2009

CAMPUS COMPUTING

The 20th National Survey of Computing and Information Technology in American Higher Education

Kenneth C. Green

THE CAMPUS COMPUTING PROJECT

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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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CAMPUS COMPUTING, 2009

The 20th National Survey of Computing and Information Technology in American Higher Education

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CAMPUS COMPUTING, 2009

The 20th National Survey of Computing and Information Technology in American Higher Education

The Campus Computing Survey, now in its 20th year, is the largest continuing study of the role of computing and information technology in American higher education. The 2009 Campus Computing Survey was conducted during September and October, 2009.[1] The survey results presented here summarize data provided by 500 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 served as an IT benchmarking study and has focused primarily on academic computing, i.e., the use of computing and information technology resources to support and enhance instruction, learning, 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, campus networks, 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 IT 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 or information services, executive director for information technology, executive director for academic computing, or other similar job title.

As noted above, the 2009 survey data were collected during September and October 2009. 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 500 surveys were completed by late October, 2009. (Additional information about the survey methodology is provided in Appendix A; a list of institutions participating in the 2009 survey appears in Appendix B.)

Top IT Priorities

Early in the decade, the Campus Computing Survey added a item that asked senior campus IT officers to identify the "single most important IT issue confronting their institution over the next two-three years." The question was structured as a forced-choice: pick just one item from a list of ten. During the early years of the decade (2000-2004), survey respondents identified "the instructional integration of information technology" as the leading IT issue for their campus, followed by IT user support (Figure 1.) Indeed, in 2000, instructional integration and IT user support accounted for more than three-fifths (62.8) percent of the responses on this item.

2000	2001	2002	2003	2004	2005	2006	2007	2008
Instructional Integration of IT (40.5%)	Instructional Integration of IT (31.5%)	Instructional Integration of IT (24.3%)	Instructional Integration of IT (21.4%)	Network & Data Security (21.1%)	Network & Data Security (30.0%)	Network & Data Security (29.5%)	Network & Data Security (25.5%)	Network & Data Security (20.3%)
IT User Support (22.3%)	IT User Support (15.4%)	Upgrade/ Replace ERP (18.9%)	Upgrade/ Replace ERP (17.6%)	Instructional Integration of IT (16.5%)	Instructional Integration of IT (17.9%)	Instructional Integration of IT (17.3%)	Upgrade/ Replace ERP (13.0%)	Hiring/ Retaining IT Staff (16.7%)
Financing IT (14.8%)	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%)	Instructional Integration of IT (11.9%)

Figure 1: The Single Most Important IT Issue Confronting My Institution Over the Next Two-Three Years (trends, 2000-2008)

Instructional integration remained the number one "campus IT priority" for four years, from 2000 through to 2003, even as the percentage of respondents identifying this issue as the top IT priority for their institution fell by roughly half, from two-fifths (40.5 percent in 2000) to one-fifth (21.4 percent) by 2003. It is also important to note that instructional integration remained the top IT priority even as IT budgets declined during the economic downturn in the early years of the current decade.

[1]The 2009 National Survey of Desktop Computing in Higher Education was supported, in part, by the following sponsors: Adobe Systems, Amazon, Apple Inc., Blackboard, Blackboard Connect, Campus Management, Center for Digital Education, Cengage Learning, Datatel, Dell Inc., Follett Higher Education Group, Google, IBM Higher Education, Jenzabar, Kaplan Education, Lenovo, Longsight Group, McGraw-Hill Higher Education, Microsoft, Oracle, Pearson Education, Perceptis, Presidium Learning, rSmart, SAS Institute, Sonic Foundry, SONY, SunGard Higher Education, Turnitin, TouchNet Information Systems, and Verba Software.

[2]The Campus Computing Project does not report data for private two-year colleges or for for-profit four-year institutions. Please see Appendix A for information about the survey methodology.

Beginning in 2004, the top IT priority shifted from instructional integration to "network and data security." Even as the numbers ebbed and flowed during this period from 20 to 30 percent of the survey participants, IT security issues remained the top IT priority through the next five surveys (2004-2008). And although the absolute numbers varied by sector in fall 2008, the CIOs and senior campus IT officials in four of five sectors identified "network and data security" as their IT leading priority last year (Figure 2).

All Institutions	Public Universities	Private Universities	Public 4-Yr. Colleges	Private 4-Yr. Colleges	Community Colleges
Network and Data Security (20.3%)	Hiring/ Retaining IT Staff (29.3%)	Network and Data Security (29.6%)	Network and Data Security (21.7%)	Network and Data Security (19.8%)	Network and Data Security (21.3%)
Hiring/ Retaining IT Staff (14.8%)	Upgrading ERP Systems (17.3%)	Upgrading ERP Systems (15.9%)	Hiring/ Retaining IT Staff (17.0%)	Hiring/ Retaining IT Staff (13.6%)	Hiring/ Retaining IT Staff (16.4%)
Instructional Integration of IT (11.9%)	Instructional Integration of IT (13.3%)	Instructional Integration of IT (13.6%)	IT Finance (12.3%)	Instructional Integration of IT (13.0%)	IT User Support (15.5%)

Figure 2: The Single Most Important IT Issue Confronting My Institution Over the Next Two-Three Years, 2008 (percentages by sector)

The 2009 survey data provide a very different profile of IT priorities: no one issue or item emerges as the clear leader; no one item or issue garners more than a fifth of the "votes" of the survey participants. Rather, the survey data point to seven issues (Figure 3) that are top priorities for campus IT officials: network/data security and financing IT rank first and second in 2009, followed by five other issues which each captured about 10 percent of the responses from survey participants: distance education, upgrading ERP systems, IT staffing, the instructional integration of information technology, and IT user support.

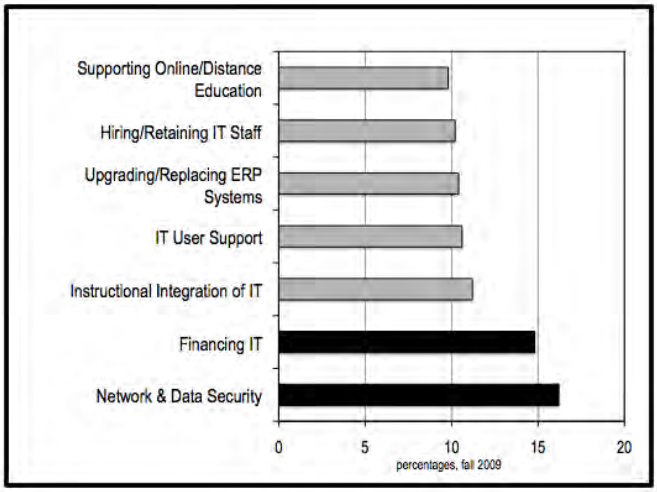

Figure 3: The Single Most Important IT Issue Confronting My Institution Over the Next Two-Three Years, 2009 (percentages for all institutions)

While the numbers vary somewhat by type of institution, "network and data security" remains the top IT issue across four of five sectors of higher education in 2009, save for public research universities (Figure 4). However, across all sectors the proportion of respondents endorsing network and data security as the top IT priority is lower in 2009 than in 2008.

All Institutions	Public Universities	Private Universities	Public 4-Yr. Colleges	Private 4-Yr. Colleges	Community Colleges
Network and Data Security (16.2%)	IT Finance *and* Upgrading ERP Systems (Tie: 15.8%)	Network and Data Security (20.5%)	Network and Data Security (21.1%)	Network and Data Security (16.7%)	Upgrading ERP Systems (15.7%)
IT Finance (14.8%)	IT Staffing (13.2%)	IT Finance (15.9%)	Distance Education (15.8%)	IT Finance (15.5%)	IT Finance *and* IT User Support (tie: 13.9%)
Instructional Integration of IT (11.2%)	Network and Data Security (10.5%)	IT Finance *and* Integrating Academic & Admin IT Services (Tie: 13.6%)	Instructional Integration of IT (13.7%)	Instructional Integration *and* Hiring/ Retaining IT Staff (tie: 11.5%)	Network and Data Security (13.0%)

Figure 4: The Single Most Important IT Issue Confronting My Institution Over the Next Two-Three Years, 2009 (percentages by sector)

The 2009 data suggest two very different hypotheses about current campus IT priorities. One hypothesis is that the budget cuts affecting postsecondary institutions have made it difficult for senior campus IT officials to identity a "top" priority when so many IT issues compete for executive attention and financial resources: in other words almost *all* issues are a "top" IT priority. An alternative hypothesis, probably less acceptable to CIOs given current budget cuts (see below), suggests that campus IT leaders have a hard time selecting a top priority because institutions have made good progress on many IT issues over the past few years.

What accounts for the declining priority for network and data security, which has fallen by almost half (roughly 14 percentage points) from the peaks posted in 2005 and 2006? Without question, campuses have made significant investments in these areas in recent years. So at one level, the "declining priority" of network and data security may be no surprise: past investments in network and data security are paying off. Too, as noted above, the clustering of IT priorities also suggests more competition for the attention of IT leaders and more competition for IT budget dollars by issues and services that include hiring, emergency notification, and the instructional integration of information technology.

IT Security and Crisis Management

Even as network and data security have become a "declining" (if still high) priority for campus IT officials, the 2009 survey provides ample evidence that IT security presents continuing challenges to colleges and universities and for campus IT leaders.

In the context of strategic planning, almost three-fourths (73.8 percent), of the colleges and universities participating in the 2009 Campus Computing Survey report a strategic plan for IT security, a slight increase compared to 2008 (72.0 percent), but up significantly from 53.5 percent in 2002. However, here as elsewhere the data reveal important variations across sectors: as shown in Figure 5, universities are more likely to have strategic plans for IT security than four-year colleges and community colleges. Moreover, a fair number of institutions across all sectors still report no strategic plan for IT security – ranging from 18.2 percent in private universities (down from 46.5 percent in 2002), to 26.9 percent in community colleges (compared to 42.7 percent in 2002). Additionally, as shown in Figure 5, some sectors have shown only small increases in the percentage of institutions reporting a strategic plan for network security between 2002 and 2009.

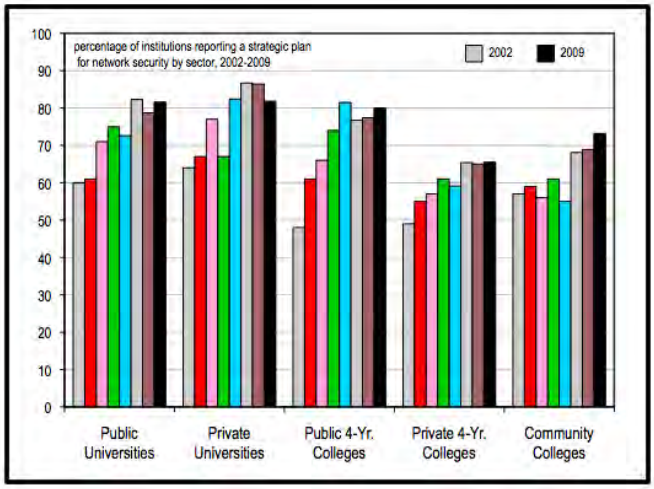

Figure 5: Strategic Plan for Network Security (percentages by sector, 2002-2009)

Related to IT security, just three-fifths (62.2 percent) of the institutions participating in the 2009 survey report a strategic plan for IT disaster recovery, up slightly from 2008 (60.6 percent) and reflecting only modest gains from 2004 (55.5 percent) or even 2002 (53.0 percent; Figure 6). As above, some sectors have shown only small increases in the percentage of institutions reporting a strategic plan for IT disaster planning between 2002 and 2009.

The good news in the 2009 survey regarding IT security issues is that several metrics point to improvements since 2005. The percentage of campuses reporting hacks or attacks on campus networks in 2009 was 47.4 percent, about the same as last year (46.2 percent) but down from 51.1 percent in 2005. Fewer campuses now report major problems with computer viruses (15.0 percent in 2009, compared to 11.4 percent last year and 35.4 percent in 2005) and spyware (14.6 vs. 13.1 percent in 2008, and 40.8 percent three years ago; see Figure 7).

The number of institutions reporting stolen computers with sensitive data was virtually unchanged over the past year, (21.4 percent in 2009 vs. 22.2 percent in 2008), but has been rising from slowly in recent years from 17.1 percent in 2007, 13.5 percent in 2006, and 15.3 percent in 2005.

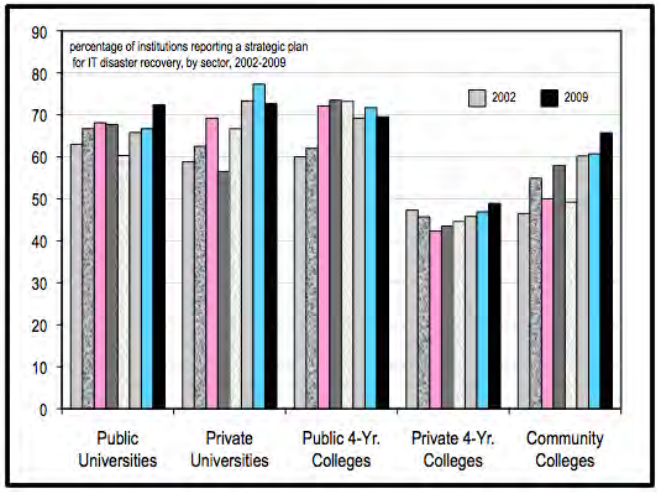

Figure 6: Strategic Plan for IT Disaster Recovery (percentages by sector, 2002-2009)

Yet the good news is also offset by increases in the percentage of institutions reporting a security incident involving identity management, (28.4 percent in 2009 vs. 25.6 percent in 2008, and approximately 20 percent in the preceding four years) and a data breach on a distributed server not under the control of central IT services (17.8 percent this past year compared to 16.9 percent in 2009, 14.6 in 2007, and 11.3 in 2006).

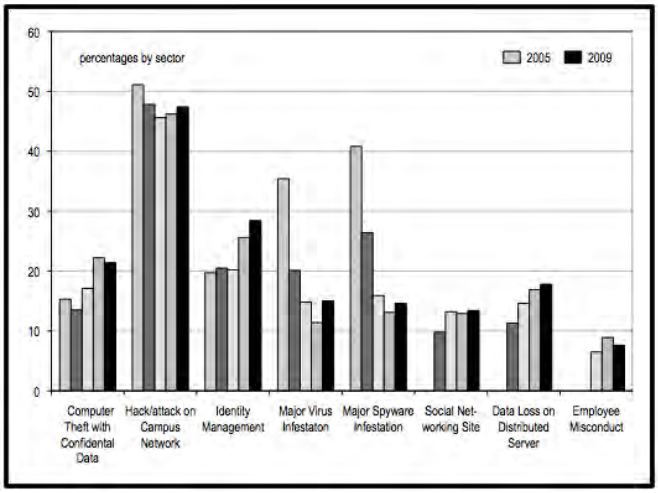

Figure 7: IT Security Incidents in the Past Year (percentage of institutions reporting an IT security incident in the past year, by type and sector, 2009)

Not surprisingly, public and private research universities were, in general, more likely to report IT security incidents than other institutions; these campuses are larger targets for many kinds of incidents and also often have more distributed IT decision-making that can contribute to other problems. For

example, about a third (31.6 percent) of public universities and two-fifths (43.2) of private universities experienced the theft of computers with confidential files over the past year, compared to a fifth (21.6 percent) of public four-year colleges, a sixth (16.7 percent) of private four-year institutions, and a seventh (13.9 percent) of community colleges.

Although not sponsored or supported by campuses, student activities that originate on social networking sites continue to be a source of IT security incidents (Figure 8). While the numbers are generally low (under 16 percent across all sectors), more campuses now report student security incidents linked to social networking sites such as Facebook or MySpace (13.4 percent in 2009 vs. 12.9 percent in 2008, about the same as in 2007 but up from 9.8 percent in 2006). Here as elsewhere, the numbers vary by sector, from a low of 9.3 percent in community colleges to a high of 15.8 percent in public universities.

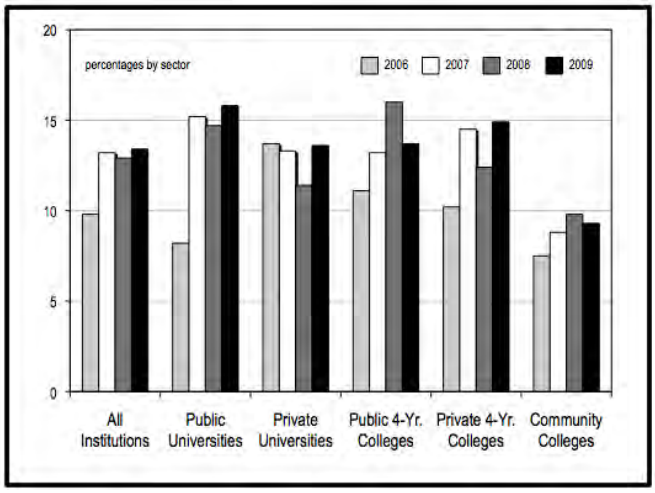

Figure 8: IT Security Incidents in the Past Year Related to Social Networking Sites (percentages by sector, 2006-2009)

The 2009 data document generally little change in the proportion of institutions reporting IT security incidents linked to employee misconduct and malfeasance (Figure 9). About one campus in twelve (7.6 percent) experienced one or more IT security events linked to the activities of employees in the past year, compared to 6.5 percent in the fall 2007 survey and 8.9 percent in the 2008 survey. Employee misconduct and malfeasance may be an indicator of individual and organizational stress, as budget cuts (see below) impose additional demands on campus IT personnel.

In sum, the 2009 survey data confirm the continuing security and crisis management challenges confronting campus IT officials across all sectors of American higher education. Four years after Hurricanes Katrina and Rita and eight years after the 9-11 attacks, it is still surprising that so many colleges and universities – approximately 40 percent – have yet to complete IT disaster plans, while an unknown number have yet to update these plans in recent years. Similarly, more than a fourth of the institutions participating in the 2009 survey do not have a strategic plan for IT security, and as above, no doubt many others have yet to updated their IT security plans developed several years ago.

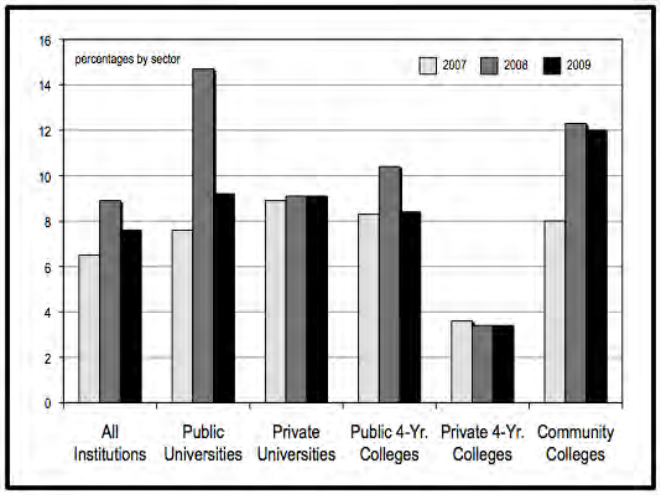

Figure 9: IT Security Incidents in the Past Year Related to Employee Misconduct (percentages by sector, 2006-2009)

Emergency Notification

In the wake of the tragic events at Virginia Tech in April 2007, many campuses expanded the role of IT security to include campus security. As part of this expanded definition, colleges and universities moved quickly to enhance and exploit IT communication and notification services and resources as part of a larger crisis management plan.

Although the numbers vary by sector (Figure 10) more than three-fifths (80.2 percent) of the institutions participating in the 2009 Campus Computing Survey report a strategic plan for emergency notification, up from 70.8 percent in 2008 and 44.0 percent in 2007. Concurrently, almost all (97.2 percent) of the campuses participating in the

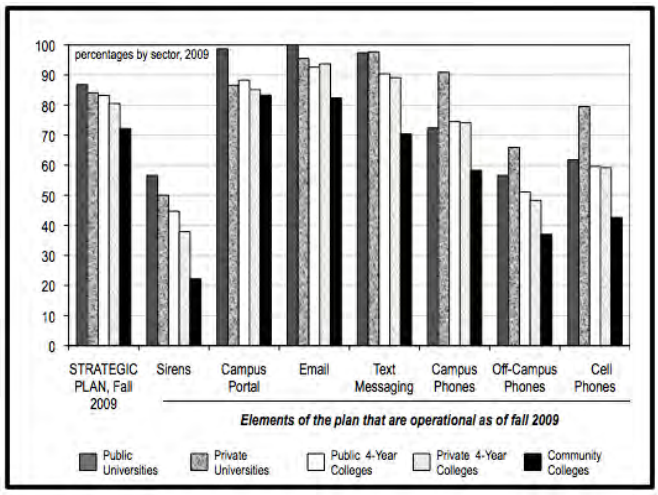

Figure 10: Emergency Notification Planning and Services (percentages, fall 2009)

2009 survey report an "operational emergency notification system," compared to 94.5 percent last year and 75.0 percent fall 2007. As elsewhere, the aggregated numbers mask important differences across sectors. For example, 6.5 percent of community colleges do not have an operational emergency notification plan as of fall 2009 (down from 13.1 percent in 2008), compared to less than three percent for four-year institutions.

The operational components of campus notification plans continued to show gains over the past year. For example, the proportion of campuses reporting sirens as part of the emergency plan rose to 39.7 percent in fall 2009, up from 23.4 percent in 2007 and 34.8 percent in 2008. Similarly, the percentage of institutions reporting email as part of the campus emergency notification system increased to 91.8 percent in fall 2009, compared to 66.4 percent in 2007 and 86.2 percent in 2008. Voice mail to campus phones rose to 71.5 percent in fall 2009 vs. 65.5 percent last year and 44.6 percent in 2007; text messaging is now operational at 87.2 percent of institutions, compared 43.3 percent in 2007 and 75.6 percent in 2008; almost nine-in-ten campuses (87.2 percent) can now post emergency messages on their primary web sites or portals, compared to four-fifths (81.2 percent) in 2008 and almost two-thirds (62.6 percent) in 2007.

Additionally, the percentage of campuses reporting voice mail notification to off-campus phones and to cellular/mobile phones also improved. Almost half (48.9 percent) of campuses can now send emergency messages to off-campus land lines, up from 18.0 percent in 2007 and 41.1 percent in 2008. Concurrently, as of fall 2009, approximately three-fifths (57.5 percent) of institutions participating in the survey report they can send emergency messages and other kinds of notifications to mobile phones, compared to a fifth (22.5 percent) in 2007 and almost half (48.5 percent) in 2008.

Third-party service providers play a major role in campus efforts to integrate emergency notification services. A new item on the fall 2009 survey reveals that more than four-fifths (83.6 percent) of campuses utilize notification services or software provided by commercial firms (range: 88.4 percent in public four-year colleges to 75.9 percent in community colleges). The campus market appears to be competitive, as reflected in the number of firms – including Blackboard Connect, E2Campus, MIR3, and National Notification, among others – that offer integrated notification software and services to colleges and universities (Figure 11).

Many colleges and universities are exploring options to leverage their investment in notification services beyond campus emergencies. Not surprisingly however, a new item on the 2009 survey reveals that the primary use of campus notification systems during the past year was for emergency notification (86.6 percent; see Figure 12). Part of the challenge in leveraging the investment in notification services is that campus officials are understandably concerned that repeated use of the notification system for non-emergency messages might lead recipients to ignore all campus notification alerts, viewing them as spam and thus defeating the intent of the service.

