Perhaps there was a time when IT governance (ITG) sounded like an oxymoron. When there was only one computer on campus and only a relative handful of users, big decisions about computing could be decided within a limited circle. Computing just didn’t involve enough people to justify a grand term like governance.

Perhaps. In fact, such decisions have always invited conflict and competition. But there’s little doubt that the complexity and political sensitivity of deciding how to invest in IT has exploded beyond recognition since the mainframe era. If IT governance still has any oxymoronic overtones today, it’s only because IT has attracted so many constituents and so much controversy that it might not seem governable at all.

But of course it’s just such complexity that calls for governance. Today, IT systems have a heavy impact on how every manner of work gets done, and they shape the campus experience almost as much as the institution’s physical grounds. IT’s constituents are not only numerous, but they are also increasingly confident and vocal about their technology-related views. List the strategic concerns that drive institutional agendas—educational performance, research productivity, accountability, program design and instructional delivery models, recruitment, the student experience, the cost of education—and IT will have a heavy, perhaps a defining, impact on each. It’s neither feasible nor desirable for CIOs, or even top institutional leaders, to make high-level IT decisions without a lot of input and acceptance from affected stakeholders. Nor can one-on-one contacts or ad hoc decision-making processes ensure a consistent and truly institutional approach to IT.

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 interest in current IT issues. Over the same period, it has also stood among the top-five matters to which CIOs devote their time. Neither result is surprising in light of the very top items that have dominated these surveys, such as security, funding, administrative systems, and strategic planning. These items affect so many constituents and have so many resource implications that collecting advice and achieving the “buy-in” so crucial to success is a major part of getting each done. IT governance is a forum for doing just that.

What Do We Mean by IT Governance?

In IT as in other contexts, governance is the process that sets top-level goals, assigns...
responsibility for meeting them, and assesses the results. The definition we use in this study (and often cited elsewhere) 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.” As Weill and Ross note, their definition is broadly consistent with others, such as those offered by Wim Van Grembergen of the University of Antwerp and by the IT Governance Institute.

More informally, IT governance describes who makes which decisions, who provides inputs and analyzes the issues, who sets priorities, who implements the results of the decisions, and who settles disputes when there is no clear consensus. Good governance processes will be actively designed and well understood by participants and will foster timely decisions and alignment of an organization’s IT strategy with its overall mission and goals.

It’s important to distinguish between IT governance and IT management. Although IT governance should have a pervasive influence, it is not concerned with the details of executing decisions or with day-to-day operations. Nor is it a collection of policies, but rather a process for creating policies. As Weill and Ross put it, “IT governance is not about making specific decisions—management does that—but rather determines who systematically makes and contributes to those decisions.”

Finally, IT governance is concerned with the whole enterprise IT function, not just the central IT organization. True, its component parts may be concerned with specific functions, but the “desirable behavior in using IT” that our definition mentions must ultimately be behavior that is aligned with, and helps achieve, institutional strategic goals. Governance is therefore a crucial means of establishing effective relationships between central and local IT units, and between the IT function and business and academic functions. A key finding of this study is that perceptions about effective ITG balance of central and local IT correlate closely with perceptions of overall ITG effectiveness.

**IT Governance and Higher Education**

Colleges and universities have many characteristics that color and complicate their IT governance needs. Perhaps the most important of these is the concept of “shared governance,” the notion that the faculty (and other constituents) share responsibility with the administration and board for the institution’s direction and performance. One influential faculty view of shared governance is expressed in a statement of the American Association of University Professors: “The faculty has primary responsibility for such fundamental areas as curriculum, subject matter, and methods of instruction, research, faculty status, and those aspects of student life which relate to the educational process.... Agencies for faculty participation in the government of the college or university should be established at each level where faculty responsibility is present.”

Of course, other governance participants may assert their own primacy. The Association of Governing Boards unsurprisingly asserts that boards “should retain the ultimate responsibility and full authority to determine the mission of institutions” and should establish “the rules by which [stakeholder] voices are considered.” A recent spate of faculty votes of no confidence in presidents, especially the drama leading to the 2006 resignation of Lawrence Summers from Harvard’s presidency, has also put a spotlight on authority conflicts between executive leadership, the faculty, and other parties. Yet if the exact division of responsibilities is often contested, prevailing models of higher education governance generally accept shared decision making in principle, and mastering
its complexities is a key competence of the higher education executive.

