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APPA THOUGHT LEADERS

The Rising Cost of Higher Education

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The Rising Cost of Higher Education

Including the Top Facilities Issues

Section I: Executive Summary

While many issues in higher education are only discussed among members of the education community, the sharp rise in costs is no longer a topic solely for academia. Parents and politicians alike are fuming over the apparently unstoppable climb of the cost of a college education. It seems every day a new magazine article or newspaper story bemoans the trend, attempts to explain it, or proposes a solution. A quick Internet search of one month's news stories with the keywords *rising costs of higher education* yielded more than 24,000 hits with headlines like "The True Cost of Rising Tuition," "Two-thirds of Pupils 'Alarmed' by Rising Cost of a Degree," and "Something Needs to Stop the Rising Cost of Education."

Indeed, everyone seems to agree that something needs to quell the rising cost of higher education—the question is *how*.

APPA chose to focus its entire 2013 Thought Leaders symposium on this very question. True to its position as a leader in the higher education facilities community, APPA considered the challenge from a facilities point of view, but also expanded its perspective to encompass the entire higher education system.

Of course, there is no miraculous solution to the higher education cost problem. However, participants in the symposium proposed a mix of strategies that could be adapted to individual campuses and combined to make real strides. It will take innovative thinking and determination to challenge conventional thinking and educate consumers, yet with strong leadership and foresight, discerning institutions will be able to reinvent themselves for a future in which costs are no longer the leading story about higher education.

The challenge of rising higher education costs

Multiple trends and factors along with traditional or outdated ways of doing business have combined to create a perfect storm of cost inflation. These include the following:

- Declining state support
- High tuition discount rates
- A marked decrease in endowment returns
- Rapid changes in pedagogy that make it difficult for institutional facilities to keep up with teaching models and delivery systems to meet specific demands and needs of the private sector
- Continued demand for new and upgraded facilities to improve student and faculty recruitment and maximize school rankings
- Growing labor concerns, including an aging workforce, lack of flexibility in human resource policies and practices, and need for higher skill levels among technical staff
- Lack of incentives for improved faculty productivity
- Unexamined assumptions about spending, quality, competition, and budgeting
- Inefficient use of existing space

The Thought Leaders participants proposed strategies for addressing these challenges that can essentially be grouped into the following categories:

- **Focus** – Focus the efforts of the institution so that priorities and programs are in alignment with the institution's mission. Carefully examine the entire institution to discover which areas of expense no longer support the organization's goals and take the bold step of eliminating outdated programs or unnecessary costs.
- **Collaboration** – Increase collaboration across the institution, between institutions, and with the private sector. Break down the walls of institutional silos to share information and reduce costs, and consider new partnerships that will increase efficiency and effectiveness.
- **Technology** – Employ technology to cut costs and improve instruction. Massive open online courses (MOOCs) are the trend right now, but technology can be used in many ways to improve operational efficiency and support and improve student progress.
- **Space management** – Get the most out of the space the campus already has. Think of space as one of the institution's most valuable assets, and manage in innovative ways to get the most out of sunk costs.
- **Revenue enhancement** – Seek out alternative ways to bring revenue to the institution or improve existing revenue streams. Consider adjusting traditional models of tuition and funding to incentivize desired results such as improved graduation rates and better utilization of facilities and campus space.

Employing innovation

Participants at the 2013 Thought Leaders symposium all agreed that the challenge of rising higher education costs will not be solved without innovative thinking. The problems are too deeply rooted within the model or mores of the institution to be easily or quickly fixed; the forces opposing change are too strong. In fact, if costs were easy to control, someone would have done it by now. Higher education will require creative thinking from determined leaders to overcome its current cost realities.

Participants first considered what made innovators different. Research reveals innovators are characterized by the following:

- Associating seemingly unrelated facts and ideas to come up with new approaches
- Questioning assumptions and challenging conventional wisdom
- Applying lessons learned in one context to different problems
- Experimenting with new ideas and approaches and tolerating a certain degree of failure
- Networking with others with different knowledge, skills, and perspectives to gain new insights

The Thought Leaders then stretched themselves to employ innovation. They developed strategies that could push many institutions out of their comfort zones but that might be a game changer for a courageous campus. These included the following:

- Replace the credit-hour model with an outcome-based model.
- Streamline programs with fewer requirements and fewer choices.
- Increase collaboration with other area or state institutions.
- Consider outsourcing whenever possible and practicable.
- Get serious about implementing Total Cost of Ownership (TCO) strategies for facilities.
- Make athletics entirely self-sufficient.
- Reexamine the academic calendar to make better use of facilities and students' time.
- Do a better job of monitoring students' progress to catch them before they fail.

Top facilities issues

Drawing on the discussion of higher education costs, participants in the Thought Leaders symposium developed a list of the top critical facilities issues for higher education institutions in 2013 along with key strategies to address these issues.

1. **Align the programs and priorities of the institution with its mission and vision.** Today's colleges and universities cannot be all things to all people—they must continue to hone in and focus on their unique mission and vision.

2. **Build campus-wide understanding of the "arms race" between institutions on campus.** Take a rigorous approach to this issue so the institution can make an informed choice about how important rankings and recruitment should be in its decision-making and recruitment strategy.

3. **Better utilize and manage space.** Empty classrooms, offices, and labs cost money. An effective space management system not only increases efficiency, it also helps the institution make better decisions going forward.

4. **Involve faculty in decisions about facilities and space.** On many campuses, a disconnect between faculty, facilities, and space planning and management causes friction and reduces efficiency.

5. **Identify programs and facilities that need investment.** The costs of neglected buildings, programs, and systems can snowball. Institutions should seek out areas where investment is not being made, understand what is happening and why, and seek to reprioritize when investment is needed.

6. **Understand the challenges posed by increasingly complex buildings.** Building systems continue to be ever more sophisticated. Institutions should assess the costs and benefits of "smart" buildings and develop strategies for managing them going forward.

7. **Manage rising labor costs.** The largest portion of the facilities annual operating budget is labor costs. Colleges and universities need strategies to negotiate with unions, find qualified workers, and remain flexible in a challenging labor market.

8. **Limit rising costs associated with complying with codes and regulations.** Numerous standards and codes impact higher education, and institutions should ensure they understand the costs and take steps to keep these expenses from skyrocketing.

9. **Reduce the cost of unfunded mandates on the institution.** Different types of campuses face different types of federal, state, and local mandates, but these directives all create rising expenses.

The Thought Leaders process

The issues discussed in the Thought Leaders report are the result of an intensive process that draws on the wisdom and insight of higher education experts from the United States and Canada. At a two-day symposium, senior institutional officers and facilities management professionals—from university presidents to chief financial officers, trustees, provosts, student affairs professionals, experts from external allied agencies, and senior facilities officers—met to analyze issues, discuss the effect of these issues on the built environment, and propose strategies to prepare for the future. The yearly Thought Leaders report summarizes the discussions at the symposium as well as provides additional context about major trends. The purpose of the report is both to inform and to prompt discussion.

At campuses worldwide, senior facilities officers use this report as a resource both within their own departments and with their counterparts in finance, HR, procurement, space management, IT, and student services.

Changing the conversation about costs

An element of anxiety—even despair—has crept into the discussion about higher education costs. Many within the industry are worried the situation will never improve, or that they will be swept up in some arbitrary, uninformed cost-slashing mandate from the state, provincial, or federal government.

Institutions should be worried, but it is not time for despair. Rather, it is time for engagement, innovation, and leadership. The rising costs of higher education can be stemmed, if not reduced, if members of the higher education community take necessary steps—steps that might sometimes be uncomfortable or even painful but will position institutions to face the next few decades with confidence.

In fact, most of the steps encouraged by Thought Leaders participants are not just good ideas for controlling costs—they are good ideas, period. Improving space management, aligning programs and plans, and increasing collaboration will make campuses more efficient, more effective, and more vibrant learning environments. The goal should be to take higher education through this difficult period and reemerge stronger and more resilient.

Section II: The challenge of rising costs in higher education

The problem: Rising costs, declining revenues, and lack of flexibility to address the problem

The current cost crisis in higher education cannot be traced to a single cause. Instead, a pattern of cultural shifts, a steady decline of state/federal support, technological innovations, and economic cycles has combined to inflate the price of a college degree. Individuals within the higher education community have been concerned about this trend for several years, but with the advent of the worldwide recession, the issue has received attention from parents, business leaders, high-ranking government officials, and seemingly every newspaper and cable news channel.

The outlines of the situation are well known: Costs have gone up while revenue streams have declined. A review of the contributing factors can help point the way to possible solutions.

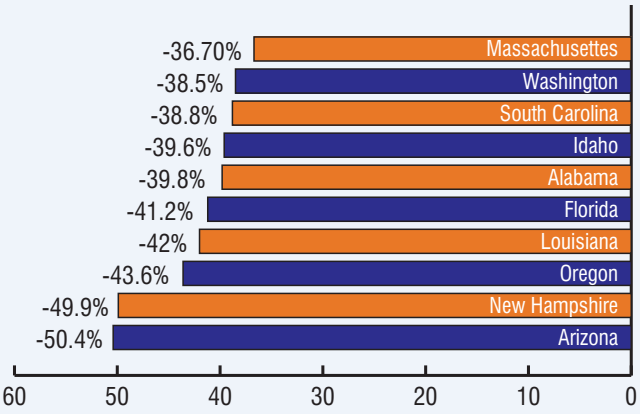
Declining revenues

State support for higher education has dropped significantly in the last decade. According to the Delta Cost Project, appropriations have declined by 28 percent. These figures are national averages—support varies widely between states. While North Dakota and Wyoming actually increased spending, every other state is contributing less. Thirty-six U.S. states have cut funding by more than 20 percent per student, eleven states by more than one-third, and Arizona and New Hampshire by one-half.

States began trimming support in the mid-1980s, but began slashing higher education appropriations when their own revenues fell dramatically in the recession. The slow recovery has kept tax revenues low—they remain on average 6 percent below 2008 levels after adjusting for inflation. At the same time, enrollment in state institutions has risen, the result of a population bulge (the echo boomers—children of baby boomers) now entering college and increased demand for retraining and new degrees from people affected by the economic downturn. In the last five years, the same or lesser amount of state funding has had to cover more than 15 percent additional full-time equivalent (FTE) students. In comparison, government support for higher education in Canada has risen along with enrollment rates; Canada now ranks third in the world in the percentage of total public expenditure on higher education.

