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POSTSECONDARY CBE: A PRIMER FOR POLICYMAKERS

Competency-Based Education (CBE) Can Reduce Time and Cost Constraints for Learners Associated with Traditional Learning Models

Learners Need:

More Flexibility, in Terms of Where and When Learning Happens: 56% of surveyed learners ranked flexible schedule among the top five factors for increasing probability of enrollment (Strada, 2022).

Lower Cost Options for Going to College: The average annual tuition at a four-year in-state public college was \$10,423 for the 2022-23 academic year, according to U.S. News and World Report (Kerr et al., 2022). Some students pay far more, however, with the average cost of four-year private college being \$39,723 (Kerr et al., 2022).

Better Outcomes: According to the National Center for Education Statistics (NCES), only 62% of all U.S. students who enrolled in Fall of 2012 at a 4-year institution earned a bachelor's degree within six years (NCES, 2020). For those seeking an associate's degree or certificate, only 33% of all U.S. students who enrolled at a 2-year institution in Fall of 2015 completed within three years (NCES, 2020).

CBE Unlocks the Potential for:

On-Demand, Flexibly Paced Programs: CBE programs can be flexibly paced¹ and on-demand. CBE can offer learners the opportunity to complete competencies and learning modules when coursework and requirements fit into their schedules. This means learners can move more quickly through content that is more familiar, and take more time on concepts that they find challenging to master.

Costs Can Be Reduced Through Credit for Prior Learning, 'All-You-Can-Take' Subscriptions: CBE programs can cost students less, with one recent study showing the average cost being between \$5,000 and \$6,000 annually as of 2016 (Desrochers et al., 2016). Learners also often save on cost by leveraging credit for prior learning (CPL) to capture previous learning that can count towards competency attainment. CBE also supports accelerated learning through 'all-you-can-take' subscription pricing models.²

Potential for Higher Than Average Graduation Rates: Completion rates were consistently higher (ranging between 2%-10% higher) than comparison groups, in a study of 6 CBE programs (AIR, 2016). Other examples:

- Texas A&M University: 20% higher 2-year graduation rate for CBE than the same degree in a traditional format (C-BEN, 2022).
- Salt Lake Community College's CBE programs showed increased odds of program completion at 44.7% over the baseline (C-BEN, 2022).
- Sinclair Community College's CBE student credential rates are 15% higher than traditional students across all CBE programs (C-BEN, 2022).
- The Duet-Sothorn New Hampshire University program's graduation rate was higher (46%) than students enrolled in traditional associate degree programs in Massachusetts (20%) (Gabrieli et. al, 2021).

¹CBE programs are flexibly paced in terms of the learner's engagement in a term, but not flexibly paced when it comes to minimum progress standards required for CBE students to maintain financial aid, institutional academic standards, etc.

²While CBE has the potential to help provide cost savings to learners, costs ultimately depend on the individual learner's pace, previous credits, and the specific CBE program in which they are enrolled.

What is CBE?

Measuring Skills, Capabilities, and Knowledge (Not ‘Seat Time’)

CBE is a learning modality that tests what learners can do with what they know, with progress occurring through a demonstration of knowledge typically at a learner’s own pace. By comparison, traditional learning modalities measure units of time spent on courses via the credit hour. CBE advocates agree that knowledge is a key input to being able to do a task or obtain a skill but believe measures of performance (i.e., the competency) should be the standard indicator of learning as opposed to ‘seat time,’ which is the unit of measure in traditional models and the basis of the credit hour. For example, a new teacher may be able to explain best teaching practices for reading in early childhood education (i.e., knowledge), but can they help a student attain grade-level reading skills (i.e., competency, or an “explicit, measurable, transferable learning objective that empowers students” (Pace et. al, 2015.))?

How Does CBE Work?

Time Is Not a Measure of Learning: Accelerated Learning Demonstrated Through Mastery of Competencies (And Not ‘Seat Time’)

The competency-based learning process is simple: learners demonstrate mastery of competencies not by sitting through classes and exams, but rather by completing real-world projects often with the support of faculty reviewers, a community of peers, learning resources, and rigorous project evaluation and feedback (Porter, 2014). Because CBE assesses learner mastery of competencies, a learner can progress with more flexibility. Thus, learners who have multiple competing responsibilities often benefit from CBE programs because flexibility with time allows them to pause or accelerate as needed. Currently, to comply with federal regulations, CBE programs offered at Title IV eligible institutions still need to map to the term structures that were created to support the credit hour. This requirement means that there are limits to pace and progress based on federal financial aid rules that govern full-time and part-time student status.

