LEAP

Investing in Success

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COST-EFFECTIVE STRATEGIES
TO INCREASE STUDENT SUCCESS

BY JANE WELLMAN AND RIMA BRUSI

Association of American Colleges and Universities

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Foreword

Carol Geary Schneider
President, Association of American Colleges and Universities

As part of the Association of American Colleges and Universities' (AAC&U) centennial initiative, Liberal Education and America's Promise (LEAP), we are pleased to publish another report in our series on educational practices that successfully prepare today's college students to meet twenty-first-century challenges.

LEAP is a national initiative launched in 2005 that now involves hundreds of private and public colleges, universities, and community colleges; several consortia; and nine formal partnerships with state systems of higher education. LEAP engages the public with core questions about what really matters in college, works to give students a compass to guide their learning, and makes the aims and outcomes of a liberal education—including broad knowledge, intellectual and practical skills, personal and social responsibility, and integrative and applied learning—the expected framework for excellence at all levels of education. The LEAP initiative also strives to "make excellence inclusive" and is especially concerned with students who, historically, have been underserved by higher education.

This new LEAP report—*Investing in Success*—builds from several earlier reports, including the recently published *Ensuring Quality & Taking High-Impact Practices to Scale* by George D. Kuh and Ken O'Donnell and *Assessing Underserved Students' Engagement in High-Impact Practices* by Ashley Finley and Tia McNair. Since we began publishing research on the educational effects of "high-impact practices" and completion in 2007 and 2008, there has been a groundswell of interest in these practices across all sectors of the higher education community (see page 11 for a list of high-impact practices). These two most recent publications add to the growing body of evidence that multiple experiences with high-impact practices are beneficial both for student learning and for increased persistence and completion. The challenge now before us is how to ensure that *all* college students benefit from these kinds of practices.

We know that nearly every college or university in the country offers to at least some students some of these practices, but very few have taken steps to ensure that high-impact practices are mapped strategically into courses that most students take, or into degree requirements. Remapping the curriculum to increase student success is, AAC&U believes, the best way to raise both completion levels and the quality of learning.

I am very proud to publish yet another report on high-impact practices with a particular focus on meeting the challenge of expanding access to high-impact practices even in times of constrained resources.

Since 2008, AAC&U has led the higher education community in promoting access to high-impact practices for all students and in pursuing answers to questions about the effect of high-impact practices on student learning outcomes. We are very pleased to present below additional exploration of how we can collectively advance practices that will help every college student graduate well-prepared for both challenges and opportunities at work, in their own lives, and in our shared democracy.

Introduction

We live in a time of dramatic change in how we fund higher education. At many institutions, financial stress and continuous cost cutting has become a way of life. This funding path is not sustainable, particularly in light of national needs to increase educational attainment. Some of the academic programs most essential to helping students learn and to meeting our national educational goals have taken the worst beating from the funding crisis, even as the population of students coming to our institutions has become more diverse and in greater need of academic and student support services to be successful. Despite the best of intentions, future investments in the often time-intensive educational experiences that produce the greatest value are at risk, victim to the elimination of full-time faculty and reductions in program offerings. This publication focuses on ways to put resources—however scarce they may be—into high-impact educational practices and offers guiding questions to help institutions implement these practices in order to improve student success and learning outcomes.

As a nation, we do not have a strategy to address the disconnect between our professed goals for educational attainment and the way we finance our educational institutions. Some argue that the best solution lies in the use of technology to expand course availability and drive down the cost of production (Young 2012). Others, including economist Richard Vedder, argue that our goals for attainment are overblown, and that we are already sending too many students to college (Vedder 2012). And still others, such as the Association of American University Professors (AAUP) in its "Campaign for the Future of Higher Education," argue that we need to be doing a better job of making the case for increased revenues on the grounds of social equity and as a necessary investment strategy for workforce development (AAUP 2011).

In this report, the authors take a position somewhere in the middle: we believe that our funding problem is caused both by inadequate revenues and insufficient attention to the way that money is spent within institutions. New revenues alone will not solve our student success problem. Educators have to spend the money they have in ways that better align with student success. Even without new money, each institution—including some of best funded and the most cash strapped—can do a better job of using resources to increase student success. Getting there will require campus and system leaders willing to change historic budget and funding practices and prepared to focus, and help their institutions focus, on student success and academic quality. We may not solve all of our financing problems with better attention to the connection between spending and student learning and attainment outcomes, but we'll get a lot closer than we would without it.

CHAPTER 1

The Cost/Attainment Problem

America's public and private nonprofit colleges and universities face a stark reality, called on to simultaneously expand access to higher education *and* increase student success in a period of declining resources. To return to a position of international leadership in higher education attainment by the year 2020—the goal set by President Obama—our country will need to raise its rates of postsecondary attainment[1] to around 55 percent of the young adult population—a figure significantly above our current level of 45 percent. To achieve this goal by 2020, we need to be increasing the proportion of adults with baccalaureate degrees by about 2 percent per year. Those increases need to happen at the same time that the pool of recent high school graduates is beginning to decline, and the majority of new students coming to college will be coming from low-income and minority populations who historically have been underserved in higher education (WICHE 2013; Wellman 2011). The educational challenge is daunting, requiring major improvements in preparation for college success at the K-12 level for historically underserved populations—the factor researchers have found to be the single most important predictor of college attendance and success (Adelman 1999; Bound et al. 2009).

