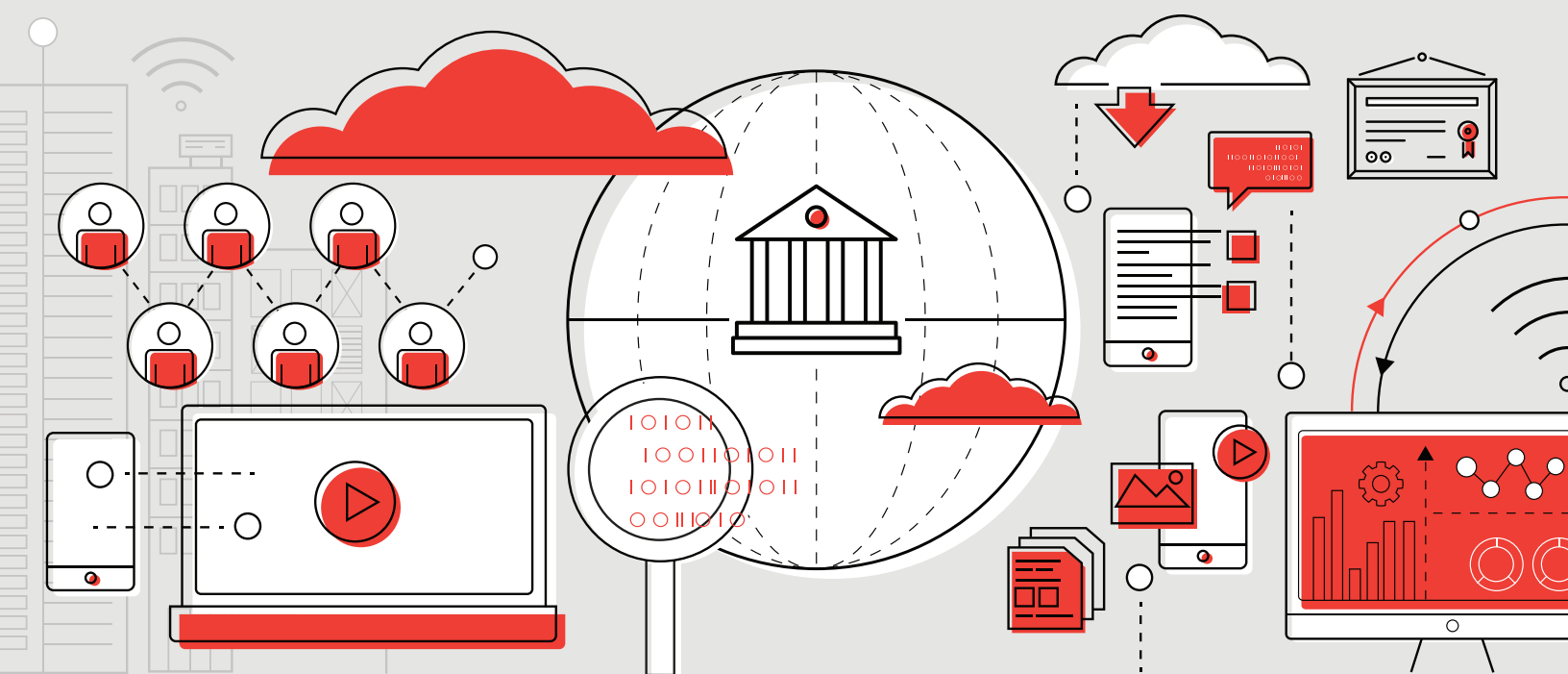# 2014
CAMPUS COMPUTING

The 25th National Survey of Computing and
Information Technology in American Higher Education

Kenneth C. Green

THE CAMPUS
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CAMPUS COMPUTING 2014

**The 25th National Survey of Computing and
Information Technology in American Higher Education**

Kenneth C. Green

December, 2014

THE CAMPUS COMPUTING PROJECT

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

Additional copies of this report may be purchased from Campus Computing (PO Box 261242 • Encino CA • 91426-1242 • USA). *Price:* US $39.00 (plus $2.00 shipping/fourth-class, book rate) to addresses in the United States, Canada, and Mexico. For overseas delivery, please add US $14 for priority mail air delivery and handling charges. Please include a check payable to *Kenneth Green/Campus Computing* with your order. (Please contact *Campus Computing* for information about credit card orders, quantity discounts, and site licensing options for both print and electronic copies of the report.)

Additional information about The Campus Computing Project is available on the World Wide Web at: campuscomputing.net.

Past (out-of-print) editions of the annual Campus Computing Survey Report (1990-2002) are available on microfiche from the ERIC Clearinghouse Service sponsored by the US Department of Education. Please check the ERIC web site: www.eric.ed.gov

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The 25th National Survey of Computing and Information Technology in American Higher Education

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The 2014 National Survey of Computing and Information Technology in US Higher Education

Campuses Struggle to Provide Effective User Support and IT Training, and Also Digital Access for Disabled Students

Four decades into the "computer revolution in higher education," new data from fall 2014 Campus Computing Survey reveal that although CIOs and senior campus IT officers proclaim IT user support to be one of their top institutional IT priorities, many campuses continue to struggle with providing adequate support services and IT training for students and faculty. The new survey also documents a serious challenge of providing digital resources and services for disabled students, major concerns about IT security on the Cloud, and a big decline in the percentage of IT officers who view MOOCs as offering "a viable model for the effective delivery of online instruction."

Campus IT Priorities

Four-fifths (81 percent) of the CIOs and senior campus IT officers who represent the 470 colleges and universities that participated in the fall 2014 survey report that "assisting faculty with the instructional integration of information technology" is a very important institutional IT priority over the next two-three years. Three-fourths (74 percent) also identify "providing adequate user support" as a top campus IT priority. Yet when asked about the quality of user support services and training, just under three-fifths (58 percent) assess the IT user support services at their institution as "excellent." Additionally, less than three-in-ten (28 percent) report that their institution provides "excellent" IT training for faculty while only an eighth (13 percent) rate IT training for students as "excellent."
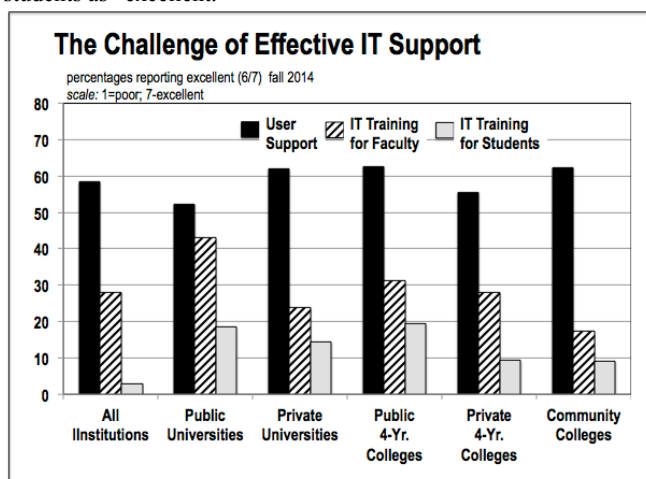
"Viewed in aggregate, these data document the continuing challenge that CIOs and senior IT officers confront, and faculty and students experience, in the realm of user support" says Kenneth C. Green, founding director of The Campus Computing Project, which is the largest continuing study of IT planning and policy issues in American higher education. Moreover placed in the context of the priority for the "instructional integration of information technology," Green notes that the dismal numbers for faculty and student IT training help to explain the frustration that many faculty experience in their efforts to use technology

