

## Key Findings

### **Process and Politics: IT Governance in Higher Education**

*Ronald Yanosky and Judith Borreson Caruso*

Over the past few years there has been increasing attention to how IT is governed in higher education institutions. One reason is the significant impact IT systems have on how the institution's work gets done. With IT affecting all aspects of the university's academic and business affairs, input and buy-in from stakeholders is both required and desirable for CIOs and other institutional leaders. A revival of interest in corporate governance, fed by financial scandal and a new wave of corporate accountability legislation, has also put a spotlight on how organizations of all kinds ensure that the expensive, complex, indispensable, and strategy-enabling domain of information technology is appropriately governed.

All of this may help explain why the item "governance, organization, and leadership" has consistently stood among the top-10 issues of strategic importance every year from 2004 to 2008, as measured in EDUCAUSE's annual member surveys of current IT issues.<sup>1</sup> Over the same period, this topic has also consistently been among the top-five matters to which CIOs devote most of their time. ECAR's 2008 study, *Process and Politics: IT Governance in Higher Education*, aims to provide CIOs with information about the state of higher education IT governance (ITG) and identifies practices associated with good IT governance outcomes.

## **Methodology and Study Participants**

The study consists of the following data-collection and analytical initiatives:

- A literature review to identify issues and establish research questions
  - Consultation with higher education leaders active in IT governance
  - A quantitative web-based survey of senior IT administrators at EDUCAUSE member higher education institutions in the United States and Canada (CIO survey)
  - A shorter, quantitative web-based survey for participants in ITG who work outside central IT (executive survey)
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- Qualitative interviews with 28 IT leaders
- An associated set of case studies looking at IT governance development and maturation at the University of California, Berkeley, and Queensland University of Technology

The 438 respondents to the web-based CIO survey represented all major Carnegie classes, with 106 from doctoral institutions and 129 from master's institutions. A total of 22 Canadian institutions of various types also took part. More than 83% of the respondents to the CIO survey were CIOs or equivalent, and 81% of respondents agreed or strongly agreed that they were personally very involved in IT governance at their institutions. For the executive survey, there were 216 responses from 59 institutions.

## Defining IT Governance

The definition of IT governance used in our study comes from MIT researchers Peter Weill and Jeanne Ross: IT governance means “specifying the decision rights and accountability framework to encourage desirable behavior in using IT.”<sup>2</sup> More informally, IT governance describes who makes which decisions, who provides inputs and analyzes the issues, who sets priorities, and who settles disputes when there is no clear consensus. Good governance processes are actively designed and well understood by participants, and foster timely decisions that are communicated effectively. Ultimately, “desirable behavior” in using IT means behavior that is aligned with and helps achieve institutional strategic goals. Also, IT governance is concerned with the whole enterprise IT function, not just the central IT organization, leaving day-to-day operations and specific decisions (as opposed to the processes for making decisions) to management.