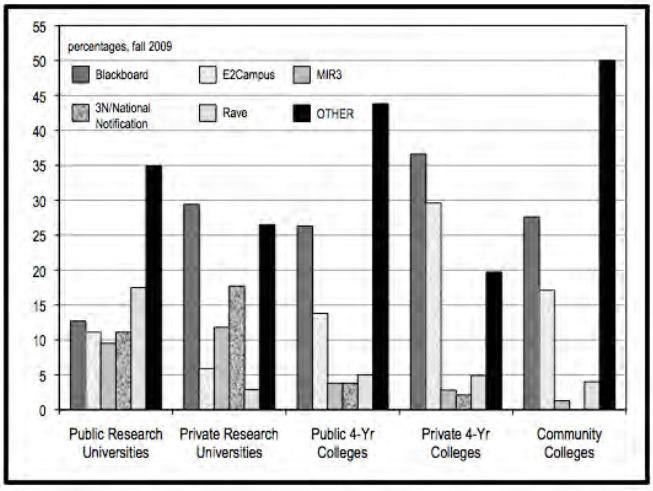

Figure 11: Emergency Notification Service Providers (percentages for institutions using a third-party notification service, by sector, fall 2009)

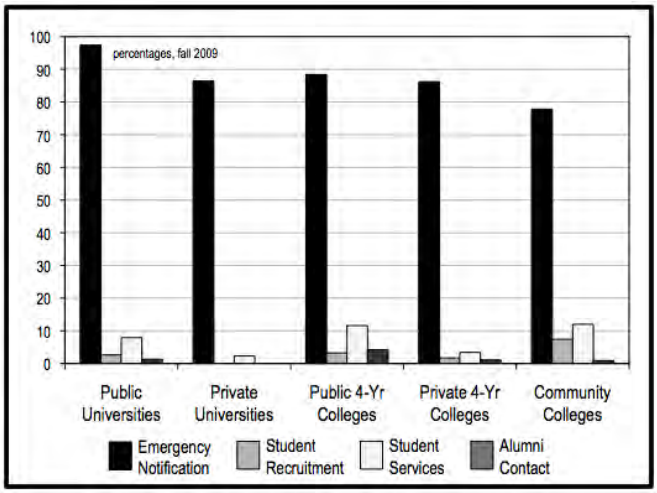

Figure 12: Deploying the Notification System (percentages by sector, fall 2009)

Campus policies and practices regarding participation in the emergency notification system continue to be a key issue for most institutions. Data from the 2009 survey reveal that the vast majority of institutions have a voluntary ("opt-in") participation policy for their notification systems, although the numbers dropped slightly between fall 2008 and 2009 (Figure 13). Consequently, the actual benefit of a campus investment in some emergency notification technologies such as text and voice messaging to student cell phones may be limited if only a quarter or a third of students and campus personnel are registered for the service.

Budget issues notwithstanding, technology is clearly the easy (or an easier) part of emergency notification planning on campus. The hard part involves implementation: here the key issues are 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 alerts do not view them as spam.

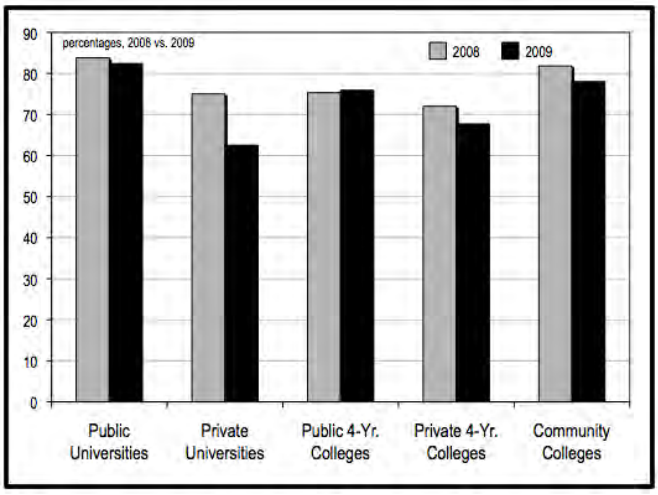

Figure 13: Opt-In Registration Policy for Emergency Notification Services
(percentages by sector, 2008 vs. 2009)

IT Budgets

The 2009 survey confirms that the economic downturn that began in 2008 has had a significant impact on campus IT budgets. In some sectors, the percentage of institutions reporting cuts in the central IT budget more than doubled from fall 2007 to 2008, and then doubled again from 2008 to 2009. Moreover, the IT units most adversely affected by the economic downturn appear to be in public universities and public four-year colleges, followed by private universities. (Figure 14).

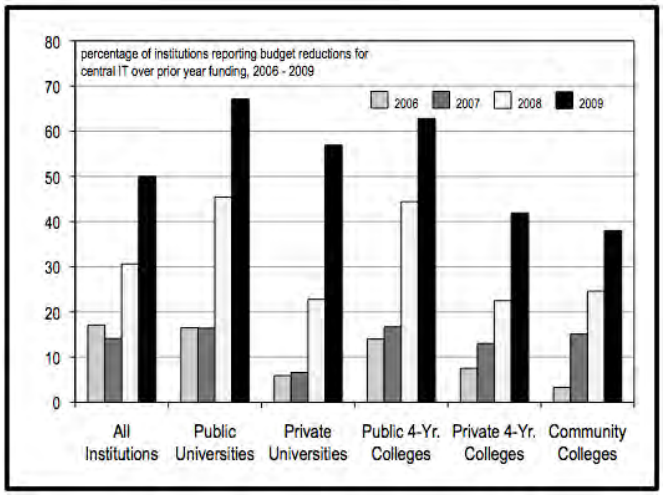

Figure 14: Budget Cuts Affecting Central IT Units, 2006-2009
(percentage of campuses reporting budget cuts, by sector)

Fully two-thirds (67.1 percent) of public universities experienced cuts in their central IT budgets in fall 2009, compared to two-fifths (45.4 percent) in fall 2008 and up by a factor of 4 (from 16.4 percent) in fall 2007. Similarly, more than three-fifths (62.8 percent) of public four-year colleges experienced budget cuts for the current academic year (2009-10), up from 44.4 percent last year and 16.7 percent in 2007. The biggest jump in budget cuts occurred among private universities, rising to 56.9 percent for fall 2009, compared to 22.2 percent last year and 6.6 percent in 2007.

Other sectors also report significant IT budget cuts for fall 2009, although the reductions were smaller: budget cuts hit more than two-fifths (41.9 percent) of private four-year colleges (vs. 23.5 percent in 2008 and 13.0 percent in 2007 year). And almost two-fifths (38.0 percent) of community colleges suffered budget reductions in central IT services, compared to 24.6 percent in 2008 and 14.1 percent in 2007.

What is striking about the budget cuts is the proportion of public four-year colleges and universities reporting budget reductions that were greater than five percent: among public universities, 29.0 percent reported cuts in the central IT budget for fall 2009 that exceed five percent as did almost two-fifths (38.3 percent) of public four-year colleges. By comparison, just under a fifth (18.2 percent) of private universities reported IT budget cuts that over five percent, as did 15.5 percent of private four-year colleges, and 16.7 percent in community colleges.

Even as overall IT budgets suffer, the distribution of funds across key operational areas continues to reflect changing IT priorities discussed above and shown below in Figure 15. For example, it should come as no surprise that IT security and emergency notification are the areas where a third (33.8 percent) of institutions report budget gains in 2009 (but down from 76.9 percent in 2007 and 56.5 percent in fall 2008).

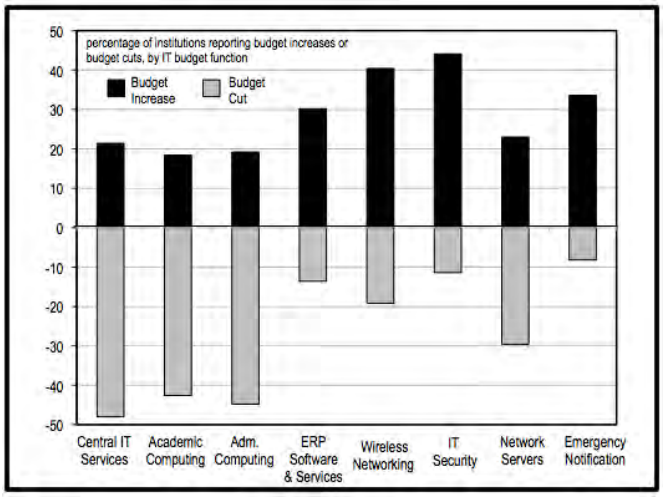

Figure 15: Budget Gains and Reductions for A/Y 2009-10, by Function
(percentage of campuses reporting increased or reduced budget by function, fall 2009)

Similarly, although more than two-fifths (44.1 percent) of campuses reported increased funding for IT security in fall 2009, this number is down from 56.2 percent in 2008 and 64.6 percent in 2007.

It comes as no surprise that the current cycle of IT budget cuts have led many institutions to reduce purchases of desktop and notebook computers for campus personnel and facilities. Almost a third (31.4 percent) of institutions report budget cuts affecting public labs, while funding for public campus computer labs was flat for almost three-fifths (57.1 percent) of campuses. And on a similar topic, more than two-fifths (43.0 percent) of campuses report reduced institutional purchases of desktop and notebook computers for the current academic year, compared to just 16.0 percent in 2008.

Although many colleges and universities expect to receive money from the stimulus package passed by Congress early in 2009, the majority of campus IT officers do not believe that stimulus dollars "will help sustain IT resources on my campus." As shown in Figure 16, less than a third of IT officers in public institutions view the federal stimulus funds as key resource for IT funding; the numbers are even lower among IT officers in private institutions. By definition, the stimulus money is short-term, which means that the stimulus dollars that migrate into IT budgets will not provide a long-term solution to the IT funding issues affecting all sectors of American higher education.

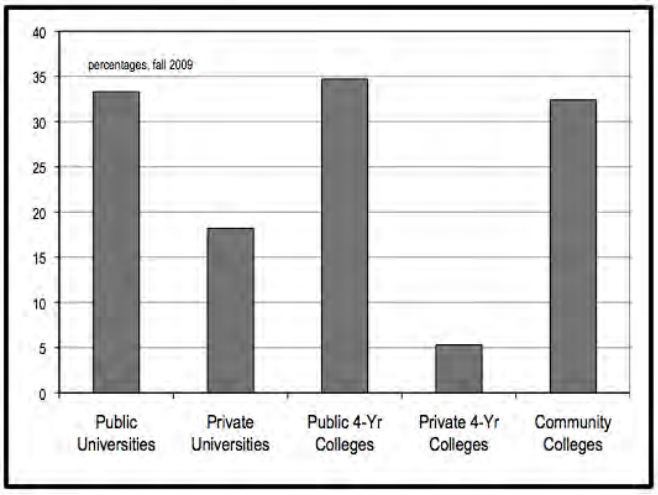

Figure 16: "Federal Stimulus Funds Will Help Sustain IT Resources On My Campus." (percentage who agree/strongly agree by sector, fall 2009)

The budget reductions begun in 2008 and accelerated in 2009 arrived just as most American colleges and universities were beginning to recover from several years of annual IT budget cuts and mid-year budget rescissions that marked the economic downturn during the first years of the current decade. Then as now, the irony is that the demand for IT resources and services continues to rise, even as the dollars supporting campus IT resources, services, and personnel are cut from institutional budgets. Moreover, the experience from recession in the early years of the current decade suggests that the current budget cuts will be followed by mid-year budget rescissions, compounding the impact of the continuing budget reductions.

Phasing Out Public Computer Labs

Closing campus computer labs would appear to be an obvious budget strategy given the large proportion of students who now own computers and the budget pressures affecting campus IT units. (As noted above, a third of campuses cut budgets for campus labs.) However, a new item on the 2009 survey reveals that few colleges or universities have closed their public labs, and the majority of colleges and universities have no plans to do so: two-thirds (68.7 percent) of institutions report decisions not to phase out public computer labs. About a fifth of campuses (19.8 percent) report they are reviewing the status of public computer labs in the current year, while just an eighth (11.4 percent) indicate they will begin the review in the current academic year.

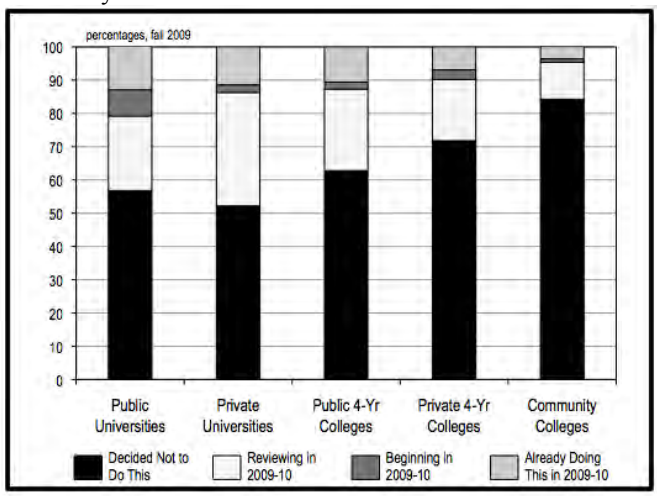

Figure 17: Phasing Out Public Computer Labs, 2009
(percentages by sector, fall 2009)

As with so many items on the survey, the numbers on computer labs also vary by sector (Figure 17). For example, a fully one-fifth (20.9 percent) of public universities report phasing out some of their public labs, compared to about 12 percent of both private universities and public four-year colleges, 10 percent of private four-year colleges, and just 4.6 percent of community colleges.

Given current budget pressures, why *not* phase out public labs? Public computer facilities are used by large numbers of students, even those who own their own computers: two-thirds of the undergraduates participating in Student Monitor's fall 2009 survey report using campus-owned computers at least once a week.[3] While the operating costs of public labs may be seem significant for some institutions, the actual savings from closing public labs may be just a

[3] Student Monitor, *Computing and the Internet: Fall 2009.* (Ridgewood, NJ), October 2009. www.studentmonitor.com

miniscule portion of the larger IT budget. Moreover, in many instances, public labs provide access to specialized software or other unique IT resources. Too, a small but growing number of campuses are repositioning their public labs, converting them into collaborative work environments or simply work areas where students can bring their own computers to connect to the campus network.[4]

Reorganizing Campus IT Units

As in past years, the 2009 data confirm many campuses are reorganizing or restructuring campus IT units. Almost two-fifths (38.8 percent) of campuses report reorganizing academic computing units in the past two years, while another fourth (25.2 percent) anticipate reorganizing these units within the next two years (Figure 18). Yet these data also reveal significant churn on IT organizational issues: a large number of the campuses that have reorganized IT units in the past two years expect to do it again in the next two years (Figure 18).

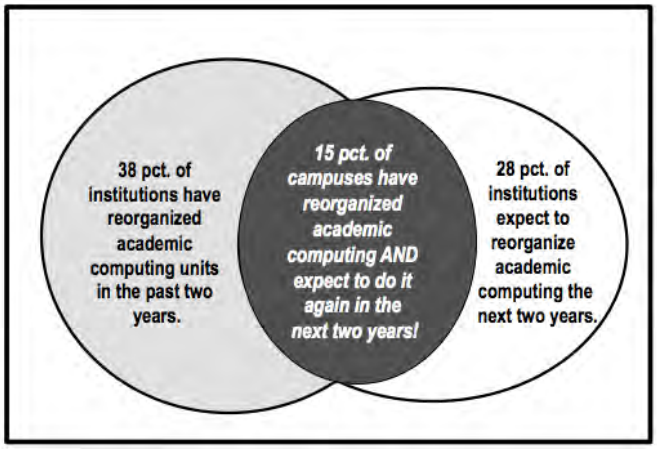

Figure 18: Reorganizing Academic Computing Units (percentages, fall 2009).

The reorganization numbers are similar for administrative computing units: 34.4 percent have reorganized administrative computing in the past two years, 23.6 percent anticipate the reorganization of administrative IT units within the next two years, and 14.8 percent of campuses in the survey will have done both – reorganized administrative computing in the past two years and will reorganize again in the next two years.

The changes (some might say churning) of the IT organizational chart may reflect several factors: a key retirement may be a catalyst for change, as might the arrival of new president or provost who has the prerogative to redraw the campus organizational chart. The financial pressures confronting all institutions may also be a catalyst for consolidating or reorganizing IT units.

Copyright, Illegal P2P, and Campus Codes of Conduct

Despite the well-publicized media industry outcry (and accompanying Congressional concern) about copyright violations and illegal peer-to-peer (P2P) file sharing involving college students over the five years, the 2009 data continue to confirm that American colleges and universities are making serious and sustained efforts to address the problem of illegal P2P downloading of copyrighted content – primarily music and movies – on campus networks. As noted in past surveys, the vast majority of colleges and universities – 88.0 percent in 2009, up from 84.1 percent in 2008, and 66.2 percent in 2003 – have campus policies to address inappropriate or illegal P2P downloading of copyrighted content. The 2009 survey also provides additional information about the campus procedures intended to promote and enforce these policies.

Well over than four-fifths of institutions (88.8 percent, compared to 86.9 percent in 2008 and up from 70.5 percent in 2007) report that students can lose their campus network privileges for P2P violations, while more than three-fifths (62.4 percent, compared to 56.9 percent in 2008 and 45.9 percent in 2007) impose other kinds of sanctions for inappropriate or illegal P2P activity.

The 2009 survey provides new information about the current level of compliance with the P2P provisions of the 2008 Higher Education Opportunity Act (HEOA). The legislation requires colleges and universities (a) "develop plans to effectively combat the unauthorized distribution of copyrighted material;" (b) "to use a variety of technology-based deterrents" to stem illegal P2P activity on campus networks; and (c) "to offer alternatives to illegal down-loading or peer-to-peer distribution of intellectual property."[5]

Even though the P2P provisions of the HEOA apply to virtually all two- and four-year public, private/non-profit, and for-profit colleges and universities (i.e., postsecondary institutions that receive federal funds or whose students participate in federal financial aid programs), compliance levels currently vary dramatically across sectors – generally highest in universities, followed by four-year colleges, and then lowest in community colleges (Figure 19). Moreover, the 2009 data show some small gains across sectors regarding compliance with the HEOA provisions on illegal P2P activity. These small gains – or rather than absence of larger gains from 2008 to 2009 – probably reflect a "wait-and -see" response from officials regarding the final regulations governing the HEOA mandates, which were announced in October 2009, for implementation in 2010.

As shown in Figure 19, the P2P provisions of the HEOA also pose real costs for colleges and universities – costs that drain resources from increasingly tight IT budget dollars and

[4] Terris, Ben. "Rebooted Computer Labs Offer Savings for Campuses and Ambiance for Students." *Chronicle of Higher Education,* 6 Dec 2009. http://chronicle.com/article/Computer-Labs-Get-Rebooted-/49323/

[5] Hartle, T. W., *et. al.,* "HEOA Requirements and Next Steps Related to Peer-to-Peer (P2P) Filesharing on College and University Networks." (Washington, DC: American Council on Education), 11 August 2008, p. 1. http://net.educause.edu/ir/library/pdf/epo0815.pdf

also demand significant personnel time from IT units and other campus offices. A key component of these costs are site license fees for the "technology-based deterrents" mandated by the HOEA legislation; few campuses incur direct costs for offering "alternatives to illegal P2P" because the small number of firms that once provided these services to campuses have closed.

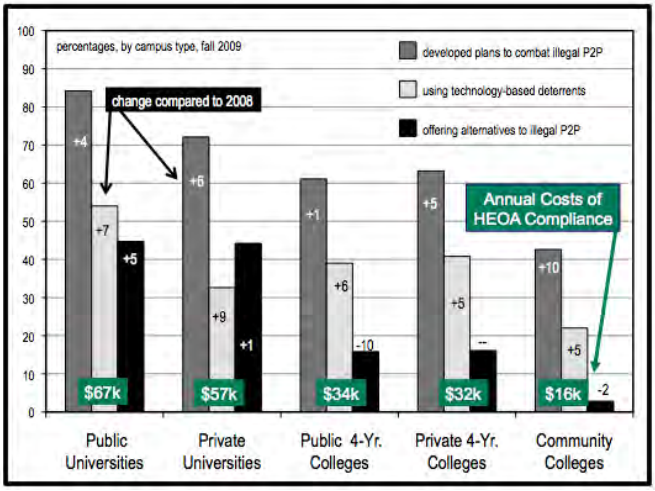

Figure 19: Campus Compliance P2P provisions of HEOA. (percentages by sector, fall 2009)

Supporting the 2009 survey data, a summer 2008 survey on the campus costs of P2P compliance conducted by The Campus Computing Project found that the aggregated costs of special software, additional hardware, and personnel time allocated to various aspects of P2P compliance could total as much as half a million dollars annually for some institutions.[6]

Learning Management Systems

The 2009 data 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 more than half (55.5 percent) in 2009 (Figure 20). Although the numbers vary by sector, the rising deployment of (some might say rising campus dependency on) CMS/LMS occurs across all sectors.

Although these numbers track rising LMS utilization, they do not provide any data about the depth of deployment, i.e., how many of the features and how much of the functionality of the LMS are being used by students and faculty in individual courses and across the various sectors of American higher education.

Reflecting the critical role that the LMS now plays in instruction at the majority of institutions, more than three-fifths (64.8 percent) of the colleges and universities participating in the 2009 survey report a strategic plan for CMS/LMS deployment, up from 63.5 percent in 2008, 60.2 in 2007, and 41.8 percent in 2001.

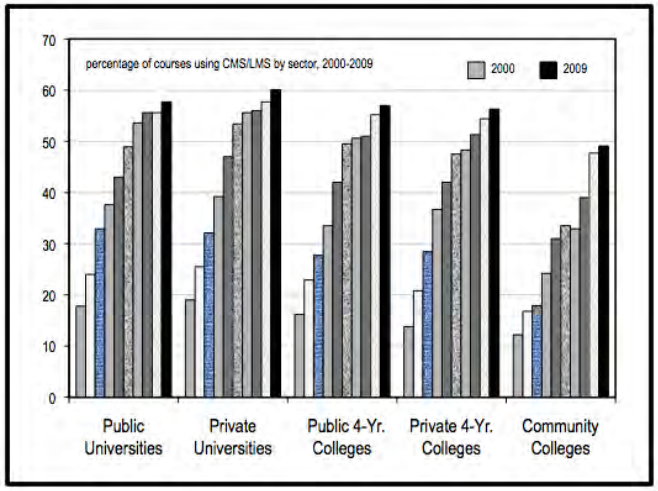

Figure 20: Rising Use of CMS/LMS in Instruction (percentage of courses using CMS/LMS, by sector, 2000-2009)

Most campuses (92 percent) report a campus standard for their LMS. Not surprisingly, Blackboard has the largest share of the CMS/LMS market. As shown in Figure 21, among campuses reporting a "single product" campus standard LMS as of fall 2009, the percentage of institutions that identify Blackboard as the institutional LMS runs from 42.5 percent in private four-year colleges to 69.5 percent in private universities. Although the numbers vary by sector, other commercial LMS providers – primarily Angel Learning (acquired by Blackboard in May 2009) and Desire2Learn – each account for about seven percent of campus CMS/LMS deployments. In aggregate (but also with variations by sector)

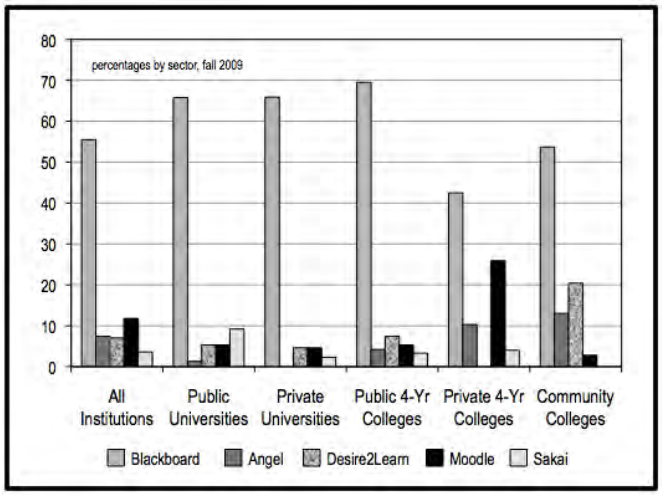

Figure 21: Campus LMS Providers, 2009 (percentages for campuses reporting a "single product campus-wide LMS standard," by sector).

