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IT Cost Management

Reality is the best possible cure for dreams.
—Roger Starr on the near financial collapse of New York City

The need to reduce costs and find new revenues heads every higher education leader's list of concerns. The need to curb costs has found momentum throughout institutions and has become a routine concern of almost every administrative unit. IT has not been exempted from this growing awareness, concern, and call to action. The internal and external pressures to reduce costs, stretch budgets, and find new revenues are being brought to bear on the CIO as well.

In fact, 64 percent of the institutions surveyed reported that their institution faced increased pressure to reduce IT costs. This is nothing new. IT leaders are constantly seeking ways to reduce the costs of providing services as particular technologies mature. However, IT budget growth and the breadth of technologies employed on campus have made technology more visible and thus heightened the pressure to contain its cost. During economic declines, most institutions focus on either across-the-board or centrally targeted budget reductions. These are often the primary and secondary means to reduce costs. As one of the largest administrative budgets, IT sits in the crosshairs of such cost-reduction strategies.

What strategies are IT organizations using to contain costs? Are there emerging options

Key Findings

- ◆ Two-thirds of respondents are under pressure to reduce their IT costs.
- ◆ No single cost-reduction strategy predominates, but the most frequently used strategy is across-the-board cuts.
- ◆ Among the numerous concerns about outsourcing, the greatest reason it is not being pursued is institutional culture.
- ◆ There is a growing interest in shared IT services between institutions as a means of controlling costs.
- ◆ While most IT organizations are searching for new revenue sources, these will likely have only a marginal impact on most institutions' total IT budgets.

that hold particular promise? Have corporate cost-management strategies such as outsourcing or shared services taken hold in higher education? These are some of the questions we explored through the research.

This chapter examines why and how institutions are seeking to reduce IT costs and find new revenues to support IT. It is organized into the following sections:

- ◆ Drivers to Reduce Costs
- ◆ Cost-Reduction Strategies
- ◆ New Revenue Sources
- ◆ Summary

Drivers to Reduce Costs

As mentioned, two-thirds of survey respondents reported that they face increased pressure to reduce IT costs. The pressure is greater at public institutions: nearly 70 percent reported increased pressure to reduce IT costs, compared with 56 percent of the private institutions surveyed.

Most of the pressure to reduce IT costs stems from the overall financial pressures on the institution. Table 8-1 summarizes the factors respondents reported were driving the need to cut IT costs. Respondents were able to select all applicable reasons.

The most frequently selected reason was that the IT cuts were part of an institution-wide cutback in expenditures. Almost half indicated that their cuts were due in part to a reduction in state funding. Among the public institutions surveyed, this was the most frequently selected reason.

As institutional budgets continue to tighten, innovations will arise primarily through reinvestment of existing resources. “The opportunity for enhancing our technology is primarily going to come from reallocations, finding ways to do things smarter and more efficiently,” explains David Hollowell, executive vice president and university treasurer of the University of Delaware. Nearly 30 percent of respondents cited the need to gain the flex-

ibility to reinvest as at least a partial driver of their cost reductions.

Few institutions were being asked to cut their IT budgets merely to respond to a perception that IT has been historically overfunded. Although this problem is more political than economic, it does exist for at least some respondents.

We observed some relationship between institution size and pressure to reduce IT costs. As Table 8-2 illustrates, proportionately fewer institutions with smaller enrollments faced pressure to reduce costs than did larger institutions.

Enrollment might be serving as a proxy for institutional control. As noted in prior chapters, public institutions are generally facing more budget pressure than private institutions. More of the smaller institutions among our respondents are private, which could be why relatively fewer of them faced pressure to reduce costs.

Cost-Reduction Strategies

With the majority of respondents facing pressure to reduce IT costs, we asked what cost reduction strategies they were considering. As Table 8-3 illustrates, the most frequently considered strategy was collaborative purchasing with other institutions. Almost half

Table 8-1. Drivers for IT Cost Reduction (N = 482)

Reason	Percentage Selected
Institution-wide cuts	76.8
Cut in state allocation	49.8
Create flexibility to reinvest	29.9
Cut in state allocation—technology specific	14.5
Combat perception that IT is overfunded	13.7
Other	4.4

of respondents are also considering minimizing the diversity of technologies they support or enacting across-the-board budget cuts within the IT organization, or both.

