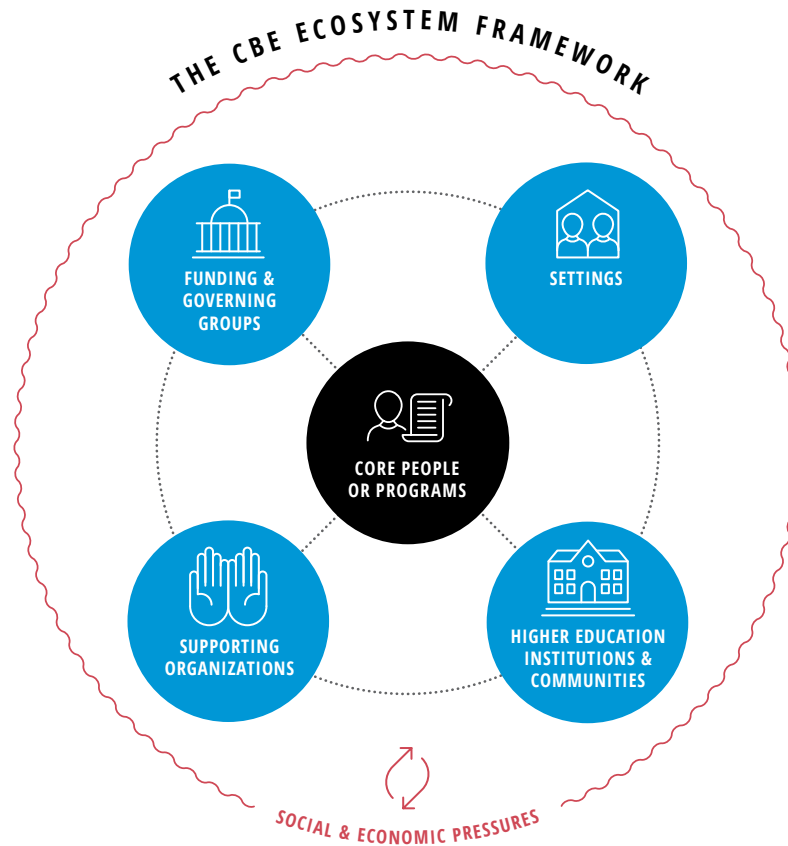
FUNDING & GOVERNING GROUPS

Those who set policies and provide funding that promote or prohibit competency-based education.



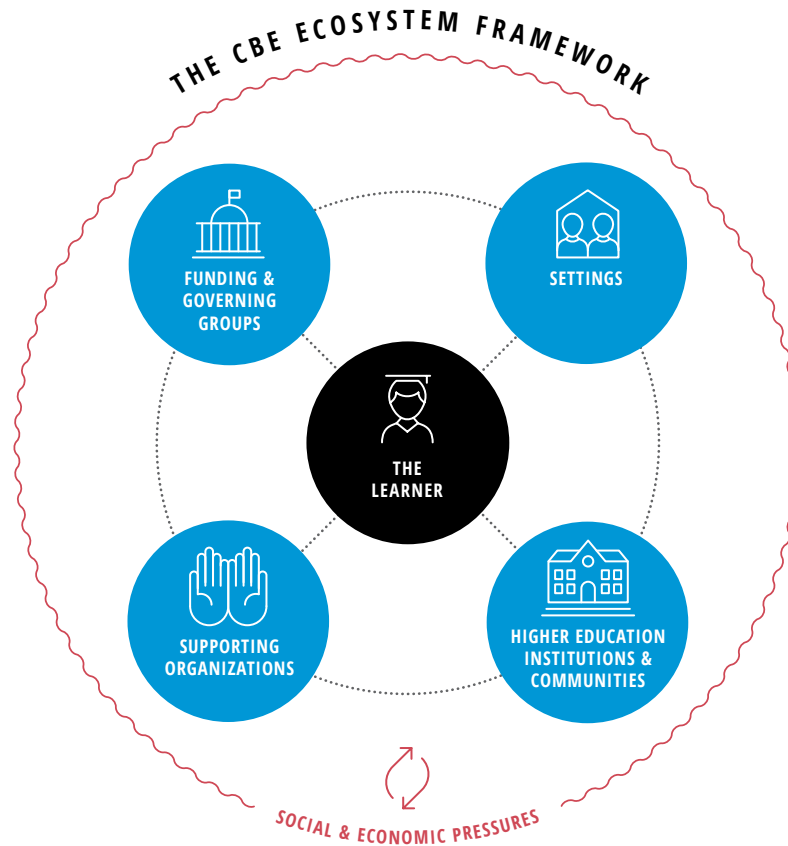
SOCIAL & ECONOMIC PRESSURES

External conditions affecting the entire higher education landscape, including CBE programs and people.



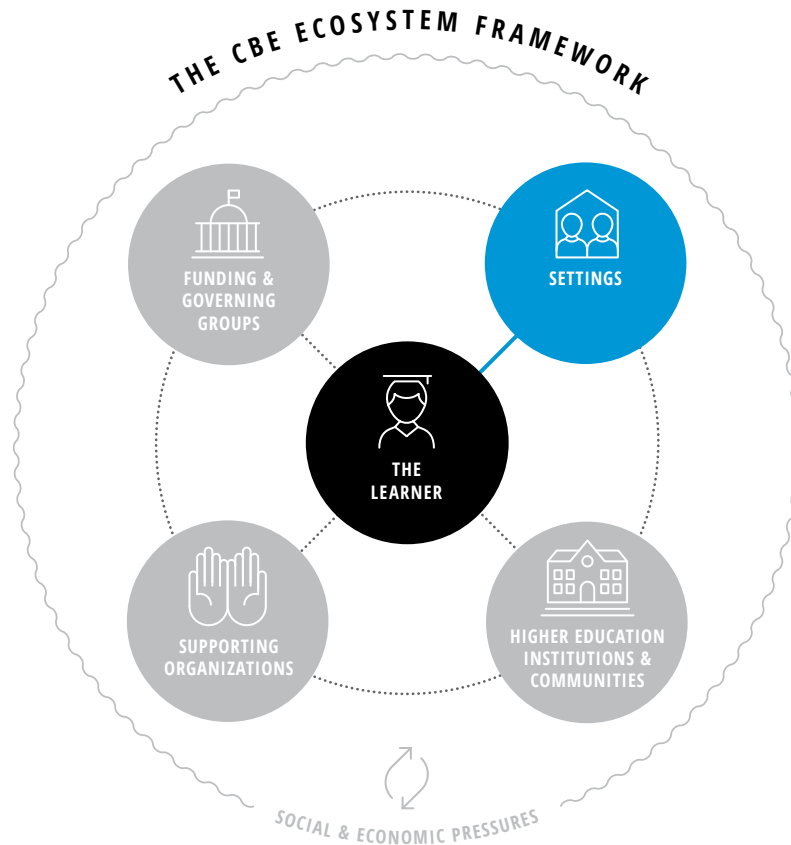
The CBE Ecosystem Framework is made up of three perspectives: the learner, the CBE program professional and the CBE program.

The CBE ecosystem looks different depending on which perspective you view it from. Showing the CBE landscape from these three views gives you the full spectrum of activity.



Looking at the CBE Ecosystem from the learner's perspective.

This perspective shows how the CBE ecosystem engages the learner. Learners are active participants in CBE programs. From this perspective, players and pressures are shown according to their relationship to the learner.



SETTINGS

Where the learner engages with the CBE program.

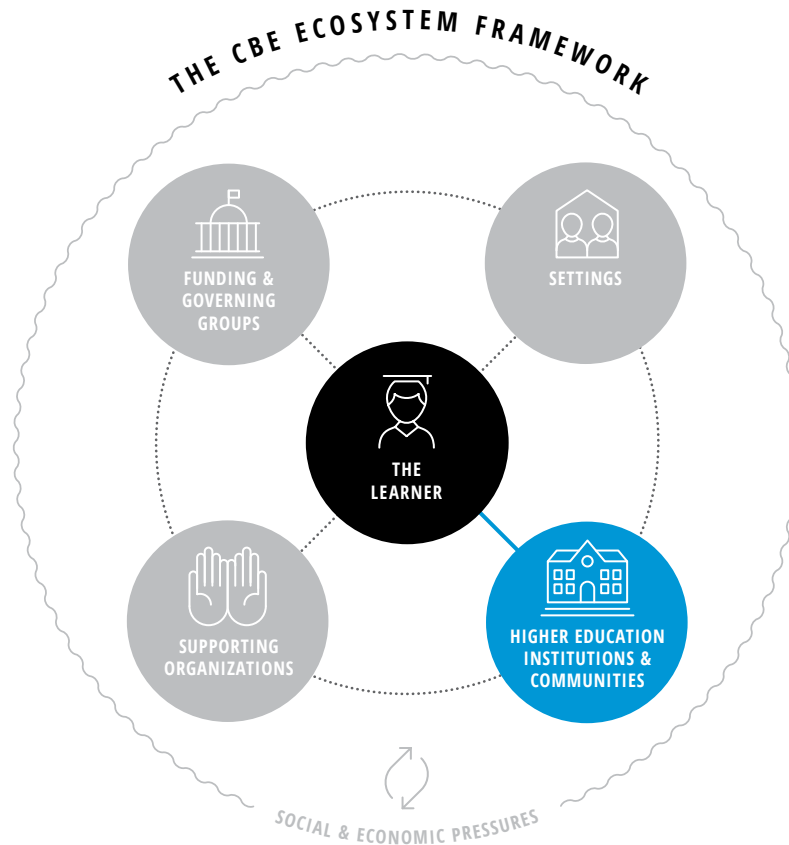
Primary Learning Environment(s): Learning in CBE programs can happen in an in-person learning environment, online or both. CBE programs are learner-centered, many providing flexibility for learning to be self-directed. Many CBE programs allow learning to happen anytime and anywhere.^{vi vii}

Secondary Learning Environment(s): Learners in some CBE programs can develop and demonstrate competencies outside of the primary learning environment. This may include their workplaces or experiential learning sites (e.g., internships).^{viii}

Faculty and Staff Engagement: Learners in CBE programs regularly connect with faculty and staff in person or online. Many CBE programs use flexible staffing models so that learners can access a range of professionals, based on their needs.

