

Center for American Progress



A Path Forward

Game-Changing Reforms in Higher Education and
the Implications for Business and Financing Models

By David A. Bergeron December 2013

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Introduction and summary

At a recent convening of the Alliance of States, Complete College America, a national nonprofit dedicated to growing the pool of American college graduates, advocated for the adoption of five of what it calls “game-changer” strategies that could dramatically increase the number of students who successfully complete college.¹ Well-reasoned and artfully explained, one is left to wonder why any institution or state system would not immediately adopt all five strategies. Indeed, it is clear from the evidence presented by Complete College America that implementing these “game changers” would result in more degrees and other educational credentials being awarded while closing attainment gaps for traditionally underrepresented populations. Also, significantly, no changes in federal policy are necessary to drive forward with the reforms, although some federal policy changes could undoubtedly help quicken the pace of adoption.

One of the game changers—Guided Pathways to Success, or GPS—addresses what is perhaps the most longstanding problem plaguing the American postsecondary education system: the lack of clear pathways for students to take them through postsecondary education to a career. Under the GPS model, students start in a limited number of meta-majors—a set of courses to meet academic requirements across a range of disciplines and programs—and ultimately complete a specific major through a highly structured degree plan. Under these degree plans, every semester of the program would be tightly structured to assure that students have access to key milestone courses when they need them. Technology would be in place to warn advisors when students fall behind so that they can offer timely and effective intervention.² One question left unanswered, however, is whether the degree attained at the end of the GPS process will meet the workforce needs of employers.

In this report, we describe ways that reform models such as those identified as game changers by Complete College America, along with stackable credentials and competency-based credentials, that if taken to scale, can dramatically change the outcomes of postsecondary education in the United States. As used in higher

education in the United States today, stackable credentials are a sequence of credentials that accumulate over time to build up an individual's qualifications and help them move along a career pathway or up a career ladder to different and potentially higher-paying jobs.³

We discuss how the current technological and human systems along with business and financing models in postsecondary education impede the development of needed reforms and how the adoption of the most promising reforms could significantly increase the productivity of the nation's postsecondary education system. Today, far too few students complete certificates and degrees, having taken on too much debt. Furthermore, when students do complete a certificate or a degree program, they hear employers say they do not have the right skills for the jobs that are available.

We also propose policy solutions that do not require congressional action that could accelerate the pace and acceptance of reforms with clear and significant implications for students, employers, and ultimately, taxpayers. Specifically, we call on the U.S. secretary of education to design and implement experiments authorized under federal student-aid programs and urge the adoption of quality metrics against which innovative strategies can be assessed. Finally, we urge greater stakeholder—organized labor, employers, and philanthropic organizations—involvement in higher-education innovation.

Now, let's examine in greater detail some of the more promising reforms that seek to improve and strengthen the connection between higher-education systems and employers, and have the potential to solve many of the most pressing problems plaguing both.

Urgent need for change versus slow pace of change

Higher education in the United States is slow to change. Our higher-education system is deeply rooted in the 19th century, with rigid norms and infrastructure. U.S. colleges and universities—with their ivy-covered buildings, 30-week academic year, and courses neatly arranged in three- or four-credit increments for easy division into the 120 credits needed to earn a bachelor’s degree—continue to deliver education beyond high school much as they did in the late 1800s.

Federal, state, and academic policies reinforce the existing norms and structures of U.S. higher education. Take, for instance, the Higher Education Act of 1965, which, as amended, enshrines the 30-week academic year, the general education diploma, or GED, as an alternative to a regular high school diploma, and the rationing of college financial aid based on a full-time academic workload of 12 credits.⁴ Indeed, student financial aid policies were largely written to accommodate traditional modes of educational delivery with students sitting in college classrooms for an hour and a half to an hour, two or three days per week. Whether or not students were learning, or graduating for that matter, has largely been irrelevant.

Among the policies that are most steeped in the 19th century is accreditation—the process by which higher-education institutions are deemed to be of sufficient quality to gain public trust and have their degrees valued. Accreditation, which is a process of peer review, despite some recent efforts at reform, remains largely unchanged with standards addressing the quality of the institution or program by key inputs such as curricula, faculty, facilities, equipment, and supplies. Accreditors also assess each institution based on the record of student complaints received by the accrediting agency and compliance with program responsibilities under the federal student-aid programs. Notably, in only one area are true outcomes assessed, that area being success with respect to student achievement in relation to an institution’s mission. Such an assessment of student-learning

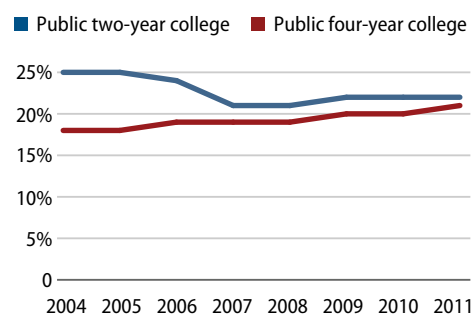
outcomes may include consideration of course completion, state licensing examination results, and job-placement rates. By law, however, different institutions or programs can have different standards, and these standards, although subject to review by the accrediting agency, are established by the individual institutions. The result of this type of quality-assurance system is poor outcomes, as evidenced, for example, by on-time graduation rates, which are unacceptably low at many institutions of higher learning.