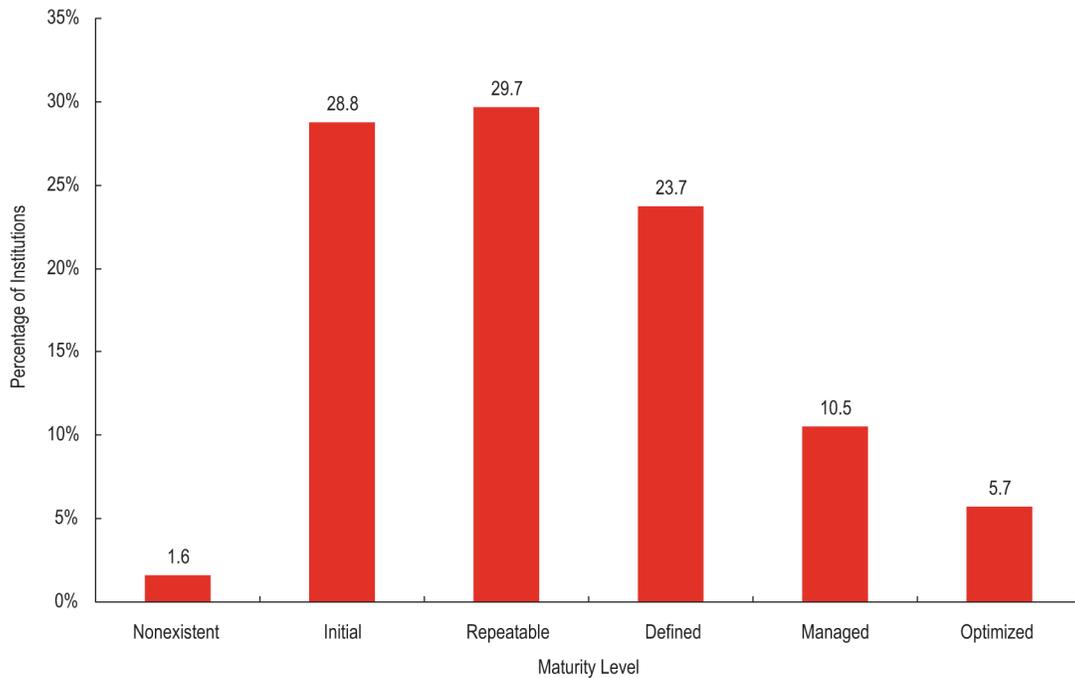
## Significant Findings

Following are some of the important findings of *Process and Politics: IT Governance in Higher Education*.

### IT Governance Maturity and Frameworks

Most respondents said that IT governance at their institutions stood at low to moderate levels of maturity. As Figure 1 shows, almost 60% of respondents identified maturity as initial or repeatable, the second and third least-mature levels on our six-level scale of increasing maturity. Only about 16% chose the two highest levels, managed (ITG processes are monitored and measured) or optimized (employing ITG best practices).

**Figure 1. Maturity of IT Governance at Institution (N = 438)**



We found many associations between ITG maturity and desirable institutional characteristics and outcomes. For example, respondents reporting higher ITG maturity tended to agree more strongly than others that their institutions were able to develop important IT policies and implement important IT decisions applying throughout the institution. Also, while a slight majority of all respondents agreed that IT governance had been actively designed at their institutions, those in the top-two maturity levels agreed much more strongly (mean 4.49 on a scale where 1 = strongly disagree and 5 = strongly agree) than those in the bottom two levels (mean 2.51).

A majority of respondents (55%) reported use of at least one framework such as COBIT, ITIL, or ISO standards in their ITG processes and structures, though no single framework claimed a majority, and most respondents using frameworks said they did so selectively.

### CIO Responsibility, Executive Knowledge, and IT Alignment

A large majority of respondents (81%) said that the CIO was perceived as responsible for IT governance at their institution. When CIOs were asked whether all relevant executives, deans, and department heads at their institution could accurately describe ITG processes, only 24% agreed or strongly agreed. Nearly twice as many (47%) disagreed or strongly disagreed. While this perception was more positive among respondents reporting a more mature IT governance model, even those reporting the highest two maturity models (managed/optimized) only averaged between neutral and agreement (mean of 3.74 on a scale where 1 = strongly disagree and 5 = strongly agree).

Respondents were largely positive about IT alignment with the goals of the institution. As Table 1 shows, however, institutions reporting higher ITG maturity averaged considerably higher agreement about several different categories of IT alignment.

**Table 1. IT Alignment, by ITG Maturity**

Maturity Level		Business goals and IT are aligned.	Academic goals and IT are aligned.	Local IT goals are aligned with institutional IT goals.
Nonexistent/Initial	Mean*	3.51	3.48	3.34
	N	132	130	128
	Std. Deviation	0.961	1.051	1.015
Repeatable/Defined	Mean*	4.16	3.95	3.93
	N	234	234	227
	Std. Deviation	0.767	0.820	0.877
Managed/Optimized	Mean*	4.41	4.25	4.14
	N	71	71	69
	Std. Deviation	0.729	0.731	0.809
Total	Mean*	4.00	3.86	3.79
	N	437	435	424
	Std. Deviation	0.890	0.921	0.958

\*Scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

When asked to name the top-three drivers for pursuing IT governance, aligning IT goals with institutional goals (74%) and promoting an institution-wide view of IT (51%) were the most frequently cited. These were followed by drivers more often associated with practical politics, such as encouraging/collecting community input (38%) and transparency in decision making (33%). The top-two barriers cited to pursuing formal IT governance were decentralized/informal institutional culture (42%) and lack of participation from necessary parties (40%).

## Participation in Governance

To develop a picture of how higher education institutions distribute input and decision-making rights, our study examined four different dimensions of participation in IT governance:

- What types of decisions governance makes. Types evaluated included IT principles, IT investment and prioritization, application needs, IT infrastructure strategies, and IT architecture.
- Who takes part in IT governance among nine categories of participants, including board of regents/trustees, president/chancellor, cabinet-level executives, senior institutional IT leader and/or senior central IT managers, local IT managers, business unit leaders, deans/academic unit leaders, faculty, and students.
- Whether participation takes the form of providing input or making decisions.
- How often participants take part.

