

THE COST PROJECT

AGB An initiative on college costs.

Engaging the Board in Conversations About College Costs

By Lucie Lapovsky

Ask John Q. Public about the cost of a college education today and you'll likely hear lamentations about tuition prices that are "going through the roof." That widespread attitude has translated into political pressure on state and federal policymakers to do something to keep tuition hikes closer to the rate of inflation and for colleges and universities to make better use of their financial resources.

At the same time, today's higher education institutions are seeking practical ways to relieve the strains caused by fluctuating financial support provided by states and their own endowments. In addition, many colleges and university leaders feel that the competitive market for prized students requires them to offer an increasingly sophisticated menu of student amenities—everything from state-of-the-art computer technology

to indoor climbing walls to coffee bars. Combine that with more conventional expenses such as faculty salaries and staff health insurance, and the reasons for rising costs seem easy to grasp.

The growing tensions around the topics of cost and price affect us all differently, depending on whether we are parents, students, faculty members, administrators, public officials, campus chief executives, or board members—and whether our institutions are public or independent. But as the report of the National Commission on the Cost of Higher Education stated back in 1998: "Continued inattention to issues of cost and price threatens to create a gulf of ill will between institutions of higher education and the public they serve. We believe that such a development would be dangerous for higher education and the larger society."

AGB is convinced that the national discussion around this challenging issue deserves greater focus.

Although individual campuses have had success with various cost-containment efforts, it is fair to say that the successes are localized rather than widespread and often temporary rather than permanent. Higher education as a whole has not engaged in discussions of cost control with an eye toward meaningful industrywide change. This is ironic given that many who work in higher education are strongly committed to increasing access to higher education for students from low-income families at a time when possession of a college degree is more essential than ever to acquiring the earning power that ensures a better life.

Lucie Lapovsky (llapovsky@mercy.edu) is a trustee of Western New England College in Massachusetts and a former president of Mercy College in New York.

About The Cost Project

One of the most pressing questions in American higher education today is how to make high-quality education available to all who seek it. At the heart of discussions of access and quality are matters of cost and price. How much will it cost an institution to make high-quality education available, and what will be the price for those who want that education?

Most colleges and universities today deal with such challenges as growing numbers of students with increased demands for services, spikes in the costs of energy and health care, declining financial support from their state, variable returns from their endowment, and internal pressures to do more, better, and faster. These forces exacerbate the financial tensions in providing high-quality education and make it incumbent on boards (1) to be aware of the factors that contribute to their institution's costs and (2) to engage in the strategic decision making that affects these costs.

Acknowledging the challenges colleges and universities face concerning costs, price, and access, and appreciating the potentially powerful role of boards in addressing these matters, AGB has begun a multiyear project that aims to help trustees and administrators. The first part of the project was a survey of AGB members that sought accounts of successful cost-containment strategies at member institutions. This document presents the results of that survey and provides an introduction to the issue of institutional costs. It also is one of a series of publications that will help board members, administrators, faculty, and policymakers creatively and boldly confront the challenges of managing institutional costs. We urge you to check our Web site (www.agb.org) regularly in the coming months for updates on this project.

The author of this paper, Lucie Lapovsky, has spent much of her career working in higher education finance in public and private institutions alike. As an economist, a former college chief financial officer and president, and a current trustee, she brings special insight and experience to the discussion of costs. We are grateful for her guidance as AGB framed the project, and we appreciate her valuable work on this essay.

AGB also is grateful to the Robert W. Woodruff Foundation for its generous support of our project on college costs. This support will allow us to broaden the conversation to a level of significance that we believe can make a difference throughout higher education. That is our ambition, and we appreciate the foundation's sharing that vision with us.

As you read this essay, remember that cost is a means to an end. For us, the end must be accessible, high-quality education.

—Susan Whealler Johnston
AGB Executive Vice President

Boards of trustees, mindful of their fiduciary responsibilities and their charge of focusing on the strategic issues facing their institutions, are well-suited to play a role in campus discussions of the importance of achieving cost savings or reallocating resources. Such discussions can affect how aggressively institutions act on matters of cost as well as how the larger higher education community approaches such issues. This paper documents cost-savings efforts that show enough promise to merit being part of the discussion.

PRICE VERSUS COST

Before we examine some examples of cost-saving efforts, it is important to distinguish between *price* and *cost*. Simply put, price is what a student pays to attend college, and cost is what the college spends to provide the student's total educational experience at the college. There is more than one relevant price associated with college attendance: the published price, which is known as tuition, and the net price, which reflects the actual price a student pays to attend college after subtracting all financial aid the student receives. Tuition rarely, if ever, covers the costs of a nonprofit public or private college or university. Government support and private contributions often make up the shortfall.

There are several theories of cost associated with higher education, two of which are worth citing to help explain our situation. William Baumol views higher education as an industry in which productivity

does not increase but in which wages continue to rise. He likens it to a string quartet: The number of players remains fixed, but the cost of operating the quartet continues to increase as the musicians' compensation grows.

Howard Bowen offers what is known as the revenue theory of higher education's cost, which is that "we spend all the money we have." According to Bowen, colleges and universities exhibit the following market behavior: Each institution raises all the money it can and spends all it raises. The cumulative effect is toward ever-increasing expenditures.

To most of us, reducing costs should lead to lower prices, but there is no guarantee of this. Businesses usually will lower their prices if it is possible to increase their market share. However, many colleges and universities are not interested in increasing their market share but rather in enhancing their prestige and quality. Institutions that reduce costs in some areas often will use these recovered resources to spend more in others, either to begin new activities or enhance existing programs. Further, the common assumption in higher education—that there is a relationship between price and quality—has led some institutions to increase tuition even when this was not required for operations. For those interested in increasing access for low-income Americans through cost containment, this has posed a challenge.

