

# The Higher Education Business Model

## Innovation and Financial Sustainability

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## Executive Summary

Colleges and universities face daunting challenges to long-established business models. The cost of providing higher education continues to rise but sources of funding have eroded. Endowments suffered major losses during the financial crisis and many haven't recovered, government aid is down (only two states increased their support of higher education between 2008 and 2013), and students, as well as their parents, are stretched thin financially and can't absorb the above-inflation tuition hikes to which the industry has grown accustomed. Further worsening this challenging climate, the public is beginning to question the value of higher education given the large debt incurred by students and their often poor prospects for employment. To ensure financial sustainability, many colleges and universities are responding by experimenting with changes to their business models. Most of these initiatives are nascent and occurring at the margins, but some may prove significant. For instance, some schools are changing their discounting policies and publishing much lower tuition prices; others are experimenting with four-year price guarantees, the length of time required to earn a degree, more vigorous recruitment of foreign students, partnerships with overseas institutions, and increased operational efficiencies—from streamlining back office functions to offering online learning to reach more students without incurring the added costs of facilities and faculty. Few new business models have emerged for higher education thus far, but with so much experimentation underway change is certain.

### Key Take-Aways

- Many observers believe that colleges and universities have pushed their pricing and discounting policies to the limit and must rethink this business model.
- To improve financial stability, schools are working to operate more cost effectively, focusing particularly on costs related to facilities, faculty and curriculum.
- Many schools are pursuing online delivery to reach new students and develop new sources of revenue.
- Many schools are experiencing mission creep by adding new degree levels and working to attract new and different kinds of students.
- More United States colleges and universities are creating international partnerships and setting up campuses overseas.
- The industry is evolving, but changes likely will occur gradually and mainly at the margins rather than result in a transformation of American higher education.



The sustainability of the United States higher education business model is the subject of much discussion today. Concerns relate to both the cost of operating colleges and universities, and the prices charged to students to support at least a portion of those institutional costs. Many believe that the model is in need of fundamental change and are seriously concerned about the ongoing viability of the industry. Indeed, Moody's has placed a negative outlook on the entire higher education industry.

The bottom line is that colleges and universities face a daunting convergence of issues concerning access, affordability, and student outcomes. The cost of higher education continues to rise while financial support from states and the federal government continues to decline, students and parents become more price sensitive, and market volatility hurts gift giving and endowments. What's more, the value of a college degree is being questioned given high levels of student debt and generally poor employment prospects.

This paper explores these issues and offers examples where colleges and universities are responding with operational changes to improve their business model and ensure their financial sustainability, although most of these changes are occurring at the margins. Beyond discussing a wide range of innovative responses to the challenges at hand, this paper also presents a proposed agenda for future research.

## History

Higher education developed slowly in the United States from the founding of the nation's first college, Harvard, in 1636, to World War II. But after the GI bill opened college to tens of thousands of returning veterans, higher education has been changing at an accelerating pace. By 1940, there were about 1,000 schools and today there are more than 4,400 regionally accredited colleges and universities, and more than 10,000 other institutions of postsecondary education—primarily vocational schools—in the United States. As one would expect, the number of students has also risen dramatically, from 1.5 million students in 1940 to nearly 20 million students today.

## Higher Education Business Models Today

Colleges and universities, whether two- or four-year institutions, are characterized in terms of ownership; that is, whether they are public, private or for-profit institutions. There are significant differences in how institutions in each of these categories are funded, and in the strains they have felt during the last few years to their business models and financial sustainability. The for-profit colleges was the only group thriving during the recession that began in 2008, until the federal government and accreditors began to question many of their recruiting and onboarding policies. This tarnished their reputation and motivated some of the

for-profits to alter their ways. The highly visible public scrutiny resulted in enrollment declines at several of the for-profits and diminished enrollment growth at others—many of which had been growing at double digit rates.

The public college sector almost uniformly experienced significant reductions in state and local funding. Since FY 2008, overall state funding for higher education has fallen by 28%. Only North Dakota and Wyoming increased their support of higher education between 2008 and 2013. State support for higher education began to pick up last year, with increases in 30 states, but overall there was a small decline in state support from 2012 to 2013. Part of this decline is attributable to the recession, but a more worrisome factor is an attitude shift. Questions about the social compact relative to government support for higher education are being asked more frequently: What responsibility does government have to support higher education? Is a public subsidy justified for the public good portion of higher education (however that could be quantified)?

Reductions in state support have also affected private colleges in many states, but to a lesser extent than for public colleges. Additionally, the recession caused major losses to college endowments, which raised concerns about liquidity and the volatility of endowments—especially for those wealthy institutions that are heavily dependent on endowment income to support their operating budgets. Many public and private colleges also experienced reductions in gift income.