Despite the long reliance in the United States on accreditation as the mechanism for assuring quality in higher education, a recent report by the Organisation for Economic Co-operation and Development, or OECD, serves as a reminder that we need to be looking to the future rather than the past. In its report, “Time for the U.S. to Reskill? What the Survey of Adult Skills Says,” the OECD recommends that the United States take steps to strengthen the quality-assurance system in higher education, particularly because of accreditation’s link to the primary form of financial support to higher-education institutions: federal aid to students.⁵ This recommendation is consistent with President Barack Obama’s call for Congress to consider adding value, affordability, and student outcomes to what accreditors consider when determining which colleges and universities have access to federal student aid.⁶

Enhancing the value, affordability, and student outcomes of our higher-education system ultimately requires strengthening connections between higher education and employers. An essay published by Inside Higher Ed, penned by the author of this report, describes how strengthening those connections could be accomplished within the current accreditation system.⁷

As poorly aligned as the quality-assurance system in higher education is to our workforce needs, the path to postsecondary education and careers is even less clearly marked. In the 19th century, higher education prepared students for a limited number of professions. As a result, the limited range of degrees awarded met the expectations and demands of society at that time.

FIGURE 1
Median on-time graduation rates for students enrolling at public colleges



Source: CAP analysis of the Integrated Postsecondary Education Data System, or IPEDS, data from the National Center for Education Statistics, “IPEDS Data Center,” available at <http://nces.ed.gov/ipeds/datacenter/> (last accessed November 2013).

Today, employers recognize that they need workers with specific knowledge, skills, and abilities that can be obtained through higher education. Moreover, employers primarily look for graduates with a specific major that reflects the subject-matter area best aligned with the required work as evidenced by the differences in starting salaries by college major.⁸ But employers also consistently identify a set of key skills or competencies such as critical thinking, complex problem solving, written and oral communication, and applied knowledge in real-world settings that do not necessarily align with a specific major.⁹ By limiting consideration of potential employees to only those with a degree in a specific major, employers may be excluding from consideration potential employees who may actually have better skills than those they ultimately employ. Psychology majors, for example, are often among the most in-demand social science majors because a degree in psychology is steeped in the study of how people interact with others, which is at the core of the critical skills that employers are seeking.¹⁰

Employers are often unsure about the competencies an employee possesses and have little clue of how well a new employee will actually perform in the job. This reality has given rise to the practice of employers providing internships, often unpaid, to test-drive potential employees.¹¹ Providing employers with information about a graduate's demonstrated knowledge, skills, and abilities through a portfolio or competency-based transcript could make the human-capital system operate more efficiently.

While the benefits to employers are apparent, the benefits to taxpayers of a more effective human-capital system are also significant. First, governments at every level are employers, and as such, will see the same benefits as other employers—specifically, greater success in hiring highly productive employees. Second, a more effective human-capital system could generate higher levels of productivity and potential earnings similar to those achieved with increased levels of educational attainment. Increases in earnings or profits ultimately would translate into increased tax revenue.¹² Finally, federal and state investment in higher education would have greater impact by producing graduates who are career ready.

Recent developments in postsecondary education such as guided pathways, stackable credentials, and competency-based learning hold significant promise for improving the nation's human-capital system. Oftentimes, these innovations are viewed separately but these developments, taken together, show promise in improving the alignment between a student's program of study and their eventual career.

Key OECD recommendations on postsecondary career and technical education

1. Strengthen quality assurance in postsecondary education and its link to Title IV student aid
2. Establish a quality standard for industry credentials
3. Develop workplace training as a standard element in postsecondary career and technical programs
4. Develop and support prior learning assessments
5. Ensure that postsecondary students have sufficient information and guidance.

Source: Organisation for Economic Co-operation and Development, "Time for the U.S. to Reskill? What the Survey of Adult Skills Says" (2013), available at http://skills.oecd.org/Survey_of_Adult_Skills_US.pdf.

Over the past several years, we have seen higher-education institutions beginning to embrace reforms. Western Governors University, or WGU, for instance, along with other institutions that participated in the Department of Education's distance education demonstration program, showed that technology could be employed to make higher education more accessible. WGU, Capella University, and more recently, Southern New Hampshire University's College for America have embraced competency-based methods for access learning. But, given the magnitude of the changes that are necessary, the pace of change is too slow.

