

## *Money & Management*

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# As Campuses Crumble, Budgets Are Crunched

By SCOTT CARLSON

College Park, Md.

When state officials, university administrators, or other visitors come to talk to Jack Baker about the challenges he faces with a backlog of maintenance at the University of Maryland's campus here, it helps to have tangible evidence. Rattling off a number like \$620-million — the estimated cost of repairs needed at College Park — just doesn't convey the need like a rotted chunk of a building.

So on his windowsill, he keeps a foot-size piece broken off one of the many stately white columns on Maryland's Georgian campus. Termites have chewed the inside of the piece to a sawdusty pulp.

The bill for repairing that single item: \$11,000. Mr. Baker, director of operations and maintenance at the university, says it took ages to find a woodworker with the skills for the job, which is now under way.

It is just one of many backlogged maintenance projects on this campus, where problems reach crisis stage now and then. To hear Mr. Baker describe it, his job consists of trying to figure out which of many bad problems is the worst, and doing what he can to fix that while — maybe — patching the rest. All the while, he worries that a long-deferred project will suddenly turn into a complete catastrophe, which will suck down money the university doesn't have.

"It's a shell game — we are constantly moving money around, trying to deal with the latest crisis," he says. "As bad as it is now, it truly is coming to a place where something has got to give."

It may be coming to that place for institutions all over the country. Colleges have always struggled with deferred maintenance, but several factors might make that struggle especially challenging in the future. Colleges grew rapidly in the postwar years and have a generation of 1960s or 70s buildings that need major repair or replacement. In the past 10 years, colleges went through another building boom, adding to the square footage they need to support. Many of those new buildings are more costly and complicated to maintain than buildings of the past.

To make things even more difficult, colleges face a money crunch. A looming energy crisis and an unstable economy, combined with infrastructure repairs needed in other public spaces, may squeeze the state budgets that public colleges rely on. Tuition-dependent private colleges might not be better off. In coming years, colleges will very likely vie for fewer students, even as their buildings play a major role in the admissions sales pitch.

In short, without drastic intervention, many campuses may be on a track toward steady deterioration.

### **The Less-Glamorous Commitment**

Harvey H. Kaiser, who is well known for advising colleges on deferred maintenance, has seen "shining examples" in North Carolina and Massachusetts, where lawmakers have pushed for billions to fix state-college infrastructures. But so many other state universities and small colleges "just didn't address the problem while they were building new buildings," he says in a telephone interview from Florida.

"I see the institutions here keep rolling out grand schemes and new buildings, ... and they set aside the less-glamorous commitments — what I call the stewardship commitment," he says. "It's going to start to spiral downward again to a huge backlog." College leaders will go to donors and legislatures for new buildings, he says, but when it comes to the more difficult task of getting money for maintenance, "they either don't have the stomach for it or they don't think it is glamorous enough for their watch."

Donors typically don't want to put their names on pieces of sewer pipe, so the unglamorous but very necessary maintenance money usually comes out of the operations budget. But getting more money for operations is always a difficult task, says Matt Adams, another prominent facilities consultant.

If colleges can't support their existing buildings yet continue adding new ones, he says, they risk operating in what the facilities industry calls "run-to-failure mode" — in other words, running buildings into the ground. "Certainly within 10 to 12 years, systems that were meant to last 30 years will start failing," he says. "They will have unplanned maintenance and breakdowns happening in the middle of the night, when overtime is required. That further destroys their maintenance budget."

Those are some of the very challenges Mr. Baker faces at the University of Maryland, where fixing old buildings is balanced against building new ones to attract students and star professors. "Since I've been here, we've torn down two chicken coops and a World War II dance theater," he says. "And we have built several million square feet of space. There has got to be a point of no return."

