



Assessing and Forecasting Facilities in Higher Education

Including the Top Facilities Issues

APPA THOUGHT LEADERS SERIES **2010**

Published by:



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International Standard Book Number: 1-890956-60-0
Produced in the United States of America



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SECTION I: Executive Summary

The APPA Thought Leaders Series turned five years old this year—a significant event in a momentous time for higher education. Participants in the 2010 symposium looked back at both the achievements and the missteps of higher education over the last half-decade, a period that posed many challenges for colleges and universities. Soaring enrollment, fluctuating energy prices, an economic crisis, demands for reform, sweeping changes in technology—all have stretched the resources and ingenuity of higher education leaders.

The focus of this year's symposium was general, almost global, as the group worked to get a big picture of higher education in 2010. The group began by considering the origins and achievements of the Thought Leaders Series. Participants reviewed the results of previous symposia and evaluated the impact of the program on both higher education in general and facilities leaders in particular. This discussion is reviewed in Section II of this paper.

Next, participants conducted what is known as a “SWOT analysis” on higher education, assessing the strengths, weaknesses, opportunities, and threats confronting colleges and universities. Participants identified the **mission** and **scholarship** of institutions as key strengths, while **an inability to be nimble** and a **flawed business model** were noted as weaknesses. Nevertheless, higher education has an opportunity to **build a new business model** and **take advantage of technology**, so long as it overcomes the threats posed by **economic stressors** and **lack of leadership**.

The next stage of the symposium was devoted to identifying major **issues confronting higher education** now and in the next five, ten, and twenty years. The top issues identified were:

- **securing the future of higher education;**
- **reduced public support for higher education;**
- **a broken financial model;**
- **communicating the value of higher education;**
- **campus safety and security;**
- **shifting workforce demographics;**
- **global competition;** and
- **developing leaders to drive change.**

Participants considered the ramifications of these issues and proposed approaches institutions should take to minimize potential negative impacts. Section III of this paper reviews both the SWOT analysis and these major issues.

The Thought Leaders symposium then turned to what has become a signature discussion of the event: the identification of the **critical facilities issues for 2010**. The results are wide-ranging, reflecting the multiplicity of challenges facing higher education and the built environment:

1. **Crafting an integrated strategic plan**
2. **Achieving financial sustainability**
3. **Creating change agents in facilities**
4. **Addressing regulatory compliance**
5. **Facing the challenge of changing demographics**

6. **Creating an environmentally sustainable and energy efficient campus**
7. **Managing the impact of technology**
8. **Addressing campus safety and security.**

The final stage of the Thought Leaders symposium introduced a new area of discussion: the role of the senior facilities officer within colleges and universities. APPA members have long been concerned that these highly skilled, educated, and experienced professionals do not fulfill their potential in contributing to strategic decision-making on campus. Symposium participants began by assessing the status and role of senior facilities officers. They then identified steps that these individuals should take to improve their image and influence—align facilities with the institution’s mission; create more opportunities for collaboration; and increase understanding and improve communications—to ultimately achieve a position of influence with senior institutional officers.

At the end of the day, a big-picture view of higher education reveals both remarkable strengths and

intimidating challenges. On the one hand, the fundamental structure and financing of colleges and universities seems unlikely to survive in its current form. On the other hand, students and parents seem more convinced than ever before of the value of post-secondary education.

So we turn to you and the view from your campus. How has your institution changed in the last five years? How do you expect it to evolve in the next five? Is the structure of your institution sound, or are major shifts in governance and financing on the horizon? Have you considered the impact of factors such as campus security, changing demographics, regulatory compliance, global competition, and new technology? Have you embraced sustainability and made it a factor in all decision-making? How will you position yourself to achieve greater influence in the decision-making process?

We look forward to your feedback as the dialogue continues.

SECTION II: The Thought Leaders Series at Five Years

As the APPA Thought Leaders Series reached its fifth year, it is appropriate to consider the origins and evolution of the program. The Thought Leaders project began when APPA leaders and senior staff decided to address a longstanding concern of members: that facilities professionals were not in a position to influence strategic decision making on their campuses. How could APPA help its members achieve greater influence?

Part of the answer was to prepare its members to understand the challenges facing senior administrators and to give them better tools for addressing the long-term shifts in higher education and their impact on the built environment. While facilities professionals are often busy in the trenches of day-to-day activities, they also have the opportunity to focus on the big-picture issues—the challenges that will, in the long run, dramatically affect facilities.

The result was the Thought Leaders Series. The purpose of Thought Leaders is to *engage in an annual discussion and distillation of the driving forces, major trends, and current issues impacting the future of higher education with particular attention to its built environment.* The goals of the annual symposia are to:

- Identify and analyze driving forces and trends for the education enterprise
- Identify critical facilities issues
- Enhance institutional dialogue
- Connect the goals of the facilities operations with educational outcomes
- Help improve performance
- Positively impact the future state of educational facilities.

A process was established in which both senior facilities professionals and other institutional officers and administrators would gather annually to participate in structured workshops designed to determine and assess broad industry trends and the top critical facilities issues. After the symposium, a written analysis of the results and supporting background information is disseminated both to APPA members and to the entire education

Data Point: Driving forces in higher education

A 5-Year View from the Thought Leaders Series

While each year's Thought Leaders symposium considered a targeted set of driving forces, the following have consistently been identified as major drivers of change:

- Financial constraints
- The evolving role of technology
- Changing stakeholder expectations
- Shifting demographics
- Impact of competition
- Demand for innovation *and* tradition
- Institutional resistance to change
- Accountability
- Energy cost and volatility
- Sustainability.

community.

So who has the Thought Leaders Series engaged and touched over the past five years?

- Nearly 90 people have gathered to discuss the future of higher education, including 53 higher education representatives, 24 corporate representatives, and 7 industry association representatives.
- Participants have represented 46 colleges and universities in the United States and Canada.
- Institutional job titles of participants include chancellor, president, executive vice chancellor, provost, trustee, vice president of finance and planning, associate vice president for student affairs, director of human resources, chief information officer, director of residence life, associate vice provost for facilities, vice president of operations and facilities management, capital planning director, and director of energy services.
- More than 10,000 copies of the Thought Leaders monographs have been printed and/or distributed to higher education institutions as well as to key

education associations including the American Council on Education, the Association of Governing Boards, the National Association of College and University Business Officers, and the Council of Higher Education Management Associations, among others. In addition, several thousand copies have been downloaded from the APPA website.

- Associations actively contributing participants to the Thought Leaders symposia have included NACUBO, SCUP, ACPA, CUPA-HR, AACC, ACE, AGB, EDUCAUSE, ACUHO-I, and NAEP.
- APPA has received generous support from business partners, without whom the Thought Leaders Series would not be possible. Sponsors have included Carter & Burgess, Inc.; Delta Controls; Haley & Aldrich, Inc.; IBM; Jacobs; and UGL Unicco, now known as UGL Services.

And what has the Thought Leaders Series achieved in five years? The greatest achievement is the way the monographs have helped facilities professionals

understand critical issues and engage in further dialogue on their campuses. The senior facilities officer at a large private institution in the Southeast highlights relevant points from the Thought Leaders report for his vice president for further conservation. The SFO of a large public university in the Midwest uses the monograph during a standing annual meeting with senior institutional officers to pinpoint the critical facilities issues and discuss their impact on his campus in particular. Another facilities AVP at a large public university in the Southeast engages his senior staff in a dialogue about the issues to help determine their focus and direction in addressing the state funding challenges for the coming year.

APPA believes the Thought Leaders Series has helped both facilities professionals and the entire higher education community gain a clearer understanding of the challenges facing our campuses. APPA is committed to continuing the series and furthering the task of helping facilities leaders increase their influence in support of their institutions.

SECTION III: A View of Higher Education in 2010

Assessing Higher Education's Strengths, Weaknesses, Opportunities, and Threats

Higher education has endured a rocky decade. The global recession capped off a period of growing financial constraints; public institutions faced sharp declines in state support, while private colleges and universities saw the value of their endowments plummet. Technology expanded into every corner of the institution. The **demographics of students shifted slowly but steadily to become older and more diverse.** A scandal erupted over financial aid, resulting in changes in the entire financial aid system, and a study by the U.S. Department of Education raised concerns about both **educational standards and regulatory interference.** A growing class of for-profit and online universities attracted an astounding number of students, and **enrollment rose** across the board—particularly after the recession resulted in job losses and **large numbers of Americans returned to school for education and retraining.**

The first task of participants at the Thought Leaders symposium this year was to **assess the status of higher education in the wake of all of these challenges.** The group conducted a SWOT analysis, looking at the strengths, weaknesses, opportunities, and threats facing colleges and universities. SWOT is a technique used to assess both the internal (strengths and weaknesses) and external (opportunities and threats) factors that will affect the future of a project or organization.

Strengths. The strengths of higher education will be critical to helping colleges and universities confront future challenges.

- **Mission.** Several participants noted that the mission of higher education was a unique strength. No other organization combines the goals of education, research, and public service through learning, discovery, and engagement with social and scientific challenges.
- **Scholarship.** The brain power of the community of learning is a powerful strength. Participants pointed to the research resources on campus as well as the knowledge base and formalized learning processes.
- **Economic engine.** Higher education infuses the economy with new ideas, new technologies, new workers, and new leaders.
- **Community.** Colleges and universities are masters at creating and supporting communities—among students, alumni, fans, businesses, non-profits. A tradition of collaboration makes these communities all the more powerful.
- **Diversity.** Higher education has a long-standing appreciation for others and unique skills at fostering diversity.
- **International opportunities.** Higher education has always been a global enterprise, and college and university faculty routinely collaborate with colleagues around the world. This international engagement promotes global economic growth and increases the competitiveness of North American institutions.
- **Infrastructure.** Perhaps it is not surprising that a symposium crowded with facilities professionals would point to campus infrastructure as a strength, but buildings and grounds are a strength others in the academy would be wise to notice. Higher education institutions own some of the most valuable real estate in the world with some of the most significant architecture, specialized research facilities, and beloved sports complexes.
- **Identity.** The “brand” of higher education is widely respected. The public values higher education institutions and education in general.
- **Tradition.** The United States and Canada are still young countries, but our colleges and universities are some of our most long-standing institutions—some even older than our constitutions. The traditions of higher education give these institutions a solid footing on which to build while promoting a powerful sense of community and continuity.
- **Change engine.** Higher education may have strong

traditions, but it also has the ability to change and evolve along with society—sometimes, even, in advance of society. Further, society accepts the role of higher education as a leader of social, technological, and intellectual change.

Weaknesses. Higher education must face its weaknesses to succeed in the future—particularly since many weaknesses are the flip side of strengths.

- **Inability to be nimble and flexible.** Higher education may be a change engine, but that doesn't mean that change happens easily. It requires huge effort for many colleges and universities to overcome institutional inertia. Many struggle to respond to external pressures to change and find it difficult to react to shifts in the marketplace. Ironically, many institutions have on hand experts in change management who teach flexibility and adaptability in the classroom. Institutions struggle to move from a theoretical understanding of change management to the actual practice of implementing change.
- **Lack of focus.** The mission of higher education as a whole may be clear, but individual institutions struggle with a lack of focus. All higher education institutions, public and independent alike, have public obligations, and these must have priority lest they lose public confidence. When institutions wander from their mission or try to reconcile conflicting visions, the result is a faltering of momentum and institutional confusion.
- **Communications failures.** Even if an institution does possess a clear sense of its mission, it is often unable to articulate that mission and vision to the wider community. Many Thought Leaders participants saw communications failures—both internal and external—as a profound weakness.
- **Unsustainable business model.** Thought Leaders participants expressed concern that higher education was pricing itself out of business. The model is broken—it's not sustainable for tuition to rise at an average rate of nearly 5 percent greater than inflation over a decade while state appropriations decline by 12 percent. Entrenchment in the current model was perceived as a contributing factor, as was a rigid organizational structure.
- **Political intrusion.** Government and political interference pose a particular challenge for colleges and universities, since so much of their funding is tied to

government sources.