Innovative reform models

Guided Pathways to Success

For most young people, the path to postsecondary education and a career begins during their junior year of high school. Unless these young people are served by one of the federal TRIO or GEAR UP programs, or a similar state, local, or private program that are designed to motivate and support disadvantaged students seeking higher-education opportunities, students are offered little assistance in deciding on a choice of career, higher-education institution, or program of study. According to a College Board report, each secondary school counselor in the United States was responsible for helping 454 students on average in 2010.¹³ In programs such as Talent Search and Upward Bound, two of the federal TRIO programs, participants receive support in career exploration and aptitude assessments as well as assistance in applying to colleges and choosing high school and college courses. By contrast, students in Canada's Quebec province finish high school after completion of the 11th grade and begin their post-high school program at an institution where they receive assistance in choosing between a vocational or academic program of study. After completing a year at a general or vocational college, some students go on to pursue a bachelor's degree. But as a result of entering the post-high school program, bachelor's degree candidates are required to study for only three years instead of the customary four years while other students complete a vocational degree in an even shorter period of time.¹⁴

In the absence of a significant increase in secondary school counselors supported by federal programs such as Talent Search, Upward Bound, or GEAR UP, or a revolution in the way that American students transition from high school to college, strategies that move students into a broad set of meta-majors—a set of courses to meet academic requirements across a range of disciplines and programs—have significant promise. Similar to the model used in Quebec, U.S. students could begin postsecondary education with the broadest set of possibilities in mind. Those possibilities could be refined and narrowed over time as the student progresses through his or her education with the goal of completing a degree on time.

Under the GPS approach, students are provided a limited set of broad meta-majors in science, technology, engineering, and mathematics, or STEM, health sciences, social sciences, education, business, and the liberal arts. A student's performance in high school and other measures is used to recommend broad academic pathways. Within each meta-major, students are given what are termed default choices that are aligned to his or her educational goals with a semester-by-semester academic map of sequential and prescriptive schedule of classes. Students are provided information about career options and assisted in narrowing their study to a particular major.

Among the institutions that have adopted the GPS model is Georgia State University, or GSU, which has implemented degree—or academic—maps and intrusive advising, where advisors use their knowledge and experience to anticipate student needs and connect them to appropriate resources as early as possible in their postsecondary education experience, as strategies to improve the university's on-time graduation rate. These approaches have yielded significant improvements for the university, including increasing its graduation rate by 20 percent over the past 10 years and the awarding of more bachelor's degrees to African Americans than any other public or private nonprofit U.S. university.¹⁵ GSU conferred 1,389 bachelor's degrees to African Americans during the 2011-12 school year.¹⁶ GSU's graduation rate for low-income students receiving a Pell Grant—53 percent—was higher than the institution's overall graduation rate.¹⁷ Likewise, the university's graduation rate for African American students—57 percent—and for Hispanic students—66 percent—were equally impressive.¹⁸ Another institution that has successfully implemented the Guided Pathways to Success model is Florida State University, or FSU, which has cut the number of students graduating with excess credits in half while raising its overall graduation rate to 74 percent. African American students at FSU graduate at a rate of 77 percent while Hispanic students graduate at a rate of more than 70 percent.¹⁹

Stackable credentials

Another innovation that has been adopted principally by community colleges and state workforce development and welfare agencies, which have been working to find ways to move adults from the basic education system to the workforce, is something known as stackable credentials. Creating a clear path from remedial programs to certificates and, ultimately, degrees, a stackable credential is a certificate, degree, or other formal education award that is one of a sequence of credentials. The benefit of stackable credentials is that they can be accumulated over time to build up an individual's qualifications and help him or her move along a career path to different and potentially higher-paying jobs.

Stackable credentials carve education up into small increments that are more manageable for an adult learner. Any necessary remediation or basic adult education is the bottom of the “stack.” A one-year, specialized postsecondary certificate is added to the stack to provide the working adult with specific job skills. If desired, an applied associate's degree can be added to the stack.

Nursing is an example of how stackable credentials work conceptually because the field is structured in a way that would allow for academic and career progression.

To develop a clear set of stackable credentials requires common agreement among employers about what is required at each level of responsibility or performance within an occupation. In some occupations, this common agreement does exist. In nursing, for example, there are clear sets of expectations for nursing assistants, licensed practical nurses, or LPNs, and registered nurses, or RNs. The path a person takes into nursing follows several discrete tracks that may or may not build upon each other. A student can enroll in a short, narrowly defined nursing assistant program and get a job as a nursing assistant. A nursing assistant has a relatively low level of responsibility and is subject to considerable oversight and supervision.