resources effectively for teaching and that students experience when they use technology tools and digital resources for learning.

IT Services for Disabled Students

Less than half (47 percent) of the 470 institutions participating in the fall 2014 survey report having a strategic plan for IT compliance with the Americans with Disabilities Act (ADA) mandates; less than one-fifth (19 percent) rate services for disabled students as "excellent" (range: 14 percent in private four-year institutions to 24 percent in community colleges).

"While many IT officials feel that their institutions are making a significant effort to provide access to digital curricular resources and services to disabled students, there is often a large gap between what is offered or available and what the current law mandates,' says Green. Advocates for the disabled are using litigation and also proposing new legislation such as the TEACH Act to cajole campuses into complying with the current ADA mandates.

Assessing the Effectiveness of Campus IT Investments

The focus on IT services becomes even more interesting when viewed in the context of how campus IT officers assess the effectiveness of campus investments in information technology. Two-thirds (64 percent) view the campus IT investment to support library resources and services as "very effective," followed by administrative information systems and on-campus teaching and instruction (63 percent), student services (55 percent), and academic support services (53 percent). In contrast, just 30 percent cite the IT investment to support analytics and alumni services as very effective, followed by development efforts (32 percent), and online courses (45 percent). The numbers regarding the effectiveness of IT investments to support research and scholarship understandably vary by sector, highest in universities (51percent) and lowest in private four-year colleges (25 percent).
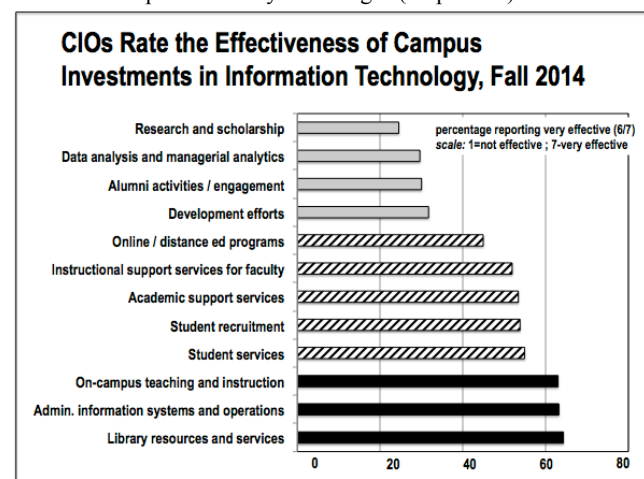

"These data suggest that CIOs and senior campus IT officers assess the effectiveness of IT investments at their institutions as 'okay to good,' but not great," says Green. He acknowledges that across almost all campuses there have long been great expectations

for the role of technology in instruction and campus management, and that both technology providers as well as campus technology advocates and evangelists may have contributed to unrealistic expectations about how quickly an investment in IT could deliver expected gains in instructional outcomes or institutional performance and productivity. "A key responsibility of and challenge for IT leadership is to manage expectations and to communicate the effectiveness of IT investments, both to senior campus officials and also to faculty," says Green.

MOOCs and Online Education

The 2014 survey data suggest that "MOOC madness" is beginning to decline. Less than two-fifths (38 percent) of the 2014 survey respondents agree that "MOOCs offer a viable model for the effective delivery of online instruction," down from over half (53 percent) in fall 2013. Concurrently, expectations for making money on MOOCs also declined by a third: just a fifth (19 percent) percent agree that MOOCS "offer a viable model for campuses to realize new revenues," down from 29 percent last fall.

Yet even as senior IT officers are less sanguine now about MOOCS, the 2014 data reveal that a small but significant (and slowly growing) number of campuses are contracting with third party providers for various services (recruitment, curricular development, student services) to help develop or expand their online programs.

Outsourcing Instructional Services for Online Programs
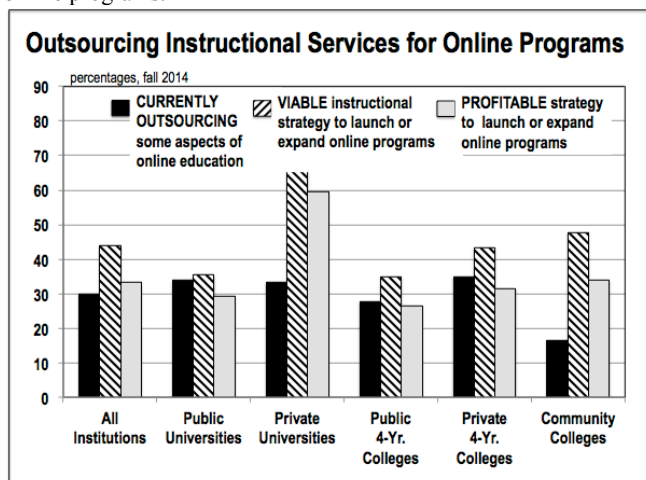
In aggregate three-in-ten campuses (29 percent) that participated in the 2014 survey report outsourcing for their online programs, compared to 23 percent in fall 2013. The outsourcing numbers range from 35 percent in private four-years colleges to universities to 16 percent in community colleges. However, here as with MOOCs, senior campus IT officers are not upbeat about outsourcing: just 43 percent agree that outsourcing offers a viable instructional strategy for their institution's online efforts while just a third (34 percent) believe that outsourcing provides a viable revenue strategy for their institution's online activities. The clear exception to these low numbers is among IT officers in private universities: two-thirds (67 percent) view outsourcing some aspects of online education as a viable instructional strategy, while three-fifths (59 percent) view it as an effective revenue strategy.