If anything, the trend is toward more, not less, “sharing.” Nonacademic staff, adjunct faculty, students, and members of the surrounding community are now often considered to be stakeholders in institutional governance decisions, and increasingly institutions have consortial or system-wide relationships, perhaps even international partnerships, that require governance consideration. One recent assessment by Dennis John Gayle, Bhoendradatt Tewarie, and A. Quinton White Jr. concludes that “shared governance as traditionally defined is clearly obsolescent and requires reinterpretation.” The authors argue that the solution lies in more effective sharing, not less sharing—and the key to that is to understand and overcome the different perspectives that different groups bring to governance. “Governance must be shared among all major stakeholders, not just faculty, students, administrators, and trustees, on the basis of mutual respect and open communication,” they write. Institutions, they add, must find ways to “work patiently within identified collegial networks and eventually to fold multiple perspectives together while creating rolling visions of change.”

The results of this study suggest that IT at our respondent institutions has been drawn deep into the culture of shared governance in its broadest sense. Input into most types of IT governance decisions was spread widely across different constituencies, and while decision making was more restricted to IT and other executives, it was far from monolithic. Keeping constituents well informed about ITG decisions and processes, moreover, proved strongly associated with ITG effectiveness. As the “political” nature of IT increases along with the role of technology in almost everything the institution does, higher education IT leaders will increasingly find that they need broad-based inputs and that they must translate IT strategic objectives and best practices into terms that are culturally meaningful—and convincing—to a diverse and sophisticated user community.

Where should IT leaders look for guidance about how to do this? Sources of advice are not hard to find: IT governance has attracted a vigorous research community, and a plentiful assortment of IT governance models is available. The different ITG models all have common characteristics: Each is concerned with allocating decision-making rights to appropriate parties and defining feedback processes that inform decision makers about how well governance decisions are being carried out. Most suggest structures or mechanisms to operationalize these activities, such as committees, project review processes, balanced scorecards, and service level agreements. In all models, the ultimate focus is on improving IT value delivery and alignment with organizational strategy.

Higher education IT leaders will quickly note, however, that existing ITG models are largely based on corporate practice, and that they may assume organizational hierarchies, or identify performance goals, that don’t map directly to such higher education realities as shared governance, decentralized authority and funding, academic freedom, and nonprofit status. IT leaders may be left wondering about the value of particular practices in the context of higher education and how their colleagues at other institutions are carrying out IT governance.

Our aims in this study are to provide CIOs with information about the state of higher education IT governance and to identify practices that are associated with good ITG outcomes. We do not present an ITG model of our own, nor do we attempt to name specific governance configurations as best for colleges and universities. As we will have cause to note throughout the study, IT governance processes and structures must be adapted to institutional, not just generic, higher education needs.
We have, however, incorporated many of the concerns and recommendations of standard ITG models into our analysis, drawing on them eclectically and sometimes putting them into a higher education idiom. Thus, in addition to drawing on the IT Governance Institute’s ITG maturity-level descriptions and using both a definition of ITG and a typology of ITG decision types developed by Weill and Ross, we’ve also asked about the participation of constituencies and stakeholders specific to higher education, and about committee types and performance goals likely to be found at most colleges and universities.

We also address an aspect of IT governance that gets surprisingly little attention in the academic and advisory literature: what might be called practical politics—the aspects of IT governance that involve establishing credibility with constituents, demonstrating openness and good faith, empowering users, and developing relationships. Given that inclusivity is such a prominent aspect of higher education life, we think that such factors play an especially important role there. In questions about ITG drivers and barriers and about what shapes successful and unsuccessful outcomes, and in our qualitative interviews with IT leaders, we’ve tried to uncover the politics that enliven the structural processes of IT governance in higher education.

**Study Objectives and Scope**

Our study’s main goal is to understand how our respondent institutions allocate input and decision-making rights in IT governance, what mechanisms and processes they employ, and what practices are associated with ITG performance and effectiveness. Our primary survey’s questions covered four broad categories that roughly map to the chapters in this report:

- **The institutional context for IT governance:** respondent perceptions of how mature their institution’s ITG is, whether IT goals are aligned with academic and business goals, how actively the institution has designed ITG and how knowledgeable key participants are about it, and the drivers and barriers to pursuing formal IT governance.