Social and Navigational Supports: Learners in CBE programs find intentionally designed support from peer groups (e.g., study, affinity groups), in social spaces and in relationships with advisors or persistence coaches. These supports are found in person, online or both.^{ix}

Assessment Sites: Learners in CBE programs take frequent assessments in person or online. Assessments are formative and summative. Summative assessments are typically proctored and monitored. Assessments may happen in person—in a learning environment or assessment center—or online.^x



HIGHER EDUCATION INSTITUTIONS & COMMUNITIES

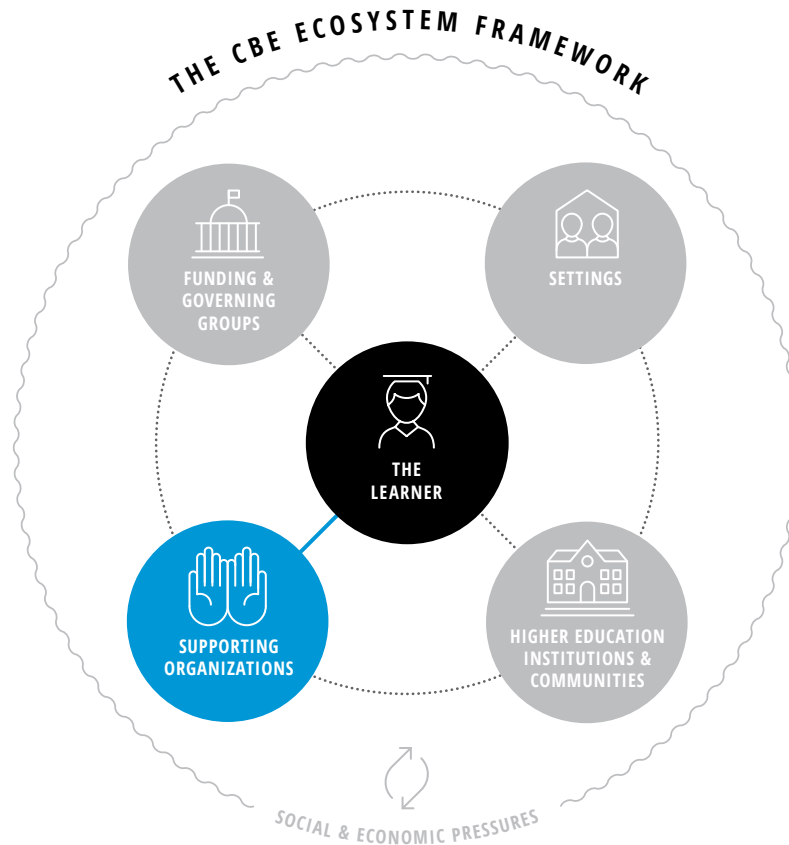
The university, college or company offering the learners' CBE program and any communities of practice the program is connected to.

Universities and Colleges: More than 500 CBE programs are being designed or delivered at universities and colleges across the country. In the United States, learners can enroll in CBE programs in every region and at every type of higher education institution (e.g., community college, comprehensive college).^{xi}

Other Education Providers: Many CBE programs partner with education technology (“EdTech”) providers and other vendors to support their learning and organizational technology and system needs.^{xii}

Professional Groups and Associations: Some CBE programs offer industry-recognized certificates or credentials. CBE programs’ relationships with professional groups and associations can positively affect program credibility. The healthiest programs align their curriculum with industry or similar nationally recognized norms or standards.^{xiii}

Communities of Practice for CBE Programs: A number of CBE programs participate in national communities of practice, which include the Competency-Based Education Network (C-BEN), EDUCAUSE NGLC Breakthrough Models Incubator (BMI) and Breakthrough Models Academy (BMA), and CAEL’s Jump Start Program. Learners in these participating programs experience indirect benefits, such as extra resources and access to expertise, facilitation and convening support.



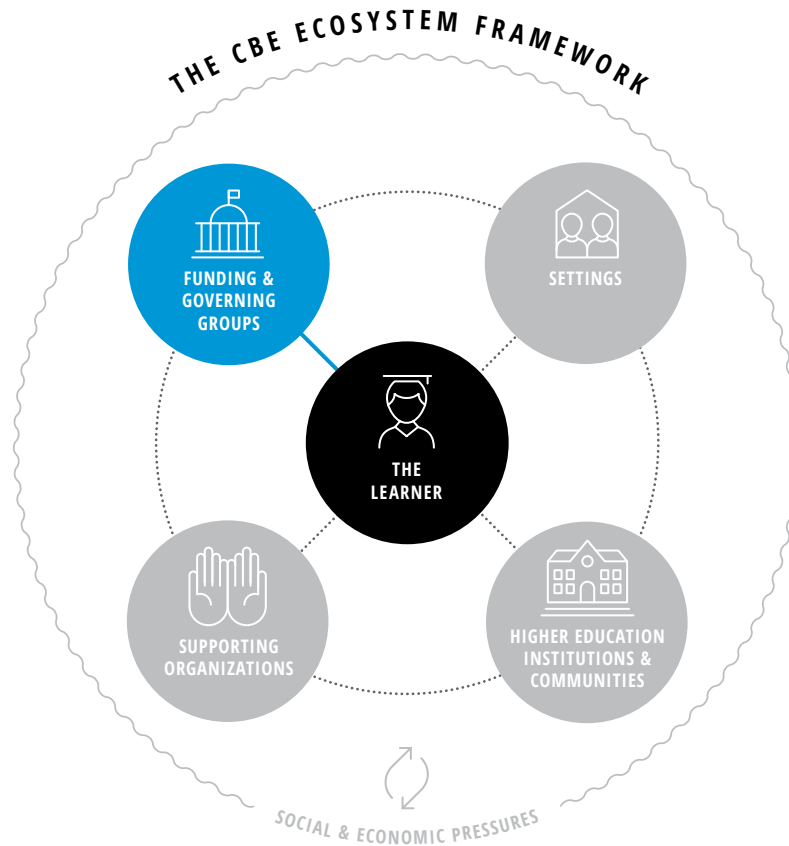
SUPPORTING ORGANIZATIONS

The organizations and companies involved in CBE, but not directly offering or funding CBE programs, that directly affect the learner experience.

National Nonprofits: Several nonprofits research and write about the learner experience in CBE programs (e.g., American Institutes for Research (AIR), Young Invincibles), study how CBE programs can better serve underrepresented learners (e.g., Jobs For the Future) or work directly with policymakers and institutions to build and improve the ecosystem (e.g., Association of American Colleges & Universities (AAC&U), Public Agenda).

Consultants and Technical Assistance Providers: A growing number of independent consultants and consulting firms work directly with CBE programs to improve the learner experience. Oftentimes, their work focuses on strengthening CBE program design and delivery.

Education Technology Companies and Other Vendors: A growing number of EdTech companies and other vendors provide CBE programs' learning management systems, information management systems and various technology-enhanced learning services. Depending on the program, learners may directly interface with several of these companies or vendors.^{xiv}



FUNDING & GOVERNING GROUPS

Those who set policies and provide funding that promote or prohibit learner engagement in CBE programs.

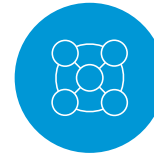
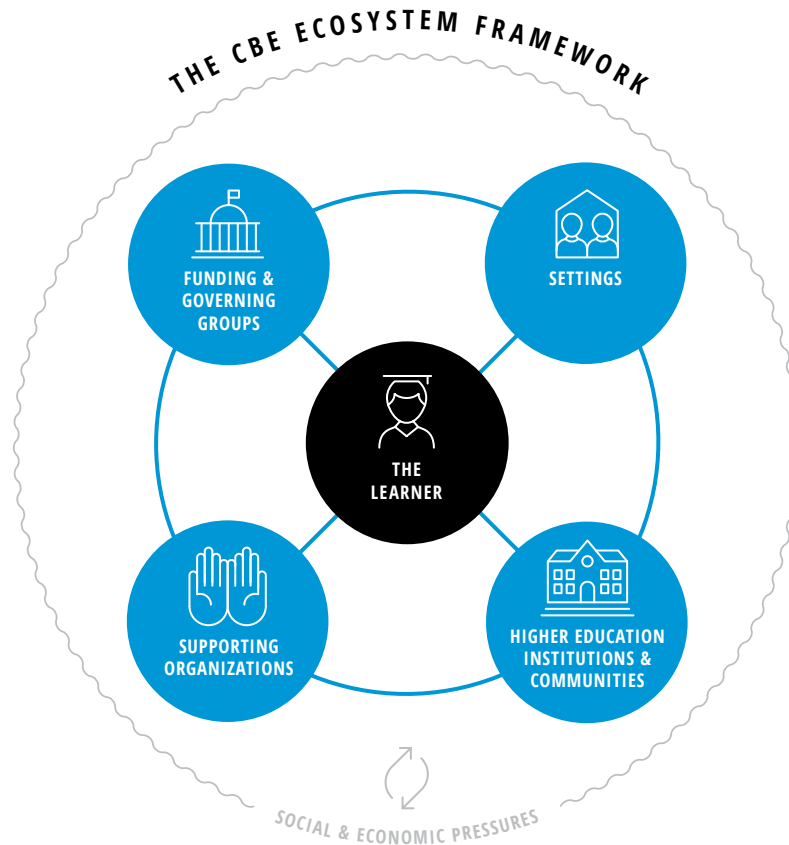
Federal Agencies: The United States Department of Education distributes—and provides any waivers for—federal financial aid (Title IX). The United States Department of Veterans Affairs sets up and distributes veterans’ education awards. Both Education and Veterans Affairs provide financial awards based on the Carnegie Unit and other time-based metrics.^{xv} The United States Department of Labor has provided funding and support to a select number of community colleges—through the Trade Adjustment Assistance Community College and Career Training (TAACCT) Grant Program grants—to launch CBE programs in high-growth and high-wage fields.^{xvi}

State Policymakers: State policymakers—including legislatures and state departments of education—set rules and regulations on state-based financial aid and financing of public higher education institutions^{xvii}, both of which can affect whether or not learners can afford a CBE program and how financially solvent a CBE program is.