Costs differ by type of college. For example, universities that focus on research have a dramatically

different cost structure from that of community colleges, which primarily concentrate on teaching. Their "market basket of goods" differs. The costs of residential colleges differ from those of commuter colleges. Colleges that offer many services and amenities such as counseling, exercise rooms, and an array of cultural events have different cost structures from those of colleges that stick to no-frills teaching. Colleges with large campuses that operate five days a week, ten hours a day, have a cost structure different from those that have relatively small campuses and operate seven days a week, 15 hours a day. The cost structure of colleges also differs by location, regional cost of living, and availability of faculty and staff.

MAJOR DRIVERS OF COST

Colleges and universities are complex entities with many cost drivers. Though the relative impact of each is difficult to pin down, this paper discusses them roughly in the order of highest impact.

The most costly driver is probably *mission creep*, though it is perhaps the least visible and least discussed. Though it does not affect most institutions, mission creep can have profound financial effects. Mission creep can occur when an institution significantly expands or changes the way it operates in order to affect its market position. For example, an institution may announce that faculty will need to conduct more research to earn tenure. Such a change often involves reduced course

loads, generous sabbatical policies, and intensified recruitment efforts to lure expensive new faculty, often in competition against institutions that pay higher salaries.

Other examples of mission creep include adding new programs and degree levels to compete with other institutions. This may be necessary, but it usually is costly. Some institutions may increase the number of athletic teams or change the conference in which the school participates, and others may boost admissions standards for new students.



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A second major driver of costs is the *faculty*. The key variables in the cost of faculty are the number of full-time and part-time faculty, the number of courses full-time faculty teach per year, the average number of students a faculty member teaches, other workload expectations (research and public service), and average salaries.

Let's start with the number of full-time and part-time faculty. Assume that a full-time faculty member earns \$60,000 annually and that benefits cost another \$15,000,

for a total cost of \$75,000. Assume that this faculty member teaches four courses in the fall and three in the spring; the cost per course taught will be \$10,715. If the course load drops from seven to six, the cost per course increases to \$12,500.

Compare this with the cost of a part-time or adjunct faculty member who may earn \$2,000 to \$4,000 per course. An institution can usually purchase at least three courses taught by adjunct faculty for the price of one course taught by a full-time


on the total cost of operations. Usually, faculty members' classroom workloads decline as expectations for research and public service increase. Community colleges often require faculty to teach ten courses a year, while research universities often require professors to teach only two or three while taking on larger research, grant-writing, and community service responsibilities. The vast majority of colleges fall in the middle. Whatever the course load of faculty members, it is important

offered at undesirable times (early mornings, Friday afternoons) tend to be underenrolled. Some have experimented with differential pricing as incentives for students to sign up at the unpopular hours.


Let's look again at the faculty member with total compensation of \$75,000. If that instructor teaches seven courses a year with an average of 20 students a course, the per-student cost is \$535. Compare this with the faculty member whose courses average ten students per course and thus has a per-student cost of more than \$1,000, or the faculty member who teaches three large lecture courses with a total of 1,500 students with a per-student cost of \$50. Even if the latter may have several graduate assistants, this model will still cost significantly less than \$535 per student.

Finally, the most obvious variable, *average salaries*, actually may have the least impact. Salaries usually are set based on the entire faculty's standing relative to a peer group. Salaries often are enunciated in terms of stated goals. For example, faculty salaries should be at the median salary of the peer group, or faculty salaries should be at the 75th percentile of bachelor's degree-granting institutions or research institutions. If a salary change is based on attaining a specified goal, there usually is a multiyear plan to attain this goal, thus diminishing the impact for any single year.

An institution's *curriculum and its structure* can have a major impact on costs. Certain academic programs are more costly to operate than others.



Colleges or universities with relatively few programs and courses are usually able to operate more cost-effectively than those with many. In addition, institutions with highly structured curricula are more efficient to operate than those offering many choices.



faculty member. Thus the percentage of courses taught by full-time faculty is an important variable to the cost structure of the institution.

Clearly, an institution must consider a range of factors in determining the appropriate ratio of full-time to part-time faculty, but cost is an important consideration. Others include the availability of part-time faculty, the perceived quality of these instructors, and other expectations related to faculty obligations toward students.

The number of courses a faculty member is required to teach has a significant influence

to recognize the values of their contributions to the academic quality of the institution and the educational experience of students.

The *number of students* a faculty member teaches also drives cost. This variable is intimately related to the efficiency of the curriculum and the efficiency in the way the curriculum is offered. There is always a trade-off between offering courses at times convenient to students, which may require offering multiple sections of various courses, and offering fewer sections that fill up but may not be offered at such convenient times. Many schools find that courses

Questions for the Boards to Consider

1. Does the institution have administrative redundancy in its structure or functions?
2. Is there academic redundancy?
3. Is it involved in any consortia?
4. When did administrators last bid all contracts? What were the results? How frequently are contracts bid?
5. Have all aspects of the campus's energy and water consumption been analyzed?
6. Have all aspects of its telecommunications been analyzed?
7. What services are currently outsourced? Might other services and activities benefit from being outsourced?
8. How is the efficiency of the technology infrastructure assessed?
9. What academic programs are currently underenrolled?
10. How many programs require more than 120 credit hours for graduation?
11. What percentage of students is graduated in four years? What are the barriers to increasing this number?
12. Is the campus operating at capacity during the fall and spring terms? During the summer?

