



# HIGHER ED IMPACT

## MONTHLYDIAGNOSTIC

June 2012

# The Physical Campus: A Critical Asset, a Key Opportunity



## HIGHER ED IMPACT

Delivered free to your inbox, *Higher Ed Impact* provides you with a full tool kit to help you monitor and assess the trends and strategic challenges likely to have an impact on your institution's health and competitiveness.



### DAILYPULSE

Scan current events, timely research, and notable practices at other institutions.



### WEEKLYSCAN

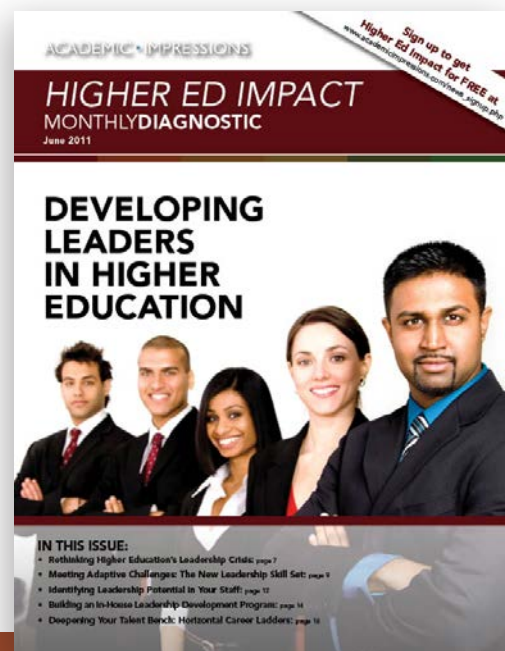
Review the week's most significant events and the most timely research in higher education, with key takeaways suggested by higher education's leading experts.



### MONTHLYDIAGNOSTIC

Get an enterprise-wide and in-depth look at a current, strategic challenge; identify steps to take and critical questions to address.

Learn more or sign up to receive *Higher Ed Impact* at:  
<http://www.academicimpressions.com/news-publications>



## ABOUT ACADEMIC IMPRESSIONS

We are an organization that exclusively serves higher education professionals. We offer focused and intentionally crafted learning experiences to help you address your most pressing challenges.

Our work addresses a range of issues related to student recruitment and retention, faculty support and development, alumni engagement and development, and increasing organizational productivity.

Learn more at [www.academicimpressions.com](http://www.academicimpressions.com).

Copyright © 2012 CR Mrig Company. All Rights Reserved. | 4601 DTC Blvd., Ste. 800, Denver, CO 80237

## A LETTER FROM AMIT MRIG PRESIDENT, ACADEMIC IMPRESSIONS

Improvement and stewardship of the physical campus is key to your institution's competitiveness. Given deferred maintenance backlogs and changes in student expectations for the campus, it is critical to treat your physical campus as a resource, and manage it effectively and efficiently.

With more intentional management of your facilities, you can:

- Positively impact college choice (for students and faculty)
- Foster learning
- Foster a sense of community and pride in the campus
- Better manage maintenance and renewal costs
- Ensure energy savings and a reduced environmental footprint

Yet too often, institutions make ad hoc and reactive decisions around space allocation; renewal, replacement, and construction of student housing; and deferral of maintenance needs. And just as often, critical decisions are made without all of the key voices at the table -- from academic leaders to the registrar, student housing, and facilities management.

For this issue, we've interviewed officials from across the college campus who have shown proven success in fostering cross-campus planning and buy-in around investments in physical facilities. These experts from the trenches bring outside-the-box thinking and a strategic, proactive perspective. We hope their advice will be useful to you.



### **FREE WEBCAST: RETHINKING AND PRIORITIZING PHYSICAL CAMPUS IMPROVEMENTS**

JULY 12, 2012 - 3:30 - 4:30 PM EDT

### **MONTHLY DIAGNOSTIC ONLINE**

Download this PDF and read this issue's articles online:

<http://www.academicimpressions.com/news/physical-campus-critical-asset-key-opportunity>



# AI Contributors



**Amit Mrig**

**PRESIDENT, ACADEMIC IMPRESSIONS**

Amit co-founded Academic Impressions in 2002 to provide a variety of educational products and services that help higher education administrators tackle key, strategic challenges. Since 2002, AI has designed and directed hundreds of conferences and has served representatives from over 3,500 higher education institutions. Besides designing and leading events for cabinet-level officers focused on strategic planning, budgeting, and leadership development, Amit leads Academic Impressions' ongoing research into the five- and 10 year challenges facing higher education and plays a lead role in outlining each issue of *Higher Ed Impact: Monthly Diagnostic* to highlight how college and university leaders can take an institution-wide approach to answering those challenges.



**Daniel Fusch**

**DIRECTOR OF RESEARCH AND PUBLICATIONS,  
ACADEMIC IMPRESSIONS**

At Academic Impressions, Daniel provides strategic direction and content for AI's electronic publication *Higher Ed Impact*, including market research and interviews with leading subject matter experts on critical issues. Since the publication's launch in 2009, Daniel has written more than 250 articles on strategic issues ranging from student recruitment and retention to development and capital planning. Daniel previously served as a conference director for Academic Impressions, developing training programs focused on issues related to campus sustainability, capital planning, and facilities management. Prior to joining Academic Impressions, Daniel served as adjunct faculty for the University of Denver. Daniel holds a Ph.D. in English.



**Erin Swietlik**

**CONFERENCE DIRECTOR, ACADEMIC IMPRESSIONS**

Erin joined Academic Impressions in 2010 to assist the student affairs domain and has since transitioned to managing the organization's programming in a variety of areas. Erin holds her both a BSBA and an MBA from Xavier University in Cincinnati, Ohio. Prior to joining AI, she served as Xavier's first Director for Young Alumni & Student Philanthropy within their office of the annual fund and alumni relations where she developed the institution's young alumni program and managed student philanthropy initiatives across campus.