A school's business model and financial sustainability is also linked to its status. There are 30 to 50 elite institutions at the top of the status ladder, a group comprised of the top research universities in the country, public and private, along with the highest ranked private liberal arts colleges. All of these institutions could fill their classes many times over from their existing applicant pool with high-ability, full-pay students. For the most part, these elite institutions give only need-based financial aid in order to diversify their classes in terms of socio-economic status. They are also the wealthiest colleges in the country with large endowments and well-known brands.

At the other end of the status spectrum are open admission schools, which accept anyone with a high school degree or equivalency. This large group includes more than 1,600 community colleges and many of the for-profit institutions. A third group is all of the other colleges and universities in the country, which includes more than 2,000 regionally accredited colleges and universities. Most schools in this group have little brand recognition, are largely dependent on tuition, and are struggling to fill up their classes. The private colleges in this group are aggressively discounting their tuition and working to articulate their value proposition to keep their campuses full. This third large group will have

the most difficult time maintaining financial sustainability; indeed, many are already struggling. Closures and mergers among this group are likely in the coming years.

### Mission Critical Issues

The higher education industry is facing significant challenges, including demographic shifts, concerns about price and cost, and concerns about outcomes and new delivery methods. I will briefly discuss these challenges and then describe innovations and strategies institutions are undertaking in an effort to remain vital and viable.

### Access to Education

The last decade has seen growth in both the number of high school graduates and in their college-going rates. Demographic shifts in the next decade, however, are expected to slow growth in the number of high school graduates and will present significant challenges to increasing the percentage of the population with degrees and high-quality credentials.

Federal projections indicate that there will be a 1% increase in high school graduates in the next ten years, with a 2% increase from public high schools and a 7% decrease from private high schools, yet the Federal government is projecting a 13% increase in undergraduate enrollment during that time. This increased enrollment will be due to two factors: 1) a significant increase in college-going rates of minorities, the fastest growing segment of our population; and 2) an increase in adults going to college—some of whom hope to complete previous work toward a degree, and others who will just be starting college at a later stage in their lives.

Meanwhile, the pressure to move from “mass” higher education to “universal” higher education is intense and highly visible:

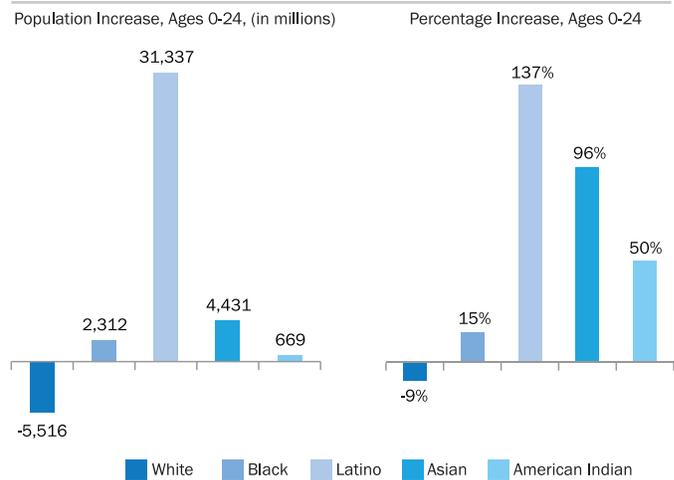
- In his 2013 State of the Union speech, President Obama called for the United States to be again first in the world in college attainment by 2020. Lumina Foundation for Education has set a national goal for 60 percent of Americans to have a high-quality degree or credential by 2025.
- The Bill and Melinda Gates Foundation aims to double the number of low-income adults who earn a postsecondary degree or credential with genuine value in the marketplace by age 26.

Today, 28% of the adult United States population has a college degree. The United States ranks 12th among developed nations in the percentage of 25 to 34 year olds with college degrees, and although the college-going rate

of 18 to 24 year olds has increased from 25% in 1979 to 41% today, this level is significantly below the goals set out above. Further, college-going rates by race, ethnicity and socioeconomic status reveal great inequities. The college-going rate of white students (44%) is significantly higher than the rates for black students (38%) and Hispanics (31%).

If these trends continue, there will be an increasingly large number of undereducated youth in the United States. Figure 1 shows the demographic changes occurring in the United States. Between 2010 and 2050, the highest growth rate in the 0-24 year old population will all be among black, Latino, Asian and American Indians, with a projected 9% decline among whites. (Source: U.S. Census Bureau)

**Figure 1: Changing demographics: 2010-2050**



Note: Projected Population Growth, Ages 0 to 24, 2010-2050  
 Source: National Population Projections, U.S. Census Bureau.  
 Released 2008; NCHEMS, Adding It Up, 2007

College-going rate disparities are even greater when evaluated by family income (see Table 1). Eighty-two percent of high school graduates from high-income families go directly to college either full- or part-time, compared to 52% of low-income students. (Source: Education Pays 2013 - The College Board)

**Table 1: Postsecondary Enrollment Rates of Recent HS Graduates by Family Income**

	Lowest Income Quintile	2nd Income Quintile	3rd Income Quintile	4th Income Quintile	Highest Income Quintile
2012	52%	58%	65%	71%	82%

Source: Education Pays 2013 - The College Board

## Affordability

Historically, higher education is an industry with increasing costs that requires more financial resources each year to support it. Unfortunately, the traditional sources of that funding have been under pressure since the recession.