- **Infrastructure.** While campuses and facilities were identified as a strength, they were also perceived as a weakness. Aging buildings combined with rising materials and energy costs can make the physical campus a drag on the institutional budget.
- **Sense of entitlement.** Its many strengths and long traditions can give higher education an unwarranted arrogance. Colleges and universities tout their uniqueness at the risk of unnecessarily alienating potential allies.

Opportunities. Despite these weaknesses, higher education can take advantage of available opportunities to overcome challenges and embrace future success.

- **Develop a new business model.** If the old model is broken, it's time to create a new one. This won't be an easy process, but widespread acceptance of the systemic problems with current higher education financing means now is the time to tackle the problem. Colleges and universities have a chance to embrace best practices from other industries and apply strategic business thinking to their institutions. Although higher education is not a private sector business, taking a more business-like approach to markets, services, and financing would help institutions secure their futures.
- **Build partnerships.** Collaborative relationships will be critical to higher education's long-term success. Partnership opportunities are available with businesses, social services, state and local governments—in fact, with a whole range of national and international organizations and agencies. Partnerships can also be formed with other colleges and universities, opening up opportunities to share resources. Further, embracing the challenge of being a partner with the community rather than separating from it will give higher education new insight into community needs and new allies to support the academy.
- **Take advantage of technology.** Too often, higher education has seen technology as a problem to be solved rather than as an opportunity to be seized. Yet technology is already transforming education in North America—for-profit, online institutions were the first to really recognize this. Colleges and universities need to understand the potential for

Data Point: The Chronicle of Higher Education on *strategic finance*

Using rigorous analysis to identify the actual cost of programs

“Simply put, strategic finance is an approach to planning and budgeting that involves rigorously identifying the full expenses of programs to gain a complete picture of their costs—including indirect costs (like utilities and marketing) that are rarely quantified to that scale. With that information, an institution or system can better identify where costs might be out of line and where to invest to take advantage of new opportunities, untapped demand, and, in the best tradition of the academic mission, societal need. Large public institutions in Indiana, South Carolina, West Virginia, and Wisconsin, as well as many private institutions, have already taken the plunge.

“The approach, which [Ellen Earle] Chaffee [a former college president who heads up a Lumina Foundation for Education-backed project on strategic finance for the Association of Governing Boards of Universities and Colleges] describes as “more of a concept than a method,” is no magic bullet.

“But for an industry where the general level of financial analysis is still relatively unsophisticated—privately, one expert calls it “primitive”—any movement that pushes universities closer to actually adding up the direct and indirect expenses of the programs they offer is a good first step toward understanding what makes higher education’s spiraling cost model so unsustainable. . . .

“Used thoughtfully, strategic finance can help to identify opportunities. Richard Staisloff, vice president for finance and administration at the College of Notre Dame of Maryland and another member of the cadre,

often cites the example of his institution’s psychology department. Initially identified as overly expensive based purely on enrollment, the department won more support from the college once professors were able to show how it could be a revenue generator. They did that by putting extra resources and attention toward attracting the prospective students who initially expressed interest in the major but then failed to enroll. . . .

“More clarity, contends Kent Chabotar, president of Guilford College and another member of the cadre, could even strengthen the case for continuing so-called unprofitable programs and using (diminishing) cross subsidies to support programs that fall within the institution’s mission-guided strategic priorities. “Those subsidies will be “easier to justify because they’ll be out there,” he says, even as he allows that people “might be ticked” when they understand which programs receive financial support.

“It’s a sensible theory. But it no doubt depends on an institution’s having not only a realistic mission and a practical strategy for achieving it, but also a leadership with the managerial and political wherewithal to shed what’s unnecessary and subpar, and truly protect and strengthen what’s vital, promising, or just plain important.”

— Goldie Blumenstyk

Excerpt from “A Bottom-line approach that looks beyond the bottom line,” *The Chronicle of Higher Education*, April 4, 2010

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technology to enhance learning, increase communication, cut costs, and build community. Technology is another arena where institutions need to move from the theoretical to the practical. The same colleges and universities where advanced technological solutions are pioneered for research and teaching may have difficulty maximizing technology’s

potential for transforming institutional operations.

- **Embrace changes in student demographics.** The “traditional” student—middle-class, white, between 18 and 24—is rapidly ceasing to be the norm on college campuses. Institutions need to understand how their student population is changing in terms of age, income, ethnicity, experience, and goals.

Different students want and need different things from higher education, and these new needs create new opportunities for colleges and universities.

- **Act now.** Thought Leaders participants felt that the time is ripe for change. The environment is right, the opportunities are out there, and institutions need to strike while the iron is hot. The economic crisis exposed many of the flaws of the current educational system, making it clear to faculty and administrators that change is necessary. Meanwhile, government officials are calling for change, and the student body is positioned to understand and accept new approaches.

Threats. If institutions want to act now, what would get in their way? What threatens higher education's future?

- **Economic stressors.** Economic challenges confront higher education from all sides. Rising energy costs. Union demands. An unskilled workforce that requires training. Healthcare expenses. Higher interest rates and the threat of inflation. Combine these threats with the long-term decline in state appropriations and you have the potential for a perfect storm of financial unsustainability.
- **Internal competition.** Economic challenges only grow worse when everyone in the organization is fighting for scarce resources. Individual units within colleges and universities have typically valued their autonomy and operated independently, but that approach isn't viable when the stability of the entire institution is at stake.
- **External competition.** College and universities have always competed, but that competition could grow much more intense in the next few decades. Demographic shifts will result in a smaller traditional college population. Meanwhile, nontraditional students have different priorities and are more likely to look for direct correlation between the price they pay for education and the jobs they can secure after graduation. Furthermore, international students who once looked almost exclusively at North America have an increasing number of quality global institutions from which to choose.
- **Perceived value.** The previous threat is related to this one: In an era of increased competition, the general value of higher education is increasingly questioned. Students, parents, businesses, and even governments are asking what accounts for the difference between

one degree and another. How is a \$50,000/year education different from a \$5,000/year education? While some lower-priced institutions could gain against this threat, many could lose if public perception concludes that all degrees are the same and that the only value in an institution is its ability to grant that degree.

- **Lack of leadership.** Thought Leaders participants agreed that higher education lacks visionary leaders who can envision future trends and then articulate how the institution needs to respond. Too often, leadership is focused on the short-term and fails to provide that inspirational and visionary guidance and direction. What is needed are iconic figures who can articulate higher education issues and shape the debate with elected officials, government authorities, the media, and the public at large. A good starting point for reasserting higher education leadership is to "speak truth to power" and acknowledge the weaknesses as well as strengths of colleges and universities, buttressed by an agenda for constructive change to better align institutional mission with higher education's public purpose.

Determining the major issues facing higher education

The second step undertaken by participants at the Thought Leaders symposium was to identify the critical issues facing higher education in general.

The group first generated a long list of issues that they expect higher education will likely confront in the next several decades. Then they narrowed this list to focus attention on the most significant issues. At the end of the process, several issues were determined to have the greatest potential to impact the future of higher education.

Securing the future of higher education. Institutions need to be true to and confident in their articulated mission and vision and retain the integrity of that focus and direction rather than be pressured to change by other externalities.

Close consideration of the issues raised on day one of the Thought Leaders symposium meant examining threats to the very existence of higher education. Symposium participants felt that these threats will not just go away but need to be confronted aggressively and

Data Point: Looking ahead

Preliminary list of issues identified by Thought Leaders participants

Participants at the Thought Leaders symposium developed a list of issues they anticipate will impact higher education in the next several decades. Most of those issues are listed below:

- Limited access to higher education for the middle class
- Increased gap between Haves and Have-Nots
- Increased uncertainty
- Potential loss of tax-free status for higher education institutions
- Increased risk/liability associated with facilities and the built environment
- Changing workforce demographics
- Changing student demographics
- Reduced public support
- Increased demands for accountability
- Decline of the traditional 4-year institution; rise of research institutions focused on product development and commercialization
- New regulatory demands
- Increased energy cost volatility
- Threats to the safety of the campus
- Increased global competition
- Transformations in information technology
- New accountability demands related to sustainability
- Political shifts that could lead to either reduced or increased environmental regulations
- Need for a new financial model to ensure viability
- Global events that could cause breakdowns in communications
- Privatization of public institutions
- Implementation of a voucher system to replace direct appropriations to higher education
- Decline of K-12 public education

confidently. One of the biggest risks is that change could overtake the institution and render it unrecognizable. Colleges and universities need to be ready for change and committed to the mission, vision, and form of their organization. Only if the institution knows itself will it be able to retain that identity through the twists and

turns of the coming years.

Thought Leaders participants believe higher education could be a very different type of institution a century from now. It is not clear if the current models of public, private, and for-profit will remain relevant or that traditional structures will continue indefinitely. Change will have many drivers including cost, access, and competition:

- **Cost:** Will affordability impact the mission of higher education? Are the finances of the institution sustainable? How will public institutions manage with reduced state support?
- **Access:** Will some students be priced out of higher education? How will the institution retain diversity in the race/ethnicity and economic origins of students?
- **Competition:** How will the institution position itself to compete for a smaller pool of quality students? Is the institution prepared to compete globally?

Institutions also need to ask if their core processes are up to the challenge of the future. Is the business model sound? Are other models available that would make more sense or provide more opportunities for the institutions? What drives the business model?

The ultimate question is this: Who decides? Who decides what an individual college or university will become in 15, 50, or 100 years? University leaders will naturally say that the institutions themselves should decide—that those within higher education know best what their mission should be and how that mission should be executed. However, there is a risk that university leaders will fail to act (or fail to act quickly enough). Other players—state governments, the federal government, business leaders—could step in and shape higher education to their liking if university leaders are not committed to a clear mission.

Some strategies identified to address this challenge include accepting that higher education will inevitably change in the next century and taking on the challenge of shaping that change; focusing on the mission of higher education as a whole and the individual institution in particular; confronting the challenges of cost, access, and competition; and analyzing the institution's organizational structure, governance, and financial systems for their long-term sustainability.

Reduced public support for higher education. State-

sponsored higher education is facing both a short- and long-term funding crisis. State governments have historically provided significant subsidies for their residents, creating a nationwide system of public colleges and universities that provide first-class educations at cut-rate prices. However, that entire system is under threat.

The recession exacerbated the continued challenge to adequate state funding. The financial crisis created state budget shortfalls that could only be met by either raising taxes or reducing spending, and few were willing to raise taxes. In fiscal year 2009-10, state support of higher education declined nationwide, although the impact was blunted by federal stimulus money through the State Fiscal Stabilization Fund. These nearly \$40 billion in

federal funds resulted in only an average 1.1 percent decline in state support instead of the 6.8 percent decline had stimulus money not been available. That average hides significant variability between states: funding drops ranged from 0.2 to 16.4 percent across the nation. The harder-hit state institutions had no choice but to slash budgets, close programs, and increase tuition and fees. For example, the University of California system turned away 2,300 students in the fall of 2009 and 1,500 students in the fall of 2010, since no money was available to educate them, while fees for students who did attend rose by 32 percent for 2009-10 and 2010-11 combined.

Even more worrisome is the budget situation for the

Data Point: State funding for higher education

Implications of state funding cuts

As of August 2010, at least 43 states have implemented cuts to public colleges and universities and/or made large increases in college tuition to make up for insufficient state funding. Here's a survey of the situation in several U.S. states:

- Alabama's fiscal year 2011 cuts to higher education have led to 2010-11 tuition hikes that range from 8 percent to 23 percent, depending on the institution.
- The University of California increased tuition by 32 percent and reduced freshman enrollment by 2,300 students; the California State University system cut enrollment by 40,000 students.
- Colorado funding for higher education was reduced by \$62 million from FY 2010 and this has led to cutbacks at the state's institutions. For example, the University of Colorado system will lay off 79 employees in FY 2011 and has increased employee workloads and required higher employee contributions to health and retirement benefits.
- Florida's 11 public universities will raise tuition by 15 percent for the 2010-11 academic year. This tuition hike, combined with a similar increase in 2009-10, results in a total two-year increase of 32 percent.
- Georgia cut state funding for public higher education for FY2011 by \$151 million, or 7 percent. As a result, undergraduate tuition for the fall 2010 semester at Georgia's four public research universities (Georgia State, Georgia Tech, the

Medical College of Georgia, and the University of Georgia) will increase by \$500 per semester, or 16 percent.