# Contributors

**Pete Isaac****SENIOR PROJECT MANAGER, BRAILSFORD & DUNLAVEY**

Since joining Brailsford & Dunlavey, Pete has developed methodologies that enable organizations to pursue their mission-based goals through the development and management of their own real estate assets. Pete's experience at institutions across the country has positioned him to effectively serve as a strategic advisor for his clients in determining creative funding mechanisms, analyzing public-private partnership opportunities, and conducting bond compliance reporting for complex, multi-phase development plans. Pete's clients have valued his ability to convert preliminary project concepts into implementable plans, often retaining him to continue serving as their program manager through the financing, professional team selection, design, and construction of capital projects.

Prior to joining B&D, Pete worked at FelCor Lodging Trust Inc., where he analyzed market supply growth in numerous cities to assist in property acquisition, disposition, renovation, and re-branding decisions for the Dallas-based real estate investment trust (REIT). Pete started with B&D in the Washington, DC office and has since helped to establish regional offices in Chicago and Charlotte.

**David P. Jones****ASSOCIATE VICE PRESIDENT FOR STUDENT AFFAIRS AND ENROLLMENT MANAGEMENT, MINNESOTA STATE UNIVERSITY, MANKATO**

David Jones is the chief student affairs officer responsible for managing enrollment growth and providing student services at Minnesota State University, Mankato, including campus housing, campus recreation, student health, student union, campus security, and admissions. Prior to joining MSU, David led one of the fastest-growing campus housing systems in the country, constructing nine residence halls housing over 3,400 students in six years that totaled 300 million in capital bonds. With more than 19 years of housing experience, he has been an active leader in the housing field as a past president of the Southeastern Association of Housing Officers, committee member with the Association of College and University Housing-Assessment Committee, and an editorial board member of *The Journal of College and University Student Housing*. He is currently a reviewer for the *Journal of the First-Year Experience and Students in Transition*, and an editor for the new *Journal of Learning Spaces*.



**Kambiz Khalili**

ASSISTANT VICE CHANCELLOR FOR STUDENT AFFAIRS AND  
EXECUTIVE DIRECTOR OF HOUSING AND DINING SERVICES,  
UNIVERSITY OF COLORADO AT BOULDER

Kambiz has over 26 years of experience in higher education. He holds a master's degree in business administration and has been the director of Housing and Dining Services at the University of Northern Colorado and the University of Colorado at Boulder. Kambiz has demonstrated a strong track record in supporting student development initiatives and is an advocate for building residential communities that foster lifelong learning, multicultural awareness, and volunteerism.

The combination of his professional experience in higher education and his scholastic achievement in business administration has allowed him the unique opportunity to develop a successful relationship between the academic mission of the university and Housing and Dining Services in support of providing better quality of life for the students, faculty, and staff on campus.



**Dan King**

ASSISTANT VICE PRESIDENT FOR FACILITIES,  
AUBURN UNIVERSITY

Dan King serves as the assistant vice president for facilities at Auburn University. In this capacity, he is responsible for the planning, design, and construction of facilities at Auburn, as well as directing the maintenance, utilities, and building service operations that support the university. Prior to arriving at Auburn, Dan was the senior facilities executive at the US Naval Academy in Annapolis, MD. Dan spent 29 years as a Civil Engineer Corps officer in the US Navy, rising to the rank of captain. Dan is a registered professional engineer and earned a master's degree in civil engineering (construction management) from MIT.



**Frances Mueller**

**ASSISTANT VICE PROVOST FOR ACADEMIC AND BUDGETARY AFFAIRS,  
UNIVERSITY OF MICHIGAN**

Frances Mueller is an assistant vice provost for academic and budgetary affairs at the University of Michigan, responsible for overseeing space management and capital planning for the Ann Arbor campus on behalf of the Office of the Provost and the executive vice president for academic affairs. Prior to this role, she was the project manager for the University of Michigan Space Utilization Initiative, a multi-year, campus-wide initiative that established institutional policies, business practices, systems, and creative solutions to manage general fund space more effectively, slow building growth, and contain space-related operating expenses.

Frances has worked for the University of Michigan for several years in leadership roles emphasizing change management, business process improvement, and policy development, and has broad, campus-wide experience and perspective from working in the Business and Finance Division, Division of Student Affairs, and currently, the Office of the Provost.



**Phil Rouble**

**ASSOCIATE DIRECTOR, FACILITIES PLANNING AND  
SUSTAINABILITY, ALGONQUIN COLLEGE**

Phil Rouble is accountable for campus and facilities planning at Algonquin College. Described as a thought leader in space management, he has presented in numerous forums on his space mining techniques, which have helped Algonquin achieve highly efficient space optimization. In particular, Phil has learned to leverage the game-changing power of Excel pivot tables and data analysis to optimize physical space resources (bricks). Phil is now turning his attention to building capacity in digital space (clicks) and to integrating the planning of “bricks and clicks” space.

Before joining Algonquin, Phil spent 10 years as a full-time professor teaching in a community college. Phil holds degrees in civil engineering (structural) and architecture. His professional interests include learning, teaching, strategic and tactical planning, sustainable development, and adapting digital technologies to enable more effective facilities planning and design.



**Kathrynne G. Shafer**

**VICE PRESIDENT FOR OPERATIONS, MESSIAH COLLEGE**

Kathie Shafer has served as vice president for operations for Messiah College since 2005. In her 26 years of experience in higher education, beginning in conference and event planning, she has overseen the management of the custodial staff, department of safety, facility management, construction programs, and the crisis management team. As vice president for operations, Kathie has succeeded in developing both a reserve maintenance fund and a long-term maintenance plan funded out of energy savings.



**Faramarz Vakili**

**ASSOCIATE DIRECTOR, PHYSICAL PLANT  
UNIVERSITY OF WISCONSIN-MADISON**

Faramarz Vakili is the director of campus sustainability operations and the associate director of the Physical Plant Department at the University of Wisconsin-Madison. His responsibilities include overseeing facilities maintenance, in-house remodeling, utilities generation and distribution, fleet management, and sustainability operations on a campus of 300 buildings and over 20 million gross square feet of instructional and research space. He is also the director of UW-Madison's WE CONSERVE environmental stewardship initiative, which exceeded its original goal of reducing the university's energy consumption and eco-footprint by 20 percent per square foot by year 2010.