The primary source of support for higher education is state governments, but that has declined, sometimes significantly. Between 2008 and 2013 only two states, Wyoming and North Dakota, increased their support of higher education. The other states have decreased their support, ranging from a high of 50.4% in Arizona to a low of 3.2% in Alaska. Overall, the states have decreased their support by about 30%. Meanwhile, gifting has declined since the recession and the value of many endowments have suffered volatility and steep declines.

All these factors have put significant upward pressure on tuition—hurting affordability—as schools have tried to compensate for the lost funding. The trouble is, families are also hurting. Mean household income for all income quintiles, and even for the top 5%, is the same or lower than it was in 2000. Yet tuition and fees have more than doubled during this period, raising real concerns about the affordability of higher education.

An added wrinkle for families is that schools have taken to significantly discounting their tuition, which has led to uncertainty and confusion about the price of an institution among students and their families since the discounted price is rarely known before the student is accepted. Table 2 indicates that between 1990 and 2012, published in-state tuition and fees increased 159% at public four-year institutions, 97% at public two-year institutions, and 77% at private institutions. Yet when aid and tax breaks are accounted for, the net price at community colleges has actually decreased by a \$1,000 while it has increased by 58% at public four-year institutions and by 21% at private institutions. The net price is less than half of the published price in all three segments of higher education. The net price differs from the sticker price by all forms of grant aid that the student receives, as well as by the impact of tax deductions and credits. Net price is not an easily conveyed figure, however, since it differs within institutions by student and isn't determined until after the student is enrolled. Today, the average tuition discount solely from institutional aid for incoming freshmen at private colleges is 45% (NACUBO 2012 Tuition Discounting Study).

**Table 2: Tuitions and Fees and Net Tuition and Fees: 1990-1991 to 2012-2013**

	90-91	00-01	10-11	11-12	12-13	%Change 2012/1990	
						Tuition	Net Tuition
<b>Public Two-Year In-State</b>							
Published Tuition and Fees	\$1,590	\$2,180	\$2,870	\$3,000	\$3,130	97%	-655%
Net Tuition and Fees	\$220	-\$370	-\$1,460	-\$1,350	-\$1,220		
<b>Public Four-Year In-State</b>							
Published Tuition and Fees	\$3,350	\$4,650	\$8,000	\$8,370	\$8,660	159%	58%
Net Tuition and Fees	\$1,840	\$1,360	\$2,120	\$2,620	\$2,910		
<b>Private Nonprofit Four-Year</b>							
Published Tuition and Fees	\$16,410	\$21,310	\$28,130	\$28,280	\$29,060	77%	21%
Net Tuition and Fees	\$11,060	\$11,780	\$12,540	\$12,600	\$13,380		

Sources: The College Board, Annual Survey of Colleges, Trends in Student Aid 2012

Even though net tuition has not increased nearly as significantly as have published prices, grave concerns exist that the high price/high aid model is no longer sustainable.

Affordability concerns are being fueled by growing public attention to ever-increasing levels of student debt. As shown in Table 3, the average debt per Bachelor’s degree recipient at private colleges has increased from \$23,400 in 1999-2000 to \$29,900 in 2010-11, an increase of 28%; the average debt for a student borrower attending a public college has increased from \$20,500 to \$23,800 over that same time period, a 16% increase. In 2010-11, 43% of public college students and 34% of private college students did not borrow to fund their education.

Although students with exceptional debt of \$100,000 or more sometimes make headlines, average debt levels are much less than that and not unreasonable given the rate of return to higher education. The data show that college graduates earn \$600,000 to \$1.3 million more over the course of a lifetime than those with just a high school degree. Further, the unemployment rate of college educated people during the last ten years (which includes the most recent recession), has consistently been significantly below that of less educated groups.

**Table 3: Average Total Debt Levels: 1999-2000 to 2010-2011**

	Per Borrower	Percentage who borrowed
<b>Private Colleges</b>		
1999- 2000	\$23,400	63%
2010 -2011	\$29,900	66%
% Change	28%	5%
<b>Public Colleges</b>		
1999- 2000	\$20,500	54%
2010 -2011	\$23,800	57%
% Change	16%	6%

Source: Trends in Student Aid, The College Board

In recent years, serious concerns have also been raised about the outcomes colleges and universities are producing. First, many students who begin college do not graduate, and many of those who do end up taking more than the “required” two years at community colleges or four years to earn a Bachelor’s degree. Graduation rates are commonly quoted in terms of three- and six-year periods. The most recent data show that 55.5% of full-time students at four-

year colleges completed in six years, while 29.2% of students at two-year colleges completed in three years, according to NCHEMS.

