

2007

CAMPUS COMPUTING

The 18th National Survey of Computing and
Information Technology in American Higher Education

Kenneth C. Green



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Begun in 1990, the Campus Computing Project is the largest continuing study of the role of computing and information technology in American higher education.

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Suggested Citation Format: Green, Kenneth C., *Campus Computing 2007: The 18th National Survey of Computing and Information Technology in American Higher Education*. Encino, CA: Campus Computing, December, 2007.

ISSN 1521-1614

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CAMPUS COMPUTING, 2007

The 18th National Survey of Computing and Information Technology in American Higher Education

The Campus Computing Survey, now in its 18th year, is the largest continuing study of the role of computing and information technology in American higher education. The 2007 Campus Computing Survey was conducted during September and October, 2007.¹ The survey results presented here summarize data provided by 555 two- and four-year public and private colleges and universities across the United States.²

From its inception in 1990, the annual Campus Computing Survey has focused on academic computing, i.e., the use of computing and information technology resources to support and enhance instruction and scholarship. However, over the past decade the organizational boundaries and the technology resources and services that once separated academic and administrative computing have become increasingly porous. Consequently, the annual Campus Computing questionnaire now includes a number of survey items that address administrative/ERP (Enterprise Resource Planning) issues and related campus IT resources and services.

Who participates in the annual Campus Computing survey? The survey respondents are typically the senior academic computing or information technology officers at their institutions: these campus officials are specifically responsible for and knowledgeable about the current direction of technology planning, policy, finances, and technology implementation, as well as eLearning activities, initiatives, and priorities for their institutions. The titles of the survey respondents include chief information officer (CIO), chief technology officer (CTO), vice-president/ vice-provost for information technology information services, executive director for information

technology, and executive director for academic computing, among other similar titles.

As noted above, the 2007 survey data were collected during September and October 2007. An electronic mail invitation with a hotlink to the online questionnaire was sent to prospective survey participants, typically the CIO or senior campus IT officer, at some 1200 two- and four-year public and private colleges and universities across the United States. Where it was not possible to identify a specific individual with a senior IT title, the questionnaire was sent to the senior academic officer. A total of 555 surveys were completed by early October, 2007. (Additional information about the survey methodology is provided in Appendix A; a list of institutions participating in the 2007 survey appears in Appendix B.)

Top IT Priorities and Concerns

For the fourth consecutive year, campus IT officials participating in the annual Campus Computing Survey report that “network and data security” are the “single most important IT” issue confronting their institutions over the next two-three years. This year one-fourth (25.5 percent) of the survey respondents identified network and data security as their top IT concern, down slightly from 30.5 percent in 2006, but still ahead of the one-fifth (20.1 percent) of the survey respondents who tagged “network and data security” as the leading concern in 2004.

2000	2001	2002	2003	2004	2005	2006	2007
Instructional Integration (40.5%)	Instructional Integration (31.5%)	Instructional Integration (24.3%)	Instructional Integration (21.4%)	Network & Data Security (21.1%)	Network & Data Security (30.0)	Network & Data Security (30.5%)	Network & Data Security (25.5%)
User Support (22.3%)	User Support (15.4%)	Upgrade/ Replace ERP (18.9%)	Upgrade/ Replace ERP (17.6%)	Instructional Integration (18.5%)	Instructional Integration (17.9%)	Instructional Integration (17.3%)	Upgrade/ Replace ERP (13.0%)
Financing IT (14.6%)	Upgrade/ Replace ERP (12.6%)	Financing IT (15.1%)	Financing IT (16.1%)	Upgrade/ Replace ERP (17.2%)	Upgrade/ Replace ERP (16.1%)	Upgrade/ Replace ERP (16.3%)	Hiring / Retaining IT Staff (12.3%)

Figure 1: The Single Most Important IT Issue Confronting My Institution Over the Next Two-Three Years (trends, 2000-2007)

The priority that senior campus IT officials assign to IT and network security issues over the past four surveys marks a major shift from the emphasis on “the instructional integration of information technology” in the first years of the decade (Figure 1). Moreover the 2007

¹The 2007 National Survey of Desktop Computing in Higher Education was supported, in part, by the following sponsors: Adobe Systems, Apple Inc., Aruba Networks, BearingPoint, Blackboard, Center for Digital Education, Cengage Learning, Cisco Systems, Datatel, Dell Inc., EDUCAUSE, Follett Higher Education Group, Houghton Mifflin Company, IBM Higher Education, Jenzabar, Lenovo, Longsight Group, McGraw-Hill Higher Education, The Andrew K. Mellon Foundation, Microsoft, NTI Group, Oracle, Parallels, Pearson Education, PerceptiS, rSmart, Rave Wireless, SAS Institute, SunGard Higher Education, Sun Microsystems, and TouchNet Information Systems.

²Six private (non-profit) two-year colleges were included in the 2006 survey mailing but only three institutions completed the questionnaire. Consequently, the low participation rate from this group should not be viewed as being representative of the larger population of more than 240 private, non-profit two-year colleges in the United States.

survey data highlight the close clustering of the priority IT issues: the top three concerns in the 2000 survey accounted for more than three-fourths (77.4 percent) of the institutional responses, compared to just half (50.8) percent of the responses in 2007. In other words, the closer clustering of priority items in the more recent surveys suggests more issues “compete” for the attention of campus IT officials – and, by extension, these issues also no doubt “compete” with one another for IT funding.

The 2007 survey data also document a renewed concern among senior campus IT officials about “hiring and retaining” IT staff, reflecting the increased competition for IT talent across all sectors of the economy. The concern about “hiring/retaining” IT staff (12.3 percent in 2007) is back to the levels posted during the days of the dot.com era – 11.0 percent in 2001, compared to 3.7 percent in 2004.

Although the numbers vary somewhat by type of institution, “network and data security” is also the top issue across all sectors of higher education in 2007, save for public research universities (Figure 2). However, the close clustering (near tie) of ERP and IT data/security issues in public research universities suggests that these two items are equally important for CIOs in this sector: 21.8 percent of the public university respondents identified upgrade/replace ERP as their top concern over the next two-three years, compared to 20.5 percent who tagged network/data security the single most important IT issue for their institutions.

All Institutions	Public Research Universities	Private Research Universities	Public 4-Year Colleges	Private 4-Year Colleges	Community Colleges
Network & Data Security (29.5%)	Upgrade / Replace ERP (21.8%)	Network & Data Security (28.9%)	Network & Data Security (25.0%)	Network & Data Security (24.9%)	Network & Data Security (29.2%)
Upgrade / Replace ERP (13.0%)	Network & Data Security (20.5%)	Upgrade / Replace ERP (15.6%)	Hiring / Retaining IT Staff (16.7%)	Instructional Integration of IT (14.5%)	Upgrade / Replace ERP (15.9%)
Hiring / Retaining IT Staff (12.3%)	Hiring / Retaining IT Staff (18.0%)	Hiring / Retaining IT Staff (13.3%)	Upgrade / Replace ERP (11.7%)	Financing IT & IT User Support (tie: 11.4%)	Hiring / Retaining IT Staff (9.7%)

Figure 2: The Single Most Important IT Issue Confronting My Institution Over the Next Two-Three Years (percentages by sector, 2007)

This year’s survey also shows some interesting variations across sectors on the other issues that campus IT officials deem to be pressing. Across most sectors, the second and third ranked issues are either “upgrade/replace ERP” systems or “hiring/retaining IT staff.” Moreover the second and third items are closely clustered, often separated by no more than five percentage points,

compared to the ten (or more) percentage points that often separate the top issue (network and data security) from the second ranked issue in most sectors in 2007. Also, instructional integration – the top-ranked IT issue in the early part of the decade – appears as priority only in private four-year colleges.

IT Security and Crisis Management

The survey provides additional evidence that IT security presents continuing challenges for college and university officials. In the context of strategic planning, just three-fifths (59.1 percent) of the institutions participating in the 2007 survey report a strategic plan for IT disaster recovery, up slightly from 2006 (55.7 percent) and reflecting only modest gains from 2004 (55.5 percent) or even 2002 (53.0 percent; Figure 3).

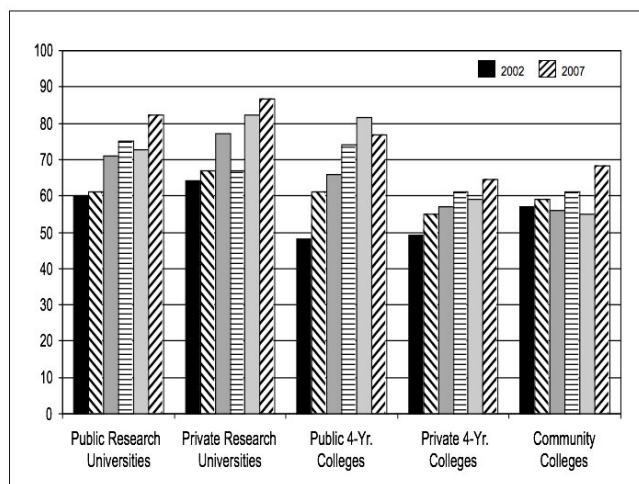


Figure 3: Strategic Plan for Network Security (percentages by sector, 2002-2007)

Similarly, the 2007 survey reveals that while the majority of institutions have a strategic plan for IT disaster recovery (Figure 4), the numbers vary by sector, from more than three-fourths (over 75 percent) in public and private research universities and public four-year colleges, to approximately two-thirds in private four-year institutions (64.6 percent) and community colleges (68.1 percent). Moreover, as shown in Figure 4, some sectors have shown only small increases in the percentage of institutions reporting a strategic plan for IT disaster planning between 2002 and 2007.

The good news in the 2007 survey regarding IT security issues is that the percentage of campuses reporting hacks or attacks on campus networks continues to decline, down to 45.6 percent in 2007 from 51.1 percent in 2005. Similarly, fewer campuses report major problems with computer viruses (14.8 percent, compared to 35.4 percent in 2005) and spyware (15.9 percent, compared to 40.8 percent in two years ago; see Figure 5). But the

incidents of stolen computers with sensitive data increased slightly from 2006 to 2007 (17.1 percent in 2007, compared to 13.5 percent in 2006 and 15.3 percent in 2005). And although the numbers are generally low (under 15 percent), more campuses report student security incidents linked to social networking sites such as Facebook or MySpace (13.2 percent in 2007 vs. 9.8 percent in 2006) and an institutional data security incident due to data loss or intrusion on a server not under the control of central IT services (14.6 percent this past year, compared to 11.3 percent in 2006). A new item on the 2007 survey reveals that 6.5 percent of institutions experienced an IT security incident this past year due to intentional employee malfeasance or transgressions.

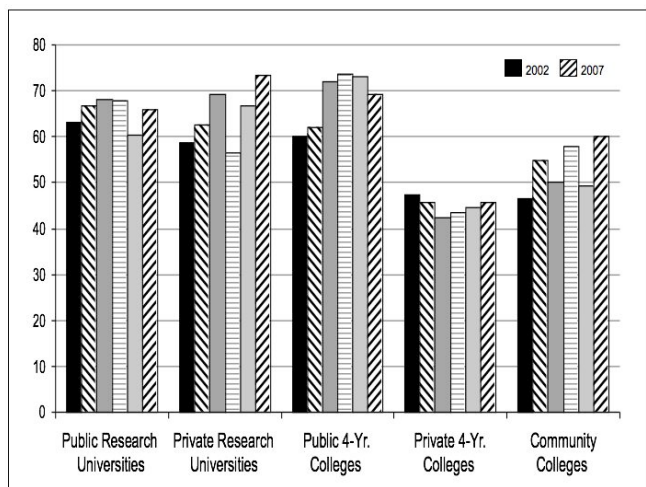


Figure 4: Strategic Plan for IT Disaster Recovery (percentages by sector, 2002-2007)

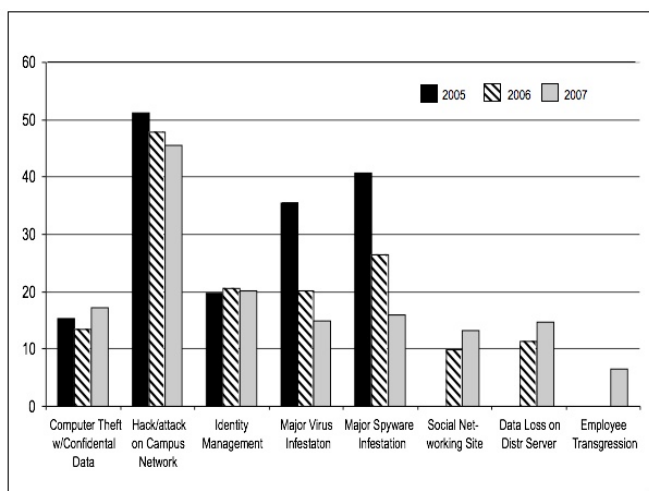


Figure 5: IT Security Incidents (percentages, 2005-2007)

Additionally, in the wake of the tragic events at Virginia Tech in spring 2007, many campuses are moving quickly to expand and enhance IT communication and notification services and resources as part of a broader IT

and campus crisis management plan. As of fall 2007, more than two-fifths (44.0 percent) of institutions report a strategic plan for emergency communication or notification services.

Yet for most institutions, the key elements of the emergency communication/notification plan appear to be based on existing IT resources such as email (66.4 percent), campus web sites or portals (62.6 percent), and campus phone services (44.6 percent). Although there are some variations by sector, comparatively few institutions have emergency communication plans that incorporate notification to off-campus phones (18.0 percent) or cell phones (22.1 percent; Figure 6).

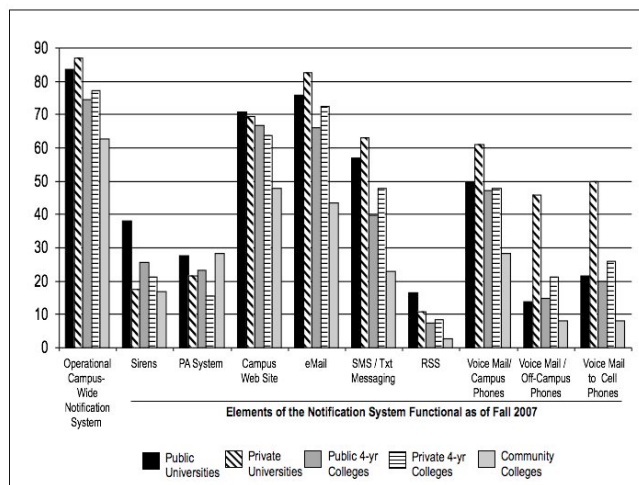


Figure 6: Emergency Notification Plans and Resources (percentages by sector, 2007)

Moreover, purchasing the technology is probably the easy (or easier) part of emergency notification planning on campus. The hard part is implementation: system testing (how fast will the messages be delivered? how reliable is the delivery?), user education for both campus officials and student recipients, having students provide and then update their contact information, decision trees about who activates a notification message and under what circumstances, and making sure that students who receive emergency messages do not view them as spam.

Another aspect of planning for and implementing notification services involves funding: while overall IT funding has improved in recent years, tapping current campus IT resources and/or acquiring new systems and services to develop an emergency notification system requires money. This is another instance of the rising demand (or requirements) for IT resources and services. It is a fair guess that the institutions that purchased notification technology systems and services in the months following Virginia Tech did not have this money in their IT (or other) budgets as of fall 2006. Rather, they either “found” the money (year end budget dust?) or took it from some other activity or program.

In sum, the aggregated 2007 survey data confirm the continuing security and crisis management challenges confronting campus IT officials across all sectors of American higher education. Two years after Hurricanes Katrina and Rita and six years after the 9-11 attacks, it is still surprising that so many colleges and universities – approximately 40 percent – have yet to complete or update IT disaster plans. Additionally, and not surprisingly, recent events at Virginia Tech, Delaware State, and other institutions have created new expectations, or in some cases new mandates, regarding emergency notification services that will now need to be incorporated into these campus plans and procedures.

Wireless Networks

Wireless campus networks now reach three-fifths (60.1 percent) of college classrooms, compared to half (51.2 percent) in 2006 and just a third (31.1 percent) in 2004 (Figure 7). Additionally, more than three-fourths (76.7 percent) of the campuses participating in the 2007 survey have a strategic plan for deploying wireless, up from 68.8 percent in 2006 and 55.3 percent in 2004. By sector, the proportion classrooms with wireless access ranges from over two-fifths (44.4 percent) in community colleges (up from 26.8 percent in 2005) to more than two-thirds (69.8 percent) in private research universities (up from 52.8 percent in 2005).

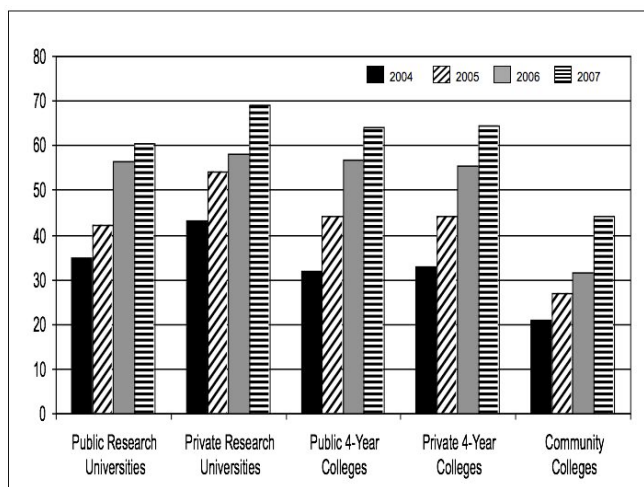


Figure 7: Wireless Classrooms (percentages by sector, 2004-2007)

As noted in the 2006 *Campus Computing Report*, several factors serve as catalysts for the rising campus investment in wireless networks: the declining cost and rising performance of wireless technology; the shifts in student (and consumer) purchasing preferences from desktop to notebook computers; and the appeal and benefits of wireless networks and mobile computing for an increasing mobile population of students and faculty. Additionally, the explosion of wireless technology in American households has raised student and faculty

expectations about wireless networks on college and university campuses. For example, as of June, 2006, more than half (55.0 percent) of American households had high-speed internet access, according to *Business 2.0* magazine.³ Moreover, consumer market data from the Pew Internet Life Project reveal that American households that have broadband access are also very likely to have installed a wireless network.⁴ Consequently, it should come as no surprise that students and faculty come to campus expecting their institution to provide the same wireless connectivity that they experience in their homes.

The movement to wireless networks on college campuses has not been without some pushback. Even as wireless networks foster access, mobility, and collaborative work among students and faculty, there is evidence of some faculty backlash against wireless in college classrooms. Many professors prefer that students not hide behind their computer screens during class. Also of some concern is the potential for students to play “got ya” with their peers or professors as they check web sites during class for current data or key issues possibly omitted or overlooked in faculty lectures and student presentations.

Looking ahead, the arrival of the Apple iPhone and other Wi-Fi phones and PDA devices will present new challenges for campus IT officials and new demands for access to the campus network from students, faculty, administrators, and staff who will come to campus with these network-compatible devices. Data from past surveys indicate that campus IT officials have preferred not to deal with mobile phones and PDAs on campus networks. No doubt this will change given the arrival of a new generation of network compatible phones and PDAs in the coming year.

IT Budgets

Data from the 2007 survey suggest stable IT budgets following the improvements experienced in 2005 and 2004, and in the wake of major budget cuts from 2001 through 2003 (Table 8). Approximately one-eighth (13.4 percent) of the surveyed institutions report budget cuts in academic computing for the 2007 academic year, down slightly from 2006 (15.7 percent) and 2005 (15.5 percent), but well below the one-fourth (24.3 percent) in 2004, two-fifths (41.3 percent) in 2003, and a third (32.6 percent) in 2002 (Figure 8). In contrast, almost half (46.9 percent) of the campuses participating in the 2007 survey report increased funds for academic computing this year, up

³ Longo, Carlo. “Your Wireless Future.” *Business 2.0 Magazine* 1 June 2006.
http://money.cnn.com/magazines/business2/business2_archive/2006/05/01/8375915/index.htm

⁴ “More Americans Have Home Computer Networks.” Pew Internet & American Life Project 15 Feb 2006 www.pewinternet.org/PPF/p/1048/pipcomments.asp

slightly from 2006 (44.2 percent) and 2005 (44.3 percent) and a significant improvement over the numbers reporting gains in academic computing budgets earlier in the decade (37.9 percent in 2004 and a 26.9 percent in 2003).

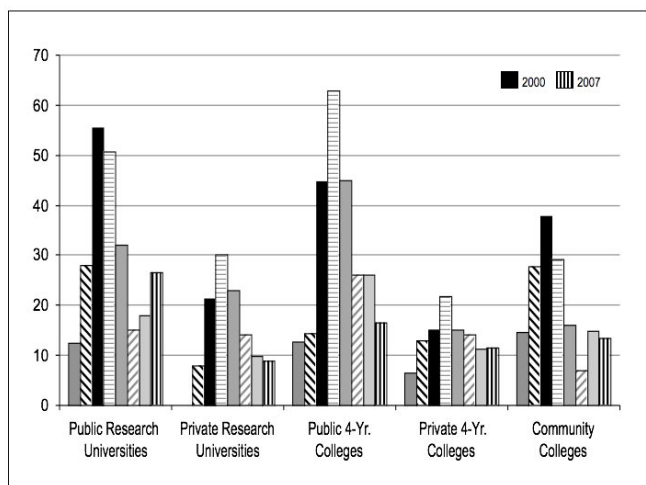


Figure 8: Budget Cuts in Academic Computing, 2000-2007 (percentage of campuses reporting budget cuts, by sector)

Additional good news about IT funding is reflected in the data on mid-year budget cuts. Again this year as in 2006 and 2005, the percentage of institutions reporting mid-year IT budget cuts was generally stable at 10.3 percent (compared to 9.4 percent in 2006 and to 9.0 percent in 2005), and significantly below the one-third (32.4 percent) that experienced mid-year budget cuts in 2003. Moreover, the proportion of the IT budget affected by mid-year budget reductions has declined significantly in recent years, from 9.2 percent in 2003 to 0.7 percent in 2007.

