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HOW COMPETENCY- BASED EDUCATION MAY HELP REDUCE OUR NATION'S TOUGHEST INEQUITIES

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Who Gets Ahead in Life

Education and economic advancement are key aspects of being able to support our families, enjoy our jobs, feel challenged and connected at work, and live with a sense of personal well-being and security. A college education — and the added wealth and options it typically affords — is assumed for our nation's most privileged and pedigreed, but it can be a pipe dream for the many millions in our country who live in poverty and are underserved and underrepresented.

In the United States, persistent education gaps and economic inequity prevent many from living the kind of lives they want or need. Lack of opportunity and skills keep many stuck in a cycle of disadvantage and despair. People become trapped in low-wage jobs with long hours and face the uncertainty and stress that come from being among our nation's working poor.¹

Competency-based education (CBE) is a rapidly growing movement of postsecondary and K-12 programs that allow learners to move ahead based on what they know and can do, rather than time spent in class. At the postsecondary level, CBE could be a pathway that helps many thousands of learners move from poverty to prosperity.

About this Paper

This paper considers how CBE can be used to educate, equip, and empower learners who struggle in postsecondary learning programs because of who they are and where they live. Recommended starting points — places and programs — are provided throughout the paper to highlight where and how CBE providers can prioritize equity.

The first section identifies three learner populations for CBE programs to prioritize: learners of color, adult learners who are unemployed or underemployed, and adult learners with some postsecondary education but no credential. The second section details the types of programs CBE providers should offer, and the final section suggests some occupations and industries for which CBE programs should prepare their graduates.

Solving historic, persistent inequities does not start or end with the use of CBE. With this understanding, this paper seeks practical ways for educational providers and employers to use CBE as one strategy for supporting and mobilizing our most underserved postsecondary learners. If CBE keeps expanding without planning to intentionally support and serve the most underserved learners, then this increasingly popular form of postsecondary education could unintentionally worsen our nation's toughest inequities, rather than reducing or eliminating them.²

Four Persistent Equity Gaps Competency-Based Education Could Help Reduce

Achievement Gap

The achievement gap is the difference in learners' academic standing—often connected to race, class, and/or gender. Differences in academic achievement occur for many reasons. In high school, learners of color tend to perform worse than their white classmates on standardized tests. In 2016, the ACT Foundation's annual report on college readiness in the United States reported that roughly half of white high school learners show strong college readiness, while only one in five Hispanic learners and less than one in eight African-American learners perform similarly. This achievement gap persists in college. According to Richard Arum and Josipa Roksa in *Academically Adrift: Limited Learning on College Campuses*, African-American, Hispanic, and American Indian learners are most likely to start college before they are ready and leave before completion.

Attainment Gap

Closely related to the achievement gap is the attainment gap. This is the difference between those who earn a postsecondary credential and those who leave without completing. In July 2014, the National Student Clearinghouse Research Center reported that more than 31 million adults in the United States lack a college credential, but do have some college credit. In May 2014, the *New York Times* published a widely circulated article, "Who Gets to Graduate?" It reported that 40 percent of learners who start college have not graduated within six years, and those who graduate on time tend to come from wealthier backgrounds than those who do not. Boys and men of color are the worst hit. According to Shaun Harper's *Black Male Student Success in Higher Education*, less than half of boys and men of color graduate high school; of those who make it to college — and they are few, representing less than 5 percent of all college learners — two out of three will fail to finish.

Opportunity Gap

The opportunity gap is the difference in the quality and quantity of opportunities and supports available to learners, often because of who they are or where they live. In *Our Kids: The American Dream in Crisis*, Professor Robert Putnam describes the gap this way: "There's no denying that rich and poor kids in this country attend vastly different schools nowadays, which seems hard to square with the notion that schools are innocent bystanders in the growing youth class gap." According to Putnam, opportunity gaps in childhood have serious consequences in adulthood. If opportunities are limited and resources scarce, learners will struggle to achieve academically and acquire the skills they need.

Skills Gap

The skills gap is the difference between what individuals can do and the skills they need for a role or responsibility, oftentimes in the workplace. A 2014 Gallup poll commissioned by Lumina indicated that many business leaders believe recent college graduates are unprepared

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for the workforce. Of those surveyed, more than one-third thought recent college graduates lacked the competencies that companies needed. That same year, another Gallup poll surveyed chief academic officers. The results stood in stark contrast to the survey of business leaders: In this poll, Gallup found 96 percent of chief academic officers believed their recent graduates were ready for work.