Legitimate questions are being raised as to why so few students graduate, as well as why students are unable to graduate more quickly. True, there are shortcomings with the data since the data measures only the graduation rates of students who start as first-time, full-time students and who graduate from the same institution at which they first enroll. The data misses students who switch schools or take time off. That said, graduation rates are too low; significant improvement in completion rates would help higher education make progress toward meeting national goals for college graduates and improving their own business model.

Second, serious concerns are being raised about what students learn. Books such as *Academically Adrift*, written by Richard Arum and Josipa Roksa and published in 2011, are harshly critical of the industry. Employers often complain that people with college degrees do not meet their expectations. Institutions “certify” that their students meet graduation requirements, but there are no national norms or minimum standards for college graduation. Except for those fields which require licensing exams, there is little data of a comparative nature on levels of student outcomes. Furthermore, the industry does a poor job tracking graduates to see if they have found employment in their fields of study, or whether they have enrolled in graduate school. What data exists is quite unreliable because the sample sizes are usually so small. As a result, the industry cannot quantify the value of the education in statistically valid ways; colleges tend to rely on anecdotal evidence to validate their value.

Today, regional accrediting agencies are putting pressure on colleges and universities to assess student learning outcomes, but most schools are struggling to find acceptable ways to do so. The federal government has also been pressuring colleges and universities to provide more outcomes data and may implement a measure based on what is called “gainful employment,” that is, quantitative data about the jobs that students get after they graduate. Just what data might be required is still under discussion, but the prospect is causing considerable angst among higher education leaders.

### Innovative Responses

Colleges and universities are working on a variety of fronts to remain competitive and financially sustainable. The financial implications of these innovative responses for institutional business models, however, are not yet clear. And although they often speak in terms of reinventing themselves, most institutions in fact are working on the margins to make changes in how they operate. Change is very difficult to implement at many institutions; thus, what may look like

a relatively minor change to the outside world may be considered major to those within the institution. That said, several exciting and promising changes are occurring, as described below.

### Pricing and Discounting

Many observers believe that colleges and universities have hit a wall in terms of their pricing and discounting policies. In response, several strategies are being pursued to reduce the price of college and provide consumers with more information about the actual, net price that they will pay as opposed to the published sticker price.

According to the latest NACUBO tuition discounting study of four-year private colleges and universities, the average discount rate from institutional aid alone at these schools is 45% for first-time full-time students, and 40% for all undergraduates. Further, private institutions in this study, on average, provide institutional grants to 87% of their freshmen. The rate is in excess of 50% at more than 25% of the institutions participating in the study, which defines the discount rate as the institutional financial aid awarded divided by the gross tuition and fee collections. (Source: NACUBO 2012 Tuition Discounting Study)

To provide consumers with additional information on the net price that students will pay, the federal government now requires that all schools include a net price calculator on their website. Some schools with high discount rates have decided that their high price/high aid strategy needs to be changed: they have lowered their published price and decreased their discount rate, thus keeping net tuition revenue constant or even increasing it. The trend toward resetting tuition prices seems to be accelerating, with several institutions recently announcing price reductions for fall 2014.

The rationale for a price decrease is that many students are deterred from applying because of the high sticker price; the hope is that the price reset will increase the demand for the institution. Some schools, both public and private, have announced price freezes and many have announced price guarantees for four years. The for-profit University of Phoenix has announced a price guarantee for between five and nine years depending on the degree level sought. Beginning in fall 2013, the University of Dayton is locking in its net price for four years. The rationale behind price guarantees is to provide certainty to students and parents about the price of college, although this does not necessarily provide certainty about the net price that they will pay.

But there are other ways, besides tuition, to make education more affordable. The length of time it takes to complete college affects the total cost to the student. Besides the out-of-pocket cost of tuition, the student is losing out on

earnings. Thus, the more quickly a student can complete college, the lower the total cost will be. Several schools now guarantee that a student entering as a full-time freshman will graduate within four years—or the additional time enrolled will be paid for by the college as long as the student makes appropriate progress through school.

Beyond the four-year guarantee, an increasing number of schools are offering three-year bachelor degree programs. Many require only that three years of tuition be paid, while others charge tuition for additional summer terms. Manchester and Hartwick have recently begun three-year degree programs, and Southern New Hampshire University offers a competency based (rather than seat-time based) three-year degree program. It also should be noted that the Bologna Accord establishes a three-year degree as the norm in Europe based on competencies, not seat time.

Another innovation to lower costs is to encourage students to graduate from high school with college credits beyond the Advanced Placement (AP) program. Two new initiatives aimed at getting high school students to graduate with college credit are gaining momentum: dual credit/dual enrollment and early college high school. Both programs operate collaboratively between high schools and colleges. The most recent data from 2010–2011 show that 53% of all colleges and universities had dual enrollment programs and the numbers have been steadily increasing, according to the Chronicle Almanac. Today, 98% of community colleges offer high school students college credit. Community colleges are encouraging the growth of these programs, particularly in states where their aid formulas have been changed to be performance based. In performance based funding states, colleges receive at least some of their funds based on student outcomes, which usually include passing certain numbers of college-level courses as one metric of success.