For example, programs that require equipment and laboratories are more expensive than programs that require only a classroom and a teacher.

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And finally, colleges that are best able to fill seats in their courses will operate with the greatest efficiency. It usually is the case, however, that colleges with many programs and courses live with large numbers of underenrolled classes in order to provide breadth in the curriculum. By contrast, today's for-profit colleges can keep costs low because they offer a very structured curriculum, which allows great economies of scale in course offerings.

When the curriculum offers many off-campus experiences such as "mini-mesters" and study abroad or when it includes community service activities, understanding the cost implications is important. Such programs tend to require increased staff and may lead to inefficiencies, depending on a college's situation and how these offerings are organized. For schools that collaborate on off-campus offerings or use other institutions to provide them, however, the result can be greater economies of scale. Unfortunately, we more often find that the students who take advantage of off-campus programs for a semester leave vacant seats in classrooms at home.

Beyond classroom issues, offerings of *co-curricular activities* have significant implications for operating costs. For example, decisions on whether to field intercollegiate athletic teams, the number of teams, the specific sports, and the conference membership have major cost implications. The same is true for the other co-curricular activities such as the clubs, cultural events, and lectures the school supports. The range of these activities and the resources invested in them vary considerably by

campus. Clearly, decisions on how much to invest in such activities influence the identity and character of the school. They are an underexplored area of potential cost savings.

Another factor influencing costs is the *services* provided by the college or university. There is no mandated set of offerings in this area. Some institutions provide few ancillary services, while others run 24-hour health centers with full-service psychological counseling, career-

development centers available to current students and alumni for life, and complete “wellness centers,” to name the more common ones.

Then there is the *administrative structure*, which varies greatly among institutions. It is reasonable to ask whether the administrative structure provides or detracts from cost efficiency. There is no “right” way of structuring a college. But it is important to make sure that all areas of the administration are effective.

A final area of significant costs is the institution’s array of *facilities*. Clearly, campuses with more space per student are more costly to maintain and operate than campuses with less. Expansive institutions can justify this space as a good investment and part of the character of the campus, even though the land must be maintained and patrolled. Older facilities usually are more expensive to operate and maintain than newer facilities that have not deferred needed maintenance in the face of tight budgets. However, the common assumption that newer facilities are more cost-effective to operate because of their energy-saving devices does not always apply; newer facilities, for one thing, tend to be outfitted with expensive-to-operate heating and cooling systems.

Facilities budgets are affected by what critics call the “Club Med” amenities. Colleges that offer the latest gyms housing state-of-the-art weight rooms and racquetball courts, pubs, restaurants, and spacious lounges face high costs. Among residential colleges, there are great variations in the amounts of space per student and the

amenities provided in dorms.

At least as important is the intensity of use of facilities and whether they can operate at full capacity. Institutions that are able to use their classroom space more than 80 hours per week will achieve better returns on their facility investments than those that do so only 40 hours per week. The number of hours a classroom is used depends on when classes are offered. Many colleges



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offer classes during a condensed time period (usually only four and one-half days a week), leaving classrooms vacant evenings and weekends. In addition, many allow classrooms to be dedicated to certain departments and even to certain faculty, a practice that often leaves them dark.

Institutions that choose to schedule aggressively have even learned how to share dedicated space, such as labs, which at most schools are lightly scheduled. Some have invested in portable equipment so their labs can be used for a variety

of classes. While rotating the use of rooms can be challenging logistically, the practice can save money; lab buildings usually are built with air flow and other technical systems that make it wasteful to underutilize them.

BEST COST-SAVING STRATEGIES

Thinking concretely now, what strategies are today’s colleges and universities using to get a handle on these cost drivers? No campus leaders, unless desperate, look for ways to reduce costs they know will negatively affect the quality or attractiveness of the institution. The following strategies have been offered as cost-saving “win-wins” for the institutions that applied them. Most were reported in a member survey AGB conducted in the spring and summer of 2005; others were gleaned from newspapers and journals, and still others from conversations with the author’s colleagues.

Scour the Academic Offerings. Most institutions habitually protect the academic core of the institution from the cost-cutter’s knife. This area has been sacrosanct because because no one wants to reduce academic quality.

There is little research on many of the high-cost components of the academic program as they relate to improving quality. Two areas where research is most needed are the degree to which class size and adjunct faculty and/or graduate assistants affect quality. But today’s academic environment provides fertile ground to review how colleges and universities conduct business.

A review of all academic requirements in each program to ensure they are not excessive is a good first step. The University of Maryland, for example, recently required all departments to review their curricula, and any department that now requires more than 120 credit hours to graduate must justify its requirements. Such “requirement creep” in the number of credits certain majors demand for graduation may be increasingly common, but doing so raises the cost of providing a bachelor’s degree. Depending on the institution’s tuition structure, the burden may fall entirely on students and their parents, entirely on the institution, or be shared by both. If the institution has a fixed price for full-time study, and the course requirements generally can be completed within four years, then the school is bearing the cost of the additional credits. If the institution charges by the credit hour or has a fixed tuition that covers only 15 credits a term, then the cost of the additional credits in certain disciplines will fall on the students and their parents.

In addition, many students in programs requiring more than 120 credit hours need more than four years to complete their degree. A fresh look at departmental curricula may show that some increased requirements may have more to do with faculty interests than student needs. Whether such expansions of course offerings are justified merits discussion.

A second area to review is the *adequacy of academic advising*. Poor advising can lead students to take courses that are neither of interest nor

required for graduation. One solution to this problem is conducting degree-audit programs. These audits are based on the institution’s specific curricular offerings and requirements. The overall program provides information for each student on what courses he or she needs to graduate, indicating whether the courses in a proposed schedule will fulfill the various requirements.

