THE
STUDENT EXPERIENCE
HOW COMPETENCY-BASED EDUCATION PROVIDERS SERVE STUDENTS

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Rising tuition prices and finite public budgets have spawned a lively policy debate about innovation in higher education. In particular, competency-based models have garnered a lot of attention from policymakers, reformers, and funders. Unlike online college courses, which often leave the basic semesterlong structure intact, competency-based models award credit based on student learning, not time spent in class. As soon as a student can prove mastery of a particular set of competencies, he or she is free to move on to the next set. A number of institutions are currently engaged in these efforts, including Western Governors University, Excelsior College, Northern Arizona University, and the University of Wisconsin’s UW Flexible Option.

The competency-based model presents opportunities for improvement on two dimensions: first, it allows students to move at their own pace, perhaps shortening time to a degree, and second, competencies can provide a clearer signal of what graduates know and are able to do. Yet for all the enthusiasm that surrounds competency-based approaches, a number of fundamental questions remain: What kinds of students are likely to choose competency-based programs? How do students in these programs fare in terms of persistence, completion, and labor market outcomes? Are these programs more affordable than traditional degrees? What does the regulatory environment look like for competency-based providers? Do employers value the credential?

Despite increasing attention being paid to the potential of competency-based education, researchers and policymakers still have few answers to these questions. To provide some early insight, AEI's Center on Higher Education Reform has commissioned a series of papers that examine various aspects of competency-based education. In the fifth paper of the series, Rachel B. Baker of the University of California, Irvine explains how competency-based providers serve their students' needs by examining the manner in which CBE programs interface with students through four familiar phases of higher education: recruiting students, beginning a program, earning credits toward a credential, and interacting with faculty and peers.

As always, the goal here is not to come up with a verdict as to whether this innovation is good or bad, but to provide a look under the hood that is useful to policymakers and other observers. I hope you find it helpful, and stay tuned for more.

—Andrew P. Kelly
Resident Scholar in Education Policy Studies
Director, Center on Higher Education Reform
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Executive Summary

The rise of competency-based education (CBE) has redefined what college looks like for a growing number of students. The basic idea underlying CBE is simple: programs award credit based on demonstrated student competencies rather than on the amount of time a student has spent in a given course. Recent advances in technology, including online courses, computer adaptive education, interactive tutoring and mentoring, and the analysis of big data, have only added to CBE’s potential. But CBE models have dramatic implications for how schools serve students, and those changes can affect student success and scalability. Unfortunately, we still do not clearly understand how students actually experience education in a CBE model—that is, the day-to-day process of learning, assessment, and progression.

In this paper, I describe how some of the most prominent CBE providers have designed their programs to meet students’ needs. I examine CBE models in comparison to the familiar phases of the traditional college experience at four-year institutions: recruiting students, starting a program, earning credits, and interacting with others.

This paper highlights how CBE programs invert the structure and choice of traditional higher education. The most clearly defined components of traditional higher education programs (like schedule and timing of classes, time to degree, course materials, course requirements, and the number of credits that must be earned at the institution) are much less structured in CBE programs. In contrast, the components of traditional higher education programs that are typically the most flexible and able to be personalized (like choice of major, choice of classes within majors, and learning objectives within individual courses) are often fixed in CBE programs.

These differences are important for a few reasons. First, recent research has convincingly shown that the structure of academic programs can have large effects on students’ performance and success. More intensive examination of how these factors affect student success is necessary as CBE programs expand. Second, the unique structures of these programs mean that they can reach traditionally disenfranchised groups of students. We need to examine how successful these programs are at reaching new markets. Finally, these programs can increase efficiency in the sector by providing credit for prior learning. This paper provides an in-depth look at the promising features of these programs and the potential shortcomings of this new form of higher education.
The Student Experience: How Competency-Based Education Providers Serve Students

Rachel B. Baker

This paper is the fifth in a series examining competency-based higher education from a number of perspectives.

Almost every American is familiar with what a “typical” college or university looks like, from attending college, observing a close friend or relative who has, or even just watching enough movies set in the college years. In this traditional model, most students take four or five semesterlong courses on a physical campus each fall and spring until they have collected enough credits (usually, two or four years’ worth) to graduate. The traditional rhythm of the college experience—the start of classes, midterms, reading period, and final exams followed by winter or summer break—is often taken for granted, and the emphasis on fixed periods of time is even enshrined in federal and state policy.

But not all colleges fit within this traditional mold now. Specifically, the rise of competency-based education (CBE) has redefined what college looks like for a growing number of students. The basic idea underlying CBE is simple: programs award credit based on demonstrated student competencies rather than the amount of time a student has spent in a course. Instead of having each student march through the same 15-week course and awarding credit at the end (with grades that supposedly capture mastery of course material), CBE models award credit as soon as students can prove that they have mastered a particular set of content and skills. Students move at their own pace toward clear learning goals through a series of assessments designed to measure competence. These assessments are often linked to employer-identified competencies, ideally providing students with a clear link to the labor market.

Recent advances in technology, including online courses, adaptive learning, interactive tutoring and mentoring, and the analysis of big data, have only added to CBE’s potential. But CBE models have dramatic implications for how schools serve students, and those changes can affect student success and scalability. Unfortunately, how students actually experience education in a CBE model—that is, the day-to-day process of learning, assessment, and progression—is still not particularly well-understood. But basic research on how students actually navigate these new models will be important as reformers and practitioners seek to take them to scale.

In an effort to shed some light on the student experience, this paper describes how some of the most prominent CBE providers have designed their programs to meet students’ needs. I focus on the way that CBE providers have marketed their programs to prospective students who may not be familiar with it, and to current nonconsumers who were not aware that more flexible options are available to them. This raises some rather fascinating questions about how some of the first movers and biggest providers have attracted students to their programs.

In that spirit, I examine CBE models in comparison to the familiar phases of the traditional college experience at four-year institutions:

1. Learning about Programs. What types of potential students do providers target and market to? How do programs provide information to students?
2. **Starting a Program.** How are admissions, enrollment, and orientation structured? How do students obtain credit for prior learning?

3. **Earning Credits.** What do course plans, course materials, and resources look like, and how are they delivered? What kind of schedule are students on, if any? And how do students pace themselves through the modules and assessments?