We found that participation in ITG, especially in the form of providing input, was widespread among our respondent institutions. Only a handful of participant types were characterized on average as “very

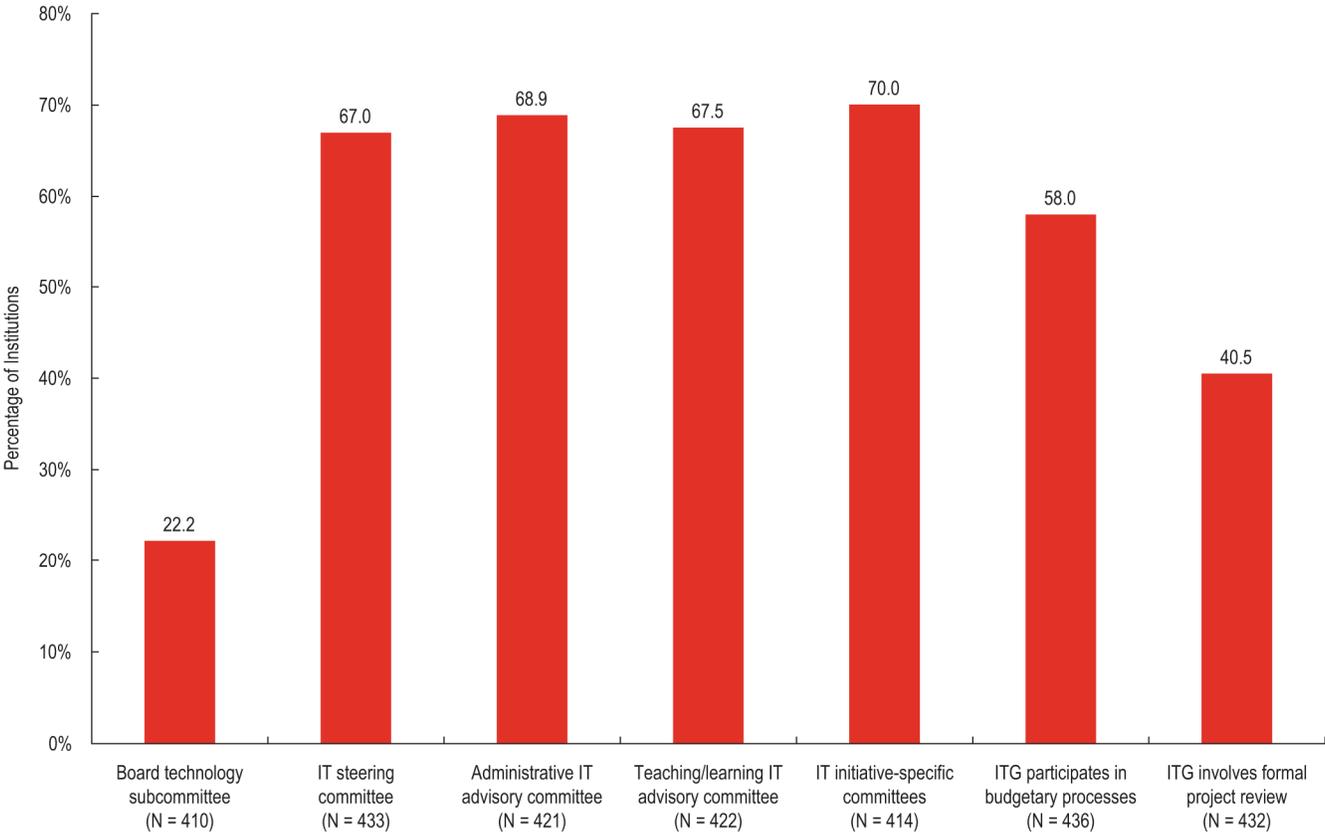
rarely or never” taking part in various kinds of decisions. Senior central IT leaders and managers were the most active type of participant across all decision types for both input and decision making. Cabinet-level executives had the second-highest mean frequency of participation in decision making relating to fundamental IT principles and IT investment and prioritization, while local IT managers had the second-highest participation in IT architecture and infrastructure decisions. Boards of regents/trustees averaged low levels of participation in both providing input and making decisions.