Faramarz serves as a faculty member for the APPA Institute for Facilities Management. During his career, he has developed and implemented a number of progressive and innovative facilities management and energy conservation programs. In recognition of his accomplishments, he received the United States Energy Association's 2004 Energy Leadership Public Award. Faramarz is also the recipient of the UW-Madison 2010 Wisconsin Alumni Associate Award for Excellence in Leadership for the University Community.



# CONTENTS

---

Allocating Campus Space Strategically 10

---

Creating a Housing Master Plan 14

---

Taking a Proactive Approach to Energy  
Savings and Deferred Maintenance 18

---

Funding Facilities and Facilities  
Improvements in the Current Market 24

---

# The Physical Campus: A Critical Asset, a Key Opportunity



## ALLOCATING CAMPUS SPACE STRATEGICALLY

Space is a critical resource, just like your institution's financial resources; it has to be managed effectively and used efficiently. It is an asset that you need to allocate in order to support short- and long-term priorities.

**Frances Mueller, University of Michigan**

Institutions of higher education have a limited history of tracking and allocating their existing space effectively, but facing state budget cuts and/or rising enrollments, a handful of institutions have taken recent action to organize campus-wide space management initiatives to help reallocate prime “real estate” on campus in support of strategic priorities, looking for ways to optimize the space they already have.

This is a critical step, and it involves:

- Acknowledging that your campus space is a strategic asset for your institution
- Building out a robust space database to allow for more sophisticated tracking of space utilization
- Taking steps to change the culture of space ownership on campus, shifting space from a departmental asset to an *institutional* asset

Frances Mueller, project manager for the Space Utilization Initiative at the University of Michigan, and Phil Rouble, facilities planning specialist at Algonquin College, offer their advice about making this shift.

## ASSESSING YOUR SPACE USE

For example, Mueller recommends assessing your use of central campus space, such as the quad for a residential college:

- Do the departments and functions currently using that space need to be located there in order to function optimally?
- Would other departments benefit from that real estate?
- Are you making the best use of that space to meet your institution's strategic priorities?

Many institutions still locate their administrative and HR functions centrally on campus. "You can move those functions to free up this prime location for critical student services or for the needs of a high-priority academic unit," Mueller advises.

To better steward your institution's finite physical resources, it's critical to know what your priorities are and have the courage to allocate your space accordingly. Mueller recommends identifying, as specifically as possible, the opportunity cost of not reallocating a given space – "here is what we will lose if we don't do this." This will help drive decisions and will also help to make a clear case to stakeholders on campus who may be resistant to the change.

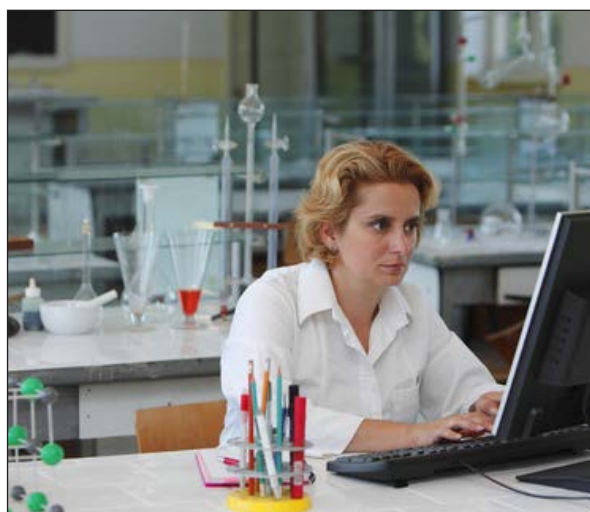
Mueller offers another scenario to illustrate how institutions can think more critically and more creatively about optimizing space use. Suppose that a large research institution has set a high priority on interdisciplinary work. "Look proactively for opportunities for shared research space," Mueller advises. For example, perhaps the college of engineering is requesting a biomedical engineering lab. An enterprising provost might ask if this function might be better served if it is located not in the engineering building but closer to the medical school, as part of a move to foster research partnerships and synergy between the two schools.

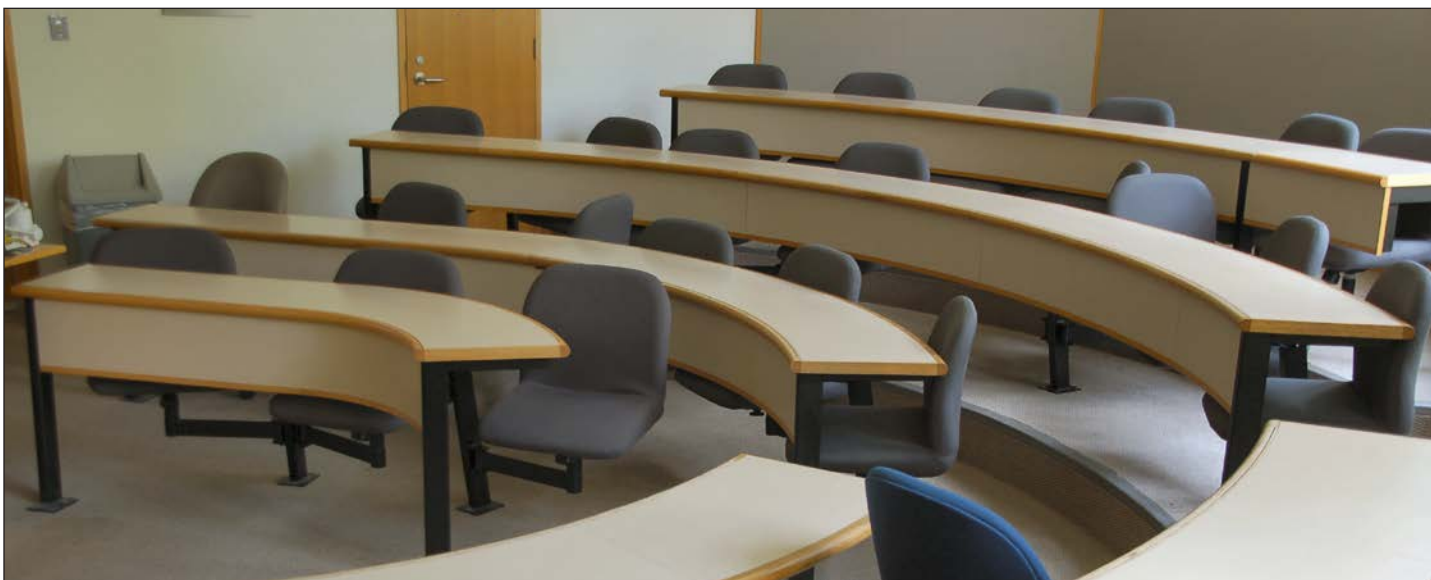
Your institution needs to be asking both short- and long-term questions:

- How well does your current space utilization support your institution's and your departments' priorities?
- What are the space challenges your departments face now, today?
- What are the foreseeable challenges they will face later?
- Who do those challenges effect?
- Are there spaces on campus that are being used poorly or could be used more efficiently?
- Are there things you can do differently with existing space to avoid having to add space? (shared space; repurposed space)

## CHANGING THE CULTURE

"It won't be enough just to reallocate the space," Mueller warns. "You have to change the culture, *especially* if you are fostering shared space." It is important to move the conversation away from territoriality and to ensure that the space management initiative on your campus is not locked within a silo that has little power to suggest (or resource) changes.





Rouble adds that to foster campus-wide stewardship of physical space, you need to:

- Ensure that you have a transparent and up-to-date space inventory or database
- Establish a space management committee, led by academic affairs but with cross-campus representation
- Empower the space management committee to set clear targets for levels of space utilization
- Assemble the deans or department heads periodically to review a “utilization zone analysis”

Led by the provost or a direct report to the provost, the space committee needs to include:

- The deans of each school
- Representatives of major functional areas in administration and support services
- The registrar
- Facilities planning

“Space is an enabler for success,” Rouble remarks. “You need to have the space users at the table, you need to have facilities to bring the utilization data and note issues, and you need the registrar to collect timetabling data centrally, so that at any time you can produce a snapshot of your utilization – and so that someone is ultimately accountable for ensuring space is timetabled efficiently.”

After you have your space inventory current, up-to-date, and relatively accurate, task the space management committee with setting specific metrics for optimization of space use. Be certain to factor in more than just square footage, hours of utilization, and utilities costs, however. “Consider the programmatic objectives for the use of a given space or type of space,” Rouble cautions. “Optimizing space is not just about scheduling it to capacity, but optimizing it to meet the objectives for the activities that space is used for.”

Once there are clear benchmarks for space use, ensure that the space management committee is empowered to approve or decline space allocation requests. The submission of space requests to the space management committee is the major process change that needs to occur. “Your institution has to take the big-picture view that no one owns space,” Rouble emphasizes, “and that space will be allocated to high-priority needs, based on real data. If you can bring to the table that philosophy plus definite metrics to measure what is considered ideal space utilization on your campus, then it is much easier to justify space reallocation when needed.”



## SCENARIO: SPACE REALLOCATION

Let's say we have one area in decline. Perhaps during the bust, computer science lost a lot of activity; now there are surplus labs. The departments have been sitting on that space, making the argument, "We'll get the students, it'll turn around." The space management committee needs to be empowered to say, "When enrollment picks up again, we'll make sure you have the space you need – but right now we have several programs starting up that need space." This is a difficult but necessary decision, and a difficult but necessary conversation.

**Phil Rouble, Algonquin College**



## SOME EXERCISES TO BUILD AWARENESS AND BUY-IN

For examples of how to set the table for these conversations, refer to our article:  
<http://www.academicimpressions.com/news/changing-culture-space-allocation>





## CREATING A HOUSING MASTER PLAN

As more students look to housing as a key factor in college choice, and as more research points to the impact of on-campus accommodations on retention and academic success for undergraduate students, it is increasingly important that investments in student housing not be ad hoc or merely reactive.

Recently, a growing number of colleges have been considering whether to take the step of developing a housing master plan to guide expenditures in construction, renovation, and replacement of residential facilities.

To learn more, we've turned to David Jones, the associate vice president for student affairs and enrollment management at Minnesota State University Mankato. An early adopter of master planning for university housing, Jones offers his advice about the critical steps to take when developing a housing master plan.

## CONDUCT A FACILITY AUDIT

Like any plan, the housing master plan must be based on data, and you need to have *good* data.

**David Jones, Minnesota State University, Mankato**

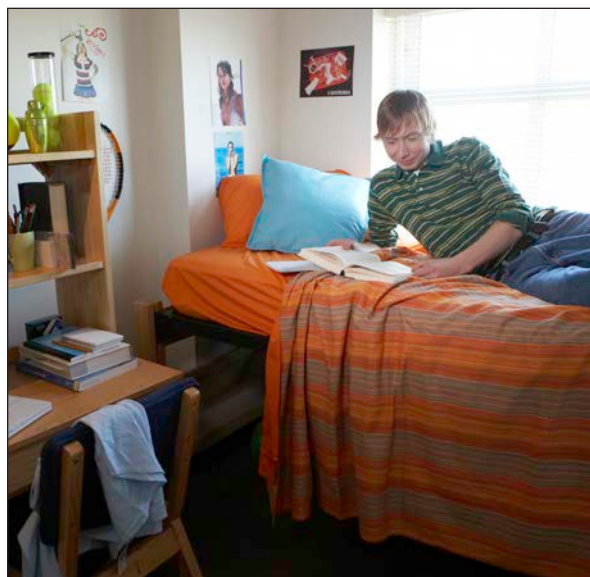
Jones advocates beginning with a “total audit” of your space: “You need to know what you have and how you’re using it. Don’t assume that old data you have about that space is still accurate.” When the University of Alabama (Jones’ previous institution) undertook an audit of its housing space, the school realized it was actually under-occupying some of its space. It’s critical to conduct a full audit to identify missed opportunities.