As he walks around the campus, he points to some of his everyday challenges. A visitor would readily see doors with peeling veneer, rotting single-pane windows, and antique heating and cooling equipment, but some of the most troublesome problems are hidden underground. Storm-water systems around the campus are clogged, he says, pointing to plastic drainage pipes that snake around buildings and carry water away from foundations. Some buildings have flooded repeatedly in recent years, each time costing tens of thousands to remove moldy drywall and carpet. A buckling, sagging section of sidewalk has been fixed again and again, costing thousands every time, because a corroded section of underground storm line beneath is collapsing.

Mr. Baker's job is often one of weighing costs and risks. Digging up a water line and clamping or temporarily patching it might cost \$10,000, but replacing the line would cost \$900,000. Mr. Baker has gotten to a point of "putting clamps on clamps." One section of pipe has failed six times in the past year, he says.

A water main broke on the campus recently. The first indication that something was wrong was a power outage in one of the buildings, as water flooded into an electrical room. The building had to be shut down, affecting research and offices inside, the cost of which Mr. Baker estimates was in the "hundreds of thousands." The water also nearly destroyed the electrical equipment, which would have cost another \$200,000 or so. After that incident, Mr. Baker realized that the university had dodged a bullet, and he had the water main replaced.

Of all the war stories Mr. Baker tells, one seems to unsettle him more than the rest. A line in the cooling system on top of a building broke recently, sending water down several floors. As floods go, it was a minor one, but it destroyed the data of a doctoral student, whose work was lying in a pile of wet pulp. The cost and merit of a repair, he says, have different values depending on where one sits — literally.

## **Facing the Backlog**

Deferred maintenance is often measured with a "facilities condition index," calculated by dividing the value of the backlog — or the past-due, immediate maintenance concerns — by the replacement value of buildings and systems. A 5-percent backlog is considered healthy, but 10 percent to 20 percent is more typical.

The last major nationwide survey of deferred maintenance was conducted in 1995 by APPA, an organization for facilities managers. But one can find comparisons of deferred maintenance between various institutions in some reports. For example, a study conducted last year at the State University of New York (which has an average facilities-condition index of 11 percent) compared that university system with the University of Texas (6 percent), the Minnesota State Colleges and Universities (12 percent), Oregon University (18 percent), and the University of California (23 percent).

But be wary of comparisons like those, says Terry W. Ruprecht, a contributor to a recent book about college-maintenance challenges called *Buildings ... the Gifts That Keep On Taking*. Institutions calculate their backlogs differently, he says, and they often tweak those numbers to serve political agendas. Mr. Ruprecht is also director of energy conservation at the University of Illinois at Urbana-Champaign, which has about \$500-million in deferred maintenance, up from \$350-million in 2001. Mr. Ruprecht says about 50 percent of that is tied to outdated energy components, like lighting and heating and cooling systems. If those were replaced, the university would see a payback in energy bills.

There are well-known ways to deal with deferred maintenance, even before a building is built, but those strategies are tall orders. One is to raise additional money to endow lifetime maintenance. When Michael Aiken, a former chancellor, arrived on the Urbana-Champaign campus in the early 1990s, Mr. Ruprecht got Mr. Aiken to agree to establish an endowment for each new building.

But that endowment has to be equal to the cost of the building, at least in research-university settings. When Mr. Aiken started planning his first building and found that he either had to raise twice the money or cut the building in half, he immediately backed out of the agreement, Mr. Ruprecht says.

Another strategy is perhaps more difficult: Stop building until you catch up on maintenance. Almost no one finds that palatable, Mr. Ruprecht says. People get excited about the opening of a building, about the ribbon-cutting and architectural marvels. "You start talking about the maintenance and upkeep on that, and nobody — nobody — wants to talk about that," he says. "You have all this help when it comes to soliciting funds for a new building. There is no help when it comes to soliciting funds to maintain it."

Kevin Folsom, director of facilities and plant operations at Dallas Theological Seminary, has long warned his administrators and colleagues against building too much, too fast. "The facility growth and inventory are becoming so heavy that we are going to price ourselves right through the roof," he says. "At my school, if I start hearing people talking about building a new facility, I'm trying to talk them out of it. We need to focus on renewal."