4. **Interacting with Others.** How do students interact with faculty and staff? What about peers who are also in the program?

The analysis is based on interviews with administrators at four of the largest CBE programs in the country: Excelsior College, Western Governors University (WGU), Colorado State University’s (CSU) Global College, and Capella University’s FlexPath program. In addition to these in-depth interviews, I also examined institutional documents and other resources that are publicly available. These four programs were chosen because they are well established and offer a range of student experiences. While some of these schools offer programs that are not competency-based, I will focus exclusively on their CBE programs.

One more important note: the paper is designed to describe the way institutions have endeavored to design the student experience, not necessarily the students’ actual experience, which may differ dramatically. However, in keeping with most existing research, which has focused on the design and implementation of educational programs, I focus here on the different student-facing elements of CBE programs. Future research should interview or survey alumni of CBE programs to examine how students actually experience different types of programs.

### Characteristics of CBE Programs

Before we discuss the student experience in CBE, we must discuss briefly certain integral characteristics of CBE programs that greatly influence the manner in which providers serve their students. The first, understanding the “definition” of a CBE program—what CBE entails and how it differs from traditional higher education, broadly—is perhaps most fundamental to understanding the student experience in CBE. The second is understanding the core constituencies of students who providers serve.

#### Definition of a CBE Program

At its most fundamental level, competency-based education describes a program in which educators define the specific competencies that graduates are expected to have mastered by the time they complete the program. Generally, competencies are marked not just by a defined piece of knowledge or skill but also by the ability to demonstrate this knowledge. Competencies are also usually linked to specific skills and tasks that are necessary for success in particular industries or jobs. In the words of the Council for Adult and Experiential Learning, competencies “signal a degree of career relevance [that is] not visible in traditional curricular models.”

In CBE programs, providers follow a “material-learned” rather than a “time-served” approach. Indeed, a defining characteristic of CBE programs is the diversity of routes by which students can prove proficiency in the required areas of competence. Table 1 identifies the different approaches to awarding credits, displayed across two dimensions. First, do students earn credit for learning directly tied to coursework or for direct assessments of learning not tied to particular courses (represented by the columns in the chart)? Second, do students earn credit for prior learning or for learning done in the program (represented by the rows in the chart)? Of course, these options are not mutually exclusive, and programs can fall into all four squares in table 1.

Examples of programs that fall within this grid range from the very familiar (AP and IB tests—credit for prior learning tied directly to coursework) to the far less common (credit by exam—receiving college credit for self-study on a topic not tied to a particular course). Indeed, because the definition of CBE is quite broad, programs may look and feel like traditional higher education programs, or they may look and feel quite different.

Perhaps the most striking feature of many of these programs is how they invert the structure and choice of traditional higher education. The most clearly defined components of traditional higher education programs
(like schedule and timing of classes, time to degree, course materials, course requirements, the number of credits that must be earned at the institution) are much less structured in CBE programs. In contrast, the components of traditional higher education programs that are typically the most flexible and able to be personalized (like choice of major, choice of classes within majors, even learning objectives within individual courses) are often fixed in CBE programs. These differences are important because recent research has shown that the structure of academic programs can have large effects on students’ performance and success.

The Typical CBE Student. Until now, most CBE programs have been geared toward “nontraditional” students—those who are over the age of 25, working part or full time, and have family responsibilities. In a recent report, Robert Kelchen profiles nine existing CBE programs with more than 140,000 students among them, finding that only roughly 1 in 10 undergraduates in those programs is younger than age 25. He also finds that at eight of the nine institutions, more than 50 percent enroll part time. This unique focus on older, experienced students permeates most aspects of the student experience in CBE programs.

Capella University describes its competency-based FlexPath curriculum as being designed for working professionals who want to advance their careers. The school states that it wants to be the last institution for students. Inherent in this statement is a description of CBE programs’ modal student: someone who has accumulated credits at other schools and wants to get a degree or credential. Many CBE students come into their programs with significant professional experience, and most are working simultaneously; this is true of 96 percent of students at CSU-Global. (Indeed, because most students at WGU are working full time and fitting their studies in around their other obligations, the school’s mascot is the night owl.)

These characteristics are intimately tied to how institutions structure their CBE programs for their student populations. Since students are older and experienced with work and prior schooling, CBE programs have different recruitment strategies (focusing on convincing prospective students that school can fit into their already-crowded lives and on showing students how school can help their career and vice versa), very career-focused curricula, and flexible and customizable “class schedules.”

Learning about Programs

Prospective students interact with CBE providers before they officially enroll in a program, and vice versa. This section examines the manner in which schools reach out to prospective students to attract them to their institution, as well as how students explore providers in making a decision to enroll in a CBE program.

Outreach: Connecting with Prospective Students. When it comes to outreach to prospective students, two important factors differentiate CBE programs from other colleges and universities, and even from other online programs.

First, CBE programs face a unique challenge that more traditional schools do not need to address. More

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Table 1

<table>
<thead>
<tr>
<th>Approaches to Awarding Credits in CBE Programs</th>
<th>Directly Tied to Coursework</th>
<th>Direct Assessment, Not Tied to Particular Coursework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior Learning</td>
<td>Advanced Placement (AP) exams, International Baccalaureate (IB) exams</td>
<td>Credit (via exam or portfolio) for prior learning</td>
</tr>
<tr>
<td>Mastery of New Content</td>
<td>Embedding competency frameworks in the context of a course-based system</td>
<td>Credit (via exam) for mastery of a particular topic</td>
</tr>
</tbody>
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Source: Author
traditional schools can take advantage of society’s generally good understanding of who they are and what they do. Students broadly know what they are in for and that, at the end of the day, they are there to get a four-year degree. Traditional schools focus advertising expenditures on attracting students by differentiating themselves from their competitors through particular programs, amenities, and conveniences.

