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Cover Page Footnote

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Competency-Based Education and Federal Student Aid By Stephen R. Porter

Competency-based education is increasingly popular because of the flexibility it provides for students seeking a postsecondary credential. Current federal student aid, however, is geared toward supporting students in traditional, time-based degree programs. This paper discusses why current approaches to federal student aid are not supportive of competency-based degree programs and explores how federal statute and regulations could be changed, in ways that are not reliant on time and credit hours, to disburse aid to students while minimizing fraud.

Keywords: Competency-based education, federal student aid, regulations

he past decade has seen increasing interest in competency-based education (CBE) in higher education, with several colleges and universities offering, or planning to offer, CBE programs (Klein-Collins, 2013). Unlike traditional degree programs in higher education, CBE focuses on direct assessment of learning. While approaches to CBE can vary, most programs focus on the attainment of competencies in a variety of different areas rather than the accrual of credit hours. Students earn college degrees when they establish proficiency in the required set of competencies.

One of the main reasons CBE has attracted support is the flexibility it provides for students seeking a postsecondary credential. While CBE programs use academic terms to define periods of study as traditional higher education programs do, students become proficient at competencies at their own pace, generally working with faculty mentors and tutors. Because learning takes place outside of the classroom, students can earn their degree at a distance and fit school around their work schedule. Because the emphasis is on demonstrating competence rather than hours spent in class, many students begin college already (or almost) proficient at some competencies. Flexibility, the ability to learn at a distance, and a focus on competence makes CBE an ideal way to promote access to students traditionally underserved by higher education. These students are often first-generation, working adults who desire a postsecondary credential but cannot fit the traditional approach to higher education into their lives.

Institutions wishing to offer CBE degree programs face a conundrum, however. The natural market for these programs is the traditionally underserved college population, which tends to rely heavily on federal student aid. Yet the current approach to federal student aid allocates aid based on time spent in class during a traditional academic year. Because CBE focuses on demonstrating competency rather than earning credit hours, there is no set time element as with traditional higher education. CBE programs do not easily fit within the time-based approach to federal student aid, making access to Federal Direct Loans and Federal Pell Grants difficult for these programs unless the programs fit their competencies within a standard credit-hour framework. With the pool of potential students limited by lack of aid, schools have little incentive to build CBE programs. Solving the puzzle of how to provide federal student aid to students enrolled in CBE degree programs is crucial for the future of these programs and the students they are designed to serve.

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What Is Competency-Based Education?

Like many concepts in higher education, competency-based education is a somewhat fluid concept. What follows is an overview of the most common approaches. First and foremost, CBE programs differ from traditional higher education programs by their outcomes. A CBE degree is defined by a series of competencies rather than the accumulation of credit hours in a variety of academic disciplines. A competency can be thought of as some combination of "knowledge, skills, abilities, behaviors, and other characteristics that an individual needs to perform work roles or occupational functions successfully" (U.S. Office of Personnel Management, 2014, p. 4). Competencies can be field-specific, such as accounting, or more broad, such as reasoning and problem-solving.

Rather than simply accumulating credit hours by taking and passing courses, CBE students must instead demonstrate their achievement of each competency. Such achievement is often established through summative assessments such as exams or portfolios. The amount of time spent learning in an area, or in contact with a faculty member, is irrelevant here; all that matters is that students can demonstrate that they have mastered the competency. Learning can therefore take place outside the classroom under the direction of tutors or a faculty mentor. That means learning can be self-paced, so that students can vary in the amount of time it takes to establish a particular competency.

Thus, one of the major differences between CBE and traditional postsecondary education is that student learning can be decoupled from time; there is often no set schedule for achieving competencies, or even classroom meetings. This decoupling from time poses the major challenge for federal student aid for CBE because statutes and regulations that have arisen since World War II assume a traditional, classroom-based approach, with classes and credit hours earned within an academic year.