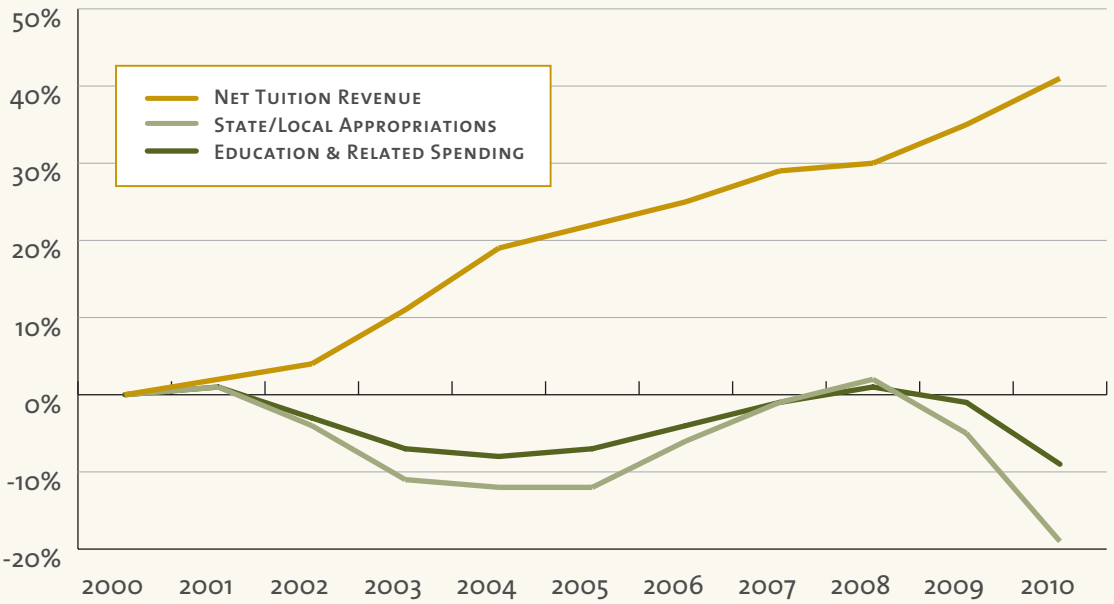
In the last decade, we have in fact made progress toward that goal, and college-going rates are going up, as are graduation rates. In 2012, our national attainment levels[2] are higher than they have ever been, and much of that progress has occurred among Latino and immigrant populations (Fry 2012), but the rate of increase has been closer to a half percent per year. And while baccalaureate completion rates are increasing, most of the absolute increases in "postsecondary attainment" have been in sub-baccalaureate programs less than one year in length. While these short courses may help students to get entry-level jobs, labor market research suggests that they aren't the types of jobs that help students to advance in the workforce (Carnevale 2011). Nor do these programs focus on the learning outcomes that employers say are necessary for career success (Hart Research Associates 2013; 2010). To really turn the dial up on baccalaureate attainment, we need to be getting historically underserved students both to and through our colleges and universities, in much greater numbers than ever before, and we need to ensure that they are achieving the learning outcomes they will need to succeed in the twenty-first century.

1. By international norms, postsecondary attainment is defined as the proportion of the population with some type of a post high-school credential. This includes certificates, associate degrees, and baccalaureate degrees.

2. Here, "attainment" refers to a measure, generated by the US Census Bureau, of the proportion of the population that has had some postsecondary education.

Figure 1

The Unsustainable Cost Model: Gaps in Tuition Revenue vs. Spending, Public Community Colleges, 2000–2010
(Figures are in 2010 dollars, per FTE student)



Source: Delta Cost data base, http://nces.ed.gov/ipeds/deltacostproject/

Declining revenues and the "broken cost" model

The educational challenge is compounded exponentially when resources are brought into the picture. Historically, higher educational institutions have required around 3.5 percent per year in base funding increases just to keep pace with the steadily rising costs of labor, employee benefits, and the high costs of specialized facilities and scientific equipment.[3] In the past decade, real increases in revenues have been closer to 1 percent per year in the public research universities, and we have witnessed absolute declines in funding for public master's institutions and community colleges (Delta Project on Postsecondary Costs 2012). State and local appropriations for public institutions have been reduced an average of 30 percent per student over the last twenty-five years, with most of those reductions coming in the last decade alone (Finance 2013). Tuitions and fees have increased, but tuition revenues are only a fraction of the lost state revenues, so costs are being cut even as tuitions are going up (Wellman 2012). The "cost/price" gap is biggest in the community colleges: prices are up almost 40 percent at the same time that spending has been cut by nearly 10 percent (see fig. 1). While the price/cost gaps are less dramatic in the private nonprofit sector, the majority of these

3. This is an average across all public and nonprofit institutions; base funding increases tend to be higher in research universities and in high-cost disciplines such as the health sciences. Calculations were prepared by the National Center for Higher Education Management (NCHEMS) in conjunction with the Delta Cost Project for the Lumina foundation's conference on productivity (NCHEMS and Delta Cost 2011).

institutions are feeling the squeeze because growing tuition discounting means that net revenues from tuition are declining even though sticker prices are going up. One upshot is that Moody's, the major bond rating agency for higher education, in 2012 issued a "negative outlook" for the entire postsecondary sector for the first time in history (Moody's Investors Services 2013).

The consequence of these funding reductions can be seen in data about spending patterns in both public and private institutions. Throughout the last decade, the proportion of unrestricted funding going to pay for instruction has stayed steady or declined; meanwhile, spending has slightly but consistently increased in administrative areas. Full-time faculty are declining as a percentage of the workforce in almost all types of institutions—including private baccalaureate institutions, the presumed core of our nation's liberal arts institutions (see fig. 2).

Figure 2

Change in the Percentage of Workforce by Job Category and Sector, 2000–2010

Employees by Job Category	Pub Res	Pub MA	Comm Colleges	Pvt Res	Pvt MA	Pvt BA
FT Faculty	+0.30%	-1.50%	-3.00%	+2.70%	-2.30%	-1.40%
PT Faculty	+0.60%	+2.30%	+4.50%	+0.50%	+7.40%	+4.40%
PT instructors/TAs	+2.60%	+2.40%	-0.80%	+3.10%	+0.70%	+0.10%
Exec/Managerial	+0.20%	+0.10%	+0.00%	+2.00%	0.00%	+0.40%
Professional	+2.60%	+3.70%	+2.00%	+0.90%	+1.60%	+4.00%
Technical, support, craft	-7.10%	-6.90%	+0.30%	-9.20%	-7.40%	-7.50%

SOURCE: DELTA COST PROJECT IPEDS DATA BASE, HTTP://NCES.ED.GOV/IPEDS/DELTACOSTPROJECT/

Spending is going up in some areas of higher education, but most of the increases are in auxiliary enterprises (dormitories, hospitals, and food services) or sponsored research, not in the core instructional program.[4] Within the core program, the largest single area of increased spending has been employee benefits—going up by an average of 6 percent per year, against flat or declining salaries. One of the biggest growing expenses is for health care benefits to current retirees, a new and growing spending problem in many institutions. Between spending reductions that erode the academic program, and spending increases that advantage fixed costs over instruction and student services, the path we are on is obviously not one that can be continued for long in institutions whose primary mission is teaching and learning.