Respondents also reported considering some less traditional strategies. About a third reported considering shared technology implementations or use of open-source technologies as strategies to reduce costs. We found no significant relationship between

interest in open-source solutions and either Carnegie class or IT organization size. The same is true for shared technology implementations. Perhaps interest in these relatively newer strategies is driven more by the CIO's interests than any institutional factor.

We also asked respondents which strategies they would be most likely to implement. Comparing what institutions are considering with what they are most likely to implement

Table 8-2. Pressure to Reduce IT Costs, by Enrollment Size

Pressure to Reduce IT Costs	Student Enrollment (FTE)					
	1–2,000	2,001–4,000	4,001–8,000	8,001–15,000	15,001–25,000	More than 25,000
No pressure	43.1%	38.3%	39.6%	25.7%	26.5%	21.7%
Pressure	56.9%	61.7%	60.4%	74.3%	73.5%	78.3%

Table 8-3. Possible Cost-Containment Strategies (N = 482)

Cost-Containment Strategy	Institutions Considering
Consortia or shared purchases	56.2%
Minimize supported technologies	47.7%
Across-the-board cuts	46.5%
Shared technology implementation	37.1%
Use open source	33.0%
Cut renewal and replacement	31.5%
Cuts in service levels	28.4%
External software development	28.4%
Limit duplicate IT organizations	24.9%
Salary freezes	23.9%
Outsourcing	20.1%
Layoffs	15.8%
Other	8.5%
Cut benefits	7.3%

reveals that institutions are still most likely to turn to traditional strategies to save money (see Table 8-4).

Most institutions plan to implement across-the-board cuts, shared purchases, and a reduction in the number of technologies supported. The greatest gap between those considering a strategy and those planning to implement the strategy occurs for the use of external software development firms. This is followed by shared purchases (although many indicate that they will do it) and shared technology implementations.

We found some relationship between institution size and planned cost-containment strategies. Table 8-5 illustrates the number of institutions considering implementing three potential cost-savings strategies: outsourcing, layoffs, and the elimination of duplicate IT organizations. An institution's intent to implement each of these strategies bears

a statistically significant relationship to the institution's size.

Smaller institutions were more likely to use outsourcing as a cost-management strategy than were larger institutions. This is consistent with the earlier finding that smaller institutions with smaller IT staffs are more likely to consider outsourcing and other variable staffing models.

As expected, larger institutions were more likely to pursue the elimination of duplicate IT organizations. Most likely, only the largest institutions have the conditions that would create multiple IT organizations. It is these larger institutions that have IT capability distributed throughout colleges, academic departments, and research labs. In fact, 43 percent of institutions that indicated they were likely to eliminate duplicate IT organizations were doctoral institutions. An emphasis on elimination of duplicate organizations in and

Table 8-4. Cost-Containment Strategies Considered and Implemented (N = 482)

Cost-Containment Strategy	Institutions Considering	Planning to Implement	Gap
External software development	28.4%	3.7%	24.7%
Consortia or shared purchases	56.2%	38.6%	17.6%
Shared technology implementation	37.1%	20.1%	17.0%
Minimize supported technologies	47.7%	34.4%	13.3%
Salary freezes	23.9%	11.2%	12.7%
Use open source	33.0%	21.6%	11.4%
Cuts in service levels	28.4%	18.0%	10.4%
Outsourcing	20.1%	12.7%	7.4%
Layoffs	15.8%	9.1%	6.7%
Across-the-board cuts	46.5%	41.1%	5.4%
Limit duplicate IT organizations	24.9%	19.7%	5.2%
Cut renewal and replacement	31.5%	27.2%	4.3%
Cut benefits	7.3%	3.3%	4.0%
Other	8.5%	5.0%	3.5%

Table 8-5. Cost-Containment Strategies, by Enrollment Size (N = 482)

Strategy	Implementing?	Student Enrollment (FTE)					
		1–2,000	2,001–4,000	4,001–8,000	8,001–15,000	15,001–25,000	More than 25,000
Outsourcing	Yes	24.1%	32.8%	15.5%	15.5%	8.6%	3.4%
	No	24.9%	21.7%	21.2%	16.1%	11.0%	5.1%
Staff layoffs	Yes	24.4%	12.2%	12.2%	9.8%	26.8%	14.6%
	No	24.8%	24.1%	21.3%	16.6%	9.1%	4.0%
Eliminate duplicate IT organizations	Yes	9.0%	14.6%	32.6%	21.3%	15.7%	6.7%
	No	28.5%	25.1%	17.7%	14.8%	9.5%	4.5%

of itself is not surprising. Nearly 85 percent of the survey respondents felt that centralized management of technology is more cost-effective.