The same is not true of CBE programs. Because they are relatively new to the industry, they cannot afford to rest on their laurels or make assumptions about what prospective students know. They must actively explain their respective value propositions and the manner in which they serve students. In reviewing the marketing materials of a number of the leading CBE programs, Chip Franklin and Robert Lytle find CBE programs tend to market themselves to students in three ways: faster, cheaper, and more flexible.7

Second, CBE programs have a less-well-defined market for their services than more traditional schools. In addition to customary marketing (including a strong presence on social media), CBE programs rely heavily on identifying prospective students through website traffic and requests for information. The websites of many CBE programs are full of ways for students to express interest and engage with the school: forms to fill out, live chat sessions with admissions counselors, and call centers (for instance, Western Governors University’s call center is open 12 hours a day). Enrollment counselors from these programs then follow up with students who have expressed any interest. These methods permit prolonged engagement with potentially interested students.

Letting Students Explore. One of the first things students considering CBE programs will notice is the attention paid to engaging with students before official enrollment. Online videos, quizzes, student testimonials, and materials from the programs allow students to explore programs before enrolling. These materials reflect both the competitive market in higher education and the lack of understanding of competency-based education. The fact that most of these materials focus on the concept of alternative ways to earn credits shows that these schools feel that they must explain their value proposition to students and sell potential students on their unique educational concept.

These marketing materials are often visually appealing and engaging. Quizzes and videos are designed to hook students in but simultaneously allow the schools to collect useful data on prospective students. For example, visitors to Capella’s CBE FlexPath program website are invited to answer questions about how they learn best:

- How often do you: overcome setbacks? Set due dates? Balance projects? Manage your time in an effective way?
- How much professional experience do you have?
- How confident are you with your ability to demonstrate or learn the following competencies with minimal instruction: Effective Communication? Professional Analysis?8

Capella admissions counselors use the information from these questions to discuss whether the FlexPath program is a good fit when they contact prospective students. (In this way, these initial conversations serve as admissions screening tools for the school as well as opportunities for students to gain information.)

Western Governors’ University offers prospective students a similar quiz to determine if online competency-based education is right for them. WGU asks prospective students a number of questions about things like their experience with higher education. Answer options range from “I’m still at the starting line: This college thing is a brand-new adventure to me” to “I’m definitely no stranger to higher ed!” An example question is presented in figure 1. Prospective students are then given a color-coded page of results highlighting their strengths and potential weaknesses and are advised to contact the school for more information.

WGU counselors also call all prospective students—students who have provided their information online and have said that they are interested in enrolling—at least three times to help them understand what WGU is all about (for example, how competencies work and what taking classes is like). These “low-key phone calls try to take the mystery out of what it is like to be a student.”9
Excelsior College’s nursing programs post videos that explain the program and expectations for prospective students to reference. The videos feature administrators and advisers from the programs and answer specific questions that prospective students might have, including how many credits are required, how students can earn credits, what the exam process looks like, and the process for transferring credit. The videos are generally casual and conversational and end by providing contact information (phone, email, and social media) for students who have further questions.

**Interactions with School Personnel.** The pervasiveness of these opportunities for students to learn about programs is evident in the fact that many programs find that prospective students have already done extensive research by the time they contact programs. Administrators at CSU-Global note, “Students have done a ton of research in advance, so by the time they have contacted CSU [they] know what they want.” This is probably also a reflection of the fact that most students seriously considering CBE programs have previous postsecondary and academic experiences, so they generally know what questions to ask and have a sense of what works for them. Students who research CBE programs tend to be savvy consumers in some ways (they have career experience and usually some college credits) but still need to be educated about the particulars of these programs.

Students who have perused the available resources and are interested in enrolling in a CBE program face a relatively rigorous intake process that usually involves speaking with an admissions and enrollment counselor. The focus of these conversations is generally on discerning a student’s fit for the program and exploring how the student will navigate the program. As I noted, many schools that offer CBE programs also offer more traditional degrees, so students are often given guidance to help them determine which kind of program is right for them.

Enrollment counselors at CSU-Global walk potential students through questions designed to determine
if the program is a good fit and if they are ready to start. These conversations typically take place on the phone but sometimes happen over email or online chat. The questions fall into four broad categories, abbreviated as MAPS: motivation, admissibility, payment, and start date. There is no evidence to indicate whether these conversations are more helpful to the student or the school, but at least the school has the opportunity to highlight what is unique about the program and share some information.

Once students at CSU-Global have decided that they want to enroll, counselors help them determine the credits that will transfer, how they will demonstrate mastery of the remaining competencies, how they will structure these requirements, and their intended timing. Overall, for students who are interested in CBE programs, interactions with school personnel during the front end of the enrollment period may well be especially revealing. If students feel as though they are treated straightforwardly and their needs are understood and considered by the institution, then they should feel some degree of confidence in their potential enrollment decisions. However, as the CBE field expands, less reputable actors will emerge. Moving forward, this initial search and recruitment period should signal students regarding whether the program is a good fit. Negative experiences during these fact-finding experiences may compel students to look elsewhere.

**Starting a Program**

Before officially enrolling in a competency-based program, students must jump through several hoops. This section explores the various stages of how students transition from being a prospective student to taking classes and learning in a CBE environment.

**Admissions Requirements.** The admissions process at selective traditional colleges and universities focuses primarily on previous academic record: standardized test scores and high school grades serve as the primary means of determining admissions. At the other end of the selectivity spectrum, broad-access colleges generally have relatively few admissions requirements: many require only proof of high school graduation, for example. Admissions at CBE programs do not fit into either of these buckets; selection criteria reflect the unique groups of students that these programs serve. For example, rather than relying on previous academic performance, some CBE programs require previous college or professional experience. For example, Capella University requires FlexPath BS applicants to have completed 45 credits of general education in another college or university. The nursing bachelor’s and master’s programs at Excelsior require that a student already be a licensed nurse. Applicants to the Western Governors MBA program must have at least three years of “significant experience in business, industry or a nonprofit organization.” Also, WGU’s BS and MS in Nursing program requires that applicants are working in a position that “requires use of nursing knowledge at time of application and enrollment.” At some schools, students with no previous academic experience can be admitted but are considered a special population; CSU-Global, for instance, has a program called Success Ready for these students. As such, many traditional students would actually not fare well in these admissions processes.