Such audit programs can protect students from reaching the senior year only to realize that one or more courses they have taken do not count toward their degree. Such situations may mean a student must take an extra course or two—and perhaps miss out on graduating on time.

Most colleges and universities conduct degree-audit programs, but too many fail to use them until a student’s senior year, when they are used more by registrars than by advisers or students. Mercy College in New York introduced a computerized degree audit a few years ago using the software package that comes with the popular PLUS system. Mercy allows its 10,000 students to access the program online to see what courses they need before they register, giving students the ability to make informed decisions about what courses they need to take and providing important information in a format accessible to advisers. The college has dedicated one trained staff member to monitor students’ audits and to enter substitutions and waivers so that the data are always up to date. The program has freed some staff to perform other functions and simplified

graduation certification work.

An equally fruitful strategy for saving money is to *increase efficiency in classes*. Strive to fill all classes! This sounds obvious, but filling vacant seats in classes can be extremely cost-effective. The marginal cost of adding students to a class with extra seats is zero. If a class that is typically underenrolled is offered every term, it may be wise to offer it every other term or even every other year. To make this work, scheduling must be done on a two-year cycle, and students must know the schedule so that they can plan accordingly.

Sinclair Community College in Ohio implemented a collegewide initiative on class size that saves \$2.3 million annually through conscious monitoring of class sizes, active recruitment of students to low-enrollment courses, curriculum redesign, and improved scheduling and mapping of sections to appropriate rooms and labs. Columbus State Community College in Georgia saves \$500,000 a year by reducing the number of low-enrollment sections and by using new scheduling software.

One useful question to ask is whether similar classes are offered in more than one department. A good example is statistics courses. Often, psychology, economics, mathematics, business, and other fields require students to take a statistics course, yet on many campuses each department offers its own version. To be sure, some basic principles in statistics cut across disciplines. Offering one statistics course to students

from several disciplines, even with an additional lab specific to each discipline, could reduce costs by increasing efficiency.

Sharing a common course is but one example of an efficiency achieved through interdisciplinary cooperation. Kent State University in Ohio saved \$6.2 million in 2004 through increased instructional productivity by doing so. The school also incorporated new applications of instructional technology, distance delivery, and special Web sites.

A related curricular tool ripe for exploring involves the *articulation agreements* between institutions. These allow students to take courses at one institution and have the full academic credit transfer directly to another institution. Articulation agreements frequently exist between community colleges and four-year institutions, but similar agreements abound: so-called 3-2 programs for students in liberal arts colleges who want to take courses at colleges that offer engineering degrees; agreements between specialty schools within large universities; and agreements between undergraduate and graduate programs, sometimes in the same institution and sometimes with other institutions (these enable a student to receive a bachelor's and a master's degree in five rather than six years, for example).

Here, price and cost directly intersect. Good articulation agreements allow institutions to be more efficient in their curricular offerings and students to transfer from one institution to the next without having to take extra courses.

Students save money by forgoing unneeded courses.

Several groups of institutions and some states have automated their agreements. In Maryland, articulation agreements exist between each community college and all of the public four-year institutions in that state and many of its private institutions. The data for the articulation agreements are maintained on a computerized data system known as ARTSYS. This system allows easy access for academic advisers at all Maryland institutions. Such a system significantly reduces, and in many cases eliminates, the time for transcript analysis and trims the number of duplicate credit hours needed by students who transfer.

A similar computerized system is in place at the colleges in the State University of New York system, and one is in preparation at state schools in New Jersey.

Focus on Faculty. The components of faculty jobs are rarely examined to see whether the jobs can be performed more efficiently. A professor with a Ph.D. is assumed to know how to teach and to do all the other activities expected of faculty. Yet most faculty have never been trained in the art of lecturing, conducting good discussions, writing syllabi, constructing challenging and interesting assignments, writing grants, conducting meetings, or advising students. This lack of training can lead to inefficiency.

The central question is whether all faculty members have to do all

the tasks traditionally expected of them. This arises especially during discussions about criteria for tenure. Some schools have considered differing requirements for research faculty and teaching faculty, but the worry is this would render the teaching faculty as second-class.

Most colleges and universities require faculty members to develop their own syllabi, course assignments, lectures, and test materials. This is required whether the course is new or has been taught for years. Some large institutions standardize the curriculum, saving faculty much of the time of course development, while at others, multiple sections of the same course will operate differently, guided only by the catalogue description. Courses that are centrally developed and standardized have greater potential to save money than those in which each teaching of a course is a unique experience.

To arrive at a model for reducing faculty costs without sacrificing quality, it is necessary to clearly define the workload expectations for faculty and measure whether they are actually meeting expectations. The University System of Maryland, for example, requires "that each institution bring its faculty workload to the mid-point of the workload ranges established in its policy." At Flagler College in Florida, all faculty members are required to teach five courses or "generate" 300 credit hours per semester.

Another opportunity for improving faculty productivity involves *greater use of online tutorials and computer-graded assessments*. Promising

new strategies in faculty deployment and course delivery are being implemented in 30 colleges under the direction of Carol Twigg through the National Center for Academic Transformation (www.tbencat.org). The project includes public and private two-year, four-year, and research universities and involves some 50,000 students. It focuses on redesigning large-enrollment introductory courses with the aim of lowering costs. Twigg points out that in community colleges just 25 courses generate about 50 percent of student enrollment; at the baccalaureate level, the 25 most common courses generate about 35 percent of enrollments.