Interestingly, staff layoffs appear likely to be pursued by either the smallest or the largest institutions. Forty percent of institutions with enrollments over 15,000 reported they would pursue layoffs. Similarly, 36 percent of institutions with enrollments under 4,000 planned to do so.

We asked respondents to assess several prominent corporate cost-reduction strategies. In part, we wanted to separate what the respondents thought about these strategies from how they thought they would fare at their institution. Specifically, we asked about the potential of outsourcing and external development firms (also referred to as near-shore or offshore) to reduce IT costs. For both strategies, we observed a general lack of confidence that either was critical to producing cost savings. In the case of outsourcing, fewer than 18 percent of respondents agreed that it could reduce IT costs. Similarly, fewer than 13 percent felt that external development

firms would be critical to future cost savings. Higher education appears to be highly skeptical of both.

There may, however, be more interest in outsourcing targeted functions rather than all of the IT organization. Several of our qualitative interviews revealed that institutions are increasingly looking at outsourcing individual services. Ken Pflueger, CIO of Pomona College, reported that those at his institution are “increasingly asking ourselves whether what we are doing could be better done by a third party.” Asking this question recently led Pomona College to contract with an outside vendor to screen its e-mail for spam.

One strategy that many respondents see as promising is shared IT services with other institutions. Nearly 51 percent indicated that their institutions were likely to pursue shared services as a means to reduce IT costs. An interest in shared services cuts across institutions of different Carnegie class and size. It is also independent of IT budget size. So, respondents seem to have more confidence that they can reduce costs by partnering with each other than through partnerships with

corporations. This may in part also explain the growing interest in open-source solutions within the higher education community.

New Revenue Sources

Cost savings are not an institution’s sole response to the prevailing financial climate. Institutions are also looking to new or enhanced revenue streams. The search for new revenue is under way in the IT organization as well. We asked respondents to identify the new revenue sources they were actively pursuing. Figure 8-1 illustrates the results.

The most frequently pursued source of new revenue is external grants. It was the only revenue source identified by more than half of the respondents. Increased fundraising and raising student fees were the next two most frequently identified sources. Along with increased corporate partnerships, they were the only ones selected by more than a third of all respondents. Selling products and services externally and technology transfer were identified as strategies by the fewest respondents.

Institutions focus on grants for a good reason: they’re traditional sources of revenue for higher education. However, they face intense

competition (often from within their own institution) to access these funds. Their pursuit presents several challenges to the CIO. These include

- ◆ making technology a recognized priority within the institution to gain access to these funds,
- ◆ developing the skills within the IT staff or through partnerships with other units to effectively pursue grants and donations, and
- ◆ working effectively with institutional counsel and the CBO to forge advantageous corporate partnerships that don’t compromise the institution’s integrity.

From an industry perspective, this is somewhat a zero-sum game because institutions compete with one another for the same dollars. It reinforces the notion that higher education will not be able to solve its IT funding issues through revenue growth.

We expect the pursuit of less traditional revenue streams to remain the province of larger institutions. The pursuit of new technology transfer revenues and the sale of services externally is a more prevalent strategy for IT organizations with central IT budgets greater than \$3 million (see Table 8-6).

Figure 8-1.
New Revenue
Sources (N = 482)