[6] Green, Kenneth C. "The Campus Costs of P2P Compliance." (Encino, California: The Campus Computing Project), October 2008. http://www.campuscomputing.net/ content-item/new-campus-costs-p2p-compliance

Open Source LMS applications (Moodle and Sakai) now account for 15.4 percent of the campuses reporting a campus standard CMS/LMS application, up from 13.3 in 2008, 10 percent in 2007 and 7.2 percent in 2006 (Figure 22).

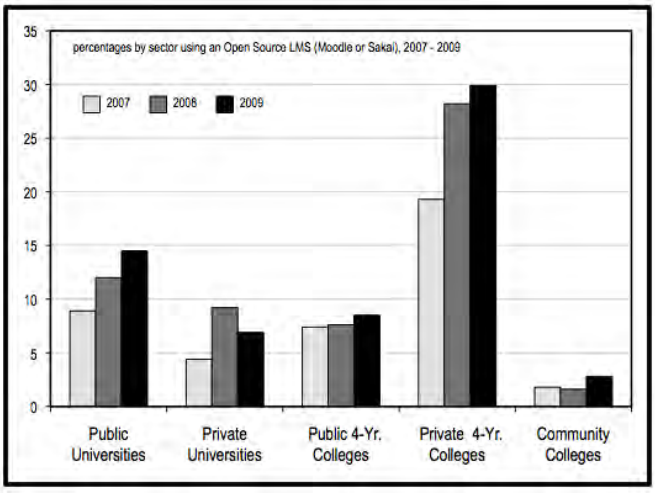

Figure 22: Institutions Reporting a Campus Standard Open Source LMS, 2009 (percentages by sector, fall 2009)

The availability of four LMS applications – Angle Learning, Desire2Learn, Moodle, and Sakai – in the years following Backboard's acquisition of WebCT in February 2006 reflects clear competition for learning management systems in the campus market. Although dominant across all sectors following the WebCT acquisition, the survey data reveal that Blackboard's aggregate share of the higher education LMS market (Blackboard plus WebCT campuses) has fallen across all sectors since 2006. The experience of the WebCT acquisition suggests that the Blackboard's acquisition of Angel Learning in May 2009 may provide only a short-term lift to Blackboard's share of the campus LMS market.

Long-term, two factors suggest the campus LMS market will remain competitive. First, as noted above, a small but steadily growing number of campuses are migrating to Open Source LMS applications. Second, Desire2Learn and its campus clients no longer live under the shadow of continuing patent litigation from Blackboard.[7]

Looking forward, there is little doubt that financial issues will play an important role in the campus LMS market in the coming years. Two-thirds (68.5 percent) of the 2009 survey respondents report their institutions are "reviewing options for the campus standard LMS" in response to budget pressures (Figure 23). These numbers are highest in public and private universities and public four-year colleges where roughly three-fourths of the campuses report a review of the LMS strategy in response to budget issues and more than half report reviewing Open Source LMS options. Moreover, 47 percent of the 182 campuses participating in the fall 2009 *Managing Online Programs* survey report they are reviewing the current campus LMS strategy, while 28 percent anticipate a change in the campus LMS provider in the next two years.[8]

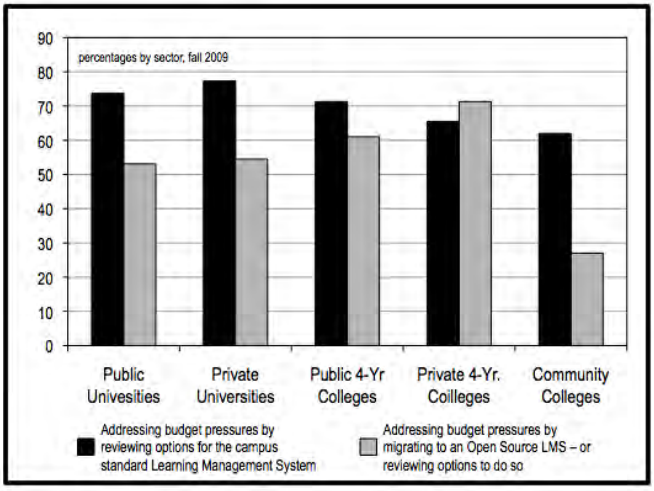

Figure 23: Budget issues Affect LMS Planning, 2009 (percentages by sector, fall 2009)

Perhaps the most interesting of Blackboard's LMS competitors are the two Open Source LMS applications – Moodle and Sakai. As previously noted, the percentage of institutions reporting a campus-standard Open Source LMS has doubled since 2006, rising to 15.4 percent in 2009. As shown in Figure 24, the deployment of Sakai is highest in public research universities (9.2 percent, compared to 8.0 percent in 2008 and up from 5.1 percent in 2007) while Moodle now serves as the campus-standard LMS in a fourth (25.9 percent) of private four-year colleges (compared to 23.7

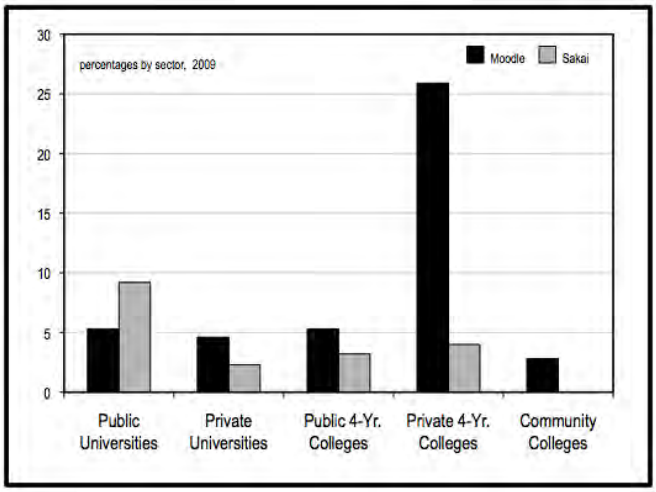

Figure 24: Deployment of Open Source LMS 2009 (percentages for campuses reporting a "single product campus LMS," by sector for fall 2009)

[7] Kolowich Steve. "Clean Slate." *Inside Higher Ed,* 16 Dec 2009 http://www.insidehighered.com/news/2009/12/16/blackboard

[8] Green, Kenneth C. *Managing Online Programs, 2009.* Encino, CA: The Campus Computing Project, 2009. http://www.campuscomputing.net/ survey/ online-education-2009

percent in 2008, and 17.2 percent in 2007). The rising competition, reflected by the gains in Open Source LMS deployment, appears to affirm this researcher's 2004 assessment that the campus LMS market is "a mature market with immature products" – virtually all institutions have an LMS license but the products are still relatively young: the survey data confirm that the LMS market remains competitive and volatile.[9]

Migrating to Open Source Applications

Despite the rising deployment of Open Source LMS applications, this year's survey data point to little change in the "affirmative ambivalence" towards Open Source ERP applications among senior campus technology officers first reported in the 2004 survey. Almost three-fifths (58.7 percent, compared 57.3 percent in 2007 and 51.9 percent in 2004) of the survey respondents agree that "Open Source will play an increasingly important role in our campus IT strategy." However, less than a third of this year's survey respondents (29.7 percent, compared to 27.6 percent in 2007 and 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 (Figure 25). Taken together, these data indicate that campus IT officials are twice as likely to agree that Open Source looms large in the future as they are to agree that Open Source currently offers viable options for ERP applications.

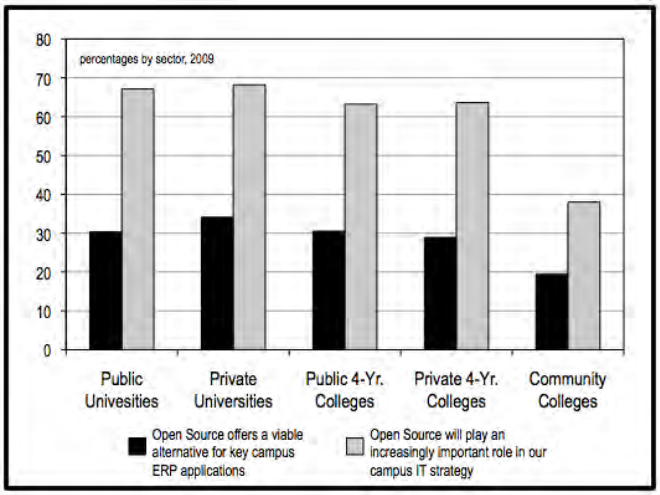

Figure 25: Affirmative Ambivalence about Open Source (percentages by sector, 2009)

The affirmative ambivalence is not surprising given that LMS and ePortfolio modules are, at present, the only two widely deployed Open Source applications; the Kuali Open Source ERP applications – student information systems, human resources, research administration, and development – are just coming to market, with the first deployments of the Kuali Financial Module underway in the current academic year (www.kuali.org).

Yet even with the continuing "affirmative ambivalence," the recent gains for Moodle and Sakai are interesting, suggesting that a decade 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. As noted above, current budget pressures are a catalyst for campuses to review their LMS Strategy. Additionally, a fifth (21.4 percent) of the campuses participating in the 2009 survey report they are already migrating to an Open Source LMS, while more than a third (36.4 percent) report the review of Open Source LMS options is underway as of fall 2009. Conversely, just over two-fifths (42.2 percent) of the 2009 survey participants report that their campus has decided not to migrate to an Open Source LMS.

Faculty and senior campus IT officials are clearly eager for information about the deployment experience of the institutions that have been the early adopters of Open Source LMS applications. UCLA's decision to move to Moodle as the campus-standard LMS as of fall 2008 may serve as a catalyst for other institutions, to review their LMS deployment activities and options. Additionally, a discussion on the EDUCAUSE CIO Listserve in September 2008 and again June 2009 in offered first-hand information about the experience of other campuses, large and small, that have migrated to an Open Source LMS.[10]

Interestingly, the survey data continue to suggest a "just do it" strategy with regard to Open Source deployment. Comparatively few colleges and universities have a strategic plan for Open Source deployment as of fall 2009: only a seventh (15.4 percent) of institutions currently report a strategic plan for Open Source development and deployment, up slightly from 12.3 percent in 2007 and 10.0 percent in 2006. Across sectors, the percentage of institutions with a strategic plan for Open Source deployment ranges from 20.0 percent in public four-year colleges universities (compared to 15.0 percent in 2007) to 4.6 percent in community colleges (up from 2.7 percent in 2007).

Moreover, even without strategic plans (and despite the current round of budget cuts affecting IT units), the 2009 survey data point to serious and significant Open Source development and deployment initiatives, involving both back room system tools as well as the emerging set of (still early stage) Open Source ERP applications. About one-fifth (18.2 percent) of institutions report increased funding for Open

[9] Green, Kenneth C. "Sakai and the Four Cs of Open Source." *Campus Technology,* March 2004 http://campustechnology.com/Articles/2004/02/Sakai-and-the-Four-Cs-of-Open-Source.aspx

[10] Information about the UCLA decision to migrate to Moodle is available on the Web: http://www.oit.ucla.edu/ccle/default.htm. The EDUCAUSE CIO ListServe discussion about Moodle migration ran from September 9-12, 2008 (http://listserv.educause.edu/cgi-bin/wa.exe?A1=ind0809&L=CIO) and again in June 2009 (http://listserv.educause.edu/cgi-bin/wa.exe?A1=ind0906&L=CIO).

Source development and deployment, about the same as in 2006 through 2008. Additionally, when asked to describe their campus strategy on Open Source tools, two-fifths (39.4 percent, compared to 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 or email utilities); in aggregate, more than a third report that Open Source tools are either "operational" (15.0 percent) or "mission critical" (19.6 percent) for their institutions, or that their campus is engaged in Open Source development work that includes contributing tools for central IT operations (2.8 percent).

Finally, affirmative ambivalence notwithstanding, only a small percentage of the survey respondents believe that there is a high likelihood that their institution will migrate to various Open Source ERP applications in the next five years, by 2014 (Figure 26). Not surprisingly, the numbers are highest for Open Source LMS applications, which are already deployed by many campuses. IT officials in public universities appear somewhat more likely to predict migration to Open Source ERP applications than their peers in other sectors. The much lower numbers for other applications – student information systems, finance, human resource, research management, and development – no doubt reflect the absence of campus experience with the emerging Kuali Open Source ERP modules.

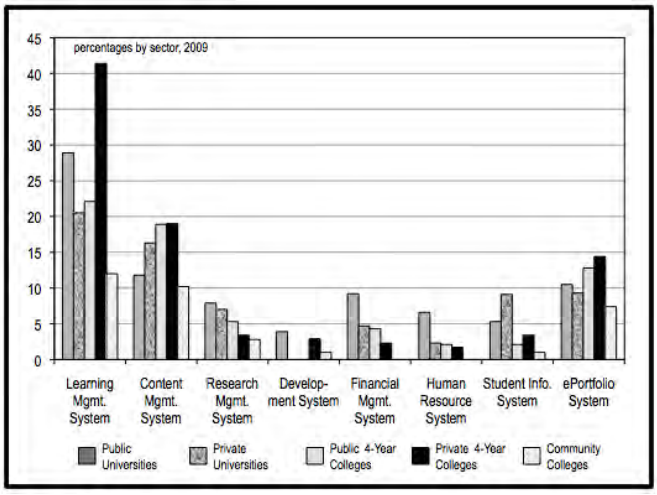

Figure 26: Campuses Reporting a High Likelihood of Migrating to Open Source ERP Applications by 2014 (percentages reporting a scale score of 6 or 7 for likely migration to Open Source applications in five years, by sector; scale: 1=low; 7=high)

The survey numbers for migration to Open Source applications will no doubt rise following the release and initial implementation of the Kuali modules by a small group of early adopter institutions. Indeed, the migration experience to Open Source LMS applications suggests that the path towards Open Source ERP deployment will be strongly affected by the early adopters: if a significant number of the first campuses that deploy Kuali modules can report success – as measured performance, the total costs of implementation and continuing support, user satisfaction, and other metrics – then other institutions will be willing to explore Open Source ERP options as an alternative to their current commercial ERP applications.

Migrating to SaaS-Based ERP Applications

The 2009 survey also provides data about migration to Software-as-a-Service (SaaS)-based ERP applications. As with Open Source, the only a small number of survey respondents believe that their institutions will migrate to SaaS-based ERP applications by 2014; although the numbers vary by application (e.g., Learning Management Systems vs. Human Resource Systems), the numbers are a little lower for migration to SaaS-based applications than the migration to Open Source (Figure 27).

Interestingly, where respondents in public research universities are often more likely than their peers to anticipate moving to Open Source ERP applications, the survey data reveal that IT officers in community colleges are generally more likely than their peers in other sectors to anticipate a move to SaaS-based ERP applications by 2014. The higher numbers for SaaS among community colleges are not necessarily surprising: these institutions typically have smaller tech staffs to support administrative operations than other public sector institutions. Moreover, the movement to SaaS-based ERP applications does not necessarily involve a change in the software, only the expansion of the services provided by the institution's current ERP provider(s). Additionally, many multicampus community colleges currently operate under a SaaS-like structure for their ERP systems, as one data center may service several campuses in a community college district.

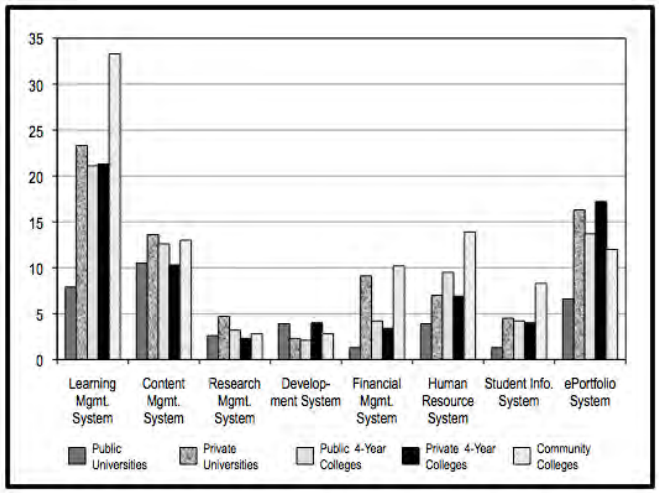

Figure 27: Campuses Reporting a High Likelihood of Migrating to SaaS-based ERP Applications by 2014 (percentage reporting a scale score of 6 or 7 on a 7 point scale for likely migration to SaaS in five years, by sector; scale: 1=low; 7=high)

As with the migration to Open Source ERP applications, the numbers for migration to SaaS-based applications will no doubt rise in the coming years once the larger campus community receives reports about the experience of the early adopters. An additional factor involving SaaS applications involves the willingness of campus IT officials to trust their service providers to host, service, and protect mission critical and highly confidential institutional data.

Strategic Planning for IT

The 2009 survey data again highlight the continuing challenge that IT planning presents to American colleges and universities. Almost three-fourths (73.0 percent) of campuses participating in the 2009 survey report an institutional strategic plan for information technology, essentially unchanged from 2008 and 2007, and rising slowly over the past decade from 48.0 percent in 1998, 63.3 percent in 2001, 70.0 percent in 2004.

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 2009. Yet as in past years, additional data from the annual Campus Computing Surveys suggest that the strategic plans at many institutions 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.

Indeed, as reported in past years, probe just a bit below the surface numbers and it quickly becomes clear that some key issues are often missing from the overall IT strategic plan at many colleges and universities. For example, just over two-thirds (68.2 percent) of the 2009 survey respondents report an IT financial plan that acknowledges the need to "acquire and retire" aging equipment and software. (The numbers range from 44.7 percent in public universities to 80.5 percent in private four-year colleges.) 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 2009 are important, the survey data also reveal that fully three decades into the so-called "IT revolution in higher education," almost a third (32.8 percent) of the institutions participating in the 2009 survey still do not have "real" IT financial plans. Moreover, many institutions reporting "acquire and retire" plans for financing IT are often not able to fully-fund these plans when confronted with budget cuts and mid-year budget rescissions.

Other metrics from the 2009 survey also confirm that many institutional IT plans may be incomplete. More than a fourth (28.8 percent) of the participating campuses do not have strategic plans for upgrading or replacing core administrative/ERP software systems, a number that remains essentially unchanged over the past four surveys (2006-2009). Just half (52.0 percent) of the colleges and universities participating in this year's survey have a strategic plan for student portal services, a slight improvement from 2008 (48.3 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).

Other areas show even larger gaps. Evan as mobile phones have become an important component of campus emergency notification plans, just 30.0 percent of colleges and universities have a strategic plan for the role of cellular and smart phones in the larger campus IT plan, up from 26.1 percent last year and 19.3 percent in 2007. Only a fifth (21.0 percent) have a strategic plan to address email and document archiving for eDiscovery requirements, up slightly from 17.0 percent in 2008 (Figure 28). Less than two-fifths (37.4 percent) report a campus plan to address Section 508 accessibility mandates for disabled students and faculty to use campus web pages.[11]

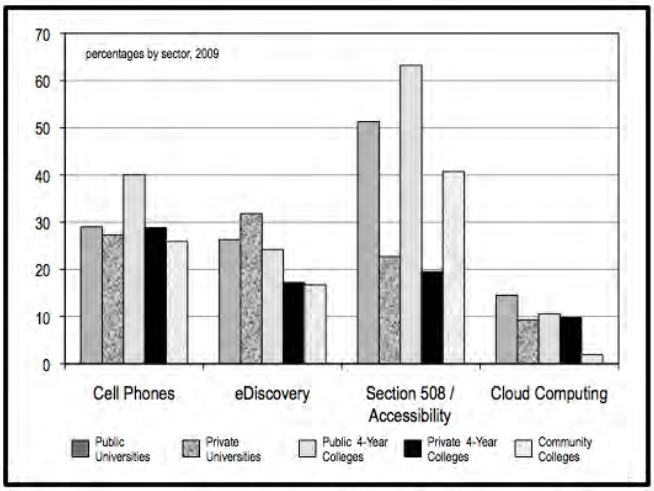

Figure 28: Strategic Plans, 2009. (percentages by sector, fall 2009)

A new item on the 2009 survey reveals that less than a tenth (8.9 percent) of campuses have a strategic plan for Cloud Computing. And even as a growing number of campuses are engaged in lecture capture and podcasting, just over than a fourth (28.2 percent) report a plan while another third (34.6 percent) are developing a plan to do so.

The data highlighting key gaps in campus IT planning should be of concern to campus IT leaders and also to other senior campus officials: the proportion of colleges and universities that have not yet addressed key IT issues as part of the overall IT strategic plan remains significant.

Yet in fairness to campus IT officials it is also important to note that a number of the components or issues now found

[11] Data from the 2009 *Managing Online Education* Survey reveal the institutional responsibility for ADA/Section 508 Accessibility compliance for on-line courses and programs resides with faculty at fully one-third (34 percent) of the 182 campuses participating fall 2009 survey. www.campuscomputing.net/survey/online-education-2009

in many (if not most) campus IT strategic plans have expanded in recent years, most recently with the addition of emergency communications and notification services, eDiscovery obligations, and Web 2.0 issues. Moreover, IT strategic planning is often reactive, affected by current events (e.g., campus tragedies such as Virginia Tech), legislation (e.g., archiving and eDiscovery requirements; Congressional mandates on P2P), or new technologies (e.g., smart phones and Web 2.0). For example, the small number of colleges and universities that may have had IT strategic plans in 1993 or 1994, perhaps developed or revised as part of a Self-Study report prepared for accreditation, would have found their 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 long been concerned about network security and IT disaster recovery, these issues emerged as far more important institutional priorities in the post-9-11/post-Katrina environment.

Outsourcing IT Services

With the exception of student email, senior campus IT officers assign a low priority to outsourcing various IT services over the next two-three years (Figure 29). Student email receives the highest priority as an outsourced service (scale score 5.3; scale: 1=not important; 7=very important). In contrast, campus portals, data back-up/storage, and web hosting score between 3.0-3.8, while five other categories of potential outsourced services score between 2.4 and 3.0 (ERP services, instructional technology services, user support services, ResNet services, and eProcurement). Most items on the outsourcing list experienced little change between 2007 and 2009, save for student email, which jumped from a scale score from 3.8 in 2007 to 4.6 in the 2008, and jumped again to 5.3 in fall 2009.