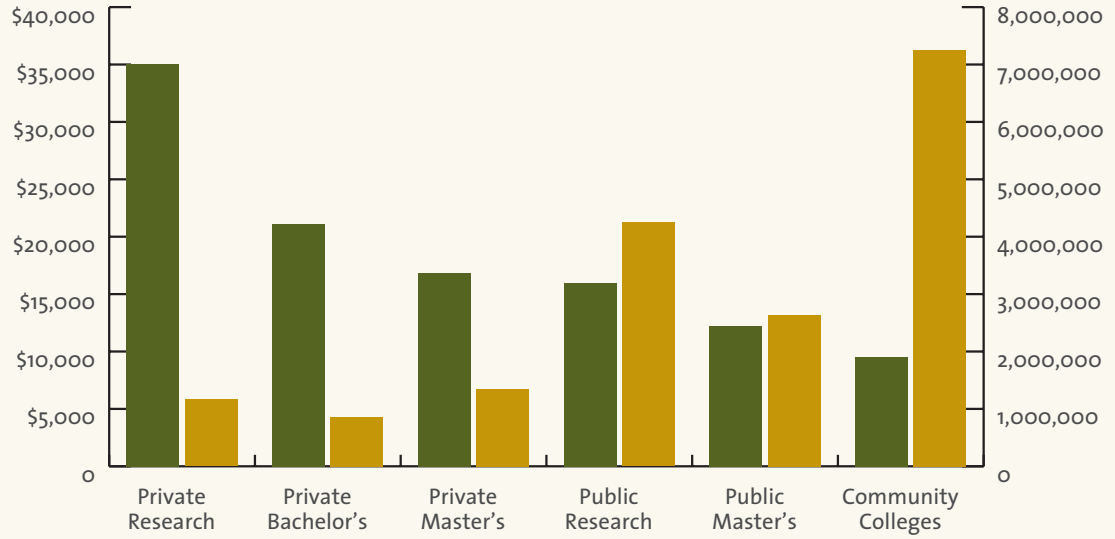
A number of analysts and many in the public policy world believe that the long-term solution to the higher education funding problem is technology, which will expand access and drive down costs (Immawahr 2004). But few would seriously argue that massive open online courses (MOOCs) or other types of technology-enabled instruction will generate enough revenue to allow us to avoid cost reduction elsewhere in our institutions. And even as distance-mediated instruction comes to play a more prominent role in educational delivery—and it will—we cannot be content to let

4. Details about spending patterns by revenue source and sector may be found in the analyses of the Delta Cost Project, available from http://www.deltacostproject.org.

distance delivery be the default option for low-income and underrepresented students,[5] while students coming from families of means remain in institutions with lots of money to spend to ensure their success. That route will only exacerbate what is one of our biggest problems in postsecondary education—the enormous stratification of institutions and the students they serve. This stratification has always been present in American higher education, but it has become much more pronounced in the last decade, as spending per student has continuously increased at the wealthiest institutions, in sharp contrast to the absolute reductions in spending at public community colleges (for more information on discrepancies in spending by sector, see fig. 3 and fig. 4).

Figure 3

Spending per Student vs. Enrollment by Sector, AY 2010

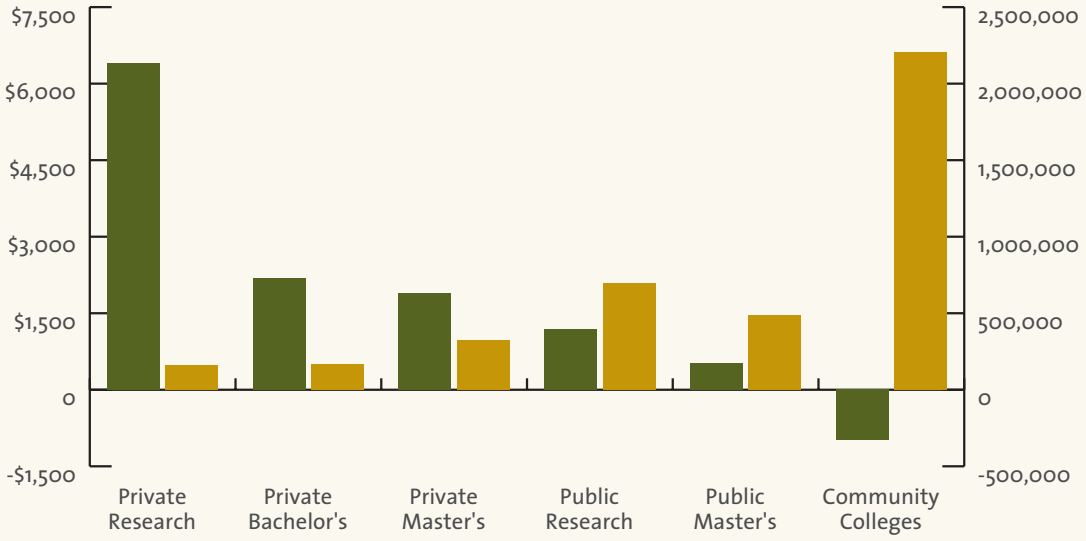


Source: Delta Cost Project IPEDS Database, 1987–2010; spending data from the 11-year matched set; enrollment data from the unmatched set.

5. Community College Research Center studies drawing on data from community college systems in Virginia and Washington State have found that while all students had slightly lower grades and persistence rates in online courses compared with face-to-face courses, the gap was much greater for students of color and students with less academic preparation (Xu and Jaggars 2011, 2013).

Figure 4

Change in Enrollment vs. Change in Spending, AY 2000–2010



Source: Delta Cost Project IPEDS Database, 1987-2010; spending data from the 11-year matched set; enrollment data from the unmatched set.

Finding ways to increase allocations of resources to poor institutions requires changes in public policy, something that is hard for institutional leaders to influence. But campus leaders can learn to change the allocation habits within their own institutions, to put the scarce resources they have into high-impact practices that will make a difference in student success.