Current Regulations for Disbursement of Federal Student Aid

Current federal student aid regulations are, not surprisingly, very complex. This section provides an overview only in terms of the main issues that affect CBE because of its unique approach vis-à-vis traditional higher education. For example, both CBE and traditional institutions must determine that a student is qualified to study at the postsecondary level. This regulation does not pose a barrier for CBE, and thus is not discussed here. On the other hand, the concept of satisfactory academic progress does uniquely affect CBE because the current definition of satisfactory academic progress is time-based, and this reliance on time poses challenges for CBE.

The underlying principle of federal student aid is that the federal government is interested in subsidizing individuals so that they can realize the benefits of higher education. Most obviously, the government and taxpayers would like federal student aid funding to be used only for this purpose. The problem is that the federal government disburses over \$150 billion a year in grants, loans, and work-study to help students pay for higher education (U.S. Department of Education, 2014), and such large amounts of money naturally attract individuals seeking to defraud the government. While federal regulations may appear somewhat Byzantine and opaque, they are specifically designed to prevent fraud at both the institutional and student level, while subsidizing individuals as they pursue their postsecondary education. We must not lose track of this crucial fact, because any revisions of federal statutes and regulations to support CBE must also be structured in such a way to minimize federal student aid fraud.

The relevant regulations can be summarized in one sentence: To receive federal student aid, an individual must be enrolled as a student in an eligible program with a defined academic year within an eligible

institution, and maintain satisfactory academic progress in the program (U.S. Department of Education, 2012).

- An *eligible institution* is an institution that is legally authorized by a state as well as accredited by an accrediting agency recognized by the U.S. Department of Education. The accreditor determines whether, for example, student learning takes place during the program of study. Accreditors thus serve as a major gatekeeper for Title IV eligibility; that is, whether students at an institution will have access to federal student aid.
- An *eligible program* is a program of study that will yield a degree or a postsecondary credential that prepares a student for gainful employment. Requiring that a student who receives federal student aid be enrolled at an eligible institution and program ensures that the student is spending aid on obtaining a postsecondary education, and not simply accruing aid while not learning anything. The latter might happen, for example, if aid were awarded to a student "attending" a degree mill, which simply awards degrees in exchange for payment.
- Programs must define an academic year based on minimum weeks of instructional time that must occur
 within the academic year. Defining an academic year with a start and end date allows the establishment
 of payment periods within the academic year; regulations require aid to be disbursed to students within
 these payment periods. Note that non-standard terms are allowed under the regulations; institutions
 are not confined to traditional semester terms.
- Enrollment is defined as the proportion of time enrolled in classes, because the amount of aid received depends on the proportion of time enrolled. A student must be enrolled at least half time to qualify for the Direct Loan program, and the Pell Grant amount that a student receives is in part determined by enrollment status. The idea here is that students who are spending more of their time on learning a) may have higher tuition costs, because they are taking more classes, and b) may have less time for work, and thus require more aid to continue their education.
- Satisfactory academic progress while enrolled consists of two requirements, one based on grades and other the based on pace. First, students must demonstrate that they are learning while in school; this usually takes the form of achieving a minimum GPA. There is a mandated review at the end of two years of school, in which the student must have a GPA of at least a C (2.0 on a 4-point scale) or academic standing consistent with the graduation requirements of the institution. Second, students must progress through their degree program at a reasonable pace, which is defined as on track to complete within 150% of the official length of the program.

How does this work in practice? A student first enrolls at an eligible institution. This institution has met certain guidelines, such as accreditation, so the U.S. Department of Education knows that federal student aid will not be going to a diploma mill. Federal student aid is only available if a student enrolls in an eligible program, e.g., a program leading to an associate's or bachelor's degree, and not if the student has simply signed up to take a single course. Once the student enrolls, the institution makes an initial disbursement based on the amount of instruction for which the student has registered: this is typically measured by credit hours.