U.S. community colleges have borne the brunt of reduced state appropriations—a situation exacerbated by cuts in local funding from counties and municipalities. Between 2009 and 2010, total operating revenues per student declined by 7 percent, or approximately $1,000 per FTE student. However, enrollment increases have also been the greatest at community colleges, up an average of 9 percent year over year.

Data Point: Reduced state support for higher education



Percent change in state spending per student, 2008–2013

—Center on Budget and Policy Priorities using data from Illinois State University's annual Grapevine Report.

Returns from endowments remain low as the economic recovery remains sluggish. The National Association of College and University Business Officers (NACUBO)–Commonfund 2012 study found that the average return on endowments was negative for the third time in five years, dropping 0.3 percent for the 2012 fiscal year.

These low returns have raised concerns about institutions' ability to continue to spend endowment funds at historic rates. To maintain the traditional 4.5 to 5 percent spending rate, institutions need returns of about 7.4 percent annually to keep up with inflation. Only the wealthiest colleges and universities have been able to achieve returns of that level over the past ten years. As a result, the average proportion of endowments spent in 2012 was only 4.2 percent.

Tuition discount rates have soared as colleges and universities seek to attract students. While stated tuition rates are on the rise, the actual price students pay often has little relationship to the sticker price. The average discount rate reached almost 40 percent in 2012, according to a NACUBO study; the discount for full-time freshmen at private institutions topped 45 percent.

More than 85 percent of first-time, full-time freshmen received some form of financial aid, and that aid averaged 53.1 percent of the sticker price. Small institutions were more likely to grant financial aid to their students, but research universities generally awarded larger aid packages.

Schools have responded by trying to limit their discount rates, but that can result in reduced enrollment. Increasingly, students are selecting the institutions that give them best deals—colleges and universities that grant the most aid have the greatest success attracting students.

Tuition has become an increasingly critical source of funding for all types of institutions. With less money coming in from states and endowments, institutions have turned to tuition to make up the difference. Since 1978, college tuition across all types of institutions has increased 1,120 percent. In comparison, the Consumer Price Index rose by 275 percent and the frequently deplored cost of medical care by 600 percent.

Between the academic years 2000–01 and 2010–11, prices for undergraduate tuition, fees, and room and board at public institutions rose by 42 percent, and at private institutions by 31 percent—after adjusting for inflation. Tuition has always been a significant source of funding for private colleges and universities, but public institutions that once relied on state funding to cover the bulk of their expenses now also must rely on tuition revenues. (Tuition has also risen at public Canadian colleges and universities; average tuition and fees have gone up from $1,744 in inflation-adjusted Canadian dollars in 1990-91 to $6,454 in 2012-13, according to a 2012 report by the Canadian Centre for Policy Alternatives. However, a Canadian degree still costs less than a U.S. degree, where tuition and fees average $8,655 for public four-year institutions.)

In the past 25 years, the share of revenues at public schools from tuition and fees has climbed from 23 percent in 1987 to 47 percent in 2012. Tuition changes have varied widely by state; while Maryland and Ohio have kept their increases below 3 percent, in seven states, rates have risen more than 50 percent between 2008 and 2013. At the top of the list are Florida, at 67.3 percent; California, at 72 percent; and Arizona, as high as 78.4 percent.

The result is that a college education has become less affordable, and student debt has become a major burden. The Pew Research Center estimates that nearly 1 in 5 U.S. households is paying off student loan debt;

Data Point:
Reduced state funding and rising tuition

The numbers don't add up

"Tuition revenues are up substantially due to higher prices and more enrollments, but not enough to offset losses of public funding. Students are paying more, while public institutions are receiving substantially less money to educate them. These one-year decreases in funding and increases in student costs are unprecedented over my 40-year career in higher education."

—Paul Lingenfelter, President of the State Higher Education Executive Officers Association, quoted in "Financing for Colleges Declines as Costs Rise," New York Times, March 6, 2013.

Data Point:
Rising tuition

Net tuition as a percent of higher education total revenue

1987	23.3 percent
2002	30.2 percent
2008	36.4 percent
2012	47.0 percent

—State Higher Education Finance Report, FY 2012.

total debt is up 51 percent since 2008. The average debt at graduation in 2012 reached $27,500, and 35 percent of students under 30 are delinquent on their payments.

The timing could not be worse. U.S. households are struggling to hold on to their middle-class lifestyles as long-term economic trends gradually erode their earnings. The U.S. share of households earning a middle-class income has declined from 50 percent in 1970 to 42 percent in 2010. A college education is essential to get ahead, but the cost of that education is becoming a harder burden to bear.

Rising costs

Rising labor costs put pressure on campus budgets. Colleges and universities are labor-intensive businesses. Unlike industries that can improve productivity through technology, no one has figured out how to replace a history professor with a machine (at least not yet). Faculty salaries are expensive, especially in competitive fields such as business and engineering, and tenured faculty are especially costly.

Many critics have identified administrative costs as a particular challenge for higher education. A study by the Center for College Affordability and Productivity (CCAP) found that the number of support and management positions on campus has exploded in the last two decades relative to enrollment. Support staff have increased 86 percent, while FTE enrollment has risen 39.7 percent. ***Back-office degree productivity***, measured by dividing the number of degrees awarded by the the number of support staff at the institution, declined in all sectors by more than 15 percent.

Critics have drawn particular attention to rising numbers of senior administrators and the salaries they receive. At a Midwestern research university, for example, the dean of the faculty senate recently spoke out against the campus's leadership, which includes a $313,000-a-year acting provost, six vice and associate vice provosts, 16 deans, and 11 vice presidents. "We're a public university," complained a professor, quoted in an article by *Bloomberg News*. "Why is it that we can't find any money for more faculty, but there seems to be an almost unlimited budget for administrators?"

Several causes contribute to the rise in support expenses, including the cost of administering government and industry research grants, complying with mandates from state and federal governments, and managing complex systems and technologies. This challenge is particularly pressing for facilities departments, that now must maintain high-tech "smart" buildings with complex systems for tracking energy consumption, reducing water use, and monitoring temperatures. Similarly, information technology has become a major line item for colleges and universities, which must invest not only in up-to-date and ever-changing systems but also skilled staff.

In addition, the entire campus workforce—from professors to maintenance staff—is aging, increasing not only average salaries but also benefit costs. This problem is particularly pressing in facilities departments; on many campuses, the average age is now over 50.

Competition among institutions has driven up spending on facilities, recreation, dining, and athletics to unsustainable levels. Competition between businesses tends to reduce costs and improve offerings, but competition between colleges and universities has increased costs and only brought improvement in some unessential areas, critics complain. Many within the higher education community deplore the "arms race" to get higher rankings on influential lists and secure superstar faculty, but so far no one seems to have a solution to stop the cycle.

Glamorous facilities are one of the most obvious expressions of campus competition. Institutions have poured millions into top-notch gyms, hotel-like dorms, and gourmet dining halls. A recent study by economists at the University of Michigan at Ann Arbor found

"country club campuses" provide a real benefit to institutions in recruiting students. It is easy to show off the sushi bar and the Olympic-size swimming pool to prospective freshmen; it is not so easy to demonstrate academic excellence. With so many institutions showcasing cutting-edge facilities, parents and students have come to expect and demand such amenities.

However, the "arms race" has worrisome long-term implications. Funding for a new luxury dorm might have been better invested in long-deferred maintenance and renewal of aging academic buildings and campus utilities. However, different funding sources ("colors of money") don't allow such crossovers. Furthermore, the building boom has left many colleges and universities deeply in debt. Overall debt levels more than doubled from 2000 to 2011 at the more than 500 institutions ranked by Moody's credit rating agency. Harvard has $6 billion in debt; Julliard, which recently completed a major renovation program, carries $195 million; and Miami University in Ohio, in the midst of an overhaul of its dorms and student union, owes $326 million.

Debt can come to account for a sizable proportion of an institution's expenses. Ramapo College of New Jersey, with $281 million in debt, spends 13 percent of its budget on debt payments. Overall, long-term debt at private institutions grew 12 percent a year from 2002 to 2008, according to a study by Bain & Company and Sterling Partners, a private-equity firm. In comparison, the same study found that the cost of instruction grew by 5 percent over the same period.

It is important to remember that publically financed revenue bonds pay for the cost of dorms that meet student expectations. These projects do not affect an institution's "public position." Debt management is an issue, but for many public institutions these projects fit into the budget differently than they do for private institutions.

Other costs have also been driven by competition. In-demand faculty, usually in science, engineering, or business, command high salaries, research support, and reduced teaching loads. Furthermore, some critics claim there is no real incentive to lower costs since a widespread perception holds that price equals quality. Few within the academic community have anything good to say about the rankings systems, even though they shape spending on campuses across the country. The president of a liberal arts college was quoted in a recent Davis Educational Foundation report stating, "I believe that the *U.S. News* rankings have been one of the most powerful (and pernicious) forces driving colleges toward deliberate inefficiencies."

Rapid changes in pedagogy have made it difficult for institutions to support these new teaching models. Given existing physical spaces, students still must troop

Data Point: Cutting costs

Top strategies to reduce operational expenses

The "2012 *Inside Higher Ed* Survey of College & University Business Officers" asked participants to identify the top strategies for cost-cutting over the next two to three years. Here are some of the top results:

- Eliminating low-enrollment academic programs – 51.5 percent
- Making effective use of facilities – 44.2 percent
- Using technology tools (e.g., business analytic technologies) to analyze programs and identify problems and potential improvements – 41.3 percent
- Using technology to reduce instructional costs – 39.1 percent
- Centralizing/consolidating administrative functions – 36.3 percent
- Increasing teaching loads for full-time faculty – 31.4 percent
- Centralizing/consolidating IT resources and services – 31.4 percent
- Sharing more health insurance costs with employees – 25.8 percent
- Moving more core campus operations and support services to the Web/cloud – 24.5 percent
- Sharing administrative services in partnership with other colleges – 23.7 percent

—Kenneth C. Green with Scott Jaschik and Doug Lederman, "2012 Inside Higher Ed *Survey of College & University Business Officers,"* Inside Higher Ed*, July 2012.*

Data Point: Changing pedagogy

Updating space to meet new needs

A 2012 survey of facilities managers in higher education by Academic Impressions found that 61 percent of respondents saw a pressing need to update classroom space to meet changing needs. The survey also generated several suggestions for better aligning existing space with new priorities:

- Develop a five-year plan for replacing classroom furniture to allow for more flexible use.
- Talk to faculty about how and where they teach.
- Survey departments about the types of space that are most in demand, and then compare their needs with the existing inventory. Where are there gaps? Where is there too much of the wrong kind of space?
- Consider residential academic programs, where learning spaces are included in residential facilities. This can free up classroom space elsewhere on campus.