Going Mobile

The 2014 survey documents the continuing movement to mobile. More than four-fifths (83 percent) of the campuses participating in this year's survey have activated mobile apps as of fall 2014 or will do so in the coming academic year, compared to 78 percent last year, 60 percent in fall 2012, 42 percent in fall 2011, and 23 percent in fall 2010. Across sectors, public universities lead the movement: 99 percent will be up on mobile apps by the end of the current academic year, followed by 95 percent of private universities, 92 percent of public four-year colleges, and 77 percent of community colleges and 73 percent of private four-year institutions.

What explains these gains in going mobile? "Colleges and universities are clearly playing catch-up with the consumer experience. Students come to campus with their smartphones and tablets expecting to use mobile apps to navigate campus resources and use campus services," says Green. Also of note is that senior campus IT officers now report that tablets and smartphones have higher priority in their IT planning activities: 83 percent cite tablet devices and 82 percent note that smartphones will be "very important" in IT planning over the next two-three years, compared to just 64 percent who cite laptop computers. This focus on mobile devices in IT planning, says Green, "suggests that IT leaders are following the 'Gretsky rule' and are skating to where the digital puck is going."

Interestingly, although CIOs and senior IT officers representing 70 percent of the institutions in the survey identify "implementing/ supporting mobile computing" as a top institutional IT priority over the next three years, less than a fifth (17 percent) rate mobile services at their institution as "excellent."

Small Gains in Cloud Computing; Some Concerns About IT Security in the Cloud

The proportion of campuses reporting a strategic plan for Cloud computing rose to 29 percent in fall 2014, up from 27 percent last year, 24 percent in 2012, 21 percent in 2011, and 9 percent in 2009. Just 9 percent of the survey participants report that their campus has moved or is converting to Cloud Computing for ERP (administrative) services, compared to 7 percent last year, 6 percent in 2012, and up from 4 percent in 2011 (range: from 19 percent for private universities to 4 percent for private four-year colleges.)

Also, security in the Cloud is a major concern for a significant minority of the survey participants: fully a third (33 percent) disagree that "cloud computing offers a level of data reliability and security that equals or excels the level of security and reliability we can provide with on-campus hosting."

Although almost half (47 percent) of campuses now report running their LMS in the Cloud, less than a tenth of CIOs or senior campus IT officers who participated in the 2014 survey believe that their institution will be running a "high value" application such as finance or student information systems in the Cloud in five years, by fall 2019. However, more than a fourth anticipate that their college or university could deploy a Cloud-based application for collaboration platforms, content management, ePortfolios, lecture capture, and video management in five years.

The 2014 Campus Computing Survey is based on survey data provided by senior campus IT officials, typically, the CIO, CTO, or other senior campus IT officer, representing 470 two- and four-year public and private/non-profit colleges and universities across the United States. Survey respondents completed the online questionnaire from August 12 through September 22. Copies of the 2014 Campus Computing Survey will be available on December 1st from The Campus Computing Project in Encino, CA (campuscomputing.net). Price: $45, which includes shipping to US addresses.

CAMPUS COMPUTING, 2014

The 26th National Survey of Computing and Information Technology in US Higher Education

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Methodology

- **470 institutional participants**

- **Web-based data collection**

- **Survey period: August 13– Sept 22**

- **70 pct. of the 2014 participating campuses also completed the 2013 survey**

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2014 Survey Participants

Category	Dept of Ed N (adjusted)	Survey N	Participation Rate (%.)
Public Research & Doctoral Universities	168	65	37%
Private Research & Doctoral Universities	92	42	46%
Public 4-Year Colleges (Baccalaureate & Masters)	374	83	22%
Private 4-Year Colleges (Baccalaureate & Masters)	824	171	22%
Associate Degree/ Public Community Colleges	1018	109	11%

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2014 Highlights

- **Top IT priorities focus on instruction, advancing the campus completion agenda, supporting mobile, staffing, and user support**

- **Campuses are struggling with issues involving access to digital resources and services for disabled students.**

- **Slow transition to the Clouds continues; Cloud security is a big concern for many.**

- **Almost half of campuses appear to be creating their own mobile apps.**

- **Reacting to rising costs for mobile and a sense of "digital entitlement" among students, some campuses are restricting student "uber-user" access to the campus net**

- **Transitions continue in the LMS market.**

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New Survey Items for 2014

	Pct. Agree/Yes
My campus has a written policy/code of conduct governing how students may record classroom lectures, presentations, and discussions.	10.7
My campus should charge access fees to students who consume excess bandwidth – more than 20G weekly.	24.0
Cloud computing services officer a level of data reliability and security that equals or exceeds the level or reliability and security we can provide with on-campus hosting.	57.7
My campus encourages the use of Open Source/OER instructional content for course materials.	32.8

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Top Institutional IT Priorities Over the Next Two-Three Years, Fall 2014

pct. reporting very important (6/7)
scale: 1=not important; 7=very important

service

technology

Priority	
Assisting faculty integrate IT into instruction	
Hiring/retaining qualified IT staff	
Providing adequate user support	
Leveraging IT for student success	
IT security	
Mobile computing	
Supporting online education	
Learning & manageial analytics	
Professional development for IT staff	
Financing replacement of aging IT	
Upgrading the campus network	
Supporting BYOD	
Migrating to the Cloud	
ERP upgrade/prelacement	
Shared services / IT collaboration	
Upgrade/replace the LMS	
Leveraging social media	

Top Four IT priorities focus on SERVICES: Instructional integration, user support, staffing, and student success

0 10 20 30 40 50 60 70 80 90

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Top Three Institutional IT Priorities by Sector, Fall 2014

All Campuses	Public Universities	Private Universities	Public 4-Yr. Colleges	Private 4-Yr. Colleges	Community Colleges
Assisting Faculty Integrate IT into Instruction (81%)	Hiring/ Retaining Qualified IT Staff (86%)	Assisting Faculty Integrate IT into Instruction (90%)	Providing Adequate User Support (85%)	Assisting Faculty Integrate IT into Instruction (81%)	Assisting Faculty Integrate IT into Instruction (80%)
Hiring/ Retaining Qualified IT Staff (76%)	Assisting Faculty Integrate IT into Instruction (81%)	Enhancing/Upgrading Network Security (81%)	Leveraging IT for Student Success (84%)	Hiring/ Retaining Qualified IT Staff (72%)	Leveraging IT for Student Success (77%)
Providing Adequate User Support (75%)	Supporting Online / Distance Education (80%)	Hiring/ Retaining Qualified IT Staff (78%)	Assisting Faculty Integrate IT into Instruction IT Staff (81%)	Providing Adequate User Support (76%)	Supporting Online / Distance Education (76%)