The lesson is that institutions should take advantage of new technology to redesign the top 25 courses, rather than adding technology components to a wider range of courses. One reason for this selective approach is to address the high failure rate of freshmen who are disproportionately represented in these courses. According to Twigg, 15 percent of freshmen at all research universities fail such courses, more than 30 percent of freshmen at comprehensive universities do so, and at community colleges the figure surpasses 50 percent. Thus, Twigg's project aims to increase the learning outcomes and reduce costs.

The 30 institutions in Twigg's initiative have slightly different goals and focus on different areas of study. Brigham Young University in Utah and Tallahassee Community College in Florida have redesigned their English composition courses.



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Tallahassee found that average test scores increased for traditional students in the redesigned course, while the cost per student fell from \$252 to \$145. Brigham Young experienced cost savings of 15 percent per student and had some improvement in student results.

The University of Massachusetts redesigned a biology course and produced a 20 percent improvement in scores, a 33 percent increase in attendance, and a 38 percent savings in cost per student. Virginia Tech redesigned its first-year course in linear algebra and experienced savings of 77 percent.

Says Twigg: "What is significant about the redesigns is that the faculty involved are able to incorporate good teaching practice into courses with very large numbers of students—a task that would have been impossible without technology." The major cost reduction comes from cutting faculty time in course delivery and reassigning some faculty tasks to undergraduate and graduate teaching assistants.

In each of the experiments, the entire course was the unit of redesign,

not an individual class or section.

The average savings in the redesigned courses was 37 percent. Projecting this savings to all colleges and universities in the country shows that a nationwide redesign of the top 25 courses would produce a 16 percent reduction in the cost of instruction as well as potential for improvements in student learning and retention.

Question Administrative Costs and Structures. Instructional costs in higher education on average account for about 36 percent of total operating expenses for an institution. The remaining costs are attributable to what are considered overhead or administrative costs. These include debt service and plant maintenance, among other categories.

In recent years, increases in administrative costs have prompted concern. The most recent salary survey by the College and University Personnel Association for Human Resources reports that the average salary of administrators increased 3.5 percent during the 2004-05 year. This compares with average

faculty salary hikes of 2.8 percent. It also is noteworthy that the list of typical administrators includes 211 positions, of which 36 are new this year. Administrative salary hikes and an expanding roster of positions add up to higher costs. Defenders of administrators' salaries argue that the pay rates have been increasing faster than inflation and in excess of faculty salary increases because of the need to attract and retain the appropriate level of talent.

Many institutions have flattened

It is difficult to gauge the impact of differences in administrative structure on the effectiveness of varying institutions; various institutions that have enjoyed success have vastly different salary and organizational structures. Given that there is no clear formula, it is legitimate for boards to ask questions about administrative structures and examine whether an administrative reorganization or staff cuts would produce equal or better results at lower costs.



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their administrative structures and eliminated some layers in the hierarchy; some under serious financial stress have eliminated an entire level of management. Some large institutions operate with only four vice presidential positions—finance, academic affairs, development, and student affairs—while others may have eight or ten. These additional slots often include enrollment management, communications, marketing, diversity, research, human resources, administration, and general counsel.

Consider Year-Round Classes. Many colleges and universities fully use their physical plant for only 30 to 35 weeks a year. Most offer programs in the summer, but enrollments are usually only a fraction of the figure for fall and spring. Some occupy their campus facilities with other activities such as summer camps, retreats, and the like. Most of these activities bring in some revenue, but they rarely are as lucrative as regular academic programs. An exception is Dartmouth College, which maintains

undergraduate offerings with four ten-week terms a year and requires all students to take classes on campus the summer before their junior year.

Such a change can be difficult to achieve. A few years ago, a proposal at George Washington University to adopt a year-round calendar was roundly defeated by the faculty after more than two years of discussion. Officials there estimated that such a calendar would have garnered more than \$10 million in net revenue annually, reduced average class sizes and teaching loads, and provided for increases in the number of faculty.

If colleges and universities could keep their facilities full year-round, they would certainly reduce the overhead expense attributed to the regular academic program because it is built to support peak enrollments. Unfortunately, there are barriers to year-round schooling beyond custom. The federal Pell Grant program enables students to receive grants for only two terms a year, making it tougher for colleges to encourage students to attend year-round. Adding to the difficult sell is the increased burden for students who depend on summer work to earn money for tuition.

On the other hand, the largest cost of attending college for students is the opportunity cost, or the wages they forgo by going to college. The sooner students complete their educations, the sooner they can find jobs that pay the wages their college degrees command. Most students who take summer jobs are able to land only low-wage employment; they

would be much better served if they could finish college more quickly and get a “real” job.

Reduce Time to Graduation. Many policymakers are interested in reducing the time to degree for students as the cost both to the institution and to the student increases as academic careers grow longer. Students who go full-time for longer than the minimum required time face the burden of likely tuition hikes as well. Finally, as data from the American Council on Education have shown, the more slowly a student progresses toward a degree, the lower the probability of graduating. Students who begin their education and do not graduate accrue no official benefits from having attended college; they have sunk money into the aborted effort, and they often carry debt for years.

Southern Illinois University plans to give \$500 cash awards to students who graduate within four years, beginning with the 2006 entering freshman class. Texas pays off the loans of some students who graduate on time, and the University of Florida guarantees students slots in any course required for their major so they can take the courses they need to graduate on time. Finally, Roosevelt University in Chicago has changed its tuition structure to encourage students to finish in four years.

Share Library Resources and Books. Costs for books and electronic data have been increasing at rates far in excess of inflation. The Virginia

Government Accountability Office in a recent study noted that the price of textbooks has increased at twice the rate of inflation over the past 20 years and reported that books on assigned lists at Virginia community colleges account for almost 75 percent of students’ college expenses. Students encounter high prices when they purchase class materials, and libraries face this when making their purchases.