University, College and Company Governing Boards: In most cases, higher education institutions’ governing bodies and state boards of regents oversee academic affairs and finances. These boards set policies for admissions and tuition, enrollment and graduation requirements. They have an important role in encouraging and enabling CBE programs.^{xviii}

Public and Private Scholarship Providers: Scholarship eligibility may include time-based requirements, such as enrollment status and course requirements. Learners in CBE programs may be ineligible for these scholarships because of the programs’ non traditional formats.

Employers: Some employers partner with CBE programs to customize programs for their employees (e.g., City University of Seattle’s CBE program for Boeing employees, Southern New Hampshire University’s *College For America*). In these cases, employees can attend a CBE program as long as they meet their employers’ requirements.



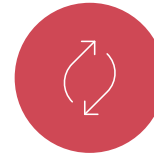
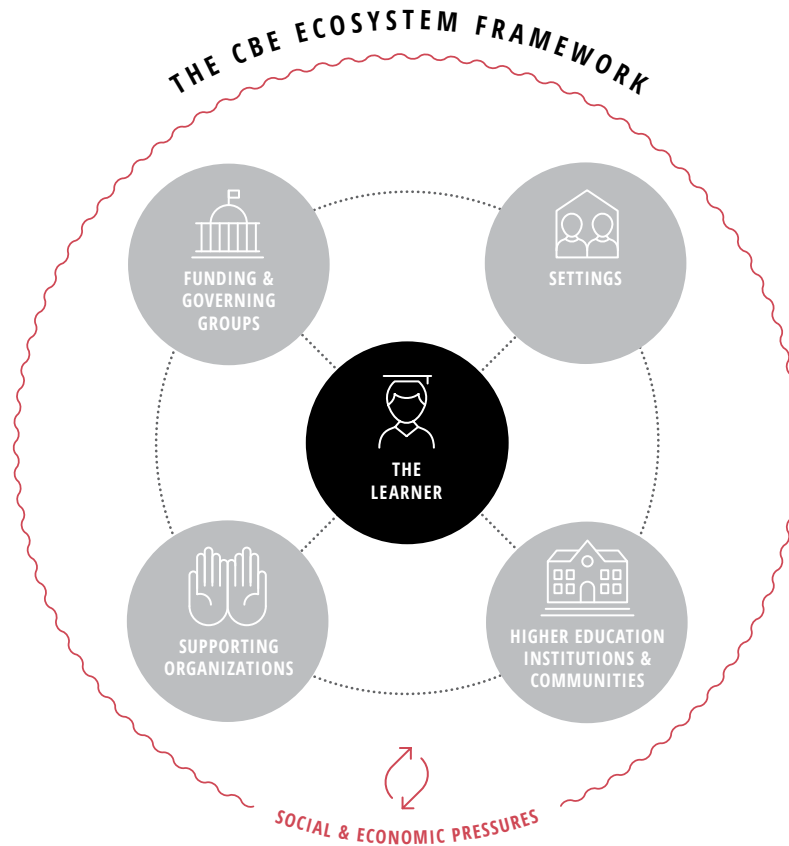
NETWORKS & CONNECTIVITY

Those involved in CBE programs connect and relate in ways that affect the learner experience.

Political Priorities: Funding and governing groups like Lumina Foundation and the U.S. Department of Education have set ambitious college completion goals to be achieved in the next 10-15 years.^{xix} Higher education institutions are under increased pressure to improve college access and completion rates, which provides an opportunity for CBE programs to be started and to serve those who are otherwise underrepresented and underserved (e.g., the unemployed). Learners may have increased access to CBE programs, but there is no validated way to assess the quality of these programs.^{xxi}

Networked Communities: CBE programs regularly connect formally and informally. This includes online listservs, like Competency-L, and invitation-only communities of practice, like the C-BEN and BMI. These online or in-person networked communities are staffed and attended by supporting organizations and funded by funding and governing groups. Learners who go to a well-networked CBE program may indirectly benefit from the program team’s constant learning and network.^{xxii}

Learner Profile: CBE program settings and higher education institutions are working to accommodate a changing learner profile. Learners are increasingly diverse—in race, age and socioeconomic status. They are more likely to attend college part-time. The typical student learner is now a 30-something who is juggling college, work and family.^{xxiii} Funding and governing groups have responded to this shift by offering grants, initiatives and talking points catered to the needs of working adult learners. This has included the push for college to be “faster” and “on demand.”^{xxiv} Supporting organizations reflect this shift in their papers, priorities and programming.



SOCIAL & ECONOMIC PRESSURES

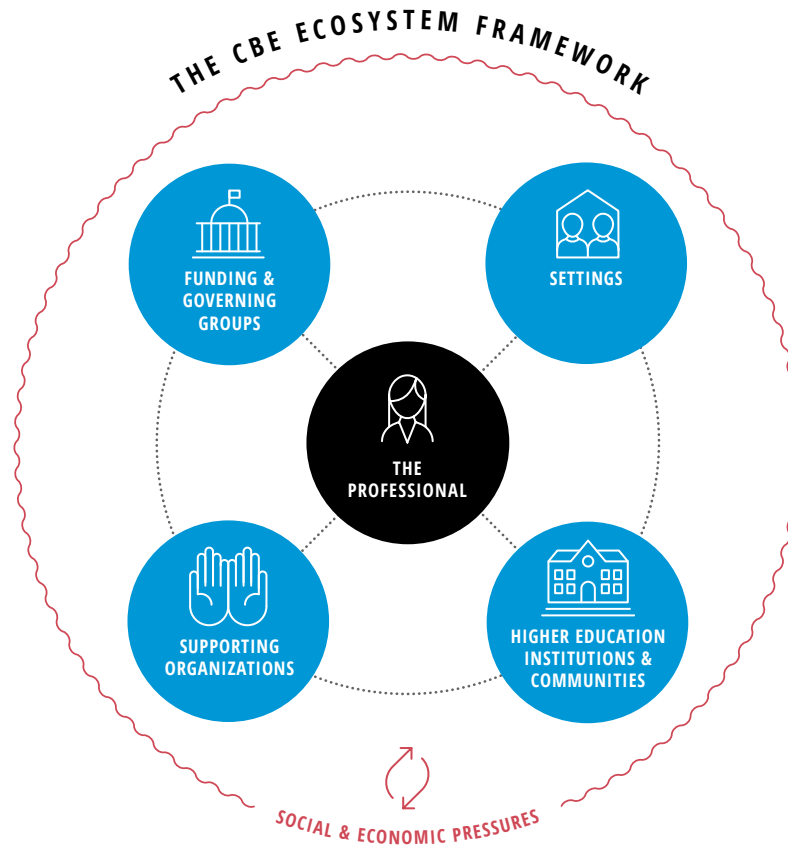
External conditions affecting learner engagement in CBE programs.

Unpredictable Economy: The United States continues to rebuild after the Great Recession (2007-2009), doing so in an era of increased global instability and unpredictability. Many jobs in the United States are being outsourced, automated or becoming obsolete. A college credential improves, but does not guarantee, chances of employment and financial stability.^{xxv}

Changing World of Work: More jobs require college credentials, but those credentials have a less certain payoff because many workforce roles and skill requirements are in flux.^{xxvi} Additionally, there seems to be a growing gap between what colleges offer and what employers need.^{xxvii} A recent proliferation of credentials has diluted the perceived quality of certain certificates and degrees.^{xxviii}

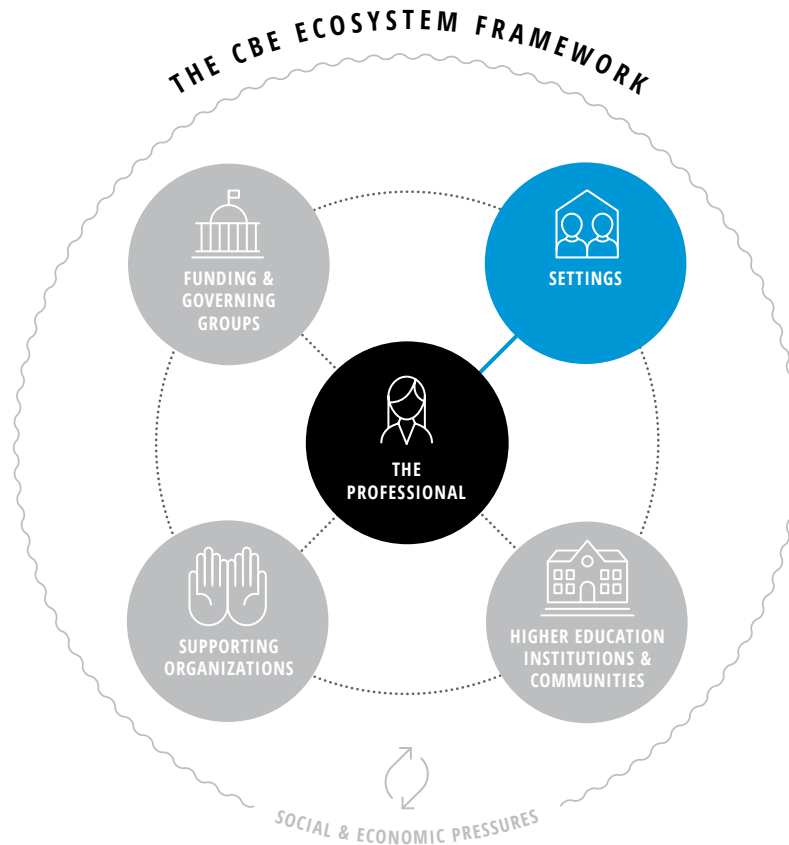
Global Connectivity: Increased and enhanced global connectivity and networks have created more fluid and continuous flows of information and knowledge. This has led to social and economic interdependencies, resulting in heightened competition and collaboration.^{xxix}

Digital Age: Increasingly learning can happen online, at low or no cost. Rapid technological advances, improved access and affordability have created an age where most people acquire and share information virtually. In the digital age, more learners can learn and earn a credential online.^{xxx xxxi} The digital age has brought changes to the higher education landscape by introducing a new network of education players who offer unorthodox and modularized programs (e.g., badges, MOOCs).^{xxxii}



Looking at the CBE Ecosystem from the CBE program professional's perspective.