Skills gaps could be on the rise. In a Deloitte study titled *The Lifetime Learner: A Journey through the Future of Postsecondary Education*, author John Hagel III predicted that, by 2020, the skills we use at work will have a five-year shelf life. This shelf life will fall as the number of new jobs rises. The sheer speed of change is hard to keep up with. The Association of American Colleges & Universities (AAC&U) reports in *College Learning for the New Global Century* that adults in the United States change jobs about 10 times between the ages of 18 and 40. Job transience, coupled with the rapid changes in skills and professions, makes the skills gap an increasingly urgent problem to address.

Using CBE as a Pathway to Economic Advancement

In June 2014, Lumina Foundation issued its Equity Imperative, offering principles for equity and excellence in postsecondary education. In the imperative, excellence is described as “clear, flexible and transparent pathways for learners in their pursuit of postsecondary credentials.” An excellent postsecondary education should count competencies rather than time, align to the needs of today’s workforce, and be affordable and accessible for all. An equitable education is a postsecondary experience that eliminates “disparities in educational outcomes of students from historically underserved and underrepresented populations.”³

CBE has the potential to be equitable and excellent. Former U.S. Department of Education Undersecretary Ted Mitchell has called CBE “the single-most important innovation in higher education.”⁴ CBE programs are on the rise. In 2012, there were 20 documented CBE programs in the United States. Today there are more than 500.⁵ CBE programs are being designed and launched all across the country. Education providers can capitalize on this interest and enthusiasm by using CBE as a real-time strategy for meeting the ever-growing needs of their most underserved and hard-to-reach learners.

In CBE programs, learners advance based on what they know and can do, rather than time spent in class. With a more flexible structure, CBE programs offer learners high levels of customization. This is most important for those who juggle school along with work and family. Flexible learning pathways are often the only real option for working adults, especially those who take care of children or other family members.

CBE is not a prescriptive model, so CBE programs are diverse. Essentially, CBE programs focus on what a person knows and is able to do. Shared design elements have emerged in most programs:

- Learning is the constant, while time and place are the flexible and supporting elements.
- Instructors drive instructional design and delivery, engage with external stakeholders (such as employers), support program fidelity, and make sure programs align to real-world needs.
- Teaching, learning, and assessment focus on competencies that are essential for particular fields of work or study.
- The program is learner-centered, offering flexible scheduling, customization, coaching, and navigational supports.
- Learners move ahead when they are ready, which often leads to accelerated program completion.⁶

At its best, CBE offers learners clear and transparent credentialing pathways within a flexible and personalized format. Research shows this as an important predictor of academic success.⁷ Learning opportunities are designed around meaningful and measurable competencies and assessments, and ideally there is strong alignment between the program and the real-time needs of employers. By making competence a necessary component of completion, learners engage in deeper learning and graduate prepared for future education or employment opportunities. At scale, this type of teaching and learning could help close equity gaps while raising college completion rates and improving graduates' lifetime outcomes and earnings. To reach their potential, CBE programs must link directly to career pathways that promote graduates' social and economic stability and advancement. CBE programs should always lead to credentials of value.

To help these programs realize their potential, a new membership organization — the Competency-Based Education Network (C-BEN) — was formed in 2013. The network, which reflects growing interest in CBE nationally, includes colleges and universities that offer or are creating CBE programs. This network of innovators has helped establish the parameters that define a high-quality CBE program.

In September 2017, C-BEN released a quality framework and rubrics that can help institutions design and assess CBE programs. Also, the American Institutes for Research have provided resources that can aid in evaluating student outcomes. Those resources are available online at: <http://www.air.org/resource/getting-started-evaluation-making-case-competency-based-education>

Three Learner Populations that CBE Programs Should Prioritize

If CBE programs want to directly address persistent education inequities, they should prioritize and accommodate learners of color, the unemployed and underemployed, and adults with some postsecondary education but no credential. CBE's flexibility and personalization might be a better fit for many of these learners, especially since so many must balance school with work, family and other responsibilities. By attending a CBE program that offers real-time, relevant, and rigorous content, these learners could find a practical pathway to upward mobility.