—Daniel Fusch, "Seeing Success in Space Optimization," Higher Ed Impact*, Academic Impressions, September 14, 2012.*

into enormous lecture halls, while this model of delivery is rapidly being supplanted. Today's pedagogy is more engaged, more interactive, and more hands-on. Previous models were faculty focused—the "sage on the stage." Today's models are student focused (the "guide on the side")—they emphasize competency, mastery, and engagement with the material.

While, on the whole, the new pedagogy is a bright spot in the current higher education environment, promising to revitalize learning for a new generation, it also poses challenges for the institution. Faculty must adjust traditional methods and learn how to teach in new ways. IT departments must work with academic programs to identify the best ways to support flipped classrooms and the role of MOOCs (massive open online courses) within the institution. Legal departments must sort out tricky issues of intellectual property and the question of who owns lectures delivered online. There are also continuing debates about offering credit or garnering potential revenue from the courses.

Facilities departments face some of the biggest challenges. Most classrooms and lecture halls were designed to support traditionally delivered courses. That means thousands of professors are attempting to find a way to accommodate small-group discussions in tiered lecture halls. Even traditional desks can get in the way of current approaches—try fitting a laptop or full-size tablet onto an old-fashioned narrow student desktop. Institutions would be wise to address Clay Christensen's notion that technology changes will be truly disruptive and push middle-tier institutions to very different delivery models that reduce the importance of campus-based interaction.

Architects, engineers, interior designers, and even furniture makers have developed classrooms attuned to new teaching models—classrooms with desks that can move around the room on casters, reconfiguring within a few minutes into circles, small groups, or rows; interactive whiteboards; lecterns with built-in AV connections, Web cameras, and USB ports; and lots of electrical outlets. However, these classrooms cost additional money. Between higher energy costs and basic maintenance to keep aging facilities operational (don't even mention the maintenance backlog), facilities departments have few resources to spare to renovate classrooms. Most members of the academic community want to support and encourage new teaching approaches, but this creates new cost pressures.

Two additional costs should be mentioned: 1) the cost of student success for underprepared students, and 2) the increasing number of students who bring special needs to campus…from substance abuse to the Autism spectrum. These two factors have most recently emerged with the corresponding need, if not demand, for increased institutional support services, hence increased administrative program costs.

Lack of flexibility within the institution

Institutions offer ***few incentives for faculty to improve productivity***. The issue of productivity is a sensitive one; part of the challenge is that "faculty productivity" sounds like a simple concept but is in fact notoriously difficult to define and measure. How do you compare the productivity of a chemical engineer who

brings in millions in grant dollars and holds dozens of patents against that of a comparative literature professor who teaches a handful of graduate students in intensive seminars?

Most measures of productivity look at some combination of the number of students taught and grant dollars generated. For example, in the 2011 report, "Higher Education's Productivity Gap: The Cost to Students, Parents & Taxpayers," Richard F. O'Donnell analyzes raw data on faculty productivity from the University of Texas (UT) and Texas A&M University. He categorizes faculty according to their teaching course load (low versus high) and research dollar value awarded (low versus high). According to this standard, he groups faculty into five categories: Stars (high teaching, high research dollars), Sherpas (high teaching, low research dollars), Pioneers (low teaching, high research dollars), Coasters (low teaching, low research dollars), and Dodgers (extremely low teaching and research dollars). O'Donnell notes that at the University of Texas, 1,748 faculty members consume 54 percent of instructional costs but teach only 27 percent of student hours and generate no external research funding. He claims that by eliminating Dodgers altogether and increasing the teaching load of Coasters by an average of 97 students a year, the university would save $573 million and eliminate all its financial worries.

However, critics point to what they consider flaws in O'Donnell's analysis. First, many of the faculty identified as "unproductive" were actually part-time adjuncts and therefore not expected to teach as many credit hours;

Data Point:
Design for the modern classroom

The headache of electrical outlets

People pay little attention to electrical outlets—until the little bar indicating their remaining battery life starts to dip dangerously low. Then nothing else becomes as critical.

Larry MacPhee, associate director of e-learning at Northern Arizona University, pays significant attention to electrical outlets all the time. In "Learning Spaces," his detailed 2013 study of design for the modern classroom, he includes a lengthy discussion on the placement of outlets. With outlets in the wrong place, "it may be impossible to make proper use of the space, or very expensive to move switches, data ports, and power outlets. Placement of conduits and power outlets constrains the way furniture can be arranged, so getting it right is important."

MacPhee illustrates his discussion with photos of negative examples. For example, in a row of workstations, why would you locate the outlets beneath the work surface, forcing people to lean underneath to find them? Why would you put outlets along one wall in a wide corridor and furniture along the opposite wall, forcing people to stretch cords across the walkway? Why would floor conduits be positioned right in the middle of an aisle, making them at best difficult to use and at worse a tripping hazard?

MacPhee notes most of the problems were the result of the room's designers not knowing how the space will actually be used. "To get this right, someone who knows how the space is intended to be used would need to walk through the building during construction and mark the spots where outlets need to be placed. This rarely happens," says MacPhee, and in fact should be determined prior to construction. He encourages asking detailed questions about the placement of lecterns, whiteboards and projector screens, and tables and desks. Situating outlets for spaces with movable furniture must take into account various possible configurations.

Beyond the classroom, institutions should look at adding outlets to almost any space under renovation. Everyone on campus is likely hauling around multiple devices, and they will want to charge them in dining areas, libraries, labs, and essentially any open space where people congregate. The goal should be to make sure students use their mental energy on what they are learning, not how long their battery will last.

other "unproductive" faculty also held nonteaching duties such as student services. Second, the analysis looked at only one year's worth of data; a faculty member who devoted that year to teaching graduate and/or upper-level courses with a small number of students would appear unproductive while in fact he or she might spend another year teaching introductory courses to large numbers of students. Many departments rotate faculty between different types of courses in different years.

A breakdown of the teaching loads by departments and disciplines revealed other complexities. Some colleges at UT actually exceeded proposed productivity guidelines; faculty in the colleges of Business, Communication, and Natural Sciences all taught an average of more than 150 students per year. The colleges in which faculty taught below this level were either programs exclusively or heavily oriented to graduate work (including Law and Public Affairs) or those in which the subject matter required close supervision of students and small class sizes (including Architecture and Nursing).

This is not to say that the goal of improving faculty productivity should be abandoned; rather, it is to emphasize that measuring faculty productivity is complex and requires a nuanced approach. Participants at the Thought Leaders symposium agreed that the issue is problematic, but they found consensus on a few points:

- The tenure system can have the unintended consequence of discouraging productivity. Tenure was never intended to be a job-security program—rather, it was a way to encourage independent thinking and free speech.
- Faculty accomplish a wide variety of goals in a wide variety of ways. Comparing the role of science, humanities, and business faculty is like comparing apples to oranges to bananas. Both measures of productivity and incentives to improve it will need to account for this fact.
- Colleges and universities need to get a better handle on what their faculty actually accomplish, with measurements taking a broad view and avoiding over-reliance on overly simplistic metrics.
- None of the systems to measure faculty productivity have found a way to address the quality of research or instruction. Institutions must find a way to encourage and reward high-quality work while improving productivity; the university is not a factory, and students are not widgets that should roll off the assembly line for the cheapest price.

Data Point: Institutional productivity

Principles for measures of productivity

The National Research Council recently convened a panel on measuring higher education productivity and wrestled with some of the challenges this presents. The panel presented its principles for improving and implementing productivity metrics:

- Productivity should be a central part of the higher education conversation.
- Conversations about the sector's performance will lack coherence in the absence of a well-vetted and agreed-upon set of metrics, among which productivity is essential.
- Quality should always be a core part of productivity conversations, even when it cannot be fully captured by the metrics.
- The inevitable presence of difficult-to-quantify elements in a measure should not be used as an excuse to ignore those elements.

—Teresa A. Sullivan, Christopher Mackie, William F. Massy, and Esha Sinha, "Panel on Measuring Higher Education Productivity: Conceptual Framework and Data Needs," Committee on National Statistics, Board on Testing and Assessment, National Research Council, 2012.

Overall institutional productivity also needs to be improved to increase graduation rates, speed time to graduation, and provide a quality education while slowing tuition increases. Demand for a college education is growing. The share of the population with at least a bachelor's degree has increased steadily for decades, and studies show that it will only need to increase to meet labor market demand. The current goal of the White House is for 60 percent of adults to hold an associate's or bachelor's degree by 2020, up from 38.7 percent today. According to the Lumina

Foundation, this level of educational attainment will be critical for the nation's economic health; by 2020, 65 percent of U.S. jobs will require some form of postsecondary education.

Already, education beyond high school is a leading indicator of economic security, but it is clear that having some kind of degree will soon be critical to having any kind of job. Between December 2007 and January 2010, the economy lost 5.6 million jobs for Americans with a high school education or less. While the situation has improved somewhat since then, jobs for high school–only graduates have continued to decline while the rate of demand for bachelor's-level graduates has accelerated.

To address future demand, the nation will need an additional one million college graduates every year by 2020, according to researchers. That means upping the output of graduates by 3.5 percent a year. This is an appalling figure for many institutions, which find it difficult now to cope with the number of students today at current funding levels. To come close to this goal, institutions will need to find new ways of graduating more students on a smaller budget.

Unexamined assumptions about spending, quality, competition, and budgeting need to be reexamined to confront current challenges. Higher education is one of the oldest institutions in Western culture, and it is not surprising that certain ways of doing business have become so entrenched that they are rarely addressed. However, these traditional ways of operating can increase costs and reduce opportunities for improved efficiency, productivity, and quality.

For example, the budget process at many institutions has been in place for decades. Now that it has become clear that funding levels will not be rebounding any time soon, colleges and universities must take a harder look at long-standing budget allocation methods and models. State institutions are often limited in how much flexibility they have over their own budgets. Laws restrict the ways campuses can make purchases; multiple agencies are often involved. Different "colors of money" further complicate the ability of senior institutional officers to make the best decisions. Regulations and unfunded mandates bog down the campus budget; at the same time, best practices, such as Total Cost of Ownership strategies for facilities, are difficult to implement.