FIGURE 2
Stackable credentials

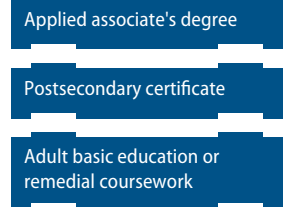
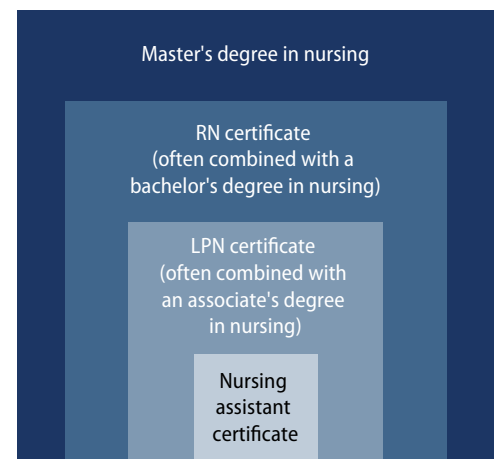


FIGURE 3
An example: Nursing



After several years on the job, a nursing assistant who wishes to have increased responsibility—and earn more money—should be able to transfer the knowledge and skills gained in practice or in school to an LPN program or an RN program. But because of academic residency and other requirements at many higher-education institutions, these students must repeat some of the training they previously received in order to become a nursing assistant, which can be a significant barrier for many working adults. The same is true for an LPN who wishes to become an RN. Stackable credential models are specifically designed to address this issue because it makes it possible to develop an integrated set of nursing credentials that build upon the ones a student has already attained. Therefore, a student wishing to become an RN would not need to retake the material learned to become an LPN.

To some extent, this system already exists at some nursing education institutions, but the system is largely dependent on the confidence that one education provider has in another when a student changes providers between programs. This confidence can be enhanced if the provider and the programs are accredited by the same accreditor. In nursing, but in few other disciplines, the system is also reinforced by professional licensing requirements at the state level. Regardless, the current system is far from perfect.

Since the late 2000s, the Ohio Board of Regents has been working to establish a statewide system of stackable certificates. The goal of this system is to provide stackable certificates that can be earned through adult career centers, higher-education institutions, and employers. Such a system must be well articulated to ensure the most effective interconnection of competencies offered in specialized training programs. The University System of Ohio, the state's public university system, will establish standards for the awarding of college credit for stackable certificates. It is notable that under the Ohio model, the stackable certificates are not awarded based on seat time but rather through the demonstration of competencies.²⁰

While there are clear benefits to stackable credentials, there are some significant problems with the approach as it has been implemented. Oftentimes, stackable credentials are viewed as a way to help adults who have particular gaps in their academic preparation, which results in them needing significant remediation. For the students who need additional preparation, stackable credentials help by meeting students where they are academically. But stackable credentials may not work as well for those who are well prepared because they follow a well-defined path that does not easily adapt to a student starting at a more advanced level that might, for example, be halfway through a traditional course or course sequence.

To the extent that a system of stackable credentials is developed by higher-education institutions, the system tends to be more academically oriented. That is to say that they do not give adequate consideration and academic credit for what a student may have learned through work experience. Furthermore, stackable credentials that are developed by community colleges or adult basic education providers tend to lead to an applied associate's degree, which can be a dead end because these credentials are not easily transferable to a bachelor's degree or higher.

Despite the limitations, stackable credentials can provide a clear path from the student's current situation to a better situation. As such, stackable credentials are particularly helpful to the chronically unemployed and underemployed as they seek to successfully move into more productive roles in the workforce and into the middle class.

Competency-based learning models

As stackable credentials have developed to address the needs of working adult learners as they move in and out of educational programs, competency-based approaches have developed to ensure that graduates are well prepared for the jobs of today by making sure that the educational credential they obtain is well connected to the expectation of employers. As highlighted in the CAP report, "Meeting Students Where They Are: Profiles of Students in Competency-Based Degree Programs,"²¹ competency-based learning is student centric. It is about what a student knows and can do, and less about teaching and how the student learns. Under the competency-based approach, the pace of learning can be linked to on a student's readiness and level of confidence when he or she begins their education, and can build from what he or she already knows, which means that some students will finish more quickly than others. Meeting students where they are means that it might take some much longer than others, but unlike current models of education delivery, students would not have to fail.

Competency-based learning is an approach to teaching and learning where the application of knowledge is assessed in the process of awarding a credential. The traditional approach to learning places the teacher or professor at the center of the learning process. The competency-based approach flips the model by placing the student at the center instead. This reorientation allows a student to acquire a competency through any number of learning activities—some activities can be guided by an instructor or professor, while others can be self-directed using external resources such as online courses and other free web-based resources.

Competency-based approaches have the unique ability of blurring the lines between different levels of education. There is no reason that high school students cannot be working toward the development of competencies that could permit them to receive a certificate or associate's degree at the same time they receive their high school diploma, based solely on the demonstration of competencies. This would significantly reduce the time and cost associated with completing an undergraduate credential.