Underserved Learners of Color

The United States' postsecondary education landscape historically and systematically disadvantages black and brown learners.⁸ The academic success and economic well-being of learners of color is

critical to our nation's success and should be a top priority for all postsecondary education providers, including CBE programs.⁹ While it is too early to know if CBE is a different enough approach to resolve the long-standing systemic barriers these learners face, the shared characteristics of these programs make it promising.¹⁰

Education providers should deliberately plan and launch CBE programs where the most underserved learners of color — African-American, Hispanic, and American Indian learners — already apply and attend. It is imperative these CBE programs be culturally responsive, high-quality, learner-centered, and competency-driven, and that they lead to credentials of value.^{11, 12} Additionally, these programs should be responsive to learners' service and support needs, going beyond low-touch navigation and advising. At a minimum, these programs should include pre-program socialization and readiness supports, program achievement and persistence supports, and post-graduation transition and placement supports.¹³

To reach more learners of color, CBE programs should grow their offerings at community and technical colleges, at broad-access postsecondary institutions in the South, and within reasonable driving distance of tribal communities. This is doable because, right now, public postsecondary institutions account for most known and surveyed CBE programs, with roughly half residing on community college campuses.¹⁴

Across the nation, African-American learners overwhelmingly enroll at their nearby community colleges or for-profit universities.¹⁵ Hispanic learners also stay close to home, attending state schools and community colleges, primarily in the South.^{16, 17} American Indians — making up less than 1 percent of the United States' college population — join their African-American and Hispanic peers by attending

Historically Underserved Learners of Color	
What supports must be included in CBE programs to best serve and support these learners?	<ul style="list-style-type: none"> • Pre-CBE program socialization and readiness supports • Programmatic and financial support for achievement and persistence • Academic, navigational and career coaching • Postgraduate transition and placement support
Where do most African-American learners seek a postsecondary education?	<ul style="list-style-type: none"> • Community colleges • Public colleges and universities • Historically black colleges and universities • For-profit institutions
Where do most Hispanic learners go to college?	<ul style="list-style-type: none"> • Community colleges in the South
Where do most American Indian learners go to college?	<ul style="list-style-type: none"> • Tribal colleges • Broad-access public colleges and universities in California, Oklahoma, Arizona, Texas, New Mexico, Washington, New York, North Carolina, Florida, Alaska, and Hawaii
What are some CBE programs in the U.S. that have a majority minority student body?	<ul style="list-style-type: none"> • Central New Mexico Community College • Los Angeles Trade-Technical College • Rio Salado College

colleges close to home.¹⁸ The U.S. Census Bureau reports that states with the largest American Indian populations are California, Oklahoma, Arizona, Texas, New Mexico, Washington, New York, North Carolina, Florida, Alaska, and Hawaii.

Unemployed and Underemployed Adults

By recent counts, there are more than 7 million unemployed adults in the United States.¹⁹ An additional 5 million are considered “underemployed,” often having high-level skills while working low-wage jobs.²⁰ Postsecondary credentials are crucial currency for the unemployed and underemployed. By 2020, two out of every three jobs in the United States will require a postsecondary credential, many at least a bachelor’s degree. Even many recent college graduates have difficulty finding work. Many graduate but fail to get hired. Some of those graduates go back to college, others seek job training from places like community-based organizations, while others go after a professional certificate.^{21, 22}

CBE programs offer a way for the underemployed and unemployed to gain new skills and get the credentials they need, often in less time and for less money than traditional degree programs.²³ To best meet the needs of these learners, CBE programs must be affordable and accessible. That is, they must ensure high degrees of flexibility — including when learners can start or stop, and how many times they can do that — and offer immediate connection to the workforce.²⁴ With much at stake and few resources to spare, underemployed and unemployed adults can only afford to attend programs that will provide an immediate return on investment. This group’s urgent employment needs make occupationally focused CBE programs especially critical.