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Top Institutional IT Priorities, 2014

	Campus Computing Survey (pct. reporting "very important")	EDUCAUSE "Top 10 IT Issues" (panel assessment)
1	Assisting faculty integrate technology into instruction (81%)	Improving student outcomes by leveraging technology
2	Hiring / retaining qualified IT staff (76%)	Establishing partnership between IT leadership and institution leadership about expectations
3	Providing adequate user support AND Leveraging IT to support student success efforts (74%)	Assisting faculty with the instructional integration of information technology
4	Implementing/supporting mobile computing AND Upgrading IT Security (69%)	Developing an agile and open IT organizational model to accommodate a changing IT environment
5	Supporting Online Education (66%)	Using analytics to help drive critical institutional outcomes
6	Data analysis and managerial analytics (55%)	Changing funding mores to support core services, innovation, and facilitate growth
7	Professional development for IT personnel (54%)	Developing a sustainable strategy for online ed
8	IT business continuity & disaster planning (53%)	Sourcing technologies to reduce costs
9	Financing the Replacement of Aging IT (51%)	Clarifying the role of IT in online learning AND developing support strategies
10	Supporting BYOD (48%)	IT Security and developing IT architecture to respond to new environments

Rating the IT Infrastructure, Fall 2014

percent reporting "excellent" (6/7)
scale: 1=poor; 7= excellent;

Chart categories (top to bottom):
Digital dashboards / ERP analytics
IT training for students
Research computing
Mobile apps / services for students, faculty & staff
IT accessibility: IT resources for disabled users
Data warehousing
Disaster planning
IT training for faculty
Campus web site services / student portal
Cellular coverage across the campus
Web resources to support instruction
IT security
Instructional computing
Enterprise systems
User support services
Telecommunications and phone system
Multimedia / AV enabled classrooms
Online reference resources in campus library / library...
Wireless networks
Emergency communications / notification system(s)
Computer networks and data communication

- Highest rankings for the network, "hardware," and content

- Lower rankings for services

- Would faculty and students agree with the ranking for user support services?

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Rating the IT Infrastructure, Fall 2014

percent reporting "excellent" (6/7)
scale: 1=poor; 7= excellent;

Digital dashboards / ERP analytics
IT training for students
Research computing
Mobile apps / services for students, faculty & staff
IT accessibility: IT resources for disabled users
Data warehousing
Disaster planning
IT training for faculty
Campus web site services / student portal
Cellular coverage across the campus
Web resources to support instruction
IT security
Instructional computing
Enterprise systems
User support services
Telecommunications and phone system
Multimedia / AV enabled classrooms
Online reference resources in campus library / library...
Wireless networks
Emergency communications / notification system(s)
Computer networks and data communication

0   20   40   60   80

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- **Highest rankings for the network, "hardware," and content**

- **Lower rankings for services**

- **Would faculty and students agree with the ranking for user support services?**

Digital Resources and Services for Disabled Users

percent reporting "excellent" (6/7)
scale: 1=poor; 7= excellent;
fall, 2014

30
25
20
15
10
5
0

All Institutions | Public Universities | Private Universities | Public 4-Yr. Colleges | Private 4-Yr. Colleges | Community Colleges

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- **Campuses are struggling to provide legally-mandated digital access and resources to disabled students**

- **Only half (49%) have a strategic plan for ACA/Sec. 503 compliance**

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Tablets & Smartphones Over Laptops!

IT Planning & Policy Issues, Fall 2014

How important are these hardware issues for campus IT planning and policy over the next 2-3 years?

pct. reporting "very important" (6/7)   scale: 1=not important; 7=very important

Legend: Laptops | Tablets | Smartphones
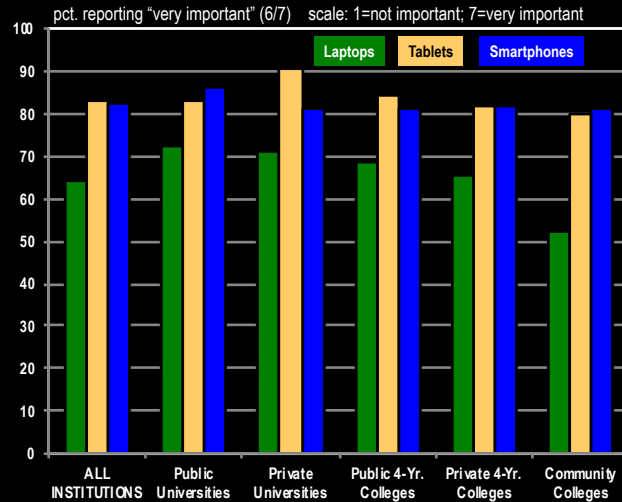
"Skating to where the digital puck" is going:

- A consistent and clear message that "new platforms" are more important in IT planning than old hardware.

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CIOs Rate the Effectiveness of Campus Investments in Information Technology, Fall 2014

pct. rating very effective (6/7)
scale: 1=not effective; 7-=very effective

Categories (top to bottom):
- Research and scholarship
- Data analysis and managerial analytics
- Alumni activities / engagement
- Development efforts
- Online / distance ed programs
- Instructional support services for faculty
- Academic support services
- Student recruitment
- Student services
- On-campus teaching and instruction
- Admin. information systems and operations
- Library resources and services

< 40%
40-60%
< 60%

- Very mixed assessments about the effectiveness of campus IT investments

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The Challenge of Effective User Support

pct. reporting "excellent" (6/7)   scale: 1=poor; 7=excellent

Categories (x-axis): Public Universities, Private Universities, Public 4-Yr. Colleges, Private 4-Yr. Colleges, Community Colleges

Legend: IT User Support, IT Training for Faculty, IT Training For Students
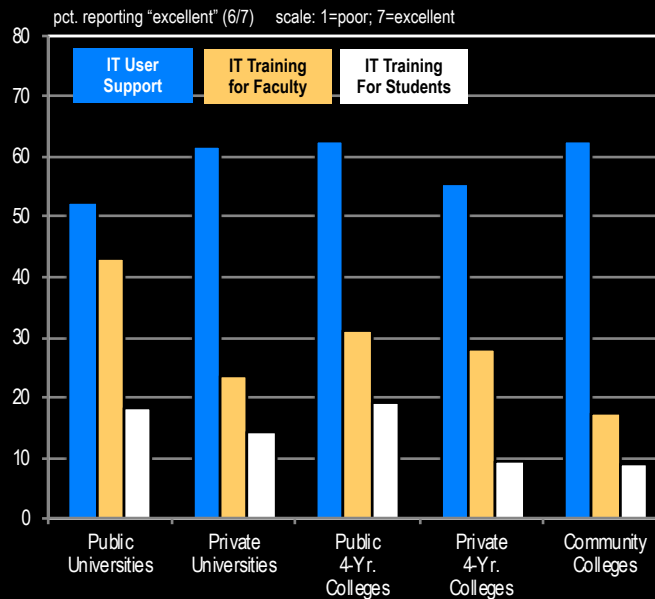
74 pct. of institutions cite user support as a top IT priority (#3)