CBE academic programs are built by determining required competencies at the program level, and then designing and sequencing individual competencies to meet the program level requirements. Each individual competency is thus associated with a larger one that must be accomplished to earn the degree (C-BEN, 2020). Competencies may have one large assessment, or several small assessments that must be completed in order to advance in the curriculum. Although there are various models, competencies might include supporting scenarios, detailed directions for submission, supporting materials needed for completion, and the rubric that will be used to assess mastery of the competency. Grading in many CBE programs is based on a mastery versus ‘not yet’ model, as opposed to a letter grade model in traditional higher education programs (Office of Elementary and Secondary Education, 2013).³ However, there are many types of CBE programs (AIR, 2016). Some types use traditional letter grade and rubric grading, depending on the type of CBE program offered.

The time it takes to finish each competency, and therefore, a competency-based degree can be directed by the learner (AIR, 2021). CBE offers flexibility for learners to create a schedule, within a set term of enrollment, that meets their individual needs. Thus, the time to graduation depends on how long it takes learners to complete the required competencies and assessments, as opposed to seat time spent on learning.

³While rubrics are common for letter grade systems, many CBE programs also use rubrics to assess criterion completion required to meet mastery.

How CBE Programs Access Title IV Federal Financial Aid

The Credit Hour and the Competency in Title IV

Federal financial aid programs are administered by Title IV of the Higher Education Act. Under this system, higher education students access financial aid based on the number of credit hours they are enrolled in during a semester. This system makes the credit hour foundational to how higher education programs are structured. CBE programs offer an alternative model that measures knowledge in competencies. Removing time as a measure of progress results in federal financial aid programs not fitting with CBE models. Currently, institutions are doing significant work to map CBE programs to credit hours and term structures designed for traditional programs to maintain federal financial aid, leading to some administrative practices that are not in service of the learners or institutions. For example, the structure of CBE programs does not align with the framework of federal financial aid based on the academic year, current definitions and assumptions about what counts as regular and substantive interaction with faculty, and many other Title IV operating mechanisms. While tracking student academic advancement in competencies rather than time is increasingly accepted as a valid measure of educational progress, CBE programs continue to be limited by Title IV financial aid requirements. While CBE has the potential to open the doors to higher education for students who have not been served adequately by traditional programs, lack of broad access to federal financial aid (i.e., CBE programs are retrofitting their models into financial aid rules in order to provide access to students) is a significant hurdle to scaling CBE across the country and reaching students who stand to benefit the most from this flexible model. Working within current constraints, some CBE programs have been able to access federal financial aid through limited programs described in the following sections of this primer.

Sidebox 1: Comparing the Competency and the Credit Hour

CREDIT HOUR:

Measures time spent in a classroom by semester and interaction with faculty (i.e., regular and substantive interaction). There are different variations of credits and courses, but most are defined as:

- 3 (or 3+) credit, 2 credit, and 1 credit courses (occurring during a semester, or specified period of time).
- Title IV and the Higher Education Act (HEA) were built on the credit hour. However, learners have less flexibility in terms of where and when learning happens.

COMPETENCY:

Measures knowledge, skills, and capabilities by assessing mastery and empowering learners to go at their own pace. There are three types of competency-based programs:

- Direct assessment CBE (assessment of mastery in goals or projects, self-paced)
- Course-based CBE (assessment of mastery in a course, can be self-paced)
- Varied assessment CBE (a blend of course and competency assessments, can be self-paced)

Direct Assessment

Direct assessment is a CBE model that measures learning through assessments. This model allows students to move through programs at their own pace and offers flexibility in how students choose to learn the information they will be assessed on. In 2006, Congress amended the Higher Education Act to allow for institutions of higher education to offer direct assessment CBE programs (Laitinen, 2012). No institution applied to use this authority until 2013, when the U.S. Department of Education (the department) released guidance inviting higher education institutions to utilize existing authority, including direct assessment, to operate CBE programs that would be eligible for federal financial aid in a dear colleague letter (Federal Student Aid, 2013). In April 2013, the department approved Southern New Hampshire University (SNHU) College for America CBE program, followed by Capella in August 2013, to operate direct assessment CBE programs using Title IV financial aid on the basis of the direct assessment clause in section 34 CFR 668.10(a)(1) (PNPI, 2021). Soon after, the department published additional guidance on how these programs differ from less rigorous correspondence education, including being required to have regular and substantive interaction between students and faculty (PNPI, 2021). Under this authority, direct assessment programs must have a mechanism to equate program progress and assessment with traditional credit hour requirements (PNPI, 2021).

