A primer on prior learning assessments and competency-based education.

In the last several years, policymakers and the public have questioned the nation's system of higher education. Skyrocketing college costs, increasing student debt loads, and stagnating college attainment rates have led many to ask what the nation receives for its nearly $250 billion annual investment in student financial assistance.[i] Additional concerns have been raised about the quality and value of a college education.
At the same time that many are raising concerns about the cost and quality of American higher education, the positive economic benefits of a college degree have never been clearer. In 2011, the median annual earnings of full-time workers ages 25 and older were $56,500 for those with a bachelor's degree, $21,100 more than the median earnings of those with only a high school diploma.

This wage differential has grown substantially in the past few decades. In the same year, median earnings for workers aged 25 to 34 with at least a bachelor's degree were about 70 percent higher than median earnings for those with only a high school diploma. This earning gap is greater than it was a decade ago, but lower than its peak around 2008 and 2009.[ii] Although the economic and societal benefits of a college degree are clear, the proportion of Americans receiving a college education has changed very little in the last two decades. The Organisation for Economic Co-operation and Development's (OECD) data indicate that the United States is falling behind in college attainment, slipping to nineteenth among OECD nations.[iii] As the rest of the world grows its college-educated workforce, more and more jobs in the U.S. will require some form of postsecondary education just to keep up. One study estimates that by 2020, 65 percent of U.S. jobs will require a postsecondary education.[iv] To meet this workforce need, the U.S. system of higher education will have to accelerate its current output of college degrees and credentials. In 2014, the percentage of Americans aged 25-64 with a two- or four-year college degree was 40.4 percent. Among young Americans, aged 25-34, the postsecondary education attainment rate in 2014 was slightly higher at 42.3 percent.[v]

A number of avenues exist for increasing the number of Americans with postsecondary credentials and degrees: increasing the percentage of high school graduates immediately enrolling in college, increasing college persistence and completion rates and bringing

individuals who have some college education but no degree or credential back into the system to complete their education.[vi] Whatever the particular strategy, many argue it is essential to raise the nation's college attainment rate in ways that are both cost- and time-effective for students, institutions and taxpayers and in ways that ensure the credentials and degrees received are high-quality and meet the needs of employers. Use of prior learning assessments and competency-based education are two such strategies.

Prior Learning Assessments (PLA)

Prior learning assessments (PLA) in the United States have their beginnings in World War II, when the G.I. Bill brought large numbers of veterans to college. Because many of these veterans were older and had family responsibilities, they wanted to complete their college education as expeditiously as possible and did not wish to repeat college-level learning and knowledge that they had gained during their time in the military. Beginning in the 1940s, the American Council on Education undertook reviews of various military trainings and courses of instruction with the purpose of awarding college credit.

As other groups of non-traditional students sought a college education in subsequent decades, the awarding of college credit for learning outside the traditional classroom expanded. For all of these non-traditional groups of students, many of whom are older, working and with family responsibilities, receiving college credit for knowledge and learning already acquired offers the benefit of both shortening the time to degree and lowering the total cost of college. A 2010 study found that adult students who received PLA credit were 2.5 times more likely to persist in their education and complete their degrees than students who received no credit for prior learning.[vii]

Types of Prior Learning Assessments
The underlying premise of PLA is that college-level learning can and does occur outside the traditional college classroom. As defined by the Council on Adult and Experiential Learning, prior learning assessment is "the process by which many colleges evaluate for academic credit the college-level knowledge and skills an individual has gained outside of the classroom, including from employment (e.g., on-the-job training, employer-developed training), military training/service, travel, hobbies, civic activities and volunteer service."[viii]
Today, there are four methods for assessing a student's prior learning: (1) evaluation of military and corporate training and coursework; (2) standardized tests; (3) course challenge exams; and (4) student portfolios.

Evaluation of Military and Corporate Training

As discussed above, beginning in the 1940s, the American Council on Education (ACE) undertook reviews of military training to provide college credit recommendations for colleges and universities. ACE evaluates courses across all branches of the U.S. military and across all levels of instruction (vocational, associate's, bachelor's, and graduate and professional). They

employ subject matter specialists from higher education to carry out the course evaluations and to make determinations for whether or not a course qualifies for credit, and, if recommended, how much credit and at what level.