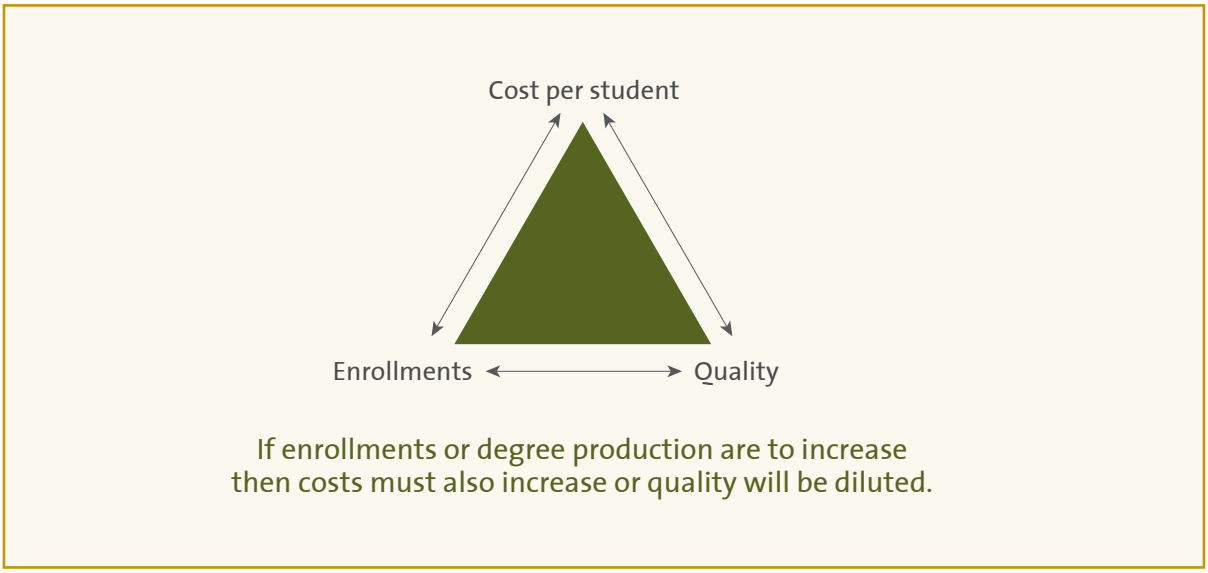
CHAPTER 2

Changing the Mindset about Costs and Spending

If we are going to make the investments in practices that support students success, we must challenge ourselves and our leaders to think differently about the relationship between resources and quality, about how we allocate administrative and support resources, and about the inevitability of the "cost disease" in higher education. There is a widespread myth that greater funding leads to higher quality, and this mindset can get in the way of thinking differently about spending and performance in higher education. In the absence of good measures of quality or productivity, resources (or measures that are surrogates for resources, such as admissions selectivity, low class sizes, high faculty salaries, and research grants) and institutional reputation have come to represent quality (Astin 1985). Some attribute the quality-funding connection to the "cost disease" or the "iron triangle" (see fig. 5): spending increases are inevitable, and productivity gains may only be achieved by reducing labor costs and thereby damaging quality (Baumol 1966; Immerwahr 2007).

Figure 5

Reconsidering the "Iron Triangle" Mindset



The mindset about "fixed costs" and about the inevitability of annual increases in spending, however, needs to be challenged. In public institutions in particular, we have inherited budget allocation practices that fund fixed costs such as employee benefits and utilities ahead of funding for the faculty who teach students, program enhancements, or other investments in the academic program. At a time when new revenues were growing at 4 to 5 percent per year in real terms, this budget practice made some sense. However, in the current environment, the "base-plus" approach to budgeting means that all new money is going to fund fixed costs rather than to programmatic investments in places that make a difference academically. That is not to say that benefits or other fixed costs aren't real and shouldn't be funded; they are to some extent a price of business, and those bills must be paid. But by treating them as "automatic" spending areas, we are removing institutional incentives to take steps to reduce those costs through changes in benefit practices, utilities efficiencies, or consolidation of administrative and support programs.

The issue is important because containing costs in these areas can result in really significant budgetary savings to an institution—yielding far more in resources to be reallocated to support academic programs than might be obtained through program reviews, curriculum changes, or even increased student–faculty ratios (Ferren and Slavings 2000). One institution that tackled one aspect of the "automatic" funding increases is the University of Nebraska (UN), which successfully eliminated unfunded liabilities for its post-employment retirement program—the health care benefits paid to faculty and staff who are already retired. In 2008, the Government Accounting Standards Board (GASB), the national organization that sets standards governing financial reporting for public institutions, began requiring liabilities for these costs to be shown as institutional debt. UN realized that, under the new standards, the bill for retiree health benefits would be $17 million a year—a cost that would require a 4 percent per year increase in state funding in perpetuity. The university tackled the problem by requiring retirees to pay properly amortized costs for the benefits, thus reducing the deficit to zero. It was a controversial step at the time, but without it $17 million in funding that otherwise could go to academic programs would have disappeared into that single spending area. The revised benefit structure remains competitive, and is still more generous on average than the benefits that are paid to employees in private institutions or in other sectors.

Reallocate funds by consolidating administrative and support expenses

The decentralized nature of most colleges and universities has led over many years to layers of redundant services and support functions, such as human resources (personnel), purchasing, accounting, payroll, internet and telephone services, and information systems. These functions account for 25 to 35 percent of spending in all types of institutions. The extra layers can leech funds away from the core academic programs without always contributing significant value. Every institution can benefit from reevaluating historic patterns of funding in administrative and support services, beginning with efforts to consolidate redundant functions across programs and departments within a campus, or across campuses within regions or systems. In the last few years, a number of institutions have begun reconfiguring these costs through administrative reviews and shared services initiatives. The State University of New York System Office instituted a system-wide "shared services" initiative in 2012, with a goal to find at least 5 percent in annual savings that can be redirected to academic programs. In the first year the system has already found $60 million in savings, largely through purchasing and consolidation of administrative offices. The University of North Carolina and the University of California have implemented similar initiatives. Both of these systems found it helpful to use external consultants to seed the initiatives, operating on the belief

that "outsiders" would be less constrained in finding savings and recommending consolidations than would be the case for people within the institutions.

Generate—and use—data about spending and results

The research literature in higher education on spending and student outcomes is remarkably thin. We have done much more to improve our understanding about student learning and outcomes than we have to understand how money is spent and, more importantly, to understand the *relationship* between spending and outcomes. However, the information that is available strongly suggests that *there is no consistent relationship between funding levels and results*—whether that is measured by degree production, connections to the labor market, or economic development (Wellman 2010). Much more important than the amount of funding institutions have is how they make use of those funds. Institutions that are funded at very different levels can achieve quite similar outcomes—even if comparisons are adjusted for incoming student preparation and socioeconomic status (Ewell 2003; Kelly 2009; Jones and Kelly 2005; Education Trust 2012). Some of the research is heartening, and confirms a basic, common sense, intuitive connection between student success and an institutional focus on teaching and learning. For example, institutions that put more resources into their academic programs, particularly in terms of faculty and student support services, tend to have higher student retention and graduation rates (Umbach 2007). Institutions serving high proportions of at-risk students that put relatively more of their spending into student services do a better job at keeping students and moving them toward degrees (Webber and Ehrenberg 2010). Research on student attrition patterns in public "access" institutions found that declines in incoming student academic preparation account for most of the declines in graduation rates in public community colleges over the 1972–1988 period (Bound et al. 2009). However, the same study showed that three-quarters of the increases in attrition among non-selective public four-year institutions were related to deteriorating spending on faculty and to rising student–faculty ratios.