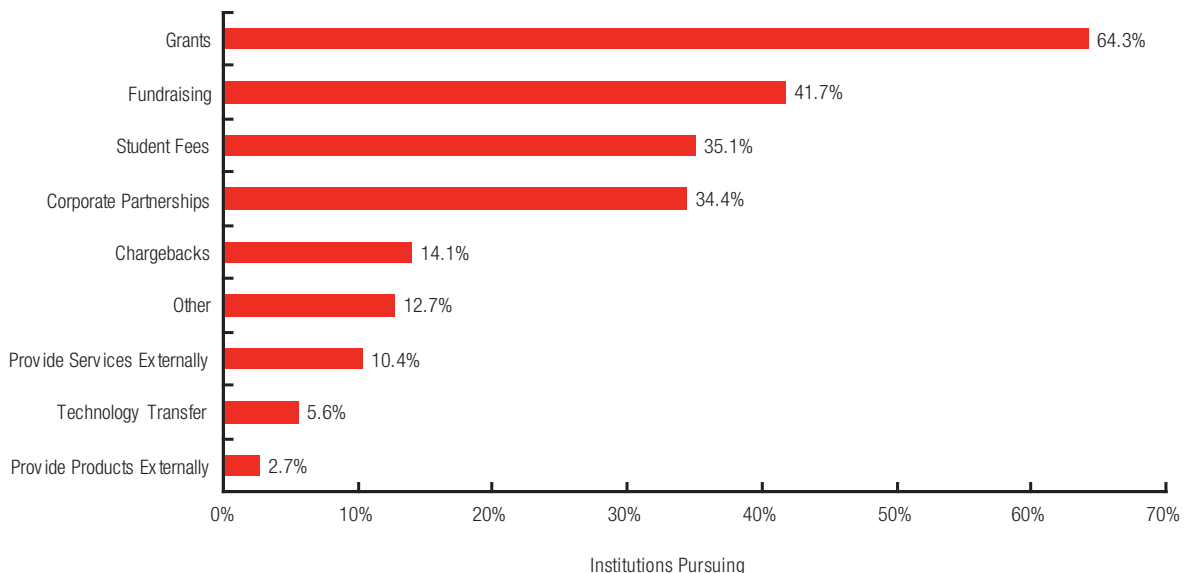


Table 8-6. New Revenue Sources, by Budget Size (N = 482)

New Revenue Source		Central IT Budget						Total
		Under \$1 Million	\$1–3 Million	\$3–7 Million	\$7–17 Million	\$17–29 Million	\$30 Million and Over	
Technology transfer								
Yes	Number	2	5	7	8	4	1	27
	Percentage	7.4	18.5	25.9	29.6	14.8	3.7	100.0
No	Number	97	144	97	65	17	26	446
	Percentage	21.7	32.3	21.7	14.6	3.8	5.8	100.0
Sale of services								
Yes	Number	6	14	5	16	6	3	50
	Percentage	12.0	28.0	10.0	32.0	12.0	6.0	100.0
No	Number	93	135	99	57	15	24	423
	Percentage	22.0	31.9	23.4	13.5	3.5	5.7	100.0

Overall, institutions appear to be appropriately interested and cautious about aggressive new revenue opportunities such as selling services. They're concerned in part that on many fronts higher education is at a cost disadvantage to the private sector. "We are very careful about revenue-generating services," explained Rosio Alvarez, executive director of information technology at the University of Massachusetts Amherst. "Universities are not structured to be streamlined, low-overhead businesses." She added, "In general, we are cautiously optimistic about the potential of new revenue-generating services."

Summary

The need to contain costs and find new revenue appears ubiquitous. Whether in response to an institutional call to reduce budgets or to reinvest within IT, institutions are actively pursuing cost-reduction strategies. While the set of options under consideration is broad, the actual strategies being implemented are quite traditional. Cross-the-

board cuts yield cost savings in the short run but are not strategic. Shared purchases are worthwhile but do not alter the core of how services are developed and delivered. While many institutions are considering more-radical approaches such as shared services, outsourcing, and open-source technologies, these are just a flirtation for most.

The results appear to point to a general dissatisfaction with the potential benefits that these approaches offer. Or, the dissatisfaction could indicate a lack of institutional support for implementing such approaches. Many of these strategies are perceived as risky, and not many CIOs would want to pursue them without firm backing from the rest of the cabinet. Significant implementation barriers may also exist, including legal issues, regulatory concerns, and union contracts.

Interestingly, "It has historically not been done at the institution" was the top reason (selected by 41 percent) respondents gave for not pursuing outsourcing. Either way, most IT organizations apparently feel they have in-

sufficient options to choose from. We found it alarming that more than a quarter of the survey respondents felt they would have to cut funding for renewal and replacement of technology to achieve their budget cuts.

Interest in shared services between institutions and the elimination of duplicate IT organizations within institutions appears promising. Whether between campuses within a public system or between peer institutions, shared IT services could help institutions access more IT services at a lower cost. Similarly, rationalizing

how IT support resources are distributed and shared within a large campus seems to be an essential step.

Both strategies pose political challenges. Despite its collegiality, higher education has always struggled to form meaningful consortia. Similarly, the elimination of duplicate IT organizations often brings out the worst instincts of managers to protect turf and control. Achieving either strategy will require significant leadership and support from an entire administration.