ACE maintains an up-to-date online database of the courses it has evaluated. In addition to its recommendation for credit, the ACE database includes information about the length of each course evaluated, the learning outcomes and objectives for each course and the modes of instruction (e.g., lecture, independent study, practical exercises). Below are two examples of ACE-reviewed military courses and recommendations.

Chart 1: ACE Military Guide Examples	
ARMY – Dental Laboratory Specialist **Course Number:** 331-N5, Phase 1. **Location:** Medical Education and Training Campus, Fort Sam Houston, TX. **Length:** 3 weeks (120 hours). **Learning Outcomes:** Upon completion of the course, the student will be able to fabricate resin-bonded fixed dental prostheses; explain computer-aided manufacturing (CAM) and computer-aided design (CAD); recognize alternative waxing techniques; and describe maxillofacial prosthetic fabrication. **Instruction:** Methods of instruction include discussion, laboratory, lecture, and practical exercises. General course topics include stereolithography laboratory; CAD/CAM technology; maxillofacial prosthetics; alternative waxing techniques; and fabrication of resin-bonded fixed dental prostheses. **Methods of Assessment:** Methods of assessment include presentations, performance rubrics (checklists), and examinations. **Related Competencies:** Dental laboratory technician topics include alternative waxing techniques, computer-aided design (CAD), computer-aided manufacturing (CAM), maxillofacial prosthetics, resin-bonded fixed prosthesis, and stereolithography laboratory. **Credit Recommendation:** In the lower-division baccalaureate/associate degree category, 2 semester hours in dental laboratory technician.	**MARINE CORPS – Advanced Machinegun** **Course Number:** H6A. **Location:** School of Infantry West, Camp Pendleton, CA. **Length:** 6 weeks (370 hours). **Learning Outcomes:** Upon completion of the course, the student will be able to provide leadership to small groups in a tactical environment; demonstrate land navigation skills in the tactical environment; provide mission planning; implement mission plans in the tactical environment; and establish and maintain tactical communications over the assigned net. **Instruction:** Methods of instruction include audiovisual materials, classroom exercises, discussion, lecture, and practical exercises. General course topics include tactical communications, mission planning, mission execution, terrain navigation, team deployment, situational awareness, tactical plotting, and decision-making. **Related Competencies:** Tactical planning topics include communications via radio net, face-to-face communications, land navigation, mission planning, situational awareness, tactical plots, and team deployment considerations. Strategic planning topics include communicating strategic intent, communication, communication protocol, critical thinking and analysis, forecasting and planning, scenario development, situational leadership, strategy development and deployment, and tactical maneuvers. **Credit Recommendation:** In the lower-division baccalaureate/associate degree category, 3 semester hours in tactical planning and 3 in strategic planning.

Sources: http://www2.acenet.edu/militaryguide/ShowAceCourses.cfm?ACEID=470214 and http://www2.acenet.edu/militaryguide/ShowAceCourses.cfm?ACEID=489821

Just as the military provides ongoing training and coursework to its members, many employers – corporate, nonprofit, government, religious and unions – provide education and training that are equivalent to college-level learning to their employees as a means to retain and build talent. Since the 1970s, the National College Credit Recommendation Service (formally known

as the Program on Noncollegiate Sponsored Instruction or PONSI) and ACE have reviewed and made recommendations for college credit for training and education programs offered by employers outside the traditional college classroom. Similar to the review of military training and education, the reviews conducted by the National College Credit Recommendation Service and ACE are led by teams of subject matter experts. Below are just two examples of workplace training reviewed by the National College Credit Recommendation Service and ACE.

Chart 2. College Credit Recommendation Service Example

Emergency Medical Services Training

Location: Bridgeport, CT

Length: 1200 - 1400 hours (616 lecture; up to 784 field) (14 months)

Dates Offered: January 2007 - Present.