Unemployed and Underemployed Adults	
What supports must be included in CBE programs to best serve and support these learners?	<ul style="list-style-type: none"> • Flexibility in when and where learning takes place, for online and in-person offerings • Trade and occupation specific programs, especially in high-growth or high-demand fields • Programmatic and financial support for achievement and persistence • Academic, navigational and career coaching • Postgraduate transition and job placement supports
Where do most underemployed and unemployed adults seek a postsecondary education?	<ul style="list-style-type: none"> • Community colleges • Community workforce training programs • Technical and vocational colleges • Professional and evening programs within comprehensive colleges
Which states have the highest numbers of underemployed and unemployed adults? ²⁵	<ul style="list-style-type: none"> • Southern States: Alabama, Kentucky, Louisiana, Mississippi, Tennessee • Pacific States: Alaska, California, Hawaii, Oregon, Washington • Others: Arizona, Nevada, New Mexico, Washington, D.C., West Virginia
What are some CBE programs, in the U.S., that enroll large numbers of underemployed and unemployed learners?	<ul style="list-style-type: none"> • Broward College • Los Angeles Trade-Technical College • Salt Lake Community College • Sinclair Community College • Thomas Edison State College • Western Governors University

Adults with Some College, No Credential

According to the National Student Clearinghouse, more than 30 million adults in the United States have some college experience but no credential. Many are people of color and are underemployed or unemployed. About one-third of these 30 million attended college for more than a year and at more than one place. Most have finished at least two years of college.²⁶ The National Student Clearinghouse calls these individuals, respectively, multiple-term enrollees and potential completers.

Recruiting adults into CBE programs could improve education providers' equity efforts and help them hit attainment targets. Not only do these adults need programs that recognize their prior learning and count their previous academic credits, but they are close to completion and need institutions to get them across the finish line. CBE programs serving this group should make their programs relevant and connect them to the real-time needs of the workforce. Programs should prioritize flexibility, recognition of prior learning, and teaching and learning opportunities that happen anywhere and anytime.²⁷

Adults with Some College, No Degree	
What supports must be included in CBE programs to best serve and support these learners?	<ul style="list-style-type: none"> • Flexibility in when and where learning takes place, including online or in-person offerings • College achievement and persistence supports, both programmatic and financial • Prior learning assessments • Ways of validating and providing credit for learning that happens outside of the CBE program
What subgroups should CBE programs prioritize?	<ul style="list-style-type: none"> • Multiple-term enrollees — those who were enrolled across multiple years and/or institutions • Potential completers — those who have completed at least two years of college
Which states have the highest numbers of adults who have some college but no degree? ²⁸	<ul style="list-style-type: none"> • Alabama • Arkansas • Idaho • Louisiana • Mississippi • Nevada • New Mexico • Oklahoma • Texas • West Virginia
What are CBE programs, in the U.S., that serve large numbers of adults who have some college education but no degree?	<ul style="list-style-type: none"> • Brandman University • Capella University • Thomas Edison State University • School for New Learning—DePaul University • Kentucky Community & Technical College system

Four Priority Programs for CBE Providers

CBE providers should consider reaching learners of color, the underemployed, the unemployed, and returning adults through four learning pathways: certificate and degree programs, emergent credentials (e.g., badges and microcredentials), general education courses, and college access programming. By offering competency-based programs in a range of settings, education providers can significantly increase success rates among our nation's most underserved postsecondary learners. And the payoff is even higher when employers recognize and reward these credentials on the job, affirming the importance of lifelong learning and skills development.

Certificate and Degree Programs

Credentials are the currency that Americans use to purchase their place in the labor market and society.²⁹ A prime way for competency-based education to reduce inequities is for CBE providers to offer recognized and accredited credentials at the institutions that already serve the three priority groups of learners. These are public colleges and universities, community colleges, and for-profit universities.³⁰

CBE Certificate and Degree Programs at Broad-Access Schools

COMMUNITY COLLEGES

CBE is a natural fit for community colleges. CBE is versatile and can lead to a wide range of credentials, including degrees, professional certificates, occupational licenses, and industry certifications.³¹ Many popular community college programs—such as nursing and automotive mechanics—have used competencies or competency frameworks for years.³² Community colleges often offer many of the supports that underserved learners need to complete their credentials. Community colleges educate more underserved and underrepresented learners than any other postsecondary learning environment. Of particular importance is community colleges' history of partnering with employers to align learning and jobs. Unfortunately, community colleges grapple with chronically low persistence and graduation rates.³³ CBE could be an effective strategy for recruiting more learners, retaining those already enrolled, and increasing the numbers who persist and graduate ready for the workforce.

In recent years, the U.S. Department of Labor and Western Governors University provided technical assistance and other capacity-building supports to a number of community colleges to launch CBE programs on their campuses. See www.cbeinfo.org for more information.