Institutions that want to increase graduation rates in a time of decreased funding will have to collect data about educational practices that work and engage in some out-of-the-box, targeted thinking when it comes to costs. The Undergraduate Studies Division at San Diego State University (SDSU), for example, carefully examined institutional data and designed studies to understand the relative impact that current programs were having on retention and graduation rates, especially for of low-income students. After identifying "feel good" programs that had little effect on student performance, the university moved funds from these programs to those that provided solid, effective learning experiences to students (see Chapter 3 for a discussion of high-impact educational practices shown to improve student success). For example, about a third of the four-year programs at SDSU have a study abroad requirement—a potentially effective but very expensive high-impact educational practice. Funds from closed programs were used to provide scholarships that allow low-income students to participate in study abroad. The university also designed a clever way to provide a large number of low-income students with undergraduate research experience, another high-impact practice. SDSU is a master's comprehensive institution, but many faculty members carry out research and they are open to training and cultivating undergraduate assistants. The student success team turned this institutional need into an opportunity to open a traditionally expensive educational practice to low-income students by providing an orientation to these students about the importance of the research experience, collecting the names of those who wanted to work in projects and labs and matching that list to faculty needs. Research faculty were

able to get and train new assistants, often obtaining funding for them in subsequent grants, and students were able to acquire valuable research experience and engage closely with research faculty.

Questions to Consider:

- Are data about program costs and student retention and success at your institution routinely available in a user-friendly form to all the academic decision makers who need this information?
- How does your institution compare to peers on measures of resources going to "shared services" or overhead (academic, institutional, and student support), and to fixed costs of employee benefits and utilities? Have steps been considered to restructure employee benefit costs to reduce inflationary pressures on this spending category?
- What steps have been taken to consolidate administrative and support services on campus to both reduce spending and improve quality?

CHAPTER 3

High-Impact Practices and Student Success

Outside of improvements in high school preparation for college, the second most important strategy we should be pursuing as a country to accelerate learning and attainment is the widespread adoption of high-impact practices. HIPs, as they have come to be known, are educational practices that require more from students in terms of time, intensity of focus, and intellectual effort, which in turn require more from faculty and staff in terms of time and intensity of interaction with students. A list of HIPs proven to positively affect student success is described in the AAC&U publication *College Learning for the New Global Century* (2007); George Kuh provided further research on the efficacy of those practices in *High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter* (2008) (see sidebar). Successful participation in HIPs increases graduation rates, with the greatest increases occurring for students who have two or more such experiences. All students benefit from participating in HIPs, but the biggest gains in graduation rates occur for historically disadvantaged students (Kuh 2008).

The benefits of these practices are well documented. In *Assessing Underserved Students' Engagement in High-Impact Practices,* Ashley Finley and Tia McNair (2013) demonstrate that students who participate in HIPS reported greater engagement in deep learning and self-reported gains in learning.

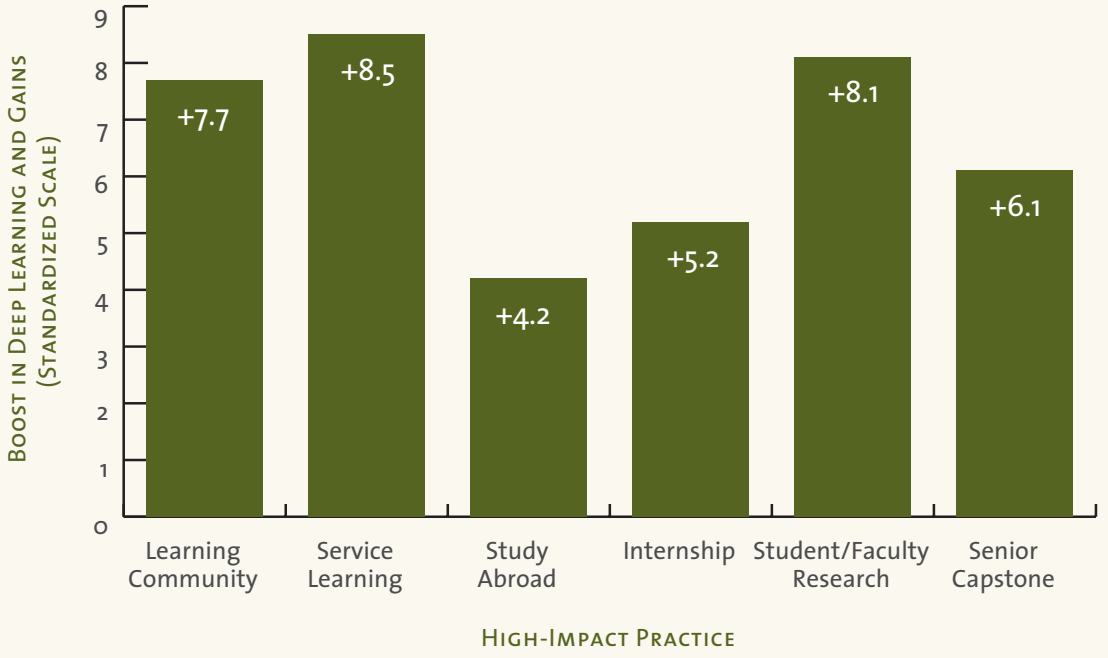
List of High-Impact Educational Practices

- First-Year Seminars and Experiences
- Common Intellectual Experiences
- Learning Communities
- Writing-Intensive Courses
- Collaborative Assignments and Projects
- Undergraduate Research
- Diversity/Global Learning
- Service Learning and Community-Based Learning
- Internships
- Capstone Courses and Projects

Source: *High-Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter* by George D. Kuh, (Washington, DC: AAC&U, 2008)

Figure 6

Average Boost to Students' Perception of Their Deep Learning and Gains by Participation in Specific High-Impact Practices



Source: *Assessing Underserved Students' Engagement in High-Impact Practices* by Ashley Finley and Tia McNair (Washington DC: AAC&U, 2013).[6]

Perhaps most striking, Finley and McNair write, is the "positive relationship between students' cumulative participation in multiple high-impact practices … and their perceived engagement in deep learning and their perceived gains in learning" (2013, 9).