After initial enrollment, the student must maintain satisfactory progress while in school. At a minimum, the institution reviews the students' progress annually to determine if a) they have maintained academic standing consistent with graduation requirements (e.g., a "C" average), and b) their pace through their course of study is such that they will finish within 150% of the official length of the program. For example, if a student registers for 15 credit hours in a semester, the institution may determine that the student will only graduate within 150% of the official length of the program by completing at least 10 of those 15 hours during the term. Without the requirement for satisfactory academic progress, a student could simply collect

aid without getting anywhere near degree completion, though lifetime limits on aid amounts (both Pell and loans) would eventually stop the federal student aid from flowing.

Finally, aid is disbursed to the student according to defined payment periods. Payment period definitions are complex, but generally comport with the institution's academic terms within its academic year. There is no need to go into detail here; suffice it to say that for most institutions, the payment period is the term, or semester.

The concept of a payment period is necessary for two reasons. First, in order to prevent fraud, aid is parceled out to students during their time in college; students are not merely handed a check for the full cost of their education when they initially enroll in college. Some schedule is necessary for disbursement of aid, so the payment period determines when students will receive the aid necessary to attend school only during that payment period. Second, aid is tied to satisfactory academic performance, so the disbursement of aid must also be tied to the unit of time over which the institution calculates satisfactory academic performance.

By ensuring that students only enroll in programs and institutions that will yield a valid postsecondary credential, tying the amount of aid to the amount of student effort (as proxied by credit hours), parceling aid out over time periods rather than all at once, and requiring that students periodically demonstrate they are working towards their credential, the federal government has created a complex series of statutes and regulations during the past several decades to support students while also limiting fraud. The government created these rules for a system that has traditionally been rooted within a time-based approach to education—one based on the credit hour (Laitinen, 2012). Unfortunately, these rules also make it difficult to provide federal student aid to students enrolling in CBE programs precisely because of the role of time.

Why Federal Student Aid Is Not Designed to Support CBE

Fundamentally, federal student aid is designed to fund education that occurs within structured, discrete time periods (i.e., courses within semesters). Conversely, CBE is unstructured by its very nature, and it does not depend on time periods to help determine if learning has taken place. This poses several problems when considering how federal student aid should be disbursed to students enrolled in a CBE program, such as determining full-time and part-time status, defining an academic term, and measuring satisfactory academic progress.

How Should Full-Time/Part-Time Status Be Judged?

Federal student aid programs use full-time enrollment as one criterion for determining if, and how much, aid should be disbursed to a student. Because CBE students enroll in competencies rather than credit-hour based courses, it is impossible to determine full-time status based on competencies alone.

For example, one student may struggle to complete two competencies during a semester and devote as much time to his or her studies as a student who finishes 10 competencies during the same time period. Which student has been enrolled full-time? An objective observer would conclude that both have been enrolled at the same level of intensity, given that both have spent the same amount of time on their studies. Yet, by applying the credit-hour perspective, one would be tempted to conclude that the 10-competency student is somehow more "full-time" than the two-competency student.

What Is an Academic Term When Courses Lack Designated Start and End Dates?

Federal student aid is usually disbursed per academic term, and satisfactory academic progress is calculated each term. It is unclear what an academic term means for CBE programs and their students. CBE students pursue their education outside of the classroom, usually with the assistance of mentors and coaches. They decide when to begin and end their studies. Because students separately pursue their studies, there is no need to coordinate beginning and end dates for courses as with the traditional approach. A student could begin a competency in November and finish in February, which clearly does not fit within the traditional academic calendar year of fall, spring, and summer terms.

How Should Satisfactory Academic Progress Be Measured?

One of the many roles financial aid offices perform is measuring the academic progress of students on financial aid to determine if they are still eligible for aid based on their performance in their courses. This requirement is in place to ensure students are learning during college rather than simply signing up for courses and then not attending in an attempt to gain access to aid funds.

CBE courses pose two challenges here related to the GPA-based and time-based requirements of satisfactory academic progress. First, one of the basic principles of CBE is that students must demonstrate competency in a specific area. Generally, this is a binary outcome: either a student is competent in an area or not. Rather than passing or failing a competency, students continually work with coaches and mentors until they can demonstrate competency. Such an approach does not lend itself to grade-point calculations.