PUBLIC COLLEGES AND UNIVERSITIES

CBE programs offer public colleges and universities a quality credentialing pathway for many new enrollees. Today's college entrant is more likely to be a 30-something working parent than an 18-year-old recent high school graduate.³⁴ As the profile of today's college learner evolves, so does the job market. By 2020, 35 percent of jobs in the United States will require at least a bachelor's degree.³⁵ This has led to a boom in new college majors and degree programs.³⁶ The proliferation of credentials within an increasingly chaotic and confusing credentialing marketplace threatens the quality and reliability of college degrees.³⁷ CBE could give public institutions a chance to better serve today's college learners, while addressing age-old issues of credential quality. As previously mentioned, the Competency-Based Education Network (C-BEN) is a network of institutions, many of them public postsecondary institutions, that provide CBE programs across the United States. C-BEN also provides training services to institutions that seek to build and scale high-quality programs.

FOR-PROFIT UNIVERSITIES

Many students at for-profit institutions are learners of color, underemployed, unemployed, or have some college background but no credential. In fact, for-profits are the college of choice for many underserved learners, especially African-Americans. Historically, attending a for-profit has come with certain risks. There are some employers who see for-profit credentials as less credible. Additionally, many for-profit graduates—especially those from low-income backgrounds — often graduate or leave with more debt than they can handle.³⁸

CBE might be a better way for for-profit universities to serve their students. There is alignment between CBE design elements and the customer-centered, flexible design of many for-profits. CBE programs can offer stronger assurance that graduates are work-ready. Over time, this might improve employers' view of for-profit credentials. Additionally, CBE could be a way for for-profits to expand and enhance their occupational offerings; this is good business because learners in for-profit occupational programs fare best among their peers.³⁹ C-BEN also provides support to for-profit universities seeking to build and scale programs.

New Forms of Credentials

New forms of credentials, such as microcredentials and digital badges, are on the rise. These credentials typically certify or qualify someone for a role, skill set, specific knowledge base, program (e.g., software design), or process (e.g., a certifiable business method). Like the badges that a Boy or Girl Scout earns, a microcredential or digital badge is meant to signal proficiency in a particular area, usually one that is less broad than a college degree. In this case, the “sleeve” or “sash” of badges or microcredentials offers more detail than a resume, often in a digital portfolio that provides evidence of someone's specific proficiency and training.

Almost anyone can offer a microcredential or badge. This comes with risks and advantages. The risk is that these credentials are new and not yet regulated, lacking quality controls. Emergent credentials are just getting established and becoming recognized in the marketplace. Without accreditation or an overarching certifying body, these credentials vary widely—even more so than traditional degrees or certificates. This risk could be mitigated by CBE if microcredentials or badges were organized by competency and aligned to nationally normed or industry-recognized competency clusters or frameworks.

Microcredentials and badges may be an effective pathway for underserved learners to reach short-term goals, such as becoming qualified for a particular job or closing a skills gap. For instance, an employee might seek a certificate or badge to qualify or compete for a promotion at work. In general, these new and smaller forms of credentials can be created, adjusted, or disposed of with less effort and fewer rules than traditional degrees. Given the rapid changes in the workforce and in the skill sets needed for particular jobs, this kind of flexibility has a real advantage in the credentialing marketplace of the future.⁴⁰

Competency-based microcredentials and badges can be used alongside existing credentials. Many adults lack particular competencies, regardless of any credential they may have earned. Emergent credentialing providers can use their credentials to specifically address those gaps. For some underserved learners, earning microcredentials and badges could be a way to reduce time in developmental education and begin a two- or four-year program when ready. For underemployed or unemployed adults, microcredentialing is a way to quickly upskill or over-skill in specific areas without having to start a degree program. For adults with some college but no degree, new forms of credentials serve as a college “closer,” bridging the gap between the credits they have and the credential they are seeking.

General Education Courses

Designing or retooling a CBE program gives postsecondary institutions the opportunity to use a number of quality learning outcomes frameworks, such as the Degree Qualifications Profile and Beta Credentials framework, as a way to ensure that students develop critical employability and learning-to-learn skills.⁴¹ Several leading frameworks set the stage for this type of work. (See accompanying story.)