Jones also recommends ensuring that you have precise data for three distinct measures of occupancy for a given facility:

- Maximum occupancy
- Planned occupancy
- Decreased occupancy

Decreased occupancy is the minimal occupancy needed in order to justify keeping the facility open. If demand for housing – or for a particular facility – was to drop over time, you would need to know at what point that residence hall or community would lose its financial viability. If you take a facility that holds a planned 400 students with two students in each room, and you are prepared to flip double rooms into single rooms if demand drops, how much can you raise the price point, based on your local market?

Jones advocates making a practice of knowing both your maximum and your minimum occupancy.



## ASSESS CURRENT FACILITIES CONDITION

---

Whether you invest resources in an internal facilities condition assessment or hire an outside consultant, it will be critical to identify the deferred maintenance backlog, the cost of renovation, and the cost of replacement for your residential facilities so that you can plan for these costs as you're looking ahead several years.

"Don't cut the facilities condition assessment from your budget or your planning process," Jones warns. "It's a tempting cut when the budget is tight, but so many of us are dealing with so much deferred maintenance now; let's make sure we learn from the past and don't repeat that in the future."

## ENROLLMENT AND OCCUPANCY TRENDS: LOOKING BACK, LOOKING AHEAD

---

Besides securing data on past enrollment and housing occupancy trends, it's critical to open conversations with the key stakeholders on campus about future directions and anticipated policy changes related to enrollment that are likely to have an impact on demand for housing. In other words, you need to look both backward and ahead.

Jones offers two examples. Suppose your enrollment manager provides data that charts a slow trend in the institution's mix of in-state and out-of-state students. Projecting that trend forward may tell you one thing, but if you don't realize that your enrollment manager is planning to make significant investments in out-of-state recruiting in the next two to three years to give the institution a more national presence, then you may reach the wrong conclusions about future demand and occupancy.

Here's a second example. Suppose your university is in the process of deciding to introduce a residency requirement for all freshmen. If university housing currently captures only two-thirds of entering freshmen, then the housing master plan needs to take into account the time and the cost involved in providing enough extra beds to make that requirement feasible.



## HUMAN CAPITAL

Jones warns against the pitfall of only taking the facilities and their residents into account – you need to consider your human capital as well. As you plan new facilities, what will the impact be on your personnel needs?

Jones recommends taking a strategic look at your human capital needs:

- What is the value your institution offers to students -- in other words, what is the student experience intended to be on your campus?
- What is the function of a particular housing facility, and how does it support that value?
- What personnel are needed to support that function?
- What is the expense of providing and training those personnel?

For example, suppose your institution has placed a high value on maximizing the academic experience outside the classroom, and in response, you are planning for a new residential living-learning community. “You will want to staff to support the delivery of that value,” Jones advises. The living-learning community will require more housing staff (and differently trained staff) than a traditional apartment for upperclassmen (where there may be an expectation of supplying just minimal services).

“Make sure you aren’t under-staffing,” Jones warns. “If you say this will be an honors residence hall and it is literally no different than the non-honors residence hall next door, your housing plan is probably not reflecting your values.”

Finally, remember to plan not only for the daily-use personnel you will need to add, but also consider the input and the needs of non-daily-use personnel, such as maintenance, housekeeping, and information technology staff. All of these staff will need to interact with your housing facilities. “Make sure the facility is planned and designed in such a way as to permit them to offer high-service delivery,” Jones suggests.

## SCENARIO PLANNING

Jones also warns against arriving at a fixed, easily printed and distributed plan. The reality, he suggests, is that as your enrollments and your costs shift frequently, you will need to be able to turn to a very dynamic model for measuring the impact of those shifts.

“You need a phasing model,” he advises, “with enough flexibility to allow you to respond in the moment. If we took down this hall, what is the impact? If we wanted to tear down this facility but suddenly our enrollments are so high that we can’t afford to, what does that do to our budget? We’re short 400 spaces this year – what will it cost to add a new building?”

### **DESIGNING STEM FACILITIES FOR 21ST CENTURY LEARNERS**

February 24 - 26, 2014 :: San Antonio, TX

**Learn how to design an integrated science facility that meets the needs of your 21st century students.**

Or, given a volatile bond market, you may establish that you need 300 beds, but in reality find that you can only afford 200 new beds. “Do you run the risk of just adding the 200,” Jones asks, “or do you wait a couple of years to see if you can afford the 300 later? You need to conduct scenario planning up front, and ensure that your master plan is scalable.”

Jones suggests developing spreadsheets and phasing models, and then populating these regularly with up-to-date enrollment data. “You may be updating your plan by the month,” he says. “If you have the tools ready, you can do this.” What you want to strive for is not a printed, glossy plan, but a set of objectives and a tool that will assist you in doing some sophisticated scenario planning.







## TAKING A PROACTIVE APPROACH TO ENERGY SAVINGS AND DEFERRED MAINTENANCE

You have to be clear on the distinction between *deferred* maintenance and *ignored* maintenance, and ensure that your institution's leadership is clear on this. Intentionally *deferring* needed maintenance after a careful assessment of your facilities condition is a strategy. *Ignoring* maintenance is a problem.

**Faramarz Vakili, Associate Director of the Physical Plant, University of Wisconsin-Madison**

In January - February 2012, Academic Impressions conducted a benchmarking survey of facilities managers at more than 75 institutions of higher education. The results were indicative. For example, the survey confirmed that addressing deferred maintenance has moved from a worry to a priority at the majority of institutions:

- Over two-thirds of facilities managers indicated that addressing deferred maintenance was one of several top priorities this year
- However, deferred maintenance is the top priority for less than 1 in 5 facilities managers
- For 1 out of 10, their investment in addressing deferred maintenance is limited to "a few minor projects" this year
- Only one facilities manager indicated that the deferred maintenance backlog isn't being addressed at all



When we dug deeper, we found facilities managers at a variety of stages in addressing the issue -- but they all feel the pressure. Some are making presentations to the board; some are proposing five-year or three-year plans for reducing the maintenance backlog. Some have succeeded in allocating a small annual budget for the purpose, and are now working to prioritize a campus's worth of maintenance needs.