This perspective shows how the CBE ecosystem engages the CBE program professional. Professionals include CBE program leadership, faculty and staff. From this perspective, players and pressures are shown and described according to their relationship to the professional.



SETTINGS

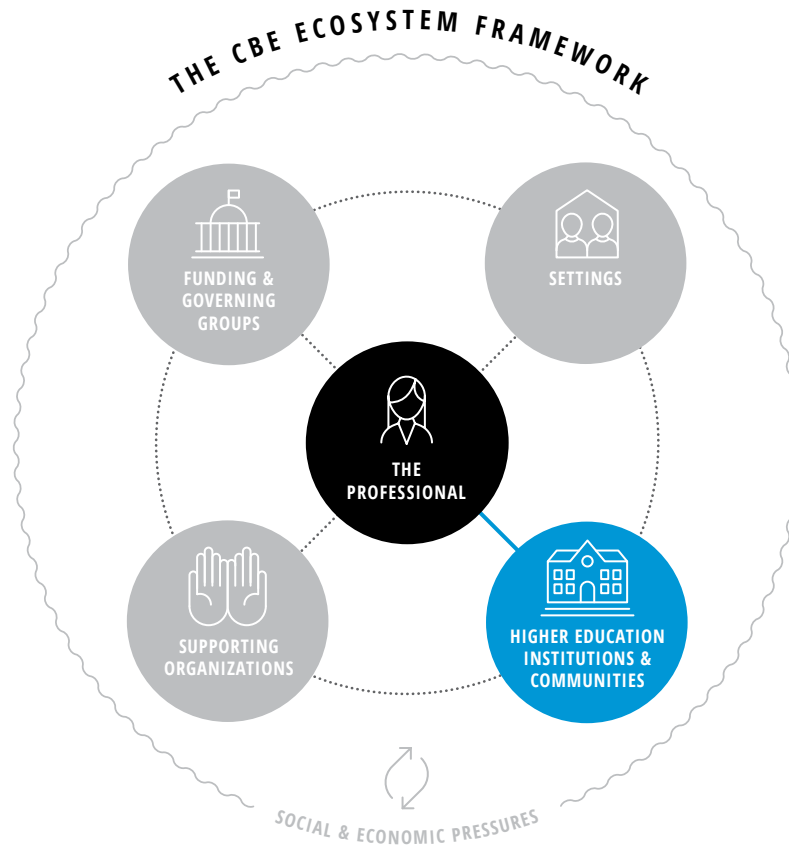
Where leadership, faculty and staff engage in the CBE program.

Learner Engagement: CBE program professionals engage with learners in person and/or online. The amount of learner engagement varies by position. CBE programs tend to have flexible staffing structures. This means some professionals have frequent learner engagement, while others—perhaps those focused on curriculum or assessment design—have much less.^{xxxiii}

Colleague Engagement: CBE program professionals, especially faculty, collaborate to drive program design and curricular planning. Some CBE programs use very different staffing models than traditional college programs (e.g., by unbundling staffing), while others are fairly traditional. CBE program professionals engage with staff throughout their institutions because CBE programs look different and often require new ways of thinking, monitoring and reporting.^{xxxiv}

Institutional or Organizational Committees, Groups or Task Forces: CBE program professionals are part of a larger higher education community. They may serve on a faculty senate or curriculum committee, or in other organizational roles. This provides opportunities to cultivate broader understanding, goodwill, interest and investment in the CBE program.

External Partnerships: CBE program professionals often connect with field experts and employers. These external partnerships are critical for CBE programs because they connect learners to real-life learning opportunities and postgraduation employment opportunities. In addition, they provide professionals with relevant insights on what students need to know and be able to do before they graduate.^{xxxv}



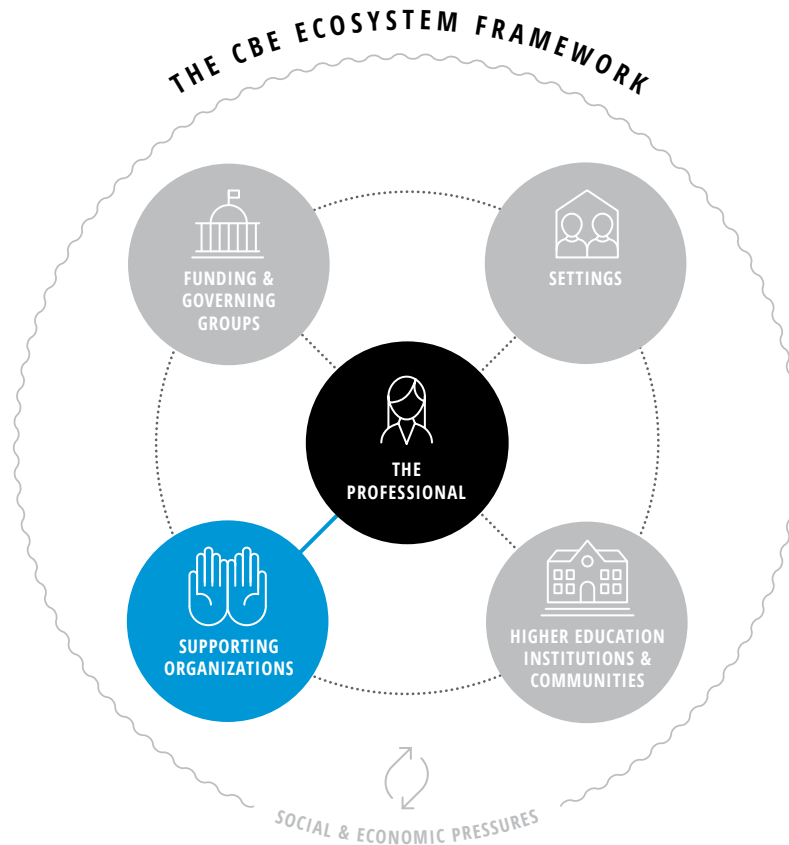
HIGHER EDUCATION INSTITUTIONS & COMMUNITIES

The networks, membership organizations, associations and groups professionals belong to that, which directly affect their work within the CBE program.

Professional Associations and Membership Organizations: CBE program professionals may be members of various higher education organizations, like CAEL or Quality Matters. Others serve on accrediting bodies. Involvement in outside associations and membership organizations can have a positive field-building effect—CBE programs are strengthened through alignment with national efforts,^{xxxvi} and professionals act as ambassadors, helping to create shared understanding and interest in the work.

Unions: CBE program professionals may belong to staff/faculty unions and/or trade unions. CBE programs can conflict with union agreements because union agreements often stipulate wages, benefits and working conditions based on traditional time-based metrics: a certain number of hours in a workday or workweek, a set number of classes during a traditional semester or school year, a certain number of years for tenure.^{xxxvii} Unions may also define faculty and staff tasks, which could prevent a CBE program from unbundling and adjusting the faculty or staff roles. This incompatibility could lead a CBE program professional to leave the union, to try to create new agreements as part of the union or to leave the CBE program.

CBE Communities of Practice and Funder Cohorts: A number of CBE program professionals participate in national communities of practice, including the C-BEN, BMI and CAEL's Jump Start Program. Some also participate in funder cohorts, including the Department of Labor TAACT grant, representing their programs. Involvement offers professionals training and networking opportunities and camaraderie with colleagues in similar positions, along with other benefits.



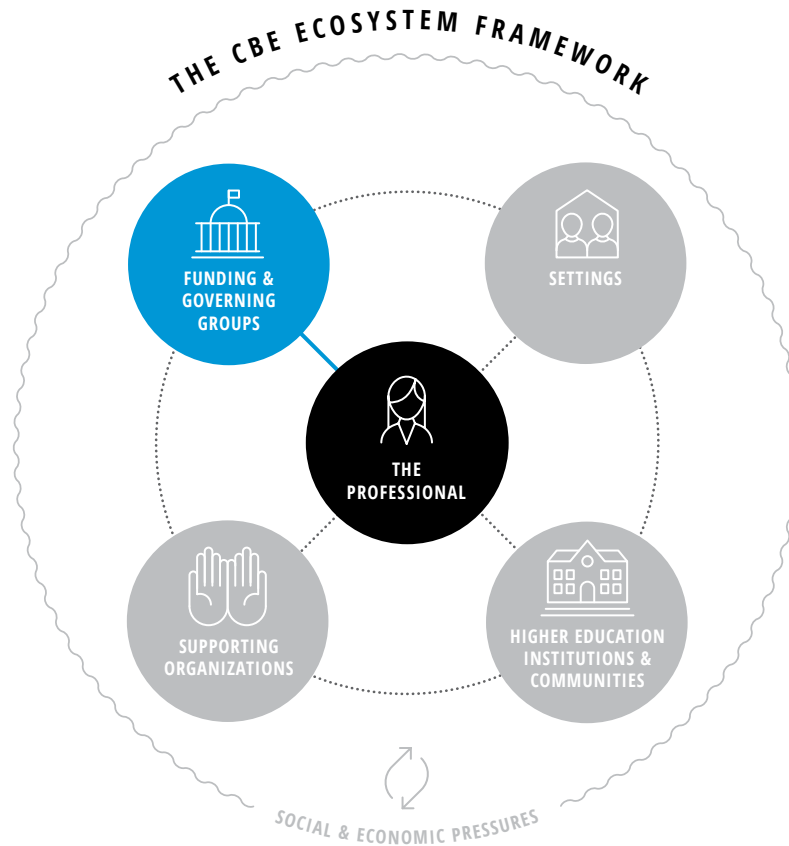
SUPPORTING ORGANIZATIONS

The organizations and companies involved in CBE, but not directly offering or funding CBE programs, that affect the professionals' experience.

National Nonprofits: Several national nonprofits provide support to CBE program professionals. They include those staffing CBE communities of practice (e.g., Public Agenda, EDUCAUSE), those producing research and reports (e.g., New America Foundation, American Enterprise Institute), and those educating and supporting policymakers and practitioners (e.g., AAC&U, the American Council on Education).