Objectives: Upon successful completion of the course, students will be able to: perform a patient assessment including medical history intake and a physical examination; record and monitor vital signs and auscultation of lung sounds; assist with and review the treatment of trauma emergencies and triaging patients; assist in and use of appropriate body substance isolation techniques; assist in hemorrhage control and splinting; assist and review care and treatment of cardiac patients; assist in treatment for respiratory and/or cardiac arrest: perform CPR, basic airway management and defibrillation and rescue airways including LMA, Combitube and CPAP; assist in transfer of patient information and referral; perform venipuncture and administer intravenous fluids; perform adult and pediatric IO and endoctracheal intubation; administer medication; perform electrical therapy including Defibrillation, Cardioversion and Pacing; interpret ECG results; perform subcutaneous and intra muscular injections (EMT-CC, Paramedic); administer IV Push and Drip medication and rectal drug administration (Paramedic); assist in the care of the pediatric patient and the emotionally disturbed patient (paramedic); and conduct medical communications (AEMT, EMT, Paramedic).

Instruction: The Paramedic program is designed to train the currently certified EMT in advanced medical care in a pre-hospital environment and follows the current Department of Transportation EMT paramedic curriculum. The three semester program consists of lecture and lab instruction, clinical rotations, and an extensive ambulance field internship.

Credit recommendation: In the lower division baccalaureate/associate degree category or in the upper division baccalaureate degree category, 38 semester hours in Paramedic Sciences, EMS Technology, Allied Health Science, or Health Sciences (12/12). NOTE: Of the 38 semester hours, 6 semester hours may be allocated for Anatomy & Physiology or Human Biology and 2 semester hours may be allocated for Physical Education.

Source: http://www.nationalccrs.org/bridgeport-hospital-emergency/emergency-medical-services

Chart 3. ACE College Credit Recommendation Service Example
Organization: McDonald's Corporation **Location:** Self-study/Learning Management System and Coached Study. **Length:** 105 - 114 hours **Dates Offered:** 7/1/2014 - 6/30/2017 **Prerequisites:** Crew Station Verifications, Maintenance Verifications, Crew Trainer Verifications. **Objective:** The course objective is to develop the knowledge and skills to manage people, product, and equipment to quality, service, cleanliness, and value (QSCV) standards on assigned shifts. **Learning Outcome:** Upon completion of the course, the student will be able to understand the McDonald's history, vision, and values that the manager will promote as a manager and a brand ambassador; perform basic functions on the learning management system (LMS) including how to launch training and register for a class; communicate shift manager role and responsibilities and high level understanding of leadership behaviors shift managers need to display; demonstrate understanding of the rules about how people are paid, what hours they may work, and what duties they may perform; communicate information about McDonald's history and culture beginning in 1948; communicate McDonald's respectful workplace policies and identify and address respectful workplace situations in the restaurant; demonstrate the basic people skills and knowledge to prepare to become a manager at McDonald's; manage the production area; complete the daily food safety checklist and assist in the discovery of why these tasks are so important in our restaurant; manage the front counter area; understand what our guests expect when they visit our restaurants and how to handle situations that may arise on a day-to-day basis with our customers; manage the drive-thru area; use the shift management process to meet desired business results in the restaurant; demonstrate a beginning knowledge of increasing profitability in the restaurant; and prioritize opportunities for improvement that can affect a restaurant's quality, service, cleanliness, and value in day-to-day work. **Instruction:** Methods of instruction include computer-based training, discussion, learner presentations, and practical exercises. General course topics include McDonald's history, vision, culture, and values; LMS basics; Shift Manager role profile and leadership behaviors; wage and hour laws; basic people skills; area management (production, front counter, and drive-thru); food safety; guest expectations; shift management; profitability; and prioritization. **Assessment:** Methods of assessment include coaching verifications and pre and post assessments with a minimum passing score of 80 percent. **Credit Recommendation:** In the lower-division baccalaureate/associate degree category, 3 semester hours in introduction to restaurant management and 3 in internship. This course is recommended for a total of 6 semester hours at the lower-division baccalaureate/associate degree category.

The ACE and the National College Credit Recommendation Service's recommendations do not necessarily mean that credits will be accepted at an institution. Whether or not to accept the recommended credits is a decision that rests with each individual college and university.