Administrators have started listening, he says. The seminary did a \$3-million renovation of a \$6-million building, handling all the deferred maintenance in the process. Administrators, Mr. Folsom says, felt like they were getting a brand-new building at a bargain.

Major renovations of venerable campus buildings may be one of the few ways to get donors to pay for maintenance, says Joe Kender Jr., vice president for advancement at Lehigh University. Last year the university completed a spectacular renovation of its 19th-century library and completed some deferred maintenance in the process. "That is probably the only space where universities can be successful raising money for deferred maintenance," Mr. Kender says. "Most people who are giving money to an institution want to fund new buildings, new discovery, or new programs."

That leaves colleges to go begging and borrowing money for everyday renovations. Mr. Adams, the

consultant, says institutions are more successful at getting money for maintenance when they identify the most-pressing needs. Many colleges lump together figures for their backlog with other renovation projects, winding up with a big red number that can intimidate governing boards and state officials in charge of doling out money.

"The more specific or transparent you can be about stating your needs, whether it be a board of regents or a state department of administration, the more effective you will be at getting the funds you need," Mr. Adams says.

The report produced by the State University of New York aimed to do just that — and it worked. The report found that SUNY had \$3.2-billion in deferred maintenance, with an additional \$2-billion in less-immediate renewal projects, out of a replacement value of about \$25-billion. The report detailed the life cycle of buildings and the way maintenance would grow over the coming years.

The New York State Legislature responded by giving the system \$550-million for maintenance this year and pledging \$550-million a year the following four years.

Philip W. Wood, vice chancellor for capital facilities in the SUNY system, says lawmakers seem serious about handling the problem. But the money is merely promised and not guaranteed if the economy takes a nose dive or if other expenditures come up.

### **Fighting for Dollars**

Across the country, state colleges will have to make their case against other infrastructure needs. Mr. Baker, at the University of Maryland, says he talks with counterparts in the state-prison system who face the same deferred-maintenance challenges. Then there are demands from public schools, railroads, highways, waterways, waste systems, and, in the disastrous example from Minnesota, bridges. In a report from 2005, the American Society of Civil Engineers said American infrastructure is in dire shape and estimated that the country needs to spend \$1.6-trillion to bring it up to good condition.

For small private colleges, the maintenance amounts might not reach the billions, but the costs are significant and the stakes are high. Rotting infrastructure is one of the cancers that can consume and eventually kill a small college. The overwhelming cost of dealing with the maintenance, combined with the loss of enrollment from unsightly facilities, can send a small college into a death spiral. Consider Antioch College, where spalling bricks, outdated classrooms, and grungy dormitories helped scare away prospective students. Mr. Kaiser opens his presentations with pictures of shuttered Bradford College, in Massachusetts. Deferred maintenance played a significant role in its demise.

Institutions like those haunt Edward F. Leonard, new president of tiny Bethany College, in Lindsborg, Kan. The college recently decided to tackle its decrepit facilities by borrowing \$6-million in bond money — the most the college, with its \$12.5-million annual operating budget, has ever borrowed.

Enrollment has been gradually declining over 20 years, and the college had a retention problem — in part because of the condition of the campus. "To say they let things go would be an understatement," Mr. Leonard says. About \$750,000 of that \$6-million will go to lights, roofs, and five boilers that have broken down in the past year. Three and a half million dollars will go to new residence halls that will replace outdated buildings. More than \$1-million will go to campus beautification, like new sidewalks and landscaping, to attract students back to the college.

"Since I am still trying to sell my house in Ohio," says Mr. Leonard, who came from Wilmington College there, "I tell people I know what curb appeal is all about."

After those repairs are made, the work won't be complete. The plan, Mr. Leonard says, is to fix up the campus to raise enrollment, get the fund-raising department running, then go back to the bond market to borrow more. There are parking lots to pave, athletics fields to repair, a boarded-up residence hall to tear down, and an old steam plant needing asbestos abatement.

Given what he faces, Mr. Leonard can't help laughing. "You catch up only to watch yourself fall behind again."

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