Consultants and Technical Assistance Providers: Independent consultants and consulting firms (e.g., HCM Strategists) work with CBE program professionals on various projects. Some consultants partner directly with professionals to support their programs. Others enlist CBE professionals to work with them on state and national projects, including the *Credentials Transparency Initiative* and the *Technological Interoperability Pilot (TIP) Project*.^{xxxviii}

Education Technology and Other Vendors: CBE program professionals engage directly with EdTech companies and other vendors to build and continually enhance online platforms and learning technologies, to outsource assessments or to build out key organizational functions.^{xxxix}



FUNDING & GOVERNING GROUPS

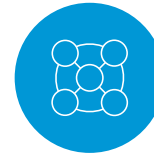
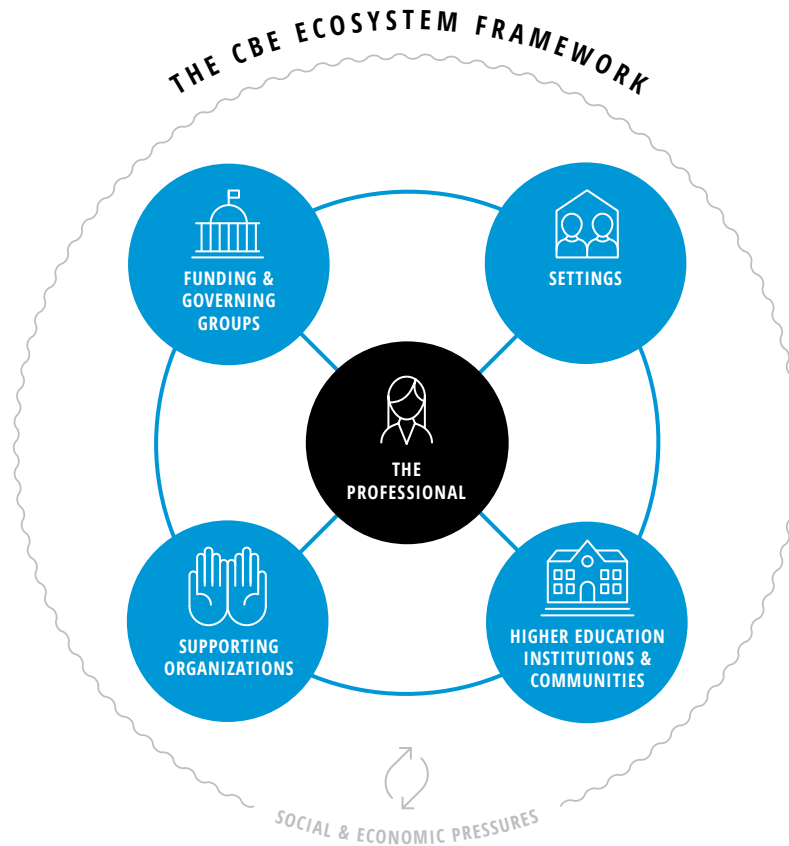
Those who set policies and provide funding that directly affect CBE program professionals.

Higher Education Institutions (the Employer): CBE program professionals work with, for and under the supervision of their higher education institution. They must navigate organizational policy and culture, and meet organizational requirements. Some CBE programs are in a specific college (i.e., college of education), on a separate campus or at a standalone entity.

Federal and State Policymakers: CBE program professionals, especially program leadership, may engage directly with policymakers. Given the relative newness of the CBE ecosystem, representatives from federal and state government sometimes invite direct relationships with CBE program leads. This is especially true for the U.S. Department of Education's *Experimental Sites* and *Direct Assessment* programs. Relationships with state policymakers varies, but so does each state's role in supporting programs.^{x1}

Accreditors: CBE program professionals engage with regional and professional accreditors. Some serve on accrediting bodies. In June 2015, the Council of Regional Accrediting Commissions issued a common framework for how to assess and approve competency-based programs.^{x11}

Philanthropic Foundations: The CBE ecosystem is small enough to support direct relationships between CBE program professionals and philanthropic foundations (e.g., Lumina Foundation and the Bill & Melinda Gates Foundation). Foundation staff fund and regularly attend CBE convenings, such as the CBExchange held in September 2015.



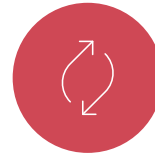
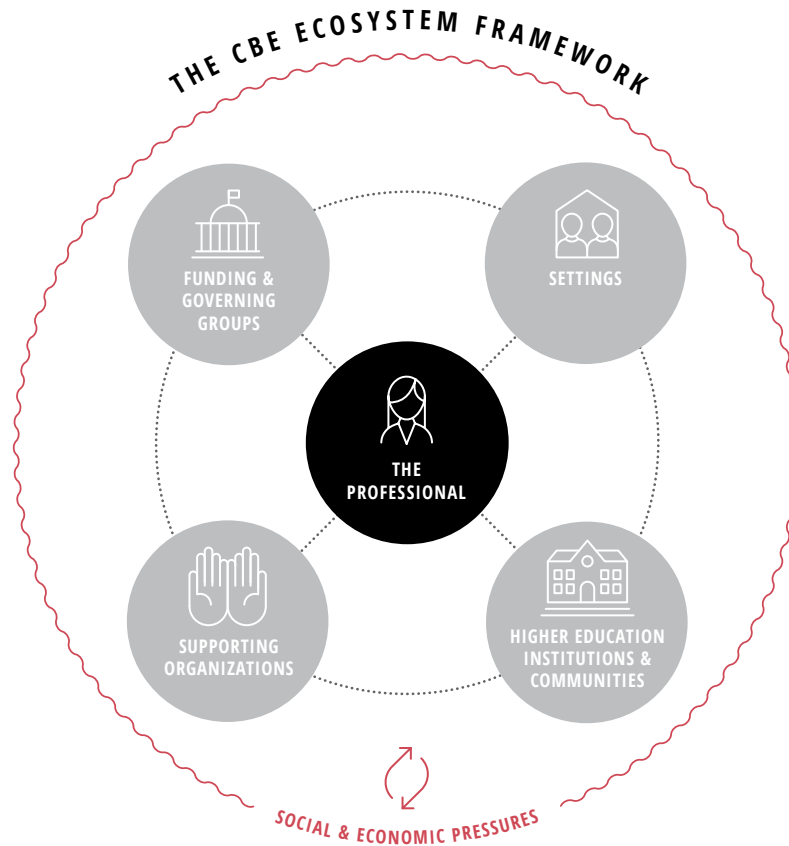
NETWORKS & CONNECTIVITY

Those involved in CBE programs connect and relate in ways that affect the CBE program professionals' experience.

Networked Communities: CBE program professionals regularly connect in formal and informal ways. This includes online listservs, such as "Competency-L," and selective communities of practice, like the C-BEN and BMI. These online or in-person networked communities are staffed and attended by a variety of supporting organizations and sustained by various funding and governing groups, such as Lumina Foundation and the U.S. Department of Education.

Consumers of Education Technology and Other Vendor Offerings: CBE program professionals might connect because they share the same vendor(s). These vendors build systems and modules for more than one CBE program client. Vendors often attend CBE or CBE-related convenings and conferences. CBE program professionals use their networked communities to seek advice on which vendors to work with.

National Priorities: Funding and governing groups, like Lumina Foundation and the U.S. Department of Education, have started to identify priority states, credentials and programs. CBE program professionals might connect with each other and others in the ecosystem because they are in a place of interest or offering a program of interest.



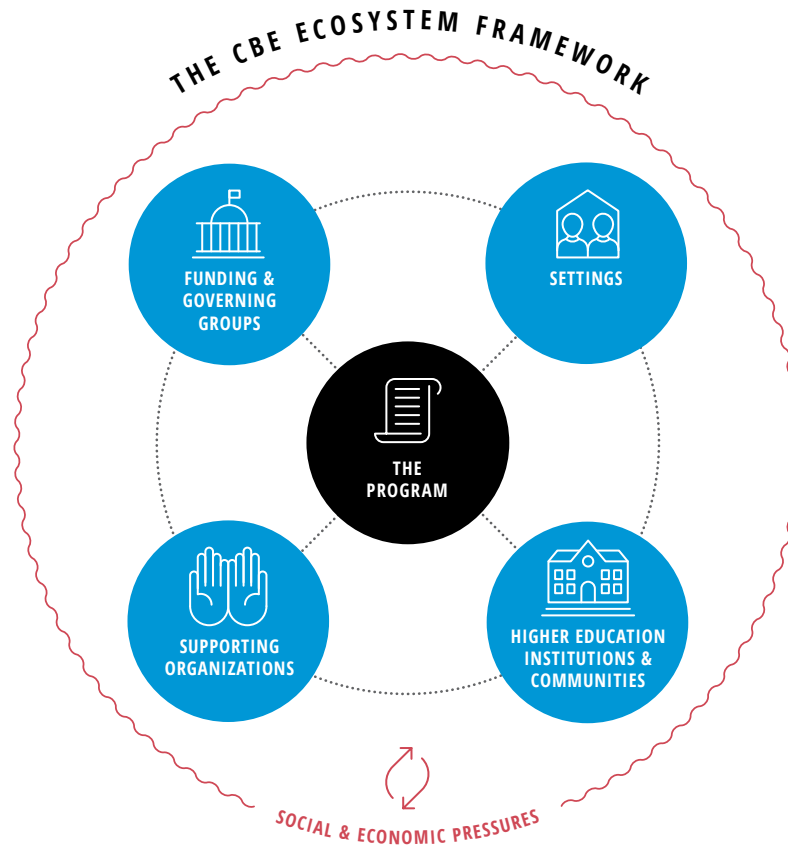
SOCIAL & ECONOMIC PRESSURES

External conditions affecting professionals' CBE program engagement.