In addition to reviews conducted by ACE and the National College Credit Recommendation Service, some individual colleges and universities conduct reviews of employer training and education to determine if such training might be eligible for college credit. For example, American Public University has partnered with Walmart to offer college credit for many of Walmart's training courses, the University of Phoenix has an extensive credit recommendation guide for workforce training and evaluation and Starbucks has partnered with City University of Seattle to offer college credit for its barista training classes.[i]

Standardized Tests

Another means for assessing prior learning is the use of standardized tests. Over the years, a number of national testing programs have been developed to test student knowledge of college subjects. The most well-known of these testing programs are those that primarily serve traditional students – the College Board's Advanced Placement (AP) and the International Baccalaureate (IB) programs. Typically, students who score a 3 or higher on an AP exam may be granted college credit. Similar to AP, IB coursework may award students with college credits. For non-traditional, adult learners, there are a number of additional national testing programs that were developed especially to meet their unique needs.

The most well-known of these are the College-Level Examination Program (CLEP), DSST Exams(formerly known as the DANTES Subjects Standardized Tests) and Excelsior Exams. Like AP, individuals who earn a passing score on these exams may be granted college credit. Although there is a fee ($80 and up) for taking these assessments, the fee is significantly less than the cost of an equivalent college course. Further, if a student can earn credit for a course through one of these exams, the student saves significant time by not having to sit through the course and may advance more quickly towards his or her degree. However, as is the case with ACE and the National College Credit Recommendation Service reviews of military and corporate training, whether and how to offer students credit for their performance on a national standardized college exam is a decision that rests solely with each individual college and university. Around 2,900 colleges accept CLEP credits.[ii]

The college courses covered by these three major standardized testing programs are those typically covered by the general college curriculum. Below is a chart of the exams currently offered by these programs.

Chart 4. Prior Learning Standardized Assessments

CLEP	DSST Exams	Excelsior Exams
American Government	Art of the Western World	Abnormal Psychology
American Literature	Astronomy	Anatomy & Physiology
Analyzing and Interpreting Literature	Business Ethics & Society	Anatomy and Physiology I
Biology	Business Math	Anatomy and Physiology II
Calculus	Civil War and Reconstruction	Basic Genetics
Chemistry	Criminal Justice	Bioethics: Philosophical Issues
College Algebra	Environment & Humanity	Business Ethics
College Composition	Ethics in America	Business Information Systems
College Composition Modular	Foundations of Education	Business Law
College Mathematics	Fundamentals of College Algebra	Calculus
English Literature	Fundamentals of Counseling	College Writing
Financial Accounting	Fundamentals of Cybersecurity	Contemporary Mathematics
French Language	General Anthropology	Cultural Diversity
German Language	Here's to Your Heath	Earth Science
History of the United States I	History of the Vietnam War	English Composition
History of the United States II	Human Resource Management	Ethics: Theory & Practice
Human Growth and Development	Human/Cultural Geography	Financial Accounting
Humanities	Introduction to Business	Foundations of Gerontology
Information Systems	Introduction to Computing	General Chemistry I
Introduction to Educational Psychology	Introduction to Law Enforcement	Human Resource Management
Introductory Business Law	Introduction to World Religion	Interpersonal Communication
Introductory Psychology	Life Span Development	Introduction to Computer Programming Using Java
Introductory Sociology	Management Info Systems	Introduction to Cybersecurity
Natural Sciences	Money and Banking	Introduction to Macroeconomics
Precalculus	Organizational Behavior	Introduction to Microeconomics
Principles of Macroeconomics	Personal Finance	Introduction to Music
Principles of Management	Principles of Finance	Introduction to Philosophy
Principles of Marketing	Principles of Physical Science	Introduction to Psychology
Principles of Microeconomics	Principles of Public Speaking	Introduction to Sociology
Social Sciences and History	Principles of Statistics	Juvenile Delinquency
Spanish Language	Principles of Supervision	Labor Relations
Western Civilization I: Ancient Near East to 1648	Rise and Fall of the Soviet Union	Life Span Developmental Psychology
Western Civilization II: 1648 to the Present	Substance Abuse	Literacy Instruction in the Elementary School
	Technical Writing	Managerial Accounting
		Microbiology
		Operations Management
		Organizational Behavior
		Pathophysiology
		Physics
		Political Science
		Precalculus Algebra
		Principles of Finance
		Principles of Marketing
		Principles of Management
		Psychology of Adulthood & Aging
		Research Methods in Psychology
		Quantitative Analysis
		Science of Nutrition
		Social Psychology
		Spanish Language
		Statistics
		Weather and Climate
		Workplace Communication With Computers
		World Conflicts Since 1900
		World Population

Sources: http://www.excelsior.edu/exams/choose-your-exam; https://clep.collegeboard.org/exam; and http://getcollegecredit.com/

Course Challenge Exams and Student Portfolios

Course challenge exams and student portfolios are the two least standardized of the PLA models. Course challenge exams are, in essence, course final exams. For those colleges, universities and departments that allow for this option, a student may seek to take a final examination for a given college course rather than spending the standard 16 weeks in a course with its requisite assignments and assessments. Like typical final course exams, course challenge exams vary in format and may contain multiple choice, short answer, essay questions or performance tasks.