It's critical to develop a sustainable model for funding facilities replacement and renewal. To learn from successful models currently in place at two very different institutions, we turned to Faramarz Vakili, the University of Wisconsin-Madison's associate director of the physical plant, and Kathie Shafer, the vice president for operations at Messiah College. These models are both creative in their approaches to funding maintenance needs and forward-thinking in their prioritization of facilities projects.

No one wants to fund repairs for HVAC or roofing. It's not sexy. There's no pizzazz in it. But we need to prioritize this. We need to think about our long-term costs.

**Kathie Shafer, Messiah College**

## STARTING WITH ENERGY SAVINGS

Nearly two decades ago, the University of Wisconsin-Madison established CURB (Concentrated Upgrade and Repair of Buildings), an initiative to achieve long-term savings in facilities repair and renovation by using energy and water savings garnered through efficiency projects (most of which saw a four- to five-year payback) to fund maintenance efforts. Faramarz Vakili, UW-Madison's associate director of the physical plant and the head of the project, recognized that energy savings represented a significant and untapped source of funding that could be leveraged to both carve into the deferred maintenance backlog and fund further sustainability efforts. In short, he generated savings that could be used to tackle a longstanding and expensive campus problem; the average cost of CURB was \$4.62/GSF, compared to \$200/GSF for new construction.

### **FINANCING CAMPUS FACILITIES THROUGH PUBLIC/PRIVATE PARTNERSHIPS**

January 27 - 28, 2014 :: Milwaukee, WI

**Are public/private partnerships the right choice for  
financing your campus projects and new facilities?**

“We needed to change from a reactive mode of operation to a proactive one,” Vakili notes. “To reverse the facilities deterioration trends on campus, a systematic approach to reconditioning facilities was a must. We had to bring the facilities to a desirable condition before increased preventive maintenance activities could prove beneficial.”

For institutions hoping to replicate the approach, Vakili advises concentrating on one building at a time; this both makes the effort manageable in scope and allows you to build support and scale up in a phased effort.

Here’s how it works. For each building on campus:

- Identify and document all deferred maintenance needs of a building and investigate all energy and water conservation opportunities for that building
- Allocate concentrated maintenance resources to repair and upgrade what you can in-house (in other words, assign a percentage of maintenance personnel to the project)
- Document and prioritize the remaining problems for future external funding
- Follow up and execute effective preventive maintenance procedures to maintain the upgraded buildings in good condition in the future

Besides the financial benefits of the effort, a building-by-building green upgrade and recommissioning -- bringing each facility to a desirable state -- also contributes to the occupants’ pride in their campus, and allows for you to make a powerful case for a culture of facilities stewardship and energy conservation. “When I go to a building where I did this project,” Vakili remarks, “I talk with the deans, the faculty, and the staff with my head up. I tell them: ‘You now have a well-maintained facility, you have state-of-the-art air control in the labs, new fume hoods, a new coat of paint on the wall. Now let’s talk about how to change behavior. You can wrestle with that thermostat all day long, but if you don’t understand how your HVAC system works, it won’t do you any good.’”

Educate occupants about how to live in the newly renovated facilities. They have to see that you care about this, and that you are working hard to create a sustainable and attractive environment.

**Faramarz Vakili, University of Wisconsin-Madison**

“Celebrate your successes,” Vakili suggests. “Solve one problem at a time, be proud of it, and don’t be shy about telling the story.”

## **ACADEMIC LIBRARY PLANNING AND REVITALIZATION INSTITUTE**

March 26 - 28, 2014 :: Denver, CO

**Learn how you can apply the latest trends and research in revitalizing your campus library to better meet your students’ needs.**



## MAKING THE CASE FOR FUNDING MAINTENANCE AND RENEWAL

Dan King, facilities manager at Auburn University (Auburn, AL), has recently done some innovative thinking and piloting around just this issue. He suggests:

- Working closely with academic leaders to establish a transparent and data-driven process for prioritizing those “small and modest” maintenance projects
- Working with the provost to chart campus facilities along a four-quadrant graph, where the x axis is the level or the projected cost of the maintenance and renewal need, and the y axis is the academic value of the facility; then use this scatter plot to communicate to institutional leaders the big picture of the institution’s replacement and renewal needs

To learn more about King’s ideas, read our article <http://www.academicimpressions.com/news/how-do-you-make-case-funding-maintenance-and-renewal-campus-facilities>

## DEVELOPING A RESERVE MAINTENANCE FUND

At the much smaller, liberal arts institution Messiah College (with an undergraduate enrollment of 2,850), Kathie Shafer has relied on a similar philosophy to develop both a reserve maintenance fund and a long-term maintenance plan funded out of energy savings.

Among the replicable features of Shafer’s model:

- First, inventory your maintenance needs through a comprehensive facilities audit (rather than rely on an external consultant, Shafer assigned inventory tasks to various facilities and staff ground, sending them to investigate each campus facility over the course of one year)
- Identify the highest-priority items in your maintenance needs inventory, and determine the annual cost of addressing these items; identify energy efficiency projects that can generate savings; advance a plan for an annual allotment for maintenance, funded in part from energy savings
- Begin with energy efficiency projects to begin funding your maintenance needs
- Bundle projects within one facility and complete as many projects within that facility as possible at one time -- this saves on the overall costs of upgrading the facility, and also saves on overall project costs (for example, you can have one contractor doing multiple projects on the site, and save on expenses related to project management)
- Allocate your limited funds strategically; no matter how small the allotment, set aside a certain portion of it each year, creating a reserve fund that can help finance larger and more expensive projects, emergency maintenance needs, or safety/code improvements

Key to this model is planning several years ahead and scheduling large maintenance projects on a long-term calendar. For example, Messiah College allocates \$2.5 million each year to maintenance needs (plus additional, variable funds), but budgets \$2 million in maintenance each year; the remainder goes into the reserve fund. “Planning is your saving grace when you’re a small college and the dollars aren’t there,” Shafer notes.