Though these requirements are different from what we are used to in traditional higher education (SAT scores and GPA cutoffs), they are admissions requirements nonetheless. Up to this point, most CBE programs have not been truly open access. This fact has implications for scalability and growth; CBE programs tend to serve specific groups of students and rely on these markets for continued growth. The current models are not designed to serve all groups, and scaling could require significant modifications.

**Transferring Credit from Other Institutions.** Because CBE programs generally serve students with prior higher education experience, they devote much attention to helping students transfer credits from accredited institutions and obtain credit for past non-academic experiences. Indeed, a key difference between CBE programs and traditional higher education is the degree to which CBE providers encourage the transferring in of credits. Traditional higher education allows little portability of credits between schools, particularly in selective four-year institutions. Credit transfer from outside of the system is entirely at the whim of
the college. Schools have little incentive to accept lots of transfer credits, and many more selective schools may fear that generous transfer policies could cheapen their brand and the value of their degree.

This is not the case in CBE programs, where the demands of a unique market demographic necessitate awarding credit for previous experience. This is key for recruiting students. Many schools have disclosure mechanisms in place that directly communicate to students how many previously earned credits the school will accept. For example, CSU-Global has a “Summary Credit Evaluation” tool that provides each transfer student with a personalized estimate of how many credits earned at other institutions will count toward a CSU degree.19

Excelsior College advertises its credit transfer policies in a unique way. In 2013, the school had 15,800 new students who brought along a total of 671,000 credits. The school states that these credits are worth a total of $262 million, according to its “knowledge value index,” which is based on the cost of a credit hour at Excelsior.20 The school advertises this number widely and notes that turning these “working assets” into credits means that “students, their families and benefactors—including federal and state sponsored grant and scholarship programs—did not have to pay for them a second time.”21 This sends the message to students that their prior learning is tangibly worth something and helps with recruitment.

Though a benefit to students, credit transfer is a heavy lift for many CBE programs, as each course has to be individually assessed. At Excelsior College, each transcript is reviewed by hand. To ease this burden, some CBE programs partner with external organizations, such as the American Council on Education (ACE) or Council for Adult and Experiential Learning, to determine how many credits and which competencies prior credits meet. Additionally, most large programs have built up extensive banks of transfer credits from familiar classes at familiar schools.22

The number of credits that transfer varies between schools and between programs within a school. Some programs have no cap, while others, such as the nursing program at Excelsior, are fairly prescribed. Some programs take plenty of transfer credit but require that students take specific classes at the school.23

Not surprisingly, most students starting a CBE program transfer in a number of credits. At Capella University, 75 percent of bachelor’s students and 70 percent of doctoral students receive transfer credits toward their degree.24 The average number of transcripts received from prior institutions per student at WGU is three.25

These transfer policies have clear benefits on a number of levels. This structure allows CBE programs to serve a traditionally underserved student population: those who have prior learning and want to complete a degree. These programs can also help students who have extensive professional experience earn credit for learning outside of school. These programs have the potential to serve some important underserved groups.

This structure could also help to make the higher education market more efficient overall by reducing the number of excess credits that students accumulate. Far too many students take courses in postsecondary education that do not count toward a degree, wasting precious time and money. At the same time, credit transfer policies that are overly generous also have potentially serious shortcomings. If schools give students credit for unworthy or meaningless prior learning, they are cheapening the value of their degree and, potentially, degrees from other programs that students and employers associate with them. This is a delicate balance that is still developing.

Recognizing Prior Learning. In addition to credits earned at accredited colleges and universities, most CBE programs also accept credits earned through other sources. Some are common to most institutions of higher education, such as standardized high school exams (Advanced Placement and the International Baccalaureate Diploma Program, for example) or college-level standardized tests (College-Level Examination Program and ACE tests, for example). Many programs, including CSU-Global, also accept academic credits earned at non-US institutions.26

However, in contrast to many traditional institutions of higher education, many CBE programs will also grant credit for learning in nonacademic settings. This is an integral feature of CBE programs and part of why they are so appealing to nontraditional students. The largest CBE programs have a range of policies for
the kinds of credits they can accept from nonacademic sources. Common sources include

- Military training and experiences
- Professional certification and licenses
- Professional work experiences
- Seminars
- Self-study
- Noncredit classes
- Training courses
- Professional skills workshops
- Corporate trainings

CBE programs employ a number of different paths by which students can get credit for these nonacademic experiences. Credits for some of these sources can be directly transferred in. Most programs provide a list of tests that can be used to fulfill specific requirements. Other sources require exams or portfolio petitions. Generally, advisers help students decide which competencies they might be prepared to get credit for and help them come up with a plan to demonstrate their mastery. This active guidance through the transfer process is much more substantive and directed than the average academic counseling available at resource constrained public colleges.

Because many students who attend CBE programs might later attend another postsecondary program, it is important to think how credits from these programs will transfer to other competency-based or traditional institutions. Some programs, such as Capella, offer their students the choice of competency-based (FlexPath) or credit-based transcripts. A FlexPath transcript lists the competencies with a descriptor for how the student performed (distinguished, proficient, and so forth). On these competency-based transcripts, competencies are grouped by the courses in which they were covered, but course-level performance is not listed. Students can also request more traditional transcripts, which aggregate competencies to the course level and list the courses, grades and credits earned. (For example, “distinguished” mastery of a group of competencies is equal to an A, “proficient” mastery a B, and so on.)

Orientation. We usually think of orientation at traditional, residential four-year schools as an introduction to campus life, a chance to meet dormmates and classmates, and a time to learn the lay of the land. This is not the case in online education programs, where there is no campus to which to orient oneself. In CBE programs, orientations are even a step further from what we may imagine. They focus on preparing students to move through the unique competency format, informing students how classes typically operate and how to earn credits. Many of these programs are embedded in a mandatory “first class” that all students take (sometimes for credit, sometimes not).

Excelsior College requires all undergraduate students to participate in a course-based orientation program. Students must take the course in their first trimester of active enrollment, and they have access to the content for the entirety of their enrollment. The course is free, self-paced, noncredit, and entirely online. It is divided into two sections—one general and one specific to the degree. It is designed to take 9 to 10 hours to complete, and there is a pass/fail test at the end of the general section.