Earning college credit through a student portfolio is the most individualized of all the PLA models. Institutions that permit students to use portfolios to earn college credit have varying procedures; however, most entail a student selecting the course or courses which they believe match their knowledge and skills, putting together documentation to support their claim for the prior learning required toward college credit and submitting their documentation to a faculty member for review and final determination of college credit. To assist individuals in putting together a learning portfolio, the CAEL has in recent years launched a service called LearningCounts. Through LearningCounts students may create their portfolios through a self-paced, non-credit course (Do-It-Yourself), or an instructor-led six-week, three-credit course.

Barriers Impacting Prior Learning and Recent Events

While PLA has been around since the 1940s, few students have earned college credit for their learning outside the traditional college classroom. Aside from the Advanced Placement program that serves a traditional-age college population, most adults who wish to attend college for the first time or return to college after a lapse in attendance—the group of students for whom PLAs could be most beneficial—never learn that an option may exist for earning college credit through PLAs. Few colleges offer students credit for prior learning, and many of those that do, do not advertise this option to students. The unwillingness of colleges to accept prior learning appears to stem, in part, from a long-standing faculty skepticism of, and bias against, learning that occurs off campus, believing that what is learned elsewhere is of lower quality. The bias against prior learning is very similar to the bias against accepting transfer of credit from other institutions. Additional barriers that many schools have erected are rules that only allow credits earned through prior learning to be applied as elective credits or placing caps on the number of credits that can be earned through PLA.

While many institutions have been skeptical of prior learning, a handful of institutions have a history of embracing it. In the 1970s, four public institutions in New Jersey, New York and Connecticut were established to serve non-traditional adult students: Thomas Edison State College, Excelsior College (formerly Regents College and now a private nonprofit college), Empire State College and Charter Oak State College. Often referred to as “credit aggregators,” from the start these schools have helped adults pull together degrees by accepting and assembling their academic credits earned through PLA and other higher education institutions.[i] Looking to the success of institutions such as these in helping adults complete

their degrees through prior learning, a small number of states in recent years have started trying to break down the barriers to prior learning both by advertising the option to students and by standardizing the acceptance of prior learning credits across their state institutions of higher education. Among these states are Tennessee, Washington and Colorado.[ii]

In addition to the institutional and cultural barriers to PLA, there are also financial barriers to their wider use. Under current federal rules for student financial assistance (Pell, student loans), the cost to students for PLA is not an allowable educational expense. Although the cost is usually under $100 per assessment, for many low-income working adults that cost is often still too high of an out-of-pocket expense. However, in July of 2014, the U.S. Department of Education announced an experimental sites initiative where students may use federal financial aid (including the Federal Pell Grant) to pay for PLA. More than 40 colleges are participating in this experiment, including University of Phoenix, Charter Oak and several community colleges.[iii]

Competency-Based Education (CBE)

As discussed earlier, concerns are increasing about the quality of American higher education. For some time now, employers have complained that recent college graduates lack the knowledge and skills necessary to compete in the workforce. Additionally, studies of college student learning indicate that a college education as currently constructed and delivered offers students relatively little value-add to their knowledge.[iv] Although these concerns are not new, they have taken on urgency given the increasing need for more Americans to have a high-quality postsecondary degree or certificate to compete and succeed in today's economy.