## IMPLICATIONS FOR THE CAPITAL PLANNING PROCESS

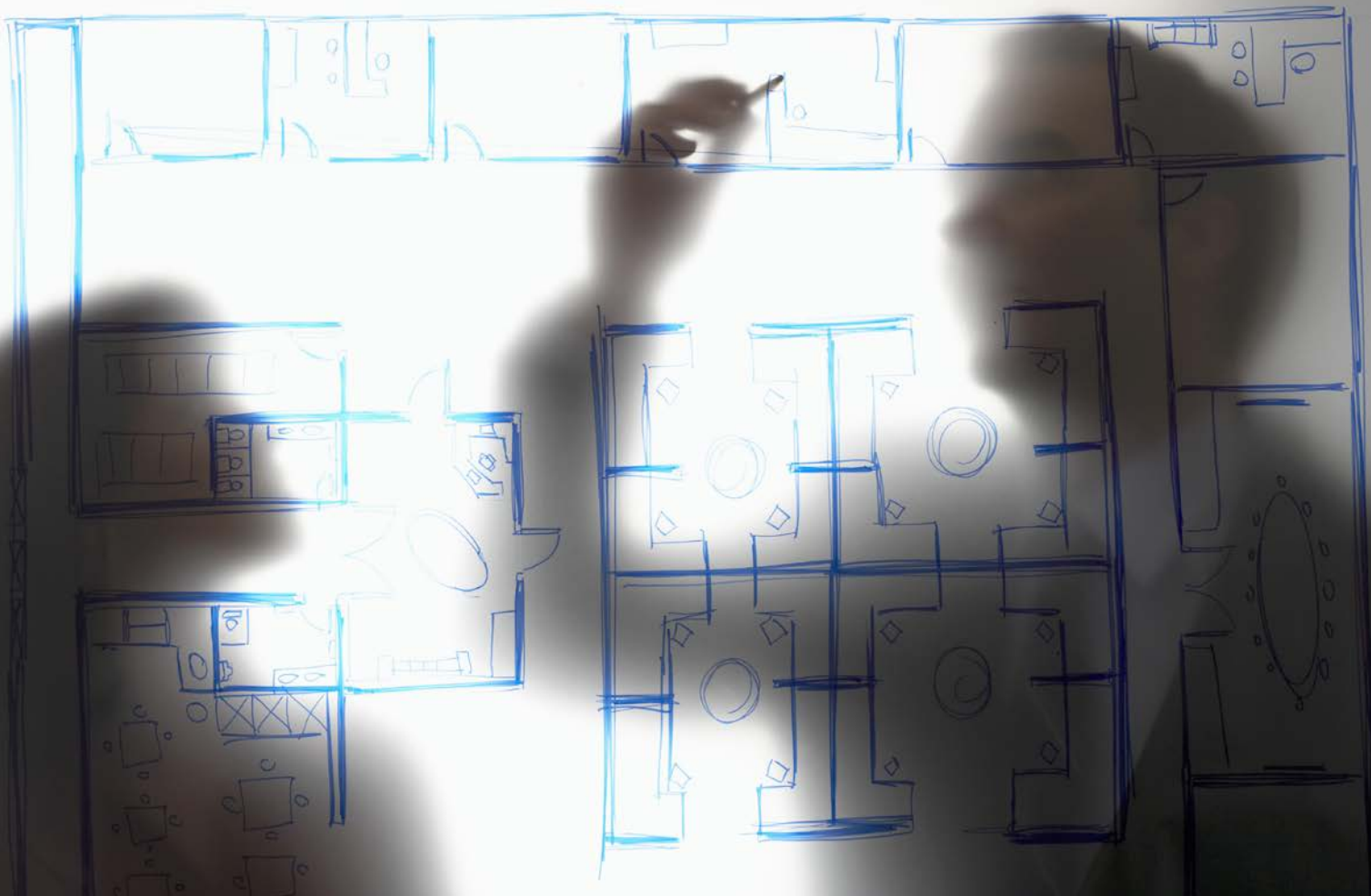
Shafer notes that the other significant benefit of developing a thorough maintenance needs inventory or facilities database is that you will get to know your facilities well enough to propose significant savings on the front end -- during capital planning and design.

It’s fast becoming an axiom that capital budgeting for new facilities needs to account for the life-cycle cost of the facility and the operational costs that will be associated with maintaining it. What Shafer adds is that a facilities manager armed with a solid inventory can develop a checklist of specific operational items to look for.

“We can take that checklist to our capital planners and advocate for making strategic decisions to invest in something that has a better life cycle or a better operational payback,” she notes. “For example, we can be more strategic in choosing systems and finishes. And we can make sure at the outset that the engineers provide a cost estimate that includes special investigation into key indicators of future operational costs. You pay a little more up front, but you increase the longevity and the quality of the facility while decreasing the maintenance and operations costs.”

This approach produces a ripple effect in long-term cost savings. As you upgrade and repair your existing facilities, document where you are achieving or can achieve cost savings, and ensure that this information informs design of new facilities.





## CONFERENCE

### **Integrated Space Planning for Higher Education**

March 10 - 12, 2014 :: Dallas, TX

Learn how to further space initiatives on your campus through this comprehensive approach to strategic space management.

<http://www.academicimpressions.com/conference/integrated-space-planning-higher-education?qq=21240v274891yT>



# FUNDING FACILITIES AND FACILITIES IMPROVEMENTS IN THE CURRENT MARKET

In recent years, more institutions have looked for innovative, outside-the-box methods of funding their investments in the physical campus -- including an array of models for public-private partnerships, mixed-use facilities, and (in a few cases) fundraising for renewal and maintenance.