Inefficient space utilization costs colleges and universities by making poor use of institutions' greatest sunk cost, their campuses. Traditional college schedules make poor use of facilities. Running the air conditioning full blast the entire summer for a nearly empty building is an inefficient use of the institution's

Data Point:
Higher education budgeting

State budget officers' recommendations on higher education finance reform

In the Spring 2013 report from the National Association of State Budget Officers, the organization presented five guiding principles to reform the higher education financial model:

- **Focus more on funding incentives to improve performance and results.** Performance funding can help align university missions with public goals.
- **Limit tuition and fee increases.** Student tuition policies in public institutions should be based on a shared understanding of the appropriate role of tuition in relation to student costs and benefits, not just a reflection of what the market will bear.
- **Create incentives for expanding access.** Increase postsecondary access and degree attainment by strengthening need-based grant aid programs, encouraging institutions to educate low-income and at-risk students, and investing in vocational and technical education.
- **Develop useful information about higher education spending and results.** Develop a consensus on how to account for spending and revenues and share this information with the public.
- **Increase value, productivity, and efficiency.** Control rising costs through consolidation, streamlining, and leveraging technologies.

—"Summary of Report on Higher Education Finance Reform," National Association of State Budget Officers, Spring 2013.

Data Point: Space utilization

Improving data about space at the University of Texas

In 2006, the University of Texas realized its space management system was hampered by the lack of consistent, credible data. The vast campus—with 618 buildings, 47,561 rooms, and nearly 15 million assignable square feet—endured redundant data stores, lack of coordination among reporting entities, limited communication with space occupants, and an inflexible process for integrating facilities data with budget and academic information.

The university embarked on a multi-year program known as the Space Management Initiative to improve space and facility reporting, increase accessibility to information, streamline data collection, reduce costs, and better utilize space. Their goals were to establish a central, authoritative data repository, identify and document critical business processes that require space data, and identify existing and new information needs regarding space.

UT staff then went to work. They were able to synch various databases that control space information and create Web portals for classroom scheduling, space reporting, and inventory management. Results included a more effective program for space allocation and a new system for auditing space quality. In addition, the accuracy of facilities data resulted in a significant long-term increase in the university's negotiated Facilities and Administrative (F&A) Recovery Rate.

UT continues to improve its space management systems. In the next few years, the university seeks to better incorporate space and budget data, integrate with the Registrar's course scheduling system, and support master planning and forecasting.

resources. Increased enrollment and slashed budgets have brought home the issue of space utilization, along with the realization that many colleges and universities do not have good metrics in place to measure their space. The National Center for Education Statistics (NCES) Room Codes are widely employed to categorize space, but the system is limited, particularly for mixed-use space, and fails to take into account the quality of space.

Furthermore, space management policies are often outdated, weak, and highly political. Departments cling to space as a resource that should be protected at all costs; the culture promotes the view that space is "owned" and strongly discourages attempts to shift to a campus-wide monitoring and allocation system. This culture is based on the mistaken belief that space is free—it costs nothing to the department or faculty member who controls it. In fact, space is increasingly expensive. The cost of construction has risen from $120 per square foot for academic buildings in 1997 to $339 in 2012; costs for science buildings have reached $500 per square foot. Operations costs have also risen in 2012 from an average of $1,726 per FTE student to $2,073 in 2009, reflecting both increasing complexity in buildings and rising fuel and energy costs.

Essential strategies: Smart thinking about higher education costs, revenues, and productivity

Addressing the cost challenge will require institutions to rethink many systems and processes that have been in place for decades. On a few campuses, the necessary changes will be minor, but at many colleges and universities the changes will be transformational—and require seismic shifts in how the institution operates.

Participants at the Thought Leaders symposium assigned the most essential strategies to broader categories. While areas of emphasis will differ from campus to campus, colleges and universities should consider the significance of all these approaches.

Focus. Colleges and universities that try to be all things to all people are likely spending money where it is not needed, say Thought Leaders participants. Institutions can have programs in place that might have been important when they were created—or at least seemed important—along with initiatives that never panned out and courses that are no longer needed. These misplaced efforts are not necessarily limited to academic programs—administrative units and functions

can continue to operate long after their usefulness has ended.

"Mission drift" was identified by college and university presidents as one of their most pressing concerns in a study by the Davis Educational Foundation. The study notes, "[C]olleges and universities have added new majors, programs, centers and institutes at dizzying rates. In the quest to be bigger and better and to create branded 'signature' programs, the additions have been promoted as bolstering institutional quality." However, institutions seem to believe they can continue creating new initiatives indefinitely—"the new economic reality has some educational leaders questioning the practice of 'adding' without making corresponding 'adjustments' to programs and resource allocations." In other words, something needs to go.

The solution is for the institution to identify its unique identity. Ideally, this identity should be reflected in the college or university's mission and vision, which can then be used as a guide going forward. For example, Pepperdine University has developed a comprehensive system for aligning educational programs and student learning with the institution's mission. Pepperdine segmented its mission into component parts and then developed student learning outcomes based on that mission. Pepperdine programs can engage in a five-year review process to assess how they are doing in achieving the desired student learning outcomes. The process also helps program leaders articulate desired results, gather and report outcomes, and make decisions going forward.

Ultimately, strategies such as Pepperdine's should also help institutions identify programs that no longer align with the mission and justify the termination of these programs. Naturally, many within academia worry about program termination—are the classics to be abandoned because they do not bring in grant money? Establishing a system in which programs are carefully and deliberately assessed based on agreed-upon standards can help allay these concerns and ultimately achieve buy-in. The goal is to save money, yes, but ultimately the purpose of program alignment is to help the institution achieve a unique identity that can help it distinguish itself. "Distinctiveness matters," notes the Institute for Public Policy in its 2013 report "An Avalanche Is Coming: Higher Education and the Revolution Ahead." The distinction could be a matter of approach (individual mentorship, for example, or interdisciplinary focus), academic emphasis, student experience, or some combination of the above. What matters is that universities "demonstrate their quality in whatever roles they choose to play or fields they choose to lead."

Collaboration. Thought Leaders participants pointed to collaboration as a critical strategy for increasing efficiency and productivity and cutting costs within higher education. Collaboration should be expanded on many levels—within the institution, across institutions, and with the private sector.

Internal collaboration can help both the bottom line and institutional effectiveness. Departments can become silos in which information is closely guarded; administrative functions can overlap; and academic programs can work at cross-purposes. Many higher education business officers believe there is potential for

Data Point: Mission drift

Time to focus in on what matters

"Like other institutions, we may well have experienced 'mission drift' by straying into new areas in response to specific opportunities, yet without the depth of resources needed to sustain both new and continuing programs. The challenges of supporting a much wider array of academic programs were not apparent during a period of robust economic growth combined with enrollment increases. But now it is abundantly clear that neither [we] nor most higher education institutions can sustain the patterns established over recent decades. We must focus strongly on those programs for which there is a demand, programs for which there is a compelling case for University involvement."

-- Anonymous professor, quoted in "An Inquiry into the Rising Cost of Higher Education: Summary of Responses from Seventy College and University Presidents," Davis Educational Foundation, November 2012.

Data Point:
Focusing the institution

New models for higher education

The idea of the university as all things to all people has had its day, says the Institute for Public Policy Research. Instead, institutions will need to focus on their strengths and distinctive qualities to attract students. The Institute suggests that in the next few decades, institutions will settle into one of five models:

1. **The elite university.** Colleges and universities with a global reputation, a strong endowment, and a stellar track record will be able to continue much as they have for years. They will attract the most talented students and prestigious faculty.
2. **The mass university.** These institutions will take advantage of technology to provide a solid education to the growing middle class. They will focus on real-world workplace skills and supplement their faculty with practitioners from business and other fields.
3. **The niche university.** Colleges and universities in this sector will naturally be highly varied, but the most successful will do the best job at identifying and playing to their strengths. The classic U.S. liberal arts college will fit into this category, as will prestigious arts institutions and military schools.
4. **The local university.** Campuses highly attuned to local needs will contribute to local economies while attracting students. This model is already active around the world; for example, the India Institutes of Technology are recognized as high-quality engineering programs but serve an almost entirely local undergraduate community; in addition, all faculty are required to be Indian citizens.
5. **The life-long learning institution.** Education does not stop after high school or college graduation. More adults are attending college every year to change careers, acquire new certifications or skills, demonstrate their worth to employers, or expand their minds. While many types of institutions will offer life-long learning opportunities, others will focus on this growing market, employing technology and providing highly flexible course offerings.

—Michael Barber, Katelyn Donnelly, and Saad Rizvi, "An Avalanche Is Coming: Higher Education and the Revolution Ahead," Institute for Public Policy Research.

cost savings in collaboration and consolidation in administration and student services, with 59 percent of all institutions—and nearly 70 percent of public institutions—currently discussing ways to implement such consolidation.

Savvy institutions are looking at ways to collaborate across campuses. In Ohio, for example, the Innovation Alliance between the University of Akron, Lorain County Community College, and Stark State College has consolidated essential business functions into a common support organization. Currently the program uses a shared HR system and is working toward shared student administration, human capital management, and financial management. The Alliance has also focused on job creation and academic collaboration projects, including a shared campus where all three members of the Alliance offer courses; involvement with a regional IT program to increase the number of skilled technology workers in the region; and the streamlining of transfers between member institutions.