A major reason why any of a number of learning activities can be used in a competency-based setting is because there is a shared understanding among the faculty, students, and other stakeholders such as employers and policymakers about the specific skills and knowledge that students should master as a result of their learning experiences. When the institution is clear about what is expected of students in a particular competency-based program, it becomes possible to demonstrate proficiency in each competency in a wide variety of settings.

This concept is not new. Some disciplines such as medicine and nursing have long histories of using competency-based learning. The National Center for Education Statistics first wrote about the then-emerging approach to postsecondary education 13 years ago. At that time, the National Postsecondary Education Cooperative Working Group on Competency-Based Initiatives in Postsecondary Education described competencies as “the bridge between traditional credit hour measures of student achievement and the learning revolution.”²²

Out of concern for potential abuse that could waste taxpayer funds while saddling students and families with excessive debt, federal student-aid policies, along with accrediting agency hesitance, have stalled the movement. But recent actions, including the approval of Southern New Hampshire University’s College for America competency-based, online associate’s degree²³ as well as a policy statement by the Department of Education²⁴ have accelerated movement to embrace new ways of thinking about learning. Two regional accreditors have recently embraced change: the New England Association of Schools and Colleges, or NEASC, in the case of Southern New Hampshire University’s College for America,²⁵ and the Higher Learning Commission, or HLC, in the case of University of Wisconsin, Madison and Milwaukee.²⁶ The University of Wisconsin has recently announced a further expansion of these efforts.²⁷

In recent years, a few higher-education institutions have developed new models focused on students acquiring knowledge and skills at their own pace and demonstrating achievement of specific competencies. These institutions award a degree or other credential based on the student’s demonstrated competencies. The Higher Education Act of 1965 was amended in 2005 to permit the eligibility of direct assessment programs in the federal student-aid programs.²⁸ These programs use the assessment of student learning or recognize the direct assessment by others of student learning in lieu of measuring learning in credit hours or clock hours. Until late last year, no higher-education institution had applied to use this authority.²⁹ Examples of the kinds of measures that can be used in

direct assessment programs include projects, papers, examinations, presentations, performances, and portfolios. When applying to have a program deemed eligible for direct assessment, an institution is required to explain its methodology for determining these equivalencies—meaning how it determined the equivalent number of credit hours or clock hours for the program. In addition, the institution must demonstrate that its institutional accrediting agency has reviewed and approved its offering of the direct assessment program. It must also demonstrate that its institutional accrediting agency or state licensing body has agreed with the institution’s assessment of its credit- or clock-hour equivalencies.³⁰ Significantly, the direct assessment program may use learning resources—courses or portions of courses, for example—that are provided by entities other than the institution providing the direct assessment program, but the learning activities must be provided or overseen by the institution.³¹

The first example of a program using direct assessment to establish eligibility for federal student aid is Southern New Hampshire University’s College for America associate’s degree, which is built around 120 competencies.³² In approving this degree program early this year, the Department of Education explicitly provided institutions with flexibility to demonstrate alternative methods of measuring student learning, so long as they resulted in institutional equivalencies that reasonably approximate the definition of a credit hour.³³ College for America started with a simple idea: connecting with employers and finding out what they need from their entry-level employees.

Another early adopter to competency-based learning is Capella University. Until recently, Capella’s approach has been to integrate competency-based approaches into very traditional, instructor-directed online courses. However, the university was recently approved to offer bachelor’s and master’s degree programs using direct assessment. The university has also begun to use competency maps that, similar to the GPS model, help adult students visually track career-relevant competencies that they have demonstrated through each course. These competency-based maps give students detailed reports that they can share with current and future employers so they can document exactly what they mastered in their degree programs as it relates to their professions. Traditional grading systems, on the other hand, provide students and employers with a limited understanding of what a student has actually learned and whether they can apply that learning.

Implications for business and financing models

Higher education in the United States is a massive enterprise. Postsecondary education institutions reported enrollments totaling about 29 million students in 2011-12.³⁴ Of these, roughly 25.2 million were undergraduates and approximately 3.8 million were graduate students.³⁵ In fiscal year 2011, postsecondary education institutions generated more than \$556 billion in revenues and spent \$468 billion, including \$149 billion on direct instruction,³⁶ and employed 3.8 million people, including 1.5 million faculty members.³⁷ An enterprise of this magnitude does not change rapidly.