One way to ensure college graduates have the knowledge and skills needed to compete in the workforce is to embrace competency-based education. While there currently is no federal definition of competency-based education (CBE), September 2015 guidance from the U.S. Department of Education defines it in the following terms:

In general, a CBE program is one that organizes content according to what a student knows and can do, often referred to as a "competency." CBE programs also generally have very clear claims for student learning, stress what students can do with the knowledge and skills they acquire, and have assessments that provide measurable evidence of competency. Student progress is determined by mastery of each competency. Because CBE focuses on whether students have mastered these competencies, there is a focus on learning outcomes rather than time spent in a classroom.[v]

CBE distinguishes itself from traditional higher education by focusing on what students learn and by breaking away from the credit hour. Traditional higher education is time-based – a student earns a degree after earning a specific number of credit hours. Under this traditional credit-hour based system, time is constant (e.g., 120 credit hours earned over 4 years), and learning is variable (e.g., a student earns the same number of credits for a grade of C- as he or she does for an A+). CBE flips the traditional time-based model. Under a competency

framework, learning is constant (e.g., a student has either mastered the concept or not), and time is variable (e.g., students may progress quickly through material which they find easy or with which they have familiarity, or slow down their pace and spend more time on material that is more difficult or less familiar to them).

Under a CBE model, students progress in their program of study not by accumulating credit hours, but by demonstrating their skills and knowledge of particular subject matter competencies through a set of assessments. Additionally, rather than being graded on a scale of A-F, as is the grading rubric in traditional higher education, students either do or do not demonstrate their mastery of competencies. In most competency-based programs, mastery of competency is equivalent to a grade of B or better.

It is important to note that the majority of CBE programs, including direct assessment programs, still must rely upon the credit hour for federal financial aid. To enable students to qualify for aid, current federal regulations require institutions to equate competencies back into credit hour equivalencies.[vi]This process is complex and may prove intimidating to some institutions. A recent publication from the Competency-Based Education Network (CBEN) provides guidance and key questions for financial aid administrators to ask when considering a CBE program on their campus, and the related financial aid implementation implications.[vii]

Origins of Competency-Based Education

The origins of competency-based higher education programs within the United States date to the 1970s. At the time, CBE programs were viewed as an attractive option for adult learners who often entered college with knowledge and skills that would allow them to advance quickly through some material, but who also needed additional time for newer material.[viii] Although a number of CBE programs were created in pockets across the United States, these programs remained a small, relatively unknown niche in American higher education until the development of Western Governors University (WGU) in 1995.

Western Governors University was created by 19 western governors led by Governor Michael Leavitt (R-UT) and Governor Roy Romer (D-CO). At the time of its founding, the governors had heard from employers that traditional colleges were not graduating students with the skills employers needed. Additionally, many were worried about the rising cost of college. Thus, in its development the governors sought a new model of higher education that ensured graduates had the knowledge and skills necessary for the workforce that was both affordable and accessible. CBE was the model they chose.

For each degree program at WGU, an advisory group of industry professionals and experts in a given field define the competencies for the degree to ensure that students gain the knowledge and skills necessary to succeed in their chosen field of study and work. Students then take a series of assessments to test their mastery of the required competencies for their program of study. For a point of reference, see this webpage for a description of the required competencies for a WGU degree in health informatics: http://www.wgu.edu/sites/wgu.edu/files/BS_HI_14.pdf.

Through their course of study, WGU students work with faculty mentors who help them select learning resources to prepare for each of the assessments required to measure program competency. These resources include textbooks, e-learning modules, study guides, simulations, virtual labs and tutorials.

As of December 2015, WGU had over 63,000 students and awarded over 50,000 degrees in areas including teacher education, business, information technology and health professions. To ensure affordable access for students tied neither to time nor place, all degree programs are online and tuition is a flat rate of $6,000 for 12 months of learning that allows students to progress as quickly as they are able. In 2014, the average time to graduation for WGU students was 34 months, well below the average of 54 months at traditional campuses.[ix]

Although WGU currently has the greatest name recognition as a competency-based education model, there are a number of other competency-based programs across the United States. Some of these programs are long-standing, such as Alverno College's program that began in the 1970s, and others launched more recently such as Southern New Hampshire University's College for America program.

Barriers Impacting Competency-Based Education and Recent Events
As with PLA, the two primary obstacles to greater adoption and creation of CBE frameworks are cultural and financial. For more than two centuries, higher education has primarily been delivered one way in the U.S. – students come to a campus and sit in a designated series of courses led by professors for a designated period of time. CBE models are often unsettling and met with skepticism by faculty and leaders of traditional higher education who themselves are products of the traditional model.