- **Input and decision making:** how frequently institutional executives or constituent groups provide input and take part in decision making regarding various kinds of ITG decisions.

- **IT governance structures and processes:** incidence, membership, and role of IT steering committees; other committees related to IT governance, ITG participation in project review and the institutional budget process, and methods of communicating IT governance information.

- **Outcomes:** how well IT governance performs in influencing key institutional goals, overall effectiveness of IT, and perceived reasons that are typically responsible for successful and unsuccessful IT outcomes.

Finally, in a secondary survey described below, we asked a group of IT governance participants who do not work in the central IT organization about their views of ITG performance and effectiveness, and we compared their responses with those of their institutional CIOs.

**Research Approach**

Our research consisted of five different components: a literature review; a quantitative web-based survey of IT leaders at higher education institutions among the EDUCAUSE member base; an additional quantitative web-based survey of non-IT participants in IT governance; qualitative interviews with IT executives; and case studies.

The literature review helped identify and clarify issues, suggest hypotheses for testing, and provide supportive secondary evidence. Our review examined articles and monographs
from journalistic, academic, and IT practitioner sources, as well as IT standards and frameworks such as the IT Governance Institute’s COBIT 4.1 framework.

With input from a number of higher education CIOs, the ECAR research team designed two separate web-based surveys, one for senior IT administrators and one for participants in IT governance who work outside the central IT organization. The first survey asked a wide range of questions about IT governance maturity, participation, structures and processes, and performance and effectiveness. The survey for other participants in IT governance consisted of a small subset of questions from the main survey dealing primarily with IT governance performance and effectiveness. Because most of the IT administrator survey respondents described themselves as their institution’s CIO or equivalent, and the other ITG participant survey respondents were predominantly institutional executives, we refer to the surveys respectively as the CIO and executive surveys. Appendix A lists institutions responding to the surveys.

ECAR used qualitative surveys to gain insight into the quantitative results and to capture additional comments and ideas. We interviewed a total of 28 IT leaders in this process. We also benefited from the input of the 44 participants in an EDUCAUSE-sponsored summit on IT governance, held in September 2007 in Denver, Colorado.

Finally, this study is accompanied by case studies that take an in-depth look at IT governance development and maturation at two institutions: the University of California, Berkeley, and Queensland University of Technology.

**Classification Schemes**

For comparison, we grouped institutions using categories derived from the 2000 edition of the Carnegie Classification of Institutions of Higher Education, developed by the Carnegie Foundation for the Advancement of Teaching. To obtain adequate numbers for statistical and descriptive purposes, we collapsed the Carnegie 2000 classifications as follows:

- Doctoral (DR) institutions group the doctoral-extensive and doctoral-intensive universities together.
- Master’s (MA) institutions group master’s colleges and universities I and II together.
- Baccalaureate (BA) institutions combine the three Carnegie 2000 baccalaureate groups together.
- Associate’s (AA) institutions are the same as the Carnegie 2000 associate’s category.

To characterize respondent demographics we also report an “Other Carnegie” category that includes specialized institutions and U.S. higher education offices. Owing to the diversity and small size of this category, it does not figure in our detailed data analysis by Carnegie class. We also tracked Canadian institutions in a separate, single category.

In November 2005, the Carnegie Foundation for the Advancement of Teaching introduced a new classification scheme employing additional institutional characteristics. We have not provided a crosswalk to the new scheme, in large part because we suspect that our readers will be more familiar with the older 2000 taxonomy.

**Analysis and Reporting Conventions**

We observed the following conventions in analyzing the data and reporting the results:

- Some tables and figures presented in this study have fewer than 438 respondents (CIO survey) or 216 respondents (executive survey). They were adjusted for missing information or to reflect some subset of responses.
- Sums of percentages in some charts and tables may not add up to 100.0% due to rounding.
- The data for each question in the online survey was analyzed for differences in
patterns of response among Carnegie classes, Canadian and U.S. institutions, private and public institutions, U.S. region, and institutions of varying size. Institution size is determined by the number of full-time equivalent (FTE) enrollments. We also looked for associations between other combinations of variables as appropriate. Differences that were both meaningful and statistically significant were noted in the text and/or the supporting figures and tables. Note that a statistically significant relationship between variables does not necessarily indicate a causal relationship.