Collaboration with the private sector can take many forms; the most successful today involve partnerships between science and engineering programs and industry. However, Thought Leaders participants urged colleges and universities to explore other areas of possible collaboration, including shared services and outsourcing. One area of collaboration receiving particular attention today is focused on job skills. Business and government leaders note that employers are desperately searching for skilled candidates while the unemployment rate remains high; in Michigan, for example, the unemployment rate in April was greater

Data Point: Collaboration

Higher education collaboration success stories

- **Centralized print management functions.** The Northeast Ohio Universities Collaboration & Innovation Study Commission sought out administrative functions that could be consolidated and soon hit upon print management. Each campus within the commission, including Cleveland State University, Northeastern Ohio Universities Colleges of Medicine & Pharmacy, Kent State University, The University of Akron, and Youngstown State University, incurs costs to lease printers, copiers, and faxes as well as maintenance contracts, supplies, and disposal costs. A program is underway to centralize this function by pursuing vendor contracts across institutions. Anticipated cost savings are estimated at $3.5 million.
- **Shared campus police force.** Three Massachusetts colleges recently teamed up to share security forces; Smith, Hampshire, and Mount Holyoke colleges each have student populations less than 2,700 and are located about ten miles apart, making the program possible. Sharing services has allowed the institutions to create a central dispatch center, streamline operations by sharing administrative staff, reduce costs—especially overtime—for patrol, and provide specialized services more effectively.
- **Industry partnership to develop new engineering program.** Cullen College of Engineering at the University of Houston was recently recognized as a model industry/academic partnership by the Business–Higher Education Forum. The undergraduate Petroleum Engineering Program was developed in 2009 in response to demand from the private sector for new bachelor's-level staff; the industry was concerned about its aging workforce and the number of engineering and technical personnel due to retire within the next two decades. Petroleum companies provided not only funding for labs, classrooms, and scholarships but also input into what employers are looking for from graduates. Since its launch, the program has grown from 20 students to 400, all likely to be greeted upon graduation with job opportunities.

than 8 percent, but roughly 60,000 open jobs were listed on the state's Michigan Talent Connect website. Michigan's governor Rick Snyder has urged higher education and business to do a better job working together to ensure graduates have the skills and knowledge employers need.

Technology. Participants at the Thought Leaders symposium believe creative use of technology can help colleges and universities cut costs, increase revenues, and improve learning outcomes for students.

The hot topic in higher education technology today is the potential of MOOCs (massive open online courses.) A handful of highly publicized MOOC initiatives are underway, many involving prestigious institutions like MIT, Stanford, Harvard, and the University of California, Berkeley. The appeal is simple: MOOCs promise to provide high-quality courses to an unlimited number of students at little or no expense. MOOC promoters point to the advantage of students around the world receiving instruction from the very best professors; they envision every student taking a handful of undergraduate courses via MOOCs, saving both themselves and the institution sizable sums. MOOCs are the newest manifestation of online education, which is already well established; research shows that more than 6.7 million students took at least one online course in the fall 2011 term, according to the "2012 Survey of Online Learning" from the Babson Survey Research Group and the College Board.

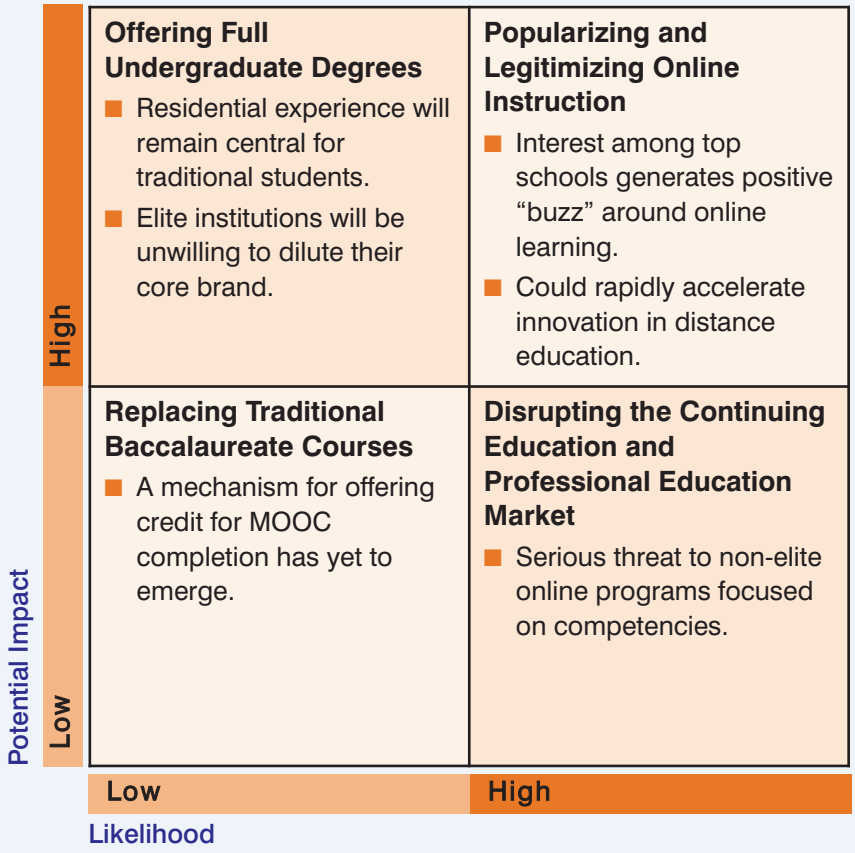
On the other hand, the same survey also revealed that academic leaders are unconvinced that MOOCs represent a sustainable method for offering online courses; after all, MOOCs are only free for the students taking them, not the institutions creating and hosting them. Survey respondents also noted that credentialing from a MOOC is likely to cause confusion, since completing a MOOC session is not the same as passing a final exam and receiving a grade. Further, the educational model of MOOCs is based on the traditional lecture format rather than the more interactive pedagogy most institutions are now encouraging. The future of MOOCs remains unclear, but they have undeniably generated enormous discussion and interest. The 2013 Horizon Report from the New Media Consortium and the EDUCAUSE Learning Initiative put MOOCs at the top of its list of technologies to watch and

Data Point: The potential of MOOCs

Are MOOCs overhyped or truly innovative?

The Education Advisory Board asked this question about MOOCs and came up with conflicting answers. In its assessment, while MOOCs will likely popularize online instruction and disrupt the continuing education market, they're unlikely to replace traditional courses or provide a means for students to obtain full undergraduate degrees.

—Adapted from "The Promise and Perils of Innovation: Competitive Challenges to Traditional Higher Education," Education Advisory Board, 2012.



predicts they will continue to grow in number and popularity.

MOOCs were only one of six technologies identified in the Horizon Report. Another promising trend is learning analytics, systems that compile student data and enable faculty and administrators to use it to help students succeed. Mining data from learning management programs, analytical systems can identify at-risk students before faculty are aware of a problem as well as help students advance toward their degrees.

For-profit institutions have had these systems in place for some time; the software in use at the American Public University System, for example, ranks students according to probable success with coursework. These programs are particularly useful for high-enrollment courses and can include analysis of markers of student involvement beyond quizzes and homework—for example, log-in frequency and involvement in discussion forums. As pressure grows on institutions to retain students and encourage faster time-to-graduation, learning analytics can play an important role in catching at-risk students before they fail.

Space management. Better management of space has the potential to significantly save costs for the institution and make more productive use of its single greatest sunk cost. Participants at the Thought Leaders symposium agreed that colleges and universities need to change their entire thinking around space and begin valuing it as an institutional asset.

The entire Thought Leaders symposium in 2012 focused on space, and participants identified several best practices for colleges and universities:

- **Establish metrics to better measure how space is used.** Look beyond NCES codes to create flexible systems for assessing multi-use spaces, evaluating space quality, and tracking space according to a variety of categories such as grant revenue and productivity.

- **Develop effective policies, decision-making processes, and standards.** Create firm policies that are rooted in the institution's mission and vision, and ensure that decisions are fair, consistent, and transparent. Many within the institution complain that space standards are confusing and biased. Only when systems are clear to all participants will faculty and staff support the process.
- **Create effective organizational structures.** Establish a campus-wide system for allocating and managing space. The structure of this system will vary depending on the institution, but it needs authority to enforce its decisions and the backing of the campus leadership.
- **Implement incentives to encourage effective space management.** The most effective space management programs encourage desired behaviors. The nature of these incentives can vary. On some campuses, academic units are charged for space, encouraging them to use it efficiently. At other institutions, the college or university offers to renovate classrooms if they are turned over to the general pool. Schools might also encourage use of classrooms outside peak times.
- **Design spaces that are easy to manage.** Create buildings that can adapt to changing pedagogies and institutional needs. Avoid single-use spaces that restrict future options.

Several colleges and universities have begun making more intensive use of their space, and they are seeing results. Many large community colleges, confronting record enrollment increases in recent years, offer

Data Point:
Improved space utilization

Abandoning the traditional academic calendar?

Most cultural practices that date to before the Industrial Revolution have been abandoned in modern-day North America, but not the academic calendar. It persists in giving students time off in the summer, time that originally would have been devoted to work in the fields.

Most campuses offer summer sessions, but these are typically nonessential courses; faculty are not required to teach them, and students are under no obligation to take them. In fact, many students are discouraged from taking summer courses. The federal government introduced year-round Pell Grants in 2009 but eliminated the program in 2012 as part of a budget-cutting deal. More than 800,000 students used the program in 2011 to pay for summer classes.

The result is that most campuses are empty in June, July, and August. Academic innovators deplore this practice, noting the inefficiency of operating and maintaining empty buildings for three months of the year. They also point out that by taking summer sessions every year, students could graduate within three years, allowing them to get into the workforce more quickly.

Proposals for a year-round academic calendar have been knocking around for years, but one of the few institutions that has embraced the concept is BYU-Idaho. The campus offers three 14-week semesters every year, plus a summer session. Students can begin any semester. BYU-Idaho considers the program a success, pointing out that it allows highly productive use of its facilities and enables the campus to serve more students; enrollment at the school has increased by 50 percent since it began rolling out the year-round calendar. Even concerns from students that they will have trouble finding summer internships has turned out not to be a problem, according to BYU-Idaho; interns report they have less competition in the fall and winter and employers like having interns in off-seasons.

The University of Minnesota recently announced plans to offer year-round courses, and students entering two academic programs in the spring of 2013 will be able to participate in a pilot program that will allow them to graduate in three years. Other institutions are watching Minnesota and BYU-Idaho closely to see how their programs fare going forward.

courses year-round, with compressed sessions over traditional breaks in the winter and spring. These strategies make productive use of institutional assets and do a better job than traditional campuses of keeping classrooms full all day long and into the evening. In fact, some students prefer courses held only on Fridays, over winter break, or late at night (after 10:00 p.m.). Midnight courses won't be a viable option for most campuses, but steps to improve space management need to be carefully examined on all campuses.

Revenue enhancement. Prudent institutions will not allow themselves to be constrained by the broken financial model of higher education; they will look beyond state appropriations and tuition for opportunities to diversify the campus's income stream.

Many critics of higher education have argued that cost cutting will never be enough to sustainably balance the budget on many campuses. Institutions are understandably leery of trying to squeeze more dollars out of hard-pressed students, but some campuses have realized that a balanced approach to revenue generation can be combined with strategies to incentivize productive and efficient use of campus resources.