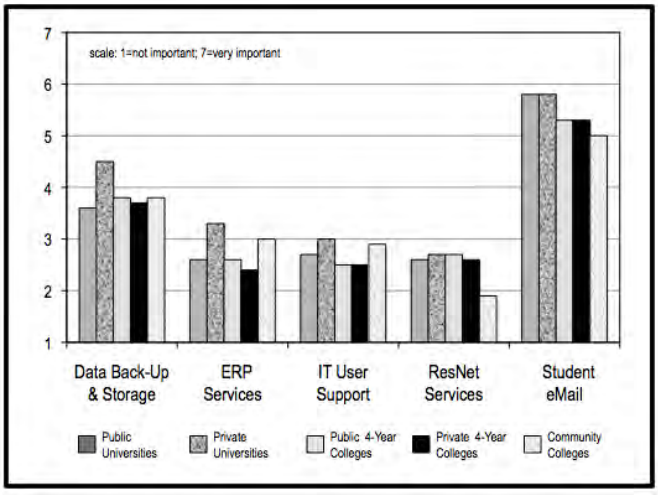

Figure 29: Rating the Importance of Outsourcing IT Services, Fall 2009. (scale: 1=not important; 7=very important)

Parallel with the rising priority for outsourced email services are data revealing that more than two-fifths (43.8 percent) of the institutions participating in the 2009 survey "have converted/are converting to" outsourced student email (up from 42.4 last year). About half of universities and community colleges now outsource their student email services, compared to two-fifths of public four-year colleges and a third of private four-year campuses. Google is the outsourced email provider for the majority of institutions using outsourcing student mail (55.5 percent), while two-fifths (40.1 percent) use Microsoft and 4.5 percent utilize outsourced email services provided by Zimbra (Figure 30).

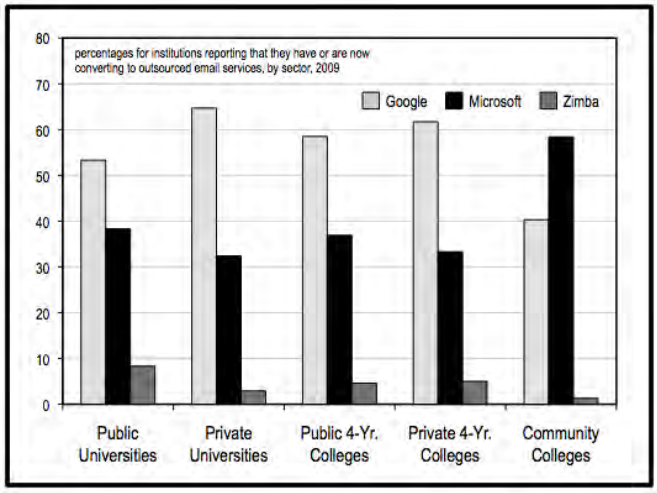

Figure 30: Outsourcing Student and Faculty eMail, Fall 2009 (percentages by sector)

Why migrate to outsourced student email services? Clearly budget issues are a catalyst: eliminating student email allows institutions to redeploy money and other IT resources; the savings may run from small to significant. Moreover, unlike their counterparts of two decades ago, today's college students now come to campus with one or more email addresses linked to well-established email identities and preferences: Student Monitor's fall 2009 survey of full-time undergraduates at four-year colleges and universities reveals that individual undergraduates have, on average, 2.4 email addresses and that almost two-fifths (37 percent) consider their campus (.edu) email address to be their primary email account or email identity, while a third (31 percent) routinely forward their campus (.edu) email to a personal email account such as Gmail, Yahoo Mail, or Hotmail.[12]

This year's survey shows a big gain in the proportion of institutions migrating to hosted "office" applications such as such as Google Apps or Microsoft Live. As of fall 2009, a sixth (16.8 percent) of campuses report they are converting to or now using hosted applications, up from 1.7 percent in fall

[12] Student Monitor, *Computing and the Internet: Fall 2009*. (Ridgewood, NJ), October 2009. www.studentmonitor.com

2008. As with hosted email services, Google leads, even as the numbers vary by sector: overall, 70 percent of the campuses that have migrated or are converting to hosted "office" applications report standardizing on Google Apps, compared to 30 percent for Microsoft Live.

A small number of campuses are also outsourcing their help desk/user support services: almost tenth (9.6 percent, about the same as in 2007 and 2008) report they are currently outsourcing help desk/user support services while another seventh (13.4 percent) plan to review outsourced user support services during the current academic year. Outsourced help desk services are highest in private research universities (18.2 percent) and community colleges (13.9 percent); in contrast, about seven percent of public research universities and four percent of public four-year colleges and private four-year colleges report outsourced user support services.

Antiplagiarism Software

Not surprisingly, the number of campuses deploying antiplagiarism software increased in 2009. More than three-fifths (61.1 percent) of institutions participating in the survey report a site license for an antiplagiarism product, up from 54.7 percent in 2008 (Figure 31). Licensing agreements are highest in public four-year colleges (75.8 percent), followed by public universities (68.4 percent), private universities (65.1 percent), community colleges (57.4 percent) and private four-year colleges (53.4 percent).

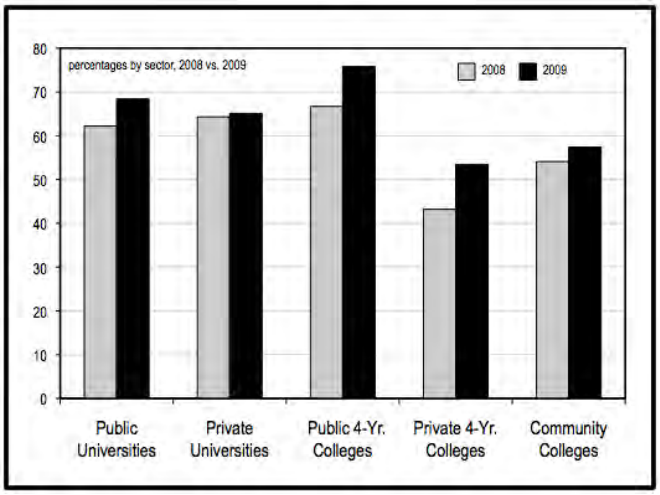

Figure 31: Antiplagiarism Licenses (percentages by sectors, 2008 vs. 2009)

The wide deployment of antiplagiarism software reflects the growing concern about both "accidental" and intentional plagiarism among undergraduates; it also comes amidst research suggesting increased incidents of cheating among college students.[13] Many students simply do not know or do not attend to the established rules for citing sources in their academic papers, while others may intentionally clip and copy material from the Internet or other sources. Unfortunately, campus licenses for antiplagiarism products are an additional institutional expense in times of stressed campus budgets.

Classroom Clickers

The 2009 survey documents the rising deployment of classroom clickers across all sectors (Figure 32). Although the overall numbers are generally low – about seven or eight percent for public and private universities and public four-year colleges, six percent in private four-year colleges, and five percent in community colleges – the proportion of classes using clickers has almost doubled since the 2005 survey. Moreover, because clickers are almost exclusively found in (typically large) lower-division undergraduate classes, the gains reflected in the survey data may actually understate the significance of clickers and classroom response systems as a key technology resource for supporting classroom instruction.

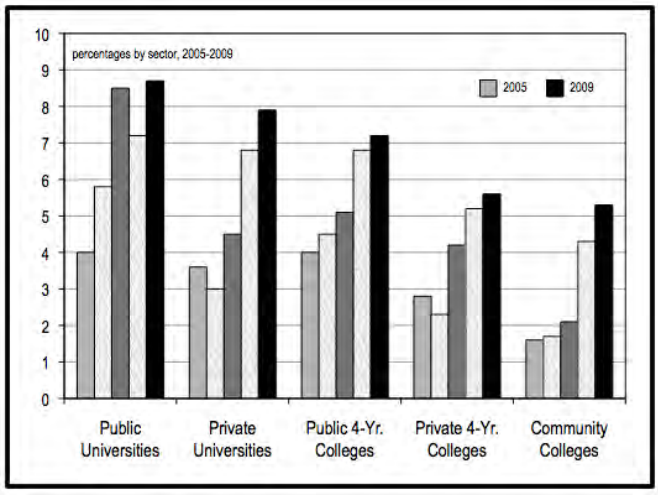

Figure 32: Classroom Clickers (percentage of courses using classroom clickers, by sectors, 2005-2009)

ePortfolios

The proportion of institutions offering ePortfolio services for their students has tripled in seven years, rising from 13.5 percent in 2003 to 41.0 percent in 2009 (and up from 34.9 percent in 2007). There is no question that ePortfolios have gained attention and traction in recent years because of the increased campus discussion about assessment and student outcomes. Additionally, they have become increasingly important to undergraduates in public four-year colleges, reflecting the role of ePortfolios in the assessment and accreditation of teacher education programs.

Moving Towards Web 2.0

The technology community's engagement with Web 2.0 seems to be moving very slowing in higher education.

[13] See, for example, Glater, J, "Colleges Chase as Cheats Shift to Higher Tech." New York Times, 18 May 2006 www.nytimes.com/education/2006/05/18/18cheating.html and Jaschik, S., "Winning the Hearts and Minds in the War on Plagiarism." *Inside Higher Education* 7 Apr 2008. www.insidehighereducation.com/news/2008/04/07/plagiarism

Although many faculty and students are involved in Web 2.0 activities, the survey data presented in Figure 33 suggest that postsecondary institutions have been slow to engage (let alone embrace) the world of Web 2.0 and user-provided content: even though the percentage of institutions reporting a strategic plan for Web 2.0 resources and services more than doubled from 2007 to 2009 (11.4 percent, up from 5.0 percent last year), the number still remains very low.

The percentage of institutions reporting an official campus presence on Facebook increased by almost 7x among public research universities between 2007 to 2009 (from 10.5 to 69.7 percent) and rose by a factor of 9x among private universities (from 6.8 to 65.9 percent). Other sectors experienced similar gains on an official campus presence on Facebook: up by a factor of three in public four-year colleges (from 7.8 to 25.5 percent), doubling in private four-year colleges (rising to 33.3 from 16.8 percent), and more than doubling among community colleges (from 12.2 to 30.3 percent). The percentage of institutions reporting a campus presence on MySpace also increased between 2007 and 2009, but the gains were not as dramatic as the increases posted for Facebook.

Also as shown in Figure 33, a new item on the 2009 survey indicates that more than half (51.6 percent) of the campuses participating in the 2009 survey have an official institutional Twitter account: the Twitter number is highest for public universities (61.8 percent) and lowest for community colleges (40.7 percent).

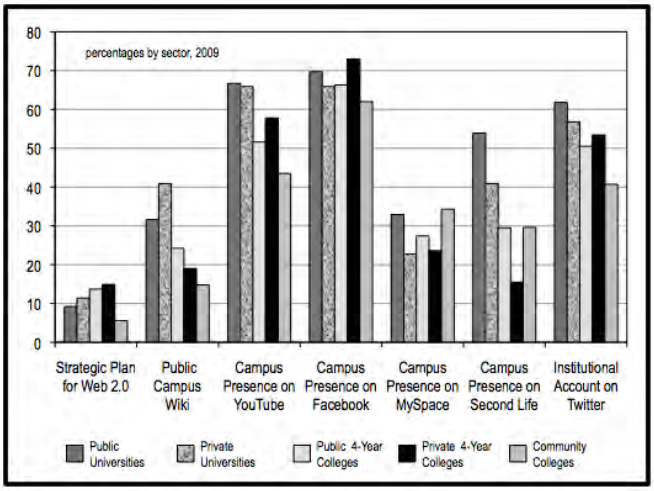

Figure 33: Web 2.0 Activities (percentages by sector, fall 2009)

Wikis continue to move into official campus web sites and portals as an information and navigation resource. Overall, the percentage of campuses reporting a "public campus Wiki" rose to 22.8 percent in 2009, up from 13.0 percent in 2007 and 16.7 percent in 2008; almost a third (31.6 percent) of public universities and two-fifths (40.9 percent) of private universities have a public campus Wiki, compared to 24.2 percent in public four-year colleges, 19.0 percent in private four-year colleges, and 14.8 percent in community colleges.

The data for Second Life shown in Figure 33 may be difficult to assess: the percentage of institutions reporting an "institutional presence on Second Life" rose to 29.2 percent in fall 2009, up from 15.6 percent in 2007 and 24.9 percent in 2008. The range for Second Life in fall 2009 runs from 15.5 percent in private four-year colleges to 53.9 percent in public universities. Anecdotal data suggest that in some instances the campus presence on Second Life is an "official" and active presence, while in other instances it may be that campus officials "purchased the island" to protect the campus name/brand, much as many colleges and universities registered their URLs (domain names) well ahead of building their campus web sites.

The Impending Arrival of eBooks?

eBook readers were in the news this past year: current products from Amazon, Barnes & Noble, and SONY, coupled with anticipated or impending announcements from other firms suggest that eBooks – digital book files and eBook readers – could be an important technology for the campus market in coming years.

A new item on the 2009 survey reveals that senior campus IT officials agree that eBook technologies will be an "important source for instructional resources in the coming years. Moreover, as shown below in Figure 34, the numbers are fairly consistent across sectors: about three-fourths of the survey respondents agree/strongly that eBooks will be an important instructional resource over the next five years, while roughly two-thirds affirm an important role for eBook readers in the next five years.

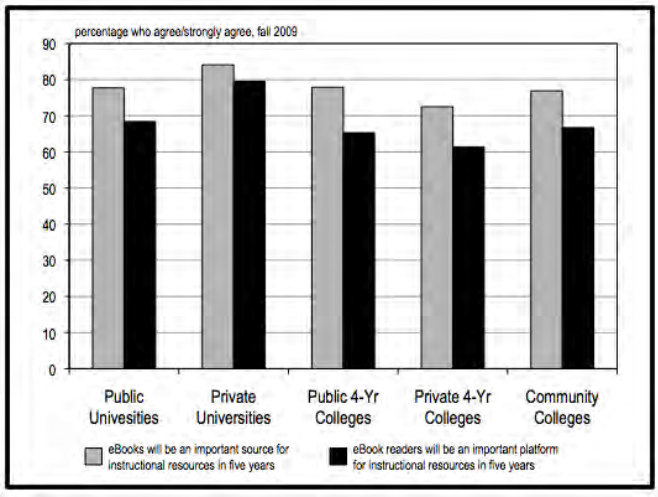

Figure 34: The Impending Importance of eBooks and eReaders (percentages by sector, fall 2009)

IT Evaluation and Assessment

One of the most interesting challenges confronting CIOs and other campus senior officials IT involves campus efforts

to assess the impact of institutional investments in information technology.

As in past surveys, senior campus IT officials 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 (Figure 35). Still, the survey data also highlight the continuing gap between CIO affirmation about the need for IT assessment and the actual level of IT assessment and evaluation activities, as the majority of campuses do not routinely engage efforts to assess the impact and benefits of IT investments.

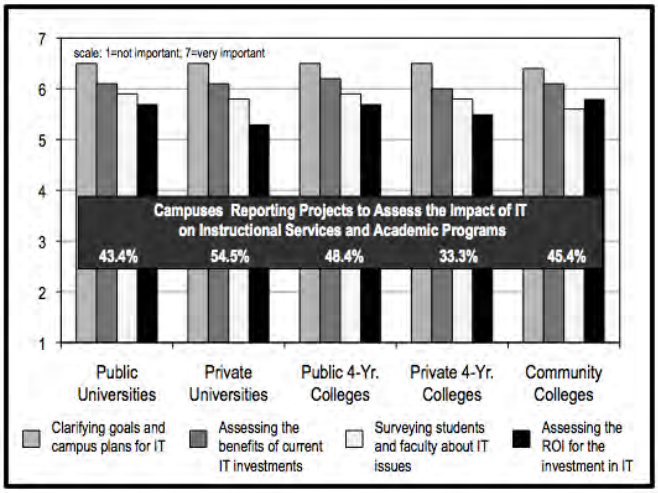

Figure 35: CIO Support for IT Assessment and Evaluation, Fall 2009
(scale: 1=strongly disagree; 7=strongly agree)

However, the interesting news from this year's survey is that more campuses have launched campus projects to assess the impact of IT on instructional services and academic programs. Fully two-fifths (42.0 percent) of the surveyed institutions report campus initiatives to "assess the impact of IT on instructional services and academic programs" as of fall 2009, compared to a third in 2006 (35.7 percent) and also a third (34.0 percent) in 2001.

As noted in past reports, several factors suggest that IT evaluation and assessment will be an increasingly important issue for colleges and universities over the net few years. Campus technology officials (and IT advocates) confront continuing questions from a variety of constituencies – faculty, presidents and provosts, board members, accrediting associations and, for public institutions also elected officials – about the costs, impact, and benefits of the continuing campus investment in information technology. Postsecondary institutions confront these questions in part because of many sectors of the American economy have experienced productivity and other 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.[14]

[14] See Green, Kenneth C. "Bring Data: A New Role for Information Technology After the Spellings Commission" *EDUCAUSE Review,* **41** (6), Nov/Dec 2006. http://connect.educause.edu/Library/EDUCAUSE+Review/BringDataANew See also *A Test of Leadership: Charting the Future of U.S. Higher* Education www.ed.gov/about/bdscomm/list/hiedfuture/reports.html

CAMPUS COMPUTING 2009

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
Number of Institutions	500	76	44	95	174	108
GENERAL CAMPUS POLICIES ABOUT DESKTOP COMPUTERS						
Does your institution have:						
A formal policy promoting or mandating computers/ technology resources for						
Curriculum utilization?	31.4	35.5	25.0	26.3	31.6	33.3
Undergraduates?	36.6	42.1	29.5	32.6	40.8	31.5
Graduate/professional students?	21.0	42.1	29.5	25.3	20.1	0.9
Distance education?	35.6	43.4	31.8	36.8	27.6	43.5
A computer instruction, computer competency, technology literacy, or information literacy requirement for						
All undergraduates?	40.8	27.6	34.1	46.3	41.4	45.4
All faculty?	9.6	5.3	4.5	6.3	10.9	15.7
All administrators?	8.2	2.6	6.8	7.4	9.8	11.1
All staff?	9.8	5.3	2.3	9.5	12.6	12.0
A special computer use/technology fee or annual/term computer use charge for all students?	57.4	81.6	36.4	67.4	40.2	68.5
Average computer use fee (where charged)	$ 149	$ 174	$ 121	$ 201	$ 139	$ 100
A written policy/code of conduct/acceptable use policy for						
Campus e-mail accounts?	98.2	98.7	100.0	98.9	100.0	93.5
Campus-hosted individual/personal Web pages?	78.8	90.8	81.8	86.3	82.2	58.3
Duplication of copyrighted software/software piracy?	96.8	100.0	95.5	100.0	96.6	92.6
Fair use of copyrighted content (books, articles, etc.)?	93.0	94.7	95.5	96.8	93.7	86.1
Downloading commercial music/videos from the Web?	88.0	93.4	93.2	89.5	91.4	75.0
Student use of social networking sites (Facebook, MySpace, etc.)?	17.6	13.2	27.3	14.7	19.5	16.7
Operating systems recommended/supported*						
Mac OS X	91.2	98.7	90.9	96.8	91.4	81.5
UNIX	59.0	81.6	70.5	66.3	47.1	52.8
Linux	73.4	90.8	77.3	84.2	66.7	62.0
Windows NT Workstation	14.0	23.7	18.2	13.7	9.2	13.9
Windows 2000/XP	97.4	97.4	95.5	96.8	98.3	97.2
Windows Vista	68.8	80.3	72.7	68.4	66.1	63.9
Open VMS	10.0	10.5	11.4	21.1	5.7	6.5
Sun/Open Solaris	42.4	76.3	56.8	48.4	29.9	28.7
Novell	24.4	34.2	22.7	24.2	21.3	24.1
None (No O/S recommendation)	0.6	1.3	2.3	1.1	-	-
Does your institution require or strongly recommend						
Computers for all undergraduate students						
No	46.2	38.2	40.9	45.3	27.6	86.1
Strongly recommend	46.8	54.0	47.7	47.4	63.2	13.9
Require	7.0	7.9	11.4	7.4	9.2	-
Computers for all undergraduates in specific disciplines or academic programs						
No	38.2	10.5	22.7	31.6	39.1	69.4
Strongly recommend	43.2	52.6	52.3	50.5	46.0	21.3
Require	18.6	36.8	25.0	17.9	14.9	9.3
Smart phones for undergraduates in specific disciplines/academic programs						
No	85.8	75.0	72.7	81.1	88.5	98.2
Strongly recommend	10.8	21.1	20.5	12.6	8.6	1.9
Require	3.4	4.0	6.8	6.3	2.9	-
iPods or other multi-media devices in specific disciplines/academic programs						
No	86.8	73.7	84.1	88.4	90.2	89.8
Strongly recommend	10.2	23.7	13.6	7.4	6.3	8.3
Require	3.0	2.6	2.3	4.2	3.5	1.9
percentages						
Do you require or strongly recommend						
Cell phones for all students						
No	88.4	89.5	88.6	90.5	82.2	96.3
Recommend	11.6	10.5	11.4	9.5	17.8	3.7
Require	-	-	-	-	-	-
Smart phones for all students						
No	96.6	96.1	93.2	94.7	97.1	99.1
Recommend	3.4	4.0	6.8	5.3	2.9	0.9
Require	-	-	-	-	-	-
Does your institution (or individual units or programs) recommend a particular brand or product for*						
Hardware						
students?	45.9	44.7	68.2	44.7	51.1	30.6
faculty?	82.6	63.2	86.4	89.4	87.4	82.4
administrators/staff?	84.2	67.1	86.4	91.5	88.5	83.3
Software						
students?	74.3	72.4	88.6	78.7	81.0	54.6
faculty?	91.4	78.9	95.5	95.7	93.7	90.7
administrators/staff?	92.2	80.3	95.5	97.9	94.3	90.7
percentages						