Even as IT budgets show gains and stability, the distribution of funds across key operational areas continues to reflect the changing IT priorities discussed above and shown in Figure 9. For example, given CIO concerns about IT security, it is not surprising that security budgets were the category of IT spending most likely to experience improved funding for in the 2007 survey. Almost two-thirds (64.6 percent) of the surveyed institutions report gains in their IT security budgets, up slightly from 2006 (62.8 percent), and 64.4 percent in 2005, and 59.5 percent in 2004. The survey data also point to wireless networks as a funding priority (stable at 60.0 percent in 2007, compared to 62.5 percent in 2006), along with ERP software and services (essentially unchanged from 2006 to 2007 at 45.3 percent), identity management (47.5 percent in 2007, up slightly from 42.3 in 2006 percent) and the purchase of network servers (43.1 percent in 2007, compared to 42.6 in 2006 and 38.6 percent in 2004).

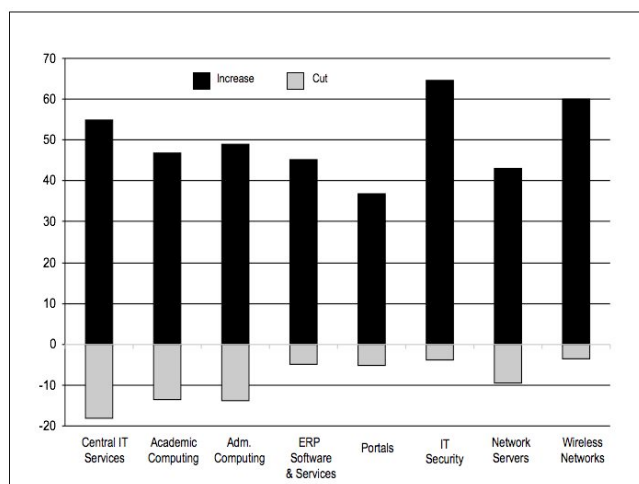


Figure 9: Budget Gains and Cuts by IT Function, 2007 (percentage of institutions reporting budget cuts or increases, by IT function)

It should be no surprise that IT budgets for emergency communication and notification services increased dramatically across all sectors: three-fourths (76.9 percent) of the institutions participating in the 2007 survey report increased funding for emergency communication and notification services this past year.

The survey data also reflect some modest gains in the campus funding for Open Source this past year. One-fifth (21.0 percent) of institutions report increased funding for Open Source projects in 2007, compared to 19.5 percent in 2006. The gains in the number of institutions reporting increased funding for Open Source projects and applications were highest in public research universities (30.5 percent vs. 26.0 percent in 2006), followed by private four-year colleges (24.9 percent in 2007, compared to 22.6 percent in 2006). The increases in private four-year colleges may reflect the rising deployment of Moodle as the campus-standard course management or learning management (CMS/LMS) application in this sector (see below; Figure 13).

While the budget gains in IT funding for 2007 should be viewed as good news, there is little question that technology budgets, and by extension, campus technology investments and initiatives, still suffer from the cumulative impact of the major IT budget cuts and mid-year budget rescissions that were common across all sectors during the early years of the decade. Moreover, the budget cuts came during a period of expanding institutional IT needs and rising expectations for IT resources and services, including, for example, IT security and disaster recovery (and the accompanying personnel required to provide or manage these services), and, of course, the new focus (and accompanying expenditures) for emergency communication and notification services. Consequently, in context of the past IT budget cuts, the

2007 survey data provide welcomed evidence of major improvements and much-needed stabilization in campus IT funding, along with evidence of continuing funding demands and internal competition for IT financial resources.

Copyright, P2P, and Campus Codes of Conduct

Despite the well-publicized media industry outcry (and accompanying Congressional concern) about copyright violations and peer-to-peer P2P file sharing in recent years, the 2007 survey data again confirm that American colleges and universities are making serious and sustained efforts to address the problem of illegal P2P downloading of music and movies on campus networks. As noted in past surveys, the vast majority of colleges and universities (82.9 percent) have campus policies to address inappropriate or illegal P2P downloading of copyrighted content (Figure 10).

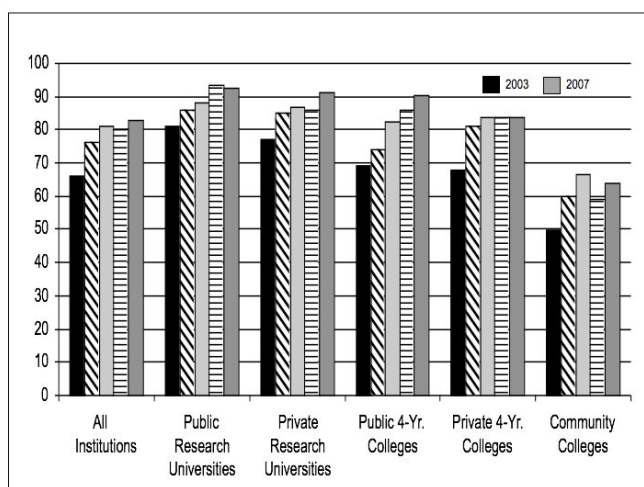


Figure 10: Campus Reporting Policies to Address P2P Downloading of Commercial Content on the Web (percentage of institutions with P2P policies, 2003-2007)

The 2007 also survey provides new information about the campus procedures intended to promote and enforce these policies. More than two-thirds of institutions (70.5 percent) report that students can lose their campus network privileges for P2P violations, while almost half (45.9 percent) impose other kinds of sanctions for inappropriate P2P activity (Figure 11). Almost a third (29.1 percent) of colleges and universities have installed some type technology product or software as part of campus efforts stem P2P piracy on campus networks, while an eighth (12.8 percent) now have mandatory user education programs to inform students about copyright and P2P issues. The Campus Computing data on enforcement procedures for P2P violations confirm similar findings from a recent survey of residential colleges and

universities conducted by Elliott Kendall at Brandeis University.⁵

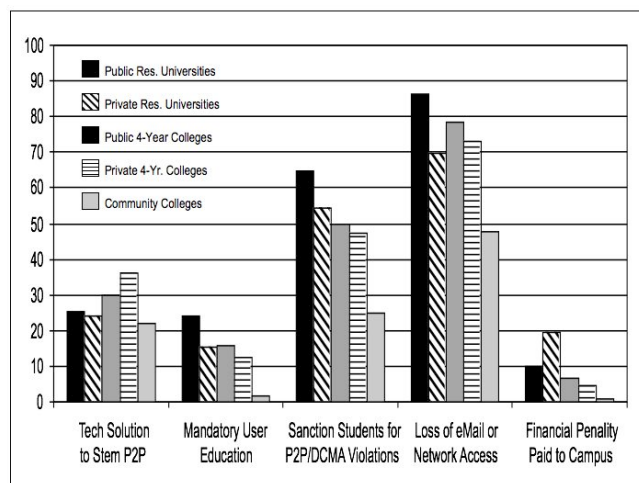


Figure 11: Campus Procedures to Address P2P Violations, 2007 (percentages, by sector)

In fall 2007 the public discourse about the role of campus networks and P2P activity migrated from the press releases and public relations efforts of the Recording Industry Association of American (RIAA) and the Motion Picture Association of America (MPAA) into legislative activity and public policy affecting American colleges and universities. As part of the reauthorization of the *Higher Education Act of 1965*, Section 494 of the *College Opportunity and Affordability Act of 2007* would require any college or university participating in federal student financial aid programs — meaning almost all post-secondary institutions, from the nation’s elite research universities to local community colleges, as well as the vast majority of for-profit colleges — (a) to “make publicly available to their students and employees the policies and procedures related to the illegal downloading and distribution of copy-righted materials” and (b) to “develop a plan for offering alternatives to illegal downloading or peer-to-peer distribution of intellectual property as well as a plan to explore technology-based deterrents to prevent such illegal activity.” The provisions of Section 494 reflect some of the recommendations offered by RIAA president Cary Sherman in a February 2007 letter to college presidents.⁶ The concern for many

⁵ Bangeman, Eric. “Colleges serious about dealing with copyright, P2P issues.” *Ars Technica* 5 Dec 2007 <http://arstechnica.com/news/ars/post/20071205-colleges-serious-about-dealing-with-copyright-p2p-issues.html?bub>

⁶ See Green, Kenneth C. “The Music Industry’s ‘Spring Offensive.’” *Inside Higher Education*, 5 March 2007 <http://www.insidehighered.com/views/2007/03/08/green> and “Swiftboating Higher Education on P2P.” *Inside Higher Education*, 15 Nov 2007. <http://www.insidehighered.com/views/2007/11/15/green>. As this report goes to press in December 2007, the legislation has passed the House Education and Labor Committee and awaits review and approval from the full House and the Senate.

in the campus community is that the provisions of Section 494 (a) duplicate the current activities of most colleges and universities that already have policies to address inappropriate P2P activity on campus networks and (b) impose unfunded mandates related to the development of plans “for offering alternatives to illegal downloading or peer-to-peer distribution of intellectual property as well as a plan to explore technology-based deterrents to prevent such illegal activity.” An additional concern is that these mandates would apply only to colleges and universities, and not to broadband providers such as AT&T, Comcast, and TimeWarner that serve the consumer market: there is significant illegal P2P activity over consumer broadband services and consumer broadband providers have been far less conscientious about addressing inappropriate and illegal P2P activity than colleges and universities.

Course/Learning Management Systems

The 2007 data continue to confirm the increasingly important role of Course Management Software (CMS) or Learning Management Software (LMS) as a core instructional resource. Overall, the percentage of college courses that use a CMS/LMS tool has risen from a seventh (14.7 percent) in 2000 to half (49.6 percent) in 2007 (Figure 12). Although the numbers vary by sector, the rising deployment of (some might say rising campus dependency on) CMS/LMS occurs across all sectors.

Three-fifths (60.2 percent) of the colleges and universities participating in the 2007 survey report a strategic plan for CMS/LMS deployment, up from 56.5 percent in 2006, half (51.4 percent) in 2003, and two-fifths (41.8 percent) in 2001.

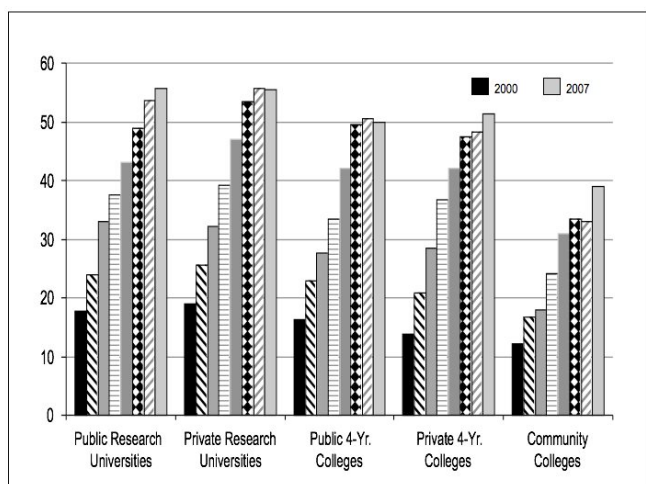


Figure 12: Rising Use of CMS/LMS in Instruction (percentage of classes using CMS/LMS, by sector, 2000-2007)

Not surprisingly, Blackboard is the dominant CMS/LMS provider. Among campuses reporting a “single

product” LMS standard, the percentage of institutions that identify Blackboard as their institutional LMS runs from 54.7 percent in private four-year colleges to 76.1 percent in private universities. Open Source LMS products (Moodle and Sakai) together account for approximately 10 percent of the campuses reporting a campus standard CMS/LMS application (Figure 13), up from 7.2 percent in 2006. Other commercial LMS providers – primarily Angel Learning and Desire2Learn, and eCollege – each account for a very small portion of the campus CMS/LMS deployments.

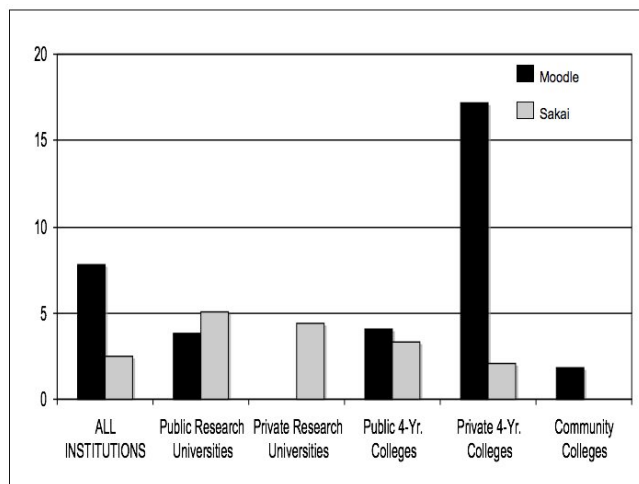


Figure 13: Institutions Reporting a Campus Standard Open Source LMS, 2007 (percentages, by sector)

Open Source

This year’s survey data point to little change in the “affirmative ambivalence” towards Open Source applications among senior campus technology officers first reported in 2004. Almost three-fifths (57.3 percent, compared to 51.9 percent in 2004) agree that “Open Source will play an increasingly important role in our campus IT strategy.” However, less than a third this year’s survey respondents (27.6 percent, compared to 28.9 percent in 2004) agree that Open Source “offers a viable alternative” for key campus administrative or ERP applications such as student information systems, campus financial systems, or personnel/human resource software (Figures 14 and 15). Taken together, these data indicate that campus IT officials are twice as likely to agree that Open Source looms large in the future (57.3 percent) as they are to agree that Open Source currently offers viable options for ERP applications (27.6 percent).

This affirmative ambivalence is not surprising given that LMS remains the one category with working, released, and deployed Open Source ERP applications; most of the Quali Open Source applications (financial and student information systems, endowment management, and research administration) are not yet in final release.

Yet even with this continuing “affirmative ambivalence,” the 2007 survey data document key gains for Open Source applications, specifically Open Source Learning Management Systems (LMS). As noted above (Figure 13), a growing number of colleges and universities – almost 10 percent – have selected an Open Source LMS as the campus standard. The proportion of institutions that have established Sakai as the campus standard LMS remains steady between 2006 and 2007 at approximately 3 percent, while the proportion using Moodle as the campus standard LMS almost doubled between 2006 and 2007, rising from 4.2 to 7.8 percent. The survey data reveal that Moodle has made significant gains among private four-year colleges: one-sixth (17.2 percent) of private four-year institutions have selected Moodle as the campus standard LMS, up from 10.2 percent in 2006

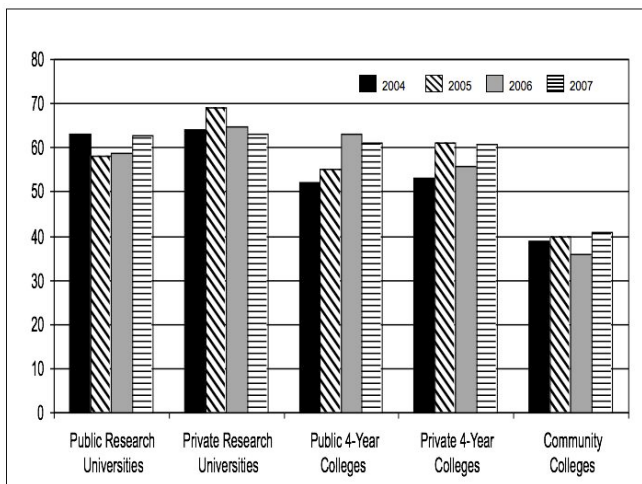


Figure 14: Open Source Will Play an Increasingly Important Role in Our Campus IT Strategy, 2004-2007 (percentages, by sector)

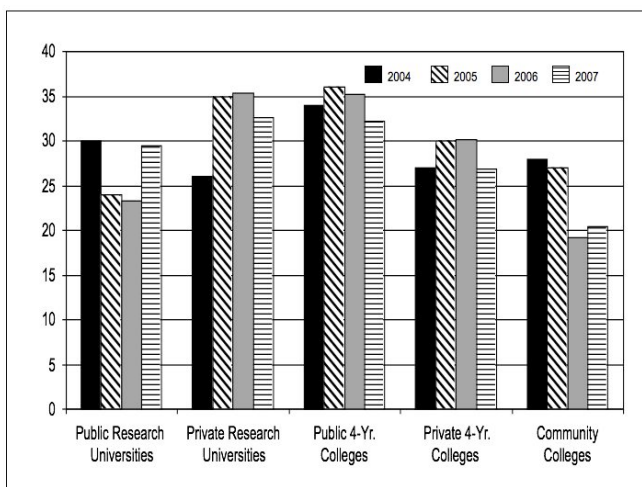


Figure 15: Open Source Offers a Viable Alternative for Key Campus ERP Applications, 2004-2007 (percentages, by sector)

The survey data on Open Source LMS utilization document the growing interest in and the slow but rising deployment of Open Source applications. The recent gains for Moodle and Sakai are interesting, suggesting that ten years after the deployment of the first commercial LMS applications, campus officials and faculty advisory committees are reviewing seriously the various LMS offerings from both commercial providers and the collaborative Open Source community. UCLA’s recent decision to move to Moodle as the campus-standard LMS as of fall 2008 may serve as a catalyst for other institutions, both large and small, to review their LMS deployment activities and options.⁷

Interestingly, the survey data also suggest a “just do it” strategy with regard to Open Source deployment. Comparatively few colleges and universities have developed a strategic plan for Open Source as of fall 2007: only an eighth (12.3 percent) of institutions report a strategic plan for Open Source development and deployment, up slightly from 10.0 percent in 2006. As shown below in Figure 16, the percentage of institutions reporting strategic plans for Open Source varies across sectors, ranging from 2.7 percent in community colleges to 17.7 percent in public research universities.

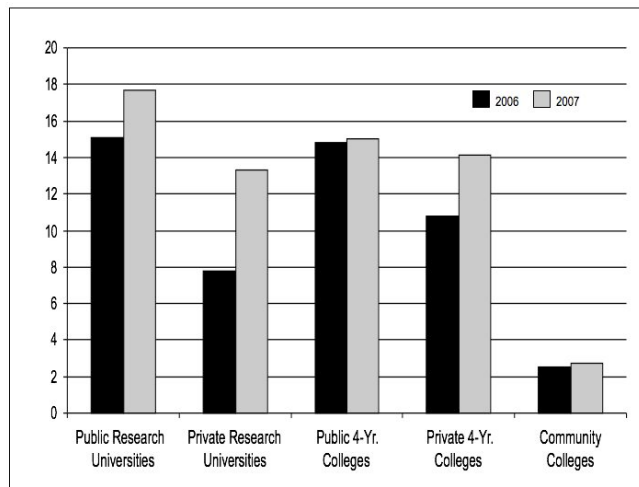


Figure 16: Strategic Plan for Open Source Development and Deployment, 2006 vs. 2007 (percentages, by sector)

Yet other items on the 2007 survey point to serious and significant Open Source development and deployment, involving both back room system tools as well as the emerging set of (still early stage) Open Source applications. As noted above, one-fifth (21.0 percent) of

⁷ UCLA’s plans to transition to Moodle by fall 2008 as the campus-standard LMS application could make the university the largest single-campus deployment of Moodle in the United States. Information about the UCLA decision to migrate to Moodle is available on the Web: <http://www.oit.ucla.edu/ccle/default.htm> See also Green, Kenneth C. “Sakai and The Four Cs of Open Source.” *Campus Technology*, February 2004 <http://campustechnology.com/articles/397071>.

institutions report increased funding for Open Source development and deployment in 2007, compared to 19.5 percent in 2006. Additionally, when asked to describe their campus strategy on Open Source tools, almost two-fifths (38.6 percent, up from 36.4 percent in 2006) of the survey respondents report that their campus is “sampling” Open Source tools for central IT services, primarily using backroom or infrastructure tools (for example, Apache server software); another third (31.9 percent) report that Open Source tools are either “operational” (13.9 percent) or “mission critical” (13.9 percent) for their institutions, or that their campus is engaged in Open Source development work that includes contributing Open Source tools for central IT operations (Figure 17).