- New York's state university system increased resident undergraduate tuition by 14 percent beginning with the spring 2009 semester.
- In North Carolina, University of North Carolina students will see their tuition rise by \$750 in the 2010-2011 school year and community college students will see their tuition increase by \$200 due to fiscal year 2011 reductions in state higher education spending.
- Texas instituted a 5 percent across-the-board budget cut that reduced higher education funding by \$73 million.
- Washington reduced state funding for the University of Washington by 26 percent for the current biennium; Washington State University is increasing tuition by almost 30 percent over two years. In its supplemental budget, the state cut 6 percent more from direct aid to the state's six public universities and 34 community colleges.

– Nicholas Johnson, Phil Oliff, and Erica Williams
"An Update on State Budget Cuts: At Least 46 States Have Imposed Cuts that Hurt Vulnerable Residents and the Economy," Center on Budget and Policy Priorities, August 4, 2010

upcoming year. Stimulus funds are running out, but tax revenues haven't improved; states are looking at drastic mid-year and next-year cuts. In Nevada, for example, lawmakers approved a 6.9 percent midyear cut in state allocations to higher education—on top of the 24-percent reduction the previous year. Even though the economy seems to be recovering, the situation looks grim for the next two to five years, since the recovery of state budgets tends to lag behind the economy as a whole.

Even worse could be on the horizon if long-term trends in reduced public support continue. State spending on higher education has steadily declined in terms of the proportion of state budgets and the proportion of college budgets; funding has not kept pace either with enrollment growth or with inflation. For example, between 1992 and 2010, appropriations to higher education in Virginia dropped from 14 percent to 11 percent of the state budget. On a per-student basis in Virginia, general fund allocations declined by 18 percent at four-year institutions and 9 percent at community colleges during the same period.

Participants at the Thought Leaders symposium believed declining state support threatens the entire higher education system in the United States. They acknowledged solutions won't be easy. Institutions are working to develop creative solutions to the problem other than eliminating faculty and reducing programs. Many are seeking **funding from alternative sources** including corporations, foundations, and the federal government; others are increasing fundraising and recruiting lucrative out-of-state students. But these strategies aren't enough.

Participants believe a critical strategy will be to **focus on and invest in core competencies**. Outsourcing is not a panacea, but sometimes it is the right solution to providing services at a reasonable cost. Higher education also needs to better leverage its resources through smart purchasing decisions and strategic partnerships. Finally—and most critically—**higher education needs to make a better case for itself**. As an industry, education needs to explain the value it provides to the local community, to the state, and to the nation. Colleges and universities value their independence, but in this instance they need to speak with one voice and deliver a consistent message: that the success of higher education determines the success of the nation.

Broken financial model. Related to the challenge of declining public support is the challenge of the entire higher education financial model. In short: it's unsustainable.

The cost of higher education simply cannot continue to rise at its current rate. If established trends continue, higher education will become too expensive for the average family. In the past 25 years, average college tuition and fees have risen by 440 percent, more than four times the rate of inflation and almost twice the rate of medical care, according to the National Center for

Data Point: State funding for higher education

Higher education at a critical junction

"Enrollment demand has grown relentlessly for more than a quarter century, from 7.0 million in 1980 to 10.8 million in 2009, with no signs of stopping. Even with the substantial increases in state and federal funding for higher education, public financial support has not generally kept pace with enrollment growth and inflation. These trends have contributed to persistent increases in tuition and fees, and in some states, to subtle, less visible reductions in opportunity and quality. . . .

"State support for higher education has been resilient, but inconstant. In every recession over the past 35 years, enrollments have grown, while state funding has not kept up with enrollment growth and inflation. During economic recoveries following recessions, states historically have "caught up" by providing more support. While the historical pattern provides reassurance and evidence of enduring public commitment, the current recession and a convergence of other pressures on states and the American economy have eroded the ability of states to rebuild their financial support for higher education. The resiliency of public financial support for American higher education is threatened, putting its quality and capacity at risk."

– Paul E. Lingenfelter, President, State Higher Education Executive Officers (SHEEO), in his editorial "A Critical Juncture for Higher Education in the United States," published to coincide with SHEEO's annual report on state funding for higher education

Public Policy and Higher Education. This dramatic increase in the cost of an education is increasingly difficult for families to bear; between 1999 and 2007, a degree from a public institution jumped from 39 percent to 55 percent of the median income of the lowest-earning quintile of American families. Still reeling from the sub-prime mortgage crisis and the credit freeze, families are increasingly reluctant to take on huge loans. Increases in financial aid are unlikely to keep up with demand; Congress recently increased Pell Grant limits from \$4,731 to \$5,350 a year, but that figure is still \$14,000 less than total expenses for a residential student at a public institution at in-state rates—and more than \$33,000 less than expenses at the average private college or university.

Institutions must continually raise tuition and fees, conduct fundraising campaigns, and lobby for state funding because their internal costs keep going up. To some degree, the pressures on higher education are the same as those on every large organization in the United States; healthcare costs, for example, have risen sharply. But these types of costs cannot account for all of the price pressures on higher education. The organization and governance systems at colleges and universities can promote high costs and discourage efficiencies.

For example, the shared system of governance between trustees, administrators, and faculty makes it difficult for institutions to react quickly to changing situations. College deans are disincentivized to comply with university-wide cost-cutting initiatives since their base of support is with the faculty in their own college and provosts or presidents are limited in their ability to motivate or further penalize recalcitrant deans.

Further, the budget system at universities often gives significant financial freedom to deans in what researcher Ronald Ehrenberg of the Cornell Higher Education Research Institute calls the “tub” model of resource allocation. In this model, each college keeps the revenue it generates, including tuition, and is responsible for all costs it incurs, remitting funds to central administration to cover shares of general costs. According to Ehrenberg, the tub model is not the best model for improving efficiency and controlling costs, since the best interests of the individual unit are not necessarily the best interests of the entire university.

Fundamental changes will be necessary to reduce the cost of higher education and stop the spiral of ever-

rising tuition. The solutions generally adopted by institutions when faced with budget cuts are short-term reductions of obvious targets—hiring freezes, travel restrictions, training budget reductions, limits on library purchases, etc. As noted by higher education economics expert David W. Breneman, “Few institutional leaders have undertaken the hard tasks of rethinking the university strategically and systematically reallocating resources to permanently lower costs.”

Nevertheless, participants at the Thought Leaders symposium pointed to several measures already underway at institutions. Colleges and universities are looking for areas of redundancy and seeking to **consolidate services**. Some have examined their real estate assets and leased out land and facilities not used for academic purposes to raise revenues. Other institutions are making the difficult decision to **close underperforming academic programs**.

However, more needs to be done. Thought Leaders participants pointed to **better space management** as a powerful tool. Colleges and universities historically have used their space poorly, using buildings heavily for a few hours a day, a few months a year and hardly at all other times. Keeping buildings full all day/every day, all month/every month, makes better use of the investment in facilities and reduces the need for new buildings. **Energy conservation strategies** are usually considered

Data Point: Higher education costs Why does college cost so much?

“The objective of selective academic institutions is to be the best they can in every aspect of their activities. They aggressively seek out all possible resources and put them to use funding things that they think will make them better. To look better than their competitors, the institutions wind up in an arms race of spending to improve facilities, faculty, students, research, and instructional technology. . .

“Top institutions have chosen to maintain and increase quality largely by spending more, not by increasing efficiency, reducing costs, or reallocating funds.”

– Ronald Ehrenberg
Tuition Rising: Why College Costs So Much

in terms of environmental sustainability, but they can also have a significant effect on cutting energy costs and reducing risk posed by energy price volatility. Tuition needs to be reassessed so there is a clear **relationship between what a student pays and what it costs to educate that student**. Institutions need to analyze their organization and governance, eliminate disincentives to cost-cutting and university-wide thinking, and institute management and budget approaches that **encourage efficiency**.

Communicating the value of higher education. Thought Leaders symposium participants believed strongly that higher education is not adequately nor effectively communicating its value, its role in society, or its achievements. Higher education is widely perceived as important; nevertheless, with so many assaults on public support and so many criticisms of large endowments, higher education needs to increase its efforts to communicate its value. Institutions need to make the case for higher education not only to encourage students to enroll but also to keep education as a priority in national and state policy. Colleges and universities would be severely impacted, if not devastated, if state governments came to doubt the impact of public institutions or if families lost faith in the power of higher education to help their children build a brighter future.

Some key points about higher education will be universal. Everyone can agree that colleges and universities contribute immeasurably to the economies of the United States and Canada by training workers, supporting businesses, and developing new technologies. Most will also come together on the value of educational institutions in creating informed citizens, promoting culture, and generally preserving an environment where creativity, innovation, intellect, and endeavor are valued. Beyond these core principles, different institutions will have different stories to tell. A community college, for example, might need to promote its ability to train a wide range of students of all levels of ability for the next step in their education and/or for their careers. A research institution, on the other hand, might need to tell the story of its technological innovations. College and universities need to understand their institutional assets, tangible and intangible—which are likely to be more than one.

Only once the institution understands what differentiates it from the competition should it craft a

Data Point: Communicating the value of higher education

Effective branding

“Build on strong facts: Bob Dylan said, ‘All I got is a red guitar, three chords, and the truth.’ Without denigrating Dylan’s guitar chops, it’s fair to say that he relied primarily on the truth. University marketing and communications programs should do the same.

“Effective marketing (or public relations – the terms mean different things to different practitioners) should be thought of as an accelerant. It’s the lighter fluid we pour on a fledgling fire to create a full-blown blaze. As a result, even the strongest communications program will fail if it is not built on strong facts—on the truth.

“Within your institution, find three to five strong institutional assets—the ideas, initiatives, and people that differentiate you from the rest. These could be research programs, student successes, or an innovative approach to admissions. The point is, you should fan the flames where you have the potential to outshine others.”

– Michael Armini, senior vice president for external affairs at Northeastern University, from “Beware Higher Ed’s ‘Mad Men’”, Inside Higher Ed, May 27, 2010

communications message. It is essential that the communications strategy be rooted in the vision and truth of the institution—that it reflect the real values and identity of the college or university. Faculty and staff at some institutions have reacted against the rash of branding and marketing that they see as ineffective and hollow—usually when a brand identity or marketing message reflects a lack of understanding about the organization. Communications messages should not attempt to make a college or university into something it is not. The effort will be dismissed internally and ultimately will be ineffective externally: audiences are too savvy and too well-informed not to see through an ill-prepared message.

If, however, the message arises out of the truth and vision of the institution, then the institution should be able to develop a plan for promoting that message. An experienced public relations and marketing team needs

to craft a strategy that includes multiple media and multiple ways of telling the story. Good communications plans are hard work—they require sustained effort. Smart institutions will stick to a plan for years: the rule of thumb in marketing is that by the time you are sick of a message, your audience has just noticed it. The final element of a strong communications plan is the creation of mechanisms to evaluate its impact. Institutions need to measure the effect of their strategies with surveys and other tools.

Campus safety and security. Campus security poses one of the most urgent and difficult problems for colleges and universities. One on the one hand, colleges and universities need to create a safe and secure campus. On the other hand, institutions need to preserve the rights of their students, faculty, and staff, including the right to privacy, and seek to create an open environment conducive to community, learning, and exploration.

Tragedies in recent years exposed many flaws in campus security, and in the last decade strides have been made in developing security plans. A 2010 survey by the University of Central Florida discovered that 85 percent of respondents had developed comprehensive emergency management plans, results identical to those of a 2009 survey by the National Campus Safety and Security Project, an initiative of nine higher education associations including APPA. These plans generally address the institution's response to acts of violence, natural and manmade disasters, and pandemics; about half of responding institutions also have plans to deal with disruptions to communications and computer systems. Many of these plans were developed in association with local police and emergency response personnel and include emergency communications systems.