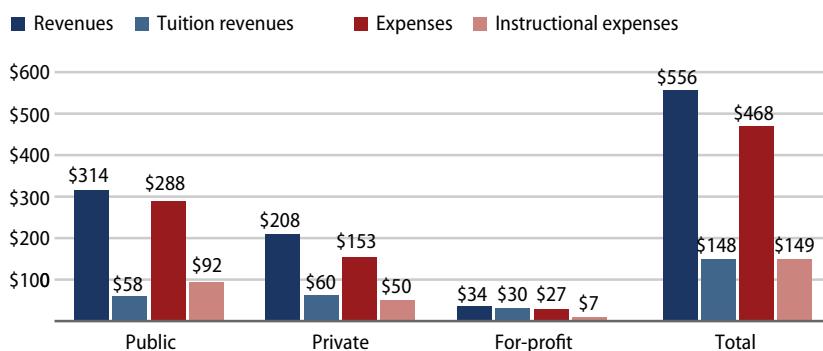
In part, the lack of change reflects the fact that higher education is a complex system and complex systems do not change rapidly. Two types of systems—technological and human—inhibit transformative change.

First, technology systems in higher education are specifically designed to award degrees based on completion of a sequence of courses with progress measured in credits.

The technological systems, whether home grown or built, and supported by vendors, were developed specifically to manage students, faculty, and facilities scheduling that delivered education in physical or virtual classrooms in courses that were typically held two or three times a week for 12 to 15 weeks. These systems will need to be modified significantly to record credits earned not in classrooms but through any number of learning activities, with credit ultimately awarded based on an assessment.

FIGURE 4

Revenues and expenses of postsecondary education institutions in 2011 (in billions of dollars)



Source: Laura G. Knapp, Janice E. Kelly-Reid, and Scott A. Ginder, "National Center for Education Statistics, Enrollment in Postsecondary Institutions, Fall 2011; Financial Statistics, Fiscal Year 2011; and Graduation Rates, Selected Cohorts, 2003–2008" (Washington: National Center for Education Statistics, 2012), available at <http://nces.ed.gov/pubs2012/2012174rev.pdf>.

More significantly, the learning systems of postsecondary education institutions will need to be completely revised to capture competencies attempted and demonstrated, most likely in the form of competency-based transcripts. This is no easy task and clearly will not occur without significant pressure from outside the education community.³⁸

The more significant barrier, however, is the need to modify the human systems in higher education. Higher-education institutions have been organized vertically for centuries with specific roles and responsibilities for the faculty in conducting research, developing curriculum, designing courses, delivering instruction, and assessing summative learning and learning in each course.³⁹ Traditionally, once a decision was made to offer a specific program of study, the curriculum became the sole responsibility of the faculty. With the ongoing reforms in higher education, this will change dramatically. In developing guided pathways, the curriculum needs to be structured to efficiently move students through a set of courses with a minimum amount of unnecessary coursetaking that could delay or derail a student. Under competency-based and stackable credential models, the curriculum needs to be developed with close relationships with employers to ensure that graduates have the skills and knowledge necessary for entry into the workforce. As such, the role of faculty will change from creators of the curriculum to, at best, co-creators with learning, curriculum, and assessment specialists and employers. Similar adjustments will be needed to show how research is conducted, courses are designed and taught, and how learning—incremental and summative—is assessed.

Ultimately, this will result in a wholesale reorganization and renegotiation of the role of faculty as well as administrators. We have already seen some faculty, particularly at wholly online colleges, become specialists in using technology to deliver educational content. Some faculty, for example, will also become specialists in assessment with no responsibility for teaching while other faculty members will become learning coaches who help students struggling with difficult learning activities. Undoubtedly, the reorganization and renegotiation of faculty roles will not be easy. The limited experience thus far suggests that some faculty will embrace their new role while others will resist, making strong change-management skills a premium in higher education in the years ahead.

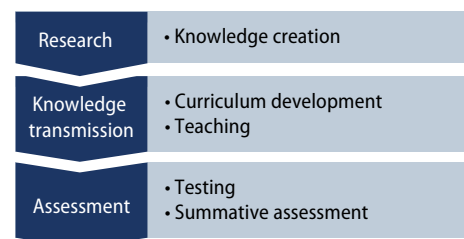
The reason that the Carnegie Unit, more commonly called the credit hour, is the “coin of the realm” in higher education today and is so difficult to move away from is because it was developed to simplify decisions about how much to pay each faculty member based on the number and level of the units each was assigned to teach.⁴⁰ Ultimately, the academy—how higher education refers to itself—will need to come up with a standardized approach to defining roles and a method to assign a value to those roles. The institutions that quickly figure out how to compensate faculty in newly defined roles, which are aligned toward effectively delivering learning activities and assessing learning, will have a significant competitive advantage.

Similarly, what will students pay for under these new models? Today, students typically pay per course—a specific dollar amount per unit or credit—or term and students could still pay for instruction delivered in very traditional courses. That has been the student experience with nearly all of the competency-based models available to this point, but this approach fails to take any significant advantage of the benefits of this model.