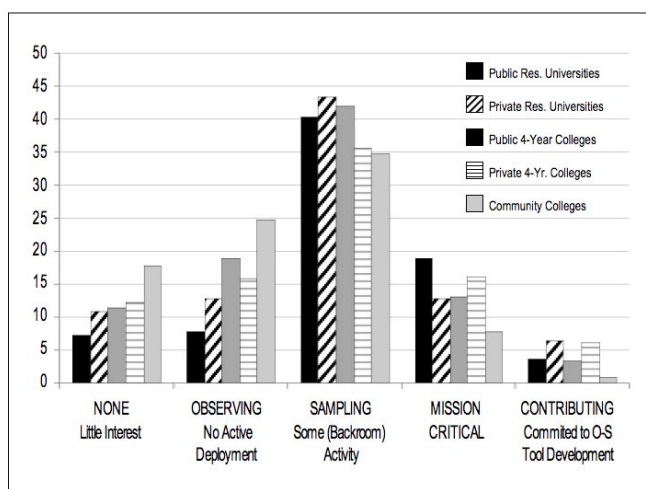


Figure 17: Campus Strategy on Open Source Tools for Central IT Infrastructure Services, 2007 (percentages, by sector)

Of course the real question about Open Source is not the use of Open Source tech tools in the back room (i.e., Apache server software), but the deployment of Open Source applications on the screens of students, faculty, administrators, and staff. Not surprisingly, the 2007 survey data reveal that the deployment of Open Source applications lags the utilization of Open Source tools. As shown in Figure 18, half of the institutions participating in the 2007 survey report that there is little or no engagement with Open Source applications (15.1 percent; down slightly from 17.1 percent in 2006) or that they are “observing” the evolution of Open Source applications 39.1 percent (also down slightly from 41.9 percent in 2006). The key shift in Open Source application deployment involves the one-fourth of institutions reporting that they are “sampling” Open Source applications (24.5 percent, up from 21.6 percent in 2006).

Strategic Planning for IT

The survey data again highlight the continuing challenge of IT planning in American colleges and universities. Almost three-fourths (73.2 percent) of campuses participating in the 2007 survey report an institutional strategic plan for information technology, compared to 70.0 percent in 2004, 63.3 percent in 2001, and less than half (48.0 percent) in 1998.

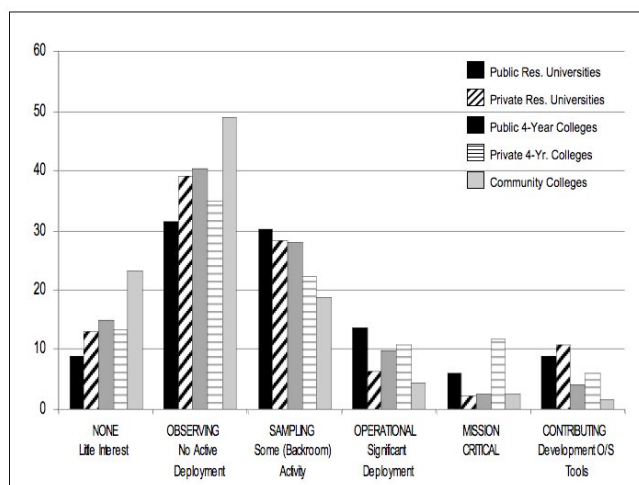


Figure 18: Campus Strategy on Open Source Applications, 2007 (percentages, by sector)

As noted in past reports, these numbers suggest important and impressive gains in campus efforts to anticipate and to address a wide array of critical information technology challenges between 1998 and 2007. Yet as in past years, additional data from the annual Campus Computing Survey suggest that many of these strategic plans may be incomplete. For example, as noted above, many colleges and universities have yet to complete or update strategic plans for network security or IT disaster planning. Moreover, in the wake of the tragic events at Virginia Tech in spring 2007, many campuses are now wrestling with the specifics of emergency communication and notification plans as part of comprehensive IT strategic planning efforts.

Indeed, probe just a bit below the surface numbers on strategic IT plans and it becomes clear that some key components are often missing from the overall campus IT strategic plan at many institutions. For example, less than three-fourths of the 2007 survey respondents report an IT financial plan that acknowledges the need to “acquire and retire” aging equipment and software. This compares to 66.2 percent in 2006, 54.7 percent in 2002, half (52.2 percent) in 2000, and just a fifth (21.9 percent) in 1994. While these gains on institutional IT financial plans between 1994 and 2007 are both important and impressive, the survey data also reveal that fully two decades into the so-called “IT revolution in higher

education,” almost a third (31.0 percent) of the institutions participating in the 2007 survey still do not have “real” IT financial plans. Moreover, many institutions claiming “acquire and retire” plans may not have fully-funded these plans when confronted with budget cuts during the early years of the decade.

Other metrics from the 2007 survey also to confirm that many campus IT plans may be incomplete. Just under over a fourth (26.9 percent) of the participating institutions do not have strategic plans for upgrading or replacing core administrative/ERP software systems, an improvement compared to the numbers in 2004-2006 (approximately 30 percent), but still a source for concern.

Moreover, less than half (47.7 percent) of the participating colleges and universities have a strategic plan for student portal services, a slight improvement from 2005 and 2006 (approximately 42-44 percent), and up from a third (36.4 percent) in 2004, a fourth (24.5 percent) in 2002, and one-eighth (12.6 percent in 2000).

As noted above, the arrival of the Apple iPhone along with WiFi enabled phones and PDAs from other providers will force campus IT officials to address the role of phones as part of the overall campus IT strategy. Cellular phones and other mobile devices will also play an important role in campus planning for emergency communications and notification services. Yet as of fall 2007, only a fifth (19.3 percent) of institutions report a strategic plan the addresses the role of cellular/mobile phones as part of the overall campus IT strategy.

Consequently, while the survey data continue to document some impressive gains in selected aspects of campus IT strategic planning over the past six years, the data should also be of some concern: the numbers for key components of an IT strategic plan (e.g., finance, ERP upgrade/replacement, portals, and security, among other issues) remain, in some sectors, well below the percentage of institutions reporting that they have an overall “strategic plan” for information technology.

Yet in fairness to campus IT officials, it is also important to note that the components of campus IT strategic plans have been expanding in recent years, most recently with the addition of emergency communications and notification services. Moreover, IT strategic planning is often reactive, affected by both current events (e.g., Virginia Tech) and new technologies (e.g., WiFi phones and PDAs; also see below for the survey data on Web 2.0). The small number of colleges and universities that may have had IT strategic plans in 1993 or 1994 would have found those plans to be obsolete by 1995 or 1996 because of the emergence of the Web in the mid-1990s. Similarly, although CIOs and other campus officials have been long concerned about of network security and IT disaster recovery, these issues emerged as far more

important institutional priorities in the post-9/11 environment – and now post-Katrina – environment.

Services on Campus Portals and Web Sites

The 2007 data point to continuing gains on a number of eCommerce and eService measures across all sectors of higher education. For example, fully four-fifths (82.9 percent) of the institutions participating in the 2007 survey report they can now process credit card payments from the campus web site, up from three-fourths (76.3 percent) in 2005, just over half (53.5 percent) in 2003, and almost four times the number in 2000 (18.6 percent). In contrast, just 5.1 percent of campuses participating in the 1998 survey could process online credit card transactions (Figure 19).

Online course registration services have also posted significant gains over the past six years. Almost all (94.4 percent) of the survey respondents report that their campus now offers online course registration, compared to 84.1 percent in 2004, three-fourths (76.6 percent) in 2003, two-thirds (70.9 percent) in 2002, just over half (55.4 percent) in 2001, and just a fifth (20.9 percent) in 1998.

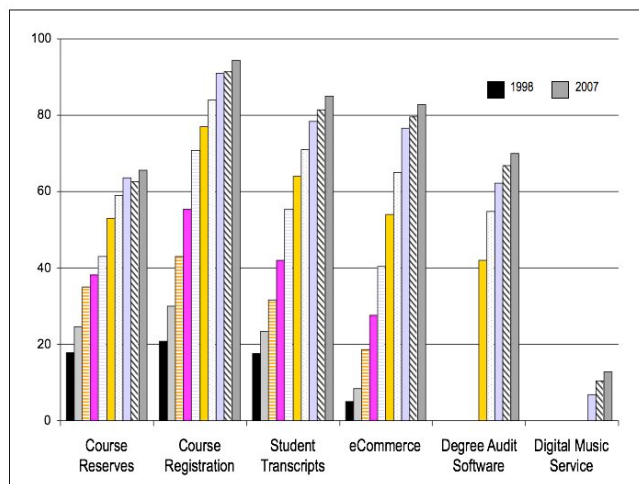


Figure 19: Services on Campus Web Sites (percentages by service category, 1998-2007)

Additionally, the proportion of campuses that now provide online access to student transcripts has more than tripled from 1998 to 2007, rising from 17.6 to 85.1 percent, and up from 71.1 percent in 2004 and 64.4 in 2003. Degree audit software has also registered good gains in recent years, up from two-fifths (42.1 percent) in 2002 to more than two-thirds (70.1 percent) in 2007.

Interesting, the proportion of institutions offering digital music services remains very small – just 12.9 percent in 2007, (up from 10.9 percent in 2006), suggesting that subscription services are not popular with students and that despite pressure from the RIAA, colleges do not feel obligated to provide this service for students.

Even as all sectors of higher education have registered significant gains on a range of online services now available to students, the 2007 survey data continue to provide ample evidence that some sectors are well ahead of others (Figure 20). Not surprisingly, public and private research universities typically offer more online services, while community colleges, which serve more than a third of the total headcount enrollment of US higher education, continue to lag behind other sectors on many of the metrics for web-based services.

	All Institutions	Public Research University	Private Research University	Public 4-Year College	Private 4-Year College	Comm. College
Journals & Reference Resources	93	96	94	95	95	86
Course Reserves	66	82	83	75	67	32
Course Registration	95	99	98	98	87	96
Degree Audit Software	70	80	70	79	63	69
Computer Resale Prog.	35	54	50	37	35	12
eCommerce	83	95	87	90	67	91
Digital Music Service	13	25	35	15	9	--

Figure 20: Services on Campus Web Sites, by Sector (percentages by campus sectors, 2007)

As noted in past *Campus Computing* reports, although improvements in the range and scope of online campus services between 1998 and 2007 seem striking, these gains are less impressive when seen in the broader context of the consumer market experiences and expectations of American college students – ages 17 to 67 – who come to campus to *learn about* and to *learn with* technology. For today’s college students – only one-fifth of whom are “traditional” students (i.e., full-time undergraduates living on/adjacent to campus) – Web-based services are best represented by their off-campus, online experiences at Amazon.com, The Gap, Charles Schwab, and other retail Web sites, as well as their activities in Web 2.0 environments such as Facebook, MySpace, and YouTube. These consumer sites provide the kinds of increasingly customized services and support that are not available from college and university Web sites.

Taken together, these data suggest that many campus Web sites and online campus services continue to lag the consumer sector by as much as two years. Moreover, the lingering impact of budget cuts that affecting all sectors during the first years of the current decade may still impede institutional efforts to expand and enhance eLearning and online services.

ePortfolios

The proportion of institutions offering ePortfolio options for their students has more than doubled in four years, rising from 13.5 percent in 2003 to 34.9 percent in 2007 (Figure 21). There is no question that ePortfolios have gained attention in recent years because of the increased campus discussion about assessment and student outcomes. Additionally, they have become increasingly important to many undergraduates in public four-year colleges, reflecting the role of ePortfolios in the assessment and accreditation of teacher education programs.

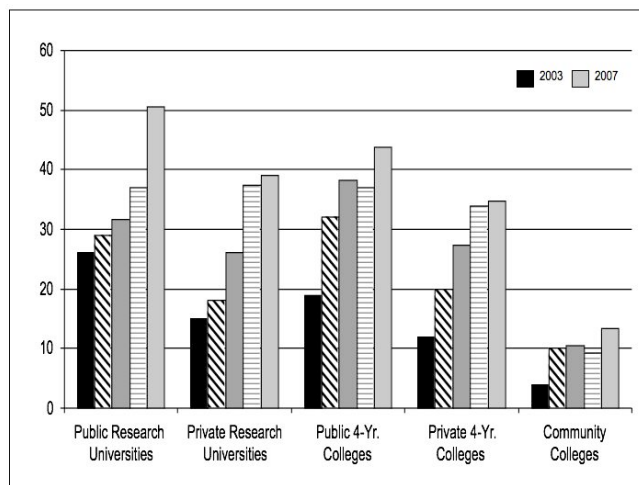


Figure 21: ePortfolio Services (percentages by campus sectors, 2003-2007)

Outsourcing IT Services

Campus IT officers report generally little interest in outsourcing. As shown in Figure 22, when asked to rate the importance of outsourcing options and opportunities – data back-up, ERP services, instructional technology services, residential networks (ResNet), campus portals, and student email – survey respondents generally assess outsourcing as no or of low importance (mean scores generally under 3.0; scale: 1=not important; 7=very important). The four outsourcing topics areas that elicit some interest on the part of survey respondents are data backup, student portals, and web hosting services (mean scores: 3.3) and student email services (mean score: 3.8).

Yet even as they show little or ambivalent interest in outsourcing for IT services, some campuses are doing so and others are exploring options and opportunities, particularly in the area of student email. The fall 2007 survey data reveal that a tenth (9.7 percent) of campuses are already outsourcing student email services; another 6.7 percent plan to begin outsourcing student email services in the current (2007/08) academic year while a tenth (10.9 percent) plan to review outsourcing student email this year (Figure 23).

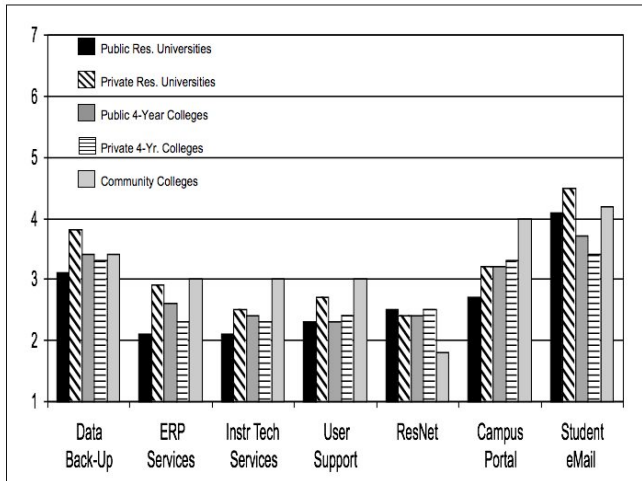


Figure 22: Rating the Importance of Outsourcing, Fall 2007. (scale: 1=not important; 7=very important)

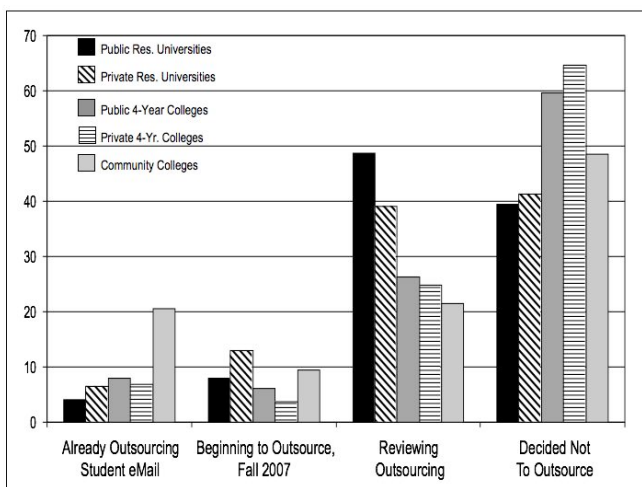


Figure 23: Outsourcing Student eMail, Fall 2007 (percentages by sector)

The email outsourcing numbers are highest in community colleges (20.6 percent), more than double the numbers for any other sector. The community college numbers may reflect the large numbers of part-time students in this sector, and also significant numbers of non-degree students who are not continually enrolled in classes, but rather take individual courses as time permits or their jobs (and career goals) require. Given the proliferation of email options in the consumer economy over the past decade, community college officials (unlike their peers in other sectors and especially residential colleges) may feel that their institutions do not have any obligation to be a primary provider of student email and network access services.

A small but growing number of campuses are also outsourcing their helpdesk/user support services: as above, almost tenth (8.9 percent) report currently outsourcing helpdesk/user support services while another tenth (10.9

percent) plan to review outsourced user support options during the current academic year. These outsourcing activities range of full 24/7 coverage to off-hour (late night and weekend) services.

Yet even as a small number of institutions are exploring outsourcing options, the majority report that they reviewed and explicitly decided not to outsource various IT services and resources. For some institutions the decision not to outsource may be a matter of cost and quality (i.e., “we can do it better and for less money”), while for others it may be a matter of control and trust (i.e., “we really need to control this ourselves and are not sure we can find a trusted service provider/partner”).

Planning for Web 2.0

The technology community’s engagement with Web 2.0 seems to be moving very slowly into higher education. Even as many faculty and students are involved in Web 2.0 activities and spend time at Web 2.0 web venues, the survey data presented in Figure 24 suggest that postsecondary institutions have been slow to engage (let alone embrace) the world of Web 2.0 and user-provided content: very few institutions have developed a strategic plan for Web 2.0, and few colleges or universities have an “official” campus presence on Web 2.0 venues such as Facebook or MySpace. Wikis are moving slowly into official campus web sites as a navigational and information resource, at both the campus and departmental/project level.

The data for Second Life shown in Figure 24 are difficult to assess: in some instances this may be an “official” campus presence, while in other instances it may be that campus officials “purchased the island” to protect the campus name/brand, much like many colleges and universities registered their URLs (domain names) well ahead of building their campus web sites.

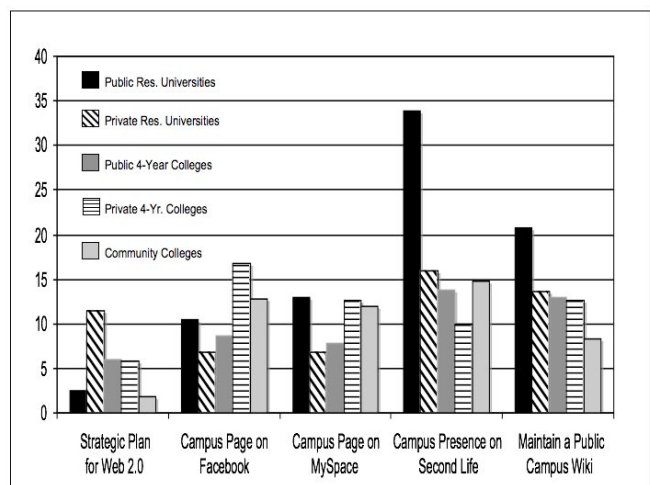


Figure 24: Web 2.0 Activities (percentages by sector)

IT Evaluation and Assessment

One of the most interesting IT challenges confronting CIOs and other campus officials involves campus efforts to assess the impact of institutional investments in information technology.

As reported in past Campus Reporting reports and as shown in Figure 25, campus technology officers continue to affirm the need for IT assessment and evaluation efforts – assessing the benefits of the campus IT investment, surveying students and faculty about IT issues and services, and assessing the “return on investment” (ROI) for campus IT spending. Still, the survey data highlight the continuing gap between CIO agreement about the need to engage in IT assessment and the actual level of IT assessment and evaluation activities.

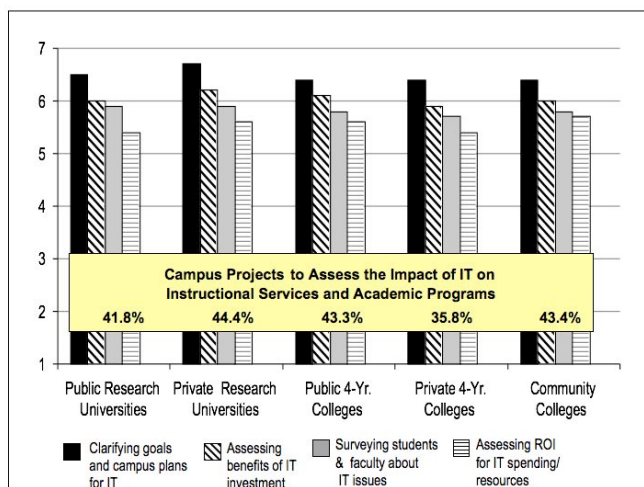


Figure 25: CIO Support for IT Assessment and Evaluation, 2007
(scale: 1=strongly disagree; 7=strongly agree)

However, the interesting news in the 2007 survey data is that more campuses have launched campus projects to assess the impact of IT on instructional services and academic programs. For example, as of fall 2007, two-fifths (41.8 percent) of the surveyed campuses report campus initiatives to “assess the impact of IT on instructional services and academic programs” compared to a third in 2006 (35.7 percent) and also a third (34.0 percent) in 2001.

As noted in past *Campus Computing* reports, several factors suggest that IT evaluation and assessment will be an increasingly important issue for colleges and universities over the next few years. Campus technology officials (and IT advocates) confront continuing questions from a variety of constituencies – faculty, presidents and provosts, board members and, for public institutions, elected officials – about costs, impact and benefits of the continuing campus investment in information technology.

Moreover, colleges and universities confront questions about IT investments and outcomes simply because other sectors of the American economy have experienced productivity benefits from information technology. These questions, highlighted by the September 2006 Spellings Commission Report on the future of American higher education, are part of the larger discussions about higher education, institutional assessment and student outcomes and the key role that IT investments could play in providing critical data, information, and insight to help address these pressing issues.⁸

⁸ See Green, Kenneth C. “Bring Data: A New Role for Information Technology After the Spellings Commission” *EDUCAUSE Review*, 41 (6), Nov/Dec 2006.