However, gaps remain in campus security. To some degree, these gaps are inevitable. Campuses are not controlled environments like airports or courthouses, nor do most people desire background checks of new students or metal detectors at classrooms. But other gaps should be confronted by campus leaders. For example, a 2008 study of security on University of California campuses identified several aspects of security that needed improvement, including communications interoperability with local police, fire, and emergency medical service providers; lack of established procedures to handle situations such as active shooters and hostage

Data Point: Campus safety and security

Behavioral Concerns Advice Line helps students, faculty, and staff concerned about others

One program that is proving successful at preventing dangerous incidents on campus is the University of Texas's Behavior Concerns Advice Line (BCAL). Begun in 2007 as a partnership between the dean of students, the Counseling Mental Health Center, the Employee Assistance Program, and the University Police Department, BCAL operates 24 hours a day, 7 days a week taking calls from students, faculty, staff, and parents. Individuals are encouraged to call when they have concerns about the behavior of another member of the campus community; these concerns might include a faculty member bothered by disturbing comments in a paper, a student worried about a roommate's drinking habits, a staff member upset about an increasingly angry co-worker, or a parent anxious about changes in their child's behavior.

Calls are assessed first for the level of threat they represent, and immediate threats are passed along to campus police. Barring a crisis situation, calls are routed to either the student or faculty referral processes.

As a partnership between several campus departments, BCAL avoids many pitfalls. It's not a counseling service, so information doesn't fall under the confidentiality rules of the mental health center. It's not a police line, so students or faculty don't feel they're "ratting out" their friends. UT staff believe the program has been highly successful at intervening in potentially dangerous situations; reported cases include incidents of stalking/harassment, aggressive behavior, mental health breakdowns, erratic behavior, and abuse of alcohol or drugs. This collaborative program gives UT a unique tool for identifying problems before they escalate.

situations; and the lack of multidisciplinary behavioral management teams designed to identify and address students, staff, or faculty who may pose a threat to the campus community.

Thought Leaders participants believed more extensive planning was needed to address **emergency**

preparedness, incident command, business continuity, and campus community involvement and awareness.

In particular, symposium participants believed a gap existed between the administration and operations side of colleges and universities and the academic and research side; few faculty members have received adequate training. Plans are good, but if faculty are stuck in classrooms with students and do not know the plan, its usefulness is limited.

Further, participants believed more emphasis should be placed on **prevention**, particularly the prevention of dangerous incidents from students, faculty, and staff. Members of the campus community need to know how to recognize troubling behavior as well as how to report that behavior to someone who can take action.

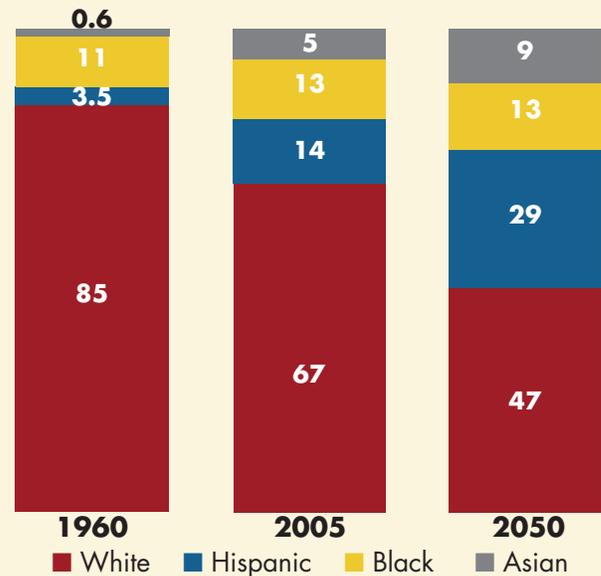
Workforce demographics. The population of the United States is changing in unprecedented ways. The population is expected to hit 438 million by 2050, and the majority of that growth will be among minority populations, according to a 2008 report by the Pew Research Center. The white population will grow to 207 million, but the African American population will grow to 59 million, the Asian American population to 41 million, and the Hispanic population to 128 million. In other words, by the middle of this century, 47 percent of the population will be white, 29 percent Hispanic, 13 percent African American, and 9 percent Asian American.

At the same time, the population as a whole is aging as the baby boomers reach retirement age and life expectancy increases. The workforce is aging, as well, and not just due to population shifts: older workers are staying in the labor force longer and younger adults are delaying going to work. According to one government estimate, 93 percent of growth in the labor force from 2006 to 2016 will be among workers ages 55 and older. Some older workers simply enjoy the activity—54 percent of workers ages 65 and above cite this as their reason for working, compared to 20 percent of those 64 and younger, according to Pew—but others have delayed retirement due to the recession. Meanwhile, a rising share of Americans 16 to 24 years of age are in school and thus not participating in the labor force, a drop from 66 percent in 2000 to 57 percent in 2009. Nevertheless, baby boomers will eventually retire, taking with them their skills and institutional wisdom and knowledge, and the smaller generations that follow will enter the

Data Point: Changing demographics Shifts in the U.S. population by 2050

U.S. Population 1960-2050

Share of total, by racial and ethnic groups



– U.S. Population Projections:
2005-2050, Pew Research Center

workforce with less training.

Of particular concern is the anticipated shortage of skilled workers. It doesn't seem possible right now, with an estimated 2 million construction workers out of a job, but the situation is expected to quickly reverse itself, and skilled trade workers will be in high demand. Different researchers have made different predictions of the extent of the problem—the U.S. Department of Labor predicts that by 2012 the construction industry would be short 1.5 million workers, while the Construction Labor Research Council estimates that each year for the next decade the industry will need 95,000 replacement workers and another 90,000 new workers. The situation is likely to exacerbate if many of those out of work now retrain and find jobs in other industries, notes FMI Corporation, a management consulting and investment banking firm to the construction industry; furthermore, many of the most highly skilled and experienced tradesmen are nearing retirement age. “When backlogs approach capacity in 2013 and 2014, the industry will have lost expertise and be in need of skilled workers,” notes FMI in a recent report, “The Next Big Threat . . .

And It's Probably Not What You Were Expecting." According to FMI, "It will not just be a matter of finding skilled workers; the challenge will be recruiting and training specialists for a changed industry."

Participants in the Thought Leaders symposium felt higher education is **paying insufficient attention to the challenge of shifting demographics**, particularly for facilities departments. Facilities professionals are right to fear they will be unable to hire enough skilled staff to fill the holes created by retirements; many believe the institution will need to train new employees itself. Participants observed that some institutions have begun to recognize the problem and have developed new training resources as well as started apprenticeship programs. However, the recession resulted in hiring freezes for many institutions, so the majority of organizations have been unable to fill the gaps left by retirees or begin to train the next generation of workers.

Institutions need to do more to identify the staff members they will need in the next five, ten, and fifteen years and then develop a plan to find those employees. Facilities departments need to work with human resources experts on **strategies for recruitments, skills assessment, and compensation structures**. They also need to work on **skills development and training** to bring on the needed skilled workers. Institutions need to look at building partnerships with technical and community colleges—with the understanding that competition for these workers will increase. Finally, departments need **succession/accession** plans so employees are confident they have a future with the institution.

Global competition. At first glance, the United States seems to be highly successful at attracting students from around the world. In academic year 2007-08, the U.S. set a new record of 623,805 foreign students, up 7 percent from the previous year. However, 7 percent really isn't as good as it sounds—the U.S. would need to attract far more students to keep up with competitors in Europe, Asia, and Australia.

It all comes back to supply and demand. An increasing number of students are seeking to study outside their home countries; the total of international students has grown from 600,000 in 1975 to 1.2 million in 1990, to a whopping 2.9 million in 2006, according to a report from the Centers for Study in Higher Education at the University of California, Berkeley.

Experts anticipate this number will only grow as the world's population increases in numbers and mobility. At the same time, students find it increasingly difficult to attend U.S. colleges and universities. The rising cost of education as noted elsewhere in this report has discouraged students, as have complicated and lengthy visa procedures implemented after the September 11, 2001 terrorist attacks. Global politics have played a role, with many nations expressing their disapproval with U.S. policies by looking elsewhere for an education.

Other nations have taken advantage of the situation to make their higher education institutions more attractive to international students. While the United States was once the leader in recruiting international students and faculty, other countries have increasingly recognized the benefits of international students and have begun eliminating barriers and encouraging enrollment. Several nations, including Australia, New Zealand, the UK, and France, expedited visa approvals for students, visiting faculty, and researchers and modified their immigration policies to make it easier for foreign nationals to work in the country following the completion of their degrees. Institutions have created curricula and degree programs targeted to the needs of the international market and developed financial aid programs for foreign students. Several in non-English-speaking countries have even adopted English as the language of instruction, particularly at the graduate level.

As a result, the U.S. share of the market of international students is on the decline. From 25.1 percent market share in 2000, the United States dropped to 20 percent by 2006; at the same time, Australia rose from 5.6 to 6.3 percent, Japan from 3.3 to 4.4, France from 7.2 to 8.5, and New Zealand from 0.4 to 2.3.

The implications of this decline are greater than a reduction in the diversity of U.S. campuses. International students are the lifeblood of many graduate programs; since 1977, in fact, virtually all of the growth in doctorates in the sciences and engineering can be traced to foreign students. Some programs might find it hard to survive if these international students go elsewhere. Further, international students have had a major impact on the U.S. economy.

International students inject more than \$15 billion into the economy through tuition and living costs. Those students who choose to stay in the U.S. after graduation bring unique energy and have a significant economic

effect; one study found that in the 1990s, more than one-third of successful start-ups in Silicon Valley were founded by foreign nationals, most of whom received their education at American universities. Another study estimated that immigrants helped start one of every four technology companies between 1997 and 2007, companies that generated \$52 billion in sales in 2005.

Thought Leaders participants believed higher education institutions need to take action to increase their share of international students. Symposium participants recognized that several institutions have begun to fashion responses. For example, some institutions are actively **recruiting overseas**. Others are **establishing joint ventures** with local institutions or creating satellite campuses in other countries—a move that not only produces revenue but also promotes the institution and attracts students to the United States and Canada.

However, these measures are not enough to reverse the trend. Some of the solutions to the problem fall outside of the control of higher education and will require extensive lobbying and education. First, the **immigration process needs to be streamlined** to shorten application times and reduce complexity. Second, the United States needs to develop a national higher education policy that encourages everyone in U.S. higher education to think of institutions not as simply local or state assets but as **nationally important**. This policy also needs to support recruiting of faculty and staff, provide new financial aid opportunities, and seek out other ways to make the U.S. higher education system more competitive. Finally, **new funding for research and development** should have the side effect of promoting international enrollment by increasing enrollment in research programs overall.

Other solutions are more easily controlled by institutions. Colleges and universities can begin by striving to **increase the diversity of their faculty** and recruiting internationally. They can also find new ways to increase their profile around the world and attract international students. Academic units should examine their **programs to see if they are desirable to international students**. Could programs be modified so that they better meet the needs of international students? Could the time to graduation be reduced, or options for study at home institutions for some courses be expanded? In general, institutions should not take

international students for granted and should start focusing further on making themselves competitive globally.

Developing leaders to drive change. Thought Leaders participants agreed with many industry observers that higher education is in need of dynamic, committed

Data Point: Global competition

Economic impact of foreign students in the U.S.

Top Ten States	# of Foreign Students	Tuition and Fees (billions)	Total Contributions (billions)
California	85009	\$1.40	\$2.45
New York	69940	1.30	1.90
Massachusetts	31683	.80	1.00
Texas	51823	.60	1.05
Pennsylvania	25994	.60	.72
Illinois	28604	.56	.71
Florida	26780	.43	.67
Michigan	22697	.43	.52
Ohio	19346	.33	.43
Indiana	15502	.30	.37
U.S. Total	623,805	\$10.60	\$15.54

— John Aubrey Douglass and Richard Edelstein, “The Global Competition for Talent: The Rapidly Changing Market for International Students and the Need for a Strategic Approach in the U.S.”

leaders to address the challenges of the next decades—and fear that these leaders are in short supply. It will take a skillful navigator to steer unwieldy colleges and universities through the rocky shoals ahead, and these navigators seem to be increasingly hard to find.

Institutions often turn to business and politics for senior leaders on the assumption that skills in these arenas will translate to skills in academic administration. This belief has some merit—savvy leaders from outside the institution look at seemingly intractable problems with fresh eyes. Business leaders often have a performance mindset that encourages them to get things done, quicker. However, business leaders sometimes lack understanding of the nuances of academia. One expert, writing in *The Chronicle of Higher Education*, predicts the rise of college and university presidents with corporate

backgrounds will result in “an increase in the number of presidents who are more skilled at keeping their boards and the news media happy than they are at listening to faculty members, staying up to date with the changing state of research fields, or thinking deeply about the role of their institutions in society and the world.”