Libraries have been able to share books for years through interlibrary loan programs, but motivated by economic concerns, libraries have forged some novel collaborations. A group of colleges in Oregon has formed the Orbis Cascade Alliance. These libraries engage in collaborative collection development. To reduce duplicative purchases, they review one another’s purchasing plans to balance their respective collections and make their funds go farther. California State University has implemented a systemwide electronic information resource-sharing network that has produced savings of \$2 million a year.

To help students cut expenses, some institutions are offering textbook rental programs. Others are assembling more course packets using economical materials. Still others are encouraging book buy-back programs and asking faculty to make book decisions early, allowing students to know which texts will be used the coming semester so they can budget accordingly.

Recast Health Insurance. Health insurance costs have been rising at rates far beyond the rate of inflation, leading colleges and universities to experiment

with new ways of providing coverage. Louisiana State University now offers its own health insurance plan to employees and has saved \$5.2 million over the past three years. Another approach is to join a consortium. Several institutions in Florida have established a shared consumer-directed health-care plan. Rollins College, one of the participants, has seen annual health-care cost increases drop from a habitual 25 percent to less than 3 percent.

Concerns about the rising costs of post-employment health insurance have led many faculty members to postpone retirement since the lapse of the mandatory retirement age in 1994. In response, the Andrew W. Mellon foundation launched a three-year study that resulted in the creation of the Emeriti Program, which is modeled after the defined-contribution retirement plan pioneered by TIAA-CREF. It allows employers and employees to convert from their previous defined-benefit plan to a defined-contribution plan. Defined-benefit plans, which guarantee a preset menu of coverage, are becoming increasingly costly, as both the cost of health insurance increases and life expectancy rises. Plus, they require an institution to keep delayed liabilities on the books.

By moving to a defined-contribution plan, in which employees pay different amounts for health insurance, depending on how much coverage they want, a college can better control and predict its future costs. Retirees and their families can accumulate savings and gain access to group insurance plans that

have been designed to wrap around Medicare coverage. These plans are cost-effective because they benefit from the collective buying power of all participants.

For institutions that do not offer post-retirement health insurance, programs such as Emeriti are a cost-effective way to provide a plan to which both employer and employee can make contributions.

Invest in Environmental Sustainability Programs.

“Simultaneously conserving both natural and financial resources is the holy grail of the campus environment movement,” reads one popular tract on higher education sustainability programs. Though many people assume that incorporating environmental concerns into their operations will increase institutional costs, significant cost savings can be achieved through energy and water conservation, recycling, waste reduction, and “green” transportation. Lander Medlin, executive vice president of the Association of Physical Plant Administrators, compiled the following examples for a catalogue of savings in this area:

- The University of Colorado eliminated 750 parking spaces and 1,500 car trips per day by offering student bus passes, thus saving \$8,000 per space in new construction.
- The State University of New York at Buffalo has more than 300 energy conservation projects that together save \$9 million annually and reduce emissions by more than 63

million pounds annually.

- In New Orleans, Tulane University’s use of Energy Star-rated appliances saves \$130 per room (multiplied by 1,700 rooms).
- In Washington, D.C., Georgetown University’s Intercultural Center uses a large solar-panel array to produce 10 percent of the building’s needs, saving \$45,000 annually.
- Students at Brown University in Rhode Island audited their residences halls and replaced 750 showerheads, saving the university \$45,800 annually and reducing water consumption by more than 12.6 million gallons annually.
- Winthrop University in South Carolina invested \$2.6 million in improvements to lighting, heating, and waste systems, producing an annual savings of \$668,000—a payback of less than five years.
- Dominican University in Illinois invested in lighting upgrades, resulting in savings of \$46,000 a year.
- The University of Pennsylvania saves more than \$5 million annually by aggressively monitoring electric consumption. It has implemented regular procedures to lower thermostats and stay on top of maintenance projects.
- The California State University system has avoided \$27 million in energy costs through direct purchasing of electricity.

According to Medlin, sustainable design of campus buildings can reduce capital costs, lower operating and maintenance costs, and increase occupant productivity by lowering

absenteeism and improving employee job satisfaction. The average premium for “green” buildings is slightly less than 2 percent, or \$3 to \$5 per square foot. The average annual cost of energy in buildings is about \$2 per square foot, and green buildings use 30 percent less energy, he says.

Another “green” strategy is the redesign of classroom science experiments to minimize the use of hazardous chemicals, which are expensive to dispose of. Some colleges are conducting some labs with “virtual” chemicals or are substituting small beakers for large ones in efforts to use smaller quantities of chemicals.

Manage Debt Smarter. Strategic management of debt can significantly lower institutional costs and improve the balance sheet. It is important to follow the market and seize opportunities when interest rates are low. Saint Louis College of Pharmacy recently refinanced more than \$40 million in debt, saving \$1.8 million over the life of the debt by reducing the term by five years, keeping its payments constant, and improving its covenants.

On a larger scale, California State University has developed a systemwide consolidated-revenue-pledge debt program that has reduced its cost of issuance. Through consolidation, it is able to optimize the cost of capital with a stronger revenue pledge, resulting in better ratings. Since 2002, capital costs were \$8 million lower than they would have been if financing had been done

on a project-by-project basis.

Finally, Drake University in Iowa substituted surety bonds for its debt-service reserve-fund requirements, freeing up net cash reserves of \$2.3 million.

Outsource Selected Operations.