For example, an examination of revenue-enhancement strategies for the California State University System included proposals for several income-producing programs that would encourage desired behaviors:

- **Add a third tier to tuition structure.** Charge more for students taking more than 16 hours/semester.
- **Adopt incentive fees.** Charge additional fees to "super seniors" taking more than five years to graduate or for multiple class repeats.
- **Vary tuition rates by campus.** Allow high-demand campuses to charge more.
- **Assess the value of differential tuition strategies.**

Crafting a balanced approach to revenue will require creativity and courage from campus leaders. The successful solution will not only bring in extra dollars but also promote institutional goals.

Data Point: Revenue enhancement

Do winning athletic programs benefit universities?

A recent analysis of college and university athletic programs revealed mixed results on how much sports help the bottom line. The take-away message? The idea that sports are a financial boost to their institutions is a myth.

A few key points:

- Success in Division I college athletics results in priceless advertising, but there is little evidence a winning program boosts applications. In best-case scenarios, a winning football program will increase applications for a year or two.
- Spending on athletic programs varies widely between Division I schools, but on average it has increased significantly. Schools in the Football Bowl Subdivision (FBS) increased athletic costs by about 50 percent between 2005 and 2010.
- Most athletic programs are not self-supporting. Even among FBS programs, student fees and institutional subsidies provided between 4 and 14 percent of total athletic revenues. Only one in four FBS programs generated more money than it spent, and two-thirds of these profitable programs still received subsidies from the institution.

—*"Academic Spending Versus Athletics: Who Wins?" Delta Cost Project Report, January 2013.*

Harnessing innovation to reinvent higher education

"Innovation" is in vogue in academia today. Campuses around North America are seeking ways to employ "disruptive innovation" that will transform higher education, cut the cost of a college degree, and increase the financial stability of institutions. However, what different people mean by innovation varies widely. Many strategies proposed as disruptive would actually do little to change the nature of the campus.

However, most people both within higher education and in the wider community agree that change is mandatory. According to a recent survey conducted by FTI Consulting for Northeastern University, 7 in 10

Americans believe higher education is "extremely" or "very important" to achieving the American dream. But 83 percent also believe that the U.S. education system must change in order to remain competitive. The finding was even more pronounced among younger Americans, who often are dealing with the challenge of a costly degree firsthand; 9 out of 10 respondents believe higher education needs to change.

In order to generate truly innovative ideas, participants at the Thought Leaders symposium analyzed what makes innovators different, based on current research. They found that innovators are characterized by the following traits:

- Associating seemingly unrelated facts and ideas to come up with new approaches
- Questioning assumptions and challenging conventional wisdom
- Applying lessons learned in one context to different solutions
- Experimenting with new ideas and approaches and tolerating a certain degree of failure
- Networking with others with different knowledge, skills, and perspectives to gain new insights

Participants in the symposium developed innovative ideas and strategies that, while pushing some institutions out of their comfort zones, might be game changers for others. Although not all these ideas are feasible on all campuses (some would be considered radical), they are presented here to inspire thinking about change on campus.

Academics:

- Eliminate credit hours. Switch to an outcome-based model where students pay for what they have mastered.
- Create programs with industry input so that graduates have the skills that employers want.
- Identify elements of courses that could be shifted to MOOCs or other online offerings. Remove those elements that can be better provided elsewhere and allow faculty to add more value to their courses. It may well be that more content will be delivered through electronic means, and staff (not necessarily faculty) will ensure that students make progress.
- Reexamine the boundary between K–12 and higher education. If students are ready for college, allow them to transfer in.
- Adjust tuition based on market forces. Consider charging more for in-demand degrees.
- Increase the ability to transfer credits. Consider the concept of the universal degree that allows students to mix and match schools as needed.
- Award credit for experience and knowledge.
- Streamline programs. Reduce requirements to make it easier for students to graduate within four years.

Faculty:

- Reduce course choice within programs to give students a clear path to graduation and reduce the number of courses that are being taught.

Data Point: Innovation in higher education

New proposals from an innovation leader

The father of the term "disruptive innovation," Clayton Christensen, has written extensively about how to transform higher education. At a recent seminar, the Harvard Business School professor suggested several innovative concepts he believes could shake up the academy:

- **Disaggregated universities.** Separate courses and package them individually to students or other institutions.
- **A "modular-based" university.** Limit the number of programs and pathways to keep costs low, then use technology to personalize and individualize advanced work on specific subjects.
- **Low-cost first-year courses.** Reduce the risk for students in their first few courses by reducing the profit level on entry-level classes.

—Jeff Selingo, "How Will Colleges Innovate as the Market Is Disrupted?" Chronicle of Higher Education, July 11, 2011.

- Link faculty compensation to contact hours with students. Let research support itself; if the number of contact hours drops because faculty members are doing more research, they should support themselves with grant funds.
- Split teaching and research functions. Let good researchers focus on their work while good teachers spend more time interacting with students.
- Abolish tenure.

Student services:

- Identify students who are not doing well. Use technology to identify those who are falling behind.
- Teach students how to learn. Online learning requires self-discipline and motivation. Offer boot camps to help students learn these skills.
- Create modular remediation programs. Identify specific areas where students are unprepared and focus instruction exactly where it is needed.

Administration:

- Consolidate back-office services such as HR, accounting, and IT across institutions, systems, and regions.
- Be more open to outsourcing. Help vendors create services that higher education needs.

Facilities:

- Implement a Total Cost of Ownership approach to all facilities to drive down costs and improve long-term performance.
- Reduce the campus built environment. Tear down buildings that are no longer needed or that are too expensive to maintain.
- Make new facilities as flexible as possible. Create "black box" spaces that can be adapted to meet future needs.
- Implement a "no new space" mandate for a fixed period. Help the institution grow within its current limits.

Institution-wide:

- Eliminate low-enrollment, low-demand programs.
- Make athletics truly self-sufficient. Move toward athletics as a profit center.
- Throw out the traditional academic calendar. Keep the campus productive year-round.
- Evaluate statewide systems for overlaps and inefficiencies. How many duplicate programs do these states really need? Identify institutional strengths and focus on the mission.

Section III: Colleges in crisis – a summation

There are several ways to view the crisis that colleges and universities find themselves in at this juncture. Private colleges are racing to the bottom with discounts and an “arms race” of luxury spending because they cannot meet their revenue targets. They are in a spend-or-die situation. The latest Moody’s Report calls this situation "a failed business model" and notes that the number of domestic high school graduates peaked in 2007-08.

To illustrate:

- Bad business and cost model. Bill Bowen makes the analogy that our higher education model is like a string quartet. You can neither speed up how they play nor reduce the number in the quartet. Higher education cannot cling to a model and a culture that associates increasing scale with decreasing quality, especially in the Internet age, which is really all about scale.
- Declining domestic high school graduate populations are intensifying the competition for students in private colleges—colleges already challenged by diminishing demand owing from high tuition sticker prices. The response to decreasing demand here is: 1) Club Med-style “arms race” in spending, and 2) widespread discounting. Both strategies mortgage the future and when combined are deadly. Essentially we're spending more and charging less, and we won't change our cost model.
- State universities and community colleges are growing because they are getting a higher share of the (declining) college-bound student market. At the same time, higher education funding is one of the few discretionary parts of the state budgets and thus is vulnerable. Especially vulnerable as states begin to own up to the massive health and retirement mandates they face.

The student debt of $1 trillion or more is a political crisis and a substantive one. States will continue to withdraw support from higher education while intensifying cries for accountability and cost control. Higher education has only two choices: reducing costs or raising prices. Public higher education's political capacity to raise prices will be limited, given its severe political consequences. Therefore, the inevitable conclusion is that the cost of operating colleges and universities must be brought down.

Colleges and universities, in the main, have dealt with financial challenges by assuming they are business cycle challenges. They address those with short-term palliatives such as across-the-board cuts, travel freezes, and salary freezes. These are designed to be "made up" when the good times return.

However, higher education is now facing structural economic change along with cyclical ups and downs. Some of the structural change relates to changing demand and the globalization of higher education (e.g., China, Saudi Arabia, others building universities worldwide); some relates to changing student preferences (shift in focus to getting a job more than a broad education); some has to do with the widespread acceptability of distance education and the emergence of new providers who are not saddled with campus costs or traditional cultures. Yet, much of it simply has to do with higher education reaching the limits of affordability. Potential students are now choosing other options.

However unpalatable, solutions reside in challenging the sacred cows, such as:

- Exposing and then managing the issue of “capacity” utilization—too much empty classroom space, laboratory space, the number of courses taught, etc.
- Exposing the realities of higher education's capital programs—one-time money from donors and states to build buildings that are not always needed but nonetheless must be maintained even as operating funds decline.
- Demanding extensive analysis of the relationship of arms race spending on enrollments.
- Understanding the financial and political cost of attrition. At some institutions, this is starting to be managed more systematically. Much more can be done.

- Outsourcing in ways that *import* innovation.
- Using online technology tools and approaches to increase scale. Break the myth that small class size and quality are unalterably locked.

Higher education's failure to begin to question, revise, and alter the culture myths that hold us together is to sentence us to a death by a thousand cuts. We cannot withstand an eternity of 2 percent salary increases, positions taken away when vacancies occur, program consolidation, continued deferred maintenance, and more. This simply invites innovators from the outside to do what we are unwilling to do ourselves. Hence the Innovator's Dilemma and the challenge of incumbency.

Section IV: Top issues in higher education facilities

How the critical issues were identified

The premise of the Thought Leaders symposium is that facilities leaders have much to contribute to the major challenges facing higher education. This year participants felt they could offer unique leadership on the matter of rising costs.

Nine top issues were identified by symposium participants, along with critical questions for institutional dialogue. The questions are the heart of the exercise: They are intended to guide facilities managers and university leaders in the discussions at their own institutions. A major goal of the Thought Leaders series is to help individual colleges and universities assess where they stand and help them develop strategies for the future.

1. Align the programs and priorities of the institution with its mission and vision.

The Issue: Today's colleges and universities cannot be all things to all people—they must focus on their own mission and vision.

Strategies:

- Analyze the institution's programs to see how well they reflect the mission and vision of the college or university.
- Eliminate degrees, programs, or activities that no longer serve a purpose for the institution.
- Focus on those efforts that enhance the college's or university's distinctiveness.

Thought Leaders participants saw many institutions squandering their energies on efforts that distracted from their main purpose. Nonessential programs or majors might have had significance at one time, but in the current financial climate, colleges and universities cannot afford to maintain departments that attract few students or administrative offices that serve outdated roles.