Perhaps the optimal solution is a combination of leaders from both within and outside higher education. However, that means higher education organizations need to work harder to develop their own people. Thought Leaders symposium participants agreed with many industry observers that colleges and universities often do a poor job nurturing leadership from the inside. This seems to be an odd problem for higher education, since so many schools have built strong business programs that train expert leaders and managers. Colleges and universities should consider following the lead of a few savvy institutions that have created leadership institutes for their own staff.

Alternatively, they should look at involving promising candidates in external leadership programs. For example, the Council for Independent Colleges, in partnership with the American Academic Leadership Institute and the American Association of State Colleges and Universities, offers the Academic Leadership for the 21st Century program, which helps prepare chief academic officers for the role of college president. Similarly, the American Council on Education offers the ACE Fellows Program, in which vice presidents, deans, department chairs, faculty, and other emerging leaders spend a year in intensive leadership training.

Finally, participants at the Thought Leaders symposium agreed that leadership is necessary not only on individual college and university campuses but also nationwide. Higher education needs advocates who will both sing the praises of academics and research and urge appropriate transformation and reform. Institutions need to encourage their leaders to take on this role within their communities, states, provinces, and regions, and welcome the chance for their senior leaders to take a place on the national stage.

Data Point: Developing higher education leaders

Growing from the inside at Emory's Excellence Through Leadership program

One university confronted the challenge of institutional leadership head-on by developing a program to strengthen leadership performance across the institution and establish a leadership pipeline for succession planning. Emory University's Excellence Through Leadership program was established in the fall of 2006 in response to the shifting landscape of higher education and a concern about the scarcity of top-quality leaders.

Up to 15 participants, drawn from various schools and departments, are selected through a rigorous screening process. Then over the course of a year, they attend courses taught by business-school professors and Emory administrators. Classes cover a wide range of topics, including strategic planning, marketing, branding, and higher education finance. Participants also receive individual leadership mentoring.

Participants also complete a group project, in which they address major challenges facing the university and make recommendations for solutions. The work is hands-on and often gets the aspiring leaders involved in areas of the institution that are completely new to them. To date, about half of the recommendations made by group project teams have been put into place.

The program is getting results. As of June 2009, 16 percent of participants have received promotions, 5 percent have changed division, and all graduates consistently receive higher merit-pay increases than their colleagues. “Our evolving Excellence Through Leadership initiative is supporting our aim to develop leaders with the competencies that we believe will best serve them and the university in the future,” says Peter Barnes, Emory vice president of human resources.

Section IV: Critical Facilities Issues

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, as they took a comprehensive view of the higher education environment, participants felt their contribution mattered more than ever.

Participants followed the procedure used in previous years to identify the specific challenges facing educational facilities and facilities managers. Eight issues were identified by symposium participants, along with critical questions. The questions are the heart of the exercise: **They are intended to guide facilities professionals 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.

One critical point: readers of the previous Thought Leaders reports might notice some issues have been added to the list and others removed. This does not mean that issues not carried over from the previous years have gone away as priorities. Instead, the issues identified each year are those that arose in discussion as the most critical at this time.

1. Crafting an integrated strategic plan.

The Issue: Smart strategic plans give individual departments and institutions as a whole a framework for decision-making even in tough, unpredictable times.

Strategies:

- Create a strategic plan that will help your organization focus on its top priorities even during hard financial times.
- Focus on aligning your organization with the mission of the institution to ensure continuity of focus and direction.
- Confront the challenges of cost, access, and competition.
- Analyze your organization, structure, and financial

system for their long-term sustainability and economic viability.

Strategic planning isn't new at colleges and universities, yet many in the institution still see plans as meaningless exercises. In fact, effective strategic plans are powerful management tools. When they work, plans are the result of hard effort by teams that seek to understand the institution's goals and plot its future. After achieving buy-in from faculty, staff, trustees, alumni, and students, the plan becomes a bedrock document dealing with issues ranging from enrollment demands to curriculum shifts to fund raising goals.

Good institutional and organizational plans provide significant benefits. First, they can help the entire campus community get a sense of both its goals for the future and progress toward those goals. Clemson, for example, developed an annual report card that measures progress on 26 specific goals; the president reports quarterly on these goals to the Board. Second, strategic plans provide guidance during tough times by keeping the focus on agreed-upon priorities. The University of Central Florida, for example, points to its strategic plan as providing guidance not only during five years of rapid growth but also in the last three years of major budget cuts. The university's provost cited the plan as helping UCF retain its culture and priorities in the face of financial crisis.

Strategic plans play important roles for the facilities department as well as for colleges and universities as a whole. Savvy organizations craft plans that keep their efforts in alignment with the mission and vision of the institution. They address facilities issues in detail and can be critical in prioritizing the multiple challenges confronting facilities leaders every day.

Thought Leaders participants endorsed the importance of goals and suggested several critical elements of good plans:

- **Assessment.** Strategic plans need to provide an honest review of the institution's current situation—what is sometimes called “environmental scanning” by professional planners. A facilities-specific plan will

evaluate the overall status of the campus built environment as well as the organization intended to manage and maintain it.

- **Mission.** Plans must include the mission and vision of the institution, a mission and vision determined by and agreed upon by the entire campus community. The facilities organization plan will address the mission of the department and ensure that mission is in alignment with that of the institution as a whole.
- **Communication.** Strategic plans are worth little if they're sitting on a shelf. Plans must be distributed throughout the campus community, and the community needs an opportunity to understand and buy in to the plan. The same goes within a department: staff need to understand the plan and their role within it.
- **Adaptability.** Plans provide guidance in times of change, but plans also need to respond to change. Some experts propose institutions rethink the timeframe of their plans from ten to five years to accommodate this era of transformation. In any case, plans need to be evaluated annually to determine what's working, what's not, what's irrelevant, and what's missing. Further, plans need to remain relevant even when the leadership of the institution changes. Similarly, facilities department plans should be regularly assessed to ensure they remain in sync with the institution's plans and goals and relevant to the current environment.

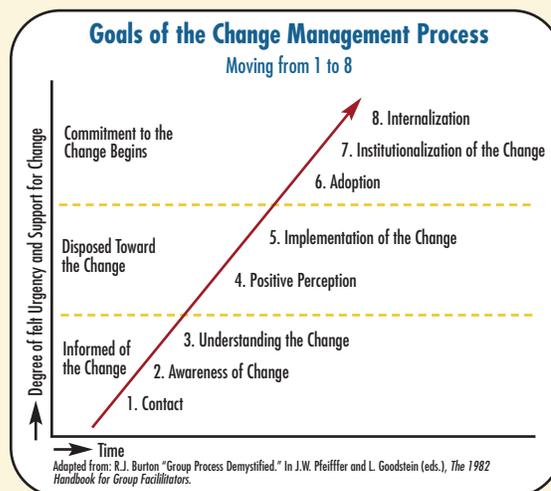
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Questions for institutional dialogue:

- Does your organization have a usable and useful strategic plan? Is it a real plan, valuable to employees and relevant to management decisions?
- Is the plan in alignment with the mission, vision, and goals of the institution? Are resources aligned with the plan? What about metrics?
- Does your organization have a clear mission, vision, and goals?
- Does the plan include a process to promote awareness and acceptance?
- Is a process in place to assess the plan on a regular basis?
- How can you ensure the plan remains relevant if leadership transitions occur?

Data Point: Strategic planning Steps of the change management process

Change isn't a one-step flipping of a switch—it takes time. Following is an overview of the change management process:



– “Strategic Planning in Higher Education: A Guide for Leaders” by the Center for Organizational Development and Leadership at Rutgers. Adapted from R.I. Burton “Group Process Demystified” in J.W. Pfeiffer and L. Goodstein (eds.), *The 1982 Handbook for Group Facilitators*

2. Achieving financial sustainability.

The Issue: Facilities departments need to develop long-term strategies to make their organization more efficient and financially viable.

Strategies:

- Move beyond short-term cost-cutting to true financial discipline.
- Consider Total Cost of Ownership in assessing your facilities' value.
- Understand your value to your customers.
- Assess and enhance the Return on Investment of your facilities assets through higher utilization.

Higher education has been through tough times before. Today's institutions have responded to crisis in time-honored fashion by cutting costs and hoping times

would get better soon. Something is different this time. Around the industry—and within the Thought Leaders symposium—higher education leaders are questioning not just the short-term economic challenges but also the long-term financial viability of colleges and universities. Peter Stokes, executive vice president and chief research officer at Eduventures, Inc., noted the following in a recent article in *Inside Higher Ed*:

In our current circumstances . . . forward-looking universities read signs that the old ways of doing things may be approaching obsolescence. As a senior executive at one large, private university recently said to me, “We’re not persuaded that the business model or the economics of higher education are sustainable. We’re asking the question, ‘What if we were to start from scratch?’”

While the institution as a whole must examine revenue sources and make hard decisions about endowments, tuition, and public funding, individual departments need to buckle down and make some hard decisions themselves. What’s called for is financial discipline. Discipline is harder than cost-cutting, which primarily targets low-hanging fruit. It is short-term in nature, and it carries the assumption that items can go back on the budget when times get better. Discipline, on the other hand, means putting a permanent brake on escalating costs. It means eliminating line items that are a drag on the budget.

It also means thinking about facilities costs in a new way. Colleges and universities persist in pouring money into new buildings, often buildings designed to get the biggest bang for the buck up front with little consideration for long-term upkeep. At the same time, they short-change maintenance and renewal, allowing existing buildings to decline into inefficiency and ignoring small problems until they balloon into large (expensive!) ones.

Thought Leaders participants assert that the long-term financial discipline for facilities will require attention to Total Cost of Ownership (TCO)—that is, the total cost of facilities over their entire life cycle. TCO requires a balance sheet for facilities that includes not just the initial costs of materials and systems but also the continuing costs for energy, upkeep, replacement, and eventual decommissioning. Making TCO a key facilities

policy will go a long way in achieving financial discipline for facilities programs.

Another real issue is improving the Return on Investment (ROI) of educational facilities. Increasing actual revenue generation of the assets themselves comes from higher utilization. As in manufacturing, the institution can shut down inefficient buildings, invest in others to increase productivity, and realign staff as needed. Higher education has not fully caught on to this fundamental economic reality related to the efficient use of capital assets.

Data Point: Achieving financial sustainability

Cost, competition, and value in higher education

Colleges and universities have always competed for students, but the nature of that competition is changing. Previously, the major consideration in making the choice between institutions was quality, but increasingly, students are comparing cost and value. Peter Stokes quotes Jack Wilson, president of the University of Massachusetts, on this point:

“The last few decades, people have not thought about higher education as a place to look for value,” [Wilson] said. “But now, they’re going to be looking for quality institutions that offer a great experience, and a great value at a great price. There’s going to be a lot of pressure on higher education institutions to get their value propositions in place.”

As anyone who has purchased a car, a home, a major appliance—or even a pair of socks—knows, value doesn’t necessarily mean low price. Value is the extent to which a good or service is perceived by the customer to meet his or her needs or wants, measured by the customer’s willingness to pay for that good or service. Some students will find the greatest value in their local community college, others in a \$40,000/year private liberal arts college. The critical point for all institutions is to understand what value they offer and to whom.

Questions for institutional dialogue:

- How has your institution responded to the latest economic downturn—with short-term cost-cutting measures or long-term financial strategies? What would it take for the institution to achieve financial discipline? How could facilities help? What sorts of barriers would such an effort have to overcome?
- Do facilities leaders understand the concept of Total Cost of Ownership? What about leaders outside of facilities? What concrete steps could facilities leaders take to promote Total Cost of Ownership as a core principle of facilities construction and maintenance?
- For greater Return on Investment on campus facilities, do you have a policy to close or even demolish a building that is costing more than it is bringing in? Does senior administration consider innovative approaches to generating revenue for facilities assets? Does your institution view your facilities assets as an expense or an investment?

3. Creating change agents in facilities departments.

The Issue: Resistance to change remains a perennial problem within institutions and facilities departments, but organizations can develop leaders who will help promote change from within.