CAMPUS COMPUTING 2007

	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
Number of Respondents	555	79	46	121	193	113	3
GENERAL CAMPUS POLICIES ABOUT DESKTOP COMPUTERS							
Does your institution have:							
A formal policy promoting or mandating computers/ technology resources for							
Curriculum utilization?	30.1	29.5	23.9	26.7	32.1	31.9	100.0
Undergraduates?	23.8	36.7	37.0	30.0	24.9	0.9	33.3
Graduate/professional students?	37.3	39.2	37.0	33.3	43.5	28.3	100.0
Distance education?	34.6	41.8	30.4	32.5	24.4	50.4	66.7
A computer instruction, computer competency, technology literacy, or information literacy requirement for							
All undergraduates?	43.8	32.9	32.6	50.8	44.6	46.0	100.0
All faculty?	10.3	1.3	6.5	8.3	12.4	15.9	33.3
All administrators?	11.0	3.8	4.3	7.5	14.0	16.8	33.3
All staff?	11.2	6.3	-	10.0	14.5	14.2	33.3
A special computer use/technology fee or annual/term computer use charge for all students?	55.0	73.4	39.1	71.9	37.8	59.3	66.7
Average computer use fee (where charged)	\$ 103	\$ 157	\$ 77	\$ 103	\$ 106	\$ 61	\$ 435
A written policy/code of conduct/acceptable use policy for							
Campus e-mail accounts?	96.2	98.7	100.0	98.3	97.9	87.6	100.0
Campus-hosted individual/personal Web pages?	80.3	92.4	84.4	83.5	85.4	59.3	33.3
Duplication of copyrighted software/software piracy?	96.2	100.0	93.3	95.9	96.9	93.8	100.0
Fair use of copyrighted content (books, articles, etc.)?	92.6	93.7	86.7	92.6	94.3	91.2	100.0
Downloading commercial music/videos from the Web?	82.9	92.4	91.1	90.1	83.9	63.7	66.7
Student use of social networking sites (Facebook, MySpace, etc.)?	13.2	14.1	18.2	11.6	13.5	12.4	-
Operating systems recommended/supported*							
Mac OS X	87.4	94.9	95.7	93.4	85.0	77.9	33.3
UNIX	59.7	82.3	67.4	63.6	45.6	61.9	-
Linux	72.8	88.6	76.1	77.7	64.2	70.8	33.3
Windows NT Workstation	18.3	29.1	19.6	19.8	11.9	19.5	-
Windows 2000/XP	99.3	98.7	100.0	99.2	99.0	100.0	100.0
Windows Vista	46.9	49.4	60.9	40.5	48.2	43.4	66.7
Open VMS	12.1	13.9	17.4	22.3	5.7	8.8	-
Sun/Open Solaris	43.0	72.2	60.9	51.2	27.5	33.6	-
Novell	27.9	36.7	19.6	26.4	22.8	35.4	-
None	0.7	1.3	-	0.8	1.0	-	-
Do you require or strongly recommend computer or PDAs/handhelds for students							
<i>Computers for all undergraduate students</i>							
No	47.8	38.0	37.0	43.8	33.2	89.4	33.3
Recommend	44.8	50.6	52.2	50.4	57.5	9.7	33.3
Require	7.4	11.4	10.9	5.8	9.3	0.9	33.3
<i>Computers for all undergraduates in specific disciplines or academic programs</i>							
No	39.8	12.7	28.3	28.1	42.0	72.6	33.3
Recommend	43.2	43.0	50.0	58.7	43.0	23.9	33.3
Require	17.1	44.3	21.7	13.2	15.0	3.5	33.3
<i>PDAs/handhelds for undergraduates in specific disciplines/academic programs</i>							
No	84.7	77.2	73.9	80.0	87.1	95.6	100.0
Recommend	9.9	16.5	19.6	13.3	6.2	3.5	-
Require	5.4	6.3	6.5	6.7	6.7	0.9	-
<i>iPods or other multi-media devices in specific disciplines/academic programs</i>							
No	92.0	81.6	93.2	91.3	95.3	94.5	100.0
Recommend	7.1	18.4	4.6	7.0	4.2	4.6	-
Require	0.9	-	2.3	1.7	0.5	0.9	-
<i>Cell phones for all students</i>							
No	92.6	92.2	93.2	90.5	89.4	100.0	100.0
Recommend	7.4	7.8	6.8	9.5	10.6	-	-
Require	-	-	-	-	-	-	-
Does your institution (or individual units or programs) recommend a particular brand or product for*							
<i>Hardware</i>							
students?	44.3	44.3	69.6	40.8	50.8	26.5	33.3
faculty?	84.2	67.1	84.8	88.4	89.1	83.2	66.7
administrators/staff?	86.0	69.6	89.1	91.7	90.2	83.2	66.7
<i>Software</i>							
students?	70.7	67.1	84.8	71.1	80.8	48.7	100.0
faculty?	90.8	77.2	89.1	91.7	95.3	92.0	100.0
administrators/staff?	92.4	79.7	93.5	94.2	96.4	92.0	100.0
As of fall 2007, will your campus have "preferred provider" agreements with computer companies that include online computer resale programs linked to your campus web site?							
No	29.0	11.4	13.0	24.8	27.5	54.0	66.7
Yes, hardware							
Acer	0.4	-	-	-	0.5	0.9	-
Apple	44.6	75.9	71.7	43.8	44.6	13.3	-
Dell	54.9	81.0	78.3	62.0	49.7	29.2	-
Gateway	14.4	26.6	8.7	19.8	13.0	5.3	-
HP/Compaq	15.1	31.6	8.7	16.5	13.0	8.8	-
Lenovo	15.8	29.1	34.8	18.2	13.5	0.9	-
Sony	1.3	3.8	-	0.8	1.6	-	-
Sun	5.2	13.9	13.0	6.6	1.6	0.9	-
Toshiba	2.3	3.8	2.2	3.3	1.6	1.8	-
Yes, software							
Adobe	28.2	53.2	41.3	26.4	23.3	15.9	-
Apple	21.6	41.8	17.4	24.8	19.7	8.8	-
Norton	11.7	17.7	26.1	12.4	10.9	2.7	-
Microsoft	52.2	74.7	65.2	54.5	51.8	30.1	-
Statistical software	27.5	62.0	41.3	33.9	21.2	2.7	-
Virus protection/spyware products	42.3	70.9	41.3	47.9	43.0	15.0	33.3

percentages by campus category.

CAMPUS COMPUTING 2007

	All Institutions		Universities		4-Year Colleges		2-Year Colleges	
			Public	Private	Public	Private	Public	Private
As of fall 2007, will your institution have an initial or single sign-on campus portal?*								
No, campus portal not available as of fall 2007	10.8	1.3	13.0	9.1	14.0	12.4	33.3	
No, portal issue now under discussion/review	17.6	11.4	13.0	12.4	21.8	22.1	33.3	
Yes, portal being installed/under development in 2007/08	18.7	12.7	13.0	28.9	16.1	19.5	-	
Yes, campus portal up and functioning for fall 2007	52.9	74.7	60.9	49.6	48.2	46.0	33.3	
Our campus portal is/will be:*								
Homegrown/local	18.2	17.3	11.4	21.5	23.1	8.5	100.0	
Blackboard/WebCT	7.7	6.7	6.8	3.7	11.3	7.5	-	
Campus Cruiser	2.5	-	-	-	1.3	10.6	-	
eCollege	0.2	-	-	-	0.6	-	-	
Jenzabar	6.0	-	-	2.8	15.6	1.1	-	
Oracle/PeopleSoft	12.0	25.3	13.6	19.6	5.6	2.1	-	
SunGard Higher Ed/Luminis-Campus Pipeline	26.7	29.3	36.4	33.6	16.3	30.9	-	
Sun Microsystems Portal	0.2	-	-	-	0.6	-	-	
TimeCruiser	0.4	-	-	-	-	2.1	-	
Unicon/Academus	1.7	1.3	-	0.9	2.5	2.1	-	
uPortal	6.6	12.0	9.1	7.5	4.4	4.3	-	
Other	17.8	8.0	22.7	10.3	18.8	30.9	-	
<i>percentages by campus category.</i>								
<i>*columns may total more than 100% since responses were not mutually exclusive.</i>								
USES OF INFORMATION TECHNOLOGY								
How strongly do you agree or strongly agree:*								
Faculty have unreasonable expectations about user support	48.3	41.0	43.5	54.5	48.7	48.7	33.3	
Technology has improved instruction on my campus	93.2	93.6	91.3	95.0	90.7	95.6	100.0	
We plan to require all students to own a computer by fall 2008	9.9	14.1	10.9	9.1	13.0	1.8	33.3	
Access to Internet 2 by fall 2008 is essential to our long-term tech needs	33.5	76.9	60.0	42.1	16.1	14.2	-	
We are experiencing major cost over-runs/unexpected costs in our ERP deployment activities	17.9	19.2	17.4	26.4	11.4	19.6	-	
Open Source offers a viable alternative for key campus ERP applications	27.6	29.5	32.6	32.2	26.9	20.4	33.3	
Open Source will play an increasingly important role in our campus IT strategy	57.3	62.8	63.0	61.2	60.6	40.7	66.7	
The single most important IT issue over the next 2 or 3 years is:								
Providing online/distance education via the web	5.4	2.6	6.7	5.8	6.2	5.3	-	
Providing adequate user support	8.9	5.1	13.3	8.3	11.4	6.2	-	
Assisting faculty integrate technology into instruction	11.2	12.8	11.1	7.5	14.5	8.9	-	
Financing replacement of aging hardware/software	10.3	7.7	4.4	14.2	11.4	8.0	33.3	
Moving toward campus-wide wireless networks	1.5	-	-	1.7	2.1	1.8	-	
Integrating academic and administrative IT services	2.9	6.4	-	4.2	1.0	2.7	-	
Providing student portal services	4.5	2.6	4.4	2.5	5.2	6.2	33.3	
Upgrading/replacing network and data security	25.5	20.5	28.9	25.0	24.9	29.2	33.3	
Hiring/retaining qualified IT staff	12.3	18.0	13.3	16.7	8.8	9.7	-	
Upgrading/replacing administrative IT/ERP systems	13.0	21.8	15.6	11.7	8.3	15.9	-	
Upgrading/replacing campus network	3.3	2.6	2.2	1.7	5.2	2.7	-	
Upgrading/replacing emergency communications	1.3	-	-	0.8	1.0	3.5	-	
<i>means by campus category.</i>								
CURRENT IT/COMPUTER FACILITIES AND RESOURCES								
Headcount enrollment on campus as of May 2007	10,288	24,191	10,422	10,043	3,092	13,354	2,110	
Number of institutionally owned desktop or notebook computers and workstations								
Desktop/notebook computers	3,548	10,193	7,377	2,866	1,310	2,065	1,058	
Unix Workstations	120	512	339	61	16	8	-	
Number of personally owned desktop and network computers	3,771	12,357	7,119	3,498	1,629	621	218	
Proportion of individuals who own desktop or notebook computers								
<i>Students</i>								
Desktops	44.8	51.0	31.3	51.8	32.3	59.9	45.0	
Notebooks	50.5	54.2	71.3	42.0	65.0	23.7	58.3	
<i>Faculty</i>								
Desktops	66.5	79.5	56.4	69.3	55.5	77.9	48.3	
Notebooks	35.3	39.7	44.6	32.9	37.6	26.6	45.0	
Total number of desktop computer labs, clusters and classrooms as of May 2007	86	176.5	113.5	95.1	44.9	73.9	8.3	
How many dedicated to departments or units?	37	76.2	55.3	40.9	17.2	34.1	2.7	
Total number of desktop computers/workstations in all labs/classrooms/clusters								
Notebook/Desktop Computers	1,068	2,338	995	1,220	363	1,299	298	
Unix Workstations	37	162	52	27	10	6	-	
Total number of network servers on your campus	193	630	542	117	66	54	23	
<i>Percentage of campus servers managed by</i>								
Central IT services	82.8	59.2	73.3	79.9	92.1	89.6	99.7	
Individual departments/labs/units	12.9	41.1	25.8	13.6	4.0	3.4	0.3	
Percentage of operating systems installed on institutionally-owned computers and servers								
<i>Computers/clients</i>								
Mac	12.3	13.2	16.0	11.2	16.6	4.5	2.0	
Windows 2000/XP	75.7	65.5	70.9	73.3	74.9	87.9	91.0	
Windows Vista	3.9	6.8	5.3	3.2	3.4	3.1	5.0	
Unix	1.9	4.0	2.7	1.9	1.3	1.1	-	
Linux	2.8	4.7	3.3	3.5	2.5	1.1	0.7	
<i>Network servers</i>								
Mac	3.1	3.7	3.3	3.6	3.7	1.1	0.3	
Win 2000/03	57.3	44.2	46.2	56.3	58.7	68.5	92.7	
Solaris/Open Solaris	6.5	11.2	14.1	6.7	5.0	2.7	-	
Unix (non-Solaris)	6.8	12.9	8.4	6.1	5.8	4.7	-	
Linux	13.7	18.1	18.3	13.7	15.7	5.9	2.0	
Novell	7.5	5.8	4.3	7.3	6.9	10.7	-	
Total number (FTE) of IT help desk/technical support personnel	39.5	139.1	90.7	21.2	11.5	17.9	4.3	
Ratio user support (enrollment/help desk)	260.4	173.9	114.9	473.7	268.9	746.1	490.8	
Percentage of faculty with individual/personal Web page	30.6	35.8	35.1	34.9	27.1	27.4	3.7	
<i>percentages by campus category.</i>								

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	All	Universities		4-Year Colleges		2-Year Colleges		
	Institutions	Public	Private	Public	Private	Public	Private	
Percentage of classes that use:								
Computer-based classrooms/labs	39.4	36.1	31.9	43.9	38.1	42.3	53.3	
Computer-based simulations/exercises	19.0	17.3	18.4	18.7	18.7	20.9	36.7	
Presentation handouts	56.0	50.9	61.2	61.2	53.3	56.3	53.3	
Electronic mail	81.5	86.7	88.4	85.4	87.2	61.5	78.3	
Commercial courseware/instructional resources	31.9	29.3	33.1	30.9	33.8	31.5	33.3	
Internet resources (from off-campus resources/Web sites)	60.0	61.9	58.9	63.7	63.5	49.4	60.0	
Course management tools for online course resources	49.6	55.6	55.6	50.0	51.3	39.0	60.0	
Web pages for class materials and resources	42.8	51.0	45.8	49.2	38.6	36.9	21.7	
"clickers"/classroom response system	4.6	8.5	4.5	5.1	4.2	2.1	-	
Podcasting	2.3	3.3	2.3	2.2	2.0	2.2	2.0	
<i>percentages and means by campus category.</i>								
ACADEMIC & INSTRUCTIONAL COMPUTING POLICIES AND PROCEDURES & RESOURCES								
Does your campus/institution								
Have projects for developing desktop instructional software/courseware	65.8	81.0	71.1	70.8	53.1	68.1	100.0	
Provide support for faculty developing instructional software/courseware	78.3	82.3	75.6	79.2	71.2	86.7	100.0	
Provide support for faculty developing software for their research	44.4	59.5	60.0	53.3	36.6	31.9	-	
Have a program for rewarding courseware development	39.3	44.3	31.1	47.5	27.2	49.6	100.0	
Have a technology resource center focusing on use of IT	83.4	92.4	82.2	92.5	74.0	85.0	33.3	
Have agreements/licenses for duplication of software products	85.2	94.9	91.1	87.5	80.2	82.3	66.7	
Have a formal plan for using the Internet for marketing to off-campus audiences	70.0	74.7	73.3	69.2	80.2	48.7	66.7	
Have a formal program to reward the use of IT in faculty review/promotion process	20.5	15.2	6.7	23.3	19.9	25.7	66.7	
Maintain library of academic courseware	27.9	34.2	24.4	32.5	24.7	25.7	33.3	
Have a formal program to assess the impact of IT on instruction	24.8	31.6	15.6	28.3	19.9	29.2	-	
Have a formal policy regarding ownership of Web-based resources developed by faculty	56.7	75.9	66.7	64.2	39.3	61.1	33.3	
Have a formal program to provide supplemental IT training for IT staff	62.9	73.4	68.9	61.7	61.5	55.8	100.0	
Assess impact of IT on instructional services and academic programs	40.5	41.8	44.4	43.3	35.8	43.4	33.3	
Charge students for access to digital content (online reserves, course packets, etc.)	5.8	5.1	8.9	5.8	3.6	8.0	33.3	
Recycle most (60% or more) of the institution's used/obsolete computers	87.0	88.6	77.8	85.8	91.1	85.0	33.3	
Inform students about privacy issues related to social networking sites (Facebook, MySpace, etc.)	50.5	57.0	57.8	46.7	66.7	19.5	33.3	
Maintain a campus page on Facebook	12.6	10.5	6.8	8.6	16.8	12.8	33.3	
Maintain a campus page on MySpace	10.9	13.0	6.8	7.8	12.6	12.0	-	
Have institutional presence on Second Life	15.6	33.8	15.9	13.8	10.0	14.7	-	
Maintain a public campus Wiki	13.0	20.8	13.6	13.0	12.6	8.3	-	
Does your institution have a strategic plan for:								
<i>Information technology?</i>								
no	4.2	3.8	6.7	1.7	7.3	-	-	
currently preparing a plan	22.6	17.7	13.3	24.2	29.7	15.9	33.3	
yes	73.2	78.5	80.0	74.2	63.0	84.1	66.7	
<i>Instructional technology/instruction integration</i>								
no	23.3	24.1	17.8	23.3	27.6	17.7	33.3	
currently preparing a plan	28.8	20.3	26.7	28.3	33.3	27.4	33.3	
yes	47.9	55.7	55.6	48.3	39.1	54.9	33.3	
<i>Deploying course management tools?</i>								
no	20.3	16.5	15.6	18.3	21.4	25.7	-	
currently preparing a plan	19.5	13.9	6.7	22.5	21.4	21.2	66.7	
yes	60.2	69.6	77.8	59.2	57.3	53.1	33.3	
<i>Distance education?</i>								
no	31.8	21.5	42.2	17.5	54.7	12.4	-	
currently preparing a plan	23.0	27.9	17.8	29.2	20.3	18.6	66.7	
yes	45.2	50.6	40.0	53.3	25.0	69.0	33.3	
<i>Campus portal services?</i>								
no	22.1	13.9	22.2	20.8	22.4	28.3	33.3	
currently preparing a plan	30.2	24.1	17.8	35.8	29.7	34.5	33.3	
yes	47.7	62.0	60.0	43.3	47.9	37.2	33.3	
<i>Wireless networks?</i>								
no	7.6	7.6	4.4	6.7	7.8	8.9	33.3	
currently preparing a plan	15.7	10.1	4.4	13.3	16.2	25.7	33.3	
yes	76.7	82.3	91.1	80.0	76.0	65.5	33.3	
<i>Web services (integration/deployment)</i>								
no	20.6	29.1	17.8	17.5	19.3	21.2	33.3	
currently preparing a plan	24.1	19.0	22.2	26.7	23.4	25.7	33.3	
yes	55.3	51.9	60.0	55.8	57.3	53.1	33.3	
<i>Network security</i>								
no	6.3	2.5	2.2	5.8	9.4	6.2	-	
currently preparing a plan	21.5	15.2	11.1	17.5	26.0	25.7	66.7	
yes	72.2	82.3	86.7	76.7	64.6	68.1	33.3	
<i>IT disaster recovery</i>								
no	4.7	1.3	2.2	2.5	7.8	4.4	33.3	
currently preparing a plan	36.2	32.9	24.4	28.3	46.4	35.4	-	
yes	59.1	65.8	73.3	69.2	45.8	60.2	66.7	
<i>Adm. Systems/ERP upgrade/replacement</i>								
no	12.5	6.3	4.4	10.0	17.2	13.3	66.7	
currently preparing a plan	14.5	16.5	17.8	12.5	14.6	14.2	-	
yes	73.1	77.2	77.8	77.5	68.2	72.6	33.3	
<i>Digital content management</i>								
no	38.0	34.2	22.2	32.5	40.1	49.1	66.7	
currently preparing a plan	36.8	29.1	35.6	43.3	40.6	28.6	33.3	
yes	25.2	36.7	42.2	24.2	19.3	22.3	-	
<i>Data warehousing</i>								
no	37.3	17.7	22.2	25.8	48.4	49.6	66.7	
currently preparing a plan	31.8	30.4	31.1	38.3	31.3	27.4	-	
yes	30.9	51.9	46.7	35.8	20.3	23.0	33.3	
<i>means and percentages by campus category.</i>								