Start this process by taking a close look at the institution's mission and vision. Make sure the mission deals with the questions of who is being served, how they are being served, and the unique aspects of the way they are being served. Let the process guide the analysis of programs and their purpose. Consolidating or eliminating programs is a painful process. Colleges and universities need to demonstrate to those within the institution—as well as within the community, state, and academia as a whole—that the decision is appropriate. It is not simply a matter of making the simplest or easiest cuts; it is a broader effort to focus on the organization's mission and vision.

At the same time, campuses should consider the needs of their state or region. Is there demand that is not being met? Can the institution shift its attention to strengthening academic programs that will serve both students and the community?

Finally, the most successful colleges and universities will be those able to communicate their distinctiveness and build on their strengths. Each campus needs a clear identity that sets it apart and justifies its worth; if higher education becomes commoditized and one institution is just as attractive as another, colleges and universities will have difficulty defending their tuition receipts and state allocations.

Questions for institutional dialogue:

- How well has the college or university defined its mission and vision? Have these statements been tied to specific learning outcomes or priorities?
- How does the institution prioritize academic programs? Do priorities reflect institutional goals?
- Which programs no longer fit the institutional mission? Can you justify their consolidation or elimination? Will you be able to achieve buy-in for this decision?
- What makes your campus distinctive? Can you articulate how you stand out? How well is this distinctiveness communicated? What is diluting this distinctiveness?

- How well does the facilities plan reflect the mission and vision of the institution as well as its distinctive identity?

2. Build campus-wide understanding of the "arms race" between institutions on campus spending.

The Issue: Conduct a detailed examination of how competition and rankings are shaping institutional decision making to make informed choices for the future.

Strategies:

- Honestly consider the importance of rankings to your institution.
- Consider the "arms race" in terms of your college's or university's mission and vision and understand how the institution makes decisions about spending.
- Identify the drivers of change that stem from changes in student expectations (different living quarters, health and wellness, etc.).

Almost everyone in higher education deplores the "arms race" triggered by college ranking systems and competition for superstar faculty and administrators, but no one seems to have a clear idea on how to stop the cycle. Few institutions believe they can simply walk away from the current system.

Assuming the "arms race" is here to stay, therefore, colleges and universities should take an honest look at how the system is shaping spending on their campuses. With a clear-eyed view of the implications of the "arms race," senior campus leaders can make more informed decisions on where to invest their time and money.

Colleges and universities should assess how important rankings are to the institution. How widely are rankings promoted in marketing materials to prospective students and parents? Do potential freshmen cite the rankings in their decision to apply? What would be the potential cost of a drop in rankings?

The quality of architecture makes a difference in student success, but the drive toward a quality environment is not merely competition to look better. For example, employer/industry expectations regarding the skills of our graduates are pushing changes in science buildings. These buildings are costing more to deliver to the standards of the industry; this is not being driven by competition with our peer institutions.

Institutions also need to revisit their mission and vision and see how the "arms race" either supports or distracts from the institution's goals. If there is a conflict between the two, what is the process and what are the criteria for prioritizing the expenditure of finite funds?

Questions for institutional dialogue:

- How important are rankings to your campus? How much do they drive enrollment? What would be the cost if rankings slipped? If rankings increased?
- How much money does the college or university spend to maintain its current position?
- Does spending to maintain rankings align with the institution's mission and vision? If conflicts arise between investments driven by rankings and those driven by the mission, what is the process for prioritizing spending?

Data Point:
The higher education "arms race"

What do college ranking systems really care about—and why?

"Rankings are not benign. They enshrine very particular ideologies, and, at a time when American higher education is facing a crisis of accessibility and affordability, we have adopted a de-facto standard of college quality that is uninterested in both of those factors. And why? Because a group of magazine analysts in an office building in Washington, D.C., decided twenty years ago to value selectivity over efficacy, to use proxies that scarcely relate to what they're meant to be proxies for, and to pretend that they can compare a large, diverse, low-cost land-grant university in rural Pennsylvania with a small, expensive, private Jewish university on two campuses in Manhattan."

—Malcolm Gladwell, "The Order of Things: What College Rankings Really Tell Us," The New Yorker*, February 14, 2011.*

3. Better utilize and manage space.

The Issue: Inefficient use of space squanders the institution's highest cost asset—its buildings and grounds.

Strategies:

- Make space management a priority at the highest levels of the institution.
- Clearly communicate space policies and goals to the entire campus community.
- Gather comprehensive data about space to support planning and decision making.
- Identify unproductive uses of space as well as the benefits of improving efficiency.

Colleges and universities have invested in their built environment for years—sometimes more than a century—and the campus stands as the physical embodiment of the institution itself. However, many campuses are underutilized and underproductive. Participants at the Thought Leaders symposium agreed that wiser decisions about space would make a real difference in the college or university budget.

Support at the highest leadership levels is critical to changing campus thinking on space. Senior facilities officers may need to educate campus leaders on the role of space and support them through the process of mastering the topic.

With space identified as a top priority, institutions can start to align their overall mission with their space policy and elucidate their space priorities. With space needs clearly outlined, the campus can better communicate its goals and enforce its policies. Space will always be a contentious issue, but achieving buy-in is easier if everyone understands the goals and how they reflect the values and mission of the institution.

Another important step is understanding what space you have and how it is used. Solid, reliable, in-depth metrics about space are critical. Institutions with robust space management systems track a wide number of variables and regularly perform visual audits to assess not only the size of classrooms and labs but also their quality.

Finally, institutions need to look at where space is being underutilized. Increasing the productivity of space makes better use of the campus's investment, but it can also have other benefits. Scheduling classes year-round not only makes better use of facilities, it also helps students decrease their time to graduation.

Questions for institutional dialogue:

- Do the board, the president, and the chancellor see space utilization and management as a priority? How can senior facilities officers support them in understanding space issues?
- Does the institutional mission define the space policy? Or are the two in conflict? What would it take to align the space policies with institutional goals and vision?
- Is the space policy clearly defined? How well is it communicated? How can you improve support of your policies and goals?
- What kind of data is in place on space? What additional data do you need? Can you put into place a new system for gathering comprehensive space data, including assessments of quality?
- How do you measure the cost of space? Is cost data detailed enough for informed decision making?
- Can you identify space that is being underutilized? What sort of incentives could the institution offer to students, faculty, and departments to improve space utilization? What would be the ancillary benefits to better space management?

Data Point:
Space management and productivity

Classroom allocation as a cost issue

"Extensive data show that better allocation of academic space—i.e., which courses are scheduled in which classrooms at which times—is an overlooked yet vital cost issue. Better allocation of classroom resources—identifying and addressing primetime bottlenecks by focusing on room ownership, meeting pattern efficiency and last-minute cancellation, etc.—can postpone or even cancel entire expensive classroom construction projects."

—*Gene Hickok and Tom Shaver, "Higher Education Can't Wait,"* Inside Higher Ed*, April 26, 2013.*

4. Involve faculty in decisions about facilities and space.

The Issue: Colleges and universities need the input and support of faculty for space management programs to be successful.

Strategies:

- Understand the current culture of space at your institution.
- Develop concrete steps for shifting the culture and achieving buy-in from faculty.
- Ensure faculty can contribute and are heard.

Improving space management has to start at the top, but it must have the support of a wide base of faculty and staff if it is to succeed. Human beings are territorial about space; it is understandable that departments and professors cling to their offices and labs. The culture of space on most campuses has encouraged this kind of thinking. It is time, however, to change that culture and create a new philosophy of space. This is a challenge that will only be met with the engagement of faculty.

The most successful space and facilities programs are those in which all sides respect the input of one another. Faculty can contribute information about their needs; administrators can offer guidance on campus-wide goals and priorities; and space management staff can detail budgets, schedules, utilization, and efficiency. If the ground rules are clear and everyone is listening, the institution will have made major strides in addressing its space challenges.

Questions for institutional dialogue:

- How are faculty currently involved in the allocation of space? Is their role too limited or too large? What would need to change to achieve a balanced approach?
- Is there a process for seeking input from different units of the institution regarding space?
- What is the level of buy-in of space management policies from faculty? What steps need to be taken for all sides to reach an understanding and move toward agreement?

Data Point: Changing the culture of space

Steps to an effective approach

Phil Rouble, facilities planning specialist at Algonquin College, suggests the following steps to change the culture of space on campus:

- Ensure you have a transparent and up-to-date space inventory.
- Establish a space management committee, led by academic affairs but with cross-campus representation.
- Empower the space management committee to set clear targets for levels of space utilization.
- Assemble the deans or department heads periodically to review "utilization zone analysis"—a close look at how well individual spaces are achieving utilization targets.

—Daniel Fusch, "Changing the Culture of Space Allocation," Higher Ed Impact*, Academic Impressions, December 8, 2011.*

5. Identify programs and facilities that need investment.

The Issue: The cost of neglected buildings, programs, and systems can quickly escalate. Institutions should seek out areas where investment is not being made, understand what is happening and why, and seek to reprioritize when investment is needed.

Strategies:

- Identify those buildings and systems that need new investment to remain useful to the institution.
- Use industry standards to gather data on the functionality and condition of buildings and determine the cost of renewal.
- Understand the cost of failing to invest in neglected buildings.

Recent financial pressures at colleges and universities have exacerbated a long-standing problem—that of neglected buildings, programs, and systems. The list of facilities that require significant upgrading and reinvestment is long and ever-growing, but administrative departments, academic programs,

and IT systems can also suffer from neglect. Allowing the campus to decay is a poor use of resources, so colleges and universities need to take steps to understand areas where attention is critical.

The first step is to identify at-risk structures or systems, but equally important is to quantify the cost of further neglect. The college or university needs to be clear on the cost of failing to make necessary investments. Will a building need to be demolished? Replaced? What will be the cost of relocating users?

Solid data is critical to this process. Institutions need to understand the condition of their facilities and how they are used. Industry groups have created tools to aid in this process, including the Facility Condition Index (FCI), developed in cooperation with APPA. The FCI is the ratio of deferred maintenance dollars to replacement dollars; it provides a straightforward comparison of an organization's key assets. Another key metric is the functional adequacy of the space—how well does the building fulfill its purpose? Conduct a gap analysis to determine what changes to make to increase a facility's functionality. The more hard data these analyses can produce, the better, since they will give institutions the information to objectively prioritize investments.