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
GENERAL CAMPUS POLICIES ABOUT DESKTOP COMPUTERS (continued)						
As of fall 2009, will your campus have "preferred provider" agreements with technology companies that include online hardware and software resale programs linked to your campus web site?						
No	22.4	11.8	9.1	25.3	16.7	41.1
Yes, hardware						
Acer	0.4	1.3	-	-	-	0.9
Apple	55.7	80.3	81.8	63.2	55.2	23.4
Dell	60.9	81.6	77.3	65.3	59.2	40.2
Gateway	3.0	10.5	-	4.2	1.7	-
HP/Compaq	24.4	39.5	18.2	31.6	17.8	21.5
Lenovo	17.2	30.3	31.8	16.8	16.7	3.7
Sony	1.8	6.6	2.3	1.1	1.1	-
Sun	5.2	11.8	11.4	6.3	2.3	1.9
Toshiba	2.8	3.9	2.3	5.3	2.3	0.9
Yes, software						
Adobe	49.1	68.4	70.5	42.1	47.1	37.4
Apple	43.3	67.1	56.8	51.6	38.5	22.4
Microsoft	70.5	85.5	81.8	69.5	72.4	55.1
Statistical software	42.1	73.7	63.6	48.4	39.7	10.3
Virus protection/spyware products	58.1	80.3	72.7	64.2	58.6	30.8
As of Fall 2009, will your institution have an initial or single sign-on campus portal?*						
No, campus portal not available as of Fall 2009	12.2	6.6	13.6	10.5	12.1	16.7
No, portal issue now under discussion/review	9.6	2.6	4.6	8.4	10.3	15.7
Yes, portal being installed/under development in 2008/09	13.4	10.5	11.4	10.5	15.5	15.7
Yes, campus portal up and functioning for Fall 2009	64.8	80.3	70.5	70.5	62.1	51.9
Our campus portal is/will be:*						
Homegrown/local	16.6	8.6	18.0	23.5	20.4	8.8
Blackboard	6.8	7.1	2.6	3.5	8.6	8.8
Campus Cruiser	1.4	-	-	-	0.7	5.5
Campus Management	0.2	-	-	-	0.7	-
eCollege	0.2	-	-	-	0.7	-
Google Sites	0.7	-	2.6	-	0.7	1.1
percentages						
Our campus portal is/will be:* (continued)						
Jenzabar	6.8	-	-	2.4	17.8	-
Oracle/PeopleSoft	9.6	21.4	10.3	14.1	5.3	3.3
SunGard Higher Ed/Luminis-Campus Pipeline	25.5	31.4	35.9	36.5	14.5	25.3
Sun Microsystems Portal	0.5	1.4	-	-	0.7	-
TimeCruiser	0.2	-	-	-	-	1.1
Unicon/Academus	0.5	-	-	-	0.7	1.1
uPortal	7.3	14.3	12.8	10.6	4.0	2.2
Other	23.7	15.7	18.0	9.4	25.7	42.9
percentages **Columns may total more than 100% since responses were not mutually exclusive.*						
USES OF INFORMATION TECHNOLOGY						
How strongly do you agree or strongly agree:*						
Faculty have unreasonable expectations about user support	45.1	35.5	40.9	48.4	50.3	42.6
Technology has improved instruction on my campus	94.2	97.4	90.9	96.8	89.6	98.1
We plan to require all students to own a computer by fall 2010	9.6	13.2	11.4	9.5	12.7	0.9
Access to Internet 2 by fall 2010 is essential to our long-term tech needs	35.5	85.5	61.4	37.9	17.3	17.6
Access to National Lambda Rail by fall 2010 is essential to our long-term technology needs	18.7	57.9	22.7	20.2	5.2	10.2
We are experiencing major cost over-runs/unexpected costs in our ERP deployment activities	18.2	19.7	13.6	18.9	14.5	25.0
Open Source offers a viable alternative for key campus ERP applications	27.9	30.3	34.1	30.5	28.9	19.4
Open Source will play an increasingly important role in our campus IT strategy	58.7	67.1	68.2	63.2	63.6	38.0
eBook content will be an important source for instructional resources in five years	76.3	77.6	84.1	77.9	72.5	76.9
eBook readers (hardware) will be important platforms for instructional content in five years	66.0	68.4	79.5	65.3	61.4	66.7
Federal economic stimulus funds will help sustain IT resources at my campus	22.2	33.3	18.2	34.7	5.3	32.4
The single most important IT issue for my campus over the next 2 or 3 years is:						
Providing online/distance education via the web	9.8	6.6	9.1	15.8	9.8	7.4
Providing adequate user support	10.6	5.3	6.8	8.4	13.2	13.9
Assisting faculty integrate technology into instruction	11.2	7.9	13.6	13.7	11.5	10.2
Financing replacement of aging hardware/software	14.8	15.8	15.9	12.6	15.5	13.9
Integrating academic and administrative IT services	4.8	7.9	13.6	3.2	3.5	2.8
Providing student portal services	2.4	-	2.3	2.1	3.5	2.8
Network and data security	16.2	10.5	20.5	21.1	16.7	13.0
Hiring/retaining qualified IT staff	10.2	13.2	6.8	7.4	11.5	10.2
Upgrading/replacing administrative IT/ERP systems	10.4	15.8	6.8	7.4	7.5	15.7
Upgrading/replacing the campus network	5.8	7.9	2.3	5.3	5.2	6.5
Upgrading/replacing emergency communications	0.4	-	-	1.1	-	0.9
Cloud computing	3.4	9.2	2.3	2.1	2.3	2.8
percentages						

CAMPUS COMPUTING 2009

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
CURRENT IT/COMPUTER FACILITIES AND RESOURCES						
Headcount enrollment on campus as of May 2009	10,810	25,110	11,317	11,278	3,225	12,556
Number of institution owned desktop or notebook computers and workstations						
Desktop/notebook computers	3,963	11,678	6,957	3,355	1,389	2,077
Unix Workstations	158	730	339	56	16	6
Number of personally owned desktop and network computers	4,727	15,693	7,827	4,373	1,797	905
Proportion (pct) of individuals who own desktop or notebook computers						
Students						
Desktops	35.7	31.9	25.5	42.5	24.0	55.9
Notebooks	62.6	70.3	77.0	57.9	75.3	34.5
Faculty						
Desktops	61.2	69.7	53.6	63.4	51.2	73.4
Notebooks	42.3	44.6	50.2	39.6	45.6	33.7
Total number of desktop computer labs, clusters and classrooms as of May 2008	102	198.0	111.7	122.8	50.2	98.1
How many dedicated to departments or units?	43	89.5	53.0	56.9	19.3	31.2
Total number of desktop computers/workstations in all labs/classrooms/clusters						
Notebook/Desktop Computers	1,087	2,191	1,156	1,230	425	1,243
Unix Workstations	43	174	57	29	13	4
Total number of network servers on your campus	234	752	551	153	82	60
Percentage of campus servers managed by						
Central IT services	85.4	61.8	75.8	84.4	94.9	91.2
Individual departments/labs/units	12.7	38.0	23.0	15.0	4.1	2.7
Percentage of operating systems installed on institutionally-owned computers and servers						
Computers/clients						
Mac	14.7	15.6	15.9	15.8	19.1	5.4
Windows 2000/XP	70.8	61.6	66.5	69.0	68.1	85.1
Windows Vista	9.4	12.7	11.2	10.0	9.4	6.0
Unix	1.6	3.5	2.3	1.7	1.1	1.0
Linux	3.0	4.9	3.7	3.8	2.9	1.1
Network servers						
Mac	2.9	3.8	3.0	3.5	3.2	1.2
Win 2000/03	60.9	48.4	51.9	58.5	60.6	75.0
Solaris/Open Solaris	6.2	12.6	12.0	7.6	3.8	2.2
Unix (non-Solaris)	5.8	10.2	7.7	4.4	5.2	4.2
Linux	15.3	19.7	20.5	15.9	18.0	5.6
Novell	5.4	3.9	2.1	6.4	5.7	6.5
Total number (FTE) of IT help desk/technical support personnel	40.3	131.8	92.6	26.7	11.6	13.5
Ratio user support (enrollment/help desk)	268.2	190.5	122.2	422.4	278.0	930.1
Percentage of faculty with individual/personal Web page	29.7	37.0	35.0	36.4	25.2	24.2
Percentage of your faculty have taught an online course (80 pct of content online):						
Full-time faculty	17.3	16.9	12.5	18.8	8.4	32.3
Part-time faculty	15.5	17.7	10.7	17.5	9.5	23.2
Percentage of classes that use:						
Computer-based classrooms/labs	41.0	31.7	32.1	48.1	39.8	47.3
Computer-based simulations/exercises	19.4	16.3	16.3	20.7	17.8	23.8
Presentation handouts	58.9	56.1	56.8	61.5	58.3	60.9
Electronic mail	84.1	86.1	88.8	86.5	87.7	72.9
Web pages for class materials & resources	47.0	50.4	50.5	52.8	42.2	46.2
Wikis / blogs	8.1	8.9	10.4	7.4	8.6	6.5
Online video resources	14.0	12.9	13.7	12.9	14.1	15.7
Commercial courseware/instructional resources	31.4	28.8	26.5	32.5	31.1	34.8
Internet resources (from off-campus resources/Web sites)	63.0	60.7	67.7	63.2	65.5	58.3
Course management tools for online course resources	55.5	57.7	60.1	57.0	56.3	49.1
"Clickers"/classroom response system	6.5	8.7	7.9	7.2	5.6	5.3
Podcasting	3.9	5.4	4.1	4.0	3.4	3.5
eBooks and electronic textbooks	3.5	4.3	3.1	4.1	2.8	4.0
Lecture capture	3.5	6.3	5.4	3.6	2.3	2.8
ACADEMIC & INSTRUCTIONAL COMPUTING POLICIES AND PROCEDURES & RESOURCES						
Does your campus/institution						
Provide any formal support or assistance (eg funding release time technical assistance) to help faculty who wish to develop instructional software/courseware	76.6	85.5	70.5	82.1	69.5	79.6
Provide any formal support or assistance (eg funding release time technical assistance) to help faculty who wish to developsoftware to assist their research	43.4	60.5	65.9	54.7	37.4	23.1
Have a policy or program for rewarding courseware development or providingincentives for faculty to develop instructional software/courseware	38.0	48.7	31.8	50.5	25.9	40.7
Have a technology resource center that focuses on the instructionaluse of information technology	81.0	89.5	86.4	91.6	74.1	75.9
Have a formal plan for using the Internet and Web for marketing and promotion to off-campus audiences (eg alumni prospective students)	76.0	81.6	79.5	84.2	79.9	57.4
Have a formal program to recognize and reward the use of information technology as part of the routine faculty review and promotion process	19.2	15.8	11.4	25.3	18.4	19.4
Maintain a library of academic courseware for faculty review and evaluation	28.0	34.2	29.5	29.5	23.6	29.6
Have a formal program to assess the impact of IT on instruction and learning outcomes	24.6	35.5	22.7	28.4	21.3	20.4

percentages

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	All Institutions	Universities		4-Year Colleges		Community Colleges
		Public	Private	Public	Private	
Does your campus/institution (continued)						
Have a formal policy regarding ownership of Web-based curriculum resources and intellectual property developed by faculty	56.4	77.6	70.5	64.2	40.8	54.6
Assess the impact of IT on instructional services and academic programs	42.0	43.4	54.5	48.4	33.3	45.4
Charge students for access to digital content (online reserve readings course packets etc)	7.0	9.2	13.6	8.4	3.4	7.4
Recycle most (60% or more) of the institution's used/obsolete computers	89.6	86.8	90.9	90.5	92.5	85.2
Inform/counsel students about privacy issues related to social networking sites (Facebook MySpace etc)	59.8	68.4	68.2	56.8	71.8	33.3
Maintain a campus page on Facebook	68.4	69.7	65.9	66.3	73.0	62.0
Maintain a campus page on MySpace	27.8	32.9	22.7	27.4	23.6	34.3
Have institutional presence on Second Life	29.2	53.9	40.9	29.5	15.5	29.6
Have an institutional presence on YouTube	55.4	66.7	65.9	51.6	57.8	43.5
Have an institutional presence on iTunesU	48.6	77.3	68.2	46.3	41.6	35.2
Maintain a public campus Wiki	22.8	31.6	40.9	24.2	19.0	14.8
Maintain an institutional account on Twitter	51.6	61.8	56.8	50.5	53.4	40.7
Have a campus/department license for antiplagiarism software (e.g., Glatt, Plagiarism-Finder, Turnitin)	61.5	68.4	65.1	75.8	53.4	57.4
percentages						
Does your institution have a strategic plan for:						
Information technology?						
no	4.4	7.9	6.8	1.1	5.8	0.9
currently preparing a plan	22.6	22.4	15.9	22.1	28.2	17.6
yes	73.0	69.7	77.3	76.8	66.1	81.5
Instructional technology/instruction integration						
no	19.2	14.5	18.2	12.6	24.7	19.4
currently preparing a plan	26.2	19.7	25.0	29.5	29.9	22.2
yes	54.6	65.8	56.8	57.9	45.4	58.3
Deploying course management tools?						
no	20.0	10.5	13.6	15.8	20.7	31.5
currently preparing a plan	15.2	11.8	11.4	14.7	17.8	15.7
yes	64.8	77.6	75.0	69.5	61.5	52.8
Distance education?						
no	30.6	23.7	31.8	13.7	50.6	17.6
currently preparing a plan	21.6	26.3	15.9	29.5	21.8	13.9
yes	47.8	50.0	52.3	56.8	27.6	68.5
Campus portal services?						
no	24.6	18.4	20.5	21.1	23.0	35.2
currently preparing a plan	23.4	19.7	13.6	21.1	25.3	29.6
yes	52.0	61.8	65.9	57.9	51.7	35.2
Wireless networks?						
no	8.8	7.9	4.6	7.4	6.9	15.7
currently preparing a plan	13.4	10.5	6.8	8.4	14.9	19.4
yes	77.8	81.6	88.6	84.2	78.2	64.8
Web services (integration/deployment)						
no	19.2	19.7	20.5	13.7	19.0	22.2
currently preparing a plan	22.4	23.7	20.5	16.8	21.8	28.7
yes	58.4	56.6	59.1	69.5	59.2	49.1
Network security						
no	6.8	2.6	4.6	3.2	9.2	10.2
currently preparing a plan	19.4	15.8	13.6	16.8	25.3	16.7
yes	73.8	81.6	81.8	80.0	65.5	73.2
IT disaster recovery						
no	5.0	1.3	-	2.1	8.6	6.5
currently preparing a plan	33.0	26.3	27.3	28.4	42.5	27.8
yes	62.0	72.4	72.7	69.5	48.9	65.7
Administrative systems/ERP upgrade/replacement						
no	13.6	6.6	4.6	7.4	16.7	20.4
currently preparing a plan	15.2	13.2	22.7	11.6	16.7	14.8
yes	71.2	80.3	72.7	81.1	66.7	64.8
Digital content management						
no	38.6	29.0	15.9	27.4	41.4	59.3
currently preparing a plan	31.8	32.9	38.6	35.8	34.5	20.4
yes	29.6	38.2	45.5	36.8	24.1	20.4
Data warehousing						
no	34.0	14.5	15.9	21.1	44.3	48.2
currently preparing a plan	30.0	36.8	31.8	28.4	32.8	22.2
yes	36.0	48.7	52.3	50.5	23.0	29.6
Business intelligence/analytics						
no	43.4	25.0	22.7	39.0	48.3	61.1
currently preparing a plan	33.6	43.4	43.2	33.7	33.3	23.2
yes	23.0	31.6	34.1	27.4	18.4	15.7
Open Source deployment and development						
no	66.4	59.2	63.6	56.8	62.6	86.1
currently preparing a plan	18.2	25.0	18.2	23.2	18.4	9.3
yes	15.4	15.8	18.2	20.0	19.0	4.6
percentages						

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
Does your institution have a strategic plan for: (continued)						
Lecture capture / podcasting course lectures / resources						
no	37.2	22.4	13.6	29.5	45.4	50.0
currently preparing a plan	34.6	35.5	52.3	31.6	32.8	32.4
yes	28.2	42.1	34.1	39.0	21.8	17.6
Emergency communications/notification						
no	3.6	2.6	4.6	1.1	2.3	8.3
currently preparing a plan	16.2	10.5	11.4	15.8	17.2	19.4
yes	80.2	86.8	84.1	83.2	80.5	72.2
Digital preservation/data archiving						
no	32.8	25.0	20.5	29.5	33.3	44.4
currently preparing a plan	40.4	46.1	47.7	41.1	40.8	32.4
yes	26.8	29.0	31.8	29.5	25.9	23.2
Cellular phones/mobile devices						
no	45.0	46.1	31.8	33.7	49.4	51.9
currently preparing a plan	25.0	25.0	40.9	26.3	22.4	22.2
yes	30.0	29.0	27.3	40.0	28.2	25.9
"Web 2.0" resources and services						
no	54.0	46.1	34.1	50.5	55.8	67.6
currently preparing a plan	34.6	44.7	54.6	35.8	29.3	26.9
yes	11.4	9.2	11.4	13.7	14.9	5.6
Cloud computing						
no	55.3	36.8	37.2	54.3	54.9	75.9
currently preparing a plan	35.8	48.7	53.5	35.1	35.3	22.2
yes	8.9	14.5	9.3	10.6	9.8	1.9
Server virtualization						
no	13.0	6.6	6.8	10.6	14.4	20.4
currently preparing a plan	27.3	30.3	27.3	21.3	24.7	34.3
yes	59.7	63.2	65.9	68.1	60.9	45.4
508 accessibility/compliance for Web pages/resources						
no	32.4	19.7	40.9	13.7	49.4	25.9
currently preparing a plan	30.2	29.0	36.4	23.2	31.0	33.3
yes	37.4	51.3	22.7	63.2	19.5	40.7
Email and document archiving to address eDiscovery						
no	38.8	32.9	27.3	30.5	42.5	47.2
currently preparing a plan	40.2	40.8	40.9	45.3	40.2	36.1
yes	21.0	26.3	31.8	24.2	17.2	16.7
percentages						
Has your institution established a single product standard for:						
Desktop/notebook computer operating system						
No	76.0	100.0	88.6	88.4	73.6	47.2
Macintosh	0.4	-	-	-	1.2	-
Win 2000/XP	20.4	-	9.1	9.5	19.5	50.0
Win Vista	3.2	-	2.3	2.1	5.8	2.8
Linux	-	-	-	-	-	-
Desktop/notebook product or manufacturer						
No	71.2	92.1	84.1	90.5	69.0	37.0
Acer	-	-	-	-	-	-
Apple	1.0	-	-	-	1.7	1.9
Dell	18.2	6.6	13.6	5.3	17.8	40.7
Gateway	0.4	-	-	-	0.6	0.9
HP/Compaq	6.0	-	-	1.1	6.3	16.7
Lenovo	2.6	1.3	2.3	3.2	3.5	1.9
Sony	-	-	-	-	-	-
Toshiba	-	-	-	-	-	-
Other	0.6	-	-	-	1.2	0.9
Course management system						
No	8.0	11.8	20.5	8.4	6.3	2.8
Angel	7.4	1.3	-	4.2	10.3	13.0
Blackboard	55.6	65.8	65.9	69.5	42.5	53.7
Desire2Learn	7.0	5.3	4.6	7.4	-	20.4
eCollege	1.0	-	-	-	2.3	0.9
Moodle	11.8	5.3	4.6	5.3	25.9	2.8
Sakai	3.6	9.2	2.3	3.2	4.0	-
Other	5.6	1.3	2.3	2.1	8.6	6.5
percentages						

	All Institutions	Universities		4-Year Colleges		Community Colleges
		Public	Private	Public	Private	
What academic resources/services are on your campus Web site (or portal)?*						
Undergraduate admissions application	98.6	100.0	95.5	100.0	100.0	95.4
Financial aid application	93.6	96.1	93.2	96.8	92.5	90.7
Current course catalog	99.6	100.0	97.7	100.0	100.0	99.1
Program/major/degree requirements	98.4	100.0	95.5	100.0	100.0	94.4
Course registration	96.6	100.0	93.2	98.9	95.4	96.3
Course add/drop options	91.2	100.0	90.9	96.8	84.5	92.6
E-commerce (fee payments etc)	90.2	98.7	95.5	96.8	81.6	91.7
Online Courses (i.e. full course online)	80.4	97.4	68.2	97.9	56.9	96.3
Student ePortfolios	41.0	46.1	54.5	48.4	42.5	23.1
Library/card catalog	95.4	98.7	97.7	96.8	95.4	91.7
Interlibrary loan services	90.0	98.7	93.2	92.6	93.7	75.0
Journals & reference resources	94.2	100.0	95.5	97.9	96.6	83.3
Course reserves	66.8	84.2	77.3	82.1	71.8	30.6
Student transcripts	90.6	96.1	88.6	93.7	89.1	88.9
Degree audit software	76.6	81.6	81.8	87.4	70.1	72.2
IT support resources	95.6	100.0	97.7	96.8	97.1	88.0
IT training/tutorials	88.0	94.7	95.5	93.7	87.9	75.9
IT self-help resources	63.6	68.4	72.7	66.3	67.8	47.2
Instructional software	66.4	93.4	81.8	82.1	55.2	46.3
Desktop software (MS Office etc)	56.0	78.9	79.5	69.5	48.3	31.5
Faculty/staff directory	98.4	100.0	97.7	98.9	98.9	97.2
Campus dining services	72.2	93.4	86.4	83.2	77.6	34.3
Campus housing services	67.6	96.1	84.1	89.5	70.1	17.6
Student health services	62.4	85.5	70.5	70.5	66.7	28.7
Student newspaper	75.4	90.8	84.1	89.5	77.0	47.2
Student handbook	94.4	96.1	93.2	96.8	96.0	88.9
Athletic event schedule	90.0	96.1	90.9	94.7	96.0	72.2
Alumni information/services	92.8	97.4	97.7	98.9	96.6	75.9
Press releases/media services	97.2	100.0	93.2	98.9	98.9	93.5
Campus book store	91.4	92.1	90.9	95.8	90.8	88.9
Computer resale services	35.6	53.9	54.5	42.1	34.5	11.1
Campus calendar	78.4	80.3	79.5	77.9	79.3	75.9
Personalized student calendar	54.0	60.5	52.3	61.1	56.3	40.7
Campus OneCard account services	48.8	78.9	70.5	64.2	44.3	13.9
Digital Music Service (Napster, Ruckus, etc.)	12.6	27.6	38.6	11.6	7.5	0.9
percentages						
FUTURE ISSUES AFFECTING CAMPUS COMPUTING						
How important are the following to campus computing and IT planning over the next 2-3 years?						
Operating system/interface/development tools						
Windows XP	4.5	4.1	4.5	4.4	4.4	5.0
Windows Vista	3.2	4.0	3.7	3.1	2.9	3.1
Windows 7	6.1	6.2	6.1	6.4	5.9	6.1
Windows Server	6.3	6.3	6.2	6.4	6.1	6.4
Macintosh OS X (client)	5.3	5.4	5.7	5.9	5.3	4.4
Macintosh OS X (server)	3.8	4.1	3.8	4.3	3.8	3.2
Solaris/Open Solaris	3.1	4.4	3.6	3.6	2.5	2.5
Unix	4.1	5.2	4.5	4.1	3.8	3.8
Linux (client)	3.5	4.4	3.7	4.0	3.2	3.0
Linux (server)	5.2	6.1	6.0	5.6	5.1	4.2
O/S Interoperability	5.4	5.7	5.3	5.7	5.2	5.1
Hardware						
Notebook computers	6.3	6.3	6.5	6.5	6.4	5.9
Netbook computers	4.7	4.8	4.8	4.9	4.7	4.5
Thin client computers	4.3	4.4	4.5	4.3	4.2	4.3
Unix workstations	2.5	3.6	3.3	2.9	2.2	1.9
Tablet computers	3.9	4.2	4.1	3.8	4.0	3.9
Cellular/mobile phones	5.4	5.9	5.4	5.6	5.3	4.9
Smart phones	5.4	5.9	5.7	5.5	5.3	4.9
WiFi 3G enabled cell phones	5.2	5.8	5.5	5.5	5.1	4.6
iPods/MP3 players	4.4	4.9	4.6	4.5	4.3	4.3
Instructional applications and resources						
Developing instructional software	4.2	4.4	4.5	4.8	3.8	4.0
Using instructional software in classes	6.1	6.2	6.0	6.2	6.0	6.0
Using instructional software as a supplement to classes	6.2	6.4	6.2	6.2	6.1	6.2
Computer-based classroom presentation facilities	6.5	6.5	6.3	6.6	6.4	6.5
Internet resources for instruction	6.5	6.5	6.4	6.6	6.4	6.5
Web pages for classes	5.7	6.0	5.7	5.8	5.5	5.7
Mean ratings by campus category Scale from 1="Not Important" to 7="Very Important".						