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	All Institutions		Universities		4-Year Colleges		2-Year Colleges	
	Public	Private	Public	Private	Public	Private	Public	Private
Does your institution have a strategic plan for: (continued)								
<i>Business intelligence/analytics</i>								
no	54.8	36.7	40.0	55.0	59.7	65.2	66.7	
currently preparing a plan	30.3	40.5	31.1	32.5	30.4	20.5	-	
yes	14.9	22.8	28.9	12.5	10.0	14.3	33.3	
<i>Open Source deployment and development</i>								
no	72.8	65.8	68.9	70.0	69.8	86.6	100.0	
currently preparing a plan	14.9	16.5	17.8	15.0	16.2	10.7	-	
yes	12.3	17.7	13.3	15.0	14.1	2.7	-	
Podcasting course lectures/resources								
no	46.5	40.5	22.7	47.5	48.4	56.0	66.7	
currently preparing a plan	40.3	38.0	47.7	44.1	40.5	34.9	33.3	
yes	13.2	21.5	29.6	8.5	11.1	9.2	-	
Emergency communication/notification								
no	6.9	5.1	2.2	5.1	6.3	13.6	-	
currently preparing a plan	49.1	50.6	35.6	54.2	45.3	54.6	33.3	
yes	44.0	44.3	62.2	40.7	48.4	31.8	66.7	
Digital preservation/data archiving								
no	38.5	32.9	29.6	38.5	40.6	42.2	66.7	
currently preparing a plan	41.8	41.8	47.7	45.3	41.2	36.7	33.3	
yes	19.6	25.3	22.7	16.2	18.2	21.1	-	
Cellular phones/mobile devices								
no	56.9	48.1	47.7	54.2	60.2	65.1	33.3	
currently preparing a plan	23.9	31.7	29.6	21.2	23.0	20.2	33.3	
yes	19.3	20.3	22.7	24.6	16.8	14.7	33.3	
"Web 2.0" resources and services								
no	66.0	57.0	47.7	67.5	67.0	75.2	100.0	
currently preparing a plan	29.0	40.5	40.9	26.5	27.2	22.9	-	
yes	5.0	2.5	11.4	6.0	5.8	1.8	-	
508 accessibility/compliance for Web pages/resources								
no	37.9	26.6	47.7	22.0	53.2	32.1	66.7	
currently preparing a plan	29.6	29.1	29.6	30.5	32.6	23.9	33.3	
yes	32.5	44.3	22.7	47.5	14.2	44.0	-	
Has your institution established a single product standard for:								
<i>Desktop/notebook computer operating system</i>								
No	70.8	91.1	87.0	81.0	69.3	42.5	33.3	
Macintosh	0.4	-	-	-	1.0	-	-	
Win 2000/XP	25.6	7.6	10.9	17.4	26.6	51.3	33.3	
Win Vista	2.9	1.3	2.2	-	3.1	6.2	33.3	
Linux	0.4	-	-	1.7	-	-	-	
<i>Desktop/notebook product or manufacturer</i>								
No	66.7	88.6	80.4	76.9	65.1	37.2	66.7	
Apple	0.4	-	-	-	1.0	-	-	
Dell	19.1	7.6	17.4	14.1	17.7	35.4	33.3	
Gateway	3.8	2.5	2.2	0.8	3.7	8.9	-	
HP/Compaq	4.7	-	-	1.7	5.2	12.4	-	
Lenovo	2.7	1.3	-	4.1	4.2	0.9	-	
Other	2.7	-	-	2.5	3.1	5.3	-	
<i>Course management system</i>								
No	9.9	10.1	10.9	11.6	8.9	8.0	66.7	
Angel	4.1	1.3	2.2	1.7	5.7	6.2	33.3	
Blackboard	66.3	70.9	76.1	72.7	54.7	73.5	-	
eCollege	1.6	-	-	0.8	2.1	3.5	-	
Desire2Learn	3.2	7.6	4.4	4.1	-	4.4	-	
Moodle	7.8	3.8	-	4.1	17.2	1.8	-	
Sakai	2.5	5.1	4.4	3.3	2.1	-	-	
Other	4.5	1.3	2.2	1.7	9.4	2.7	-	
<i>means and percentages by campus category.</i>								
What academic resources/services are on your campus Web site (or portal)?*								
Undergraduate admissions application	98.2	97.5	100.0	97.5	98.4	98.2	100.0	
Financial aid application	91.0	92.4	97.8	92.6	87.0	92.9	100.0	
Current course catalog	99.6	100.0	100.0	99.2	99.5	100.0	100.0	
Program/major/degree requirements	98.2	98.7	97.8	99.2	99.5	95.6	100.0	
Course registration	94.4	98.7	97.8	98.3	88.6	96.5	66.7	
Course add/drop options	89.9	98.7	91.3	95.9	80.8	93.8	33.3	
E-commerce (fee payments etc)	82.9	94.9	87.0	90.1	67.9	91.2	66.7	
Online Courses (ie full course online)	77.9	93.7	73.9	86.8	54.9	97.3	100.0	
Student ePortfolios	34.9	50.6	39.1	43.8	34.7	13.3	-	
Library/card catalog	94.4	97.5	100.0	94.2	96.4	87.6	66.7	
Interlibrary loan services	86.7	91.1	93.5	92.6	89.1	71.7	33.3	
Journals & reference resources	93.2	96.2	93.5	95.0	95.3	85.8	66.7	
Course reserves	65.6	82.3	82.6	75.2	69.9	31.9	-	
Student transcripts	85.1	94.9	84.8	87.6	83.4	80.5	-	
Degree audit software	70.1	79.7	69.6	78.5	62.7	69.0	33.3	
IT support resources	94.4	100.0	95.7	95.9	95.9	86.7	66.7	
IT training/tutorials	83.8	92.4	87.0	86.8	83.9	73.5	66.7	
Instructional software	64.0	87.3	80.4	71.9	55.4	46.9	66.7	
Desktop software (MS Office etc)	47.3	70.9	71.7	55.4	42.5	22.1	-	
Faculty/staff directory	97.7	100.0	100.0	98.3	98.4	93.8	66.7	
Campus dining services	50.2	57.0	67.4	47.9	61.7	21.2	33.3	
Campus housing services	44.8	64.6	63.0	51.2	48.7	10.6	-	
Student health services	35.6	53.2	52.2	38.0	38.3	10.6	-	
Student newspaper	69.1	88.6	80.4	76.9	69.4	42.5	33.3	
Student handbook	91.0	97.5	93.5	90.9	94.8	79.6	66.7	
<i>means and percentages by campus category. *columns may not total 100% as responses are not mutually exclusive.</i>								

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	All Institutions		Universities		4-Year Colleges		2-Year Colleges	
	Public	Private	Public	Private	Public	Private	Public	Private
What academic resources/services are on your campus Web site (or portal)? (continued)								
Athletic event schedule	90.1	98.7	89.1	93.4	95.3	73.5	66.7	
Alumni information/services	90.6	97.5	97.8	95.0	97.4	68.1	66.7	
Press releases/media services	95.7	97.5	95.7	98.3	96.9	90.3	66.7	
Campus book store	86.9	92.4	87.0	91.7	86.5	79.6	66.7	
Computer resale services	34.5	54.4	50.0	37.2	34.7	11.5	33.3	
Personalized student calendar	47.7	59.5	54.3	48.8	47.2	37.2	33.3	
Campus OneCard account services	40.5	68.4	54.3	53.7	33.2	14.2	-	
Digital Music Service (Napster etc)	12.9	25.3	34.8	14.9	9.3	-	-	
<i>percentages by campus category *columns may not total 100% since responses are not mutually exclusive.</i>								
FUTURE ISSUES AFFECTING CAMPUS COMPUTING								
How important are the following to campus computing and IT planning over the next 2-3 years?								
<i>Operating system/interface/development tools</i>								
Windows XP	5.5	5.2	5.7	5.5	5.4	5.6	6.3	
Windows Vista	5.9	6.1	5.9	6.1	5.7	6.0	5.3	
Windows Server	6.2	6.1	5.9	6.3	6.1	6.3	7.0	
Macintosh OS X (client)	4.9	5.0	5.7	5.2	5.2	4.0	3.3	
Macintosh OS X (server)	3.6	3.9	4.1	4.0	3.7	2.9	3.0	
Solaris/Open Solaris	3.4	4.7	4.7	3.9	2.7	2.7	1.0	
Unix	4.3	5.1	4.7	4.4	3.8	4.3	1.0	
Linux (client)	3.7	4.6	4.0	4.0	3.3	3.0	4.7	
Linux (server)	5.2	5.9	5.9	5.4	4.9	4.8	5.0	
O/S Interoperability	5.2	5.5	5.1	5.3	5.2	5.0	2.7	
<i>Hardware</i>								
Notebook computers	6.4	6.4	6.7	6.5	6.5	5.9	5.7	
Macintosh computers	4.6	4.9	5.3	4.7	4.9	3.4	3.3	
Unix workstations	2.7	3.9	3.7	3.1	2.3	1.8	1.0	
Tablet computers	4.2	4.5	4.3	4.3	4.2	4.1	3.7	
PDAs/handheld computers	4.8	5.3	5.1	5.1	4.6	4.5	3.0	
Cellular/mobile phones	5.4	5.8	5.7	5.6	5.4	4.8	4.0	
WiFi enabled cell phones	4.5	4.8	4.9	4.6	4.5	3.9	2.3	
iPods/MP3 players	4.2	4.4	4.5	4.3	4.1	4.0	2.3	
<i>Instructional applications and resources</i>								
Developing instructional software	4.5	4.6	4.7	4.9	4.2	4.3	5.0	
Using instructional software in classes	6.1	6.1	6.0	6.3	6.0	6.1	6.0	
Using instructional software as a supplement to classes	6.3	6.3	6.2	6.5	6.2	6.2	6.7	
Computer-based classroom presentation facilities	6.5	6.5	6.5	6.6	6.5	6.5	5.7	
Internet resources for instruction	6.5	6.4	6.5	6.6	6.4	6.5	6.3	
Web pages for classes	5.9	6.0	5.9	6.0	5.8	6.0	6.3	
Web-based tutorials	5.6	5.8	5.5	5.7	5.3	5.9	5.3	
e-Books (e-textbooks)	4.4	4.3	4.3	4.8	4.2	4.6	3.3	
Course / learning management systems	6.5	6.7	6.7	6.6	6.5	6.4	6.7	
On-line course evaluation	5.8	5.9	6.0	5.8	5.5	5.9	6.0	
Classroom "clickers"	4.5	5.1	4.9	4.7	4.3	4.2	2.3	
Wireless access in campus classrooms	5.8	6.0	6.1	6.0	5.9	5.5	6.0	
<i>User support services/campus IT services</i>								
On-line IT training	5.3	5.3	5.2	5.5	5.1	5.3	5.0	
On-line technical support	5.9	6.0	6.1	6.1	5.7	5.9	5.0	
Computer resale program	3.2	3.5	3.4	3.3	3.2	2.6	6.0	
Computer repair services	4.4	4.2	4.2	4.7	4.6	4.3	5.0	
Help-desk services	6.6	6.6	6.7	6.7	6.6	6.5	7.0	
Alumni e-mail accounts	4.4	4.8	4.9	4.4	4.7	3.4	3.7	
Alumni services via the campus Web site	5.2	5.2	5.5	5.2	5.8	4.0	5.3	
Student ePortfolios	5.1	5.3	5.3	5.5	5.3	4.1	6.0	
<i>Networking & Internet/Web issues & resources</i>								
Wireless networks (80211 stds)	6.6	6.6	6.7	6.7	6.5	6.4	6.3	
Wi-Max networks	4.5	4.7	4.7	4.8	4.3	4.3	4.3	
Voice over IP	5.5	5.8	5.6	5.7	5.1	5.9	5.7	
Microsoft Exchange	5.0	5.2	5.3	5.1	4.6	5.3	7.0	
Java	5.4	5.8	5.8	5.5	5.0	5.4	3.3	
XML (SOAP)	5.2	5.8	5.6	5.3	5.0	5.1	3.3	
NET (Microsoft)	4.5	4.8	4.3	4.7	4.3	4.6	5.0	
Open Net / Java Enterprise (Sun)	3.6	4.2	4.3	3.9	3.1	3.6	1.0	
QuickTime Player	4.7	4.8	4.8	4.7	4.8	4.6	4.7	
Real Player	4.5	4.5	4.6	4.6	4.3	4.5	4.7	
Microsoft Media Player	5.0	5.1	4.9	5.1	4.9	5.1	5.3	
Gigabit Ethernet	6.4	6.5	6.6	6.6	6.3	6.4	7.0	
Grid computing	3.7	5.3	4.6	4.0	3.1	3.2	2.3	
Adobe Acrobat	5.7	5.8	5.3	5.7	5.7	5.7	6.3	
Internet videoconferencing	5.7	6.1	5.8	5.9	5.4	5.7	5.3	
VPN/Virtual Private Networks	5.7	5.9	6.0	5.9	5.5	5.6	5.0	
Identity management	6.4	6.7	6.6	6.6	6.3	6.3	5.7	
Open Source software	4.8	5.2	5.1	5.0	4.9	4.2	4.7	
Student portal services	6.2	6.3	6.1	6.1	6.1	6.2	6.0	
SCORM standards	3.7	4.3	3.4	3.8	3.5	3.4	4.0	
Data encryption	6.0	6.3	6.4	6.2	5.8	6.0	6.0	
Content management systems	6.0	6.1	6.2	6.1	5.9	5.8	5.3	
Instant messaging	4.9	5.2	5.0	5.1	4.8	4.6	4.3	
Wikis	4.5	4.9	4.7	4.6	4.4	4.0	3.7	
Podcasting	5.0	5.2	5.1	5.1	4.9	4.8	3.7	
Blogging	4.6	4.7	4.8	4.7	4.7	4.2	3.7	
<i>mean ratings by campus category scale from 1="not important" to 7="very important".</i>								

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	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
How important are the following to campus computing and IT planning over the next 2-3 years? (continued)							
<i>Administrative software/ERP--Upgrade or replacement</i>							
Accounting / Financial Management	5.9	6.1	6.2	5.9	5.7	6.1	6.7
Admissions / Recruitment	6.2	6.3	6.3	6.4	6.2	6.1	7.0
Alumni	5.3	5.1	5.9	5.4	5.7	4.5	5.3
CRM software	4.8	4.6	5.0	5.0	4.9	4.6	4.0
Development	5.3	5.0	5.8	5.3	5.5	4.8	5.7
<i>eProcurement / Purchasing</i>							
eProcurement / Purchasing	5.3	5.7	5.4	5.6	4.8	5.5	5.7
Human Resources	5.7	5.9	5.8	5.9	5.4	5.8	4.3
Student Financial Aid Management	6.0	6.1	6.2	6.2	5.7	6.1	6.3
Student Info Systems (SIS)	6.1	6.2	6.4	6.4	5.9	6.2	6.7
Business Intelligence / Analytics	5.1	5.6	5.4	5.1	4.9	4.9	4.3
<i>Vendor Services/Outsourcing</i>							
Data back-up or data storage	3.3	3.1	3.8	3.4	3.3	3.4	4.3
ERP services	2.5	2.1	2.9	2.6	2.3	3.0	1.0
Instructional technology services	2.4	2.1	2.5	2.4	2.3	3.0	1.0
User support	2.5	2.3	2.7	2.3	2.4	3.0	2.7
ResNet services	2.3	2.5	2.4	2.4	2.5	1.8	1.0
<i>eProcurement</i>							
eProcurement	3.1	3.1	3.5	3.0	2.9	3.3	2.3
Student/campus portal	3.3	2.7	3.2	3.2	3.3	4.0	3.7
Web hosting services	3.3	2.8	3.4	3.2	3.5	3.4	4.7
Student email services	3.8	4.1	4.5	3.7	3.4	4.2	2.0
<i>mean ratings by campus category scale from 1="not important" to 7="very important".</i>							
RATING THE TECHNOLOGY INFRASTRUCTURE							
Computer networks and data communication	6.2	6.1	6.2	6.2	6.2	6.2	6.0
Telecommunications and phone system	5.6	5.7	5.6	5.6	5.6	5.6	5.3
Wireless networks	5.3	5.4	5.6	5.3	5.5	5.0	4.7
User support services	5.6	5.5	5.4	5.6	5.7	5.6	5.7
On-line reference resources in campus library/library system	5.9	5.9	6.0	6.0	6.0	5.8	4.3
<i>Web resources to support instruction</i>							
Web resources to support instruction	5.4	5.6	5.3	5.5	5.3	5.5	4.7
Campus web site services/student portal	5.0	5.2	5.1	5.0	4.9	5.0	5.0
Network security against hackers and virus attacks	5.7	5.6	5.9	5.8	5.7	5.6	6.0
Disaster planning	4.5	4.6	4.6	4.8	4.3	4.5	4.3
IT training for faculty	4.7	4.9	4.8	4.9	4.6	4.7	4.0
<i>IT training for students</i>							
IT training for students	4.0	4.4	4.0	4.0	3.9	3.9	4.0
Campus portal	4.1	4.7	4.3	4.0	3.9	3.8	3.7
Data warehousing	3.6	4.3	3.9	3.8	3.2	3.3	3.3
Digital dashboards/ERP analytics	2.8	3.0	3.1	2.8	2.8	2.6	2.0
Emergency communications / notification system(s)	4.2	4.5	4.6	4.3	4.3	3.5	5.0
<i>Mean rating by campus category; Scale from 1="Poor" to 7="Excellent".</i>							
ADDRESSING BUDGET ISSUES BY:							
<i>Reducing purchases of computer technology</i>							
Doing this already	22.4	24.1	15.2	26.1	18.8	26.6	33.3
Beginning in 2007-08	3.3	1.3	4.4	3.4	3.7	3.5	-
Reviewing for 2007-08	10.5	10.1	10.9	13.5	7.3	12.4	33.3
Decided not to do	63.8	64.6	69.6	57.1	70.3	57.5	33.3
<i>Charging fees to departments and service units</i>							
Doing this already	26.4	67.1	32.6	28.6	17.1	8.0	33.3
Beginning in 2007-08	2.7	2.5	-	5.0	1.6	3.5	-
Reviewing for 2007-08	12.6	11.4	19.6	19.3	10.9	7.1	-
Decided not to do	58.3	19.0	47.8	47.1	70.5	81.4	66.7
<i>Requiring a computer/IT fee for all students</i>							
Doing this already	55.5	72.2	37.0	72.5	39.4	60.2	66.7
Beginning in 2007-08	0.7	1.3	2.2	-	0.5	0.9	-
Reviewing for 2007-08	6.1	12.7	2.2	7.5	3.1	7.1	-
Decided not to do	37.7	13.9	58.7	20.0	57.0	31.9	33.3
<i>Leasing rather than buying hardware</i>							
Doing this already	20.4	24.1	30.4	8.4	25.9	15.9	66.7
Beginning in 2007-08	1.4	1.3	-	0.8	2.1	1.8	-
Reviewing for 2007-08	12.8	13.9	10.9	19.3	10.9	9.7	-
Decided not to do	65.3	60.8	58.7	71.4	61.1	72.6	33.3
<i>Reducing hours in public access facilities</i>							
Doing this already	14.1	16.5	17.4	12.6	10.9	18.6	-
Beginning in 2007-08	1.3	3.8	-	1.7	1.0	-	-
Reviewing for 2007-08	6.1	10.1	6.5	10.1	2.1	6.2	-
Decided not to do	78.5	69.6	76.1	75.6	86.0	75.2	100.0
<i>Reducing services</i>							
Doing this already	20.2	27.9	15.2	24.4	16.1	20.4	-
Beginning in 2007-08	1.8	3.8	2.2	2.5	0.5	1.8	-
Reviewing for 2007-08	10.3	8.9	8.7	15.1	8.3	9.7	33.3
Decided not to do	67.7	59.5	73.9	58.0	75.1	68.1	66.7
<i>Reorganizing operations</i>							
Doing this already	55.7	70.9	58.7	60.0	51.8	46.9	-
Beginning in 2007-08	7.4	13.9	4.4	6.7	7.3	5.3	-
Reviewing for 2007-08	15.7	11.4	15.2	21.7	13.5	15.9	33.3
Decided not to do	21.3	3.8	21.7	11.7	27.5	31.9	66.7
<i>Reducing staff</i>							
Doing this already	17.2	21.5	19.6	23.5	11.9	15.9	-
Beginning in 2007-08	2.2	3.8	2.2	1.7	1.6	2.7	-
Reviewing for 2007-08	6.0	15.2	-	5.0	4.2	5.3	33.3
Decided not to do	74.7	59.5	78.3	69.8	82.4	76.1	66.7
<i>means and percentages by campus category.</i>							