WGU also has a required orientation program, called “Education without Boundaries.” Like all WGU courses, it has explicitly defined competencies: “Student understands academic expectations in the WGU model” and “Student uses WGU tools to communicate effectively.” The course includes readings, tasks, and simple tests and covers material such as academic integrity, APA style, and online course technology. During this orientation, students start working with their mentors on their individualized degree plan, which must be completed before starting coursework. The course is designed to take students a few days to complete, but students report that it can take as little as a few hours. Upon completion of the course, students receive their first competency unit and gain access to their courses and degree plan portal.

In addition to the more formal orientation courses, many schools provide detailed web pages describing the online course environment. For example, Excelsior has a Course Demonstration page that describes what students should expect in an online class on the Blackboard platform. The page has a labeled picture of an online course and a video that explains each part of
The online course systems can be dense and not particularly visually intuitive, so examples like this likely provide much needed step-by-step directions for many students.

These orientation classes serve important, and unique, functions in CBE programs. In addition to sharing information about the programs, these orientations allow students to experience how the programs work—what competencies look like, how you demonstrate mastery, and how to get support from course instructors and advisers.

Earning Credits

After students enroll in a competency-based program, they begin to progress toward completing a degree. This section outlines the various stages involved in students earning credits, including planning a course map and taking courses (in a variety of formats across providers).

Planning Courses. In traditional four-year colleges and universities, students have great latitude in planning their course schedule. Students are encouraged to explore different disciplines; course requirements often provide some broad structure for students’ first year, but in general students control their course plan and can change majors during their program.

In contrast, most CBE programs are relatively prescribed, with many required credits (through classes, credit by exam, and so forth) and few electives. In many programs, students create a very detailed curricular plan with their adviser upon enrollment. Many schools leverage technology to help students keep track of where they are in reference to their program and where they are going.

An example of this is the Personalized Degree Plan (PDP) at WGU, shown in figure 2. Advisers at WGU help students put together a list of courses to take and devise a timeline. The PDP lists the courses that students will take in each term, the assessments students will need to complete, and a time frame for doing so. Assessments range from 3 to 12 competency units, with one competency unit being equivalent to one semester credit of learning.

FlexPath students at Capella follow a similar process. They work with counselors to come up with a Personal Course Completion Plan, which is a schedule for successfully completing all course assessments and a way to organize time and obligations. At CSU-Global, students can see on their student portal a degree progress bar, what credits and courses they have remaining, and
the schedule their adviser has mapped out for them to complete their degree.\textsuperscript{36}

In each of these programs, relatively rigid course requirements, well-trodden curricular paths, and developing technologies allow for easily scalable, individualized advising for entering students. Such structures have been found to be beneficial for student success.\textsuperscript{37} However, the rigidity of these programs has implications for the kinds of students who are attracted to them (generally students who have a relatively solid sense of their own interests and career goals) and students’ ability to change course once they are enrolled.

The efficiencies these programs create could have serious implications for flexibility and students’ abilities to react to new information about their own tastes and abilities. There are considerable startup costs (transferring in credits, taking orientation classes) associated with many of these programs, and many courses do not transfer between programs in the same school. The same structure that supports student success could dissuade undecided students from enrolling or prevent students from changing programs halfway through.

**Course-Taking Experience and Earning Credits.** In most colleges and universities, the process of earning credits is fairly straightforward: students take classes, which entails attending lectures or seminars and completing readings and assignments, usually culminating in a final assessment. In competency-based education, however, earning credits can be a mix-and-match experience: students can take traditional courses but may also earn credit through exams or portfolios (in which they demonstrate mastery of material learned outside of the program) and prior learning transferred from elsewhere, with no externally imposed deadlines or structure by the institution.

**Course-Based Learning.** In the world of CBE, earning credit at WGU looks similar to many traditional schools: students demonstrate mastery of competencies (which are bundled together into courses—each course typically has three or four competency units) through traditional tests, projects, and essays. Students may also work through the resources at their own pace and in any order and can sit for an assessment (an exam at home with remote proctoring using a webcam) when they are ready.\textsuperscript{38}

The FlexPath model at Capella offers students a similar experience. The typical model of course-based instruction is maintained by bundling competencies within courses. Students register for particular courses and can work at their own pace and in any order to demonstrate mastery of each competency. Capella states that the assessments “simulate work you’ll be expected to do on the job.”\textsuperscript{39}

Students at Capella have personalized competency maps (figure 3) for each course that summarize how many competencies they have mastered and how many assessments they have completed. This proprietary visualization lets students continuously track their progress.

Many CBE programs note that their assessments are “authentic” and reflect what is expected in professional roles. For example, accounting students might be asked to analyze a balance sheet, and marketing students might be required to develop a marketing plan for a new product.\textsuperscript{40} While the intuitive appeal of such authentic assessments is clear, there is not yet evidence as to how well these assessments predict future career readiness. As Katie McClarty and Matthew Gaertner noted in their report on CBE assessment, much work needs to be done to link performance on CBE assessments to performance in future classes or the workplace.\textsuperscript{41}

Competencies can be quite broad and a bit vague. (Capella lists “analyze data” as an example of a competency.) In many programs, these vague competencies are further broken down into smaller criteria that are more discrete and meaningful. Clearly, the balance here lies in having competencies that are clear enough that students can grasp what they entail (competencies that are too broad lack meaning for students) but broad enough so that they are meaningfully generalizable in the workplace.

**Competency-Based Exams.** Some CBE programs let students earn credits in ways that diverge even further from traditional classes. For example, students may meet degree requirements through competency-based exams and/or prior learning assessments, which means students can earn required credits without taking a related course.

CSU-Global has 35 classes that students can receive credit for by completing a competency-based exam.\textsuperscript{42} Students who wish to take a specific exam can get access
to CSU-specific study preparation materials and the name of a suggested textbook. When students feel they are ready to sit for the exam, they pay an examination fee ($250 in March 2015). Students who score 70 percent or higher get credit for the equivalent course.