We found relationships between frequency of participation and other outcomes, suggesting that ITG may benefit from broader and/or more intense levels of participation. Institutions reporting higher ITG maturity levels averaged higher frequencies of participation for most of the participant types. Also, institutions with overall higher average frequency of participation across all participant and decision types tended to report higher overall IT governance effectiveness.

### Committees and Processes

ITG-related committees were very common among responding institutions. Figure 2 depicts the incidence of assorted IT governance committees and processes, with two-thirds or more reporting the presence of a top-level IT steering committee for oversight of major IT policies and initiatives, IT advisory committees for administration and teaching and learning, and IT initiative-specific committees. Only about 22% of responding institutions had a board of regents/trustees technology subcommittee.

**Figure 2. Major ITG Committees and Processes**



The IT steering committee was a popular way to provide top-level synthesis and advice relating to IT governance, and institutions that reported one tended also to report better agreement that ITG was effective at their institution. The presence of an IT steering committee rose with institutional FTE enrollment, with half of institutions with 2,000 or fewer students having an IT steering committee and about three-quarters of those with more than 8,000 students. Among institutions without an IT steering committee, the most cited reasons for not having one were that IT governance processes were not sufficiently formalized (56%) and that relevant decisions were made at the executive level (41%).

Institutions with an IT steering committee were largely satisfied with the committee's effectiveness. On a scale of 1 to 5 (1 = strongly disagree, 5 = strongly agree), respondents averaged a mean 3.64 level of agreement with the statement that their institution's IT steering committee contributed effectively to institutional IT governance. Regarding the scope of the IT steering committee, almost 9 of 10 respondents said that their institution's IT steering committee addressed institution-wide IT issues and initiatives rather than just those involving central IT. Almost all IT steering committees had an advisory role, while small majorities of them set policies and adjudicated conflicts. Only 23% authorized funding.

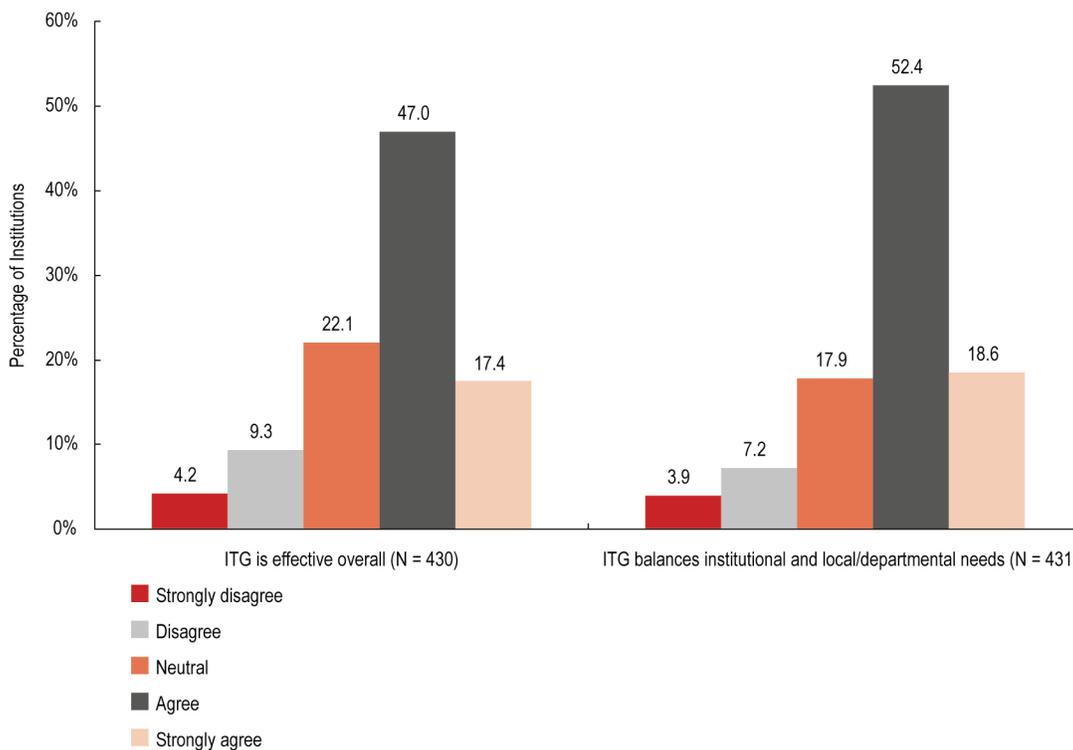
Processes relating to project review and budgeting—the sorts of activities that give IT governance some teeth—were common but far from universal. Only 41% of institutions reported involvement of IT governance in the formal review and approval of IT projects. A modest majority of institutions (58%) reported IT governance participation in institutional budgetary processes, with those reporting participation also reporting more effective coordination of activities of IT personnel throughout the institution.