Second, adequate progress over time could potentially be difficult to define, as it is not clear how much time is necessary to complete a competency. With the traditional approach, a three-credit course is supposed to take up a specific amount of a student's time, (both in class and outside of class). Such clear time definitions are not always possible with competencies.

Current Approaches to Federal Funding of CBE Students

Although CBE poses challenges to how we provide federal student aid to students, several CBE programs across the country are currently enrolling students and disbursing federal student aid to them. These schools have adopted two ways of structuring their financial aid systems. The first group, such as Western Governors University (WGU), has translated competencies to credit hours and then disbursed aid under current federal regulations and statutes. The second group, such as Capella University and Southern New Hampshire University (SNHU), takes advantage of revisions in the regulations that allow for federal student aid for direct-assessment programs.

Translation to Credit Hours

Given the complexities of the federal student aid system and the fact that software systems used by schools to disburse aid are designed to ensure compliance with federal regulations, it is not surprising that some schools have chosen the path of least resistance by translating their competencies to credit hours.

One example is WGU.WGU has established a one-to-one equivalency between its competency units and credit hours, and students are considered full-time if they are enrolled for at least 12 competency units. Students either pass or fail to pass a competency by the end of the term. There are two six-month terms per academic year.

To meet satisfactory academic progress requirements of a minimum 2.0 grade-point average and sufficient pace, WGU defines demonstrating a competency (or passing) as a grade equivalent to a "B" or better (3.0 on a four-point scale). Pace is determined by completing 67% of competency units attempted in a term. For example, if a student registers for 15 competencies but completes only 10, then:

- The student's grade-point average from a federal perspective is exactly 2.0. (Multiplying the 10 passed competencies by 3.0 grade points yields 30 grade points achieved in the term; dividing by the 15 competencies attempted results in a grade-point average of 2.0.)
- Mathematically, completing 67% of all competencies attempted means that the student is on track to finish the program within 150% of normal time (10/15=67%).

While WGU has a competency-based approach to educating students, it has to treat competencies as credit hours in order to gain access to federal student aid for its students. The description of its CBE program in terms of definition of full-time status, payment periods, and satisfactory academic progress is indistinguishable from many traditional postsecondary programs.

Direct Assessment Rule

In 2005, the Higher Education Act was amended to make direct assessment programs eligible for participation in federal student aid programs; in 2006 the U.S. Department of Education issued regulations implementing the statute. In particular, the new regulations allow for programs that measure student learning directly instead of using credit or clock hours. Programs are required to apply directly to the U.S. Department of Education for approval to participate, and most importantly, the regulations state that institutions "must specify the equivalent number of credit or clock hours for a direct assessment program. . . . As part of its application, the school must explain how it determined the equivalent number of credit or clock hours for the program" (U.S. Department of Education, 2012, p. 2-19). While making it somewhat easier for CBE programs to participate in federal student aid, the new regulations still require institutions to fit their programs within the credit-hour framework by requiring the establishment of equivalencies.

SNHU recently received approval for an associate's degree in general studies under the direct assessment rule and provides an illustration of how this new approach can work. Similar to WGU, SNHU has established an equivalency between competencies and credit hours, but at a 2:1 ratio rather than a 1:1 ratio. The university requires 120 competencies for their associate's degree, similar to other associate's degrees, which are usually 60 credit hours.

The associate's degree program is defined as a five-term program. SNHU defines students as full-time if they achieve 24 competencies in a term, and as half-time if they achieve 12. These are the equivalent of 12 and 6 credit hours per term in a traditional program. Similarly, WGU defines full-time as achieving 12 credit hours' worth of competencies in a term.

SNHU also has two six-month terms in an academic year. The structure of the academic year, however, differs from the traditional semester system. A new six-month term will begin every month and start dates can vary across students depending on when they decide to enroll.