We asked Pete Isaac, senior project manager with Brailsford & Dunlavey, to offer his insights on trends in the lending market and what institutional leaders need to rethink in order to achieve their capital planning goals. We also invited Kambiz Khalili, assistant vice chancellor for student affairs and executive director of housing and dining services for the University of Colorado at Boulder, to share his lessons learned from CU-Boulder's innovative approach to leveraging rate increases to avoid the bond market or having to rely entirely on private developers.

Whether you turn to a public-private partnership or develop an innovative plan to leverage rate increases, the key is intentional and pro-active planning for investment in the physical campus.



## PUBLIC-PRIVATE PARTNERSHIPS

---

### Driving the Process

It is critical that the institution drives the planning and development process. This approach will yield the best return and the best results for both the institution and the institution's potential partners.

**Pete Isaac, Brailsford & Dunlavey**

Isaac recommends thorough planning prior to ever sending out an RFP for a private partner or contacting a lending institution:

- First, be able to articulate clearly how any proposed facilities enhancement or new construction will help the institution meet its mission and its strategic priorities.
- Second, the institution needs to define, as early as possible, the financial feasibility of the project.
- Third, institutional leaders need to be prepared to state explicitly what they are willing to risk and what control of the project the institution has to retain – especially when seeking out a private partner.

“Before inviting a partner to the table,” Isaac remarks, “you need a plan of action. What kind of partnership are you seeking? Are you clear from the start on what will meet your institution's long-term best interests? Have you determined the best balance point between your strategic goals and your market demand? Are you very clear on your level of risk tolerance?”



## SELECTING A PRIVATE PARTNER

Isaac notes that rather than engage immediately in an RFP process, some institutions have mitigated risk by adopting a longer, multi-phase approach to identifying a partner:

- A letter of interest to gauge the market's interest in the project
- Individual conversations with potential partners to understand the market's financial requirements and risk profiles
- A request for qualifications ("RFQ") to evaluate potential development partners
- Negotiating a proposal with the preferred developer

Isaac comments, "This 'baby steps' approach to selecting a private partner mitigates risk because it allows pre-development analysis to be completed on the project (site selection, negotiated terms of land acquisition, due diligence on land, market analysis, project design, etc.) before substantial commitments are made and before the control and risk profile is transferred."

## Working with Lending Institutions and Rating Agencies

We also asked Isaac to offer his perspective on current trends in the lending market. "The lending institutions have become more sophisticated and more advanced in their own market analysis," Isaac notes. "Conducting feasibility planning prior to contacting a lender or potential partner is more critical than ever when trying to negotiate terms that maximize the value of your future investment."

Isaac notes three items that have become "sticking points" for lending institutions when evaluating a project:

- They want to see proven market demand. They want to see the data – typically from a third party.
- They will pay close attention to enrollment data and will take into account future enrollment projections. They want to see long-term financial health.
- They want to know where this development fits into the larger story of the institution. Both lending institutions and rating agencies want to know that an upcoming development is aligned closely with the institution's mission, strategic priorities, and long-term financial interest. This means that any new development needs to be clearly integrated with the institution's stated strategic priorities and with the campus master plan.





## FROM THE RATING AGENCY'S PERSPECTIVE

To learn more about how a rating agency will evaluate the credit impact that any given public/private (P3) project will have on the affiliated university, we interviewed Karen Kedem, the vice president, senior analyst, and co-manager of Moody's U.S. Higher Education and Not-for-Profit Team. Kedem spoke with Academic Impressions recently about how Moody's analyzes the credit risks associated with these transactions, as well as how institutions can work more effectively with the agency as they prepare to enter into a P3 partnership. You can read the interview with Kedem here: <http://www.academicimpressions.com/news/publicprivate-partnerships-understanding-rating-agencys-perspective>

In a recent follow-up interview, Dennis Gephardt and Edie Behr, two other Moody's representatives, confirmed that they work with an institution's leadership team, what they most want to see is:

- A capital plan that is closely aligned with the strategic plan
- A multi-pronged funding plan
- Clarity around dependencies and triggers for advancing to a given phase in the capital plan (e.g., when the institution has X amount of cash in hand, the institution will start Y)



## BEYOND THE BOND MARKET: LEVERAGING RATE INCREASES

What if a public-private partnership isn't the best option for your campus? Kambiz Khalili, assistant vice chancellor for student affairs and executive director of housing and dining services for the University of Colorado at Boulder, took a different route to funding a series of renovations to student housing (along with some new construction). Khalili's example demonstrates the benefits of proactive, five-year capital planning and the importance of thinking creatively and critically about all of your options.

In a nutshell, CU-Boulder takes one residence facility offline at a time and completes the renovation within one year. To fund the facilities improvements, the institution raises the room and board rate for all housing facilities by 4 percent each year, and reopens the renovated and improved facility at a premium rate (an added 5 percent). The renovation also focuses on improving operational efficiencies to lower the costs of operations and maintenance going forward.

What makes Khalili's approach possible is very calculated and intentional planning. Khalili recommends:



- Develop a long-term strategy (such as a campus master plan or housing master plan) and then develop a five-year financial pro forma aligned with that master plan. “Plan for what you need to generate, what all your expenses are – not only debt payments but life-cycle costing – and plan for how this will impact your room and board increases. You need a pro forma in hand in order to see what is possible.”
- Know up front what your limiting parameters are. For example, CU-Boulder made the commitment to keep the yearly room and board rate increase low. Knowing your constraints, think creatively about how to work within them.
- Be ready to adjust quickly – do scenario planning, identifying clear triggers to drive specific decisions around facilities investment. For example, how much of a drop of enrollment will trigger the decision to close a residence hall for one year? How much of an enrollment increase will trigger the decision to rent a facility from the city or to pursue some other strategy? Plan for contingencies proactively rather than reactively.

CU-Boulder has 6,400 undergraduate beds, which helps the institution spread the cost of renovating one facility while still keeping the rate increase low. Not all institutions have that volume. But the practical takeaways worth noting from CU-Boulder's success are the up-front scenario planning and development of a pro forma to guide those decisions you can make.