The first step for applying CBE in general education is to use any one — or a combination — of these aligned frameworks. From an equity perspective, this ensures that learning and credits acquired from one educational provider transfer to another. This would be hugely helpful for those *multiple-term enrollees* who, according to the National Student Clearinghouse, go to more than one institution without earning a credential. This would help to prepare learners for today's workplace because the frameworks integrate core employability skills. A great model for multi-institutional partnership for transfer and articulation is the Western Interstate Commission for Higher Education "Passport" program.⁴²

College Access and Success Programming

Those who struggle the most in college often graduate high school without critical competencies and supports.⁴³ Among the most underrepresented and underserved, even those who are ready for college often fail to finish. Only one-third of learners who start college earn a credential.⁴⁴ For CBE to address systemic "education pipeline" inequities — by helping to close equity gaps — it must become part of the various on-ramps that underserved learners use to gain access to education beyond high school, and to advance into good jobs and careers.

CBE is a promising strategy for high school learners, especially those who are overage and under-credited.⁴⁵ Many providers view CBE as a better way for these learners to develop the competencies they most need for college and adulthood, before aging out of our public secondary school system.⁴⁶

There are four pathways our underserved learners tend to take to college that might benefit from being competency-based: early- and middle-college programs, dual-enrollment programs,

Useful Competency Frameworks for Developing High-Quality Programs

Lumina Foundation's [Degree Qualifications Profile \(DQP\)](#) is a widely recognized, learner-centered academic framework that describes what learners need to know and be able to do at the associate, bachelor's, and master's degree levels, regardless of field or specialization.

AAC&U's [Essential Learning Outcomes](#) is a set of outcomes that educators and employers agree represent the most important knowledge and skills for today's college graduates. The Essential Learning Outcomes were crafted by LEAP, an initiative of AAC&U, which believes these outcomes are best achieved in the context of a quality liberal arts education.

Connecting Credentials' [Beta Credentials Framework](#) is a competency-based tool aimed at finding common reference points and alignment between various degrees, certificates, industry certifications, licenses, apprenticeships, badges, and other newer forms of credentials.

By organizing learning around frameworks like these three, colleges are primed to plan with cross-cutting and measurable competencies in mind, which has value on both the supply and demand sides of education and employment. From here, the CBE approach becomes a structured and relevant way to design and deliver general education. Other useful frameworks include those developed by industries, such as the National Network for Business and Industry Association's Employability Skills Framework.

developmental education, and workforce training programs.⁴⁷

Early-College, Middle-College, and Dual-Enrollment Programs

Early and middle colleges are programs where high school learners go to school on or near a college campus and pursue both high school and college credit. Early-college schools are designed so that high school learners can graduate with both a high school diploma and a college credential (typically an associate degree) in four to five years. In a middle college, high schools are co-located on a college campus (usually a community college), and learners graduate high school with a diploma and some college credit. Many middle colleges are also early colleges and vice versa. Early and middle colleges generally serve learners of color and/or those who have a low income.⁴⁸

Dual-enrollment programs enable high school learners to take college courses while in high school. Courses are taught by college faculty or appropriately certified high school teachers. Dual enrollment can be offered on high school or college campuses or online. Arrangements are local ones — agreements between an area high school and college or university.

For early- and middle-college schools and dual-enrollment programs, CBE could help college and high school partners design more seamless and stackable programs that satisfy high school graduation requirements, align to college credentialing pathways, and ensure that learners develop college- and work-readiness competencies.

CBE could help move these college access/success programs from content mapping to competency mapping. Because these programs are local arrangements, the high school and college could work jointly to design curricula and programs, including competency alignment, shared learner support services, and joint funding models.

Developmental Education

Developmental education — sometimes called remedial education — comprises noncredit college courses for learners who lack the requisite knowledge or skills to succeed in credit-bearing college courses. More than half of college learners take developmental education courses. Some take courses over one or more semesters, spending down their valuable financial aid. Graduation prospects for these learners are typically poor. At the community college level, less than one-quarter of learners in developmental education go on to graduate. CBE could meet the urgent need to improve the quality

Could CBE Perpetuate Inequities?

In 2014, Jobs for the Future published [*Equity in Competency Education: Realizing the Potential, Overcoming the Obstacles*](#). This report explores equity issues that could arise from CBE in high school settings. The authors found that, although equity is often a priority of CBE providers, it can inadvertently perpetuate inequities.

CBE must better serve students who have crucial “learning to learn” skills and habits. These skills and habits — such as organization and planning, or self-regulation — help learners focus and stay on track, even in unstructured or autonomous settings.