SNHU's approach to satisfactory academic progress also differs from standard practice. Recall that satisfactory academic progress comprises two components: a grade-point average performance component and a pace component. The university argues that because competencies are either in progress, or mastered, students cannot fail satisfactory academic progress based on grade-point average. Instead, SNHU will measure satisfactory academic progress in this program solely by pace and not by grade-point average.

SNHU defines their successful completion rate to maintain pace as 75% of competencies attained in a term. Similar to other programs, SNHU calculates this rate such that student pace complies with the 150% of program length rule.² Completing 18 competencies per semester (75% of 24 competencies per term) would result in students obtaining their degree within the 150% rule.

One major change from other programs is how SNHU applies this rate. Many schools simply apply the rate to the number of credits attempted. For example, if a student attempted 30 competencies in a term at SNHU but only achieved 20, the completion rate would be 67%. This is below the university's 75% rate, and the student would be identified as not making satisfactory academic progress. Yet, the student would still be on track to graduate, because the student had completed more than 18 competencies in that term. As the university points out in their application to the U.S. Department of Education, applying the rate in this manner has the unintended effect of discouraging students from attempting more competencies than required, because students who are not successful may put their federal student aid at risk. Instead, the university argues that the 75% completion rate should be applied not to competencies attempted in a given semester, but to the number of competencies required to finish within the standard program length (24). Thus, students must attain a minimum of 18 competencies per term to maintain satisfactory progress.

This aspect of SNHU's application is one of the most important, because CBE is designed for students to master competencies at their own pace, with the idea that competencies will be worked on until mastered. Under the WGU approach, students must attain 67% of competencies attempted in a term. Students who, for example, attempted 20 competencies and only mastered 12, would have a completion rate of 60% for the term, which is less than the required 67%, and those students would be flagged for failure to maintain satisfactory progress. Yet WGU's full-time requirement is 12 competencies per term. The students in this example completed enough competencies to be considered full-time at the end of the term, yet they would also be considered as not making satisfactory academic progress.

Future Approaches to Federal Student Aid and Competency-Based Education

Given that schools such as WGU have thriving CBE programs under standard federal student aid statute and regulations, and SNHU has received approval for a CBE program under the direct assessment rule, one could argue that the current approach to federal student aid works fine for CBE programs. Careful consideration suggests this is not the case:

- The regulations clearly spell out what traditional postsecondary institutions must do to participate in the federal student aid programs. For direct assessment programs, however, each institution must devise a plan and win U.S. Department of Education approval for their specific plan. Thus, the burden and uncertainty of success for any individual institution is high, and this may discourage institutions from applying for federal student aid program participation under the direct assessment rule.
- Just as current regulations provide great clarity as to how traditional institutions must structure their federal student aid programs, CBE institutions need a similar set of regulations for direct assessment programs. For example, a strong argument can be made that the grade-point average part of the satisfactory academic progress requirements should not apply to CBE programs under current regulations, and only pace through the program should be considered. As this is not an explicit part of current regulations, each CBE program will have to make this argument when applying to the U.S. Department of Education.
- The direct assessment rule takes a "translation" approach to CBE programs. The implicit assumption of the rule is that credit- and clock-hour based programs are the norm, and CBE programs must somehow be fitted into this norm by clearly establishing equivalencies between competencies and credit hours. To be fair, the U.S. Department of Education is required to implement statutes passed by

Congress, and they do not have the ability to simply ignore the use of credit- and clock-hours as a basis for federal student aid eligibility and disbursement. The direct assessment rule was the Department's attempt to work with CBE programs under current statute.

With these in mind, we can consider several changes to current approaches to federal student aid and CBE programs. Changes could occur in one of two ways: changes in regulations promulgated by the U.S. Department of Education and therefore consistent with the current Higher Education Act, and changes by Congress in the federal statute governing federal student aid.