Unpredictable Economy: CBE program professionals may deal with financial insecurity and job stability concerns because they are part-time staff or adjunct faculty. Many CBE programs rely on a flexible—sometimes called modular—staffing approach.^{xliii} For many, this includes hiring mostly adjunct faculty. Today, many adjuncts struggle to make ends meet, some even needing food stamps.^{xliiii}

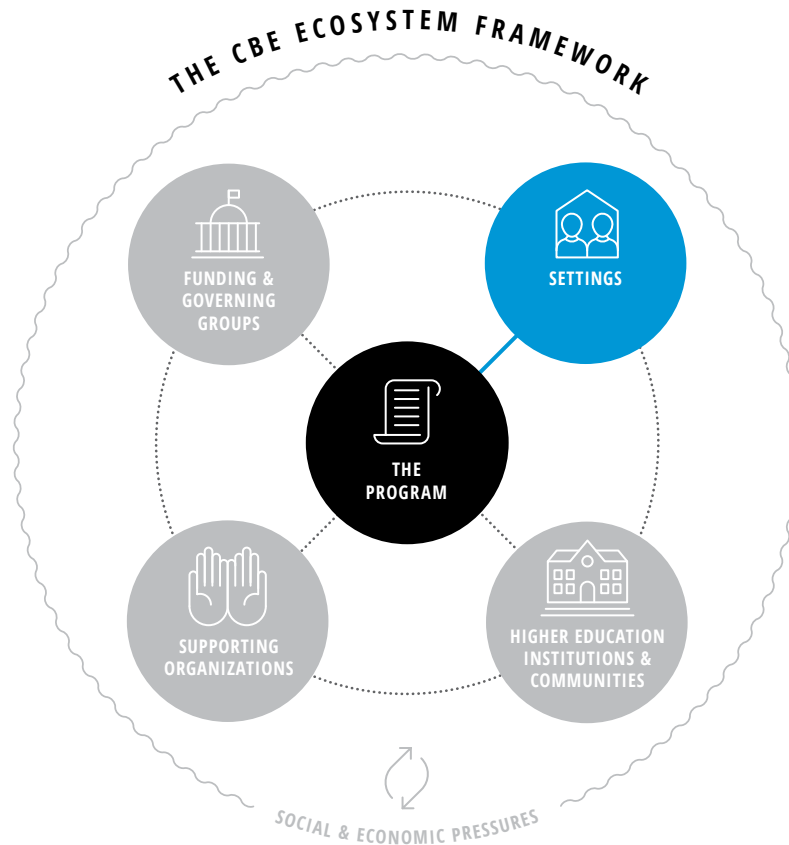
Changing World of Work: Due to CBE program professionals' involvement in curricular and instructional design, they must stay up to date and responsive to the ever-changing world of work. As jobs and job requirements change,^{xliiv} professionals need to be able to quickly respond. CBE program professionals face increased pressure to produce more proficient and prepared graduates^{xliv} faster and more cheaply.

Global Connectivity and the Digital Age: CBE program professionals are designing and delivering programs during a time of rapidly increasing globalization, uberconnectivity and technological advancement. CBE program professionals can be on the cutting edge of these advances, connecting learners to the world around them.^{xlivi} CBE program professionals are champions of leading frameworks, like Lumina Foundation's Degree Qualifications Profile (DQP) and AAC&U LEAP Essential Learning Outcomes, that seek to better prepare graduates for life in our times.



Looking at the CBE Ecosystem from the CBE program’s perspective.

This perspective shows how CBE programs engage within the broader higher education landscape. For our purposes, CBE programs are degree or certificate programs, within a regionally accredited institution, where learners progress based on what they know and can do, rather than time spent in class. From this perspective, players and pressures are shown and described according to their relationship to the CBE program.



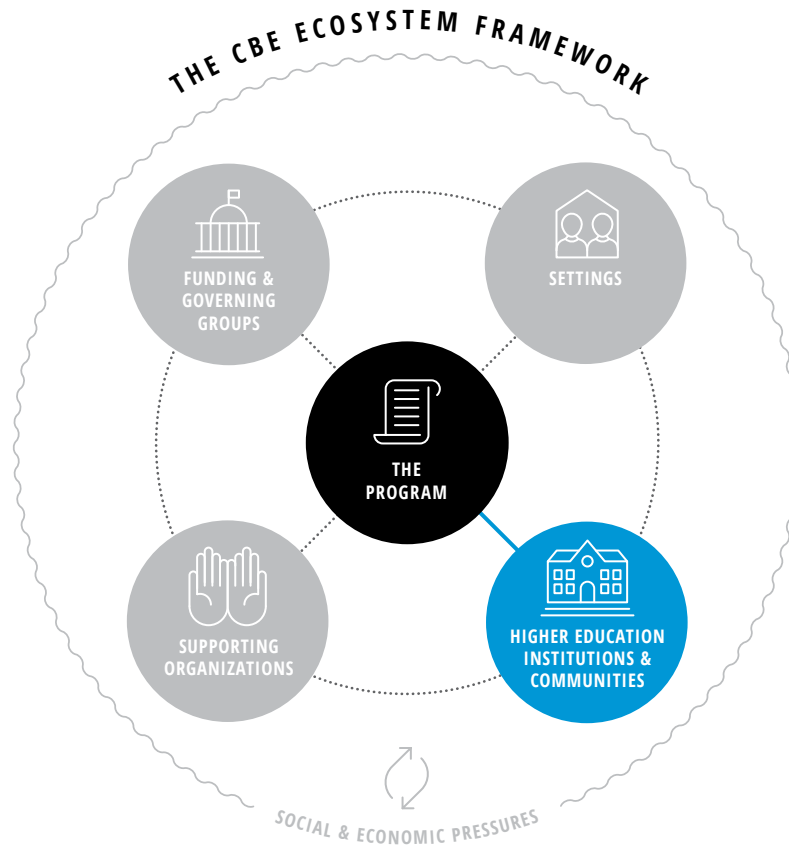
SETTINGS

Where professionals, serving as representatives of their CBE programs, engage with others about their program.

Learner Recruitment: Many CBE programs cater to working adults, who need non-traditional credentialing pathways. As the field grows, this is beginning to change and diversify. Recruitment strategies reflect this historic learner base. Advertisements are on television, in email sidebars or in select publications (e.g., airline magazines). These advertisements tend to highlight flexibility and self-pacing.^{xlvii} CBE programs also recruit learners from area employers, sometimes customizing a program specifically for a company’s employees.

Institutional Engagement: CBE programs are part of higher education institutions. CBE programs must work with their institution’s other offices and departments. CBE programs tend to have the most regular relationships with the registrar’s office, assessment center and student support services. CBE programs may be represented by program professionals, on institutional committees or in various leadership roles.

External Stakeholder Engagement: CBE programs connect with employers, alumni and experts in the field. External stakeholder engagement is critical for CBE programs because of the commitment to stay relevant and provide real-life learning opportunities^{xlviii} Some CBE programs, like City University of Seattle or Lipscomb University, have direct partnerships with companies and tailored CBE programs for those companies’ employees.



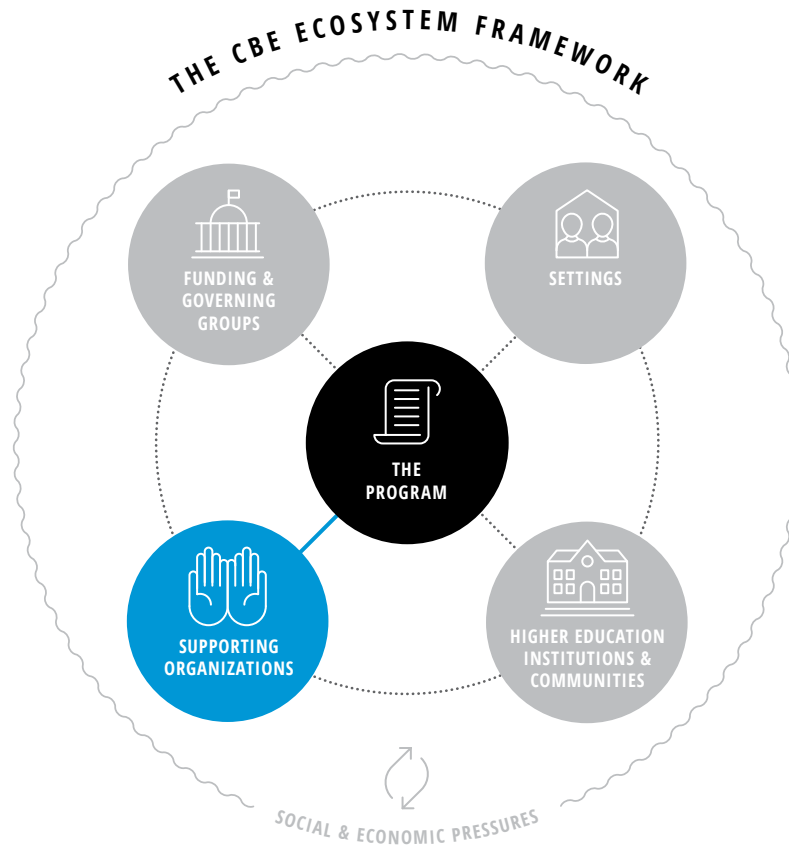
HIGHER EDUCATION INSTITUTIONS & COMMUNITIES

The networks, communities and groups that CBE programs belong to.

Higher Education Institutions: CBE programs are operated by universities, colleges and for-profit corporations. Roughly half of CBE programs are operated by community colleges and one-third by comprehensive colleges. There is a sprinkling of CBE programs at liberal arts colleges, research universities and special-focus institutions.^{xlix} More than two-thirds of CBE programs are public. Often, CBE programs are housed in a single college (e.g., college of education, college of business) or on a standalone campus.

National Initiatives, Associations and Membership Organizations: CBE programs are a growing part of the broader higher education landscape. The rise in CBE programs means a rise in CBE representation in national or regional initiatives and membership organizations. Some membership organizations, such as CAEL, explicitly support CBE programs.

Communities of Practice and Funder Cohorts: A number of CBE programs participate in national communities of practice, which include the C-BEN, BMI and CAEL's Jump Start Program. Participating CBE programs benefit from extra resources, support and training. Some CBE programs are part of funder cohorts, like the CBE programs at community colleges that received U.S. Department of Labor TAACCCT grants.



SUPPORTING ORGANIZATIONS

The organizations and companies involved in CBE not directly offering or funding CBE programs but affecting or being affected by CBE programs.