CBE programs — especially in the postsecondary context — often presume that learners start out with these competencies. Someone who lacks these baseline proficiencies could struggle to stay and succeed in a CBE program. The unprepared would likely be those who are already underserved and under-represented.

and outcomes of developmental education by shifting the focus away from content and toward competencies.⁴⁹ Learners could use developmental classes as a “base camp” of sorts — working on the knowledge, skills, and habits needed for college persistence; success in core academic areas; and lifelong learning. If other CBE elements — such as learner-centered programming or measurable and meaningful assessments — are built in, CBE could infuse developmental education with more depth, relevance, and rigor.⁵⁰ This could be done easily by using a co-requisite remediation model, which enables learners to receive developmental supports while they take college courses for credit.⁵¹

Workforce Training Programs

Workforce training programs are traditionally time-bound courses or programs offered at community colleges, vocational and technical colleges, employment training centers, community-based organizations, and other local workforce investment sites. Program participants work toward a specific technical certification or completion certificate. Most workforce training program participants are learners of color, underemployed, unemployed, and/or adults with some college but no credential.

These programs often focus on technical industries and trades. CBE is a natural fit, because many of these occupations have competency requirements for new entrants. By making these programs competency-based, learners could participate in a higher-quality educational experience, leading to enhanced proficiency at graduation, stronger education-employer partnerships, and better career pathways.

College Programs	
Certificate and degree programs	Accredited and credential-bearing CBE programs should be offered at broad-access schools — community colleges, comprehensive public universities, and for-profits — that serve high numbers of underserved learners. At community colleges, CBE could be a way to address persistently low graduation rates. ⁵² At public colleges and universities, CBE could be a way to offer quality alternative credentialing pathways for the new modal learner (older and working). ⁵³ At for-profits, CBE could be a strategy for improving outcomes as it is naturally aligned to a customer-centered and flexible design, with enhanced learner engagement, program quality, and return on investment.
New forms of credentials	New forms of credentials include microcredentials and digital badges. CBE can be used to ensure that microcredentials or badges map to competencies and align to nationally normed or industry-recognized skill lists or competency frameworks.
General education	CBE, as both an approach and philosophy, can be infused into a college’s general education programming. CBE can ensure all learners develop critical 21st century competencies and employability skills. Three leading frameworks set the stage for this infusion: Lumina Foundation’s <i>Degree Qualifications Profile</i> , the AAC&U’s <i>Essential Learning Outcomes</i> , and <i>Connecting Credentials’ Beta Credentialing Framework</i> .

Chart continued on Page 14

College Programs	
College access and success programming	<p>Four pathways to college are common on-ramps for underserved learners — each of which could benefit from being competency-based: early- and middle-college programs, dual-enrollment programs, developmental education courses, and workforce training programs.⁵⁴</p> <p>For early- and middle-college schools, as well as dual-enrollment programs, CBE could help college and high school partners design more seamless and competency-driven program sequences that satisfy high school graduation requirements, align to college courses, and ensure that learners gain the competencies that support college readiness and success.</p> <p>CBE could help developmental education focus on critical competence over content or passing placement exams. Developmental education programs could map directly to the competencies linked to college persistence, success in core academic areas, and lifelong learning.</p> <p>CBE could strengthen and further professionalize many workforce training programs. Many of these programs focus on occupations that already require and assess competencies of new entrants. CBE could bolster learning quality and better ensure the proficiency of graduates and their market value.</p>

Priority Program Types for CBE Providers

For CBE to make substantial and sustained headway in reducing inequities, it isn't enough to offer quality CBE programs. These programs also must link directly to career pathways that promote graduates' social and economic stability and advancement. CBE programs should lead to credentials of value in high-growth and high-need occupations. CBE programs need to go beyond recruiting underserved learners and produce proficient and prepared graduates who build, strengthen, and protect communities.

CBE Programs for Frontline Community Workers

Inequity does not start or end with postsecondary education. Those who attend college connect to a lifetime of environments, relationships, and experiences that either subject them to, or protect them from, everyday struggles that can lead to long-lasting inequities.⁵⁵ CBE gives education providers a way to support and grow a state's or community's talent pool for frontline community work. This includes professionals who revitalize and stabilize neighborhoods, as well as those who educate and care for community members. CBE could make huge strides at leveling the playing field that begins at birth, ensuring that, no matter where someone lives, that person can benefit from competent caretakers and community leaders, and eventually enroll in a credentialing program to develop his or her own competencies for an impactful role in the community. In this way, CBE can serve as a multigenerational approach that equips graduates and deploys them into positions that support and equip the next generation.