Experimental Site Authority

In the 1992 Higher Education Act reauthorization, Congress codified and expanded an existing pilot to allow some higher education institutions to have flexibility in how they administer federal financial aid — called “experimental sites.” These sites were underutilized until Congress updated the authority to expand the scope of the experiments and remove burdensome requirements (New America, 2018). In 2013, the department wrote a dear colleague letter inviting higher education institutions to apply for their CBE programs to participate as experimental sites to be eligible to receive federal funds (Dear Colleague letter, GEN-13-10, 2013). In 2014, the department opened two experimental sites related to CBE programs — split disbursement and limited direct assessment — and in 2015 opened the subscription pricing model. The split disbursement experiment allowed students to participate in a program where they complete credits at their own pace and the subscription pricing model charged students a set fee, allowing them to potentially pay less for more credits. The limited direct assessment model allowed institutions to provide students both CBE and traditional credit hour courses within their program of study. There were 13 institutions participating in the CBE split disbursement, 10 institutions participating in CBE subscription period, and 21 institutions participating in limited direct assessment (PNPI, 2021). Participating higher education institutions were required to provide equivalency for the CBE program competencies to the number of credit hours students would receive in a traditional program (Dear Colleague letter, GEN-13-10, 2013).

In 2019, the department notified institutions participating in experimental sites that their sites would be terminated on June 30, 2020, with access to federal financial aid through the 2020-21 academic year. These institutions would be eligible to apply for continued access to federal financial aid under the forthcoming administrative rule (i.e., the distance education and innovation rule) discussed below.

⁴Per Sidebox 1, direct assessment is one type of CBE. Course-based CBE and varied assessment CBE are other programmatic types.

Distance Education and Innovation Rule

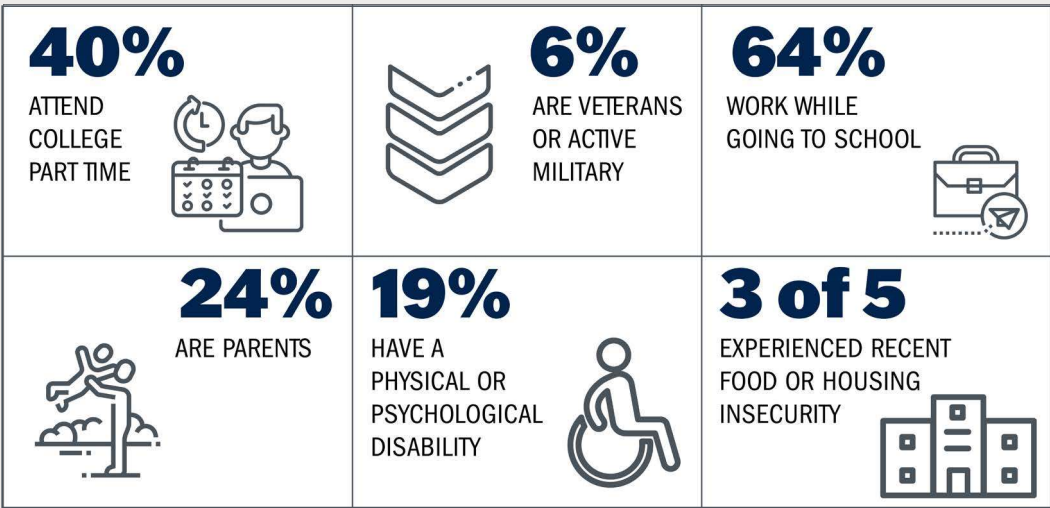
In September 2020, the department released a final regulation entitled the Distance Education and Innovation Rule. This rule went into effect on July 1, 2021, providing clarification on how higher education institutions can be approved to offer direct assessment CBE programs that are eligible for federal financial aid under Title IV, along with additional regulations governing other forms of distance education. This rule clarifies the eligibility requirements for direct assessment programs when institutions seek approval for the first time, and at each level of offering (i.e., the first direct assessment master’s program or the first direct assessment bachelor’s program) (U.S. Department of Education, 2020). The rule also maintains the use of subscription-based models for direct assessment CBE programs. It also clarifies the role of the accreditor in establishing new direct assessment programs and outlines what these programs must do to meet regular and substantive faculty interaction as required for Title IV eligibility (U.S. Department of Education, 85 FR 54742). While this rule has provided a clearer path for institutions to expand CBE programs, institutions are still limited in what they can do to meet more student needs — including still being required to have equivalency between competencies and the traditional credit hour.

How Does CBE Benefit Learners?