National Nonprofits: A network of national nonprofits supports CBE programs. National nonprofits provide capacity, training, resources, research and information that CBE programs wouldn't otherwise receive. Leading higher education news outlets—including *Inside Higher Ed* and *The Chronicle*—regularly write about CBE programs.

Consultants and Technical Assistance Providers: Independent consultants and consulting firms (e.g., HCM Strategists) work with CBE programs or work with others on the policy and practice issues affecting CBE programs. Some consultants partner directly with professionals to support the design and delivery of their programs. Others enlist CBE program representatives to work on various projects, including the *Credentials Transparency Initiative* and the *Technological Interoperability Pilot Project*.ⁱ

Education Technology Companies and Other Vendors: CBE programs receive ongoing support from EdTech companies and other vendors. This includes groups like Pearson and Blackboard that go beyond direct CBE program relationships and produce papers and new software programs on CBE.ⁱⁱ These companies and vendors build CBE program management systems and/or work with CBE programs to make their business systems more interoperable.ⁱⁱⁱ



FUNDING & GOVERNING GROUPS

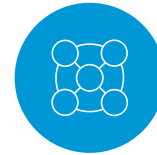
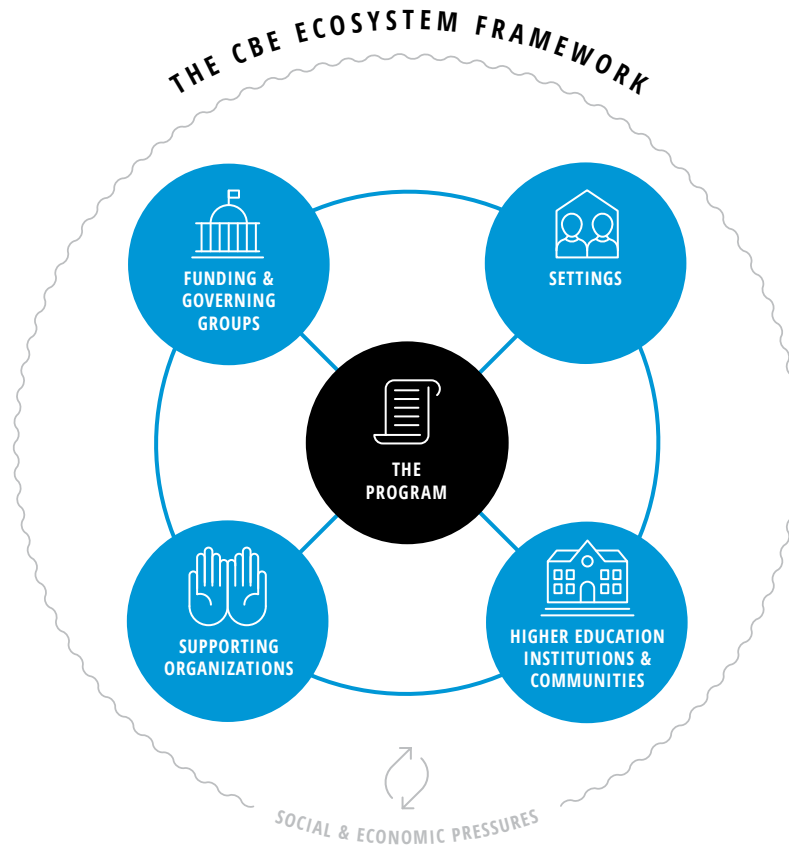
Those who set policies and provide funding that prohibit or promote CBE programs.

Learners: To remain solvent, CBE programs must have enough learners enrolled. CBE programs have worked on new and adjusted financial models to make sure programs are affordable and accessible.ⁱⁱⁱ Some CBE programs do not accept federal financial aid, because its ties to time and is incompatible with the structure of their programs.

Federal and State Policymakers (Agencies and Legislatures): More than two-thirds of CBE programs are at public institutions.^{iv} These programs rely on federal and state dollars. Many policymakers have spoken about their hope that CBE programs will end up being faster and cheaper. At various CBE convenings, professionals have spoken candidly about the upfront costs of starting their programs. CBE programs are not always cheaper for the institution, which can also affect tuition. Some CBE programs work with the U.S. Department of Labor and the U.S. Department of Veterans Affairs. The U.S. Department of Education is running three programs engaging CBE programs: Experimental Sites, the First in the World grant competition and Direct Assessment.

Regional and Professional Accreditors: CBE programs seek accreditation from regional accreditors and often professional accrediting bodies. In June 2015, in response to the proliferation of CBE programs, the Council of Regional Accrediting Commissions issued a common framework for how to assess and approve competency-based programs.^{iv} Our survey of CBE programs found the Higher Learning Commission has the highest number of CBE programs, followed by the Southern Association of Colleges and Schools Commission on Colleges.^{iv}

Philanthropic Foundations: CBE programs may receive additional funding from philanthropic individuals, companies or foundations.



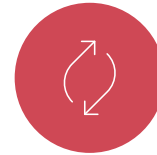
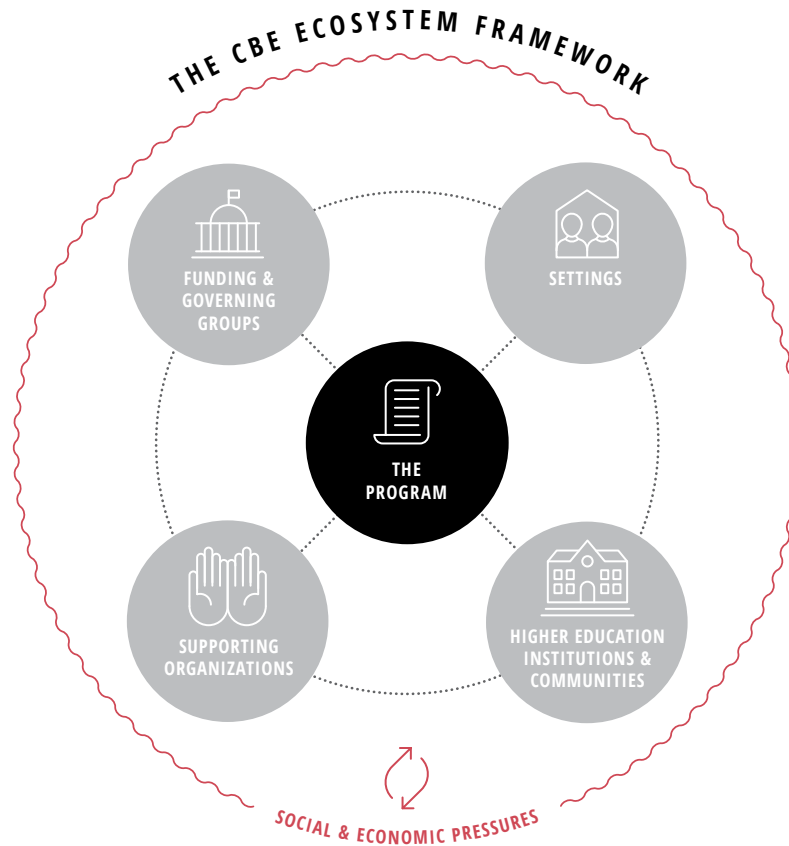
NETWORKS & CONNECTIVITY

Those involved in CBE programs connect and relate in ways that affect the overall program.

Networked Communities: CBE programs connect formally and informally. This includes online listservs, such as “Competency-L,” and selective communities of practice, like the C-BEN and BMI. These online or in-person networked communities are staffed and attended by supporting organizations and sustained by various funding and governing groups, such as Lumina Foundation. Given the newness of the CBE ecosystem, professionals often serve as CBE ambassadors, representing their programs and CBE more generally in national discussions and initiatives.

Consumers of Education Technology and Other Vendor Offerings: CBE programs sometimes connect because they share the same vendor(s). These vendors build systems and modules for multiple clients. EdTech companies and vendors attend many CBE or CBE-related convenings and conferences. Often, CBE programs tap into their networked communities to seek advice about which vendors to work with.

Connectivity to the Broader Higher Education Landscape: CBE programs are one part of a broader, dense and complex field. Higher education has a multitude of players who have compatible or competing interests, and shifting structures of status and prestige.^{lvii} Many CBE program players have known each other for years and in various roles. At the national level, many of the same individuals, organizations and CBE programs consistently and repeatedly show up to work on efforts to champion CBE.



SOCIAL & ECONOMIC PRESSURES

External conditions affecting CBE programs.

Unpredictable Economy: CBE programs are continually shaped by the economy. On the one hand, CBE programs are responsive—they can quickly adjust to offer credentials and training opportunities in high-need or high-growth fields.^{lviii} On the other hand, economic hardship and public funding cuts have led to less community college and comprehensive college funding, which threatens the financial solvency of some public CBE programs.

Changing World of Work: CBE programs are well positioned to respond to workforce changes. By design, CBE programs align to workforce needs. In our survey of CBE programs, 99 percent of respondents agreed that a primary aim of CBE programs is to prepare competent graduates who can meet future challenges, and that it is critical for CBE programs to engage employers.^{lix}

Global Connectivity and the Digital Age: The CBE ecosystem is situated somewhere between traditional higher education—defined by institutions that are fixed by time and place—and the emergent market,^{lx} a semistructured network of new education players who offer education in a wide variety of formats, both in person and online. CBE programs have the opportunity to draw from the best of both the traditional and emergent. Many CBE programs create strong communities online, encompassing many places and people who are working on their credentials at different paces.^{lxi}

Acknowledgments

The Competency-Based Education Ecosystem Framework was created through an uncommonly collaborative process and prepared primarily by Stephanie Malia Krauss, senior fellow with the Forum for Youth Investment, with input and direction from Alison Kadlec and Erin Knepler of Public Agenda, and Charla Long, consultant to Public Agenda and principal, Go Long Consulting. The content derives from a powerful array of individuals, institutions and organizations dedicated to the healthy development of the CBE field. Members of the C-BEN contributed a large body of primary research on CBE programs, while a broader group of sponsors, thought partners and field leaders graciously opened their conferences and resources to the core project team.^{ixii}

FalkHarrison provided design support for this project.