Strategies:

- Take advantage of the current environment to promote change.
- Create an open environment for dialogue about change and why it is needed.
- Develop an accession/succession plan to recognize and promote those willing to change and meet your new requirements.

One unexpected advantage of the current environment of anxiety about the future of higher education is that discussions of the need for fundamental change have never been more widespread. Complacency is no longer lulling members of the campus community into inaction. Leaders should take advantage of the situation by moving forward aggressively, creating a vision for change, and mobilizing commitment.

What will it take to succeed? Management experts say seven steps are necessary to make change happen and work well over time:

1. Have in place a leader who will champion change, build alliances, and support the goal.
2. Create and affirm the need for change within the organization.
3. Create and disseminate a vision for what the outcome will look like.
4. Mobilize commitment and support change with adequate resources.
5. Track benchmarks to monitor progress, uncover roadblocks, and guarantee accountability.
6. Finish the job by celebrating successes and spreading new skills and ideas throughout the organization.

Data Point: Financing green improvements

Revolving loan funds provide a means to pay for sustainability improvements

The recession is wreaking havoc across college and university budgets, making it particularly difficult to pay for green campus improvements. One model, however, has proven successful as a funding mechanism for sustainability projects: revolving loan funds (RLFs).

RLFs are created by setting aside a sum of money generated from grants, donations, campus fundraising, and student fees. Members of the campus community can then submit proposals for sustainability projects that will produce savings in energy costs. The board grants loans to the most effective projects, providing the necessary upfront costs, and the savings generated are paid back into the fund until the project is fully paid for. This creates a revolving source of capital for green projects.

Several institutions have used RLFs with significant results. For example, Harvard University's Green Loan fund financed 147 projects between 2001 and 2007 that reduce emissions by 33,227 metric tons of CO₂ and saved 15.5 million gallons of water. The average project return on investment was 26 percent. Today, numerous other colleges and universities are considering the potential of RLFs for their campuses.

7. Anchor the change in the systems and structures of the organization.

(Excerpted from Brien Palmer, *Making Change Work: Practical Tools for Overcoming Human Resistance to Change*, ASQ Quality Press, 2004.)

One point here is worth discussing in greater detail: the task of creating and affirming the need for change. To get others on board with the change agenda, leaders need to create an open environment in which dialogue about change is welcome. Staff can talk about elements of the organization where they see the need for change, and leaders can convey their assessment of problems and their vision for the future. It's important that everyone understands the forces driving change—remember that it's hard sometimes those in the trenches to have a sense of the big picture. Giving them insight into the pressures on an institution as a whole can clarify the need for change.

Finally, organizations need to seek out future leaders who are willing and able to drive change and meet the department's evolving requirements. Identifying promising staff members is a good first start, but it's only the beginning. Facilities organizations need to do a better job of growing their own leaders from within. That means establishing accession/succession plans that will help train the next generation of leaders with a commitment to positive, effective change.

Questions for institutional dialogue:

- Is your organization taking advantage of the current environment to promote needed changes?
- Where is your department in the process outlined above? Are leaders available and committed to making change work?
- Do staff understand the driving forces pushing change on the organization? Do leaders understand where staff would focus change? Is there opportunity for dialogue about change? Can you develop consensus on the need for change and a vision for the end result?
- Is an accession/succession plan in place to both identify and promote future leaders?

4. Addressing regulatory compliance.

The Issue: Institutions need to work to lighten the burden of regulations on higher education.

Strategies:

- Keep on top of the growing number of state and federal regulations that apply to your institution and organization.
- Advocate for streamlined regulations that are more relevant and less burdensome.

Most federal and state regulations are rooted in reasonable, understandable desires for safety, privacy, and fairness. It is hard to argue that campuses should have adequate security, that laboratories and dorms have proper fire protection, that students have their privacy protected, or that hazardous waste be disposed of properly. However, the result of all of these good intentions is a major burden on colleges and universities. In fact, higher education institutions face more regulations than almost any other type of organization. According to the Catholic University of America, which sponsors the Campus Legal Information Clearinghouse, colleges and universities fall into several overlapping categories of regulations:

- Laws that apply to any employer—e.g., ADA, HIPAA, nondiscrimination.
- Environmental rules that apply to most American industries—hazardous waste disposal, reporting of greenhouse gas emissions.
- Regulations that apply to financial institutions—e.g., the Gramm-Leach-Bliley act, Antiterrorist Financing rules.
- Rules that apply to research organizations—e.g., human subject research rules, animal regulations, patent law, etc.
- For public schools, requirements that apply to state agencies—e.g., purchasing and contract regulations.
- For private schools, laws that apply to non-profit institutions.

These regulations are in addition to all of the rules that apply to higher education alone, including those concerning immigration for students and scholars, financial aid, campus safety, student privacy, Title IX, and others. Catholic University estimates roughly 200 regulations from almost every federal agency—excepting only the Federal Trade Commission and the Consumer

Products Safety Commission—apply to colleges and universities.

Regulations wouldn't be so onerous if so many of them didn't seem outdated, inconsistent, unclear, duplicative, or an exercise in paperwork. The Campus Security Act, for example, requires institutions to post Campus Crime Alerts to warn members of the campus community about serious crimes—a simple task that has real benefit. As Catholic University staff noted in a statement to the Secretary of Education, at their best, regulations meet a real need and provide a real benefit.

At their worst, however, regulations can absorb huge amounts of time and waste scarce campus financial resources with little tangible benefit to anyone. The Campus Security Act's requirements for publication of crime statistics are burdensome yet of dubious value, with no substantial evidence to support that the information is used by prospective students and parents to make college choices.

Some higher education institutions and organizations have begun attempting to measure the cost of regulations to make clear their impact on college and university budgets. A study by the University of North Texas of 35 public institutions in the Lone Star state found they spent a total of \$6.5 million preparing and filing state reports to comply with purchasing and contracting rules.

How can institutions deal with the regulatory burden? The first step is to better manage existing regulations. It's not easy to keep up with all of the rules and requirements, but the job needs to be done consistently and carefully. Institutions can rely on resources both within specific fields—APPA, for example, includes in its training and professional development initiatives information on facilities-related regulations—and resources intended for higher education in general. Catholic University's Campus Legal Information Clearinghouse, seeks to provide up-to-date, detailed information on the shifting regulatory landscape.

Institutions may also choose to start measuring the cost of regulations as they keep track of their compliance. This won't be an easy task, but it may be the only way for their true cost to be known. Currently, the best estimates about the cost of regulations are only

that—estimates—and several are years old, or specific to one type of requirement. One industry observer in *Inside Higher Ed* recently urged institutions not only track the cost of regulations but also to go so far as to add a line item to tuition bills for a “regulatory compliance fee.” It's unlikely this proposal will gain much traction, but it's clear that frustration with regulations is growing and that tracking costs is the only real way to make their impact clear.

Finally, institutions concerned about federal regulations should consider some form of advocacy to make their point. Individual players in the federal government have expressed concern about the regulatory burden—Senator Lamar Alexander attempted to remove outdated regulations from the reauthorization of Higher Education Act, while U.S. Secretary of Education Arne Duncan recently told the Association of Public and Land-Grant Universities he was willing to work to cut red tape if institutions made progress on increasing student performance. However, it will take a sustained effort by numerous colleges and universities to have a real impact.

Institutions often have excellent relationships with elected officials on both the state and national level; they should leverage these relationships to reduce the burden of regulatory compliance. Higher education organizations are also organizing to make their position known. APPA's Code Advocacy Task Force, for example, recently collected input from APPA members on the development of the 2011 National Electric Code. APPA holds a principal voting position for the industry on Code-Making Panel No. 1 and used the information gathered from members to produce a voting position on behalf of APPA and its member institutions.

Questions for institutional dialogue:

- Does your institution/organization have a system in place to keep track of regulations?
- Who is responsible for ensuring the institution/organization remains up-to-date on changes to rules and regulations?
- Should the cost of regulations be tracked? What amount of effort would this require? Would it be worthwhile?
- Should the college or university advocate directly with state and federal governments to lighten the regulatory burden?

5. Facing the challenge of changing demographics.

The Issue: Colleges and universities need to understand how the demographics of their student body and workforce are likely to change and develop strategies to address that change.

Strategies:

- Assess the demographics of your region, your workforce, and your student population.
- Start addressing the changes that will be needed to student services.
- Understand how demographic shifts will affect your workforce and craft plans to help you recruit, train, and retain the staff that you need.

No one questions that the demographics of the United States are changing in unprecedented ways. What is unclear, however, is exactly how these changes will play out across different regions. General statements about the aging of the population and the growth of minority groups will have different relevance in different parts of the country.

For example, the Brookings Institution recently concluded a major study on the demographics of major metropolitan regions. In general, the report pointed to five new realities:

- **Population growth:** The U.S. recently passed the 300 million mark, and over the next decade will add another 28 million people.
- **Population diversification:** More than 80 percent of population growth between 2000 and 2008 was among nonwhites, and within 40 years whites will be the minority.
- **Aging of the population:** Metropolitan areas had a 45 percent increase in their 55-to-64-year-old population between 2000 and 2008.
- **Uneven higher education attainment:** Younger adults are less likely to hold post-secondary degrees than older adults, while African American and Hispanic groups lag behind white and Asian counterparts by more than 20 percent.
- **Income polarization:** Low-wage and middle-wage workers lost income between 1999 and 2008 while high-wage workers saw their incomes rise—with high-wage workers out-earning low-wage workers by a ratio of more than five to one.

Data Point: Addressing regulatory concerns

Higher Education Regulations Study seeks to identify unnecessary and burdensome regulations

A ray of hope for those concerned about the cost and impact of federal regulations on higher education is offered by a provision in the reauthorization of the Higher Education Act to create the Higher Education Regulations Study. The Advisory Committee on Student Financial Assistance has been charged with conducting a review and analysis to determine whether regulations affecting higher education are duplicative, no longer necessary, inconsistent with other federal regulations, and/or overly burdensome.

The committee began its task by creating a website that includes an area for the public to offer recommendations for streamlining regulations. In addition, the committee is supposed to convene at least two panels to review regulations and provide recommendations on streamlining. At the same time, the National Research Council of the National Academy of Sciences is supposed to conduct a study on all of the reporting requirements imposed on colleges, including an estimate of compliance costs and recommendations for reducing or eliminating them. Within two years, the committee is required to report its findings to Congress.

So far, the committee has held one review panel meeting, sought input from NASFAA, NACUBO, AAU, and the general public, and assembled a preliminary list of burdensome regulations. However, at least one element will likely be missing from the final report—the National Research Council hasn't received any appropriations to conduct its study. One hopes the irony of an unfunded regulation to review the cost of regulations isn't lost on the Department of Education.

However, examine the data closely and regional patterns quickly appear:

- **Population growth:** Some regions are seeing significant increase in their population—particularly Florida, Texas, Arizona, California, North Carolina,

and Georgia—while others have experienced profound population decline—particularly the Rust Belt.

- **Population diversification:** The Hispanic population is growing, but their numbers remain concentrated in a band from California to Texas, with significant growth in Florida, North Carolina, Georgia, and Virginia. Meanwhile, the largely white populations of New England and the Northwest have had little growth in minority groups.
- **Aging of the population:** The population is growing older in such diverse cities as Denver, Provo, and Raleigh while at the same time regions such as the South Texas Border and the Central Valley of California are seeing significant increase in the growth of the under-18 set.
- **Uneven higher education attainment:** While regions with the highest population growth are seeing a decline in those with post-secondary degrees—Texas and Arizona in particular—other regions, including the Northeast corridor from Washington, D.C., to Boston and south Florida—are experiencing an increase in the population with at least a bachelor’s degree.
- **Income polarization:** While average incomes declined across most of the United States, a few regions had small increases in income, particularly San Diego, California, Worcester, Massachusetts, and Washington, D.C.

The point of this analysis is that demographic shifts vary widely by region, and no one demographic approach will make sense for all colleges and universities. Even within the same region, a private liberal arts college will be confronted with different demographic challenges than a large community college district. Colleges and universities need to closely examine the demographic changes in their own neck of the woods. A school in the Rust Belt confronting an aging, declining, largely white population will need to take different actions from one in Phoenix looking at a young, growing, increasingly Hispanic population.