The dual credit and early college high school students are usually quite successful since they are better prepared for college level work—unlike many of the regular students who begin as new students at community colleges and require remedial work. The cost to dual credit students for the college courses they take varies by jurisdiction, ranging from the student and his/her family paying the regular college tuition rate, to paying a lower negotiated rate, to the high school paying the college for the entire cost of the course.

To encourage high school students to finish their Associate's degree at the community college where they have been taking courses, some are offering scholarships. The rationale is that these are proven students who are more likely to graduate than the general school population, and who will generate better outcomes for the school and, frequently, more state funding.

A relatively new innovation to lower costs is to award credit based on competency rather than seat time. Under this model, students can learn about specific subjects on their own in any way they choose and then assemble a portfolio to show mastery of the subject, or take a test, or both. Schools that currently award credit for competency based learning include Western Governor's University, Southern New Hampshire University, Wisconsin Extension Center, Westminster University, and Capella, among several others.

MOOCs have burst on to the scene and have quickly become one way for students to gain subject mastery at little or no cost, and several schools have agreed to grant credit for knowledge gained this way. The University of Maryland University College (UMUC), beginning in fall 2013, grants credit for six MOOCs that are similar to its introductory offerings. To be awarded the credit, students will need to prove mastery of the material either by taking a paid version of the course for \$150 or less, which includes proctored exams, or by going through a rigorous "prior learning assessment" process at UMUC, which measures competency in the topic. Several other colleges and universities also have plans to award credit for MOOCs.

Another tactic schools are using to lower the cost for students is to make sure that students graduate with no more credit hours than necessary. Articulation agreements between community colleges and four-year institutions are encouraged so that students can transfer from two-year to four-year institutions without losing credits. Unfortunately, this still doesn't solve the problem; many schools accept credits but do not map the credits necessary to earn the four-year degree. Thus students have to take excess credits to earn their Bachelor's degrees despite the complete transfer of the Associate's degree credits.

One strategy to cut down on excess course taking is to provide immediate information to students when they register to let them know if they are registering for courses that do not count toward the credits they need for graduation. Additionally, many schools are working on streamlining the pathways to graduation by more clearly indicating what is required for each specific major. Furthermore, more schools are making advising mandatory so that students are offered guidance and clearly understand how to progress from freshman year to graduation most efficiently. Finally, some schools are reevaluating the number of credit hours required to earn degrees for those programs that currently require more than 60 credit hours for an Associate's degree or 120 credit hours for a Bachelor's degree. The University of Maryland, for example, required all its departments to review their majors and seek board approval for any that required more than 120 credit hours.

The governors of Texas, Florida and Wisconsin are challenging their public colleges and universities to use

some of these innovations to develop a \$10,000 degree. For instance, in Texas the \$10,000 degree is available for students with a 2.5 high school grade point average and at least 30 college credits earned while in high school. Students begin with a year at Southwest Junior College before completing the degree at Sul Ross University Rio Grande College. Students can earn the degree in several subjects including biology, chemistry and mathematics.

### **Increase Access and Enrollment**

While schools are working to get students through college more efficiently, many are also working to broaden their pool of prospective students to keep up demand for the education they provide. From a purely financial perspective, this is important so that schools have more potential to achieve the enrollment necessary to operate at capacity, as well as to diversify the sources of their tuition. Many schools that historically focused on full-time traditional age undergraduate students are marketing to adult students, including community college transfer students and veterans. Vassar College, for example, is "actively seeking to enroll qualified men and women who are veterans of the United States Armed Forces." Many colleges are also increasing their recruitment of international students in order to broaden their student pool. Today about 3% of all United States undergraduate enrollment is from foreign countries, but the proportion of foreign students varies widely among institutions. The New School, with 27% of the undergraduate student body from abroad, has the highest proportion.

### **Increasing Operational Efficiencies**

To improve financial stability, many schools are working to operate more cost effectively, particularly by reducing fixed costs. Facility costs account for most fixed costs, and many institutions have found that their facilities are underutilized. Dartmouth is the only school, for example, that historically has had a full summer session and requires all students to live on campus the summer after their sophomore year. Brigham Young University—Idaho adopted a year-round calendar in 2007. The University of Minnesota plans to pilot a year-round calendar in a few programs beginning next fall, and other major universities are considering a year-round calendar as well.