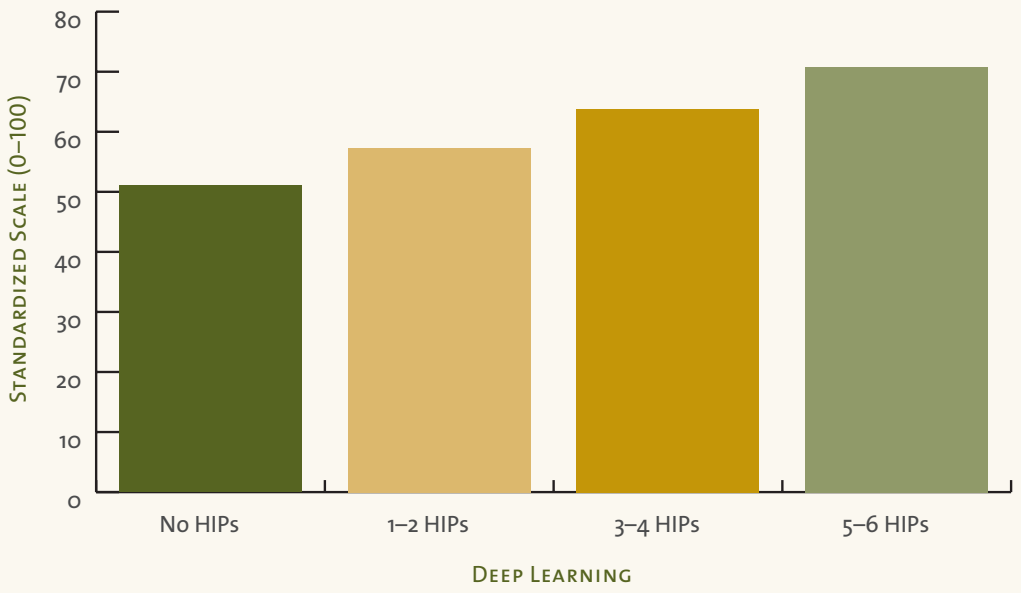
In addition to the HIPs described by Kuh, the Center for Community College Student Engagement (CCCSE) has identified additional practices that hold promise for the two-year sector (CCCSE 2011), particularly "structured group learning experiences" such as orientation, student success courses, and accelerated developmental education. Further research may identify other practices with similarly positive effects on student learning outcomes.

The problem is that HIPs are not the norm anywhere in higher education. A recent study from the National Survey of Student Engagement shows that although there has been some modest growth in the prevalence of HIPs since 2008, the majority of students enrolled in *all* types of four-year institutions do not report receiving even one high-impact practice (NSSE 2012). Knowing what we do, it seems obvious that the route to increased attainment is to get more students to participate in HIPs. To do that, we need to have a strategy to make it happen, beginning with money.

6. *Assessing Underserved Students' Engagement in High-Impact Practices* provides detailed evidence about the efficacy of a subset of the high-impact practices identified by George Kuh and AAC&U. Further information about the learning benefits of these selected practices is available in George Kuh and Ken O'Donnell's *Ensuring Quality & Taking High-Impact Practices to Scale* (AAC&U 2013).

Figure 7

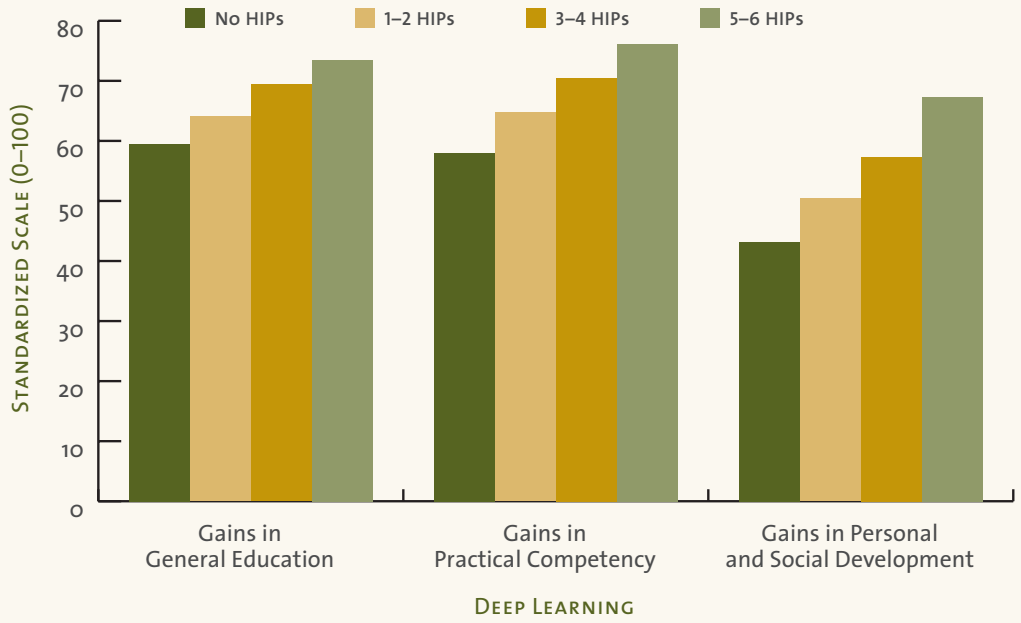
Deep Learning Experiences by Cumulative Participation in High-Impact Practices (HIPs)



Source: *Assessing Underserved Students' Engagement in High-Impact Practices* by Ashley Finley and Tia McNair (Washington DC: AAC&U, 2013).

Figure 8

Self-Reported Gains by Cumulative Participation in High-Impact Practices (HIPs)



Source: *Assessing Underserved Students' Engagement in High-Impact Practices* by Ashley Finley and Tia McNair (Washington DC: AAC&U, 2013).

HIPs and Costs

There has been no systematic study done of the unit costs of all types of high-impact experiences, but it is a fair assumption that HIPS are more expensive than the average undergraduate instructional program simply by nature of their expectations for a high degree of student-faculty interaction. This does not mean that HIPs are prohibitively expensive, or even more expensive than many other types of educational practices that we have historically been able to fund. Colleges still manage to find money for intercollegiate athletics, which cost as much per student as medical education. And institutions spend an average of 30 percent more per unit for upper-division classes than at the lower-division—as much because of faculty teaching interests as because of the intrinsic cost requirements at the upper division (Middaugh 2009; Desrochers 2013; Basu Mann 2010). Some HIPs, such as undergraduate research programs, internships, and study abroad, depend on supplemental funding for student stipends, travel, and other expenses. But not all types of HIPs are equally expensive; for instance, common first-year experiences and learning communities do not require any additional cost to institutions that have undergone comprehensive curriculum redesign and paid attention to course scheduling and student advising. Research tells us that the way money is used makes a bigger difference than the absolute level of revenues that are available (Ewell 2003; Jones and Kelly 2005; Wellman 2010).

Every institution, even the least the least well-financed community college, can do more to increase HIPs to be sure they reach all students. The work begins with focus and leadership, but also includes much more attention to cost management and to use of data to focus resources on places that make a difference in student success.

Questions to Consider

- Has your institution conducted an inventory of high-impact practices that are already in place on campus? Are HIPs available to all students on campus, or only to a few?
- Are there studies of the effects of these educational practices at your institution— on, for instance, progress to the upper-division level, choice of major, retention to a baccalaureate degree, job placement, or continuation in graduate or professional school?
- What data are available about the average costs of high-impact practices? What would be the cost to extend the programs to additional students?