The incorporation of IT performance measurement and review into the ITG process is stressed heavily in the IT governance advisory literature and is a definitive marker of advanced ITG maturity. We found, however, that respondents were at best lukewarm about the use of measurement and review at their institutions. On our 5-point agreement scale, respondents averaged only slightly above-neutral agreement that their institution agreed on measurable goals for IT and below-neutral agreement that their institution regularly reviewed the effectiveness of IT governance processes.

## IT Governance Performance and Effectiveness

Respondents painted a generally positive portrait of IT governance effectiveness at their institutions (see Figure 3). Almost two-thirds of respondents agreed or strongly agreed that ITG was effective, and the overall agreement was 3.64 on our 5-point scale. When asked if ITG balances institutional and local or departmental needs, 71% agreed or strongly agreed. Nevertheless, we found considerable variation among institutions in their evaluation of IT governance effectiveness and noted a number of associations between overall effectiveness and other variables.

**Figure 3. ITG Effectiveness and Institutional/Local Balance**



Among the factors we found most strongly associated with higher agreement about ITG effectiveness were

- active design of IT governance;
- perceived ability of key ITG participants to describe ITG accurately;
- higher overall mean frequency of participation in providing input and taking part in decision making;
- incorporation of measurement and review in IT governance;
- ITG involvement in formal project review and approval; and
- ITG participation in institutional budgetary processes.

While our results can't determine whether these capabilities and practices create effective IT governance or vice versa, these factors represent a list of potential action items for institutions looking for ways to improve ITG maturity and performance.

But how well do these findings align with our respondents' perceptions of what accounts for IT governance success? To find out, we asked respondents to choose from lists of items the factors that typically accounted for successful and unsuccessful ITG outcomes. In general, they favored relationship-related factors rather than structural or procedural ones. The top item for success was the support of executive leadership, chosen by two-thirds of respondents. Skills/personalities of key

individuals was selected by 61% of respondents and inclusion/participation of stakeholders by 60%. No other factors received more than 50% of the responses.

The primary factors responsible for unsuccessful IT governance outcomes were non-inclusion/non-participation of stakeholders (49%), skills/personalities of key individuals (34%), and lack of support of executive leadership (33%). Given the relatively low levels of ITG maturity that most respondents reported, we speculate that at many institutions, personal relationships carry a disproportionate share of the ITG load, in lieu of strong structures and processes.

## CIOs and Other IT Governance Participants

In addition to the primary survey of IT administrators (mostly CIOs) at 438 institutions, this study also included a brief survey on ITG performance and effectiveness among other IT governance participants (mostly institutional executives) working outside central IT. Participating CIOs invited up to five other ITG participants at their institution to take the second survey. The study compared CIO and executive answers at the 45 institutions responding to both surveys.

The results generally allay fears that CIOs and their executive colleagues in ITG live in different universes. The two groups rated overall ITG effectiveness positively and similarly, and though there were some differences in their assessments of specific factors of ITG performance, their mean agreement about overall ITG effectiveness did not differ at a statistically significant level. Executives did not agree quite as strongly as CIOs that IT was aligned with business goals but still averaged a near-agree (mean 3.87) response, and they gave higher average ratings than CIOs to the incorporation of measurement into ITG. Table 2 depicts the perceptions of CIOs and executives of the effectiveness of IT governance at their institution.

**Table 2. IT Governance Outcomes, CIOs and Executives**

		At my institution, IT governance...			
		Makes timely decisions.	Builds support for IT through inclusion.	Balances institutional and local/departmental needs.	Is effective overall.
CIOs	Mean*	3.64	4.13	3.95	4.02
	N	45	45	44	44
	Std. Deviation	0.857	0.786	0.680	0.762
Executives	Mean*	3.78	3.89	3.90	3.89
	N	45	45	45	45
	Std. Deviation	0.606	0.694	0.484	0.628

\*Scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

## The Future of IT Governance

While the future is unlikely to bring radical new forms of IT governance, the 21st century is already witnessing new modes of computing and emerging work cultures that imply the further “politicization” of IT and the need to serve a growing and increasingly diverse body of constituents. Major catalysts for IT governance change include:

- The growing impact of commodified services and consumer choice, especially in the form of software-as-a-service
- Research cyberinfrastructure, which will increasingly demand greater levels of collaboration, attention to economies of scale, and complex decisions about the central, local, or external provision of IT services supporting research
- Enormously larger quantities of data and the urgent need to find technical and policy solutions to managing data at the institutional and extra-institutional levels
- The increasing difficulty of funding innovation as IT infrastructure, and the fact that basic “utility” services make fixed costs an ever larger part of the IT budget

Despite predictions that in the near future IT “won’t matter,” we conclude that IT governance will be called upon to listen to, coordinate, and drive decisions among an ever-growing body of constituents who believe that it matters very much indeed.