For more than two decades there has been a building boom on college campuses, driven largely by a need for instructional space—which is in highest demand between 10:00 a.m. and 2:00 p.m. Monday through Thursday. To make more efficient, cost-effective use of space, institutions are developing strategies to spread out the times that classes are offered during day and evening hours, and to increase the length of the teaching week by scheduling more Friday classes. Conflict can occur, though, between administration and faculty, which traditionally decides

both when they want to teach and in what room. Questions regarding governance are being raised, with most schools determining that class schedules are not related to academic freedom and should fall within the domain of department chairs and the administration. Schools are using a variety of tactics to encourage departments to offer classes during a wider time frame before resorting to taking over class scheduling. Scheduling has implications beyond facilities usage; there are academic ramifications too. Students are often unable to get the courses they need to graduate because too many of them are offered at the same times. Other strategies to reduce pressure on facilities during peak times include offering more classes on-line and/or as hybrids.

To be more efficient, schools have also taken a hard look at the administrative areas of their institutions, and many of the major research universities had studies done by the big consulting firms to assess how they could become more efficient. Most of the recommendations centered on streamlining the purchasing process, automating all processes that could be, and eliminating unnecessary layers of reporting and redundant systems. Savings at these institutions were estimated at more than 10%.

Beyond these areas, the issue of shared services, collaboration with other schools, and outsourcing services that are not mission critical should periodically be revisited. Collaborations and consortia are being used most frequently by smaller colleges to gain many of the efficiencies and to replicate some of the economies of scale that larger institutions can enjoy. Areas that lend themselves to consortial activity include staff development, risk management, purchasing, insurance, etc. Libraries are a good example of an area where consortial activities have been on-going for many years and where new expansion of these activities is growing with the growth of digital information.

Schools have been slower to focus on how to increase the efficiency of the academic side of the house. Many are beginning to do so by looking at their general education curriculum. The more streamlined it is, the less likelihood there will be empty seats in a classroom; empty seats are costly. Beyond a review of the general education curriculum, many schools are reviewing their majors as well and eliminating those with low demand.

The other major area for increasing efficiency in the academic program relates to faculty: examining the components of a faculty job, including teaching; average class size; average course load; and adjunct vs. full-time faculty. The first issue stems from the fact that most full-time faculty are expected to do teaching, research and public service. But is it necessary for all faculty to do all of these things? For-profit colleges, for the most part, primarily

define the faculty role in terms of teaching. Some schools are rethinking their faculty model, and some are looking to medical schools, which have research and clinical faculties with different job descriptions. (See *Changing Faculty Workforce Models*, Kezar, TIAA-CREF Institute 2013). When schools try to differentiate among full-time faculty, however, a hierarchy usually arises that divides the faculty.

The teaching component of the faculty job can be divided into three basic parts: course design, course delivery, and course evaluation. Do these parts all need to be done by a single person? Are all faculty equally good at all of these tasks? Does each faculty member need to design his or her own course, or can efficiencies be achieved by having curriculum designed by a few faculty and used over multiple course sections for at least a few years? Will such design of the curriculum lead to higher quality courses with more consistency in learning outcomes across courses? In terms of student evaluation, many faculty hesitate to assign essays and give exams because of the grading burden. If assessments were outsourced, this would not be a factor. Many of the for-profit institutions divide the faculty job and hire different people to do design, delivery and evaluation. Western Governor's University outsources its assessment.

The number of students taught, class size, and deployment of adjunct faculty vs. full-time faculty are three additional key issues with significant cost implications. Beyond examining teaching load, many schools have begun to look at the number of credit hours that each faculty member produces. Clearly there is a difference in workload between a faculty member whose courses have an average enrollment of eight students vs. one whose courses average twenty or more students. Schools need to consider establishing minimums for credit-hour generation by faculty to encourage them to teach courses other than upper-level boutique courses. The question of the best class size relative to learning outcomes does not have much research behind it, and yet it becomes especially relevant as we enter the age of MOOCs—and it has significant cost implications. Finally, adjunct faculty can be three to eight times less costly per course taught than full-time faculty.

### **Improve Student Outcomes**

Calls for accountability in the higher education industry today are loud and clear. One important element of accountability is student outcomes, but little data exist. One of the few pieces of outcome data that colleges and universities do have and share are graduation rates, and there is great concern about how low these rates are. Many schools are experimenting with a variety of strategies to improve student success in college as measured both by graduation rates and learning outcomes. Some community colleges are making orientation and advising programs mandatory for first term students. And many schools are eliminating late registration

because they're finding that students who register late often can't get the courses they need and are less likely to succeed.

Some schools are working on redesigning courses and incorporating computerized adaptive learning into classes; experiments in this area have shown great promise. Two of the leaders in this arena are Candace Thille and Carol Twigg. Their work has generated empirical data that shows significantly improved outcomes in many entry level courses, and Twigg's data shows that this can usually be accomplished at a much lower cost. Many community colleges are redesigning much of their remedial math coursework into self-paced computer designed emporia; to date, the results are positive in terms of both student completion of the work and their advancement to college level work.