CAMPUS COMPUTING 2007

	All Institutions		Universities		4-Year Colleges		2-Year Colleges	
			Public	Private	Public	Private	Public	Private
ADDRESSING BUDGET ISSUES BY: (continued)								
<i>Using information technology to reduce instructional costs</i>								
Doing this already	44.3		55.7	32.6	50.8	36.8	47.8	33.3
Beginning in 2007-08	4.1		3.8	-	2.5	3.6	8.9	-
Reviewing for 2007-08	19.5		17.7	15.2	26.7	17.1	19.5	-
Decided not to do	32.1		22.8	52.2	20.0	42.5	23.9	66.7
<i>Making greater use of student assistants for user support services</i>								
Doing this already	78.0		86.1	69.6	89.1	79.8	62.0	66.7
Beginning in 2007-08	2.9		3.8	6.5	0.8	2.6	3.5	-
Reviewing for 2007-08	6.5		6.3	6.5	4.2	6.2	9.7	-
Decided not to do	12.6		3.8	17.4	5.9	11.4	24.8	33.3
<i>Outsourcing computing/IT services to commercial providers</i>								
Doing this already	16.8		11.4	19.6	15.1	14.5	23.9	33.3
Beginning in 2007-08	2.0		2.5	4.4	2.5	1.0	1.8	-
Reviewing for 2007-08	10.3		12.7	8.7	7.6	11.9	8.9	33.3
Decided not to do	70.9		73.4	67.4	74.8	72.5	65.5	33.3
<i>Outsourcing student portal services to commercial providers</i>								
Doing this already	6.7		-	4.4	4.2	6.2	15.9	-
Beginning in 2007-08	0.9		-	-	3.4	0.5	-	-
Reviewing for 2007-08	6.3		3.8	10.9	5.9	4.7	9.7	-
Decided not to do	86.1		96.2	84.8	86.6	88.6	74.3	100.0
<i>Outsourcing user support services to commercial providers</i>								
Doing this already	8.7		9.0	8.7	6.7	6.2	14.3	33.3
Beginning in 2007-08	0.9		1.3	-	-	1.0	1.8	-
Reviewing for 2007-08	10.9		11.5	10.9	9.2	12.4	9.8	-
Decided not to do	79.5		78.2	80.4	84.0	80.3	74.1	66.7
<i>Outsourcing ERP services</i>								
Doing this already	8.5		6.8	4.4	13.2	8.6	6.5	-
Beginning in 2007-08	0.8		1.4	-	-	1.1	0.9	-
Reviewing for 2007-08	4.0		4.1	6.5	4.4	1.6	6.5	-
Decided not to do	86.8		87.8	89.1	82.5	88.8	86.0	100.0
<i>Outsourcing ResNet services</i>								
Doing this already	6.2		5.3	2.2	8.8	7.0	3.8	33.3
Beginning in 2007-08	0.9		1.3	-	1.8	-	1.9	-
Reviewing for 2007-08	8.9		12.0	4.4	11.4	10.3	3.8	-
Decided not to do	84.0		81.3	93.5	78.1	82.7	90.6	66.7
<i>Outsourcing student email services</i>								
Doing this already	9.3		4.0	6.5	7.9	6.9	20.6	-
Beginning in 2006-07	6.7		7.9	13.0	6.1	3.7	9.4	-
Reviewing for 2006-07	29.1		48.7	39.1	26.3	24.9	21.5	33.3
Decided not to do	54.9		39.5	41.3	59.7	64.6	48.6	66.7
<i>Delaying/deferring ERP deployment/replacement/upgrades</i>								
Doing this already	13.5		13.9	10.9	14.3	13.0	13.3	33.3
Beginning in 2007-08	1.4		1.3	4.4	0.8	1.0	1.8	-
Reviewing for 2007-08	7.4		10.1	13.0	5.9	6.2	7.1	-
Decided not to do	77.6		74.7	71.7	79.0	79.8	77.9	66.7
<i>Deferring/reducing use of consultants on IT projects</i>								
Doing this already	43.0		48.1	39.1	47.1	37.8	45.1	66.7
Beginning in 2007-08	1.6		3.8	4.4	-	1.0	1.8	-
Reviewing for 2007-08	13.0		16.5	21.7	17.7	8.3	9.7	33.3
Decided not to do	42.4		31.7	34.8	35.3	52.9	43.4	-
<i>Migrating to Linux/Open Source desktop applications</i>								
Doing this already	7.6		11.4	8.7	5.9	8.3	5.3	-
Beginning in 2007-08	1.3		1.3	2.2	2.5	0.5	0.9	-
Reviewing for 2007-08	13.5		22.8	23.9	16.0	8.3	8.9	33.3
Decided not to do	77.6		64.6	65.2	75.6	82.9	85.0	66.7
<i>Migrating to Open Source administrative/ERP applications</i>								
Doing this already	5.6		7.6	8.7	5.0	5.2	4.5	-
Beginning in 2007-08	1.1		-	-	2.5	0.5	1.8	-
Reviewing for 2007-08	11.0		17.7	13.0	9.2	10.4	7.1	66.7
Decided not to do	82.3		74.7	78.3	83.2	83.9	86.6	33.3
<i>Negotiating as a state system/consortium for ERP software and services</i>								
Doing this already	41.6		59.5	20.0	79.2	14.1	45.1	-
Beginning in 2007-08	0.4		2.5	-	-	-	-	-
Reviewing for 2007-08	7.8		6.3	8.9	5.0	8.3	9.7	33.3
Decided not to do	50.3		31.7	71.1	15.8	77.6	45.1	66.7
<i>Negotiating as a state system/consortium for digital content for the library, curriculum, etc.</i>								
Doing this already	65.6		63.3	44.4	82.4	59.4	69.0	33.3
Beginning in 2007-08	2.0		1.3	-	0.8	2.1	3.5	33.3
Reviewing for 2007-08	11.6		15.2	15.6	10.9	10.4	9.7	33.3
Decided not to do	20.8		20.3	40.0	5.9	28.1	17.7	-
<i>Negotiating as a state system/consortium for desktop application software</i>								
Doing this already	67.6		69.6	51.1	80.7	63.5	66.4	33.3
Beginning in 2007-08	1.8		1.3	2.2	4.2	1.0	0.9	-
Reviewing for 2007-08	9.2		7.6	6.7	10.9	8.3	10.6	33.3
Decided not to do	21.4		21.5	40.0	4.2	27.1	22.1	33.3

means and percentages by campus category.

CAMPUS COMPUTING 2007

	All	Universities		4-Year Colleges		2-Year Colleges	
	Institutions	Public	Private	Public	Private	Public	Private
STRATEGIC, BUDGET AND PERSONNEL ISSUES*							
Assessing the benefits of existing investments in computing and technology resources	6.0	6.0	6.2	6.1	5.9	6.0	6.0
Clarifying goals and campus plans for technology resources	6.4	6.5	6.7	6.4	6.4	6.4	7.0
Providing incentives and rewards for faculty to support tech. integration into the curriculum	4.8	5.1	4.5	5.1	4.6	4.8	5.0
Allocating campus funds to support expanded services	5.6	5.8	5.5	5.6	5.6	5.6	5.3
Faculty concerns about the benefits of computing in the curriculum	4.9	5.0	4.9	5.1	4.7	4.9	6.0
Administrative concerns about the benefits of computing in the curriculum	4.7	4.5	4.7	4.9	4.6	4.8	6.0
Establishing/maintaining campus-wide standards for hardware	5.9	5.4	5.7	5.9	5.9	6.3	6.0
Establishing/maintaining campus-wide standards for software	6.0	5.6	5.9	6.0	6.1	6.3	6.0
Operating a computer resale program for students and faculty	2.7	3.0	2.7	2.9	2.7	2.2	4.0
Developing budget mechanisms to replace aging equipment on a routine basis	6.2	6.2	6.1	6.4	6.1	6.4	5.3
Using technology-based commercial curriculum products	4.7	4.5	4.7	4.8	4.6	5.1	5.3
Using info technology resources to enhance our distance education program	5.2	5.8	4.8	5.8	4.1	6.2	6.0
Negotiating site licensing agreements with textbook publishers	4.0	3.7	3.8	4.4	3.6	4.8	4.0
Negotiating site licensing agreements with academic publishers	4.2	3.9	4.3	4.4	4.0	4.8	4.0
Sharing digital resources with other campuses/institutions	5.1	5.6	5.4	5.5	4.8	5.0	2.3
Developing/updating campus policies for Web-based intellectual property	5.4	5.3	5.8	5.5	5.4	5.4	4.0
Helping our IT personnel stay current with new technologies	6.4	6.2	6.4	6.4	6.3	6.5	6.7
Retaining current IT personnel given off-campus competition	6.1	6.1	6.2	6.1	6.1	6.1	6.7
Moving more of our user support services to the Web	5.9	5.9	6.1	6.1	5.8	5.9	5.7
Surveying students and faculty about IT issues and services	5.8	5.9	5.9	5.8	5.7	5.8	5.0
Assessing the return on investment for IT spending/resources	5.5	5.4	5.6	5.6	5.4	5.7	5.7
Researching the total cost of ownership (TCO) for our IT purchases	5.2	5.4	5.0	5.3	5.0	5.5	5.0
Using Open Source tools and applications	4.3	4.6	4.2	4.4	4.5	3.7	3.3
Supporting PDA/handheld devices	4.7	5.3	5.0	4.8	4.4	4.4	3.3
Managing/distributing digital learning resources	5.2	5.4	5.5	5.4	4.9	5.1	5.3
Controlling/restricting file sharing of commercial content	5.5	5.4	5.5	5.8	5.4	5.3	5.3
Data warehousing	5.1	5.9	5.6	5.4	4.5	5.1	3.3
Storage management	5.8	6.1	6.2	5.9	5.5	5.7	4.0
Server consolidation	5.7	5.9	6.1	5.8	5.4	5.9	6.0
Server virtualization	5.7	5.8	6.1	5.9	5.5	5.7	7.0
IT Business Continuity	5.9	6.1	6.3	6.0	5.6	5.8	6.0
Identity Management	6.0	6.5	6.2	6.3	5.7	6.0	4.7
Business analytics / intelligence	5.0	5.3	5.2	5.0	4.8	4.8	5.3
Environmental ("green") issues in the acquisition and disposal of IT hardware	5.0	5.0	5.2	4.9	5.0	4.9	4.3
<i>mean ratings by campus category... scale from 1="not important" to 7="very important".</i>							
THIS YEAR'S COMPUTING BUDGET COMPARED TO LAST YEAR'S BUDGET							
<i>Total computing budget for central IT services</i>							
Reduced >5%	3.3	3.8	2.2	4.2	2.1	4.4	-
Reduced 3-5%	3.8	2.5	2.2	5.8	2.1	5.3	33.3
Reduced 1-3%	7.0	10.1	2.2	6.7	8.8	4.4	-
No change	30.9	32.9	26.7	41.7	26.9	27.4	-
Increased 1-3%	31.1	27.9	35.6	25.8	33.7	32.7	33.3
Increased 3-5%	13.5	13.9	17.8	10.8	14.0	13.3	-
Increased >5%	10.5	8.9	13.3	5.0	12.4	12.4	33.3
<i>Total academic computing budget</i>							
Reduced >5%	2.9	1.3	2.2	5.8	2.6	1.8	-
Reduced 3-5%	2.7	2.5	2.2	3.3	1.6	4.4	-
Reduced 1-3%	7.8	12.7	4.4	7.5	7.3	7.1	-
No change	39.7	36.7	37.8	48.3	38.3	36.3	33.3
Increased 1-3%	27.4	26.6	33.3	21.7	30.1	27.4	33.3
Increased 3-5%	11.6	15.2	11.1	8.3	10.9	13.3	-
Increased >5%	7.9	5.1	8.9	5.0	9.3	9.7	33.3
<i>Total administrative computing budget</i>							
Reduced >5%	3.1	3.8	2.2	5.0	1.6	3.5	-
Reduced 3-5%	3.3	1.3	2.2	5.8	1.6	5.3	-
Reduced 1-3%	7.4	11.4	4.4	6.7	6.7	8.0	-
No change	37.2	32.9	28.9	45.8	38.3	33.6	-
Increased 1-3%	28.9	24.1	33.3	26.7	32.6	24.8	66.7
Increased 3-5%	11.7	15.2	13.3	6.7	9.8	17.7	-
Increased >5%	8.5	11.4	15.6	3.3	9.3	7.1	33.3
<i>Purchases of computers by academic computing units</i>							
Reduced >5%	2.9	1.3	4.4	4.2	2.6	1.8	33.3
Reduced 3-5%	2.9	2.5	-	4.2	1.6	5.3	-
Reduced 1-3%	7.2	11.4	2.2	9.2	5.2	8.0	-
No change	58.3	59.5	62.2	54.2	63.2	52.2	33.3
Increased 1-3%	18.8	17.7	22.2	19.2	16.1	23.0	-
Increased 3-5%	6.0	3.8	4.4	5.0	6.2	8.0	33.3
Increased >5%	4.0	3.8	4.4	4.2	5.2	1.8	-
<i>Purchases of computers by administrative computing units</i>							
Reduced >5%	3.8	3.8	4.4	5.0	3.1	2.7	33.3
Reduced 3-5%	3.1	2.5	2.2	3.3	1.6	6.2	-
Reduced 1-3%	8.1	7.6	-	10.8	7.3	10.6	-
No change	61.4	65.8	62.2	58.3	63.7	57.5	33.3
Increased 1-3%	16.1	15.2	22.2	15.8	16.1	15.0	-
Increased 3-5%	5.2	1.3	4.4	5.8	4.7	8.0	33.3
Increased >5%	2.4	3.8	4.4	0.8	3.6	-	-
<i>Purchases of computers by academic departments</i>							
Reduced >5%	3.6	1.3	4.4	5.8	3.1	2.7	33.3
Reduced 3-5%	3.3	2.5	2.2	3.3	2.1	6.2	-
Reduced 1-3%	7.4	10.1	-	10.8	4.7	9.7	-
No change	59.4	62.0	62.2	52.5	65.8	53.1	33.3
Increased 1-3%	19.7	19.0	24.4	20.0	18.7	20.4	-
Increased 3-5%	4.7	2.5	4.4	5.8	3.6	6.2	33.3
Increased >5%	2.0	2.5	2.2	1.7	2.1	1.8	-
<i>means and percentages by campus category.</i>							

CAMPUS COMPUTING 2007

	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
THIS YEAR'S COMPUTING BUDGET COMPARED TO LAST YEAR'S BUDGET (continued)							
<i>All institutional purchases of desktop/notebook computers</i>							
Reduced >5%	4.2	1.3	4.4	8.3	2.6	3.5	33.3
Reduced 3-5%	2.9	-	-	4.2	3.1	4.4	-
Reduced 1-3%	6.9	7.6	2.2	8.3	5.7	8.9	-
No change	45.9	62.0	48.9	49.2	39.9	41.6	-
Increased 1-3%	27.1	20.3	35.6	20.0	33.2	25.7	-
Increased 3-5%	8.8	7.6	4.4	7.5	9.3	11.5	33.3
Increased >5%	4.3	1.3	4.4	2.5	6.2	4.4	33.3
<i>Network servers</i>							
Reduced >5%	1.8	-	6.7	1.7	2.6	-	-
Reduced 3-5%	2.7	-	4.4	5.0	1.6	3.5	-
Reduced 1-3%	5.1	5.1	-	5.8	5.2	6.2	-
No change	47.3	54.4	44.4	45.8	45.1	48.7	66.7
Increased 1-3%	28.9	26.6	31.1	25.0	32.6	27.4	-
Increased 3-5%	8.8	5.1	6.7	11.7	8.3	9.7	33.3
Increased >5%	5.4	8.9	6.7	5.0	4.7	4.4	-
<i>Server software and related products</i>							
Reduced >5%	1.1	-	4.4	1.7	1.0	-	-
Reduced 3-5%	1.6	-	-	2.5	2.1	1.8	-
Reduced 1-3%	3.6	5.1	2.2	5.0	3.1	2.7	-
No change	51.3	54.4	46.7	50.0	48.2	56.6	100.0
Increased 1-3%	28.7	21.5	28.9	29.2	32.1	27.4	-
Increased 3-5%	9.2	12.7	8.9	8.3	8.8	8.9	-
Increased >5%	4.5	6.3	8.9	3.3	4.7	2.7	-
<i>Wireless networks</i>							
Reduced >5%	1.6	1.3	6.7	0.8	1.0	1.8	-
Reduced 3-5%	0.9	-	-	1.7	0.5	1.8	-
Reduced 1-3%	2.0	1.3	2.2	2.5	1.6	2.7	-
No change	35.5	38.5	31.1	34.2	34.2	38.4	33.3
Increased 1-3%	28.8	30.8	35.6	25.0	29.0	28.6	33.3
Increased 3-5%	14.7	7.7	6.7	18.3	16.1	17.0	-
Increased >5%	16.5	20.5	17.8	17.5	17.6	9.8	33.3
<i>User training and support</i>							
Reduced >5%	1.6	-	2.2	3.3	1.6	0.9	-
Reduced 3-5%	1.3	-	2.2	1.7	1.0	1.8	-
Reduced 1-3%	4.0	5.1	8.9	6.7	2.1	1.8	-
No change	61.6	65.8	46.7	55.0	70.0	56.6	66.7
Increased 1-3%	21.5	20.3	28.9	24.2	17.1	24.8	-
Increased 3-5%	7.4	5.1	6.7	5.8	6.7	12.4	-
Increased >5%	2.7	3.8	4.4	3.3	1.6	1.8	33.3
<i>Professional development for IT personnel</i>							
Reduced >5%	2.5	1.3	2.2	5.8	1.0	2.7	-
Reduced 3-5%	1.8	1.3	2.2	3.3	-	3.5	-
Reduced 1-3%	5.8	8.9	6.7	5.8	5.7	3.5	-
No change	54.0	59.5	53.3	47.5	61.7	43.4	66.7
Increased 1-3%	23.8	21.5	28.9	22.5	22.8	27.4	-
Increased 3-5%	9.2	2.5	2.2	11.7	7.8	15.9	33.3
Increased >5%	2.9	5.1	4.4	3.3	1.0	3.5	-
<i>Campus portal services</i>							
Reduced >5%	1.1	-	-	1.7	1.0	1.8	-
Reduced 3-5%	0.7	-	-	1.7	-	1.8	-
Reduced 1-3%	3.3	10.1	-	4.2	1.0	2.7	-
No change	58.1	57.0	62.2	58.3	59.1	54.9	100.0
Increased 1-3%	19.3	19.0	22.2	21.7	18.1	17.7	-
Increased 3-5%	8.3	6.3	8.9	3.3	11.4	9.7	-
Increased >5%	9.2	7.6	6.7	9.2	9.3	11.5	-
<i>ERP software and services</i>							
Reduced >5%	0.9	1.3	-	1.7	0.5	0.9	-
Reduced 3-5%	1.3	-	-	2.5	0.5	2.7	-
Reduced 1-3%	2.7	5.1	2.2	2.5	2.1	2.7	-
No change	49.8	43.0	53.3	51.7	47.2	54.9	100.0
Increased 1-3%	25.1	25.3	26.7	26.7	28.0	17.7	-
Increased 3-5%	9.2	5.1	-	5.8	12.4	14.2	-
Increased >5%	11.0	20.3	17.8	9.2	9.3	7.1	-
<i>eCommerce/campus commerce services</i>							
Reduced >5%	1.1	-	-	1.7	1.6	0.9	-
Reduced 3-5%	1.6	-	-	3.3	1.0	2.7	-
Reduced 1-3%	3.1	6.3	-	4.2	2.6	1.8	-
No change	68.6	67.1	62.2	70.0	71.5	65.5	100.0
Increased 1-3%	17.9	16.5	24.4	17.5	16.1	19.5	-
Increased 3-5%	4.5	3.8	8.9	2.5	4.2	6.2	-
Increased >5%	3.3	6.3	4.4	0.8	3.1	3.5	-
<i>External service providers</i>							
Reduced >5%	2.5	3.8	2.2	2.5	2.6	1.8	-
Reduced 3-5%	2.7	1.3	2.2	3.4	2.6	3.5	-
Reduced 1-3%	7.2	6.3	2.2	9.2	8.8	5.3	-
No change	66.6	72.2	51.1	72.3	62.2	69.9	66.7
Increased 1-3%	13.6	11.4	24.4	9.2	16.1	10.6	33.3
Increased 3-5%	3.6	2.5	11.1	0.8	3.1	5.3	-
Increased >5%	3.8	2.5	6.7	2.5	4.7	3.5	-