- Just 58% report report user support services are "excellent"

- Less than a third provide "excellent" IT training for faculty

- Only a tenth provide "excellent" training for students

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Budget Cuts, 2008-2014

percentage of institutions reporting budget reductions for central IT services over prior year funding, 2008-2014

Legend: 2008, 2009, 2010, 2011, 2012, 2013, 2014

Categories (x-axis): Public Universities, Private Universities, Public 4-Yr Colleges, Private 4-Yr Colleges, Community Colleges
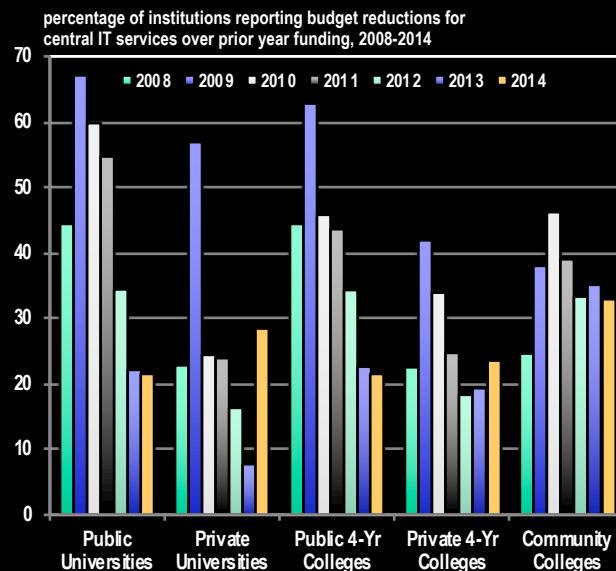
- Still experiencing the compounding consequences of continuing budget cuts

- Community Colleges still suffering

- Almost a fifth of institutions (18%) experienced mid-year cuts, averaging 7%

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Budget Cuts vs. Budget Gains, Fall 2014

percentage of institutions reporting budget increases or cuts, by budget category, fall 2014	Increase	Decrease
Total Budget, Central IT	34.4	25.6
Wireless Networks	23.1	16.3
User Training and Support	15.1	18.4
ERP Software and Services	44.6	4.9
Mobile Computing Resources	37.0	3.8
IT Security Issues and Resources	49.0	4.2
Identity Management	35.9	5.0
Business Continuity	26.8	5.6
Business Analytics	34.5	6.0

- Investing in security, cloud, mobility & analytics
- Reduced spending in public labs and for replacement hardware
- Student lab replacement cycle now 3-4 years (74%) vs. 2-3 years (55%) in 2008

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ERP Expenditures, Fall 2014
(*estimated* annual expenditures for licensing and maintenance fees)

means by sector, fall 2014	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
Alumni / Advancement / Development	$ 52,236	$ 115,481	$ 128,963	$ 31,831	$ 36,848	$ 16,874
Business Intelligence / Data Analytics	74,959	149,565	118,556	72,748	35,797	51,008
CRM	65,487	108,571	129,296	48,301	54,174	42,851
Finance / Accounting	159,635	359,789	468,649	130,567	53,704	76,015
ePortfolio services	31,845	47,942	87,365	16,320	22,647	13,900
Grants and Research Management	68,027	115,261	140,074	36,270	12,122	18,493
Learning management systems	145,661	307,432	185,545	123,581	91,308	119,194
Lecture capture & video management	48,806	123,069	61,317	35,224	22,529	29,266
Library system management	67,794	152,116	104,282	67,082	49,055	45,378
Human resources (recruitment)	40,466	78,566	40,389	64,655	21,607	24,970
Human resources (HR records & payroll)	107,524	277,484	274,406	63,104	38,899	56,324
Student information system	200,659	411,057	330,986	185,069	109,854	161,493

- Core ERP spending accounts for about 9-10% of total central IT expenditures.
- Less dollars for ERP in community colleges but a larger proportion of the IT budget (11-12%)

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Updating Campus IT Security & Disaster Plans, 2014

- 23 pct. DO NOT have a strategic plan for network and data security
- 32 pct. DO NOT have a strategic plan for IT disaster recovery

Last Update for IT Security

percentages, fall 2014

- past 13-24 months
- past 12 months

(Public Universities, Private Universities, Public 4-Yr. Colleges, Private 4-Yr. Colleges, Community Colleges)
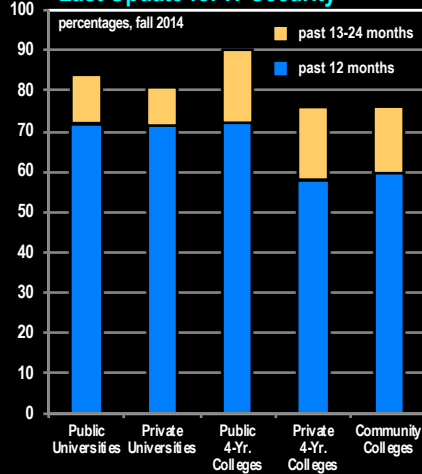
Slight gains on updated IT security plans and slight declines on updated disaster recovery plans

Last Update for IT Disaster Recovery

percentages, fall 2014

- past 13-24 months
- past 12 months

(Public Universities, Private Universities, Public 4-Yr. Colleges, Private 4-Yr. Colleges, Community Colleges)
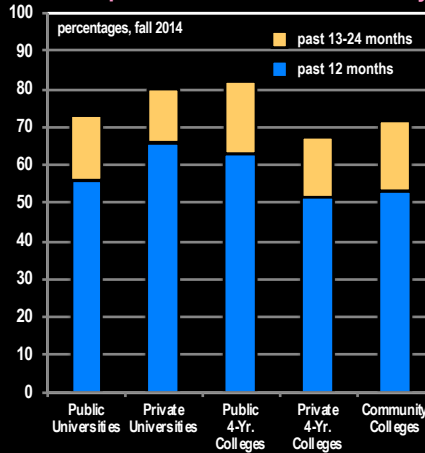
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Much Ado About MOOCs?