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	All Institutions	Universities		4-Year Colleges		Community Colleges
		Public	Private	Public	Private	
Instructional applications and resources (continued)						
Web-based tutorials	5.6	5.9	5.7	5.9	5.2	5.8
e-Books (e-textbooks)	4.9	4.8	4.9	5.2	4.8	5.1
Course / learning management systems	6.6	6.7	6.5	6.6	6.6	6.4
On-line course evaluation	5.9	6.2	6.0	6.0	5.6	5.9
Classroom "clickers"	4.8	5.4	4.6	5.0	4.6	4.6
Lecture capture	5.0	5.7	5.3	5.0	4.6	4.8
Wireless access in campus classrooms	6.2	6.4	6.0	6.3	6.2	5.8
User support services/campus IT services						
On-line IT training	5.4	5.6	5.5	5.6	5.2	5.4
On-line technical support	5.9	6.1	6.1	6.1	5.8	5.9
Computer resale program	3.0	3.2	3.1	3.1	3.1	2.6
Computer repair services	4.4	3.9	4.5	4.8	4.3	4.2
Help-desk services	6.6	6.6	6.7	6.6	6.6	6.4
Alumni e-mail accounts	4.5	5.0	5.1	4.6	4.8	3.5
Alumni services via the campus Web site	5.2	5.2	5.7	5.3	5.7	4.1
Student ePortfolios	5.0	5.2	5.2	5.4	5.2	4.1
Networking & Internet/Web issues & resources						
Wireless networks (802x stds)	6.6	6.7	6.6	6.7	6.6	6.5
Wi-Max networks	4.4	4.6	4.5	4.8	4.2	4.3
Migrating to 80211n	5.4	5.7	5.8	5.5	5.4	4.9
Voice over IP	5.7	5.8	5.7	5.9	5.4	5.9
Microsoft Exchange	5.3	5.6	6.0	5.1	4.7	5.9
Java	5.3	5.9	5.5	5.5	5.0	5.2
XML (SOAP)	5.3	5.8	5.5	5.4	5.1	5.0
Microsoft.NET	4.7	4.7	4.5	4.7	4.6	4.9
Microsoft Sharepoint	4.5	4.5	4.9	4.4	4.1	5.2
Open Net / Java Enterprise (Sun)	3.6	4.3	4.1	4.1	3.1	3.6
QuickTime Player	4.7	4.8	4.6	4.7	4.7	4.7
Real Player	4.2	4.1	4.3	4.3	4.1	4.1
Microsoft Media Player	4.9	5.0	4.7	5.1	4.8	5.1
Gigabit Ethernet	6.4	6.6	6.5	6.6	6.3	6.3
Grid computing	4.0	5.6	4.7	4.1	3.3	3.4
Adobe Acrobat	5.7	5.8	5.6	5.7	5.6	5.6
Internet videoconferencing	5.9	6.2	6.1	5.9	5.6	5.9
VPN/Virtual Private Networks	6.0	6.1	6.0	6.2	5.8	5.9
Identity management	6.5	6.8	6.6	6.6	6.4	6.3
Open Source software	5.0	5.2	5.2	5.3	5.0	4.3
Student portal services	6.1	6.3	6.1	6.2	6.2	5.9
SCORM standards	3.8	4.4	3.3	4.0	3.6	3.8
Data encryption	6.1	6.5	6.4	6.3	5.9	6.0
Content management systems	6.1	6.2	6.2	6.2	6.0	5.9
Instant messaging	4.9	5.3	4.9	4.9	4.8	4.8
Wikis	4.8	5.2	4.9	5.0	4.8	4.4
Podcasting	5.1	5.5	5.3	5.2	4.9	4.8
Blogging	4.8	4.9	5.0	4.9	4.9	4.5
Web conferencing	5.6	5.7	5.8	5.6	5.3	5.7
Desktop / Server Virtualization	6.1	6.4	6.2	6.4	6.0	6.0
Cloud Computing	4.9	5.3	5.4	5.1	5.0	4.4
Administrative software/ERP--Upgrade or replacement						
Accounting / Financial Management	5.7	5.8	6.1	5.6	5.6	5.7
Admissions / Recruitment	6.2	6.2	6.1	6.3	6.1	6.1
Alumni	5.2	5.3	5.8	5.3	5.5	4.5
CRM software	5.0	5.0	5.1	5.0	5.1	4.8
Development	5.2	5.2	5.6	5.2	5.4	4.8
eProcurement / Purchasing	5.2	5.7	5.2	5.4	4.8	5.3
Human Resources	5.5	5.7	5.5	5.5	5.4	5.6
Student Financial Aid Management	5.9	6.1	5.9	6.0	5.7	6.0
Student Infor Systems (SIS)	6.0	6.2	6.2	6.2	5.8	5.9
Business Intelligence / Analytics	5.4	5.9	5.8	5.5	5.2	5.2
Degree Audit	5.4	5.6	5.1	5.8	5.2	5.5
Student Retention / Early Warning Systems	5.5	5.5	5.1	5.8	5.3	5.8
Vendor Services/Outsourcing						
Data back-up or data storage	3.8	3.6	4.5	3.8	3.7	3.8
ERP services	2.7	2.6	3.3	2.6	2.4	3.0
Instructional technology services	2.6	2.6	2.6	2.6	2.4	3.1
User support	2.7	2.7	3.0	2.5	2.5	2.9
ResNet services	2.4	2.6	2.7	2.7	2.6	1.9
eProcurement	2.9	3.1	3.6	3.1	2.8	2.8
Student/campus portal	3.0	2.5	3.0	2.8	3.0	3.3
Web hosting services	3.4	3.2	4.1	2.9	3.7	3.3
Student email services	5.3	5.8	5.8	5.3	5.3	5.0

Mean ratings by campus category Scale from 1="Not Important" to 7="Very Important".

CAMPUS COMPUTING 2009

	All Institutions	Universities		4-Year Colleges		Community Colleges
		Public	Private	Public	Private	
RATING THE TECHNOLOGY INFRASTRUCTURE						
Computer networks and data communication	6.1	6.1	6.2	6.3	6.0	6.0
Telecommunications and phone system	5.5	5.6	5.8	5.8	5.4	5.4
Wireless networks	5.5	5.5	5.6	5.8	5.6	5.0
User support services	5.6	5.5	5.8	5.6	5.5	5.6
On-line reference resources in campus library/library system	5.9	5.9	6.0	6.1	5.8	5.7
Web resources to support instruction	5.3	5.5	5.2	5.5	5.2	5.3
Multimedia/AV enabled classrooms	5.4	5.3	5.4	5.5	5.5	5.5
Campus web site services/student portal	5.1	5.2	5.1	5.2	4.9	5.0
Overall assessment of IT security (network attacks, secure data bases, identity mgmt., etc.)	5.3	5.4	5.4	5.4	5.1	5.2
Disaster planning	4.6	4.6	4.7	4.9	4.4	4.5
IT training for faculty	4.7	4.7	4.9	4.8	4.6	4.6
IT training for students	3.9	4.1	4.1	4.0	3.8	3.8
Campus portal	4.3	4.7	4.6	4.5	4.3	3.9
Data warehousing	3.8	4.3	4.5	4.0	3.3	3.7
Digital dashboards/ERP analytics	3.1	3.1	3.4	3.2	3.0	3.0
Emergency communications / notification system(s)	5.4	5.7	5.8	5.4	5.5	5.0
Cellular coverage across the campus	5.0	5.1	5.3	5.3	5.0	4.7
Mean rating by campus category. Scale from 1="Poor" to 7="Excellent".						
ADDRESSING BUDGET ISSUES BY:						
Reducing purchases of computer technology						
Doing this already	33.3	35.5	20.5	42.6	31.0	31.5
Beginning in 2009-10	9.2	6.6	18.2	8.5	9.8	7.4
Reviewing for 2009-10	16.2	17.1	25.0	22.3	10.9	14.8
Decided not to do	41.3	40.8	36.4	26.6	48.3	46.3
Charging fees to departments and service units (networking, printing, etc.)						
Doing this already	26.3	63.2	29.6	21.3	19.0	14.8
Beginning in 2009-10	2.4	2.6	4.6	2.1	1.2	3.7
Reviewing for 2009-10	14.6	15.8	22.7	26.6	10.3	7.4
Decided not to do	56.7	18.4	43.2	50.0	69.5	74.1
Requiring a computer/IT fee for all students						
Doing this already	55.1	73.7	34.1	66.0	40.8	64.8
Beginning in 2009-10	1.6	5.3	2.3	-	1.2	0.9
Reviewing for 2009-10	5.2	11.8	-	5.3	4.0	4.6
Decided not to do	38.1	9.2	63.6	28.7	54.0	29.6
Leasing rather than buying hardware						
Doing this already	16.8	15.8	25.0	9.6	22.4	10.2
Beginning in 2009-10	2.4	2.6	-	1.1	4.0	1.9
Reviewing for 2009-10	13.0	19.7	15.9	18.1	8.1	11.1
Decided not to do	67.7	61.8	59.1	71.3	65.5	76.9
Reducing hours in public access facilities						
Doing this already	18.2	22.4	15.9	26.6	11.5	19.4
Beginning in 2009-10	5.6	7.9	4.6	5.3	4.6	6.5
Reviewing for 2009-10	10.0	15.8	9.1	10.6	6.9	11.1
Decided not to do	66.1	54.0	70.5	57.5	77.0	63.0
Reducing services (e.g., less consulting, training)						
Doing this already	23.1	30.3	11.4	29.8	21.3	20.4
Beginning in 2009-10	5.2	7.9	9.1	4.3	4.0	4.6
Reviewing for 2009-10	15.4	13.2	9.1	28.7	10.3	15.7
Decided not to do	56.3	48.7	70.5	37.2	64.4	59.3
Phasing out public computer labs						
Doing this already	8.4	13.2	11.4	10.6	6.9	3.7
Beginning in 2009-10	3.0	7.9	2.3	2.1	2.9	0.9
Reviewing for 2009-10	19.8	22.4	34.1	24.5	18.4	11.1
Decided not to do	68.7	56.6	52.3	62.8	71.8	84.3
Reorganizing operations (e.g., combining units to coordinate staffing)						
Doing this already	52.7	61.8	47.7	66.0	47.1	46.3
Beginning in 2009-10	9.4	11.8	18.2	8.5	10.3	3.7
Reviewing for 2009-10	16.8	21.1	13.6	18.1	14.9	17.6
Decided not to do	21.0	5.3	20.5	7.5	27.6	32.4
Reducing staff						
Doing this already	28.5	36.8	31.8	35.1	20.7	28.7
Beginning in 2009-10	5.6	5.3	9.1	6.4	7.5	0.9
Reviewing for 2009-10	9.8	18.4	6.8	7.5	6.9	12.0
Decided not to do	56.1	39.5	52.3	51.1	64.9	58.3
Using information technology to reduce instructional costs						
Doing this already	49.1	57.9	45.5	52.1	39.7	58.3
Beginning in 2009-10	2.6	4.0	2.3	1.1	2.3	3.7
Reviewing for 2009-10	22.4	22.4	18.2	26.6	20.7	23.2
Decided not to do	25.9	15.8	34.1	20.2	37.4	14.8
percentages						

	All Institutions	Universities		4-Year Colleges		Community Colleges
		Public	Private	Public	Private	
ADDRESSING BUDGET ISSUES BY: (continued)						
Making greater use of student assistants to address user support services						
Doing this already	73.0	75.0	72.7	87.2	75.3	56.5
Beginning in 2009-10	3.6	6.6	2.3	1.1	3.5	4.6
Reviewing for 2009-10	9.0	7.9	6.8	7.5	9.8	11.1
Decided not to do	14.4	10.5	18.2	4.3	11.5	27.8
Outsourcing computing/IT services to commercial providers						
Doing this already	20.2	18.4	36.4	17.0	19.0	20.4
Beginning in 2009-10	2.8	5.3	4.6	2.1	3.5	-
Reviewing for 2009-10	19.4	31.6	25.0	17.0	14.9	17.6
Decided not to do	57.5	44.7	34.1	63.8	62.6	62.0
Outsourcing student portal services to commercial providers						
Doing this already	6.6	5.3	2.3	5.3	5.8	12.0
Beginning in 2009-10	0.8	1.3	-	2.1	0.6	-
Reviewing for 2009-10	10.2	7.9	13.6	11.7	9.8	10.2
Decided not to do	82.4	85.5	84.1	80.9	83.9	77.8
Outsourcing user support/help desk services to commercial providers						
Doing this already	7.4	6.6	18.2	4.3	4.0	12.0
Beginning in 2009-10	2.2	5.3	-	1.1	2.3	1.9
Reviewing for 2009-10	13.4	14.5	11.4	13.8	12.1	15.7
Decided not to do	77.0	73.7	70.5	80.9	81.6	70.4
Outsourcing ERP services						
Doing this already	10.0	6.6	6.8	18.1	6.3	13.0
Beginning in 2009-10	0.8	1.3	-	-	0.6	1.9
Reviewing for 2009-10	7.6	15.8	13.6	4.3	6.9	3.7
Decided not to do	81.6	76.3	79.6	77.7	86.2	81.5
Outsourcing ResNet services						
Doing this already	5.6	5.3	4.6	9.6	4.6	4.6
Beginning in 2009-10	0.6	-	2.3	-	0.6	0.9
Reviewing for 2009-10	8.2	11.8	4.6	11.7	7.5	5.6
Decided not to do	85.5	82.9	88.6	78.7	87.3	88.9
Outsourcing student email services						
Doing this already	30.7	34.2	40.9	26.6	24.1	38.9
Beginning in 2009-10	10.2	17.1	13.6	7.5	8.1	10.2
Reviewing for 2009-10	30.9	29.0	29.6	31.9	37.9	20.4
Decided not to do	28.3	19.7	15.9	34.0	29.9	30.6
Delaying/deferring ERP deployment/replacement/upgrades						
Doing this already	15.6	17.1	22.7	14.9	14.4	13.9
Beginning in 2009-10	3.6	7.9	9.1	1.1	2.3	2.8
Reviewing for 2009-10	9.0	9.2	4.6	9.6	8.1	12.0
Decided not to do	71.7	65.8	63.6	74.5	75.3	71.3
Deferring/reducing use of consultants on IT projects						
Doing this already	46.1	50.0	45.5	52.1	44.8	38.9
Beginning in 2009-10	3.6	4.0	11.4	1.1	3.5	2.8
Reviewing for 2009-10	15.0	18.4	13.6	23.4	9.8	14.8
Decided not to do	35.3	27.6	29.6	23.4	42.0	43.5
Reviewing options for the campus standard Learning Management System						
Doing this already	31.3	34.2	20.5	36.2	26.4	35.2
Beginning in 2009-10	7.8	7.9	9.1	7.5	8.1	7.4
Reviewing for 2009-10	29.5	31.6	47.7	28.7	31.0	19.4
Decided not to do	31.5	26.3	22.7	27.7	34.5	38.0
Migrating to Software as a Service/SaaS ERP applications						
Doing this already	7.6	11.8	11.4	8.5	5.8	5.6
Beginning in 2009-10	2.6	2.6	-	3.2	2.9	2.8
Reviewing for 2009-10	25.5	30.3	38.6	28.7	24.9	15.7
Decided not to do	64.3	55.3	50.0	59.6	66.5	75.9
Migrating to Open Souce for ERP software and services						
Doing this already	6.0	10.5	4.6	4.2	5.2	5.6
Beginning in 2009-10	1.0	1.3	2.3	2.1	-	0.9
Reviewing for 2009-10	11.2	14.5	18.2	15.8	7.5	8.3
Decided not to do	81.8	73.7	75.0	77.9	87.4	85.2
Migrating to Open Souce for Learning Management Systems						
Doing this already	21.4	17.1	11.4	15.8	34.5	12.0
Beginning in 2009-10	2.4	5.3	-	2.1	2.9	0.9
Reviewing for 2009-10	34.0	31.6	43.2	43.2	33.9	24.1
Decided not to do	42.2	46.1	45.5	39.0	28.7	63.0
Migrating to Open Souce for digital content for the library curriculum etc						
Doing this already	19.3	22.7	16.3	16.8	23.6	13.9
Beginning in 2009-10	1.4	1.3	4.7	1.1	0.6	1.9
Reviewing for 2009-10	31.3	33.3	27.9	41.1	29.9	24.1
Decided not to do	48.0	42.7	51.2	41.1	46.0	60.2
Migrating to Open Souce for desktop application software						
Doing this already	9.6	8.0	9.1	8.4	9.8	10.2
Beginning in 2009-10	1.6	-	4.6	-	1.7	2.8
Reviewing for 2009-10	23.1	24.0	20.5	32.6	21.3	18.5
Decided not to do	65.7	68.0	65.9	59.0	67.2	68.5
percentages						

CAMPUS COMPUTING 2009

	All Institutions	Universities		4-Year Colleges		Community Colleges
		Public	Private	Public	Private	
STRATEGIC, BUDGET AND PERSONNEL ISSUES*						
Assessing the benefits of existing investments in computing and technology resources	6.1	6.1	6.1	6.2	6.0	6.1
Clarifying goals and campus plans for technology resources	6.5	6.5	6.5	6.5	6.5	6.4
Providing incentives and rewards for faculty to support technology integration into the curriculum	4.6	4.8	4.3	5.2	4.4	4.5
Allocating campus funds to support expanded services	5.4	5.5	5.3	5.4	5.4	5.5
Faculty concerns about the benefits of computing in the curriculum	4.8	4.9	4.6	5.0	4.7	4.6
Administrative concerns about the benefits of computing in the curriculum	4.6	4.6	4.3	5.0	4.5	4.5
Establishing/maintaining campus-wide standards for hardware	5.8	5.2	5.4	6.0	5.8	6.4
Establishing/maintaining campus-wide standards for software	6.0	5.4	5.7	6.1	6.0	6.4
Operating a computer resale program for students and faculty	2.6	3.2	2.4	2.6	2.7	2.1
Developing budget mechanisms to replace aging equipment on a routine basis	6.2	6.2	5.8	6.4	6.2	6.3
Using technology-based commercial curriculum products	4.6	4.4	4.7	4.6	4.4	5.0
Using info technology resources to enhance our distance education program	5.3	5.9	4.8	6.0	4.2	6.2
Negotiating site licensing agreements with textbook publishers	4.2	4.0	4.0	4.6	3.8	4.7
Negotiating site licensing agreements with academic publishers	4.4	4.3	4.4	4.7	4.1	4.7
Sharing digital resources with other campuses/institutions	5.1	5.5	5.3	5.6	4.8	5.0
Developing/updating campus policies for Web-based intellectual property	5.3	5.3	5.7	5.4	5.2	5.2
Helping our IT personnel stay current with new technologies	6.3	6.2	6.5	6.4	6.3	6.4
Retaining current IT personnel given off-campus competition	5.9	5.9	5.9	5.9	5.9	6.0
Moving more of our user support services to the Web	5.9	6.0	6.1	6.1	5.8	5.9
Surveying students and faculty about IT issues and services	5.8	5.9	5.8	5.9	5.8	5.6
Assessing the return on investment for IT spending/resources	5.6	5.7	5.3	5.7	5.5	5.8
Researching the total cost of ownership (TCO) for our IT purchases	5.4	5.5	5.1	5.5	5.2	5.6
Using Open Source tools and applications	4.5	4.7	4.6	4.8	4.6	3.7
Supporting smart phones	5.0	5.5	5.3	5.1	4.9	4.4
Managing/distributing digital learning resources	5.2	5.6	5.6	5.4	4.9	4.9
Controlling/restricting file sharing of commercial content	5.4	5.4	5.4	5.5	5.2	5.3
Data warehousing	5.3	5.9	6.0	5.5	4.9	5.3
Storage management	5.9	6.2	6.2	6.0	5.8	5.8
Server consolidation	6.0	6.3	6.2	6.3	5.7	6.1
Server virtualization	6.2	6.4	6.3	6.4	6.0	6.1
IT Business Continuity	6.0	6.1	6.4	6.1	5.7	6.0
Identity Management	6.1	6.6	6.4	6.3	5.9	6.1
Business analytics / intelligence	5.3	5.7	5.5	5.3	5.2	5.1
Environmental ("green") issues in the acquisition and disposal of IT hardware	5.4	5.7	5.6	5.4	5.3	5.3
Hosted applications/ Software as a Service (SaaS)	4.3	4.6	4.9	4.3	4.3	4.0
Mean ratings by campus category. Scale from 1="Not Important" to 7="Very Important".						
THIS YEAR'S COMPUTING BUDGET COMPARED TO LAST YEAR'S BUDGET						
Total computing budget for central IT services						
Reduced >5%	22.2	29.0	18.2	38.3	15.5	16.7
Reduced 3-5%	12.8	19.7	11.4	17.0	8.6	11.1
Reduced 1-3%	15.0	18.4	27.3	7.5	17.8	10.2
No change	28.3	23.7	25.0	21.3	29.3	37.0
Increased 1-3%	13.4	5.3	11.4	10.6	17.2	15.7
Increased 3-5%	4.6	1.3	4.6	2.1	6.9	5.6
Increased >5%	3.6	2.6	2.3	3.2	4.6	3.7
Total academic computing budget						
Reduced >5%	18.4	22.4	13.6	37.2	10.9	13.9
Reduced 3-5%	11.4	18.4	13.6	10.6	10.3	7.4
Reduced 1-3%	12.8	18.4	15.9	9.6	13.2	10.2
No change	38.9	29.0	36.4	33.0	43.7	45.4
Increased 1-3%	11.4	5.3	18.2	7.5	12.6	13.0
Increased 3-5%	4.4	5.3	2.3	1.1	5.2	6.5
Increased >5%	2.6	1.3	-	1.1	4.0	3.7
Total administrative computing budget						
Reduced >5%	19.0	25.0	18.2	35.1	11.5	13.9
Reduced 3-5%	13.0	21.1	18.2	14.9	8.1	11.1
Reduced 1-3%	12.8	15.8	18.2	9.6	13.2	11.1
No change	35.9	27.6	25.0	31.9	43.1	38.9
Increased 1-3%	12.2	6.6	15.9	6.4	14.4	14.8
Increased 3-5%	4.0	2.6	4.6	1.1	4.6	6.5
Increased >5%	3.0	1.3	-	1.1	5.2	3.7
Purchases of computers by academic computing units						
Reduced >5%	15.4	15.8	9.1	31.9	9.8	12.0
Reduced 3-5%	8.4	15.8	13.6	6.4	6.3	5.6
Reduced 1-3%	14.6	25.0	13.6	13.8	10.3	15.7
No change	48.7	36.8	45.5	37.2	59.8	50.9
Increased 1-3%	10.0	5.3	13.6	10.6	10.3	11.1
Increased 3-5%	1.6	-	4.6	-	2.3	1.9
Increased >5%	1.2	1.3	-	-	1.2	2.8
percentages						