It Can Reduce Time and Cost Constraints, and Provide “Learning On-Demand”

Unlocking the potential for learning on-demand, CBE is an entirely different model that is centered on the learner’s needs, priorities, prior learning,⁵ and time constraints. Because CBE tests learner mastery of competencies and can be untethered to ‘seat time’ typically associated with the credit hour, a learner can progress at a flexible pace.⁶ As a modality, CBE is also compatible with opportunities for recognizing prior credits and learning at entry to help learners count their prior work experiences towards a degree. From 2004 to 2009, the U.S. Government Accountability Office found that students in traditional programs nationwide who transferred lost an estimated 43% of their credits. Thus, recognizing prior learning can dramatically reduce a learner’s time and cost towards a degree because it enables learners to translate a wide variety of previous experiences into specific skills and competencies that count for college credit toward their degree. However, because the current federal financial aid system is based on the credit hour, CBE programs that are granted approval are often required to equate competencies to credits. The impact of this requirement varies by student, but this requirement often limits the number of prior credits that are allowable for transfer. For example, the direct equate requirement thus often excludes free elective credits from counting towards a CBE degree program.

Sidebox 2: Statistics on the “New Traditional” Learner in the U.S.



Sources: Higher Learning Advocates, National Center for Education Statistics, The Hope Center for Community, College, and Justice

⁵Please note: credit for prior learning (CPL) is not eligible for federal financial aid. However, the objectivity of competencies often translates to a clearer correlation of prior learning to credit. Thus, CBE offers the potential to maximize credit for prior learning prior to matriculation for individual learners, thereby also offering the potential to reduce costs and accelerate time-to-completion.

⁶Same note as on page 1. CBE programs are flexibly paced in terms of the learner’s engagement in a term, but not flexibly paced when it comes to minimum progress standards required for CBE students to maintain financial aid, institutional academic standards, etc

How Can CBE Reduce Costs for Learners?

Reducing Cost by Empowering Learners Through Flexible Models with the Potential to Accelerate Their Path to a Degree

While still tied to requirements for federal financial aid and mapping competencies to credit hours, CBE is not based on ‘seat time’ for learners like the credit hour is. Instead, CBE tests for mastery and the required academic work can fit into a learner’s schedule. CBE’s core academic experience offers learners a flexible, online model that acknowledges prior learning,⁷ can accelerate the path to a degree, and empowers learners to work at a flexible pace.⁸ The potential to count prior learning towards a degree prior to matriculation has tremendous value for those who have acquired knowledge, skills, and competencies through work and prior academic experiences. Because competencies test mastery of knowledge, capabilities, and skills, they are able to translate the sum of a learner’s prior formal and informal learning to count towards a degree in ways that may promote equity.

In practice, credit for prior learning (CPL) largely manifests in accelerating towards mastery versus testing out. Students must still complete all competency requirements to earn mastery within a competency. But they may be able to do this more quickly based on their prior learning and work experience, saving them both time and money when they are enrolled in a CBE program. This also helps with the problem of a learner having a near-equivalent course or knowledge but not knowing all of a topic, which often results in re-taking a whole class. For example, if a learner earns credit for prior learning through the prior learning assessment (PLA) process that equates prior work and other experience, they are not eligible to receive federal financial aid for these awarded credits. But this process still advances their savings towards a degree since they will not be required to take or pay for PLA awarded competencies in their program. In addition to these opportunities to accelerate their progress towards a degree, learners may also save money and time in CBE programs that offer ‘all-you-can-take’ subscription models.⁹

Sidebox 3: Statistics on Competency-Based Education (CBE) Programs and Enrollments in the U.S.

82% of Responding Institutions Believe CBE Enrollments Will Grow in the Next 5 Years

This figure is from the American Institute of Research’s survey State-of-the-Field Findings from 2020 Postsecondary CBE Survey of Institutions in the U.S. (n=488).

While there are currently inadequate national measures in place to track CBE enrollments, its growing popularity among learners can be examined by proxy through the share of institutions who believe CBE programs will grow in the next five years.

Approximately 128 Unique Institutions Offer a Total of 1,057 Unique CBE Programs

This figure is from the 2018-2020 time period, according to the American Institute of Research’s survey State-of-the-Field Findings from 2020 Postsecondary CBE Survey of Institutions in the U.S. (n=488).

Notable CBE Providers Include:

Capella University, Northern Arizona University, Southern New Hampshire University, University of Wisconsin Flexible Option, Western Governors University

⁷Please note: credit for prior learning (CPL) is not eligible for federal financial aid. However, the objectivity of competencies often translates to a clearer correlation of prior learning to credit. Thus, CBE offers the potential to maximize credit for prior learning prior to matriculation for individual learners, thereby also offering the potential to reduce costs and accelerate time-to-completion.

⁸Same note as on page 1. CBE programs are flexibly paced in terms of the learner’s engagement in a term, but not flexibly paced when it comes to minimum progress standards required for CBE students to maintain financial aid, institutional academic standards, etc.

⁹All-you-can-take subscription models may have minimum requirements for progress. For example, at SNHU, a learner must complete a minimum of 12 competencies per term, but can take as many as they are able for the same cost.

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