Data Point: Facilities reinvestment

Taking a strategic, data-driven approach

"It is important to take a strategic approach, looking at the entire campus holistically. Any analysis, in order for it to be valid, must be based on accurate, objective data, including an understanding of current facility condition and remediation costs, functional adequacy, and demographics. Without access to detailed information regarding these issues, facilities managers and capital planners find it virtually impossible to decide whether buildings are worth the investment required to make them both useful and usable."

—Ray Dufresne, "Understanding Functional Adequacy and Facility Condition for Strategic Decision Making," Facilities Manager*, November/December 2012.*

Questions for institutional dialogue:

- What data is available about the functionality and condition of buildings? What would it take to get the institution the data it needs to make good decisions?
- What is the cost of continued neglect?
- Is there an objective system in place to prioritize investments? Can the institution defend its choices?
- Who are the champions, stakeholders, and decision makers for various at-risk buildings, programs, and systems?
- How do you evaluate your results?

6. Manage rising labor costs.

The Issue: Higher education facilities are confronting a loss of skilled labor and rising costs to hire skilled staff.

Strategies:

- Keep informed about the skilled labor market in your region to be prepared for upcoming changes.
- Evaluate the competitiveness of your institution and look for ways to increase your desirability to employees.

The facilities management industry as a whole and higher education in particular are confronting a looming shortage of skilled workers. The number of young people entering training or apprenticeship programs for skilled trades has declined dramatically. Meanwhile, those working in the trades today are reaching retirement age. More than 40 percent of construction workers, for example, are baby boomers, according to *Occupational Health & Safety Magazine*. As those staff move out of the workforce, not enough skilled trades people will be available to fill the gap.

As the market grows more competitive, higher education stands at a disadvantage. The financial strain on most campuses has reduced compensation, health care benefits, tuition assistance, and long-term job security. Where once colleges or universities were preferred workplaces, now they cannot compete against the private sector.

Institutional knowledge is also at risk. Older employees have often worked in the same position for years; they have grown to understand the quirks of existing buildings. As those staff members retire, they

will take with them decades of knowledge that facilities departments would be wise to try to capture. New employees will have a hard time picking up where their elders left off—many workers keep jobs for shorter periods today. An employee on the job for a year may only have begun to know the particulars of campus buildings and infrastructure.

Participants at the Thought Leaders symposium encouraged greater awareness about shifts in the labor market and more flexible HR policies to attract younger workers. Employees in highly competitive trades will soon be able to pick and choose where they work. More flexibility in policies, salaries, and advancement opportunities will help the institution attract critical staff. This flexibility can be difficult to achieve—public institutions must work under state hiring rules, while unionized campuses must deal with collective bargaining. Institutions need to have a clear sense of the roadblocks to flexibility and the stakeholders involved.

Questions for institutional dialogue:

- Is your campus experiencing a shortage of skilled labor? What are projections for the labor market in your region? Are there formal mechanisms in place to track this? Do you expect shortages and, if so, in what time frame?
- What are the ages of your workers? When would you expect certain staff to retire? Do you have a mechanism in place to capture their institutional knowledge?
- What factors determine labor costs on your campus?
- How can you reach out to industry, trade schools, and community colleges to get the skilled workers you need?
- How widespread is awareness of labor issues on your campus?
- How flexible are your HR policies? Do candidates see your institution as a desirable employer? What would need to change in your policies to improve your desirability?
- What barriers stand in the way of increasing flexibility? Who are the stakeholders involved? Are others within the institution willing to discuss ways of removing these barriers? If not, why?

Data Point:
Skilled-labor shortage

The declining competitiveness of higher education

"When I went to work for the university, I came out of industry. The people who recruited me said, 'We can't pay you what you are making now, but look at the benefits and look at the retirement and all these things that go with it.' That was a selling point—it has been for years—but those benefits are under attack. It makes it even more difficult to recruit and retain."

—Brooks Baker, associate vice president for facilities, University of Alabama at Birmingham, quoted in "Facilities Managers Discuss Major Challenge: An Aging Workforce," Chronicle of Higher Education*, July 17, 2012.*

7. Understand the challenges posed by increasingly complex buildings.

The Issue: New building systems offer enormous benefits to institutions but also come with new costs and operational problems.

Strategies:

- Understand both the benefits and costs of complex building systems.
- Work with vendors to try to simplify building management systems.
- Keep up with training for employees as building management systems evolve.

New management systems give facilities managers a tremendous amount of control over buildings. Building management systems allow fine-tuning of electrical consumption, air flow, lighting, security, and advanced sustainability systems. These systems have astounding potential, but they are also difficult to operate and time consuming to master. Today's high-performance buildings must be as fine-tuned as race cars; fail to adjust systems correctly, and costs can suddenly skyrocket.

Managing these systems is a growing challenge for higher education facilities departments. Maintenance jobs that could once be performed by low-skilled

employees must now be handled by highly skilled, highly trained experts—experts who must stay abreast of new developments in the field yet remain familiar with legacy systems on campus. And while advanced systems are intended to cut costs by reducing energy consumption and streamlining processes, they often increase costs.

Participants in the Thought Leaders symposium urged senior facilities officers and associations such as APPA to take a stand against growing complexity and work with vendors to simplify systems. Others within the facilities industry are also calling for simplified and easier-to-manage systems. A 2002 article on the website GreenBiz.com, for example, urged manufacturers and vendors to develop next-generation building management systems that would consolidate data from different building systems, accommodate third-party analytic software, integrate a wide range of systems (including facility management systems, business systems, and smart grids), and present information in clear, intuitive dashboards. These sorts of systems can help make building management easier and less costly for campuses.

Questions for institutional dialogue:

- What are the complexities of building management systems on your campus? Are the benefits worth the costs?
- How can the facilities management industry work with vendors to reduce the complexity of systems and keep costs down?
- How can senior facilities officers use the information from building management systems most effectively?
- What sorts of training and education programs are necessary to keep staff current on building management systems?

8. Limit rising costs associated with complying with codes and regulations.

The Issue: Federal, state, and local codes have grown increasingly complicated and place a burden on higher education.

Strategies:

- Understand the cost of codes to your institution.
- Educate senior administrative leaders on the burden of codes, and present ways to influence the process.
- Join forces with APPA to influence the development of codes and standards.

Addressing building codes is a standard part of facilities construction and management. Codes have an important purpose in ensuring the health and safety of the public, but participants at the Thought Leaders symposium believe many codes have gone beyond this straightforward goal.

New codes, often developed with the input of manufacturer, labor, and insurance industry groups, raise operations and maintenance costs to an extent disproportionate to their value. In other words, the codes are making buildings more expensive without necessarily making them any safer.

Symposium participants believe the root of the problem is lack of involvement of higher education facility leaders in the code and standards development process. By coordinating with other industry groups and standards development organizations, education can make a case for its unique challenges and needs. For example, colleges and universities, unlike many other institutions, operate multi-building campuses with professional facilities staff onsite 24/7. Codes designed for single buildings without onsite staff can increase the burden on colleges and universities, which should be able to take advantage of the economies of scale that campuses provide.

APPA has taken several steps to enable the education sector to influence the development of codes and standards at both the national and international level, and has been successful in leading efforts to change standards, through the efforts of the APPA Standards and Codes Council. The mission of the Council is as follows:

- **To promote codes and standards awareness and education among member institutions.** The Council seeks to make APPA members aware through a variety of means of the codes and standards that impact the institutional mission.

- **Determine the impact of existing and proposed standards and codes on educational institutions.** The Council regularly evaluates emerging and existing standards and codes produced by national and international standards bodies, as well as government and regulatory agencies, in order to assess their relevance and support to the educational facilities environment, as well as evaluating the resource and financial impacts of compliance.
- **Influence standards and code development process and outcomes.** To accomplish this objective, the Council actively engages in the standards development and review process among government agencies, standards developing organizations, and others.
- **Set parameters on standards and codes on behalf of the education sector, and seek pragmatic solutions to the standards needs and requirements of educational institutions.** APPA's Standards and Codes Council seeks to ensure that the safety and well-being of students and the entire campus community remain first and foremost.

Thought Leaders participants urged senior facilities officers to get involved in efforts to shape code development through APPA and/or their institution. Facilities officers need to get a solid sense of what codes are costing their campus and then make the case for change to senior campus leaders. With the support of campus leadership, facilities leaders will be able to make progress reducing the cost of codes.

Questions for institutional dialogue:

- What standards and codes are impacting higher education costs?
- Who are the key decision makers at the institution who need to understand the challenge of onerous codes and can support the involvement of facilities officers with the issue?
- How can senior facilities officers shape and influence standards and codes?
- How can institutions pool their efforts or coordinate the investment of resources on standards and code development through the APPA Standards and Codes Council initiative?

9. Reduce the cost of unfunded mandates on the institution.

The Issue: The number of regulations and mandates on colleges and universities raises costs and places a burden on the institution.

Strategies:

- Examine the cost of regulations on your campus.
- Work with other institutions to lobby for less burdensome state and federal requirements.

Higher education is one of the most regulated industries in the United States. Administering financial aid, admitting foreign students, and conducting research all fall under complicated laws and regulations, many of which also have detailed reporting requirements. States also impose their own regulations, many of which, colleges and universities complain, overlap with federal requirements.

The result is a widespread sense that regulations are out of control. Particularly in today's higher education environment, where the pressure is on institutions to be productive and efficient, time and money spent filling out federal forms is burdensome.

In a recent survey of more than 2,000 higher education officials by the U.S. Department of Education's Advisory Committee on Student Financial Assistance, outrage boiled over. More than 85 percent of officials found regulations under the Higher Education Act burdensome; many specific regulations were cited that, respondents said, would yield significant cost savings if eliminated. Frustration at changing and evolving regulations is particularly high.

Participants at the Thought Leaders symposium agreed with the sentiments expressed in the survey and believe that reducing the regulatory burden will help institutions cut costs and improve efficiencies.

No one campus can change the regulatory environment. Reducing the burden of unfunded mandates will require the cooperation of the leaders of numerous institutions. However, individuals within higher education can start the conversation on their campuses by examining the role and cost of mandates. Reliable figures about the cost of individual regulations can give campus leaders evidence to lobby for

reductions in the regulatory burden on colleges and universities.

Questions for institutional dialogue:

- What unfunded mandates are increasing the cost of higher education?
- What are the costs of individual mandates? Is the benefit worth the cost?
- How can your campus partner with others in higher education to encourage the elimination or reduction of regulatory requirements?

APPENDIX A: References and Resources

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