The Competency-Based Education Ecosystem Framework is one part of a multipronged effort led by Public Agenda, with support from the Bill & Melinda Gates Foundation and Lumina Foundation. This effort responds to calls from institutions of higher education and policymakers for more resources and support to help guide the planning and development of high-quality competency-based degrees, certificates and other postsecondary credentials. A companion document, *Shared Design Elements and Emerging Practices of Competency-Based Education Programs*, is available at http://www.cbenetwork.org/sites/457/uploaded/files/Shared_Design_Elements_Notebook.pdf.

The list of individuals who contributed their insights to this project is too long to include here, but everyone we spoke with brought critical insights into our work and clarity into what is happening in the CBE ecosystem. We are grateful to each and every person who generously shared their time and thoughts with us.

The Competency-Based Education Ecosystem Framework

A report from Public Agenda with support from the Bill & Melinda Gates Foundation and Lumina Foundation. Available online at www.cbenetwork.org.

Copyright © 2015 Public Agenda.

This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported license. To view a copy of the license, visit <http://creativecommons.org/licenses/by-nc-sa/3.0> or send a letter to:

Creative Commons

171 Second Street, Suite 300
San Francisco, CA 94105 USA

Endnotes

- i** Offerman, M. (2012). *Background Briefing, Beyond Seat Time: New Learning Models*. A brief produced for Lumina Foundation.
- ii** Krauss, S., and Knepler, E. (2015, September). *Presentation on Shared Design Elements and Emerging Practices of Competency-Based Education*. Presented at CBExchange, Phoenix, AZ.
- iii** Tyack, D. (1995). *Tinkering Toward Utopia: A Century of Public School Reform*. Harvard University Press.
- iv** Mitchell, T. (2014, July). *Presentation to the Competency-Based Education Network*. Opening remarks for Competency-Based Education Network convening, given by the United States Undersecretary of Education.
- v** Kirst, M., and Stevens, M.L., ed. (2015). *Remaking College: The Changing Ecology of Higher Education*. Stanford University Press.
- vi** Public Agenda (2015). *Shared Design Elements and Emerging Practices of Competency-Based Education Programs*.
- vii** Weise, M.R., and Christensen, C.M. (2014). *Hire Education: Mastery, Modularization, and the Workforce Revolution*. Clayton Christensen Center for Disruptive Innovation.
- viii** Public Agenda (2015). *Shared Design Elements and Emerging Practices of Competency-Based Education Programs*.
- ix** Ibid.
- x** Ibid.
- xi** Public Agenda (2015). *Survey of the Shared Design Elements & Emerging Practices of Competency-Based Education Programs*.
- xii** Leuba, M. (2015). *Competency-Based Education: Technology Challenges and Opportunities*. For EDUCAUSE Review. Accessed November 25, 2015, at <http://er.educause.edu/articles/2015/10/competency-based-education-technology-challenges-and-opportunities>
- xiii** Public Agenda (2015). *Survey of the Shared Design Elements & Emerging Practices of Competency-Based Education Programs*.
- xiv** Ibid.
- xv** Laitinen, A. (2012). *Cracking the Credit Hour*. New America Foundation and Education Sector.
- xvi** Person, A. (2015). *Best Practices in Competency-Based Education: Lessons from Three Colleges*. Mathematica Policy Research.
- xvii** WICHE State Higher Education Policy Database. Accessed November 25, 2015, at <http://higheredpolicies.wiche.edu/content/policy/index>.
- xviii** Bok, D. (2013). *Higher Education in America*. Princeton University Press.
- xix** Lumina Foundation's Goal 2025 – 60 percent of adults in America having a high-quality credential by 2025: https://www.luminafoundation.org/goal_2025/.
- xx** White House, Nation 2020 Goal: increase the proportion of college graduates by 50 percent by 2020: https://www.whitehouse.gov/sites/default/files/completion_state_by_state.pdf.
- xxi** Arum, R., and Roksa, J. (2011). *Academically Adrift: Limited Learning On College Campuses*. The University of Chicago Press.
- xxii** Bryk, A.S., et. al. (2015). *Learning to Improve: How America's Schools Can Get Better at Getting Better*. Harvard Education Press.
- xxiii** Deloitte Center for the Edge (2014). *The Lifetime Learner: A Journey Through the Future of Postsecondary Education*. Deloitte University Press.
- xxiv** Kirst, M.W., and Stevens, M.L., ed. (2015) *Remaking College: The Changing Ecology of Higher Education*. Stanford University Press.
- xxv** Carnevale, A.P., and Cheah, B. (2015). *From Hard Times to Better Times: College Majors, Unemployment, and Earnings*. Georgetown University Center on Education and the Workforce.
- xxvi** Deloitte Center for the Edge (2014). *The Lifetime Learner: A Journey Through the Future of Postsecondary Education*. Deloitte University Press.
- xxvii** Ibid.
- xxviii** Lumina Foundation (2015). *Connecting Credentials: Making the Case for Reforming the U.S. Credentialing System*.
- xxix** Deloitte Center for the Edge (2014). *The Lifetime Learner: A Journey Through the Future of Postsecondary Education*. Deloitte University Press.
- xxx** Sledge, L., and Fishman, Tiffany Dovey (2014). *Reimagining Higher Education: How Colleges, Universities, Businesses, and Governments Can Prepare for a New Age of Lifelong Learning*. Deloitte University Press.
- xxxi** Weise, M.R., and Christensen, C.M. (2014). *Hire Education: Mastery, Modularization, and the Workforce Revolution*. Clayton Christensen Center for Disruptive Innovation.
- xxxii** Kirst, M.W., and Stevens, M.L., ed. (2015) *Remaking College: The Changing Ecology of Higher Education*. Stanford University Press.
- xxxiii** Public Agenda (2015). *Shared Design Elements and Emerging Practices of Competency-Based Education Programs*.

Endnotes (continued)

- xxxiv** Ibid.
- xxxv** Ibid.
- xxxvi** Ibid.
- xxxvii** Kirst, M.W., and Stevens, M.L., ed. (2015) *Remaking College: The Changing Ecology of Higher Education*. Stanford University Press.
- xxxviii** Krauss, S., and Knepler, E. (2015, November). *Competency-Based Education National Landscape Project*. Presented at CAEL 2015 International Conference, Baltimore, MD.
- xxxix** Leuba, M. (2015). *Competency-Based Education: Technology Challenges and Opportunities*. EDUCAUSE Review, published October 12, 2015.
- xl** Krauss, S. (forthcoming). *Competency-Based Education in the States: Practice, Policy and Capacity*. A report for Lumina Foundation.
- xli** Council of Regional Accrediting Commissions. (2015). *Statement of the Council of Regional Accrediting Commissions (C-RAC) Framework for Competency-Based Education*. Accessed December 8, 2015, at https://www.insidehighered.com/sites/default/server_files/files/C-RAC%20CBE%20Statement%20Press%20Release%206_2.pdf.
- xliv** Public Agenda (2015). *Shared Design Elements and Emerging Practices of Competency-Based Education Programs*.
- xlvi** Weise, M., and Christensen, C. (2014). *Hire Education: Mastery, Modularization, and the Workforce Revolution*. Clayton Christensen Institute on Disruptive Innovation.
- xlvii** Krauss, S. (forthcoming). *How to Talk About Competency-Based Education*. A report for Lumina Foundation.
- xlviii** Public Agenda (2015). *Shared Design Elements and Emerging Practices of Competency-Based Education Programs*.
- xlix** Public Agenda (2015). *A Research Brief on the Survey of the Shared Design Elements & Emerging Practices of Competency-Based Education Programs*.
- l** Krauss, S., and Knepler, E. (2015, November). *Competency-Based Education National Landscape Project*. Presented at CAEL 2015 International Conference, Baltimore, MD.
- li** For example: Everhart, D., et. al. (2015). *Clarifying Competency Based Education Terms*. American Council on Education and Blackboard.
- lii** Leuba, M. (2015). *Competency-Based Education: Technology Challenges and Opportunities*. EDUCAUSE Review, published October 12, 2015.
- liii** Public Agenda (2015). *Shared Design Elements and Emerging Practices of Competency-Based Education Programs*.
- liv** Public Agenda (2015). *A Research Brief on the Survey of the Shared Design Elements & Emerging Practices of Competency-Based Education Programs*.
- lv** Council of Regional Accrediting Commissions. (2015). *Statement of the Council of Regional Accrediting Commissions (C-RAC) Framework for Competency-Based Education*. Accessed December 8, 2015, at https://www.insidehighered.com/sites/default/server_files/files/C-RAC%20CBE%20Statement%20Press%20Release%206_2.pdf.
- lvi** Public Agenda (2015). *A Research Brief on the Survey of the Shared Design Elements & Emerging Practices of Competency-Based Education Programs*.
- lvii** Kirst, M.W., and Stevens, M.L., ed. (2015) *Remaking College: The Changing Ecology of Higher Education*. Stanford University Press.
- lviii** Krauss, S. (forthcoming). *Competency-Based Education: A Possible Pathway for Equity*. A report for Lumina Foundation.
- lix** Public Agenda (2015). *A Research Brief on the Survey of the Shared Design Elements & Emerging Practices of Competency-Based Education Programs*.
- lx** Kirst, M.W., and Stevens, M.L., ed. (2015) *Remaking College: The Changing Ecology of Higher Education*. Stanford University Press.
- lxi** Carey, K. (2015). *The End of College: Creating the Future of Learning and the University of Everywhere*. Riverhead Books.
- lxii** The Association of American Colleges & Universities (AACU), the American Council on Education (ACE), the Competency-Based Education Network (C-BEN) and EDUCAUSE are project sponsors. The Council for Adult and Experiential Learning (CAEL) and Quality Matters are project thought partners. Western Governor's University contributed to the project by allowing the research team to conduct interviews and focus groups at the 2015 CBE4CC in Denver.



THE COMPETENCY-BASED EDUCATION

Ecosystem Framework

The Competency-Based Education Ecosystem Framework

A report from Public Agenda with support from the Bill & Melinda Gates Foundation and Lumina Foundation.

Copyright © 2015 Public Agenda.

Available online at www.cbenetwork.org.