Hiring an outside company with specific expertise (usually in an area not central to the mission of the college or university) is a cost-savings approach on the rise. Historically, food service and bookstores are the most commonly outsourced areas. The table at left, based on data from *University Business*, shows today's most common services and the percentage of colleges and universities that outsource them.

Rockford College in Illinois outsources many administrative functions through its chief administrative officer; it has realized savings of \$600,000. Georgetown College in Kentucky outsources its alumni-relations function. The University of Kentucky saves \$425,000 a year by outsourcing its office-supply contract. Many colleges outsource some technology functions, including the operation of their administrative and academic services. Others outsource only the management of the computer center or the administrative operations. Still others outsource some of their admissions and financial-aid functions, including some aspects of student recruitment and the packaging of financial-aid awards. Some are outsourcing credit-card collections for tuition payments to

private vendors who charge a service charge and then rebate the full tuition price back to the college or university. This has saved millions of dollars for some colleges, which previously paid the service fee for the use of credit cards. San Diego University is reaping an additional \$2 million in revenue from the outsourcing of its credit-card payments.

The movement towards outsourcing allows institutions to reduce the number of employees, cutting the cost of salaries as well as benefits. What's more, many commercial vendors used in outsourcing pass along benefits from economies of scale unattainable by individual institutions. Outsourcing provides institutions with flexibility in scaling these services up or down without having to reorganize their staffs.

The advantages of outsourcing include gaining the management expertise of a large company, which can be very expensive to purchase, especially for small institutions. In addition, because colleges and universities seldom can offer much of a career ladder to the staff responsible for small-scale activities (and thus grapple with high turnover rates), turning certain operations over to a contractor may offer a degree of continuity.

Join Consortia. Joining a consortium of institutions can provide enhanced services and greater opportunities. The most familiar benefits are from group purchasing contracts in areas as diverse as insurance, financial services, software development, and telephone service. Many of the associations

of independent colleges that exist in most states, as well as regional groups of colleges that were formed primarily to deal with issues of common interest, have expanded their range of shared cost-saving activities.

Among the oldest consortia is the Five Colleges, which is composed of the University of Massachusetts at Amherst, Amherst College, Smith College, Hampshire College, and Mount Holyoke College. The campuses' proximity to one another favors collaboration, as does their shared commitment to the liberal arts and to undergraduate education. Five Colleges, Inc., as its Web site explains, is a nonprofit educational consortium established in 1965 to promote the broad educational and cultural objectives of its member institutions. Five Colleges promotes

Services currently outsourced

Food Service	61%
Bookstore	52%
Endowment Fund	41%
Legal Service	28%
Housekeeping, janitorial	25%
Laundry	20%
Copy center, reproduction	17%
Security	17%
Debit card	16%
Payroll	15%
Computer store	10%
Energy management	9%
Mechanical maintenance	9%
Grounds	8%

and administers long-term forms of cooperation benefiting faculty, students, and staff. These include shared use of educational and cultural resources and facilities, including a joint automated library system, open cross-registration, and open theater auditions; joint departments and programs; and intercampus transportation.

A much newer consortium is the Baltimore Collegetown Network. According to its Web site, it “brings 15 area colleges and universities together with government, business, and community leaders to develop and market Baltimore as a vibrant place to live and learn.” Through partnerships, marketing initiatives, and advocacy, the network works to change perceptions about the city, support cultural offerings, improve transportation systems, and expand services in the region.

At first glance, these two consortia may not look like cost-savers. But the benefits that have accrued to the colleges include widening the array of academic programs available to their students. The Five College consortium has 14 faculty this year that have joint appointments among the participating institutions. The group recently received a grant from the Andrew W. Mellon Foundation to expand this program.

The Baltimore Network also has conducted many innovative activities for faculty and staff. It has included joint staff-development activities, relying on the expertise of the various institutions in different areas. This



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has provided low-cost, high-quality learning experiences for the staff. The network also helps with the placement of spouses and partners as a part of the recruiting process for faculty and staff, making it easier to recruit effectively from out of state.

Both of these consortia enhance student recruitment by marketing the joint offerings of all the colleges in the area. Both also market the benefits of living in their respective areas to prospective students, thus increasing the value of each individual institution. In addition, many joint social and cultural activities further benefit students, faculty, staff, and the community. Such marketing also means the consortia garner government and business support.

Consider Pooled Purchasing.

Purchasing commodities and services through consortia and renegotiating certain contracts can offer impressive cost savings. At most institutions, contracts exist with the institution as a whole; individual divisions, schools, and departments do not negotiate for goods on their own, resulting in a modest form of group purchasing.

The next step is for systems of institutions to pool their purchasing power and buy as a system.

The University of Maryland recently renegotiated an agreement with Microsoft for software that will save the institution \$5 million over five years. Similarly, its support agreement with PeopleSoft will save \$7 million over the next ten years, and its systemwide electricity contracts are expected to save \$5 million. (The state of Maryland lets all colleges and universities, public and private, participate in the contracts negotiated by the state.)

Similarly significant savings in purchasing have been achieved through renegotiating telephone contracts and moving to voice over internet protocol (VOIP). Menlo College in California saved \$1.7 million by going to VOIP.

Leverage Technology. Though all modern colleges and universities have embraced digital technology, several institutions are using a special model to sell their services to other colleges and universities. Drexel University in Pennsylvania is providing technology services to more than 40 institutions. It calls its model “a technology-based flagship university application-service provider.” Drexel’s clients are small colleges that desire substantial technology infrastructures but are too small to afford one. Drexel allows its partner schools to operate off of its software platform. Its services include strategic support, server and desktop support, help-desk operations, training, and computer networking.