Institutions also need to break their analysis down to consider the demographic changes to their student population separately from those of their workforce—the two could be very different. Institutions need to respond to the shift in student demographics both in terms of

student services and course offerings. Services might need to be expanded to provide increased support for minority populations as well as for those who speak English as a second language.

Shifts to the workforce are likely to challenge facilities departments in particular, since facilities groups employ not only highly educated professionals but also trade and craft workers and unskilled staff. Already, many college and universities are seeing their workforce age as older workers delay retirement. While older staff can limit promotions for younger staff and sometimes create friction, institutions have relied on expertise and experience of these employees; plans need to be put into place to ensure their institutional knowledge isn’t lost when they eventually leave.

Others are seeing a marked increase in the number of Hispanic employees, a trend that will only continue in many parts of the country; language training will likely be needed for both employees and employers to meet the challenge of non-native employees in the workforce. Finally, it is clear that new generations of workers bring a new attitude to work, in an environment where it is rare to keep one job for more than five to ten years and career-shifting is expected. If institutions want to keep good employees and maintain their investment in their staff, they need to find ways to accommodate these trends. For example, is the institution prepared to help employees gain new skills and shifts between jobs and programs on campus?

Questions for institutional dialogue:

- Does your institution understand the demographic changes going on in your metropolitan area? How are the population size, racial and ethnic mix, age, and educational level predicted to shift?
- How are student demographics in particular expected to change? What will students need and expect from higher education in the next ten to fifteen years?
- How are workforce demographics in particular expected to change? What will workers need and expect from their employers in the next ten to fifteen years?
- How will human resources programs need to change to meet the needs of the new workforce?

6. Creating an environmentally sustainable and energy efficient campus.

The Issue: Colleges and universities must continue to make progress toward environmental sustainability and energy efficiency.

Strategies:

- Build a culture of sustainability on your campus.
- Develop and implement an energy policy to cut consumption, manage use, and reduce volatility.
- Make a business case for energy efficiency and sustainability.
- Ensure the facilities department is leading the charge for campus sustainability.

Sustainability and energy efficiency have been a priority of participants at the Thought Leaders symposium since 2006, but the importance of the issue has only grown. Energy costs have gone through extreme swings in the last five years at the same time concerns about global warming have exploded. The American

College & University Presidents Climate Commitment (ACUPCC) has gone from an idea to a movement with nearly 700 signatories. The majority of college campuses have created official sustainability policies and hired dedicated staff.

While concern about sustainability has grown, much remains to be done to achieve real progress on reducing greenhouse gas emissions, cutting waste, and improving energy efficiency. The first priority is to build a culture in which environmental awareness is widespread among students, faculty, staff, and administrators, and sustainability influences decision-making across the campus. Environmental action too often remains an “extra”—a separate effort that is given attention only occasionally or by certain people. Sustainability efforts have achieved results under this approach, but they will remain limited until efforts are integrated into the institution’s thinking from top to bottom. The Association for the Advancement of Sustainability in Higher Education (AASHE) calls this “whole-system thinking” and describes it as “a different way of thinking about buildings, utilities, perceptions, institutional

Data Point: Changing demographics

Dallas County Community College strives to meet the needs of the largest Nepalese community outside of Kathmandu

While most colleges and universities deal with large-scale demographic trends such as the increase of the Hispanic population, others must also address microdemographic shifts in their area. For example, the Dallas County Community College district—and in particular, its Irving-based North Lake College campus—has experienced a dramatic increase in the number of students from Nepal.

This land-locked country bordered by India and China and home to Mount Everest has 1,366 students enrolled in the community college district with 832 enrolled at North Lake, making up on average 5 to 10 percent of the North Lake student body. Irving, Texas has become a hub of the Nepalese population in the United State, and many students arrive there knowing they can find their favorite foods at local Nepalese restaurants, celebrate Nepalese religious holidays together, and get support from countrymen and women. Many

join the campus’s Nepalese Student Association.

North Lake faculty and staff have had to respond to the unique challenges faced by their Nepalese students. Students who learned British English in their homeland must adjust to American slang. Many need help learning to speak up in class, take part in discussions, and ask questions of their professors—unaccustomed activities in traditional Nepalese culture.

While few schools will need to address the specific challenges of a large Nepalese student body, others are likely to see their own microdemographic trends. Institutions in the Twin Cities, for example, have worked to provide services for the large Hmong population originally from Southeast Asia. Colleges and universities have a responsibility to know about the unique populations in their regions and should work to develop the potential of these students.

structures, and all the other components of the system that comprises energy and your campus.”

Campuses that embrace whole-system thinking are seeing the benefits. Cape Cod Community College, for example, has gone so far as to add a focus on sustainability to its mission statement; institutional commitment starts at the president’s office, where Kathleen Schatzberg has earned a reputation as one of the most outspoken advocates for sustainability among community colleges. Programs include cafeteria waste composting, solar-powered trash compacting, and xeriscaping (environmental design that uses various methods for minimizing the need for water use) on campus grounds. The college has invested significant time, effort, and money by making this level of commitment, but this is what true sustainability looks like.

A second priority according to Thought Leaders participants is the development of comprehensive campus energy plans and policies. These policies need to examine campus energy use, assess the associated costs of this use (both financial and environmental), and propose strategies to reduce energy across the board. Strategies should address all sectors of the campus including buildings, transportation, IT, and other elements. They should include plans for diversifying energy sources to include renewable power and for increasing energy efficiency and conservation. Such plans can have a significant impact on the institution’s long-term approach to energy. For example, the official energy policy of the College of the Atlantic is for the institution to be a carbon-neutral campus. To achieve this ambitious goal, the college’s energy plan includes a requirement to use 100 percent renewable energy as well as to design all buildings to be energy efficient, using passive solar heating and efficient lighting. The plan gives the college an overall policy directive as well as specific goals and strategies.

Despite the high profile of sustainability on college campuses, many institutions still struggle to get the support from the highest levels of the administration, particularly business officers. It remains important for colleges and universities to make a business case for sustainability and energy efficiency. As noted in the *Climate Neutral Campus Report* from the ACUPCC:

Even amid rising energy costs, colleges and universities can miss opportunities for

worthwhile energy enhancements because of a communications gap between senior administrators and engineering personnel. Facilities professionals recommending environmentally positive energy projects risk rejection of their proposals if they fail to communicate effectively. They cannot get their point across if they do not speak the language spoken and understood by decision makers or address the full range of issues that a president considers when evaluating a proposal. Communications gaps between leaders and the facilities team can condemn a solid energy recommendation to failure.

Part of the solution is to learn to speak the language of administrators. That means educating oneself about the challenges facing financial staff and understanding how they like to receive information. It means developing cost-benefit analyses for proposed sustainability initiatives that include a determination of the payback period and options for funding. It means building relationships with top finance executives and meeting with them prior to presenting proposals to achieve their buy-in. Making a business case is hard work, but fortunately resources are available to guide facilities professionals through the process, including the book *The Business Case for Renewable Energy* from APPA, NACUBO, and SCUP.

The final strategy recommended by Thought Leaders symposium participants is to ensure the facilities department is leading the charge for campus sustainability. Facilities have an important role to play in improving the energy efficiency and overall sustainability of campuses, with a direct effect on everything from the chemicals used to clean floors to the generation of power. Senior facilities officers should play leading roles in sustainability discussions, helping to shape policy as well as managing implementation. As APPA noted in its report *The Educational Facilities Professional’s Practical Guide to Reducing the Campus Carbon Footprint*, “today’s facilities professional must understand that today’s efforts to address climate change require campus-wide collaboration among many stakeholders. In this new environment, facilities professionals must be willing to serve in new capacities.” These capacities include acting as subject experts with unique understanding of the

issues surrounding sustainability, academic liaisons ready to help faculty and students fulfill academic goals relating to climate change initiatives, strategic administrative partners working to ensure the required resources are devoted to sustainability initiatives, and communicators and motivators promoting the importance of climate change initiatives on campus. Facilities officers need to assess their role on campus and see where they need to step up to increase their impact on the sustainability discussion.

Questions for institutional dialogue:

- Has your campus embraced sustainability within its culture? How do you measure the campus's commitment to sustainability?
- Is sustainability an overall policy priority for the institution? Is whole-system thinking in place?
- Does the college or university have an energy policy in place? If not, what would be required to craft and implement such a policy?
- Are communications gaps between facilities officers and financial administrators hindering progress in implementing sustainability projects? Do facilities experts need to make a better business case for their initiatives? What would such a case involve?
- Are facilities experts recognized as sustainability authorities on campus? If not, do they need new skills and resources to help them broaden their roles?

7. Managing the impact of technology.

The Issue: Colleges and universities must continue to address the shifting impacts of technology on campuses, as well as plan for disaster management and facilities integration.

Strategies:

- Assess how changes in Information Technology will affect all aspects of teaching, learning, research, communications, and the built environment.
- Develop strategies that will help the institution/organization remain nimble and flexible in the face of rapid technological change.
- Make the right investments to ensure IT resources can withstand disaster.
- Integrate IT and facilities planning to maximize success.

Information technology has already dramatically changed the university campus. Walk across any campus commons and you'll likely see the majority of students either on their phones—texting as likely as talking—or on their computers. Today's students couldn't imagine a library without a fully searchable database, journals in print only, classrooms without PowerPoint presentations, and courses without online resources.

Nevertheless, IT is likely to continue to change higher education. A recent global survey by *The Economist* for the New Media Consortium found that nearly two-thirds of respondents representing both the public and private sectors believe technological innovation will have a major influence on teaching methodologies over the next five years. The availability of online courses is likely to grow, along with research partnerships with corporations. Online collaboration tools and Web 2.0 technologies such as wikis and instant networking are expected to increase individually paced learning and provide opportunities to make teaching more outcome-based and student-centered. While these advanced technologies are expected to be critical, survey respondents believed an even greater impact is possible through the expanded access to reference resources.

Nevertheless, *The Economist* found that many institutions still face significant challenges to taking advantage of the potential of technology. The biggest concern remains cost—nearly 70 percent cited this factor as their greatest challenge. Entrenched organizational culture is another hurdle, along with IT's alignment with overall policy. Relatively few university CIOs have a role in setting institutional strategy, with only one-quarter of respondents stating their CIOs are on key decision-making teams. Finally, institutions need to overcome the disruptions posed by technology in the classroom; survey participants noted both an increase in plagiarism and cheating and problems keeping students focused in the classroom due to the distractions of phones and computers.

Participants at the Thought Leaders symposium stated that institutions need to keep on top of surveys such as the one from *The Economist* and track how changes in IT are likely to affect all aspects of teaching, learning, research, communications, and operations. Some change is likely to be incremental—technology that involves a step forward in increasing access to information, streamlines processes, or enhances learning.

E-readers represent this sort of technology; the recent explosion of devices from the Kindle to the iPad are attracting attention from higher education for their potential to transform textbooks from static, expensive printed books to dynamic, interactive educational resources.

While e-readers would change textbooks, they would be used in essentially the same way and wouldn't fundamentally transform higher education. Other changes might be what Josh Baron, Marist College's director of academic technology and eLearning, calls "disruptive." Disruptive change is, in his words, "change that nobody is necessarily expecting, that happens relatively quickly, is rather pervasive, and is driven by technology or at least facilitated by technology." Baron points to the example of ePortfolios—Web technologies that would enable students to showcase their accomplishments and demonstrate their mastery of content. ePortfolios have the potential, Baron says, to completely transform education by shifting assessment from tests to overall evaluation of a student's performance—they "can very effectively measure the authentic learning that students are engaged in, along with their ability to apply the knowledge that they're gaining to real-world problems." As a result, they have the potential to be a highly disruptive change since "we might not need the whole infrastructure we have at colleges and universities today for students to engage in learning and get credentialed for that learning."

Understanding potential transformations in campus technology will help the institution develop strategies to remain nimble. The pace of change in IT has always been fast, and it's only growing—in marked contrast to the slow pace of adaptation found at most colleges and universities. Everyone remembers the frustration of investing in "wired" classrooms where students could plug into the Internet only to have wireless technology render these classrooms obsolete. Senior IT administrators need the authority to make rapid decisions as conditions change as well as a role in the overall decision-making of the campus.