Regulatory Changes and Clarifications

Given the U.S. Department of Education's approval of the SNHU application under the direct assessment rule, it is clear that the Department believes this approach is consistent with current federal statute. Clarifying that it is permissible for CBE programs to a) abandon the grade-point average portion of satisfactory academic progress requirements and only use pace, and b) define pace under satisfactory academic progress as the *number* of competencies earned per term rather than the *percentage* of attempted competencies that are completed, would be a useful first step.

One could imagine revised regulations taking a two-pronged approach to CBE. The more difficult approach would allow programs to develop their own applications as they can currently under the direct assessment rule. This would allow innovative approaches to implementing CBE and federal student aid as the number of CBE programs continues to expand. The less burdensome approach would propose a specific set of rules that CBE programs must meet modeled on specific aspects of the approved SNHU application.

Statutory Changes: Remedial Coursework

Current statute makes funding of remedial education for CBE programs difficult. Currently, students can receive federal student aid when taking remedial coursework, provided they are enrolled in an eligible program. Under the direct assessment rule, however, competency-based remedial education is specifically not eligible for funding. Instead, the rule only allows remedial courses based on credit or clock hours in conjunction with the CBE program. Given the flexible nature of CBE and the reasons students would sign up for a CBE-based degree program, it is unclear why the rule forces these students to enroll in remedial coursework within the traditional credit-hour system. In addition, CBE degree programs target students who may not typically thrive in a traditional degree program. Requiring these students to complete their remedial coursework within a traditional framework seems to defeat the purpose of enrolling them in a CBE degree program.

Statutory Changes: Prior Learning Assessment

Another issue with financial aid for CBE programs is how competencies are determined. Some students may be able to demonstrate a competency at entry without the need to study and work with coaches and mentors to achieve the competency. It makes little sense to require these students to enroll in and pay for these competencies; in fact, this merely increases barriers and costs of degree completion for these students.

Current statute does not allow for federal funding for the parts of a program that allow students to demonstrate mastery of competencies from prior experience; that is, for learning that takes place outside educational activities overseen by the institution. For CBE, what matters is only the output: demonstrated competency. The inputs can be quite minimal. Imagine small business owners who have, over the years, taught themselves accounting. It is a waste of both time and money for such persons to take a course on

accounting when they can demonstrate mastery at entry. Under current regulations, such students would have to sign up for an accounting competency instead of demonstrating mastery at entry, because federal funds cannot be used for expenses related to the testing of content mastered outside the institution.

Revising the statute to allow funding for learning assessment at entry would be very beneficial to students enrolled in CBE programs, but the fraud possibilities are large. Granting students competencies after an assessment and payment of fees sounds dangerously similar to the practice of degree mills, which can grant their degrees in recognition of "life experience" and payment of fees. The U.S. Department of Education would have to carefully draft regulations in this area to distinguish between legitimate assessment of competencies and fraudulent behavior.

States and accrediting agencies could play a large role in preventing fraud in prior learning assessments. Under current regulations, institutional eligibility is determined in part by whether the institution has been authorized by the state to provide an educational program within the state and has been accredited by a nationally recognized accrediting agency. Accreditors, in particular, would have to pay close attention to how institutions carry out prior learning assessments. To prevent institutional fraud, each prior learning assessment should be approved for Title IV eligibility by a recognized accreditor. Otherwise, one can imagine an institution that already has state approval and accreditation deciding, at a later time, to implement a weak prior learning assessment regime in order to generate revenue to fund the institution. In addition, federal student aid in this area should be limited to the direct cost of the assessment. Given the short duration of these assessments, students do not require aid for indirect costs such as living expenses.

Statutory Changes: Disbursement of Aid Without Considering Time

Unfortunately, the solutions proposed thus far in this paper do not solve the larger issue that confronts CBE and federal student aid. Current regulations rely on time spent by students as their foundation. Only a statutory change would allow financial eligibility for CBE programs that are completely free of time as their basis. Such a change could allow for innovative ways to fund students in CBE programs. Indeed, one could imagine a two-track system of federal student aid statutes. The first track would be the current regulations as they apply to traditional, time-based institutions; the second would not use time as their basis. Institutions could choose which set to follow.