It also is providing applications that include online courseware, e-mail, storage, and library use as well as a suite of administrative services. Drexel's partner schools have been able to upgrade to new software platforms and significantly enhance their technology, frequently at the price they were paying for their old system. Drexel has been able to use the fees it charges to increase its IT infrastructure and enhance its own services as well as those it offers its partners.

New technology has allowed other institutions to change the way they do business. Increased use of e-mail has cut postage, and many institutions have consolidated administrative operations, in efforts to provide what some call "a one-stop shop for student services" for registration, financial aid, and bill-paying.

MOTIVATIONS FOR ACTING.

Institutions that face financial challenges must examine the efficiency of everything they do if they want to survive. They can make imaginative and innovative changes, even as they are careful not to compromise quality while achieving necessary cost reductions. In extreme cases, institutions can reinvent themselves, as in the cases of colleges and universities in New Orleans in the grim wake of Hurricane Katrina.

Public universities mandated to undertake top-to-bottom reviews by their governors or legislatures (or motivated to do so by cuts in state funds) have made major though less sweeping changes. These reviews often

have been led by the board of trustees, with significant staff assistance. The board usually appoints a committee to handle this work, which identifies all operational areas that would benefit from an in-depth review of their efficiency and effectiveness.

When things are working relatively well and resources are not being reduced, it often is difficult for busy faculty, staff, and administrators to review what they are doing through the lens of efficiency. Yet at most institutions, this is exactly what needs to be done to continue efficient operations.

Finally, an examination of efficiency comes from within institutions whose leaders wish to improve results or undertake a new initiative. When the changes an institution wants to make are costly, officials often look to economize in certain areas so that they can reallocate resources to others.

HOW BOARDS GAUGE RESULTS.

Seeking efficiency in operations is one area where it is tempting for boards to move from their proper role as big-picture strategists into micromanagement. One tactic a board can use to stay at the strategic level is to ask the administration to develop a list of "expensive" policies. This list should be evaluated at regular intervals to make sure that each one continues to be mission-critical or enhances the college or university in a way that positively affects its operations.

Following is a list of common college or university policies that generally come with hefty price tags

and hence might be most ripe as opportunities for cost savings.

1. Low student-faculty ratio (say, 9:1)
2. High percentage of courses taught by full-time faculty (say, 93 percent)
3. Individual dining halls in each residence hall
4. On-campus health center
5. Free psychological counseling for all students
6. Guaranteed residence-hall space for all undergraduate students
7. No limits on student access to printers, photocopiers, and paper
8. Health insurance for retirees
9. On-campus offices for retired faculty
10. Need-blind admissions and provision of all necessary financial aid for all accepted students
11. Providing grant aid for low-income students to the extent that students with family incomes below, say, \$45,000 will not need to take out loans
12. Parking spaces for all faculty, staff, and students
13. No charge for campus parking spaces
14. Support for, say, 20 intercollegiate athletic teams

Boards can gauge results through macro-level rubrics and through a central body. Several large systems have done comprehensive reviews of their costs and have come up with a variety of such rubrics. The University of Alaska, under its ad hoc committee on accountability and sustainability, grouped all of

its recommendations under the following headings: standardization, automation, redundancy, outsourcing, discontinuance, collaboration, and “other.”

Isolating cost-savings takes persistence. Strategies often are implemented one year and abandoned a few years later, either because people fall back into old habits, the necessity for savings seems to have diminished, or newer, more effective strategies emerge. To preserve momentum, the board may wish to encourage the administration to review all aspects of its operation on a regular basis to see where cost savings are possible without compromising quality.

A more rigorous strategy is to require officials to submit each year a set of “efficiency” benchmarks that provide summary indicators in major operational areas. The benchmarks should provide longitudinal data and trend lines in each area as well

as comparable figures for peer institutions or for the institutions considered “best in the business.”

Finally, boards should be aware that critically evaluating the institution is a complex and difficult task. A thorough review of efficiency and effectiveness requires asking questions about all aspects of the institution’s operations, even if it is politically difficult to question long-time colleagues or those with strong vested interests. This is where a board often can play a critical role—by asking probing questions, giving license to staff to ask such questions, or encouraging administrators to hire a consultant to work with the institution to evaluate its efficiency.



Isolating cost-savings takes persistence. The task is challenging, but no institution has a good reason to operate inefficiently.



The task is challenging, but no institution has a good reason to operate inefficiently. A college may have expensive policies it values, but it never should spend money in a way that does not optimize its goals. Whatever policies and projects your institution eventually adopts, keep one thing in mind: The sometimes-mundane and parochial tasks associated with cost-control efforts often influence a much larger body of higher education professionals and volunteers. These individuals are engaged in the grand effort of making our institutions and our industry as efficient as possible—and through this efficiency, ensuring their strength, quality, and accessibility. ■

THE COST PROJECT

 An initiative on college costs.

Richard D. Legon
President

Susan Whealler Johnston
Executive Vice President

Deborah Bongiorno
Vice President for Marketing
and Advancement

Daniel J. Levin
Vice President for Publications

Richard Novak
Vice President for Public Sector
Programs

Irene L. Gomberg
Interim Vice President for
Independent Sector Programs



Association of Governing Boards of Universities and Colleges, One Dupont Circle, Suite 400, Washington, D.C. 20036. Telephone: 202/296-8400. Fax: 202/223-7053. Details about The Cost Project, additional readings, and research updates are available at www.agb.org. Opinions expressed are those of the authors and not necessarily those of the institutions that employ them or of AGB. Copyright © 2006 Association of Governing Boards of Universities and Colleges. All rights reserved.

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