## Conclusion

Our study does not tell the story of an IT governance house on fire. Majorities of respondents agreed that their institution’s IT governance processes resulted in timely decisions, balanced institutional and local/departmental needs, and were effective overall. While few institutions claimed to be in the top tiers of IT governance maturity, it might be argued that given these outcome measures, lower and midrange levels are good enough.

But two lines of argument suggest that many institutions—and not just the low performers—should fortify IT governance by pursuing higher maturity and better performance. First, nothing about IT is getting less political. Already IT touches virtually every constituency on campus, and the needs those constituents want satisfied—and the technology options available to them—continue to expand in ways that suggest that decisions about information and IT will become still more complex.

What’s more, our research suggests that there’s a good deal that IT leaders can do to improve IT governance performance. Good IT governance outcomes are disproportionately found alongside many practices that are within the practical control of IT administrators. Two stand out because of the relatively poor marks institutions gave themselves in each: the incorporation of IT performance measurement and review into the governance process, and the ability of relevant participants to accurately describe IT governance. In addition, actively designing ITG processes rather than just letting them happen is another marker of success. And where institutional realities permit, ITG participation in the budget process and in formal IT project review may contribute to better ITG performance by helping governance turn priorities into realities.

Finally, our study suggests that higher education IT administrators can and should work within the cultural norms of inclusion and shared decision making that typify colleges and universities. IT governance that effectively harnesses the creative power of the campus community through an enlightened combination of process and politics may be higher education IT’s best chance to advance a proud tradition of innovation and service.

## Endnotes

1. Debra H. Allison, Peter B. DeBlois, and the EDUCAUSE Current Issues Committee, "Current Issues Survey Report, 2008," *EDUCAUSE Quarterly* 31, no. 2 (2008), <http://connect.educause.edu/Library/EDUCAUSE+Quarterly/CurrentIssuesSurveyReport/46570>; John S. Camp, Peter B. DeBlois, and the EDUCAUSE Current Issues Committee, "Current Issues Survey Report, 2007," *EDUCAUSE Quarterly* 30, no. 2 (2007), <http://connect.educause.edu/Library/EDUCAUSE+Quarterly/CurrentIssuesSurveyReport/40026>; Barbara I. Dewey, Peter B. DeBlois, and the EDUCAUSE Current Issues Committee, "Current IT Issues Survey Report, 2006," *EDUCAUSE Quarterly* 29, no. 2 (2006), <http://connect.educause.edu/Library/EDUCAUSE+Quarterly/CurrentITIssuesSurveyRepo/39971>; Leslie Maltz, Peter B. DeBlois, and the EDUCAUSE Current Issues Committee, "Trends in Current Issues, Y2K–2005," *EDUCAUSE Quarterly* 28, no. 2 (2005), <http://connect.educause.edu/Library/EDUCAUSE+Quarterly/TrendsinCurrentIssues2000/39912>; and Donald Z. Spicer, Peter B. DeBlois, and the EDUCAUSE Current Issues Committee, "Fifth Annual EDUCAUSE Survey Identifies Current IT Issues," *EDUCAUSE Quarterly* 27, no. 2 (2004), <http://connect.educause.edu/Library/EDUCAUSE+Quarterly/FifthAnnualEDUCAUSESurvey/39863>.
2. Peter Weill and Jeanne Ross, *IT Governance: How Top Performers Manage IT Decision Rights for Superior Results* (Boston: Harvard Business School Press, 2004), p. 2.

*Ronald Yanosky (ryanosky@educause.edu) is Senior Fellow and Deputy Director, ECAR. Judith Borreson Caruso (judy.caruso@cio.wisc.edu) is an ECAR Fellow and Director of Policy and Planning at the University of Wisconsin–Madison.*

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*A copy of the full study referenced above will be available via subscription or purchase through the EDUCAUSE Center for Applied Research (www.educause.edu/ecar/).*

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