Excelsior College similarly offers students the opportunity to earn credits by individually preparing for and taking its proprietary exams, called UExcel. Almost three-quarters of Excelsior graduates have earned credit from at least one of more than 50 UExcel exams. Each test has a description that outlines the course(s) to which the exam corresponds. After speaking with their adviser, students can register to take a UExcel exam and pay the exam fee (usually $95 but which can be as high as $400). After registering, students receive an “Authorization to Test” letter and have six months from the date of the letter to schedule and take the test at a Pearson Test Center of their choice. Exams are computer based and nearly always multiple choice. This format raises questions regarding tests’ validity and how employers will view credits earned in this manner, but these tests offer flexible and low-cost alternatives for students who want to bypass certain requirements.

When students register for an exam, they can download an exam content guide that summarizes what is on the exam, a list of learning outcomes, a list of study resources, sample questions (with detailed explanations of the correct answers), and a how-to-prepare section including a suggested study timetable (as shown in figure 4 for the Workplace Communication with Computers exam).

**Prior Learning Assessments.** In addition to earning credits through self-guided exams, some programs also allow students to earn credits via a petition and portfolio. These Prior Learning Assessments (PLAs) allow students to demonstrate mastery of particular competencies through prior experience and learning. For example, Capella allows students to earn credit through...
PLAs in which students “demonstrate that [their] previous knowledge and experience matches the targeted learning outcomes of a particular course.” Advisers guide students through the PLA process, and the PLA can take the form of an essay with additional information (certifications or professional experience detailed on a resume). Students at Capella can earn credits through PLAs in seven undergraduate programs (including business, nursing, and public administration) and six master’s programs (including information technology, public safety, and human services).

CSU-Global offers a similar process for earning credit for prior learning. Students can submit a portfolio that includes documentation to show that their previous knowledge and experience matches the material taught in a particular course. Across schools, PLAs often require a lot of contact with faculty members and advisors because they are individualized and unique. CSU-Global notes that students will receive a fair bit of guidance in preparing their PLA. So while this method of earning credit is in some ways far outside the traditionally accepted routes (demonstrating mastery of content through nonacademic sources), students are still guided through the process. Advisers and instructors help students to “sell” their previous work and learning in ways that match what the school is asking for. Not much is known about students’ experiences with PLAs; this is a rich area for future qualitative work.

In addition to the various formats through which students earn course credits, some CBE programs differ from more traditional programs in another important way: they require a capstone competency demonstration. A prime example of this is Excelsior’s nursing program, which requires a two-and-a-half-day capstone at a hospital. The goal of this capstone assessment is to assess students’ competency with various clinical skills. The exam, which is revised annually, is required of all graduates.

Earning credits in CBE programs can take a variety of forms, some of which would look quite familiar to many individuals, and some of which are relatively foreign. These programs advertise to students the flexibility and efficiency of earning credit for prior learning and proceeding at one’s own pace, and the variety of

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**Figure 4**

**Content Outline for UExcel Exam: Workplace Communication with Computers**

**Content Outline**

The content outline, which is similar to a syllabus, describes the various areas of the test. To fully prepare requires self-direction and discipline. Study involves careful reading, reflection, and systematic review.

The major content areas on the Workplace Communication with Computers examination, the percent of the examination, and the hours to devote to each content area are listed below.

<table>
<thead>
<tr>
<th>Content Area</th>
<th>Percent of the Examination</th>
<th>Hours of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Principles of Business Commun.</td>
<td>20%</td>
<td>27</td>
</tr>
<tr>
<td>II. Writing in the Business Env.</td>
<td>25%</td>
<td>34</td>
</tr>
<tr>
<td>III. Technology and Message Pat.</td>
<td>25%</td>
<td>34</td>
</tr>
<tr>
<td>IV. Supporting Data and Visual Aids</td>
<td>15%</td>
<td>21</td>
</tr>
<tr>
<td>V. Oral and Online Presentations</td>
<td>15%</td>
<td>21</td>
</tr>
</tbody>
</table>

Total 100%

ways in which students can earn credits is key to this
efficiency and flexibility.

**Course Materials and Online Resources.** In tradi-
tional college classes, professors select a premade text-
book or put together a course reader for students. The
materials that students use to learn course content are
established and the same for all students. Except for spe-
cific situations (like writing a research paper), students
are generally urged not to stray far from the suggested
materials. One of the unique features of CBE programs
is that students are encouraged to create their own port-
folio of resources—textbooks, readings, articles, and
videos—to use when preparing to demonstrate mastery
of competencies. This is particularly true of students
who are working toward credit through exams or port-
folios. However, many CBE programs also work hard
to convince students that they have resources similar
in quantity and quality to what other more traditional
schools offer.

Each course at WGU has a common set of learning
resources that includes readings, taped lectures, and vid-
eos. Students are also explicitly encouraged to use any
other resources at their disposal; course websites remind
students that they can use experiences and resources
from their professional lives to help with the course.
WGU also provides web-based tutorials through affili-
tations with third-party education providers.

Capella University’s FlexPath website states that
students can “use the suggested source material or
resources of your choosing—videos, articles, or [their]
own work experience.” Assessments include resource
recommendations, but students “choose how to learn
new concepts or enhance [their] existing knowledge.”
Students have access to Capella’s online library, and
many of the textbooks are available online. Excelsior
College also notes that all students have access to a
range of resources: the student portal, a virtual library,
classroom discussions, tutoring services, an online writ-
ing lab, and 24/7 technical support.

This flexibility in choosing course materials could
have important implications for student success. For
students who are established in their career and have
resources—books, guides, and colleagues—at their dis-
posal, the ability to use what they have and know is
likely conducive to course-taking efficiency and deep
engagement with the course content. However, this
free-range attitude could be detrimental to students who
lack such access and need more guidance as they make
efficient progress toward a CBE degree. Much work has
examined the important influence of structure and clear
pathways for student success, and a lack of clear guid-
ance (in terms of flexible course requirements, too many
program options, and thin advising) has been shown to
hurt student progress. CBE programs must thus bal-
ance flexibility and choice with structure.

**Timing.** Course calendars in traditional colleges
and universities are generally quite strict and predictable:
classes usually begin twice a year, in September and Jan-
uary. (Or, sometimes, up to four times a year in schools
on a quarter system.) If a student misses the start of a
semester by a week or two, months pass before the next
classes start. While the predictability of such a sched-
ule is no doubt helpful to many students, the rigidity
of these schedules and length of courses makes it diffi-
cult for students with work and family responsibilities
to take and complete courses.