percentages who agree/strongly agree, fall 2014

- Offer a viable model for the effective delivery of online instruction
- Offer a viable business model for campuses to realize new revenues

2013

(All Institutions, Public Universities, Private Universities, Public 4-Yr. Colleges, Private 4-Yr. Colleges, Community Colleges)
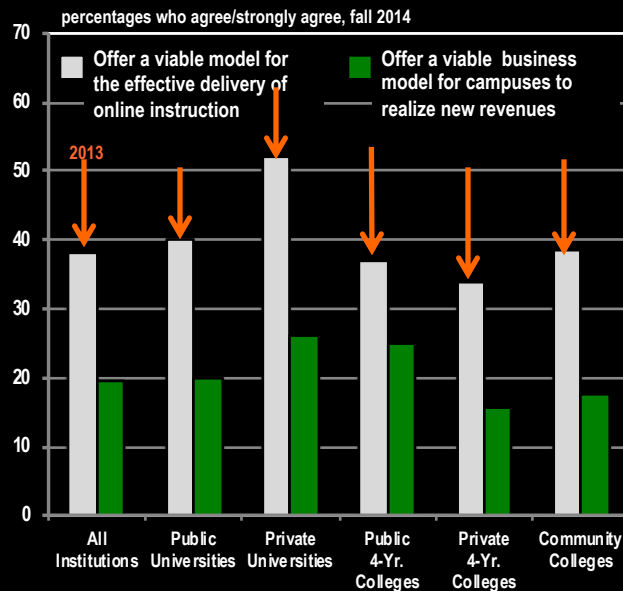
- BIG DECLINES IN THE THE 2014 DATA (10-15 points!)
- More than 80% of CIOs are uncertain about the MOOC revenue model

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Outsourcing Instructional Services for Online Programs?

percentages who agree/strongly agree, fall 2014

Legend:
- Currently out-sourcing some aspects of online ed
- VIABLE instructional strategy to launch or expand online programs
- PROFITABLE strategy to launch or expand online programs

Categories: All Institutions, Public Universities, Private Universities, Public 4-Yr. Colleges, Private 4-Yr. Colleges, Community Colleges
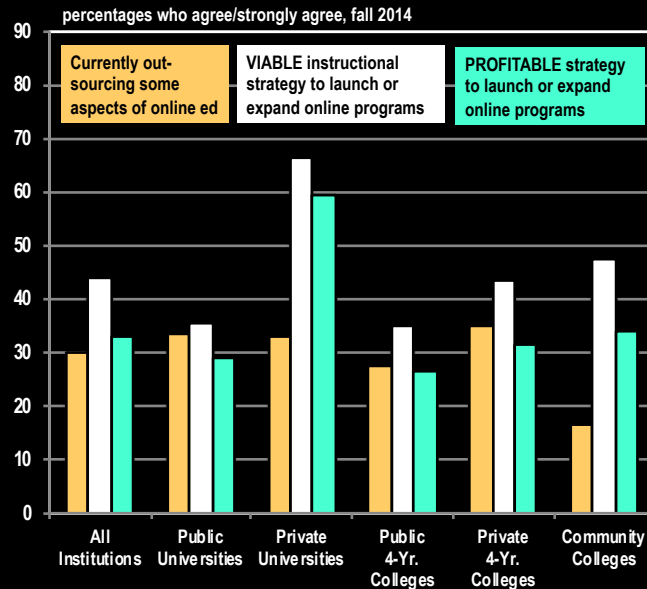
Are perspectives on MOOCs informed by real experience with outsourcing?

- Modest gains for outsourcing in 2014 over 2013.
- Outsourcing viewed as more effective for instruction than for profits.
- CIOs in private universities more supportive of outsourcing instructional services than their peers.

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ePortfolio Services for Students

percentages, fall 2014

Legend:
- Currently Provide
- Should Provide

Categories: All Institutions, Public Universities, Private Universities, Public 4-Yr. Colleges, Private 4-Yr. Colleges, Community Colleges
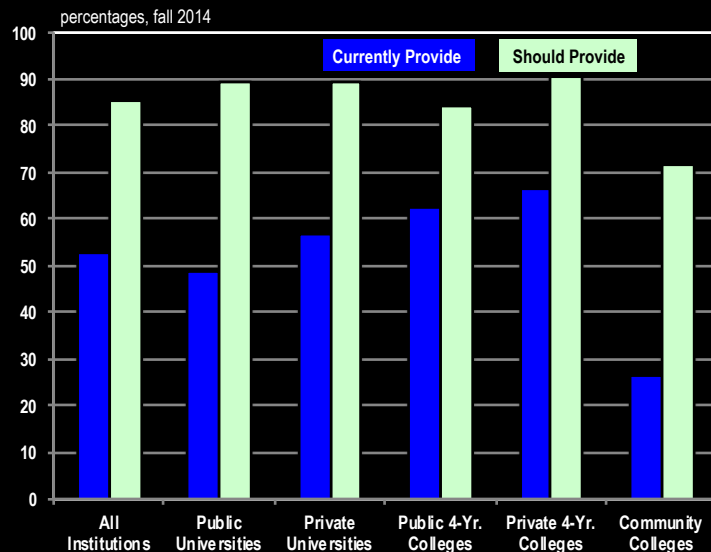
- Small gains in 2014.
- Most CIOs believe that their campuses should offer ePortfolio services, even as many colleges do not.

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Charging & Regulating Bandwidth for Students — NEW

percentages, fall 2014

AGREE: Charge extra fees to students who consume more than 20G bandwidth weekly

FACT: Campuses that currently regulate how much bandwidth students can consume

Categories: All Institutions, Public Universities, Private Universities, Public 4-Yr. Colleges, Private 4-Yr. Colleges, Community Colleges
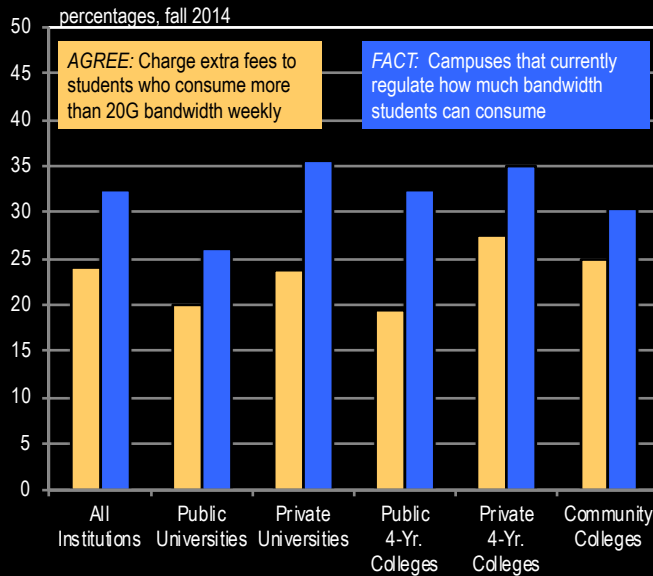
- Summer 2014 controversy at UT-Austin about charging student "uber-users" for bandwidth
- An impending end to bandwidth entitlement?