CBE programs are self-paced, unlike traditional postsecondary programs. Students pursue differing numbers of competencies depending on their schedule, and there is large variation in the amount of time spent to achieve a specific competency. Thus, the notion of a "normal" program length makes little sense for CBE programs. (Note that institutions with current CBE programs, such as WGU and SNHU, have created official program lengths in order to be eligible for federal funds; there is nothing inherent in the structure of their programs that requires this.) Without an official program length, it becomes impossible to define full-time status, payment periods, or 150% of official program length.

How could CBE programs be funded without considering time spent, while also limiting fraud? One approach would tie aid to competencies *completed*, rather than attempted. Under this approach:

- The amount of aid received would vary with the intensity of study, similar to current regulations, which tie aid to the level of credit hours for which a student is registered. The concepts of full-time and part-time status would be irrelevant here.
- The concept of satisfactory academic progress would be irrelevant, as aid would not be tied to how many competencies a student achieved in a term. This would allow students to structure their learning at their own pace rather than at a pace dictated to them by institutional student aid rules.

Under this scenario, students could simply sign up for as few or as many competencies as they wish, and take as long as they need to complete each competency without worrying about losing federal student aid. Such an approach would clearly benefit many traditionally underserved students, who juggle work and life issues and can face substantial challenges when taking courses within a standard academic term.

The major issue here is determining the "worth" of a competency. One possibility would be to tie the total amount of aid to the degree sought, and to fund each competency by its proportion of the degree program.

Example: An institution offers a bachelor's degree consisting of 120 competencies, with a charge of \$400 per competency, yielding a total cost of tuition of \$48,000.3 Students who qualify for the maximum annual Pell Grant of \$5,645 can receive up to six years of funding, for a total of \$33,870. This total amount of aid could be disbursed per competency completed, which would result in \$282 in Pell Grant aid per competency.

Tying aid to competencies actually completed would limit the possibilities for fraud. Under the current system, for example, fraud rings instruct groups of "students" with false or stolen identifications to enroll in an online degree program, receive their initial allotments of aid, and then stop attending classes while keeping the aid. Tying aid to completion of competencies avoids this problem because a student attempting to commit fraud cannot register for a large number of competencies in the hopes of receiving aid and then drop out of school.

In addition, aid disbursed upon completion of individual competencies mitigates the need to demonstrate satisfactory academic progress. By meeting a competency, the student has demonstrated academic progress for that particular competency. With this approach, students cannot register for a series of competencies over time, receive aid, and fail to make progress toward degree completion because each competency attained advances them toward degree completion.

A more risky approach would provide aid per competency up front, requiring a refund from the student if the competency is not met.

Statutory Changes: Living Expenses

This model of federal student aid makes determining living expenses difficult. For example, should students who take an entire year to master one competency because they are working full-time, receive the same amount for living costs as students who master 30 competencies in the same time period, because the second category of students decided to stop working and devote significant time to their studies?

Living expenses could be handled in two ways. First, the amount for each competency could be such that it covers the cost of the competency, with a set amount left over for living expenses. Students completing many competencies in a year because they are spending most of their time on their studies would then receive a significant amount of funding for living expenses during the year, while one-competency students in the example above would not.

Example: Suppose a student's indirect costs for living expenses and incidental expenses totaled \$500 per month, for a total of \$24,000 over a four-year period. If aid were disbursed on a competency-completed basis, a student enrolled in a 120-competency degree program would receive an additional \$200 in aid per competency.

Alternatively, federal student aid could be structured so that living expenses would not necessarily be funded. One could imagine schools taking different approaches to tuition and federal student aid. Some schools could adopt the SNHU model, whereby students could pursue a degree full-time while receiving funds for living expenses. These students would have to comply with rules concerning full-time status and satisfactory academic progress. Other schools could structure their programs around direct aid for competencies but no living expenses, with the idea that their students will be working students who do not need money for living expenses but instead require the greater flexibility that a non-term-based CBE could offer.