- The Likert scales used in the online surveys are footnoted in the tables and figures showing results for these survey questions.

**Overview of Respondents**

As noted above, our study involved two quantitative surveys, one designed for IT administrators (CIO survey) and a much shorter one designed for other participants in IT governance (executive survey). Note that because both surveys relied on volunteers and because the participating institutions were drawn from members of EDUCAUSE (and in the case of the executive survey, from participating consortia and systems) rather than from random samples of all higher education institutions, our results are not generalizable to all U.S. and Canadian higher education institutions.

**CIO Survey**

We distributed the IT governance CIO survey to the ECAR representative or (where the institution was not an ECAR subscriber) the EDUCAUSE institutional representative at each EDUCAUSE member institution. In most cases, the invitee was the CIO. From 1,648 invited EDUCAUSE member institutions we received 438 responses (a 26.6% response rate). Of the 438 respondents, 416 (95.0%) were from the United States or its territories; the remaining 22 were from Canada.

Figure 2-1 shows how respondents’ institutions were distributed among the Carnegie
categories described above, alongside the distribution of EDUCAUSE members and the overall population within each category at the time we launched our survey in June 2007. As with most ECAR surveys, the respondent base more closely mirrored EDUCAUSE membership by Carnegie class than it did the overall higher education population. We had the highest participation proportionately from doctoral institutions (24.2% of respondents). We also had more respondents from public institutions (62.5%) than from private ones (37.5%).

The median FTE enrollment of institutions responding to the CIO survey was 4,452. The higher mean FTE enrollment of 8,137 reflects the fact that, although smaller institutions predominated in number of respondents, larger institutions contributed disproportionately to the total of student enrollments represented across all respondents. As Figure 2-2 shows, institutions with enrollments of 4,000 or fewer FTE students made up 43.7% of respondents, those with more than 15,000 accounted for 17.9%, and those in between made up 38.4%.

Figure 2-3 shows that the CIO survey was completed predominantly (83.1%) by respondents holding the title of CIO or its equivalent. Another 4.6% were in director-level IT positions, and only 6.9% held non-IT titles. Eight out of 10 respondents (81.0%) agreed or strongly agreed that they were personally very involved in IT governance at their institutions, yielding a median 5.0 and a mean 4.11 level of agreement on our 5-point scale (where 1 = strongly disagree and 5 = strongly agree).

**Executive Survey**

Working with a number of consortia and higher education systems, ECAR assembled a group of CIO survey participants who agreed to invite up to five IT governance participants working at their institutions in units outside the central IT organization to take part in a short survey about IT governance performance and effectiveness. We received a total of 216 responses to this survey from individuals representing 59 institutions, but most of our analysis of these data related to the 177 responses from the 45 institutions
that had both a CIO survey response and one or more executive survey responses. Details about this survey and its respondent demographics appear in Chapter 7; see especially Figures 7-1, 7-2, and 7-3.

**Study Organization**

The remainder of this report presents the results of our surveys and considers how higher education IT governance may change in the near future.

Chapters 3 through 6 present the findings of the CIO survey along with related insights from qualitative interviews. In Chapter 3, we look at how respondents characterize the maturity of IT governance at their institutions, the institutional context of strategic planning and alignment in which ITG operates, and the factors that respondents name as drivers and barriers for ITG. Chapter 4 examines in detail how input and decision making are allocated, who participates, and how participation is related to ITG maturity and other related institutional characteristics. We look at the mechanisms and processes that contribute to ITG in Chapter 5, considering such topics as the prevalence and powers of IT steering committees, project review, and IT governance participation in the budget process. Chapter 6 analyzes factors strongly associated with IT governance performance and effectiveness and also looks at respondent views on what accounts for successful and unsuccessful IT governance outcomes.

In Chapter 7, we turn to the results of our executive survey, comparing perceptions of ITG performance and effectiveness from participants outside the central IT organization with those of their institutional CIO counterparts. We conclude, in Chapter 8, with the views of a group of IT leaders about what challenges IT governance will face in the next 5 to 10 years, and how ITG may evolve to meet them.

**Endnotes**


9. Figure 2-2 excludes 14 institutions for which FTE enrollment was unavailable.