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"We are experiencing major cost over-runs / unexpected costs in our ERP deployment activities"

percentages   2006   2010   2014

Categories: Public Universities, Private Universities, Public 4-Yr. Colleges, Private 4-Yr. Colleges, Community Colleges
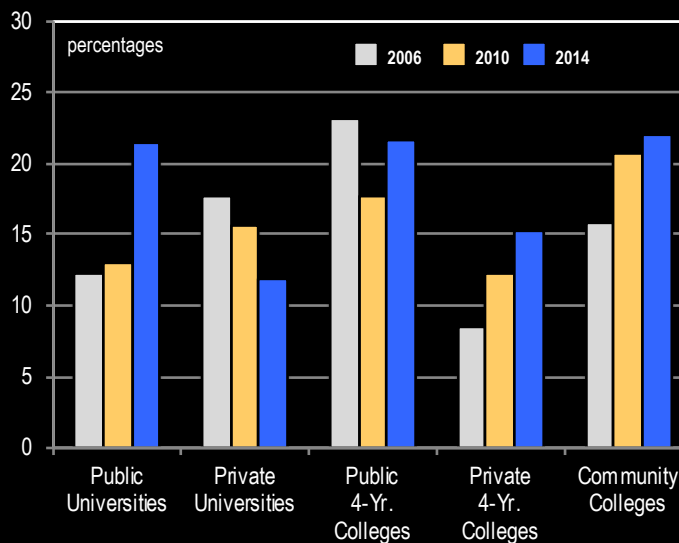
- Cost problems seem to be structural in some ERP deployments

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Let's Talk About Clouds

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Where are the Clouds?

High Clouds
ERP & HPC

Middle Clouds
Calendar, CRM & LMS

Low Clouds
mail & calendar

Three in ten campuses (29%) have a strategic plan for Cloud Computing, up from:

- **27% in 2013,**
- **24% in 2012,**
- **21% in 2011,**
- **15% in 2010 and**
- **9% in 2009.**

Highest in Pvt. Universities (38%)
Lowest in Comm. Colleges (21%)

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Two Views of the Cloud

The *Tower and the Cloud* addresses as it illustrates the promise, pitfalls and potential evolution of the academic work in a network-based world . . . in a future that may arrive faster than we expect.

Diana Oblinger
President
EDUCAUSE, 2008

Data from the 2014 Campus Computing Survey suggest that barely 10 percent of CIOs and senior campus IT officers expect their institution to be deploying any high-value, Cloud-based ERP applications in five years – by fall 2019.

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Affirming the Strategic Importance of Cloud Computing

percentage who agree/strongly agree, fall 2014
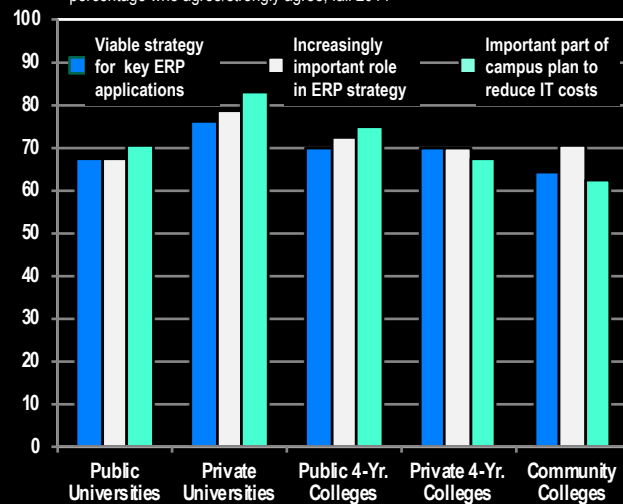
- **Across all sectors, a clear message that CIOs view moving ERP applications to the Cloud as strategic for their institution.**

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The Cloud
Cloud Security Remains a Major Concern

NEW

"Cloud computing services offer a level of security and reliability that equals or exceeds on-campus hosting"

percentage who disagree/strongly disagree, fall 2014
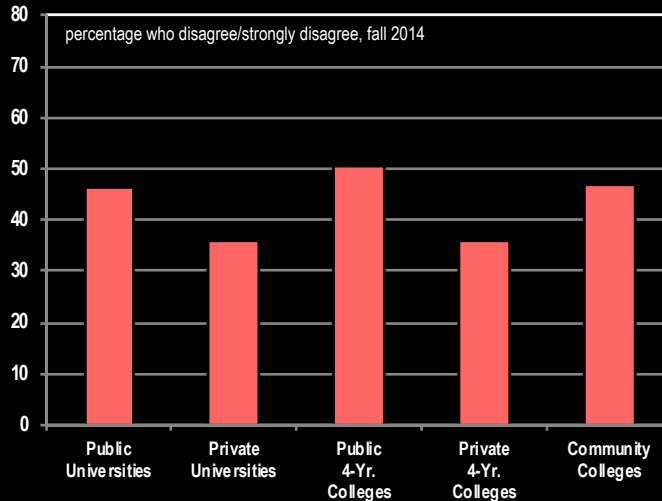
- Across all sectors, a clear message about data security in the Cloud from a significant minority of CIOs and sr. IT officers.