With regard to financial barriers, the credit hour, which competency-based models are designed to disrupt, is more than just the current measure of progress towards a degree – it has come to be the basis for awarding student financial aid and determining institutional and departmental budgets. Even though WGU and other competency-based models seek to break from the credit hour by allowing students to demonstrate mastery of competency, they still need to equate everything back into credit hours to enable students to qualify for federal financial aid. A 2005 amendment to the Higher Education Act created the opportunity for WGU and others to participate in the federal financial aid programs and offer competency-based "direct assessment" programs unrelated to credit hours, but no institutions applied until 2013.[x]

The success of WGU, along with the growing concern about the cost and quality of education, has brought renewed attention to the possibility of CBE as a significant postsecondary reform. This is a reform not without challenges: a changing regulatory environment, expanded roles for accrediting organizations and data collection and research, are all outlined below.

CBE Regulatory Environment

Over the past three years, the U.S. Department of Education (the Department) has begun to provide a regulatory framework for expanded CBE and has allowed some institutions to offer direct assessment programs. In September 2012, the Department created a working group on direct assessment to review the 2005 Higher Education Act provision allowing for direct assessment and to provide technical assistance to institutions and others interested in how this affected financial aid eligibility.[xi] On March 19, 2013, the Department issued guidance, *Applying for Title IV Eligibility for Direct Assessment (Competency-Based) Programs*,[xii] which explained how institutions can have CBE programs approved under the current regulations, while also acknowledging that the current law may not accommodate innovative programs. Later in 2013, the Department approved applications received from Southern New Hampshire University and Capella University to begin direct assessment programs in the fall of 2013 and 2014, respectively.

Beginning in January 2014, the Office of the Inspector General (OIG) audited the Department's actions and found that it did not adequately address the risks that direct assessment posed to the federal financial aid program. Specifically, the OIG found that the Department did not have processes in place to prevent students from using financial aid for "life experiences" and the Department could not guarantee that direct assessment programs were not correspondence courses, lacking substantive student-faculty interaction.[xiii] To address these findings, the Department issued further guidance, *Competency-Based Education Programs- Questions and Answers*, on December 19, 2014.[xiv]

In July 2014 the Department issued a *Federal Register* notice inviting institutions to participate in experimental sites initiatives related to CBE. Approximately 40 institutions participate in a program that provides federal student aid to students enrolled in self-paced CBE programs.[xv] In addition, approximately 30 institutions participate in the Limited Direct Assessment experimental site, which allows flexibility for an institution to provide a mix of direct assessment coursework and credit or clock hour coursework in the same program.[xvi] See the chart below for a list of the institutions participating in the experimental sites.

Chart 5: Experimental Sites Participants			
	Prior Learning Assessment	Competency-Based Education	Limited Direct Assessment
American Sentinel University		X	
Antioch University	X		
Austin Community College (CC) District	X	X	X
Big Sandy Community & Technical College		X	
Boston Architectural College			X
Brandman University		X	X
Broward College	X	X	
Bryant and Stratton College	X	X	X
Capella University	X	X	X
Central Arizona College	X	X	X
Charter Oak State College	X		
Colorado State University - Global Campus	X	X	X
Community College of Philadelphia	X		
Danville CC	X	X	X
Davis Applied Technical College		X	
El Centro College	X	X	
Elizabethtown Community and Technical College		X	
Fielding Graduate University	X	X	X
Francis Tuttle Tech Center		X	
Grayson College	X		X
Hawaii CC	X		
Helena College of Montana			X
Indiana Wesleyan University		X	X
Ivy Tech CC		X	X
Jefferson Community and Technical College		X	
Jones County Junior College		X	X
Kaplan University	X		X
Lincoln Land CC		X	X
Lipscomb University		X	X
Miami Dade College	X	X	X
Milwaukee Area Technical College	X		
Monroe CC	X	X	X
Montgomery County CC	X		
Mount Washington College	X	X	X
National American University	X	X	X
National Louis University	X		
Neosho County CC	X		
North Lake College	X		
Northern Arizona University		X	
Northern Essex CC	X		X
Northern VA CC	X		X
Norwalk CC	X		
Paul Smith's College			X
Polk State College		X	
Rasmussen College		X	X
Richard Bland College	X	X	
Rio Salado College	X	X	
Salt Lake CC		X	
Somerset CC		X	
Southern New Hampshire University		X	X
Southwest Wisconsin Technical College	X		
SUNY Empire State University			X
Syracuse University	X		
The New School	X		X
Thomas Edison State College			X
Trident University International		X	X
University of Louisville		X	
University of Maryland University College	X		