CBE Programs in High-Growth Sectors

To produce graduates who can compete and grow our economy, CBE programs must offer credentials in high-demand and high-growth fields⁵⁶ and anticipate skills that will be needed for the future of work. CBE's design allows for programs to respond to field and industry needs, as well as economic or societal changes. Broadly speaking, CBE can help give workers a foundation of employability skills that are portable across industries and over time. More specifically, CBE providers might consider programs in national high-growth fields, such as *business services, finance, health care, and education*, as well as high-growth areas that differ by state or region, such as *advanced manufacturing, automotive technology, biotechnology, construction, geospatial data, hospitality, information technology, and retail*.⁵⁷

CBE Programs in High-Need Industries

As the baby boomers retire, large numbers of older adults are leaving jobs that need to be filled.⁵⁸ CBE programs can educate and prepare learners for these high-need roles in industries including *production, food prep and service, teaching, and management*. Again, programs will need to be flexible, and they must encourage learners to continue to adapt and grow their skills as industries evolve. Many of these fields intentionally seek diverse employees to reflect the customers and communities they serve, and to provide particular opportunities for underrepresented groups.

Priority Program Types for CBE Providers	
Frontline Workers	<p>Neighborhood Revitalizers Economists, community developers, housing developers, construction workers, bankers</p> <p>Educators Early-childhood workers, teachers, youth workers, job trainers</p> <p>Medical and Mental Health Professionals Medical practitioners including doctors, nurses, dentists; mental health professionals including counselors, social workers, caseworkers, psychologists, psychiatrists</p>
High-Growth Fields	<ul style="list-style-type: none"> • Business services • Finance • Health care • Education • Advanced manufacturing • Automotive • Biotechnology • Construction • Geospatial • Hospitality • Information technology • Retail ⁵⁹
High-Need Fields	<ul style="list-style-type: none"> • Production • Food prep and service • Teaching • Management

CBE for Education and Economic Advancement

CBE is growing and becoming more popular at a time when the stakes have never been higher. Our country is rebuilding after the Great Recession, diversifying and bracing as baby boomers age and retire and the world becomes smaller and more interconnected. Postsecondary programs are forced to respond to today's changing learner as well as the rapidly evolving world of work. Meanwhile, equity gaps — in achievement, attainment, opportunities, and skills — persist. For the nation to increase the number of Americans with high-quality credentials, we must leverage the national excitement about CBE and direct it toward intentional planning of CBE programs that prepare a workforce for the future and provide pathways to equity and prosperity.⁶⁰

Moving Forward

Prioritize the South

Southern states have a disproportionate number of learners of color, the underemployed and unemployed, and adults with some college but no credential.

Prioritize Broad-Access Schools

Community colleges, public colleges and universities, and for-profit colleges are most likely to serve underserved learners, and to already offer credentials in high-growth and high-need areas. New forms of credentials hold great promise, but the initial priority of CBE providers should be to transform or construct certificate and degree programs around CBE's shared design elements.⁶¹

Prioritize Fields that are in High Demand and Build Communities

More CBE providers should offer credentials in education, finance, community development, and health care. These fields have the potential for maximum impact in reducing persistent inequities. We need proficient and prepared professionals in these fields, especially in our most underserved communities.

Engage Federal Policymakers

Federal policymakers should establish equity as an absolute priority for [Experimental Sites](#), [First in the World grants](#), and [direct assessment](#). Colleges and universities offering CBE programs should be required to serve a certain percentage of underserved and historically underrepresented learners. CBE should become an acceptable aspect of federally funded college access and persistence programs, such as Trio and Upward Bound. The U.S. Department of Education should consider experimental sites that focus exclusively on high-growth and high-need industries at institutions serving large numbers of learners of color, the underemployed or unemployed, or returning adults. Federal policymakers should also ensure that any policy changes to Title IV support low-income learners' ability to attend and finish CBE programs.

Engage State Policymakers

State policymakers should establish innovation funds for broad-access institutions to design CBE programs that support and serve learners of color, the underemployed or unemployed, and adults with some college but no credential. States should adjust or establish state-based scholarships to help these learners afford and attend CBE programs. State policymakers should provide flexibility and funding to CBE dual-enrollment programs.

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