Schools are also providing additional tutoring services, online writing centers, and success coaches for students in order to increase student success. Many are outsourcing these functions to companies like Smarthinking, which provide such services online 24 hours a day. Smarthinking also sells directly to students.

### Add Online Programs

Many questions surround the use of online programs and the impact on higher education's business model, and there is a great deal of experimentation going on. Online programs are usually more cost effective than in-person programs because they do not require classroom facilities and can easily be scaled. In the past, online programs required large start-up costs and did not become cost effective until they reached a certain size. Today, however, all components of online programs can be outsourced, removing the barrier to entry for small online programs. In addition, much of the technology infrastructure required for online teaching already exists at most schools to support their on campus courses with chat rooms, bulletin boards, and other methods of sharing information among students and between faculty and students. That makes adding online courses a way to make greater use of an infrastructure already in place.

Several years ago, NYU and Columbia suffered high profile and expensive failures when they tried to offer some of their top programs at their regular tuition prices in an online format. Much has changed since then. Today, many schools now offer hybrid courses that meet in-person less frequently than traditional courses. Mercy College in New York began doing so more than fifteen years ago in part to free up scarce classroom space during the most popular hours for classes. Several institutions are entirely online, such as Rio Salado Community College, the American Public University System, and Western Governor's University, which is now the online university for 19 states. Many other institutions known for

their on-the-ground operations now have significant online operations as well, including the University of Maryland University College, the University of Southern California, and the University of Phoenix.

Most agree that online learning will not replace face-to-face learning for all students, but that it provides a viable alternative. This alternative will at once increase competitive pressure on institutions that are already struggling to fill their classrooms and offer new potential sources of revenue by reaching new students. Both public and not-for-profit institutions are forming partnerships with for-profit companies to provide online programs. The joint ventures are often offered at no risk—other than reputation—to the partnering institution. The for-profit partner provides some or all of a variety of services ranging from marketing, online hosting, program design, and faculty management. The college or university usually retains authority over who teaches the courses and the course content. Most of these arrangements involve revenue shares between the two entities and contracts ranging from five to ten years. Several schools have experienced significant revenue gains from these partnerships, which are being entered into by colleges and universities as diverse as the University of Southern California and Western New England College, as well as many public four-year institutions.

Another stage in this evolution is the experiment with open courseware that MIT began back in 2001 whereby they made much of their curriculum available for free. Today many universities in the United States and abroad are making a great deal of their curriculum accessible to anyone who wants to use it. There is now an open courseware consortium that provides a database on open courseware (<http://www.ocwconsortium.org/>). Educators can use the curriculum in the development of their own instructional materials, and encourage self-learners to use the material as well.

The next major development has been the massive open online courses (MOOCs) movement, started by one of Stanford's most inventive professors, Sebastian Thrun, who offered his "Introduction to Artificial Intelligence" course online and free of charge a few years ago. His remote students heard the same lectures as students paying \$50,000 a year, completed the same assignments, took the same exams and, if they passed, received a "statement of accomplishment" (though not Stanford credit). More than 100,000 students signed up for this course. Thrun left Stanford to form the for-profit company Udacity, which offers several courses free online. Udacity has been joined in the online MOOC space by the for-profit Coursera, which has 92 partners and a current course catalogue of 464 free online courses. EdX, a consortium formed by Harvard and MIT, is another MOOC provider, which currently offers 79 free courses. All of these MOOC providers are in search of a viable business model, but in the meantime there is a

tremendous amount of very high-quality content on the web available for free.

Other institutions are experimenting with how to benefit from online content available at little or no cost. Some institutions are incorporating content into their courseware; others are considering “flipping” their classrooms—using online content as the course lectures, which students watch on their own outside the classroom, and using class time for project work and deep discussions about the content.

The net effect of all this online activity is dramatic. In fall 2011, over 6.7 million students (32%) of the student population were taking at least one course online, and 77% of academic leaders rated the learning outcomes from online courses the same or superior to face-to-face courses, according to the Sloan Consortium. This is a sea change in attitude toward online learning in quite a short period of time. The academic credibility of online programs is questioned less and less frequently.

### Think Globally

Besides recruiting more foreign student to broaden their pool of potential students, many United States institutions are looking to broadening the experience of United States students: Goucher College was the first United States college to require all of its students to have an international experience before graduating, and beginning in fall 2014 all freshmen at Centenary College will begin their first year in Paris.

Another way to broaden the pool of potential students is to take the school overseas. Many schools have had international campuses for years, but most of those are in Europe. Much recent activity has been in the Middle East and Asia. Columbia University has established eight regional centers around the world in the last three years. And Qatar, for example, invited leading United States universities to set up programs in the country. It invited Georgetown for foreign service, Northwestern for journalism, Carnegie Mellon for business administration and computer science, and Texas A&M for engineering. Qatar built each university its own building and provided all the infrastructure necessary for quality academic programs, including an independent student center to serve all the schools and students. While extensive financial support is provided on-site, the larger financial implications for these institutions’ business models is not yet clear.