Given the recent opportunities for experiments and the growing demand for CBE programs, colleges and universities have shown tremendous interest in this type of programming. In spring 2014, nearly 60 institutions offered CBE programs. That number is expected to grow in the coming years; According to a 2015 survey from Public Agenda, more than 600 colleges and universities are either offering or have expressed serious interest in offering CBE programs.[i]

Additionally, in October of 2015, the Department of Education announced the creation of the Educational Quality through Innovative Partnerships (EQUIP) program under the Experimental Sites Initiative. EQUIP will offer institutions waivers from current law in order to enable students an opportunity to receive federal student aid if they are enrolled in programs that are otherwise ineligible for federal student aid. One of the stated goals of EQUIP is to help the Department evaluate the effectiveness of non-traditional providers in improving student education and employment outcomes.[ii]

Accreditation

Together, the Department, institutions and accrediting agencies determine whether a program constitutes CBE. In order for a college or university to participate in the Department's CBE-related experimental sites, one or more of its programs must be approved, recognized, or designated as a CBE program by the institution's accrediting agency.[iii] Accreditors must evaluate an institutions' plan for translating CBE courses into equivalent credit hours and determine whether there is substantial faculty-student interaction.

The accreditation review of CBE programs has faced some hurdles. A 2015 OIG report cited a regional accreditation organization's review of CBE programs. The report, *The Higher Learning Commission Could Improve Its Evaluation of Competency-Based Education Programs to Help the Department Ensure the Programs Are Properly Classified for Title IV Purposes,*[iv] found that the regional accreditor did not properly evaluate credit-hour equivalencies, determine faculty-student interaction or review programs that may have had substantive changes.
Recent additional guidance or potential reforms may provide increased clarity and consistency for CBE accreditation. In June 2015, the Council of Regional Accrediting Commissions provided guidance to its member accreditors of direct assessment programming.[v] Also, in September 2015, the Department issued the detailed guidance mentioned above. Some researchers have suggested creating an accreditation organization or oversight/advisory body specializing in competency-based education. [vi]

Data Collection and Research

With innovative programs, there is a strong desire for comprehensive evaluations and rigorous data. With CBE, including direct assessment, neither currently exist. Realizing this, an association of institutions is collaborating to evaluate its members' CBE programs. This group, known as the Competency-Based Education Network, is composed of 30 colleges and

universities and four public systems with 82 campuses.[vii] In addition, the Department requires data collection as part of its experimental sites initiatives. However, data from the experimental sites are not currently publicly available.
Existing data sets do not allow researchers to disaggregate students enrolled in CBE programs from students enrolled in traditional credit-hour based degree programs.[viii] The resulting paucity of data and research generates skepticism of CBE programs among some, including employers. A recent survey of employers found that overall employer awareness of CBE was low. This lack of awareness seemed to correlate with a lack of understanding of the potential benefit of hiring CBE graduates.[ix]

Looking Ahead

Although the cultural barriers to the use of prior learning assessment and competency-based education will most likely persist for some time, proponents of these strategies as a means to increase the number of individuals with a high-quality degree or credential in a cost- and time-effective way are hopeful that the upcoming reauthorization of the Higher Education Act might serve as an opportunity to begin to break down the financial barriers to expansion of these strategies. Removing the federal financial aid barriers to these reforms, along with bolstering research and data, their proponents hope, will give the reforms the legitimacy they need for more rapid acceptance and adoption among traditional higher education.

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[v]Lumina Foundation. (2016, April). *A Stronger nation through higher education.* Indianapolis, IN: Author. Retrieved from http://strongernation.luminafoundation.org/report/2016/.

[vi] Many believe this last avenue holds great promise for raising the college attainment rate of the United States. Currently, approximately 36.2 million Americans ages 25-64 have some college but no degree. For more information, see the Lumina Foundation's *A Stronger Nation through Higher Education*, available at https://www.luminafoundation.org/files/publications/A_stronger_nation_through_higher_education-2015.pdf.

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