	All Institutions	Universities		4-Year Colleges		Community Colleges
		Public	Private	Public	Private	
THIS YEAR'S COMPUTING BUDGET COMPARED TO LAST YEAR'S BUDGET (continued)						
Purchases of computers by administrative computing units						
Reduced >5%	17.2	18.4	13.6	33.0	10.3	14.8
Reduced 3-5%	7.6	18.4	13.6	5.3	4.6	3.7
Reduced 1-3%	17.0	25.0	15.9	19.2	12.6	17.6
No change	46.7	32.9	45.5	37.2	59.2	45.4
Increased 1-3%	8.2	2.6	6.8	4.3	9.8	13.9
Increased 3-5%	2.0	1.3	4.6	1.1	2.3	1.9
Increased >5%	1.2	1.3	-	-	1.2	2.8
Purchases of computers by academic departments						
Reduced >5%	16.8	17.1	11.4	35.1	9.8	13.9
Reduced 3-5%	7.8	18.4	9.1	6.4	6.3	2.8
Reduced 1-3%	14.6	21.1	11.4	17.0	10.3	16.7
No change	49.5	38.2	56.8	30.9	62.6	50.0
Increased 1-3%	8.2	4.0	6.8	9.6	8.6	10.2
Increased 3-5%	1.8	-	4.6	-	1.7	3.7
Increased >5%	1.2	1.3	-	1.1	0.6	2.8
All institutional purchases of desktop/notebook computers						
Reduced >5%	16.6	15.8	13.6	29.8	13.2	12.0
Reduced 3-5%	10.2	15.8	15.9	9.6	8.1	7.4
Reduced 1-3%	16.2	23.7	9.1	19.2	14.4	14.8
No change	39.7	39.5	43.2	27.7	44.8	41.7
Increased 1-3%	12.0	4.0	13.6	11.7	14.9	13.0
Increased 3-5%	2.6	-	4.6	1.1	2.9	3.7
Increased >5%	2.6	1.3	-	1.1	1.7	7.4
Institutional support for public computer labs						
Reduced >5%	11.9	13.3	11.4	22.3	7.5	9.3
Reduced 3-5%	6.8	13.3	2.3	5.3	8.1	3.7
Reduced 1-3%	12.7	20.0	13.6	12.8	14.5	4.6
No change	57.1	50.7	59.1	46.8	55.5	71.3
Increased 1-3%	7.9	2.7	6.8	9.6	11.0	5.6
Increased 3-5%	1.8	-	4.6	1.1	1.7	2.8
Increased >5%	1.8	-	2.3	2.1	1.7	2.8
Network servers						
Reduced >5%	10.8	9.2	11.4	19.2	8.6	8.3
Reduced 3-5%	6.2	11.8	2.3	7.5	5.2	4.6
Reduced 1-3%	12.6	11.8	11.4	16.0	12.1	12.0
No change	48.3	50.0	59.1	36.2	49.4	50.9
Increased 1-3%	14.4	11.8	9.1	14.9	15.5	15.7
Increased 3-5%	4.6	2.6	6.8	2.1	5.8	5.6
Increased >5%	3.0	2.6	-	4.3	3.5	2.8
Server software and related products						
Reduced >5%	9.0	9.2	6.8	17.0	6.3	7.4
Reduced 3-5%	6.6	14.5	4.6	9.6	4.6	2.8
Reduced 1-3%	10.2	10.5	13.6	11.7	10.3	7.4
No change	50.1	48.7	52.3	41.5	53.5	51.9
Increased 1-3%	17.8	10.5	13.6	16.0	20.7	21.3
Increased 3-5%	4.4	4.0	4.6	4.3	3.5	6.5
Increased >5%	1.8	2.6	4.6	-	1.2	2.8
Wireless networks						
Reduced >5%	8.4	5.3	6.8	17.0	6.9	6.5
Reduced 3-5%	4.2	6.6	4.6	4.3	3.5	3.7
Reduced 1-3%	6.6	6.6	6.8	11.7	5.2	4.6
No change	42.3	42.1	34.1	35.1	46.0	46.3
Increased 1-3%	19.6	18.4	31.8	16.0	18.4	20.4
Increased 3-5%	9.4	10.5	4.6	11.7	6.9	13.0
Increased >5%	9.4	10.5	11.4	4.3	13.2	5.6
User training and support						
Reduced >5%	12.8	17.1	13.6	24.5	6.3	10.2
Reduced 3-5%	5.8	10.5	2.3	7.5	4.0	5.6
Reduced 1-3%	9.2	9.2	6.8	6.4	10.9	9.3
No change	59.7	59.2	61.4	42.6	67.8	61.1
Increased 1-3%	8.4	4.0	11.4	12.8	7.5	8.3
Increased 3-5%	2.6	-	2.3	4.3	2.3	3.7
Increased >5%	1.4	-	2.3	2.1	1.2	1.9
Professional development for IT personnel						
Reduced >5%	16.4	18.4	13.6	30.9	10.3	13.9
Reduced 3-5%	8.8	9.2	9.1	7.5	8.6	10.2
Reduced 1-3%	13.4	19.7	18.2	10.6	14.4	8.3
No change	47.3	48.7	47.7	35.1	51.7	49.1
Increased 1-3%	10.0	4.0	6.8	12.8	9.8	13.0
Increased 3-5%	2.6	-	4.6	1.1	3.5	3.7
Increased >5%	1.4	-	-	2.1	1.7	1.9

percentages

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
THIS YEAR'S COMPUTING BUDGET COMPARED TO LAST YEAR'S BUDGET (continued)						
Campus portal services						
Reduced >5%	6.8	7.9	4.6	14.9	4.0	4.6
Reduced 3-5%	4.0	9.2	2.3	5.3	1.7	3.7
Reduced 1-3%	4.8	7.9	4.6	5.3	4.6	2.8
No change	62.1	60.5	72.7	53.2	63.8	63.0
Increased 1-3%	13.0	9.2	6.8	14.9	13.2	16.7
Increased 3-5%	4.6	2.6	4.6	2.1	6.9	4.6
Increased >5%	4.6	2.6	4.6	4.3	5.8	4.6
ERP software and services						
Reduced >5%	5.4	7.9	2.3	10.6	3.5	3.7
Reduced 3-5%	3.4	6.6	4.6	4.3	1.7	2.8
Reduced 1-3%	4.8	7.9	9.1	6.4	1.2	5.6
No change	54.1	54.0	45.5	57.5	52.9	55.6
Increased 1-3%	19.2	15.8	27.3	14.9	20.7	20.4
Increased 3-5%	6.4	2.6	6.8	1.1	12.1	4.6
Increased >5%	6.6	5.3	4.6	5.3	8.1	7.4
eCommerce/campus commerce services						
Reduced >5%	7.4	6.6	4.6	16.0	5.8	4.6
Reduced 3-5%	3.6	10.5	2.3	3.2	1.7	2.8
Reduced 1-3%	4.8	6.6	4.6	5.3	4.6	3.7
No change	66.5	61.8	56.8	64.9	71.3	66.7
Increased 1-3%	12.2	9.2	22.7	7.5	11.5	15.7
Increased 3-5%	3.4	2.6	9.1	1.1	4.0	2.8
Increased >5%	2.0	2.6	-	2.1	1.2	3.7
External service providers						
Reduced >5%	9.4	13.2	9.1	16.0	6.9	5.6
Reduced 3-5%	4.8	6.6	4.6	4.3	4.6	4.6
Reduced 1-3%	6.8	6.6	6.8	6.4	6.3	8.3
No change	60.1	55.3	54.6	59.6	62.6	62.0
Increased 1-3%	12.6	13.2	13.6	10.6	11.5	14.8
Increased 3-5%	3.6	4.0	11.4	-	4.0	2.8
Increased >5%	2.6	1.3	-	3.2	4.0	1.9
Security issues						
Reduced >5%	5.6	4.0	2.3	12.8	4.0	4.6
Reduced 3-5%	2.4	5.3	2.3	2.1	1.2	2.8
Reduced 1-3%	3.4	6.6	4.6	3.2	3.5	0.9
No change	44.5	38.2	36.4	38.3	53.5	43.5
Increased 1-3%	26.9	21.1	18.2	28.7	25.9	34.3
Increased 3-5%	10.2	19.7	20.5	6.4	4.6	11.1
Increased >5%	7.0	5.3	15.9	8.5	7.5	2.8
Identity management						
Reduced >5%	6.2	6.6	4.6	13.8	2.9	5.6
Reduced 3-5%	2.8	6.6	-	3.2	2.3	1.9
Reduced 1-3%	2.4	5.3	2.3	3.2	1.2	1.9
No change	58.7	47.4	50.0	47.9	70.1	60.2
Increased 1-3%	19.0	17.1	18.2	19.2	17.8	23.2
Increased 3-5%	5.6	6.6	9.1	4.3	4.6	6.5
Increased >5%	5.2	10.5	15.9	8.5	1.2	0.9
Consultants for IT projects and services						
Reduced >5%	17.0	23.7	20.5	25.5	12.6	11.1
Reduced 3-5%	7.6	11.8	4.6	7.5	6.9	6.5
Reduced 1-3%	12.2	6.6	15.9	13.8	13.2	12.0
No change	44.3	42.1	31.8	42.6	46.6	48.2
Increased 1-3%	13.0	11.8	18.2	7.5	14.4	14.8
Increased 3-5%	2.6	1.3	4.6	-	4.6	1.9
Increased >5%	3.2	2.6	4.6	3.2	1.7	5.6
Data warehousing						
Reduced >5%	6.8	4.0	4.6	17.0	4.6	4.6
Reduced 3-5%	2.2	4.0	4.6	1.1	1.7	1.9
Reduced 1-3%	4.6	10.5	2.3	3.2	4.0	3.7
No change	66.9	69.7	54.6	56.4	74.7	65.7
Increased 1-3%	12.0	10.5	22.7	12.8	8.1	14.8
Increased 3-5%	4.4	-	6.8	6.4	4.0	5.6
Increased >5%	3.0	1.3	4.6	3.2	2.9	3.7
CRM services/software						
Reduced >5%	7.8	10.5	6.8	14.9	4.6	5.6
Reduced 3-5%	3.6	7.9	4.6	3.2	1.2	4.6
Reduced 1-3%	5.0	6.6	4.6	3.2	6.3	3.7
No change	69.1	64.5	63.6	66.0	73.6	69.4
Increased 1-3%	8.4	9.2	15.9	5.3	7.5	9.3
Increased 3-5%	2.6	1.3	2.3	3.2	2.3	3.7
Increased >5%	3.4	-	2.3	4.3	4.6	3.7

percentages

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
THIS YEAR'S COMPUTING BUDGET COMPARED TO LAST YEAR'S BUDGET (continued)						
Supporting Open Source projects/applications						
Reduced >5%	9.2	10.5	4.6	14.9	5.8	11.1
Reduced 3-5%	3.6	6.6	2.3	1.1	3.5	4.6
Reduced 1-3%	5.4	6.6	6.8	5.3	5.2	4.6
No change	70.5	67.1	68.2	66.0	73.0	73.2
Increased 1-3%	8.0	7.9	6.8	10.6	8.6	5.6
Increased 3-5%	2.4	-	11.4	2.1	2.9	-
Increased >5%	0.8	1.3	-	-	1.2	0.9
Business Continuity						
Reduced >5%	7.0	6.6	9.1	12.8	4.6	5.6
Reduced 3-5%	2.4	5.3	2.3	1.1	2.9	0.9
Reduced 1-3%	4.2	6.6	6.8	4.3	3.5	2.8
No change	59.9	60.5	38.6	53.2	64.9	65.7
Increased 1-3%	16.2	13.2	15.9	19.2	14.9	17.6
Increased 3-5%	6.0	5.3	18.2	8.5	2.9	4.6
Increased >5%	4.2	2.6	9.1	1.1	6.3	2.8
Business analytics/Business Intelligence products						
Reduced >5%	7.4	10.5	2.3	12.8	5.2	6.5
Reduced 3-5%	2.4	5.3	4.6	1.1	2.3	0.9
Reduced 1-3%	5.2	10.5	6.8	4.3	4.0	3.7
No change	60.1	57.9	43.2	57.5	66.7	60.2
Increased 1-3%	15.8	10.5	31.8	17.0	13.2	16.7
Increased 3-5%	5.2	1.3	4.6	4.3	4.6	10.2
Increased >5%	3.8	4.0	6.8	3.2	4.0	1.9
Emergency communication/notification services						
Reduced >5%	4.8	2.6	2.3	10.6	4.0	3.7
Reduced 3-5%	1.2	1.3	-	1.1	1.2	1.9
Reduced 1-3%	2.2	2.6	2.3	2.1	2.3	1.9
No change	57.9	65.8	47.7	54.3	59.2	56.5
Increased 1-3%	19.2	21.1	29.6	20.2	16.1	18.5
Increased 3-5%	7.0	1.3	9.1	7.5	6.3	11.1
Increased >5%	7.6	5.3	9.1	4.3	10.9	6.5
percentages						
THE TECHNOLOGY BUDGET						
Percentage institutions experiencing a midyear computing budget cut, 2008-09	42.2	63.2	38.6	48.4	30.5	42.6
Percentage of budget that was cut	3.0	3.4	1.6	3.4	2.5	3.8
Total (average) central computing budget 2009-10	$ 10,249,569	$ 20,782,432	$ 18,535,572	$ 16,111,057	$ 3,344,148	$ 5,678,889
Percent of budget allocated to:						
Hardware	18.2	13.0	15.4	15.9	21.0	20.8
Software	13.8	10.5	12.1	13.2	16.1	13.7
Personnel	51.2	57.9	54.7	55.0	46.0	50.4
Content licenses	5.8	4.2	4.5	5.7	6.3	6.9
User support	14.7	16.2	14.6	16.3	13.2	14.6
Network service/support	13.4	15.2	11.8	14.2	13.8	11.1
Note: numbers may not equal 100% because of overlapping budget categories						
Central computing/IT budget as an estimated percentage of total campus IT spending	61.5	44.5	60.1	60.2	70.2	61.5
Total central computing/IT expenditure as an estimated percentage of total campus spending	6.4	4.6	4.6	6.7	6.2	8.7
Does your institution have a financial plan to upgrade/enhance/replace the campus network?						
No current plan/policy	12.4	7.9	4.6	21.3	11.5	13.0
Under discussion/development	30.1	29.0	29.6	29.8	29.3	31.5
Currently funded network replacement/upgrade plan	57.5	63.2	65.9	48.9	59.2	55.6
How does your institution deal with the "life cycle" of desktop computers for faculty, classrooms, clusters, and labs?						
One time allocation	9.6	22.4	2.3	11.6	5.8	8.3
Developing budget	22.2	32.9	18.2	29.5	13.8	24.1
Have budget	68.2	44.7	79.6	59.0	80.5	67.6
Current replacement cycle for desktop/notebook computers:						
Student labs						
1 year	0.2	-	-	-	0.6	-
2 years	4.0	-	4.6	1.1	6.9	3.7
3 years	40.4	47.4	52.3	32.6	43.1	32.4
4 years	44.0	46.1	40.9	47.4	39.7	49.1
5 years	11.4	6.6	2.3	19.0	9.8	14.8
Faculty offices						
1 year	0.2	-	-	-	-	0.9
2 years	0.8	-	2.3	1.1	1.2	-
3 years	22.6	26.3	36.4	23.2	22.4	13.9
4 years	54.6	51.3	52.3	49.5	56.9	59.3
5 years	21.8	22.4	9.1	26.3	19.5	25.9
Administrative offices						
1 year	-	-	-	-	-	-
2 years	0.4	1.3	-	-	0.6	-
3 years	18.6	27.6	29.6	15.8	17.8	11.1
4 years	54.8	56.6	59.1	55.8	51.7	56.5
5 years	26.2	14.5	11.4	28.4	29.9	32.4
percentages						

CAMPUS COMPUTING 2009

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
EMERGENCY NOTIFICATION						
As of September 2009, will your institution have an operational campus-wide (emergency) notification system?						
No	2.8	-	2.3	1.1	2.9	6.5
If yes, what elements of the notification system are functional as of September 2009?						
Sirens	39.7	56.6	50.0	44.7	37.9	22.2
PA system	45.7	51.3	52.3	47.9	36.8	50.9
Electronic signs / displays	33.9	36.8	36.4	37.2	21.8	48.1
Notice on campus web site / portal	87.2	98.7	86.4	88.3	85.1	83.3
Email	91.8	100.0	95.5	92.6	93.7	82.4
SMS / text messaging	87.2	97.4	97.7	90.4	89.1	70.4
RSS	14.4	25.0	15.9	14.9	14.4	6.5
Twitter	11.2	10.5	15.9	11.7	9.2	13.0
Voice mail to campus phones (offices / dorms)	71.5	72.4	90.9	74.5	74.1	58.3
Voice mail to off-campus land lines (homes / apartments)	48.9	56.6	65.9	51.1	48.3	37.0
Voice mail to mobile phones	57.5	61.8	79.5	59.6	59.2	42.6
Campus policy for emergency notification services assumes an "opt in" default for students?	73.5	82.4	62.5	75.9	67.7	78.0
As of September 2009, will your institution use a third party provider for notification software or services?						
No	16.4	13.2	15.9	11.6	15.5	24.1
If Yes: please indicate the name of the company that your campus uses uses for notification services:						
Blackboard Connect	28.2	12.7	29.4	26.3	36.6	27.6
E2Campus	19.1	11.1	5.9	13.8	29.6	17.1
MIR3	4.5	9.5	11.8	3.8	2.8	1.3
3n/National Notification	4.8	11.1	17.7	3.8	2.1	-
Rave	6.6	17.5	2.9	5.0	4.9	4.0
Send Word Now	3.3	3.2	5.9	3.8	4.2	-
Other	33.5	34.9	26.5	43.8	19.7	50.0
Over the past year (2008-09), how did you use your notification service?						
emergency notification	86.6	97.4	86.4	88.4	86.2	77.8
student recruitment (contacting prospective students)	3.2	2.6	-	3.2	1.7	7.4
student services (academic services for current students)	7.4	7.9	2.3	11.6	3.4	12.0
alumni contact/services	1.6	1.3	-	4.2	1.1	0.9
percentages						
WEB AND NETWORKING ISSUES						
How does your institution address the problem of spam:						
No institutional effort/policy	0.8	1.3	-	-	1.1	0.9
Recommend end-user filters	60.5	75.0	63.6	67.0	60.3	44.4
Deploy server filters	96.4	97.4	97.7	96.8	96.0	95.4
Use DNS blacklists	75.2	82.9	68.2	75.5	75.3	74.1
Other	29.3	34.2	36.4	29.8	29.3	22.2
How important are the following issues on your campus?*						
Supporting instructional labs and clusters	6.0	5.9	5.7	6.1	5.8	6.3
Creating Web pages for department use and course resources	5.0	4.9	4.8	5.4	4.9	4.9
Digital image libraries/archives	4.9	5.3	5.4	5.0	4.9	4.5
Disaster recovery	6.2	6.3	6.6	6.3	6.0	6.0
Virtual private networks (VPN)	5.6	6.2	5.9	6.0	5.4	5.3
Network security	6.7	6.9	6.9	6.8	6.6	6.6
Gigabit ethernet	6.0	6.5	6.2	6.2	5.8	5.7
Grid computing	3.2	4.8	4.1	3.2	2.6	2.5
Cloud computing	4.2	4.7	4.6	4.4	4.2	3.6
Electronic commerce	4.8	5.1	5.3	4.9	4.7	4.7
Wi-Max wireless networks	3.7	4.1	3.8	4.0	3.6	3.5
Making campus networks accessible to 3G phones	3.9	4.5	4.6	4.1	3.9	3.2
Quality of cellular coverage that commercial services provide for your campus	4.2	4.8	4.7	4.5	4.2	3.4
Guest access/services on the campus network	4.8	4.9	5.2	5.0	4.7	4.5
Data Encryption	5.7	6.1	6.2	6.0	5.5	5.5
Replacement cycle for network infrastructure	5.9	6.2	5.9	6.1	5.7	5.9
Identity management	5.9	6.4	6.1	6.2	5.6	5.7
Bandwidth for Software as a Service/SaaS applications	4.0	4.2	4.3	4.2	3.9	3.7
Internet2	3.8	5.8	4.8	4.0	3.0	3.1
National Lambda Rail	2.9	4.9	3.1	2.9	2.2	2.6
Spyware/malware	5.7	5.8	5.8	5.8	5.6	5.7
IT Disaster Communications Capacity	5.8	6.2	6.1	6.2	5.4	5.6
P-20 Education Continuum/Services	3.0	3.6	3.3	3.1	2.5	3.3
How well developed are network connections and the instructional infrastructure?						
Percentage of classrooms connected to the campus network/that have (hard wire) internet access	94.7	92.4	93.7	94.2	97.1	93.2
Percentage of classrooms with fixed computer projection capacity	73.4	66.4	72.9	71.6	76.7	74.2
Percentage of campus covered/served by wireless network access	9.7	15.5	11.8	13.0	7.9	4.9
Percentage of classrooms covered/served by wireless network access/services	73.0	77.2	77.9	77.0	77.6	56.1
percentages						

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
Number of "plug & play" ports on campus for mobile computer users	758.0	1,390.3	1,819.0	776.6	622.1	91.0
Number of wireless nodes on the campus network	426.7	1,019.7	1,318.8	316.8	226.9	69.0
Does your institution limit the size of email documents/attachments	84.0	85.5	88.6	83.2	87.9	75.0
Maximum file size (Mbytes)	27.8	38.6	28.6	31.4	21.8	26.7
Storage capacity for email						
Student maximum file size (Mbytes)	2,904.3	5,212.2	3,017.1	2,993.8	2,032.4	2,579.4
Faculty maximum file size (Mbytes)	3,383.0	5,805.1	4,410.1	2,818.3	2,772.3	2,763.4
Does your institution limit the size of student web sites	55.1	72.0	70.5	64.2	51.7	34.3
Maximum size (Mbytes)	308	389	309	676	212	32
Is your institution reviewing or converting to outsourced/hosted applications						
Hosted / outsourced email						
Students						
No	19.4	11.8	18.2	21.1	20.7	21.3
Under review	36.8	34.2	29.6	37.9	43.7	28.7
Converting to / now using	43.8	54.0	52.3	41.1	35.6	50.0
Faculty						
No	71.0	60.5	59.1	69.5	66.1	93.5
Under review	21.0	30.3	31.8	23.2	22.4	4.6
Converting to / now using	8.0	9.2	9.1	7.4	11.5	1.9
Provider						
Google	55.5	53.3	64.7	58.5	61.7	40.3
Microsoft	40.1	38.3	32.4	36.9	33.3	58.4
Zimbra	4.5	8.3	2.9	4.6	5.0	1.3
Hosted / outsourced "office" applications						
No	77.4	73.7	56.8	77.9	77.6	88.0
Under review	5.8	13.2	6.8	6.3	4.0	2.8
Converting to / now using	16.8	13.2	36.4	15.8	18.4	9.3
Product						
Google Applications	63.4	61.1	72.2	61.1	69.7	38.5
Microsoft Office Live	36.6	38.9	27.8	38.9	30.3	61.5
percentages						
ORGANIZATION, PLANNING AND IMPACT ISSUES						
Is your campus part of a multicampus system with shared computing resources?	50.2	65.8	31.8	72.6	23.6	71.3
Academic and administrative computing are:						
Separate units	24.8	25.0	36.4	27.4	23.6	20.4
One single unit	75.2	75.0	63.6	72.6	76.4	79.6
Has your institution reorganized IS units in the past 2 years?*						
Academic computing	38.8	61.8	34.1	46.3	32.8	28.7
Administrative computing	34.4	57.9	43.2	33.7	29.9	23.1
Libraries	17.0	13.2	20.9	18.9	17.2	16.7
Telecom	30.7	43.4	27.3	31.6	28.9	25.9
Do you anticipate a reorganization of IS in the next 2 years?*						
Academic computing	25.2	35.5	36.4	28.4	20.1	19.4
Administrative computing	23.6	34.2	30.2	25.3	19.0	20.4
Libraries	13.6	13.2	14.0	17.9	10.9	14.8
Telecom	23.0	31.6	27.3	23.2	18.5	23.1
Has your institution reorganized in IS units in the past two AND do you anticipate a reorganization the same IS in the next 2 years?*						
Academic computing	15.8	30.3	18.2	20.0	10.3	10.2
Administrative computing	14.8	30.3	22.7	14.7	10.3	8.3
Libraries	4.4	7.9	2.3	4.2	4.0	3.7
Telecom	11.2	21.1	13.6	12.6	7.5	8.3
The heads of the academic and administrative units report to:						
Academic computing						
President	6.2	2.6	-	4.2	3.5	17.6
Provost	13.4	15.8	15.9	14.7	15.5	6.5
CIO or CTO	63.0	71.1	70.5	73.7	65.5	41.7
Other vice provost/vice president	13.8	7.9	9.1	3.2	14.4	27.8
Dean	3.6	2.6	4.6	4.2	1.2	6.5
Administrative computing						
President	7.4	2.6	-	5.3	3.5	22.2
Provost	5.0	6.6	6.8	4.2	6.3	1.9
CIO or CTO	68.4	81.6	79.6	80.0	69.5	43.5
Other vice provost/vice president	18.4	9.2	13.6	9.5	20.7	30.6
Dean	0.8	-	-	1.1	-	1.9
Libraries						
President	0.8	-	4.6	-	0.6	0.9
Provost	60.6	82.9	70.5	72.6	58.6	34.3
CIO or CTO	11.0	4.0	4.6	11.6	16.1	10.2
Other vice provost/vice president	11.2	5.3	6.8	4.2	13.8	19.4
Dean	16.4	7.9	13.6	11.6	10.9	35.2
percentages						