Elsewhere, NYU has developed a full campus in Abu Dhabi; Duke and NYU are building campuses in China; and Yale has joined with the University of Singapore to build that country’s first liberal arts college. Issues of academic freedom have been of some concern in all of these endeavors, and some schools have found that replicating the home campus experience—at least as far as having regular University

faculty teach the courses—is difficult, yet many of these overseas efforts are continuing apace. Their long-term effects on their institutions’ business models remain to be seen.

### Conclusion: Change is Coming

Higher education in the United States is facing serious challenges. The industry’s long-term financial sustainability is under threat given the current revenue and expense structure, not to mention the serious concerns about the quality of its product, i.e. student learning outcomes. Some believe the industry will look very different in 20 years—both in terms of the numbers and types of institutions, as well as how students are taught. Others believe that the industry will continue in much the same manner, making adjustments on the margins to the way it operates.

I would suggest that we will continue to see an evolving and changing industry. Institutions will need to respond to student demands to “credentialize” their knowledge and their various learning experiences, and to adapt to students who have grown up entirely in the digital age. There will be some consolidation of small, undercapitalized institutions, but most are likely to carry on, becoming more diverse in their offerings and teaching modalities, as well as the populations they serve. And many may begin to grant degrees for a variety of bundled experiences and competencies as well as for more traditional credit courses.

But the bottom line is that the higher education industry will remain under stress until it can develop a new financial model to provide a quality education at an affordable price to students. Most other industries facing similar conditions would contract. Yet, colleges and universities rarely shut down given the power of tradition and faithful alums. But are our students and nation best served by continuing to maintain a plethora of marginal institutions, struggling to attract adequate numbers of students and continually reducing costs to keep their doors open? Would the industry be better off with fewer, better financed institutions?

### Issues for Further Study

Given today’s environment, a plethora of interesting issues lend themselves to further study. Further study along the lines of inquiry outlined below will help to shed light on the challenges and opportunities facing higher education leaders today.

1. Most colleges and universities are making changes at the margins on both the revenue and expense side. Is this the best way for them to deal with current pressures or is a more comprehensive solution required? How can transformative change be supported and managed in light of higher education’s traditional culture?

2. Many changes that institutions are making to improve outcomes and enhance their financial viability may have negative implications for access. For example, what will be the impact on access of increased focus on student success, and state formulas that reward based on such success? What will be the impact of changes in tuition on access? Will a change in the model from high tuition/high aid to one of lower tuition and lower aid increase access and choice? What are the implications of demographic trends on access and financial sustainability?
3. Have we hit a price ceiling in higher education? What are the most effective strategies to reduce the price of a college education? How can these most effectively be implemented?
4. What are the long-term implications of students taking college credit while in high school? Will this improve high school graduation rates? Will it increase college-going and success rates? Are the courses they are taking in high school of true college-level quality?
5. How can good outcome measures of graduates be developed? How can standards be established that ensure that a Bachelor's degree certifies some minimum competency in a variety of skill sets? How can rigorous follow-up studies of students be developed to generate comparative measures among schools? How can higher education leaders contribute to shaping and developing the accountability measures proposed by President Obama in 2013?
6. What are the implications of digital content in terms of access to higher education? What are its implications in terms of diversifying and increasing institutional revenues? What are its implications for pedagogical effectiveness? How should new learning technologies be used to improve productivity and efficiency?
7. What is the appropriate role of government support for higher education? What are the implications of the seeming change in the compact between states and public institutions for funding higher education? How much of higher education is a public good? What is the most effective way to subsidize the "public good" component of higher education? Why do some countries provide free college education to their citizens? How large a subsidy should the government provide for higher education and what is the most effective way to provide this subsidy?
8. How can existing institutional assets and infrastructures be used more efficiently? Will there be a contraction in the number of colleges and universities in the country in the next decade?
9. What are the implications for the infusion of new ideas and talent as we live and work longer and faculty postpone retirement?

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## About the Author

Lucie Lapovsky is an economist who consults, writes and speaks widely on issues related to higher education finance, strategy, governance, and enrollment management. She also speaks on issues related to women's leadership.

Lapovsky served as President of Mercy College, an institution of 10,000 undergraduate and graduate students with campuses in New York City, Westchester and on-line, from 1999 to 2004. Prior to Mercy College, she served as Vice President for Finance at Goucher College.

Lapovsky chairs the board of the National Council for Research on Women and also serves on the boards of the American Public University System, Cedar Crest College, and the KnowledgeWorks Foundation. She is co-editor of three books: *Strategic Financial Challenges for Higher Education: How to Achieve Quality, Accountability and Innovation* (2008); *Roles and Responsibilities of Chief Financial Officers* (1999), both published by Jossey-Bass, and *The White House Project Report: Benchmarking Women's Leadership* (2009).

Lapovsky earned her Ph.D. degree in Economics from the University of Maryland at College Park.