CHAPTER 4

Leadership for Student Success

The single most important factor in producing sustained institutional change is strong leadership. Effective leaders set expectations for performance and build teams that focus consistently on ways to get things done. Research on organizational change by Scott Keller and Colin Price for McKinsey & Company in fact concludes that the "soft stuff" of people management is what creates long-term change (Keller and Price 2010). This is all the more true in higher education, where traditions of non-hierarchical, decentralized decision making can make it very hard to set goals and sustain momentum for change. Leaders hoping to invest in student success must make use of the bully pulpit, strategic planning, goal setting, data mining, team building, and rewards.

Take, for example, the case of Jolene Koester, president of California State University–Northridge (CSUN) from 2000 to 2012. CSUN has historically been successful at attracting and admitting low-income students and students of color: almost half the transfer and first-year students at CSUN are low-income, and a similar proportion belong to underrepresented minorities (URMs). CSUN was successful in providing access, but student success was another matter. Incoming students tend to need a lot of support, and CSUN's remediation rate averaged 63 percent in 2010-2012. In 2005, the graduation rates for low-income and URM students were only 34 percent and 30 percent, respectively.

Under Koester's leadership, graduation rates increased for all groups. Among low-income students, the graduate rate rose eleven percentage points in five years, to 45 percent in 2010; that same year the graduation rate for URM students rose by ten points, to 40 percent. Low-income students transferring into CSUN were also more likely to graduate in six years and under: the graduation rate for these students rose went from 67 percent to 78 percent. Moreover, this change happened without curtailing enrollment or restricting the access and relatively low selectivity that were central to CSUN's mission. Enrollment actually increased by 18 percent during this period, but the percentage of applicants admitted stayed stable at around 75 percent.

When Jolene Koester arrived as president, she made her interest in student learning and success clear, and this interest resonated with the campus community. A strong believer in shared governance and faculty participation, and respectful of institutional rhythms and structures, Koester did not impose specific programs and practices at the outset. She did, however, relentlessly insist on student success as a top priority. She spoke about it in every speech, address, interview, and convocation, and she asked her staff to do the same. Koester also encouraged a close collaboration between the student affairs and academic affairs divisions, and her office soon put together a task

force with broad representation from faculty, staff, administrators, and service personnel such as advisors. The task force was allowed sufficient time to generate a thorough report that would include recommendations for increasing student success, and all members understood the recommendations could not be contingent to increases in overall funding. They presented and discussed their findings and ideas with the faculty senate (to whom they reported on their progress every month) as well as with every college, department, and relevant committees. "It was really a campus-wide conversation," remembers Diane Schwartz, who co-chaired the task force, "and the topic of student success and graduation rates soon became part of the culture on campus." After one year, they completed a draft of the report, which again was circulated broadly. After two years, the task force delivered the final report, complete with recommendations (vetted by campus representatives) for addressing the obstacles that students faced on their path to degree and that fell to some extent under institutional control.

Most of the recommended measures, or modified versions of them, persist on campus to this day and their effectiveness is systematically assessed by the Office of Institutional Research. A renewed emphasis on college-level writing skills has resulted in the implementation of several high-impact practices, such as learning communities, and other potentially effective practices, including writing-intensive courses and first-year seminars. Students needing remediation take, depending on their needs, between three and six credits of writing over the summer prior to starting their studies at CSUN, and first-year developmental or remedial writing has been replaced with Freshman Stretch writing, which focuses less on remediation and more on "stretching" students' acquisition of writing skills to bring them up to college level. This course is also taught within particular disciplines and topics, including Chicano/a Studies, Pan-African Studies, and, more recently, Queer Studies. The "Freshman Connection" program links two or three courses together with a first-year seminar to create a learning community that stays connected throughout the student's first three semesters—a practice has been shown to increase first-year retention.

Many other practices, and the policies that allow administrators and faculty to put them in place, are related to these improvements in CSUN's retention and graduation rates. But a visible, unshakable, consistent commitment to student success from the part of academic leaders and those in their teams seems to be critical to success (Kezar 2005). President Koester understood that she and her team had an important role in setting the tone and shaping institutional culture in big and small ways. "[There has been] a change in culture, where everybody who is engaged in serving students understands that our mission is to move these students to graduation," Koester says. Everybody, she insists, from faculty to advisors to support staff to academic administrators. Far from removing herself from day-to-day routines, Koester would frequently walk around campus. "Are you a freshman? Are you a sophomore?" She asks random students in her path. "When do you plan to graduate? Do you have a plan?"

When Koester had just arrived in Northridge, her vice president for student affairs (who knew and shared Koester's priority) told her something startling about the student orientation activities: nobody had mentioned graduation at these events. Not once. Things have changed since then. Graduation, and the importance of timely graduation and student learning, is now a critical part of ceremonies such as convocations, activities such as orientations, and speeches by academic leaders inside and outside campus. CSUN cared about its students, explains Koester, and cared about low-income and minority student access, but the conversation about increasing graduation rates for these groups (and for all students) really started shortly before Koester's arrival. The campus, she says, was ready to tackle the challenge, but there had to be a clear goal, visibly embraced by the

leadership. "It is a priority now," she adds, "and I think everybody understands that it is our fundamental responsibility." As a result of this cultural shift and smart use of available resources, CSUN seems to be solidly on the path to continue increasing their graduation rates, and the new president, Diane Harrison, has publicly declared student success to her leadership's top priority.

Questions to Consider:

- Do leaders at your institution demonstrate a commitment to student success? Is student success an explicit part of public statements such as speeches and reports?
- Do leaders request the use data to track the progress of campus initiatives?
- Is there collaboration between the different divisions and offices interfacing with student learning and achievement?

CHAPTER 5

Documenting the Value of Investments in Student Success

To create a proper investment strategy to expand the use of HIPs, we need to shift our lens of measurement from cost per student to cost per degree. Lowering costs alone may not yield greater cost-effectiveness, because low cost per student does not necessarily also mean low cost per degree. As an example, spending per degree is higher on average in community colleges than in four-year institutions, despite the lower cost per student in community colleges, because community college completion rates are so low. Although the unit costs of some HIPs may be higher than average costs, if they contribute to increased student retention and degree completion, their per-outcome cost may be lower than traditional low-cost programs that do not advance students to degrees. In making the case for investments in HIPs, institutions should be documenting the trade-offs between the higher marginal costs of HIPs against gains in student learning, and ultimately degree attainment, that come as a result.