Institutions also need to invest in IT security. Risk management is an increasing priority for colleges and universities as they recognize how many critical operations rely on IT. Institutions need to take a comprehensive approach to security; strategies should address challenges ranging from physical theft to

hacking, viruses to natural disasters. The biggest concerns of IT staff, according to a recent survey by Amplitude Research, are securing remote access, keeping virus definitions up to date, patching systems, monitoring intrusions, and managing passwords—all relatively routine, although certainly significant, issues.

In addition, institutions need to plan for crises and catastrophes from fires and floods to massive security breaches, terrorist attacks, and on-campus violence. A crisis management plan is the right starting point, but colleges and universities also need to test their plans—a task that few complete, according to a 2010 survey by Academic Impressions. The study found that only 54 percent of institutions have tested their crisis response plans in the last year, while 23 percent have never tested their plans at all. As for why this is important, of those that did test their plans, only a third found them effective.

The most effective IT security plans are based on extensive analysis, including security audits. For example, when Meredith College in Raleigh decided to evaluate its network security, it hired an outside consultant who attempted everything from trying to hack the network, gain access to secure buildings, and get the student help desk to reset a password. The result was a comprehensive view of the risks to the system and a detailed list of tasks needed to secure it.

Finally, colleges and universities should work to better integrate their IT and facilities efforts. These two departments began as separate entities, and on many campuses they remain operationally divided, only teaming up for particular projects. But as IT's role grows to encompass every campus activity, the need for integration grows. IT is now perceived by students as a service just like running water and electric lights. Facilities departments are accustomed to meeting student needs 24/7 and have much expertise to offer IT personnel. On the other hand, IT's insight into what students, faculty, and staff want and need from technology is critical for facilities staff as they design new buildings and update old ones.

Questions for institutional dialogue:

- How is technology likely to change teaching, learning, research, communications, business operations and the built environment? Does your campus regularly assess

coming trends and analyze how they might affect you? Are disruptive changes considered along with incremental ones?

- Have you conducted security audits to understand where your system is most at risk?
- Does your IT department have a crisis management plan?
- How well integrated are your IT and facilities departments? Do the two groups work together routinely? What policies and mechanisms should be put into place to increase integration?

8. Addressing campus safety and security.

The Issue: Facilities departments can help not only to manage emergencies when they occur but also to prevent security threats in the first place.

Strategies:

- Conduct a building security audit to understand potential threats.
- Look to technology to help balance openness with security.
- Work with security personnel to develop a comprehensive communications plan.

Facilities departments play critical roles in campus safety, and savvy facilities professionals make security a major priority. Facilities experts can not only aid in developing and implementing emergency management plans on campus, they can also help minimize security threats in the first place. Clearly, no one can prevent all threats at college and university campuses. But, recent tragic events have brought home the reality that just because “it hasn’t happened here” doesn’t mean that it can’t. However, resources are available to help facilities staff understand their risks and make strides to minimize threats.

One critical step facilities departments can take is to conduct a building security audit. These audits look for threats that could disrupt a facility and its operations. Threats can include, but are not limited to, attacks on occupants, damage to facility components or systems that will affect occupants, and damage to the area around the facility that will affect the ability of occupants to safely evacuate the building. Different facilities will face

different threats. If a facility houses critical services, such as police or emergency medical services, it will have a different threat profile than a residence hall.

Audits pay particular attention to access points where a facility’s security can be breached. Some can be easier controlled than others—buildings with reception areas are easier to monitor and control than those with multiple public entrances. Other access points should also be evaluated, including windows, fresh-air intakes, utilities, roofs, and adjacent facilities. It is important to remember that security audits should not be static documents—buildings change in terms of their use, their systems, and their configuration, and audits need to be updated to reflect these changes.

New technologies are introduced every year promising to help secure campuses, and it’s easy to be overwhelmed by the options available. One way to prioritize technology investments is to consider them in the light of how they help the campus balance openness and safety. A campus is not a secure space—and deliberately so. Colleges and universities want to encourage an open environment in which people can explore and learn; residential campuses in particular cultivate a round-the-clock learning lifestyle. Technology provides a way to maintain that atmosphere while ensuring security.

Two types of technology are proving particularly useful: CCTV and access control. Originally closed-circuit TV systems acted simply as a deterrent; today they have evolved into tools to help security personnel identify, prevent, or interrupt security breaches. Intelligent video algorithms, such as sophisticated motion detection, can identify unusual patterns and alert guards to particular video screens. Access control systems keep facilities open to those authorized to be there but limit availability to those who shouldn’t. Smart cards have become a familiar item for many students and faculty and can combine the functions of student ID, meal card, library card, and building key.

When combined, CCTV and access control have even more power. For example, when a Yale University graduate student Annie Le disappeared, personnel quickly determined that Le entered a campus lab building but never exited; they also learned that the suspected killer had entered the same building and accessed her lab. This information allowed police to act quickly, reassuring the Yale community and allowing the campus to return to normal operations.

Finally, technology can also aid in communications when a crisis occurs. Research by the National Campus Safety and Security Project, including a survey of campus administrators and site visits on six campuses, pointed to the crucial importance of emergency communications. Systems that use e-mail, Web, text messaging, and voicemail to send out emergency notifications are growing increasingly common on campus, although not universal: 84 percent of public four-year institutions have such systems, but only 55 percent of public two-year institutions. However, high-tech solutions such as text-messaging systems are only one part of the puzzle.

The best communications systems strive for redundancy to achieve total campus community coverage—low-tech as well as high. For example, a simple poster informing occupants what to do in case of emergency can be as useful in a crisis as an e-mail: emergency instructions should be posted in all campus facilities. Similarly, alarms, sirens, and megaphones can be as critical in getting the word out about a crisis as text message systems. As for those high-tech notification systems: messages only work if individuals receive them. Many colleges and universities with such systems use an “opt-in” approach where students, faculty, and staff have to sign up to receive emergency alerts; experts recommend an “opt-out” approach instead, in which, for example, students are automatically enrolled in the system when they register for classes. Some campuses go even further and make enrollment in the system mandatory.

Questions for institutional dialogue:

- Have you conducted a security audit of your campus buildings? Are audits kept up-to-date as changes to facilities occur?
- How does the culture of your institution affect the balance between openness and security on campus?
- Does your institution have a modern CCTV system that uses technology to help guards identify threats?
- How is access controlled on campus? Where is access control appropriate, and where is it not?
- Are the CCTV and access control systems integrated?
- Does your campus have an emergency communications plan? What is addressed in that plan? Does it rely too heavily on high-tech solutions and ignore simple, low-tech strategies? Is there a diversity of communication options?
- Are emergency instructions posted in buildings?
- How easy is it for individuals to ensure they will receive emergency alerts? Are notification systems opt-in, opt-out, or mandatory? Which strategy makes sense for your institution and campus culture?

Section V: Developing the Role of Senior Facilities Officers

One of the goals of the Thought Leaders Series has always been to raise the profile of senior facilities officers within their institutions. APPA has been concerned for years that these highly experienced professionals do not contribute at full capacity, as their skills and expertise have not been well understood or applied. Facilities officers could significantly assist their institutions by ensuring that facilities professionals are considered when key decisions are made.

The entire Thought Leaders Series has been designed to give senior facilities officers tools to help them understand the issues facing presidents, provosts, chancellors, and boards as well as giving those administrators insight into the challenges and contributions of facilities. APPA believes the project has been successful at raising critical issues facing higher education and its built environment.

However, this year APPA decided to confront the challenge facing senior facilities officers directly. During the symposium, several exercises were held to assess the role and status of senior facilities officers within higher education and to craft action plans to further raise the profile of these officers within their institutions. This initiative is only the beginning of a long process to provide facilities managers with additional tools to help them achieve their full potential and provide the greatest benefit to their institutions.

Assessing the role and status of senior facilities officers within higher education

When participants at the Thought Leaders symposium were asked whether senior facilities officers were viewed as strategic partners within the institution, the general answer was no.

The reasons cited were interesting. Many participants pointed to the institution and its tendency to limit the senior facilities officer's role. In some institutions, facilities officers are seen not as problem solvers but as providers of a service. In fact, facilities are central to the

institution's mission. A well-planned, constructed, and maintained campus helps meet many of higher education's core goals: it offers a living/learning environment within dormitories; fosters learning and collaboration in classrooms; spurs research and development within laboratories; promotes student, alumni, and community engagement and supports student athletes through athletic facilities; and provides an iconic image of the institution itself with the campus as a whole. Senior facilities officers do much more than make sure that the lights stay on and the plumbing remains operational. They assess and interpret the mission and vision of their institutions and translate those intangibles into concrete, plaster, brick, and wood.

Data Point: Must-have traits of senior facilities officers

1. Cultural builder – makes his or her organization better, smarter, and faster.
2. Cultural traveler – reaches out to constituents and demonstrates interest in others.
3. Horizon thinker – looks out beyond the immediate situation.
4. Decision maker – makes the right choices at the right time.
5. Effective listener – knows when to stop talking and hear what others are saying.
6. Articulate communicator – asks good questions and can convey complex material quickly and clearly.
7. Expert translator – educates others on critical knowledge.
8. Creative leader – can look for solutions beyond the data and encourages others to demonstrate creativity in performing their jobs.
9. Qualities include self-awareness, trustworthiness, agility, multiple skill sets.

Adapted from "A Learning Agenda for Chief Business Officers," by Sanaghan, Goldstein, and Jurow, May 2001 NACUBO Business Officer.

So what steps can senior facilities officers take to promote their strategic value to the institution? Participants at the Thought Leaders symposium developed several recommendations:

- **Demonstrate competency.** Use your successful track record to show how skilled and experienced you are. Start monitoring your own progress so that you have credible data to prove your ability and worth.
- **Show value.** Competency is only the first step—the next is to show your value to the institution. Look for ways to add value to campus projects—and make sure everyone knows about your contribution.
- **Align facilities with the institution's mission.** Assess the programs of the facilities department and ensure that they are integrated with the mission, vision, and goals of the college or university. Make clear to administrators how facilities are supporting that mission.
- **Create opportunities for collaboration.** Reach out to others in the organization and propose collaborative projects. Seek out opportunities to be a partner.
- **Make clear the impact of facilities on the campus community.** Educate administrators, faculty, and staff on the many ways facilities shape the campus experience and support teaching and learning.
- **Understand others' needs.** Think outside the facilities box and work to understand what other stakeholders in the institution want and need. Communicate in their terms. Think of yourself as selling a product—the best salespeople speak the language of their customers.
- **Don't be the problem.** Overwhelmed, understaffed facilities officers can sometimes become obstacles instead of problem solvers. Budgets may be tight and resources scarce, but if you answer “no” to every question, no one in the organization will consider you a partner.
- **Insist on professionalism from your staff.** It won't do a senior facilities officer any good to be a model strategic partner if his or her staff is uncooperative.

Professionalism starts at the top, but it must extend throughout the facilities organization. Every member of the team needs to be seen as contributing to the institution.

Symposium participants also considered how individual facilities officers could enhance their own image:

- **Promote yourself.** Don't be hesitant to toot your own horn occasionally.
- **Be a go-to resource.** Build a reputation as someone who can solve problems and is ready to help.
- **Be open to compromise.** Rigid thinking discourages discussion and shuts down communication.
- **Educate others.** Explain your position and make clear why you're recommending a course of action. Help others make good decisions by providing good information.
- **Provide a range of options.** When choices are available, make them clear. Give others opportunities to contribute to design and planning decisions so they feel ownership in the process.
- **Be visible.** Don't shut yourself away in your office. Get out there, attend campus events, participate in campus organizations, and become recognizable to faculty, students, and staff.
- **Teach.** Build relationships and credibility by teaching at your institution.
- **Act like you belong at the table.** Have confidence in your ability to contribute. Help solve all problems—not just facilities ones—to establish your value.
- **Build your credentials.** Become certified to hone your skills and polish your resume. Make contributions to community and professional organizations—not only will these actions give you good experience, they also are respected by others in the academy.

APPA will continue to work with its members to develop tools and resources to help senior facilities officers enhance their status and improve their role as an institutional resource and partner.

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ISBN: 1-890956-60-0