To address this concern, institutions could adopt an approach of charging just for the educational resources used by each student. Essentially, this would unbundle the cost of education so that each student pays just for the services, materials, or supports that they need. This approach would be undoubtedly difficult for institutions to adopt, but it would be similar to how hospitals and other medical providers have unbundled services to more accurately and efficiently assign costs to procedures and treatments. So yes, it would be challenging, but it is doable.

Some institutions, including Western Governors University and the College for America, have adopted subscription models where the student pays for the time he or she is enrolled in six-month or year-long increments. Western Governors University charges a basic tuition of \$2,890 per six-month term⁴¹ and College for America charges just \$2,500 per year.⁴² Such an approach would not likely be economically viable if most students came prepared to immediately take the assessments necessary to earn a degree or certificate.

FIGURE 5
Higher-education knowledge creation, transmission, assessment, and credentialing



Another alternative might be to charge only for the incremental or summative assessments. Under this model, a student might not need to enroll or register until he or she is ready to take an assessment. Such an approach, however, would make it difficult for low-income students who often need support to meet living expenses while in school.

Ultimately, how students pay for and experience postsecondary education will likely drive changes in the organizational structure of the institutions as well. If students are buying a bundle of educational services, it is unlikely that they will develop loyalty to a brand as the experience of attending college could look and feel very different than it does today. Combined with the fact that many students will not be physically on campus for four or more years, it will likely have significant implications for both public and private nonprofit colleges and universities that rely on brand identification for long-term alumni support. (Note: Efficiency is not everything.)

Changes of the magnitude suggested by a move toward competency-based programs, stackable credentials, and Guided Pathways to Success will ultimately cause a reconsideration of the question of how to effectively assess learning outcomes. Today, the higher-education system relies on a few imperfect measures of performance: cohort default (a measure of a student's ability to repay their federal student loan), retention, and graduation rates. With wide-scale adoption of income-based repayment likely to render ineffective cohort default rates as an outcome measure in the coming years, retention and graduation rates will likely become the predominant measures, and those too will become of less utility as alternative modes of delivery are implemented. Consider for a moment the utility of an on-time measure or 150 percent of normal time to degree when a student does not need to announce their intention to obtain a degree until they are prepared to sit for an assessment. And what does retention mean in this context?

Demonstration program

Innovation in higher education often occurs in silos. As a result, an institution that implements an innovation is unaware that others have or are trying to implement the same or similar innovation.

To facilitate learning from innovators, the secretary of education should provide opportunities for institutions and states to enhance educational opportunities. One way to accomplish this would be to re-establish the Distance Education Demonstration Program as a mechanism to encourage collaboration among institutions offering educational programs through massive open online courses, or MOOCs, competency-based models, and other innovative models.

Such a demonstration program would create a safe place for institutions to share information about what they are learning through innovative efforts.

Policy recommendations

Given the difficulty in effecting change in higher education, just permitting change is not sufficient. On December 5, 2013, the Department of Education announced plans to conduct experiments under the secretary of education's authority to waive regulatory and statutory provisions of the federal student-loan programs⁴³ and asked for recommendations of potential experiments.⁴⁴ To foster positive and transformative change, it is critical to use this tool to provide strong and powerful incentives for change, enlist workforce stakeholders to define competencies, and establish quality standards for competency-based education programs.

Experiments

We recommend that the secretary of education use the waiver authority to encourage reforms such as Guided Pathways to Success, stackable credentials, and competency-based programs.

The federal student-aid system has long served to support a second chance at quality education by permitting students without a high school diploma the ability to pursue a postsecondary program of study. Congress limited this ability by eliminating the authority for prospective students to take a test or complete six credits and then receive federal student aid.⁴⁵ Restoring this authority in a limited way would ensure access to postsecondary education for low- and middle-income students who did not complete high school. Thus, to encourage the adoption and greater use of Guided Pathways to Success, the secretary should expand eligibility for aid to individuals who have been denied access to postsecondary education by restricting the ability to benefit by using his experimental site authority to make federal student aid available to students who are not high school graduates by reinstating aid to students who earned six credits or the equivalent coursework toward a degree.

To encourage expansion of the use of stackable credentials, the secretary of education should consider approving additional experiments for programs that are shorter than normally permitted to be eligible for aid if delivered as part of a comprehensive and coordinated system of stackable credentials. The secretary has already approved an experiment involving short-term training programs that prepare students for quick entry into the labor market.⁴⁶ In general, only academic programs that are at least 15 weeks in duration and provide 600 clock hours, 16 semester or trimester hours, or 24 quarter hours of academic credit are eligible programs for purposes of the federal Pell Grant program.⁴⁷ The secretary approved this experiment to allow shorter-term vocational training programs to be Pell Grant eligible, which would enable unemployed and underemployed persons to obtain the short-term training required for employment by local or regional employers. A modest extension would permit students to continue their education in an integrated manner through appropriately designed stackable credential programs.