CBE programs, on the other hand, are generally
flexible enough in their scheduling and deadlines to
meet a wide range of students’ needs. Like the diver-
sity of options for earning credit, the timing and pacing
is quite varied across CBE programs. Some programs
follow the familiar form of terms or semesters, while
others have schedules that look little like traditional
higher education. CBE programs have variable starting
points at many times throughout the year, with course
lengths of varying durations as well. For courses that
are synchronous, on a schedule, and more traditionally
group oriented, courses in CBE programs start rela-
tively frequently. For instance, Excelsior begins new 8-
or 15-week courses six times a year, and CSU-Global
starts new 8-week courses every four weeks.

The schedules for courses that are self-paced and
have fewer deadlines are even more variable. At WGU,
students can start a six-month term on the first of any
month. Students are scheduled for a full load of courses
(about four courses) and have to finish any that they
start within those six months. Capella has a similar
arrangement; course terms are 12 weeks long, and stu-
dents must complete any courses they start within this
time. Students can be enrolled in up to two FlexPath
courses a quarter, and students who finish one course within six weeks of starting can add one more. All assignments are due at the end of the 12 weeks. Many courses have a natural progression of assignments, so students may be encouraged to move in a particular order, but students have a lot of flexibility to progress as they please.

This flexible timing brings up a familiar question: what kinds of students will benefit from this structure? Students who are busy with jobs, families, and the many responsibilities of adulthood might need the flexibility of starting at times that are convenient for them but potentially not common. These students might also need the ability to stop at certain points within a term and restart without waiting for a new term to start. However, individual start times mean that students are less likely to be starting with a cohort and be surrounded by peers who are in their same position. This is potentially dangerous for students who could benefit greatly from social learning and support. I examine how schools address these interpersonal interactions in the next section, though it is certainly an area that merits further inquiry.

Interactions with Others

Just as the backgrounds of students who attend CBE programs and the manners in which students earn credits and progress through CBE programs differ largely from traditional higher education, as does the role of faculty and staff in CBE programs. Many CBE programs have more specialized, or “deconstructed,” faculty roles than traditional programs; the many roles faculty play in traditional programs (teaching, course planning, student advising, and curricular development) are divided up among CBE faculty who serve more well-defined functions. Although comparing across programs is difficult as each program uses its own terminology, I will summarize the ways that students can interact with faculty and college staff.

Content Specialists. Content specialists are faculty most familiar with the material taught to students. Faculty at Capella are experts who work in the field they teach. They create course content, set curricular paths, create competency frameworks, map curricula, and align assessments. Students’ interaction with faculty is generally limited to substantive assessment feedback.

At WGU, faculty also serve in strictly curricular, but quite varied, roles. They serve on program councils (which oversee and approve curricula, identify new programs for development, and define competencies within programs). Faculty can also serve as program managers (responsible for the overall quality and relevance of the college’s degree programs) and curriculum developers. Finally, faculty are evaluators—subject-matter experts tasked with reviewing assessment submissions to determine if competency has been demonstrated.

In general, students have relatively little interaction with content specialists in these CBE programs. This deconstruction of the role certainly brings some efficiencies to institutional operations but could have implications for learning and student engagement.

The literature on adjunct professors in traditional colleges, which has some parallels to teaching at a CBE institution, is mixed. There are some negative effects in terms of later enrollment, but research indicates that this separation of curriculum development from teaching could improve engagement in certain fields.

While interaction with the curricular experts is limited, students in CBE programs interact with a number of nonfaculty staff and advisers. As in more traditional programs, advisers and tutors provide students with important guidance and support. The effect of nonacademic support on persistence and success is well-documented, particularly for students without wide support networks or with many other demands on their time. CBE programs provide support in some very traditional ways, such as with tutors and academic advisers, and in some ways that are uncommon in traditional programs. These advisers generally fall in two camps: course support and programmatic support.

Course Support Advisers. Tutors at Capella University, who are generally doctoral students, are subject-matter experts who offer one-on-one online tutoring and consultation for students. Tutors provide students with proactive support before they submit assessments and connect with students who fail assessments. They also offer group study sessions. WGU “course mentors” play a similar role. Specifically, course mentors
host one-to-many or one-to-one course forums, provide instructional help, and provide support for students who are struggling. Students enrolled at Excelsior, on the other hand, have access to free online tutoring through advisers outside the institution via Smarthinking online tutoring services.

Program Support Advisers. Academic Coaches (advisers for first-years) and Program Advisers (advisers for second-years and above) at Capella University are the main point of contact for students throughout the program. These advisers first help students develop and maintain their academic plans and provide general support for registration, transcript requests, and policy and resource questions. They also maintain one-on-one relationships with students and reach out to students based on specific student behaviors and milestones. At-risk behaviors that trigger outreach include a “nonperformance” score on a competency or inadequate academic engagement or course performance. These individuals typically do not provide support with course content.

Excelsior assigns every enrolled student an academic adviser who helps the student choose a degree program and understand the steps required to complete the program. Academic advisers help students plan how they will fulfill their degree requirements by evaluating transcripts and selecting courses and exams. Once students are engaged in a program, advisers help students with the skills needed to complete it, including time management and study skills. Most of this contact takes place within the school email system (called the message center). All staff (advisers, course faculty, financial aid staff) can access the message center, and a record of each conversation is saved.

Western Governors Student Mentors guide students through the overall program and offer coaching and advice. WGU tells prospective students that they will “stay in close touch with [their] mentor (often weekly) via phone and email . . . in fact, many students experience more interaction with mentors . . . than they ever did in traditional classroom settings.” Little information is available on the extent to which this is actually the case.) Student Mentors provide information on programs, policies, and procedures; help students devise a plan of study; provide feedback on assessments and recommend learning resources; and recommend appropriate student services.

Faculty and staff in CBE programs serve more disaggregated roles than is usual in traditional schools. Curricular and “meta-academic” (time management, study skills) advising are often separated, curriculum planning is often separate from actual teaching, and current students serve in more formal advising roles than is common in many schools. This deconstruction can lead to efficiencies and economies of scale, but has implications for potential siloing and staff retention. The differences between the roles of faculty in CBE programs and faculty in more traditional colleges raise interesting questions about learning and teaching (What is the optimal load and set of roles for college faculty?) and the faculty labor market (Are there challenges in finding qualified faculty for this kind of role?). CBE programs provide a valuable point of comparison for traditional schools and could provide useful insight.