means and percentages by campus category

CAMPUS COMPUTING 2007

	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
THIS YEAR'S COMPUTING BUDGET COMPARED TO LAST YEAR'S BUDGET (continued)							
<i>Security issues</i>							
Reduced >5%	0.5	-	-	0.8	0.5	0.9	-
Reduced 3-5%	0.9	-	-	1.7	-	2.7	-
Reduced 1-3%	1.4	1.3	-	1.7	2.1	0.9	-
No change	32.5	29.1	24.4	25.0	35.8	38.9	66.7
Increased 1-3%	34.8	34.2	24.4	40.0	34.7	34.5	33.3
Increased 3-5%	15.2	12.7	20.0	15.8	14.5	15.9	-
Increased >5%	14.6	22.8	31.1	15.0	12.4	6.2	-
<i>Identity management</i>							
Reduced >5%	0.9	1.3	2.2	0.8	-	1.8	-
Reduced 3-5%	0.9	-	-	1.7	0.5	1.8	-
Reduced 1-3%	1.3	1.3	-	1.7	1.0	1.8	-
No change	49.4	33.3	40.0	39.2	62.2	51.4	100.0
Increased 1-3%	26.7	37.2	13.3	35.0	21.8	25.2	-
Increased 3-5%	11.4	15.4	13.3	8.3	9.8	14.4	-
Increased >5%	9.4	11.5	31.1	13.3	4.7	3.6	-
<i>Consultants for IT projects and services</i>							
Reduced >5%	5.1	7.6	4.4	5.9	3.1	5.3	33.3
Reduced 3-5%	3.8	-	-	5.0	5.2	4.4	-
Reduced 1-3%	8.3	12.7	4.4	10.9	7.8	4.4	33.3
No change	54.6	53.2	53.3	53.8	56.0	54.9	33.3
Increased 1-3%	15.9	11.4	20.0	15.1	16.6	17.7	-
Increased 3-5%	5.6	3.8	6.7	1.7	6.2	9.7	-
Increased >5%	6.7	11.4	11.1	7.6	5.2	3.5	-
<i>Data warehousing</i>							
Reduced >5%	1.4	1.3	-	2.5	1.0	1.8	-
Reduced 3-5%	1.1	-	-	2.5	1.0	0.9	-
Reduced 1-3%	2.9	3.8	2.2	3.3	2.6	2.7	-
No change	65.0	51.9	48.9	66.7	72.0	67.3	66.7
Increased 1-3%	19.3	26.6	31.1	16.7	15.5	19.5	-
Increased 3-5%	5.4	7.6	6.7	5.0	4.7	5.3	-
Increased >5%	4.9	8.9	11.1	3.3	3.1	2.7	33.3
<i>CRM services/software</i>							
Reduced >5%	1.3	-	2.2	1.7	1.0	1.8	-
Reduced 3-5%	1.4	-	-	4.2	0.5	1.8	-
Reduced 1-3%	3.3	3.8	2.2	2.5	3.6	3.5	-
No change	76.5	79.8	68.9	71.7	78.8	77.9	100.0
Increased 1-3%	9.9	10.1	20.0	12.5	7.3	8.0	-
Increased 3-5%	4.2	3.8	4.4	4.2	4.2	4.4	-
Increased >5%	3.4	2.5	2.2	3.3	4.7	2.7	-
<i>Supporting Open Source projects/applications</i>							
Reduced >5%	2.4	2.5	2.2	2.5	1.6	3.6	-
Reduced 3-5%	3.3	2.5	-	3.4	4.2	2.7	33.3
Reduced 1-3%	2.9	3.8	2.2	0.8	4.2	2.7	-
No change	70.5	60.8	73.3	75.6	65.3	80.4	33.3
Increased 1-3%	15.6	27.9	17.8	10.9	17.1	8.0	33.3
Increased 3-5%	2.9	1.3	4.4	3.4	3.6	1.8	-
Increased >5%	2.5	1.3	-	3.4	4.2	0.9	-
<i>Business Continuity</i>							
Reduced >5%	0.9	-	-	0.8	1.6	0.9	-
Reduced 3-5%	1.3	-	-	1.7	1.6	1.8	-
Reduced 1-3%	1.1	1.3	-	1.7	-	2.7	-
No change	55.2	51.9	37.8	51.7	58.6	61.6	66.7
Increased 1-3%	25.9	25.3	37.8	29.2	23.8	21.4	33.3
Increased 3-5%	9.0	6.3	13.3	9.2	9.8	8.0	-
Increased >5%	6.7	15.2	11.1	5.8	4.7	3.6	-
<i>Business analytics/Business Intelligence products</i>							
Reduced >5%	1.3	-	-	0.8	2.1	1.8	-
Reduced 3-5%	2.0	-	-	3.3	2.1	1.8	33.3
Reduced 1-3%	2.7	5.1	2.2	1.7	2.6	2.7	-
No change	63.1	59.5	48.9	64.2	68.4	62.5	33.3
Increased 1-3%	19.0	21.5	24.4	20.0	16.1	19.6	-
Increased 3-5%	6.2	5.1	15.6	5.0	3.6	8.9	-
Increased >5%	5.8	8.9	8.9	5.0	5.2	2.7	33.3
<i>Emergency communication/notification services</i>							
Reduced >5%	1.1	1.3	-	0.9	0.5	2.7	-
Reduced 3-5%	0.2	-	-	-	-	0.9	-
Reduced 1-3%	-	-	-	-	-	-	-
No change	21.8	21.8	15.9	14.4	25.0	25.5	66.7
Increased 1-3%	29.3	25.6	31.8	31.4	29.7	29.1	-
Increased 3-5%	16.1	14.1	6.8	17.0	17.7	18.2	-
Increased >5%	31.5	37.2	45.5	36.4	27.1	23.6	33.3
<i>means and percentages by campus category</i>							
THE TECHNOLOGY BUDGET							
Percentage institutions experiencing computing budget cut, 2006-07	10.3	10.1	8.7	14.0	9.3	8.0	33.3
percentage of budget that was cut	0.7	0.5	0.5	1.2	0.6	0.4	3.3
Total (average) central computing budget 2007-08	\$ 6,486,004	\$ 18,023,026	\$ 16,136,278	\$ 4,285,944	\$ 2,813,824	\$ 3,273,021	\$ 1,433,333
Percent of budget allocated to:							
Hardware	19.5	14.3	15.9	17.3	22.3	22.6	9.3
Software	13.6	10.3	10.4	13.5	14.9	15.2	14.0
Personnel	48.1	55.4	52.8	51.5	43.1	46.0	32.0
Content licenses	6.1	4.0	5.3	5.2	7.1	7.1	3.3
User support	15.6	17.6	19.7	14.6	14.9	14.8	18.3
Network service/support	13.5	15.7	12.7	12.8	13.9	12.6	15.3

note: numbers may not equal 100% because of overlapping budget categories

CAMPUS COMPUTING 2007

	All Institutions		Universities		4-Year Colleges		2-Year Colleges	
	Public	Private	Public	Private	Public	Private	Public	Private
Central computing/IT budget as an estimated percentage of total campus IT spending	54.1	39.1	49.6	53.9	62.0	53.3	37.7	
Total central computing/IT expenditure as an estimated percentage of total campus spending	6.5	5.1	4.5	5.9	6.5	8.9	8.7	
As of September 2007, will your institution have an operational campus-wide (emergency) notification system?								
No	25.0	16.5	13.0	26.4	22.8	37.2	33.3	
If yes, elements of this emergency notification plan that are functional as of Sept 2007								
Sirens	23.4	38.0	17.4	25.6	21.2	16.8	33.3	
PA system	22.1	27.8	21.7	23.1	15.5	28.3	33.3	
Notice on campus web site / portal	62.6	70.9	69.6	66.9	63.7	47.8	66.7	
Email	66.4	75.9	82.6	66.1	72.5	43.4	66.7	
SMS / text messaging	43.3	57.0	63.0	39.7	47.7	23.0	33.3	
RSS	8.3	16.5	10.9	7.4	8.3	2.7	-	
Voice mail to campus phones (offices / dorms)	44.6	49.4	60.9	47.1	47.7	28.3	-	
Voice mail to off-campus land lines (homes / apartments)	18.0	13.9	45.7	14.9	21.2	8.0	-	
Voice mail to mobile phones	22.1	21.5	50.0	19.8	25.9	8.0	-	
Current replacement cycle for desktop/notebook computers (years)								
<i>Student labs</i>								
1 year	0.7	-	-	-	1.0	1.8	-	
2 years	5.8	5.1	2.2	1.7	9.8	4.4	33.3	
3 years	49.4	57.0	60.9	48.3	51.3	38.1	33.3	
4 years	36.5	35.4	32.6	39.0	31.1	45.1	33.3	
5 years	7.6	2.5	4.4	11.0	6.7	10.6	-	
<i>Faculty offices</i>								
1 year	-	-	-	-	-	-	-	
2 years	0.9	-	2.2	-	2.1	-	-	
3 years	32.6	34.2	45.7	35.6	34.2	21.2	-	
4 years	51.7	53.2	47.8	45.8	52.3	55.8	100.0	
5 years	14.8	12.7	4.4	18.6	11.4	23.0	-	
<i>Administrative offices</i>								
1 year	-	-	-	-	-	-	-	
2 years	0.5	1.3	2.2	-	0.5	-	-	
3 years	27.1	35.4	37.0	31.4	24.9	17.7	-	
4 years	53.2	57.0	56.5	45.8	54.4	53.1	100.0	
5 years	19.2	6.3	4.4	22.9	20.2	29.2	-	
<i>means and percentages by campus category</i>								
WEB AND NETWORKING ISSUES								
How does your institution address the problem of spam:								
No institutional effort/policy	0.9	1.3	-	-	2.1	-	-	
Recommend end-user filters	60.4	75.9	54.3	70.2	60.1	43.4	-	
Deploy server filters	98.0	96.2	100.0	99.2	98.4	96.5	100.0	
Use DNS blacklists	72.1	79.7	63.0	76.0	68.9	72.6	33.3	
Other	22.8	19.0	23.9	30.6	21.8	18.6	33.3	
Does your institution have a financial plan to upgrade/enhance/replace the campus network?								
No current plan/policy	13.4	8.9	13.0	12.4	13.5	17.1	33.3	
Under discussion/development	32.7	31.7	37.0	37.2	30.2	31.5	33.3	
Currently funded network replacement/upgrade plan	53.9	59.5	50.0	50.4	56.3	51.4	33.3	
How important are the following issues on your campus?*								
Supporting instructional labs & clusters	6.1	5.8	5.8	6.3	5.9	6.4	6.7	
Creating Web pages for dept. use and course resources	5.2	5.0	4.9	5.5	5.2	5.2	4.3	
Digital image libraries/archives	4.9	5.1	5.2	5.0	5.0	4.5	3.3	
Disaster recovery	6.2	6.3	6.6	6.3	6.0	6.0	6.0	
Virtual private networks (VPN)	5.6	6.0	6.0	5.7	5.3	5.5	5.3	
Network security	6.7	6.9	6.9	6.8	6.6	6.7	7.0	
Gigabit Ethernet	6.0	6.3	6.2	6.3	5.7	5.9	6.0	
Grid computing	3.0	4.5	3.6	3.0	2.5	2.5	1.0	
Electronic commerce	4.8	4.9	5.2	4.7	4.5	5.1	5.3	
Wireless networks (802.xx stds)	6.3	6.4	6.6	6.4	6.2	6.0	6.0	
Wi-Max wireless networks	3.9	4.2	4.0	4.1	3.8	3.7	3.7	
Making campus networks accessible to PDA/handheld devices	4.2	4.6	4.6	4.6	3.9	4.0	2.7	
Making campus networks accessible to WiFi phones	3.7	3.9	4.3	4.0	3.6	3.4	2.3	
Data Encryption	5.6	5.8	6.0	5.8	5.4	5.5	5.0	
Replacement cycle for network infrastructure	5.9	5.9	6.0	6.1	5.8	5.9	4.7	
Identity management	5.9	6.3	6.3	6.2	5.5	5.8	4.7	
Internet2	3.8	5.5	4.6	4.1	3.1	3.3	1.7	
National LambdaRail	3.0	4.7	3.3	2.9	2.5	2.6	1.3	
Spyware/malware	5.6	5.5	5.4	5.8	5.5	5.6	4.7	
IT Disaster Communications Capacity	5.8	6.1	6.3	6.2	5.5	5.6	6.0	
How well developed are campus network connections and the instructional infrastructure?								
Percentage of faculty offices connected to the campus network/have Internet access	99.7	99.7	100.0	98.9	99.9	99.9	100.0	
Percentage of classrooms connected to the campus network/have Internet access	94.0	89.9	95.7	93.7	96.3	92.6	92.7	
Percentage of classrooms with fixed computer projection capacity	65.5	58.7	68.2	65.5	68.5	63.9	60.3	
Percentage of dormitory beds with network connection	75.6	94.7	92.8	84.7	95.6	12.5	33.3	
Percentage of campus covered/served by wireless network access	63.6	61.7	70.0	66.0	66.7	54.4	63.0	
Percentage of classrooms covered/served by wireless network access/services	60.1	60.3	68.9	64.2	64.4	44.1	65.0	
<i>means and percentages by campus category</i>								

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	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
Current transmission capacity of your campus network							
<i>High speed video</i>							
Functional now	67.0	88.6	73.9	80.5	50.0	65.5	-
Coming A/Y 2007-08	4.9	2.5	4.4	5.9	5.2	5.3	-
Scheduled for A/Y 2008-09	7.1	-	8.7	6.8	8.9	8.9	-
Not applicable	21.0	8.9	13.0	6.8	35.9	20.4	100.0
<i>ATM</i>							
Functional now	16.7	24.1	10.9	24.4	6.8	23.2	-
Coming A/Y 2007-08	0.5	-	-	1.7	0.5	-	-
Scheduled for A/Y 2008-09	0.7	-	-	-	1.0	1.8	-
Not applicable	82.1	76.0	89.1	74.0	91.7	75.0	100.0
<i>Local area wireless networks</i>							
Functional now	94.6	93.7	95.7	99.2	93.8	91.2	100.0
Coming A/Y 2007-08	0.9	-	-	-	0.5	3.5	-
Scheduled for A/Y 2008-09	1.4	2.5	-	-	1.0	3.5	-
Not applicable	3.1	3.8	4.4	0.8	4.7	1.8	-
<i>Full campus wireless networks</i>							
Functional now	43.0	38.5	54.4	48.7	42.0	36.3	66.7
Coming A/Y 2007-08	11.4	12.8	8.7	14.3	10.9	9.7	-
Scheduled for A/Y 2008-09	28.6	28.2	28.3	26.9	29.0	30.1	33.3
Not applicable	17.0	20.5	8.7	10.1	18.1	23.9	-
<i>Gigabit Ethernet</i>							
Functional now	85.0	92.4	82.6	93.2	78.1	83.2	100.0
Coming A/Y 2007-08	4.4	1.3	8.7	3.4	5.2	4.4	-
Scheduled for A/Y 2008-09	6.5	3.8	8.7	1.7	8.9	8.9	-
Not applicable	4.2	2.5	-	1.7	7.8	3.5	-
<i>10 Gigabit Ethernet</i>							
Functional now	21.9	50.0	32.6	19.5	14.1	14.6	-
Coming A/Y 2007-08	5.3	6.4	15.2	5.1	3.1	3.6	33.3
Scheduled for A/Y 2008-09	20.8	18.0	21.7	19.5	21.4	22.7	-
Not applicable	52.0	25.6	30.4	55.9	61.5	59.1	66.7
<i>Voice over IP</i>							
Functional now	44.8	61.5	47.8	43.2	33.7	53.1	33.3
Coming A/Y 2007-08	8.9	7.7	4.4	11.0	7.8	10.6	33.3
Scheduled for A/Y 2008-09	19.4	12.8	21.7	23.7	19.7	18.6	-
Not applicable	27.0	18.0	26.1	22.0	38.9	17.7	33.3
<i>Internet2</i>							
Functional now	44.0	96.2	69.6	53.8	25.4	19.5	-
Coming A/Y 2007-08	3.8	1.3	-	8.4	1.0	7.1	-
Scheduled for A/Y 2008-09	6.5	-	4.4	5.9	8.3	9.7	-
Not applicable	45.7	2.5	26.1	31.9	65.3	63.7	100.0
<i>National LambdaRail</i>							
Functional now	11.0	41.8	17.4	11.8	2.1	0.9	-
Coming A/Y 2007-08	4.3	13.9	6.5	2.5	1.6	3.5	-
Scheduled for A/Y 2008-09	4.5	7.6	4.4	5.9	2.1	5.3	-
Not applicable	80.1	36.7	71.7	79.8	94.3	90.3	100.0
Does your institution provide off-campus network access services for:							
<i>Dial-up/ISP</i>							
<i>Students</i>							
No	72.3	46.8	58.7	69.2	74.1	94.7	100.0
Yes, without a fee	24.1	41.8	34.8	25.8	25.9	3.5	-
Yes, for a fee	3.6	11.4	6.5	5.0	-	1.8	-
<i>Faculty</i>							
No	61.3	43.0	45.7	56.7	63.7	79.7	100.0
Yes, without a fee	35.1	46.8	43.5	39.2	35.8	19.5	-
Yes, for a fee	3.6	10.1	10.9	4.2	0.5	0.9	-
<i>DSL/Broadband</i>							
<i>Students</i>							
No	91.9	83.5	82.6	92.5	92.2	100.0	100.0
Yes, without a fee	4.3	6.3	8.7	3.3	5.7	-	-
Yes, for a fee	3.8	10.1	8.7	4.2	2.1	-	-
<i>Faculty</i>							
No	91.4	82.3	84.8	91.7	94.8	93.8	100.0
Yes, without a fee	5.6	6.3	8.7	5.8	4.2	6.2	-
Yes, for a fee	3.1	11.4	6.5	2.5	1.0	-	-
<i>Wireless</i>							
<i>Students</i>							
No	90.5	91.1	87.0	87.5	91.2	92.9	100.0
Yes, without a fee	7.9	6.3	8.7	10.8	7.8	6.2	-
Yes, for a fee	1.6	2.5	4.4	1.7	1.0	0.9	-
<i>Faculty</i>							
No	90.3	92.4	82.6	86.7	92.8	91.2	100.0
Yes, without a fee	8.8	6.3	13.0	12.5	7.3	8.0	-
Yes, for a fee	0.9	1.3	4.4	0.8	-	0.9	-
Number of "plug & play" ports on campus for mobile computer users	572.0	897.2	1,738.3	453.1	520.3	101.9	208.3
Number of wireless nodes on the campus network	284.2	621.9	966.8	252.6	141.9	53.8	32.3
Does your institution limit the size of email documents/attachments	80.0	84.8	87.0	81.8	82.4	67.3	100.0
Maximum file size (Mbytes)	22.8	39.1	23.3	24.4	19.0	14.5	76.7
Does your institution limit the size of student web sites	57.0	75.9	66.7	63.3	58.3	32.4	-
Maximum size (Mbytes)	117	208	229	114	116	19	-

mean ratings and percentages by campus category.

**scale from 1="not important" to 7="very important".*

+columns may not total 100% as responses are not mutually exclusive.

CAMPUS COMPUTING 2007

	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
ORGANIZATION, PLANNING AND IMPACT ISSUES							
Is your campus part of a multicampus system with shared computing resources?	49.5	68.4	39.1	70.2	22.3	65.5	-
Academic and administrative computing are:							
Separate units	26.3	34.2	37.0	30.6	20.7	22.1	-
One single unit	73.7	65.8	63.0	69.4	79.3	77.9	100.0
Has your institution reorganized Information Tech/Services units in the past 2 years?*							
Academic computing	37.3	52.6	37.0	39.7	34.2	30.1	-
Administrative computing	34.7	61.5	34.8	38.3	25.4	28.3	-
Libraries	12.6	9.0	13.0	13.3	14.5	11.5	-
Telecom	30.9	46.2	26.1	37.5	26.4	23.9	-
Do you anticipate a reorganization of Information Tech/Services in the next 2 years?*							
Academic computing	25.5	30.8	30.4	32.5	17.6	26.5	-
Administrative computing	24.2	28.2	32.6	28.3	19.2	23.0	-
Libraries	11.8	14.1	17.4	14.3	10.4	8.0	-
Telecom	24.2	26.9	30.4	26.1	20.2	25.7	-
The heads of the academic and administrative units report to:							
<i>Academic computing</i>							
President	5.8	2.5	-	5.0	3.1	15.0	-
Provost	12.1	16.5	8.7	14.1	13.0	7.1	-
CIO or CTO	64.0	72.2	65.2	70.3	67.4	46.9	33.3
Other vice provost/vice president	13.7	5.1	19.6	7.4	14.0	23.0	33.3
Dean	4.5	3.8	6.5	3.3	2.6	8.0	33.3
<i>Administrative computing</i>							
President	6.3	2.5	-	5.8	3.6	15.9	-
Provost	6.3	10.1	4.4	7.4	7.3	1.8	-
CIO or CTO	68.7	82.3	69.6	72.7	70.0	54.0	33.3
Other vice provost/vice president	16.9	5.1	26.1	13.2	17.6	23.9	33.3
Dean	1.8	-	-	0.8	1.6	4.4	33.3
<i>Libraries</i>							
President	1.1	-	-	0.8	1.6	1.8	-
Provost	64.1	86.1	76.1	75.0	60.6	39.8	33.3
CIO or CTO	10.1	3.8	4.4	8.3	15.0	10.6	-
Other vice provost/vice president	12.4	3.8	10.9	5.0	14.5	23.0	-
Dean	12.3	6.3	8.7	10.8	8.3	24.8	66.7
<i>mean ratings and percentages by campus category.</i>							
Does institution have a chief information/technology officer?							
No	13.1	-	15.2	8.3	20.7	14.2	-
Currently under discussion	2.9	1.3	-	3.3	4.2	2.7	-
Yes	84.0	98.7	84.8	88.4	75.1	83.2	100.0
What academic and operational units report to the CIO/CTO?*							
Academic computing	78.4	87.3	78.3	82.6	75.6	71.7	100.0
Administrative computing	84.9	96.2	87.0	86.0	78.8	85.0	100.0
Libraries	12.1	3.8	6.5	10.7	17.1	13.3	-
Media center	51.8	55.7	58.7	52.1	54.4	41.6	33.3
Telecommunications	77.0	91.1	87.0	78.5	67.4	77.0	100.0
The CIO reports to:							
President	36.7	30.4	20.0	43.7	30.9	49.6	33.3
Provost/vice president for academic affairs	27.6	43.0	31.1	32.8	29.8	6.2	33.3
CFO/vice president for business/admin affairs	28.3	17.7	37.8	16.8	31.9	38.1	33.3
Other	7.4	8.9	11.1	6.7	7.3	6.2	-
Is the CIO (or senior institutional computing/IT officer) a member of the president's cabinet/exec committee?	51.4	58.2	46.7	56.7	42.9	57.5	33.3
Which unit provides tech support for most departmental computer labs?							
Individual department	9.2	30.4	28.3	9.1	1.6	-	-
Central IT service unit	66.0	22.8	39.1	62.0	79.3	88.5	100.0
Both	24.8	46.8	32.6	28.9	19.2	11.5	-
How does your institution deal with the "life cycle" of desktop computers for faculty, classrooms, clusters, and labs?							
One time allocation	7.8	19.0	4.4	6.7	4.2	8.9	-
Developing budget	23.2	31.7	15.6	38.3	12.5	23.0	-
Have budget	69.1	49.4	80.0	55.0	83.3	68.1	100.0
What types of security incidents did your campus experience in the past year?							
Theft of computer(s) containing confidential data files	17.1	30.4	40.0	15.7	10.4	11.5	-
Hack/attack on the campus network	45.6	65.8	48.9	53.7	38.3	35.4	-
Hack/attack on student/personnel/alumni data files	6.3	20.3	6.7	6.6	2.1	3.5	-
Hack/attack on administrative/financial files	4.3	12.7	11.1	3.3	1.0	2.7	-
Hack/attack on research data files	3.6	10.1	11.1	3.3	1.0	0.9	-
Other attack on institutional data files	8.1	21.5	20.0	7.4	4.1	1.8	-
Identity management issues	20.2	36.7	28.9	20.7	13.5	16.8	-
Major computer virus infestation	14.8	19.0	11.1	14.9	16.1	11.5	-
Major spyware infestation	15.9	19.0	11.1	15.7	15.5	16.8	-
Student security "incident" related to social networking sites	13.2	15.2	13.3	13.2	14.5	8.8	33.3
Exposure/loss of sensitive data in distributed environment (server not managed by central services)	14.6	46.8	26.7	15.7	5.7	1.8	-
Intentional employee transgressions affecting IT security	6.5	7.6	8.9	8.3	3.6	8.0	-
How concerned are you about the following security issues for your institution in the coming year?							
Theft of computer(s) containing confidential data files	4.1	4.4	4.3	4.2	4.0	3.8	3.3
Hack/attack on the campus network	4.1	4.2	4.2	4.3	3.9	3.9	4.0
Hack/attack on student/personnel/alumni data files	3.8	3.9	4.2	4.1	3.7	3.6	3.7
Hack/attack on administrative/financial files	3.9	4.0	4.1	4.1	3.7	3.8	3.3
Hack/attack on research data files	3.1	3.7	3.6	3.5	2.7	2.5	2.0
Other attack on institutional data files	3.6	3.8	3.9	3.9	3.3	3.4	3.7
Identity management issues	4.0	4.1	4.0	4.2	3.8	3.9	3.3
Major computer virus infestation	3.5	3.5	3.6	3.7	3.4	3.6	2.7
Major spyware infestation	3.5	3.5	3.5	3.7	3.4	3.5	2.7
Student security "incident" related to social networking sites	3.2	3.1	3.2	3.2	3.3	2.9	2.0
Exposure/loss of sensitive data in distributed environment (server not managed by central IT svcs)	3.5	4.4	4.1	4.0	3.1	3.0	2.7
Intentional employee transgressions affecting IT security	3.1	3.2	3.3	3.4	2.9	3.1	3.7
<i>Means and percentages by campus category. *Columns may not total 100% since responses are not mutually exclusive.</i>							