Another potential experiment would decouple financial aid programs from the credit-hour standard. Such an experiment could be conducted to support the expansion of competency-based programs in a controlled manner and test different ways to measure and track student progress, as this will likely be a critical issue in the next reauthorization of the Higher Education Act. Given the state of development of competency-based models, exploration of different approaches is critical. It would be helpful to identify and test alternative means of appropriately measuring student progress other than by the credit hour that would allow equivalent levels of aid to be disbursed. A number of other possible experiments could be conducted to determine whether it is possible to provide incentives for adopting competency-based models that are less draconian than moving away from the credit hour completely. One possible experiment could expand what is considered instruction for the purposes of determining whether a week is counted in the definition of an academic year. Another experiment might test how best to monitor and assess academic progress in a competency-based educational environment. Given the self-paced nature of learning in many competency-based models, the current definition with its focus on traditional instruction limits is limiting. The current largely time-based approach limits the potential of competency-based programs to better-serve students with disabilities, particularly intellectual disabilities, because aid can only be provided for 150 percent of the normal time to degree.

Quality measures and standards

In order for people to gain confidence in new methods of delivering education, it is critically important to establish early-on quality measures and objective standards of effectiveness. In the case of guided pathways, traditional measures of educational progress—retention, graduation, and time-to-degree—will likely continue to be useful measures and, as noted above, the result against those measures has been very positive for institutions that have implemented guided pathway models.

It is unlikely, however, that these measures will be useful in assessing competency-based programs and will likely have limited utility in assessing stackable credentials. In the case of stackable credentials, the most important metrics will likely be measured in labor market outcomes: job placement, earning above a threshold, and, perhaps most importantly, earning gains at each level of exit. These measures will likely be useful in assessing the effectiveness of competency-based education programs. In keeping with the traditions of higher education in the United States, accrediting agencies should develop a common set of quality standards for competency-based programs and assessments. Such standards would define good quality in the establishment of competency frameworks and the development of valid and reliable assessments, student support, and other program components.

Alternatively, the measure of the relative effectiveness of traditional and emerging methods, a set of assessments could be developed to assess whether program completers are “career ready.” Such an approach would permit graduates to be certified as career ready and receive a credential above and beyond a traditional associate’s degree or bachelor’s degree. The results of this assessment could be used to judge the relative effectiveness of educational delivery.

Importance of stakeholder engagement

One critical element in each of these reforms is the important role that employers must play in defining educational program results. Thus, it is critical to find ways to enlist workforce stakeholders to define what success looks like, including what competencies are valued. This is necessary to ensure greater alignment between postsecondary education and the workplace, and business and industry stakehold-

ers. Formalized roles for employers, labor unions, and professional associations should be developed so that they help define the competencies required for entry-level positions as well as for other job opportunities throughout an individual's career pathway. An approach to strengthening needs connections is adding employers, labor unions, and professional associations to the decision-making bodies of accrediting agencies so that they have a formal and significant role in saying what quality looks like.

Conclusion

Dramatically improving the performance of our nation's higher-education system will require an “all-of-the-above” approach to addressing the problem. Just as Complete College America has called for the adoption by states and institutions of the five game changers that it has identified, it is now apparent that we will need to adopt a number of reforms and measure their effectiveness over time. Implementing competency-based stackable credentials that use competency maps to keep learners moving toward their educational and career goals likely would achieve better results than simply adopting one of the reforms.

Careful assessment of reformed systems, however, will be critical. The assessments should include evidence of whether it is easier for employers to engage with the higher-education system and hire graduates with confidence. That is to say, employers will know that graduates possess the skills and knowledge to do what is needed as entry-level employees to move seamlessly and directly into the paid workforce. The cost of the education delivered, including time spent in unproductive activity, should also be assessed in order to determine if it is possible to deliver higher-quality programs at a lower cost.

In this report, we have attempted to identify instances where the modest application of policy levers could yield significant benefit. It is likely, however, that more wholesale reforms will be necessary in the reauthorization of the Higher Education Act, which is expected to begin in earnest in 2014. But beginning now to adopt incremental reforms could help inform the reauthorization process.

About the author

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Prior to becoming acting assistant secretary, David served as the deputy assistant secretary for policy, planning, and innovation for the Office of Postsecondary Education. In this capacity, he was responsible for the program budget for the federal postsecondary education programs administered by the Office of Postsecondary Education and Federal Student Aid, which generate more than \$160 billion in financial aid to more than 25 million students enrolled at public and private postsecondary institutions. David was also responsible for legislative, regulatory, and other policies affecting the department's postsecondary education programs, including Federal Student Aid. His career at the Department of Education included leading key policy groups working on the reauthorization of the Higher Education Act, researching market-based approaches to loan subsidies under the guaranteed loan programs, and developing program regulations and other policy guidelines.

David received his bachelor of arts in political science and sociology from the University of Rhode Island.

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