Interactions with Peers. As in many online programs, students’ interactions with peers occur much differently in CBE programs than in traditional settings. In some cases, students’ experiences in CBE are entirely self-directed and individualized, with little opportunity to interact with others.

However, most CBE programs work to encourage interaction and build on the potential strength of peer relationships in some aspects of the program. For example, Capella has discussion boards specifically for FlexPath students, and students attempting to get credit through a PLA portfolio petition are required to take a course in which interaction with other students is a key component. Excelsior College has discussion boards in each of its classes and expects participation from all students.

WGU has two kinds of online student communities: program communities and learning communities. Program communities consist of students and mentors, and the goal is for students to connect about issues related to degree programs, industry news, and networking. Learning communities are associated with the specific assessments students are working on and change each term. These communities focus on academic help and competency development.
CBE programs, and online programs in general, spend considerable time structuring how students interact with one another. However, the extent to which such interactions can replicate or even approximate peer-to-peer learning in more traditional settings is still an open question. CBE programs, with their various personalized ways of earning credit and petitioning out of requirements, have a more difficult challenge than typical online classes. These programs need to continue to think about what peer learning looks like in their programs.

Conclusion

Competency-based education programs are increasingly important players in the American higher education scene. Their focus on demonstrated student ability, rather than time expenditures, is a stark departure from more traditional schools. These programs hold much promise for educating traditionally disenfranchised groups and for increasing efficiency in the sector.

However, the forms of these programs have important implications for the student experience. Too much attention has been paid recently to the importance of structure and support for student success and persistence in higher education. CBE programs provide interesting case studies for this growing body of literature—they provide much more structure than most schools in terms of choice of major, course schedules, and learning objectives within courses. On the other hand, they provide much less structure in other important ways—scheduling and timing of classes, course materials, and how to demonstrate learning within a course.

These programs have great potential for serving students looking to advance in their careers, and much more attention should be paid by researchers and practitioners to how students experience these schools.

Notes

1. Robert Kelchen, The Landscape of Competency-Based Education: Enrollments, Demographics, and Affordability, American Enterprise Institute, 2015.

2. Importantly, as Katie McClarty and Matt Gaertner point out in their paper for the AEI Series on Competency-Based Higher Education, most CBE providers could do more to validate their competencies and assessments against actual workplace performance. Katie McClarty and Matthew Gaertner, Measuring Mastery: Best Practices for Assessment in Competency-Based Education, American Enterprise Institute, 2015.


4. This notion is captured by Excelsior University’s statement of philosophy: “What you know is more important than where or how you learned it.” See Excelsior College, “About Excelsior College,” www.excelsior.edu/about.

5. Kelchen, The Landscape of Competency-Based Education.


9. Conversation with Sally Johnstone, vice president for academic advancement at Western Governors University, September 9, 2014.


11. Conversation with John Bellum, provost and senior vice president; Lauren Anuskewicz, vice president for engagement; and Mindy Curley, manager of alternative credit, Colorado State University Global Campus, August 13, 2014.

12. Many schools actively advise students toward one type of program through admissions conversations and admissions requirements. For example, Capella states that the admissions requirements for its FlexPath program are a little more stringent than for its traditional programs, with a minimum GPA requirement of 3.00 and a fit assessment (which assesses students’ motivation, grit, and prior experience).

13. Getting actual selectivity numbers (percent of applicants who are admitted) for these programs is difficult because not all students are encouraged to officially apply. This is also reflected in official numbers through the US Department of Education. WGU and Capella are listed as “open admissions”
in the Department of Education’s “College Navigator,” and Excelsior and CSU-Global do not report admissions figures because they do “not admit full-time first-time degree/certificate-seeking students.”


17. Western Governors University, “College of Health Professions Admissions Requirements,” www.wgu.edu/admissions/health_requirements.


20. Conversation with Bill Stewart, assistant vice president; Mary Beth Hanner, provost and chief academic officer; and Karl Lawrence, dean, School of Business and Technology at Excelsior College, September 10, 2014.


22. Conversation with Excelsior College.

23. Conversation with Sandy DerGurahian, director of advisement and evaluation, Excelsior School of Nursing, September 9, 2014.


25. Conversations with Excelsior College and Western Governors University.


29. For a more extensive exploration of how schools determine competencies and mastery of competencies, see McClarty and Gaertner, Measuring Mastery.


37. For example, Rosenbaum et al., After Admission.

38. Conversation with WGU.


41. McClarty and Gaertner, Measuring Mastery.


50. Conversation with WGU.
54. For example, see Judith Scott-Clayton, *The Shapeless River: Does a Lack of Structure Inhibit Students’ Progress at Community Colleges?*, Community College Research Center, 2011.
56. Students can approach these courses one at a time or all at once and can take assessments at any time. Some students choose to complete more than a full course load to accelerate the program and save money. From conversation with WGU.
59. Conversation with Jeff Grann, academic director of assessment and learning analytics at Capella University, August 13, 2014.
60. Capella University, “FlexPath vs. Structured Format.”
61. Western Governors University, “About WGU Faculty,” www.wgu.edu/about_WGU/wgu_faculty.
62. These deconstructed roles are not entirely different from what happens at some broad-access colleges.
65. Conversation with Capella University.
66. Western Governors University, “About WGU Faculty,” www.wgu.edu/about_WGU/wgu_faculty.
68. Conversation with Capella University.
70. Conversation with Excelsior College.
73. Brian Flynn, “Faculty Reflects on Online Discussion Workshop,” Faculty Connects at Excelsior College, March 19, 2015, http://faculty.excelsior.edu/faculty-reflects-on-online-discussion-workshop/.
74. Excelsior College, “Admissions—Academic Experience—Online Student Communities,” www.wgu.edu/admissions/academic_experience_communities; conversation with Excelsior College.

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- **The Landscape of Competency-Based Education: Enrollments, Demographics, and Affordability, Robert Kelchen**
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About the Author

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