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	All Institutions	Universities		4-Year Colleges		2-Year Colleges	
		Public	Private	Public	Private	Public	Private
ORGANIZATION, PLANNING AND IMPACT ISSUES (Continued)							
How would you characterize the campus strategy on Open Source tools for central IT infrastructure services?							
<i>None:</i> little if any interest in or deployment of Open Source tools in Central IT Services	12.6	7.6	10.9	11.6	12.4	17.9	33.3
<i>Observing:</i> Watching other institution with interest, but no active deployment or development	16.9	7.6	13.0	19.0	16.1	25.0	-
<i>Sampling:</i> some Open Source tool activity, primarily backroom/infrastructure tools	38.6	40.5	43.5	42.2	35.8	34.8	66.7
<i>Operational:</i> significant Open Source deployment, focused on key operations	13.9	21.5	13.0	10.7	13.5	13.4	-
<i>Mission critical:</i> using a number of Open Source academic, administrative, and research resources for "mission critical" central IT operations	13.9	19.0	13.0	13.2	16.1	8.0	-
<i>Contributing:</i> strong support for Open Source tools plus a commitment and campus strategy to develop new/enhance current Open Source tools for central IT operations	4.1	3.8	6.5	3.3	6.2	0.9	-
How would you characterize your campus strategy on/engagement with Open Source applications?							
<i>None:</i> little if any interest in or deployment of Open Source tools in Central IT Services	15.1	8.9	13.0	14.9	13.5	23.2	33.3
<i>Observing:</i> Watching other institution with interest, but no active deployment or development	39.1	31.7	39.1	40.5	35.2	49.1	33.3
<i>Sampling:</i> some Open Source tool activity, primarily backroom/infrastructure tools	24.5	30.4	28.3	28.1	22.3	18.8	33.3
<i>Operational:</i> significant Open Source deployment, focused on key operations	9.4	13.9	6.5	9.9	10.9	4.5	-
<i>Mission critical:</i> using a number of Open Source academic, administrative, and research resources for "mission critical" central IT operations	6.3	6.3	2.2	2.5	11.9	2.7	-
<i>Contributing:</i> strong support for Open Source tools plus a commitment and campus strategy to develop new/enhance current Open Source tools for central IT operations	5.6	8.9	10.9	4.1	6.2	1.8	-
Open Source projects and personnel at your institution							
Current/active Open Source support/development projects in central IT services	2.2	3.1	4.1	2.6	1.8	0.9	0.7
FTE personnel allocated to Open Source support or development activities in central IT services	1.2	2.8	2.3	1.0	0.8	0.4	0.3
How does your institution address the problem of P2P digital piracy on campus computer networks?							
Installed a technology solution to stem P2P piracy (Copy Magic, etc)	29.1	25.3	23.9	29.8	36.3	22.1	-
Mandatory user education program	12.8	24.1	15.2	15.7	12.4	1.8	-
Sanction students for copyright, P2P or DCMA violations	45.9	64.6	54.3	49.6	47.2	24.8	-
Students can lose campus network/email access or privileges for P2P violations	70.5	86.1	69.6	78.5	73.1	47.8	66.7
Student financial penalty or fine paid to college/university for P2P violations	6.3	10.1	19.6	6.6	4.7	0.9	-
<i>Means and percentages by campus category.</i>							

Appendix A

Survey Methodology

The 2007 National Survey of Computing and Information Technology in American Higher Education was designed to collect information about campus planning, policies, and procedures affecting the use of computers and information technology resources from colleges and universities in the United States (including Alaska and Hawaii).

Prospective survey participants were contacted by email late in August 2007; the email “invitation to participate” note included a hotlink to an online copy of the 2007 Campus Computing questionnaire. The invitation email questionnaire was sent to a representative sample of some 1200 two- and four-year public and private colleges and universities. The sampling design focused on public and private two- and four-year colleges and universities, omitting the small branch campuses of multi-campus districts and several hundred very small private two- and four-year college (i.e., institutions enrolling under 500 students).^{*} Degree-granting for-profit colleges and proprietary schools were also excluded from the survey sample.

Reminder and dunning emails were sent in September and during the first weeks of October 2007. A total of 555 institutions completed usable questionnaires by October 10, 2007, the closing date for data analysis. More than three-fourths (77.6 percent) of the institutions that participated in the 2007 survey also participated in the 2006 survey. The number of colleges and universities participating in the 2007 survey, by type of institution, are shown below.

Category	Number as Counted by US Dept. of Educ.	2007 Survey Participants	Participation Rate (%)
Public Research and Doctoral Universities	168	79	47.0
Public Research and Doctoral Universities	92	46	50.0
Public 4-Year Colleges (master and baccalaureate institutions)	374	121	32.4
Private 4-Year Colleges (master and baccalaureate institutions)	824	193	23.4
Public 2-Year Colleges (assoc. degree)	1018	113	11.1

^{*}Data from the US Department of Education reveal that 25.6 percent (1,059) of the nation’s 4,140 accredited, degree-granting two- and four-year colleges and universities enroll under 500 students (headcount enrollment). These institutions account for some 257,000 (1.5 pct.) of the nation’s 16.9 million college students as of fall 2003. In contrast, some 472 colleges and universities that enroll 10,000 or more students represent just 11.4 of the total number of US degree-granting institutions yet account for 53.9 percent of total headcount enrollment, some 9.1 million students. (source: *Digest of Education Statistics 2005*. US Department of Education, 2005, table. 213; (http://nces.ed.gov/programs/digest/d05/tables/dt05_213.asp))

Appendix B

Institutions Participating in the 2007 Campus Computing Survey

ALASKA

University of Alaska

ALABAMA

Auburn University at Montgomery
Auburn University-Main Campus
Birmingham-Southern College
Samford University
Tuskegee University
University of Alabama
University of Alabama-Birmingham
University of Montevallo

ARIZONA

Arizona State University - West
Mohave Community College
Northern Arizona University

ARKANSAS

John Brown University
University of Arkansas-Fort Smith
University of Central Arkansas

CALIFORNIA

Allan Hancock College
Antelope Valley College
Art Center College of Design
Azusa Pacific University
Bakersfield College
Barstow College
Biola University
California College of Arts
California Lutheran University
California Polytechnic State University, San Luis Obispo
California State Polytechnic Univ - Pomona
College of the Sequoias
CSU - Bakersfield
CSU - California Maritime Academy
CSU - Channel Islands
CSU - Chico
CSU - Dominguez Hills
CSU - East Bay
CSU - Fresno
CSU - Fullerton
CSU - Humboldt State University
CSU - Long Beach
CSU - Los Angeles
CSU - Monterey Bay
CSU - Northridge
CSU - Sacramento
CSU - San Bernardino
CSU - San Jose State University
CSU - San Marcosca
CSU - Stanislaus

Fullerton College
Grossmont-Cuyamaca CCD
Loyola Marymount University
Merced College
Mills College
MiraCosta College
Mt. San Jacinto College
North Orange CCD
Occidental College
Pacific Oaks College
Pitzer College
Point Loma Nazarene University
Saint Mary's College of California
Samuel Merritt College
San Diego State University
San Francisco State University
Santa Clara University
Solano College
Sonoma State University
Stanford University
University of California, Los Angeles
University of California, Santa Barbara
University of La Verne
University of Redlands
University of San Diego
University of San Francisco
University of the Pacific
West Hills College
Yuba College

COLORADO

Colorado College
Colorado State University
United States Air Force Academy
University of Colorado at Boulder
University of Colorado at Colorado Springs
University of Denver

CONNECTICUT

Fairfield University
Quinnipiac University
Wesleyan University
Yale University

DISTRICT OF COLUMBIA

Catholic University of America
Gallaudet University

DELAWARE

University of Delaware

FLORIDA

Broward Community College
Edison Community College
Florida Atlantic University

Florida Southern College
Hillsborough Community College
Lynn University
Saint Leo University
Santa Fe Community College
The Florida State University
University of Central Florida
University of Florida
University of Miami
University of Tampa
Webber International University

GEORGIA

Abraham Baldwin Agricultural College
Agnes Scott College
Albany State University
Armstrong Atlantic State University
Atlanta Metropolitan College
Augusta State University
Bainbridge College
Berry College
Clayton College & State University
Coastal Georgia Community College
Columbus State University
Dalton State College
Darton College
East Georgia College
Emory University
Fort Valley State University
Gainesville State College
Georgia College & State University
Georgia Highlands College
Georgia Institute of Technology
Georgia Perimeter College
Georgia Southern University
Georgia Southwestern State University
Georgia State University
Gordon College
Kennesaw State University
Macon State College
Medical College of Georgia
Middle Georgia College
North Georgia College and State University
Savannah State University
South Georgia College
Southern Polytechnic State University
Spelman College
University of Georgia
University of West Georgia
Valdosta State University
Waycross College

HAWAII

University of Hawaii

IDAHO

Boise State University
Idaho State University
North Idaho College

ILLINOIS

Benedictine University
Bradley University
Carl Sandburg College
College of DuPage
College of Lake County
DePaul University
Dominican University
Elgin Community College
Elmhurst College
Governors State University
Greenville College
Heartland Community College
Illinois Institute of Technology
Illinois Wesleyan University
Knox College
Lake Forest College
Lake Land College
Lewis And Clark Community College
Lewis University
Loyola University Chicago
Millikin University
Monmouth College
Moraine Valley Community College
National-Louis University
Northwestern University
Roosevelt University
Saint Xavier University
Southeastern Illinois College
Southern Illinois University Edwardsville
Trinity International University
University of Illinois at Springfield
University of Illinois Urbana-Champaign
Wheaton College
William Rainey Harper College

INDIANA

DePauw University
Earlham College
Franklin College of Indiana
Goshen College
Grace College
Indiana U-Purdue U at Indianapolis
Indiana University - Bloomington
Indiana University - East
Indiana University - Kokomo
Indiana University - Southeast
Indiana University, South Bend
Ivy Tech State College - Lafayette
Rose-Hulman Institute of Technology
Taylor University
University of Indianapolis
University of Notre Dame

IOWA

Buena Vista University
Central University of Iowa
Clarke College
Drake University

Eastern Iowa Community College District
Central Office
Grand View College
Grinnell College
Loras College
Luther College
Southeastern Community College
St. Ambrose University
University of Northern Iowa
Wartburg College

KANSAS

Kansas State University

KENTUCKY

Asbury College
Berea College
Georgetown College
Northern Kentucky University
University of Kentucky
University of Louisville
Western Kentucky University

LOUISIANA

Louisiana State University
Southeastern Louisiana University
Southern University, New Orleans

MAINE

Bates College
Colby College
Thomas College
University of New England
University of Southern Maine

MARYLAND

Anne Arundel Community College
Chesapeake College
College of Southern Maryland
Johns Hopkins University
Loyola College in Maryland
Montgomery College
Prince George's Community College
Salisbury University
St. Mary's College of Maryland
Towson University
United States Naval Academy
Univ. of Maryland, Baltimore County
University of Maryland at Baltimore
Washington College

MASSACHUSETTS

Amherst College
Babson College
Becker College
Bentley College
Bridgewater State College
College of the Holy Cross
Hampshire College
Lesley University
Massachusetts Institute of Technology
Mount Holyoke College
Northeastern University
Olin College of Engineering

Springfield Technical Community College
Tufts University
University of Massachusetts-Boston

MICHIGAN

Albion College
Alma College
Andrews University
Calvin College
Central Michigan University
Davenport University
Eastern Michigan University
Henry Ford Community College
Hillsdale College
Kalamazoo College
Kalamazoo Valley Community College
Kellogg Community College
Kettering University
Macomb Community College
Michigan Technological University
Muskegon Community College
Oakland University
University of Michigan-Dearborn
Wayne State University

MINNESOTA

Augsburg College
Bethel University
College of St. Scholastica
Concordia College
Dunwoody College of Technology
Gustavus Adolphus College
Hamline University
Inver Hills Community College
Macalester College
Martin Luther College
Metropolitan State University
Ridgewater College
Saint Paul College
St. Olaf College
University of Minnesota, Duluth
University of Saint Thomas

MISSISSIPPI

Delta State University
Jackson State University

MISSOURI

Missouri Southern State University
Ozarks Technical Community College
Saint Louis University
Southeast Missouri State University
Southwest Baptist University
Truman State University
University of Central Missouri
University of Missouri-Columbia
Webster University

MONTANA

Montana State University
University of Montana

NEBRASKA

Clarkson College
 Creighton University
 Nebraska Wesleyan University
 Southeast Community College
 University of Nebraska at Omaha

NEVADA

Community College of Southern Nevada
 University of Nevada, Las Vegas

NEW HAMPSHIRE

Dartmouth College
 Rivier College
 Southern New Hampshire University
 University of New Hampshire

NEW JERSEY

Burlington County College
 Camden County College
 Drew University
 Georgian Court University
 Gloucester County College
 Mercer County Community College
 Middlesex County College
 New Jersey Institute of Technology
 Ocean County College
 Princeton University
 Raritan Valley Community College
 Richard Stockton College of New Jersey
 Rider University
 Rowan University
 Rutgers University-New Brunswick
 Saint Peters College
 The College of New Jersey
 Thomas Edison State College
 Union County College

NEW MEXICO

New Mexico State University

NEW YORK

Adelphi University
 Barnard College
 Canisius College
 Colgate University
 College of New Rochelle
 Cornell University
 CUNY - Hunter College
 Fordham University
 Genesee Community College
 Hamilton College
 Hartwick College
 Hofstra University
 Hudson Valley Community College
 Ithaca College
 Jefferson Community College
 Marist College
 Monroe College
 Monroe Community College
 Pace University
 Rensselaer Polytechnic Institute
 Roberts Wesleyan College
 Skidmore College

St. Bonaventure University
 SUNY At Binghamton
 SUNY College at Oneonta
 SUNY-Buffalo
 SUNY-Buffalo State College
 SUNY-University at Albany
 The College of Saint Rose
 The Juilliard School
 Ulster County Community College
 University of Rochester

NORTH CAROLINA

Alamance Community College
 Appalachian State University
 Belmont Abbey College
 Campbell University
 Catawba Valley Community College
 Davidson College
 Elon University
 Fayetteville State University
 Guilford Technical Community College
 Isothermal Community College
 Johnston Community College
 Nash Community College
 Pitt Community College
 University of North Carolina-Asheville
 University of North Carolina-Chapel Hill
 University of North Carolina-Wilmington

NORTH DAKOTA

Minot State University
 North Dakota State University
 University of North Dakota

OHIO

Ashland University
 Baldwin-Wallace College
 Bowling Green State University
 Case Western Reserve University
 Cedarville University
 Cincinnati State College
 Cuyahoga Community College
 Heidelberg College
 Kent State University
 Kenyon College
 Marietta College
 Miami University
 Muskingum College
 Oberlin College
 Ohio Northern University
 Ohio University, Main Campus
 Ohio Wesleyan University
 Otterbein College
 Shawnee State University
 Sinclair Community College
 University of Cincinnati
 University of Findlay
 University of Northwestern Ohio
 Ursuline College

OKLAHOMA

Oklahoma Christian University
 Southern Nazarene University
 University of Science and Arts of Oklahoma

OREGON

Concordia University
 George Fox University
 Lane Community College
 Lewis & Clark College
 Linn-Benton Community College
 Oregon State University
 Pacific University
 Portland Community College
 Reed College
 Southern Oregon College
 University of Oregon
 Willamette University

PENNSYLVANIA

Allegheny College
 Alvernia College
 Bloomsburg University of Pennsylvania
 Bryn Mawr College
 Bucks County Comm. College
 Carnegie Mellon University
 Cedar Crest College
 Clarion University of Pennsylvania
 Delaware County Community College
 Drexel University
 Duquesne University
 East Stroudsburg University of Pennsylvania
 Edinboro University of Pennsylvania
 Elizabethtown College
 Franklin and Marshall College
 Gannon University
 Gwynedd-Mercy College
 Holy Family University
 Indiana University of Pennsylvania
 Keystone College
 Kutztown University
 La Salle University
 Lafayette College
 Lehigh University
 Lock Haven University of Pennsylvania
 Mansfield University of Pennsylvania
 Marywood University
 Mercyhurst College
 Messiah College
 Millersville University of Pennsylvania
 Montgomery County Community College
 Mount Aloysius College
 Pennsylvania State University, Univ. Park
 Philadelphia Biblical University
 Philadelphia University
 Reading Area Comm. College
 Robert Morris University
 Shippensburg University
 Slippery Rock University of Pennsylvania
 Susquehanna University
 Temple University
 University of Pennsylvania
 West Chester University of Pennsylvania
 Wilkes University

RHODE ISLAND

Bryant University
Providence College
Rhode Island School of Design
University of Rhode Island

SOUTH CAROLINA

Aiken Technical College
Central Carolina Technical College
Charleston Southern University
Clemson University
Furman University
Presbyterian College
University of South Carolina
Winthrop University

SOUTH DAKOTA

Dakota Wesleyan University
Mount Marty College
University of South Dakota

TENNESSEE

Belmont University
Middle Tennessee State University
Nashville State Technical Comm. College
Tennessee State University
University of Memphis
University of Tennessee at Martin

TEXAS

Abilene Christian University
Amarillo College
Austin College
Baylor University
Brazosport College
College of the Mainland
Collin County Community College
Concordia University at Austin
El Centro College
Jarvis Christian College
McLennan Community College
Palo Alto College
Prairie View A&M University
Schreiner University
Southwestern Baptist Theological Seminary
Stephen F. Austin State University
Texas A & M University, Galveston
Texas Southern University
Texas State University-San Marcos
Texas Woman's University
University of Houston-Clear Lake
University of North Texas
University of Texas at Austin
University of Texas at Arlington

UTAH

University of Utah
Utah Valley State College
Weber State University

VERMONT

Lyndon State College
University of Vermont

VIRGINIA

Eastern Mennonite University
George Mason University
Hampton University
Longwood University
Lynchburg College
Mary Baldwin College
Norfolk State University
Northern Virginia Community College
Old Dominion University
Piedmont Virginia Community College
Randolph-Macon College
Sweet Briar College
University of Richmond
University of Virginia-Main Campus
Virginia Commonwealth University
Virginia Military Institute
Virginia State University
Virginia Tech

WASHINGTON

Bastyr University
Heritage University
Seattle Central Community College
Seattle Pacific University
Seattle University
University of Washington, Tacoma
University of Washington, Bothell
Washington State University
Whitman College

WEST VIRGINIA

Concord University
Fairmont State University
Marshall University
West Virginia Wesleyan College

WISCONSIN

Alverno College
Cardinal Stritch University
Carroll College
Marquette University
Moraine Park Technical Institution
Northeast Wisconsin Technical College
University of Wisconsin-Platteville
University of Wisconsin-Oshkosh
University of Wisconsin-Madison
University of Wisconsin-Milwaukee
University of Wisconsin-Superior
University of Wisconsin-Whitewater
Wisconsin Lutheran College

WYOMING

Casper College
Laramie County Community College
Villa Julie College



THE CAMPUS COMPUTING PROJECT

P.O. Box 261242 • Encino, CA 91426-1242 • USA
campuscomputing.net