Conclusion

Institutions seeking to begin CBE degree programs currently have two choices when it comes to federal aid for students in these programs. They can establish a direct equivalency with credit hours and situate their CBE degree program within a traditional postsecondary framework of credit hours, terms, and payment periods. Alternately, they can apply to the U.S. Department of Education under the direct assessment rule, which, as described earlier in this paper, does not really provide many advantages over the traditional approach due to the need to translate competencies back to credit hours. Clearly, we must find a new approach to disbursing federal aid to students in these programs.

Changing federal student aid laws and regulations to fully support students enrolled in CBE programs would require a sea change in how aid is disbursed, because new regulations would be time-independent. New laws and regulations must be carefully designed, given the incentives for both institutions and individuals to engage in fraud.

The main issue we face is that the specifics of new approaches to federal student aid are not entirely clear. We run the risk of enacting regulations that are either too expansive, encouraging fraud in CBE programs, or too restrictive, preventing CBE programs from developing and expanding beyond the handful of current CBE institutions. Allowing a wide variety of institutions to develop well-controlled and focused experimental sites, each with different approaches to providing federal student aid for CBE, would yield a wealth of important information as to what changes will work and what changes will not. Such information is crucial before we embark on full-scale implementation of new federal student aid statute and regulations.

Recently, the U.S. Department of Education has requested comments for possible experimental sites that would explore changes in federal aid disbursement in three areas: CBE, dual enrollment of high school students in higher education, and prior learning assessments (Strausheim, 2013). Several institutions have responded to the request with a list of possible experiments to be conducted ("Experimental Sites Concept Paper," 2014). If implemented, these experiments have the potential to provide valuable evidence as to how federal student aid regulations could be updated to meet the needs of students in competency-based degree programs while minimizing fraud.

Nexus: Connecting Research to Practice

- Federal student aid is not conducive to competency-based education because it is designed
 to fund education that occurs within structured, discrete periods (e.g., courses within
 semesters, hours instead of learning, and traditional academic terms).
- While adapting federal student aid statutes and regulations for competency-based education may be ideal, not enough is known today to do so at scale without risking harm to students and taxpayers.
- Whether through experimental sites or a focused demonstration program, allowing a wide variety of institutions to develop well-controlled, focused experiments with different approaches to providing aid for CBE students would provide helpful information about what works and what does not.

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Endnotes

- ¹ Here is one example of how a school could calculate satisfactory academic progress. Assume a school requires 120 credit hours for graduation, with an official program length of eight semesters (i.e., four years), which is 15 credit hours per semester, on average. Twelve semesters would be 150% of the official length of the program. To earn 120 credit hours over 12 semesters, a student must complete a minimum of 10 credit hours per semester (12*10=120). So, to maintain minimum progress when registering for 15 credit hours, students must complete at least 10 credit hours, or 67% (10/15) of attempted credits, to maintain a pace that would allow them to complete their degree within 150% of the official program length.
- ² The basis for this rate is not explained in the SNHU application. Given that theirs is a five-term program of 24 competencies per term (5*24=120), 150% of five terms is seven and a half terms. Because students cannot enroll for half a term, seven terms would comply with the required 150% completion time. Dividing 120 competencies over seven terms yields 17.1 competencies per term, which, because students cannot take fractions of competencies, must be rounded up to 18 credits per term to finish in 150% of the regular program length. Dividing 18 by 24 yields a 75% completion rate.
- ³ This number is similar to what WGU could charge on a per-competency basis. Currently, their tuition is \$5,780 per six-month term for their 120 competency business bachelor's program (http://www.wgu.edu/tuition_financial_aid/tuition). If students attended full time and completed their degree within four years, their tuition payments would total \$46,240 (\$5,780*8), which works out to \$385.33 per competency.
- ⁴ This amount is taken from SNHU's application under the Direct Assessment rule.