CAMPUS COMPUTING 2009

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
Does your institution have a chief information/technology officer?						
No	13.0	2.6	9.1	9.5	19.5	14.8
Currently under discussion	3.4	1.3	-	1.1	6.3	3.7
Yes	83.6	96.1	90.9	89.5	74.1	81.5
What academic and operational units report to the CIO/CTO?*						
Academic computing	83.9	89.2	85.0	86.8	86.2	73.0
Administrative computing	93.0	95.9	97.5	96.7	90.8	89.0
Libraries	12.0	4.1	10.0	12.1	16.4	12.0
Media center	58.5	55.4	62.5	60.4	68.4	44.0
Telecommunications	85.9	93.2	97.5	87.9	78.9	84.0
The CIO reports to:						
President	37.4	33.3	22.5	44.0	32.5	49.0
Provost/vice president for academic affairs	27.0	38.7	37.5	36.3	26.0	7.0
CFO/vice president for business/admin affairs	27.7	21.3	27.5	15.4	35.1	31.0
Other	8.0	6.7	12.5	4.4	6.5	13.0
Is the CIO (or senior institutional computing/IT officer) a member of the president's cabinet/exec committee?	55.2	63.5	52.5	60.4	48.1	58.0
Does your institution have a board / trustee committee on computing / information technology?						
No	70.0	65.8	68.2	64.2	71.3	75.9
Under discussion	6.6	2.6	9.1	6.3	8.1	6.5
To begin in A/Y 2009-10	1.8	4.0	4.6	3.2	0.6	-
Yes, current board committee on computing / IT issues	21.6	27.6	18.2	26.3	20.1	17.6
Which unit provides tech support for most departmental computer labs?						
Individual department	10.4	34.2	22.7	12.6	1.2	1.9
Central IT service unit	64.8	22.4	38.6	61.1	79.3	84.3
Both	24.8	43.4	38.6	26.3	19.5	13.9
What types of security incidents did your campus experience in the past year?						
Theft of computer(s) containing confidential data files	21.4	31.6	43.2	21.1	16.7	13.9
Hack/attack on the campus network	47.4	75.0	52.3	51.6	38.5	38.0
Hack/attack on student/personnel/alumni data files	9.4	28.9	22.7	8.4	1.7	3.7
Hack/attack on administrative/financial files	5.4	15.8	13.6	4.2	1.7	1.9
Hack/attack on research data files	3.8	11.8	13.6	2.1	0.6	0.9
Other attack on institutional data files	8.2	26.3	18.2	4.2	3.4	2.8
Identity management issues	28.4	43.4	31.8	30.5	23.6	23.1
Major computer virus infestation	15.0	15.8	6.8	21.1	10.3	19.4
Major spyware infestation	14.6	13.2	9.1	14.7	13.8	18.5
Student security "incident" related to social networking sites	13.4	15.8	13.6	13.7	14.9	9.3
Exposure/loss of sensitive data in distributed environment (server not managed by central services)	17.8	51.3	20.5	28.4	6.3	2.8
Intentional employee transgressions affecting IT security	7.6	9.2	9.1	8.4	3.4	12.0
percentages						
How concerned are you about the following security issues for your institution in the coming year? mean score: scale: 1=low concern; 7=high concern						
Theft of computer(s) containing confidential data files	4.1	4.3	4.4	4.2	4.0	3.9
Hack/attack on the campus network	4.0	4.0	4.2	4.0	4.0	4.0
Hack/attack on student/personnel/alumni data files	3.8	3.9	4.1	3.8	3.7	3.7
Hack/attack on administrative/financial files	3.8	3.9	4.1	3.8	3.6	3.7
Hack/attack on research data files	3.0	3.7	3.5	3.3	2.7	2.6
Other attack on institutional data files	3.6	3.8	3.7	3.7	3.4	3.5
Identity management issues	3.9	4.0	4.1	3.9	3.9	4.0
Major computer virus infestation	3.4	3.3	3.5	3.5	3.3	3.6
Major spyware infestation	3.4	3.4	3.4	3.5	3.4	3.5
Student security "incident" related to social networking sites	3.2	3.2	3.2	3.3	3.3	3.1
Exposure/loss of sensitive data in distributed environment (server not managed by central services)	3.6	4.4	4.3	4.0	3.1	3.1
Intentional employee transgressions affecting IT security	3.2	3.2	3.4	3.3	3.0	3.4
How would you characterize the campus strategy on Open Source tools for central IT infrastructure services?						
None: little if any interest in or deployment of Open Source tools in Central IT Services	10.8	4.0	2.3	9.5	12.6	16.7
Observing: Watching other institution with interest, but no active deployment or development	12.4	6.6	6.8	12.6	9.8	23.2
Sampling: some Open Source tool activity, primarily backroom/infrastructure tools	39.4	30.3	47.7	41.1	37.4	43.5
Operational: significant Open Source deployment, focused on key operations	15.0	23.7	18.2	13.7	14.9	9.3
Mission critical: using a number of Open Source academic, administrative, and research resources for "mission critical" central IT operations	19.6	32.9	18.2	22.1	20.7	7.4
Contributing: strong support for Open Source tools plus a commitment and campus strategy to develop new/enhance current Open Source tools for central IT operations	2.8	2.6	6.8	1.1	4.6	-
How would you characterize your campus strategy on/engagement with Open Source applications?						
None: little if any interest in or deployment of Open Source tools in Central IT Services	11.2	6.6	4.6	5.3	10.3	22.2
Observing: Watching other institution with interest, but no active deployment or development	34.0	27.6	38.6	37.9	27.0	44.4
Sampling: some Open Source tool activity, primarily backroom/infrastructure tools	28.4	30.3	27.3	34.7	27.6	24.1
Operational: significant Open Source deployment, focused on key operations	12.6	19.7	9.1	16.8	13.8	3.7
Mission critical: using a number of Open Source academic, administrative, and research resources for "mission critical" central IT operations	8.8	7.9	9.1	3.2	16.1	2.8
Contributing: strong support for Open Source tools plus a commitment and campus strategy to develop new/enhance current Open Source tools for central IT operations	5.0	7.9	11.4	2.1	5.2	2.8
percentages						

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
How would you characterize your campus strategy on/engagement with Open Source applications? (continued)						
Current/active Open Source support/development projects in central IT services	2.5	3.0	4.3	2.9	2.6	1.0
FTE personnel allocated to Open Source support or development activities in central IT services	1.8	5.2	4.0	1.2	0.9	0.4
Looking ahead, what's the likelihood that your institution will migrate (or has already migrated) to one or more Software as a Service (SAAS) or Open Source ERP modules by fall 2014?						
Percent reporting high likelihood of migrating (scale score 6 or 7 on a 1-7 scale)						
Software as a Service (SAAS) Apps						
Course / Learning Management System	21.8	7.9	23.3	21.1	21.3	33.3
Content Mangement System	11.6	10.5	13.6	12.6	10.3	13.0
Research Management System	2.8	2.6	4.7	3.2	2.3	2.8
Development System	3.2	3.9	2.3	2.1	4.0	2.8
Financial System	5.2	1.3	9.1	4.2	3.4	10.2
HR System	8.4	2.6	6.8	6.3	8.6	14.8
Portal	8.4	3.9	7.0	9.5	6.9	13.9
Student Information System	4.6	1.3	4.5	4.2	4.0	8.3
Student ePortfolio System	13.8	6.6	16.3	13.7	17.2	12.0
Collaboration Platforms/Applications	13.9	17.3	11.6	11.6	18.0	8.3
Open Source ERP Apps						
Course / Learning Management System	27.4	28.9	20.5	22.1	41.4	12.0
Content Mangement System	15.6	11.8	16.3	18.9	19.0	10.2
Research Management System	4.6	7.9	7.0	5.3	3.4	2.8
Development System	1.8	3.9	-	-	2.9	0.9
Financial System	3.4	9.2	4.7	4.3	2.3	-
HR System	2.2	6.6	2.3	2.1	1.7	-
Portal	12.4	13.2	14.0	19.1	12.1	6.5
Student Information System	3.4	5.3	9.1	2.1	3.4	0.9
Student ePortfolio System	11.4	10.5	9.3	12.8	14.4	7.4
Collaboration Platforms/Applications	11.1	6.7	11.9	12.8	16.2	4.6
percentages						
How does your institution address the problem of P2P digital piracy on campus computer networks?						
Mandatory user education program	21.2	30.3	25.0	22.1	23.6	8.3
Sanction students for copyright, P2P or DCMA violations	62.4	84.2	79.5	61.1	63.8	38.9
Students can lose campus network/email access or privileges for P2P violations	88.8	92.1	93.2	94.7	87.4	81.5
Student financial penalty or fine paid to college/university for P2P violations	9.4	18.4	15.9	9.5	8.6	1.9
The Higher Education Act passed by the Congress and signed by the president in August 2008 imposes new requirements on colleges and universities to address illegal P2P filesharing. What's the status of compliance with these mandates at your institution as of fall 2009?						
My institution has "developed plans to effectively combat the unauthorized distribution of copyrighted material"						
Doing this already	62.3	84.2	72.1	61.1	63.2	42.6
Beginning in 2009-10	7.4	2.6	7.0	5.3	8.6	11.1
Reviewing for 2009-10	27.5	13.2	18.6	30.5	25.3	41.7
Previously decided not to do this	2.8	-	2.3	3.2	2.9	4.6
Our campus plans include "the use of a variety of technology-based deterrents"						
Doing this already	37.7	54.0	32.6	39.0	40.8	22.2
Beginning in 2009-10	5.8	4.0	2.3	6.3	4.6	10.2
Reviewing for 2009-10	35.5	27.6	37.2	39.0	31.6	43.5
Previously decided not to do this	21.0	14.5	27.9	15.8	23.0	24.1
My institution currently "offers alternatives to illegal downloading or peer-to-peer distribution of intellectual property"						
Doing this already	19.8	44.7	43.2	15.8	16.1	2.8
Beginning in 2009-10	1.6	1.3	-	2.1	1.2	2.8
Reviewing for 2009-10	25.8	13.2	20.5	35.8	22.4	32.4
Previously decided not to do this	52.8	40.8	36.4	46.3	60.3	62.0
Estimated costs of compliance with the P2P provisions of the HEA for A/Y 2009-10	$ 36,568	$ 67,352	$ 56,795	$ 34,308	$ 31,671	$ 16,017
percentages						

Appendix A

Survey Methodology

The 2009 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 early in September 2009. The email "invitation to participate" included a hotlink to an online copy of the 2008 Campus Computing questionnaire. The email invitation 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 the hundreds of very small private two- and four-year colleges that enroll 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 late in September and throughout October 2009. A total of 500 institutions completed usable questionnaires by October 30, 2009, the closing date for colleges and universities to complete the survey. Almost four-fifths (79 percent) of the institutions that participated in the 2009 survey also participated in the 2008 survey. The number of colleges and universities participating in the 2009 survey, by type of institution, is shown below.

Category	Number of 2009 Survey Participants	Total Number of Institutions as Counted by US Dept. of Educ.*	Participation Rate in the 2009 Survey (%)
Public Research and Doctoral Universities	75	168	44.6
Private Research and Doctoral Universities	44	92	47.8
Public 4-Year Colleges (master and baccalaureate institutions)	95	374	25.4
Private 4-Year Colleges (master and baccalaureate institutions	174	824	21.1
Public 2-Year Colleges (assoc. degree)	108	1,018	10.6

*Fall 2007 enrollment data from the Integrated Postsecondary Education System Data (IPEDS) data files of the US Department of Education reveal that 27.1 percent (1,152) of the nation's 4,253 accredited, degree-granting two- and four-year colleges and universities enroll under 500 students (headcount enrollment). These institutions account for some 271,932 (1.5 pct.) of the nation's 18.052 million college students as of fall 2007 (the most recent numbers available from the US Department of Education). In contrast, the 505 colleges and universities that enroll 10,000 or more students represent just 11.4 percent of the total number of US degree-granting institutions yet account for 53.1 percent of total headcount enrollment, some 9.8 million students. (source: special analysis of the 2007 IPEDS enrollment data by The Campus Computing Project; see also *Digest of Education Statistics 2008*. US Department of Education, 2008, table. 224).

Appendix B

Institutions Participating in the 2009 Campus Computing Survey

ALABAMA
Auburn University, Main Campus
Auburn University at Montgomery
Birmingham-Southern College
Tuskegee University
University of Alabama-Birmingham
University of Alabama

ARKANSAS
John Brown University
Mid-South Community College
Phillips Community College of the University Of Arkansas
University of Arkansas
University of Central Arkansas

ARIZONA
Arizona State University - West
Northern Arizona University
Rio Salado College
Scottsdale Community College

CALIFORNIA
Antelope Valley College
Azusa Pacific University
Barstow College
California Lutheran University
Chapman University
Citrus College
Claremont McKenna College
College of the Sequoias
College of the Siskiyous
CSU – Bakersfield
CSU - California Polytechnic State University - San Luis Obispo
CSU - California State Polytechnic University - Pomona
CSU - Channel Islands
CSU - Chico
CSU - Dominguez Hills
CSU - East Bay
CSU – Fullerton
CSU - Long Beach
CSU - Los Angeles
CSU - Monterey Bay
CSU - Northridge
CSU - San Bernardino
CSU - Sacramento
CSU - San Diego State University
CSU - San Francisco State University
CSU - San Jose State University
CSU - Sonoma State University
CSU - Stanislaus
CSU - San Marcos
Fielding Graduate University
Fullerton College
Golden West College
Harvey Mudd College
Loma Linda University
Loyola Marymount University
Merced College
Mills College
Mount St. Mary's College
Mt. San Jacinto College
North Orange Comm. College District
Occidental College
Pacific Oaks College
Point Loma Nazarene University
Saint Mary's College of California
Santa Clara University
Shasta College
Simpson University
Solano College
University of California, Davis
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 Southern California
West Hills College
Yuba College

COLORADO
Arapahoe Community College
Front Range Community College
Colorado College
Colorado Mountain College, Spring Valley Campus
Colorado State University -Ft. Collins
Northeastern Junior College
Pikes Peak Community College
Regis University
University of Colorado, Boulder
University of Colorado, Colorado Springs
University of Denver

CONNECTICUT
Fairfield University
Quinnipiac University
Yale University

DISTRICT OF COLUMBIA
American University
Catholic University of America
Gallaudet University

DELAWARE
University of Delaware

FLORIDA
Barry University
Broward College
Florida Atlantic University
Florida International University
Florida Southern College
Hillsborough Community College
Lynn University
The Florida State University
University of Central Florida
University of Miami
University of South Florida
University of Tampa
Valencia Community College

GEORGIA
Abraham Baldwin Agricultural College
Agnes Scott College
Armstrong Atlantic State University
Atlanta Metropolitan College
Augusta State University
Bainbridge College
Clayton College & State University
College of Coastal Georgia
Columbus State University
Dalton State College
East Georgia College
Emory University
Gainesville State College
Georgia College & State University
Georgia Gwinnett College
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
Mercer University
Middle Georgia College
South Georgia College
University of West Georgia
University of Georgia
Waycross College

HAWAII
University of Hawaii

IDAHO
Boise State University
Idaho State University
North Idaho College

ILLINOIS
Benedictine University
Bradley University
College of DuPage
DePaul University
Elmhurst College
Governors State University
Illinois Institute of Technology
Illinois Central College
Joliet Junior College
Knox College
Lake Forest College
Lake Land College
Lewis University
Loyola University Chicago
Millikin University
Moraine Valley Community College
National-Louis University
Northwestern University
Roosevelt University
Southern Illinois University Edwardsville
Trinity International University
University of Illinois Urbana-Champaign
Wheaton College
Monmouth College
University of Illinois at Springfield

INDIANA
DePauw University
Earlham College
Grace College
Goshen College
Indiana U-Purdue U at Indianapolis
Indiana University-Southeast
Indiana University-Bloomington
Indiana University-South Bend
Indiana University-Purdue University-Fort Wayne
Purdue University
Rose-Hulman Institute of Technology
Manchester College
University of Indianapolis
University of Notre Dame

IOWA
Central College
Grand View College
Grinnell College
Loras College
Luther College
Wartburg College

KANSAS
Emporia State University
Fort Hays State University
Johnson County Community College
Kansas State University

KENTUCKY
Asbury College
Berea College
Henderson Community College
Lindsey Wilson College
University of Kentucky
University of Louisville

LOUISIANA
Southeastern Louisiana University
Sowela Technical Community College
Xavier University of Louisiana

MAINE
Bowdoin College
Colby College
Thomas College
University of New England

MARYLAND
Anne Arundel Community College
Chesapeake College
Fredrick Community College
Goucher College
Howard Community College
Johns Hopkins University
Loyola University in Maryland
Montgomery College
Mount St. Mary's University, MD
Prince George's Community College
St. Mary's College of Maryland
United States Naval Academy
University of Maryland-Baltimore
University of Maryland-Baltimore County

MASSACHUSETTS
Assumption College
Bentley College
College of the Holy Cross
Hampshire College
Lesley University
Massachusetts College of Art
Mount Holyoke College
Newbury College
Northeastern University
Olin College of Engineering
Springfield Technical Community College
Tufts University
University of Massachusetts-Boston
Wentworth Institute of Technology

MICHIGAN
Albion College
Andrews University
Calvin College
Central Michigan University
Davenport University
Eastern Michigan University
Grand Valley State University
Kalamazoo College
Kalamazoo Valley Community College
Michigan Technological University
Northwood University
Oakland University
St Clair County Community College
University of Michigan-Dearborn
Wayne State University

MINNESOTA
Alexandria Technical College
Anoka Technical College
Augsburg College
Bemidji State University
Bethany Lutheran College
Bethel University
Concordia College
Century College
College of St. Scholastica
Dakota County Technical College
Dunwoody College of Technology
Hamilne University
Inver Hills Community College
Itasca Community College
Lake Superior College
Macalester College
Martin Luther College
Mesabi Range Community College
Minnesota State Community and Technical College
Minnesota State University-Mankato
Minnesota West Community & Tech. College
Normandale Community College
Northland Community and Technical
Pine Technical College
Ridgewater College
Riverland Community/Technical College
St. Catherine University
St. Cloud State University
St. Cloud Technical College
St. Olaf College
Saint Paul College
University of Minnesota, Duluth
University of Saint Thomas
Winona State University

MISSISSIPPI
Delta State University
Jackson State University

MISSOURI
Drury University
Missouri University of Science & Technology
Ozarks Technical Community College
Southeast Missouri State University
Southwest Baptist University
University of Central Missouri
University of Missouri-Columbia
Washington University
Webster University
Westminster College - Missouri

MONTANA
Montana State University
University of Montana

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

NEVADA
University of Nevada, Las Vegas

NEW HAMPSHIRE
Rivier College
Southern New Hampshire University
University of New Hampshire

NEW JERSEY
Atlantic Cape Community College
Bergen Community College
Middlesex County College
Mercer County Community College
Ocean County College
Princeton University
Rider University
Rowan University
Seton Hall University
The College of New Jersey
Thomas Edison State College
Union County College

NEW MEXICO
New Mexico State University
University of New Mexico-Main Campus

NEW YORK
Adelphi University
Barnard College
Brooklyn Law School
Canisius College
College of New Rochelle
Cornell University
CUNY - Bronx Community College
Genesee Community College
Hamilton College
Hofstra University
Hudson Valley Community College
Ithaca College
Jefferson Community College
Le Moyne College
Molloy College
Monroe Community College
Pace University
Rensselaer Polytechnic Institute
St. Bonaventure University
St. Francis College
Skidmore College
SUNY - Binghamton
SUNY - Buffalo
SUNY - Buffalo State College
SUNY - College at Geneseo
SUNY - College at Oneonta
SUNY - University at Albany
The College of Saint Rose
Union College
University of Rochester
Wells College

NORTH CAROLINA
Asheville Buncombe Technical Community College
Appalachian State University
Belmont Abbey College
Central Piedmont Community College
Davidson College
Elon University
Fayetteville State University
Guilford College
North Carolina A & T State University
North Carolina State University at Raleigh
Piedmont 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
University of North Dakota

OHIO
Ashland University
Baldwin-Wallace College
Capital University
Case Western Reserve University
Cedarville University
Central State University
Cincinnati State College
Heidelberg University
Kent State University
Kenyon College
Marietta College
Miami University
Muskingum University
Oberlin College
Ohio University - Main Campus
University of Cincinnati
University of Findlay
Ursuline College
Wittenberg University
Youngstown State University

OKLAHOMA
Southern Nazarene University

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

PENNSYLVANIA
Allegheny College
Bucknell University
Bucks County Comm. College
Bryn Mawr College
Carnegie Mellon University
Clarion University of Pennsylvania
Delaware County Community College
Drexel University
Duquesne University
Edinboro University of Pennsylvania
Elizabethtown College
Franklin and Marshall College
Gannon University
Gwynedd-Mercy College
Haverford College
Keystone College
La Salle University
Lehigh University
Lycoming College
Mansfield University of Pennsylvania
Mercyhurst College
Millersville University of PA
Montgomery County Community College
Moravian College
Mount Aloysius College
Neumann College
Pennsylvania State Univ., Univ. Park
Philadelphia Biblical University
Philadelphia University
Robert Morris University
Shippensburg University
Temple University
The University of The Arts
University of Pennsylvania
University of Pittsburgh

RHODE ISLAND
Brown University
Bryant University
Rhode Island School of Design
University of Rhode Island

SOUTH CAROLINA
Clemson University
Newberry College
University of South Carolina

SOUTH DAKOTA
Augustana College - South Dakota
Dakota Wesleyan University
University of South Dakota

TENNESSEE
Belmont University
Nashville State Tech. Comm. College
Northeast State Tech. Comm. College
Tennessee State University
University of Memphis
University of Tennessee at Martin

TEXAS
Abilene Christian University
Amarillo College
Austin College
Baylor University
College of the Mainland
Collin County Community College
Concordia University at Austin
Jarvis Christian College
Lamar University
St. Mary's University of Texas
Schreiner University
Southern Methodist University
Southwestern University
Stephen F. Austin State University
Texas A & M University, Galveston
Texas Southern University
Texas State University-San Marcos
University of North Texas
University of Texas-Arlington
Wiley College

UTAH
University of Utah
Utah Valley University

VIRGINIA
Bridgewater College
Eastern Mennonite University
George Mason University
Hampton University
James Madison University
Liberty University
Longwood University
Lynchburg College
Northern Virginia Community College
Old Dominion University
Randolph-Macon College
Sweet Briar College
University of Mary Washington
Virginia Commonwealth University
Virginia Military Institute
Virginia Polytechnic Institute
and State University
Virginia State University

VERMONT
Community College of Vermont
Lyndon State College
Saint MIchael's College
University of Vermont

WASHINGTON
Bastyr University
Big Bend Community College
Gonzaga University
Grays Harbor College
Seattle Pacific University
South Puget Sound Community College
University of Washington, Tacoma
University of Washington, Bothell
Washington State University
Whitman College
Tacoma Community College

WEST VIRGINIA
Alderson Broaddus College
Concord University
Marshall University

WISCONSIN
Alverno College
Cardinal Stritch University
Marquette University
Northeast Wisconsin Technical College
University of Wisconsin-Madison
University of Wisconsin Oshkosh
University of Wisconsin-Superior

WYOMING
Casper College
Sheridan College

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