There are a number of ways to document return on investment, through the application of activity-based costing against cost per degree. For example, Carol Twigg of the National Center for Academic Transformation (NCAT) conducted a project on academic transformation using activity-based costing to compare the costs and outcomes of instruction delivered via "redesigned" first-year classes against more traditional campus-based programs (NCAT n.d.). One of the biggest challenges the NCAT researchers ran into, however, was a lack of baseline data on costs and outcomes for campus-based programs, making it difficult to reach conclusions about the cost-effectiveness of alternative ways of delivering instruction.

Another example of a cost/return calculator was generated by the Delta Cost Project, working with Jobs for the Future (JFF), in a pilot project designed to model costs against outcomes for learning communities and first-year programs, two high-impact practices. Institutions in that pilot were recruited because they already had a history of investments in first-year programs and learning communities and had several years of evaluation data about their performance that could be used as a way to assess costs and cost-effectiveness. The project generated a template for recording unit costs along with other tools of evaluation to add cost-effectiveness to regular evaluations of the effectiveness of the programs. The analysis shows that there was a wide range of types of programs,

and thus a range of marginal costs, but that even the most expensive learning community had a marginal cost well within the normal range of costs for historically "high-cost" programs such as those in the sciences and performing arts. Unfortunately, as was the case in the NCAT study, baseline measures of costs and outcomes that could be the basis for comparative assessment of cost-effectiveness were not available (JFF and Delta Cost Project 2009).

Cost-return calculations will be particularly important in building momentum for high-impact practices, because they provide an opportunity to build incentive funding from new outcomes-based budgeting into a regular stream of revenue to expand HIPs. More and more institutions are moving away from traditional budget models, based on cost-per-student, to outcomes-based models that focus on performance, including degree attainment. Different states and institutions use different models, but all of them provide the opportunity to build measures of costs and outcomes from HIPs into regular funding formulas. For increases in attainment that can be shown to correlate with HIPs, incentive funds could thus be generated that could be used as a pool for expanding investments in HIPs. These types of incentive funds could also be used to expand other investments that contribute to high-quality teaching and learning, such as curriculum redesign or changes in course sequencing. Faculty renewal funding is another potentially high-yield investment in academic quality—to help faculty become comfortable using technology in their teaching, or to give them the room to explore their own data on student success and learning outcomes. Institutions that successfully increase graduation rates tend to show a distinct capacity to gather and use data to make decisions about where to invest their limited funds. At Florida State University (FSU), for example, provost (now provost emeritus) Larry Abele examined disaggregated attrition rates to conduct a retrospective analysis of all non-retained students term by term, with the goal of designing interventions to address the observed patterns. Based on this data, his team developed a small, intensive program in 2000 to admit sixty low-income, first-generation students, most of whom were African American, who did not fulfill admission requirements (especially SAT scores) but that otherwise demonstrated academic promise.

The program, CARE (Center for Academic Retention and Enhancement), has multiple components: a special seven-week, on-campus summer orientation; designated advisors, and mandatory meetings with these advisors and faculty members; a space on campus set aside for participants to congregate; reduced fees; and academic support services, especially for bottleneck courses with high failure rates. The students are also placed together in as many courses as possible, so they develop a long-term learning community. After data from the first cohort showed the program significantly improved not only retention but also graduation rates and time to degree for participants, FSU expanded it to include first 100, then 250, and eventually 350 at-risk students. "If we could provide CARE to every student, our graduation rates would be extremely high—this program works," Abele says. The retention rate of CARE participants was 94.2 percent for 2010; their graduation rate was 74 percent.

Investing in CARE may seem expensive, but academic leaders at FSU believe in strategically investing in those things that contribute the most to student success. "We know there are some things that are successful, but then they cost money, so you have to decide, how much money am I going to spend to get this amount of success?" explains John Barnhill, associate vice president for enrollment management. Absent the funds to expand on the whole program, FSU has worked at identifying some of the programs components that offer "the best bang for your buck." "If I had to start this all over again," Abele says, "I would start with maps"— simple sequences of courses and their recommended order, which can be distributed during orientation and made available at all the

relevant offices and online. Maps provide clarity to students and also to those making decisions about course offerings. Other low-cost interventions that proved to work well were frequent e-mail contact between students and advisors and moving advisors' offices to where the students were most likely to find them.

All of this requires a shift to thinking about costs in terms of return on investment. "In 1994, our attrition rate was 16.5 percent.…In 2010, it was down to 8.0 percent. That means 2,040 more students staying and paying tuition," Abele says. "For a total investment of under three million dollars, you get back, in tuition alone, over six million." Using data on spending to shift to an investment and outcomes focus requires a shift in culture in many institutions, and a willingness to collect cost data and to use it to look at cost effectiveness, not just budget allocations. Cost-effectiveness analysis is still not routine in most institutions, and the absence of baseline data about costs can impede efforts to look at costs and outcomes. Campus leadership will be needed to address this, as the data and the analytics needed to support this research transect traditional academic/administrative domains.

Questions to Consider:

- Does your institution have the capacity to address cost -effectiveness of academic programs? If this is a new area of inquiry, what types of measures might be used that are "good enough" for the job (e.g., unit cost per student by program compared with retention and graduation by program)?
- Who is the audience for cost-analytics related to program effectiveness? Should there be a public process to support this work, or should it be rolled into regular academic program reviews, including accreditation self-studies?
- Does your institution align its mission and priorities with its budget decisions?
- Is your institution's governing board involved in looking at measures of costs and effectiveness, and have they bought into a cost-per-outcome approach to investment decisions? It can take several years to document cost effectiveness in an outcomes-based approach. A board that is impatient with such approaches will tend to default to looking at cost per student or tuition levels as proxies for cost effectiveness—all legitimate measures, but ones that will thwart a real shift to costs and value.

Conclusion

If we fail to address the higher education cost problem, the absence of resources will become the excuse, not the reason, why we as a country have allowed the next generation of Americans to have less opportunity than we had ourselves. Higher education deserves more financial support, and we should not be content to continue the glide toward disinvestment of public funds that we have seen for nearly twenty years. But it is not realistic, nor is it responsible, to wait for new public revenues to solve our cost problem. We have to do this work through the institutions we have, and largely with the money we already have. It will require us to be intensely focused on the intersection of resources and student learning, in much more intentional and data-driven ways than we are accustomed to. It will require us to change our mindsets about the relationship between funding and quality, and to focus on effectiveness and outcomes and not on revenues. The good news is that this is not Mission: Impossible. Many institutions are already doing this work, and more can be done—through leadership, focus, and a belief in the possibility of change. Some things we can't change; these, we can.

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