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The Cloud
Slow Migration to Cloud Computing

percentages, fall 2011 - 2014

2011 2012 2013 2014
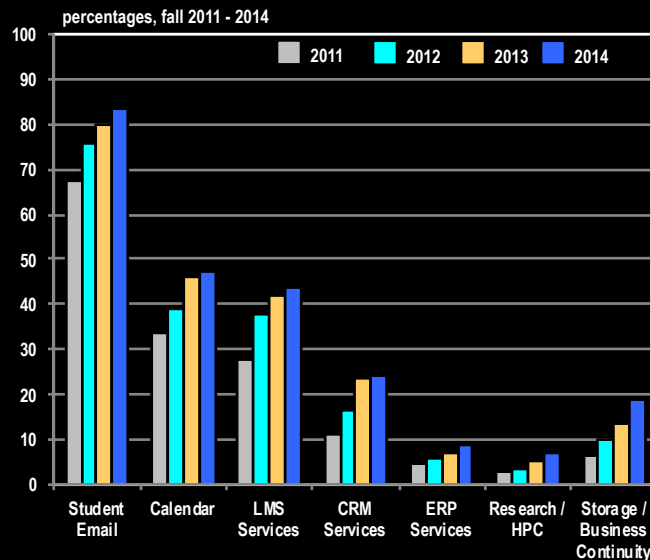
Still little move-ment to the Cloud for the really big, high-value tasks:

- Risk
- Limited Options from Providers
- Trust
- Control

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The Cloud
eMail and "Office" Applications

percentage now using/converting to as of fall 2014
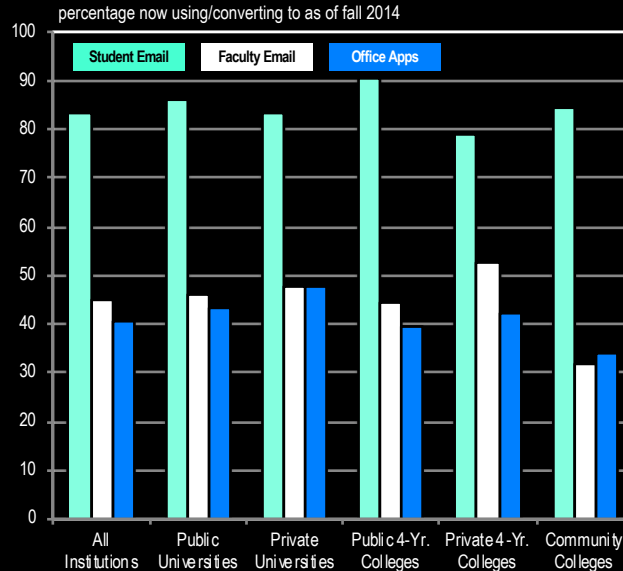
- **Student email is now "deep" in the Cloud, courtesy of Google and Microsoft**
- **Less willing to move faculty & adm. email to Cloud services**
- **Modest gains in movement to Cloud Apps – Google Docs and Microsoft 365**

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LMS Moves to the Clouds

percentage reporting Cloud-based LMS, fall 2011 - 2014
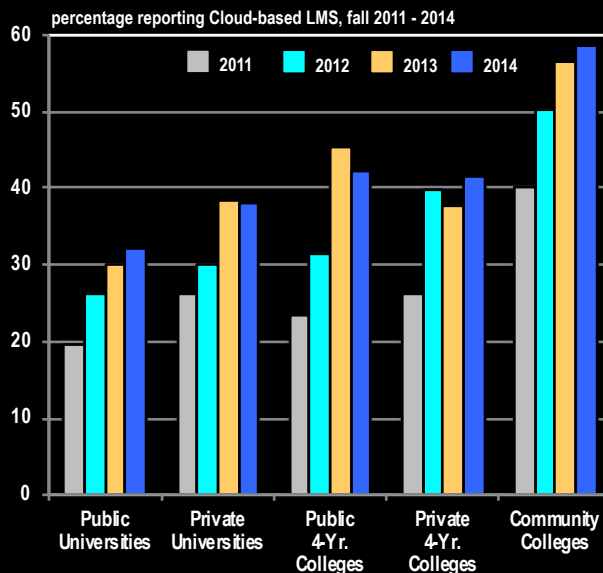
- **Many LMS providers also provide Cloud services**
- **LMS as the "toe in the Cloud" experience for higher education?**

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ERP Moves (Slowly) to the Cloud

percentage reporting Cloud-based ERP, fall 2011 - 2014
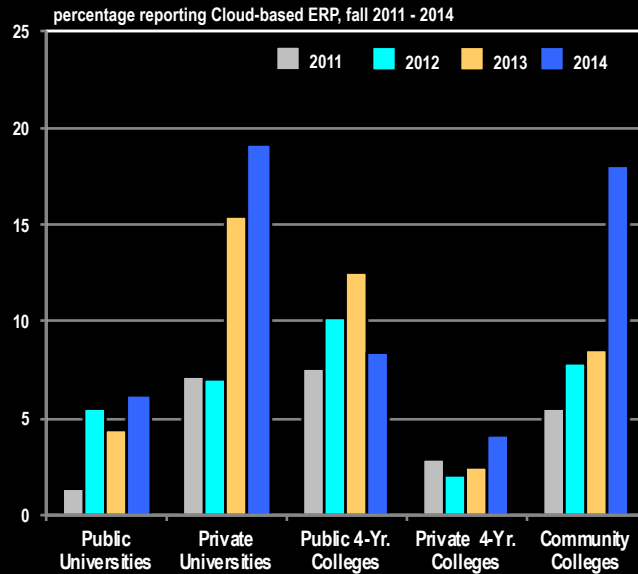
• Gains in 2014 may reflect the rising role of Cloud apps for HR services.

• Do multi-campus system structures foster faster migration to the Cloud for ERP?
  ✧ Public 4-Yr Colleges
  ✧ Community Colleges

Research and HPC Move (Slowly) to the Cloud

percentage of institutions reporting Cloud-based research & HPC, fall 2011 - 2014
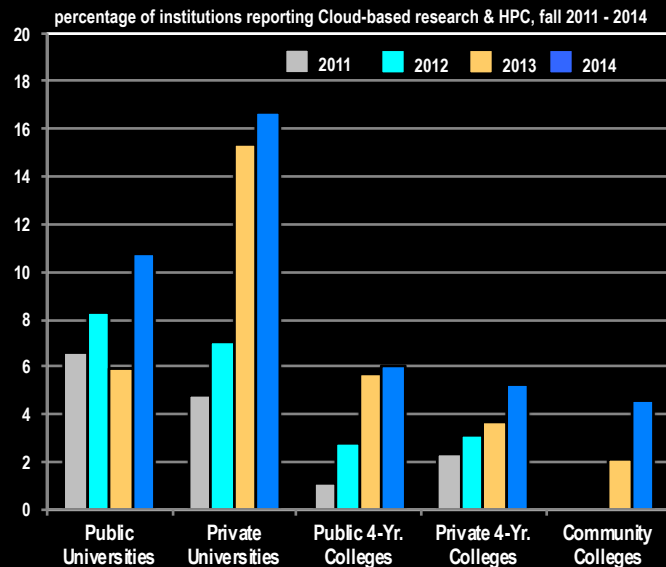
• The data suggest varying departmental vs. institutional strategies and initiatives.

• Credit cards resolve the "I want/need it now" issues.

Source: 2011-2014 Campus Computing Surveys

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No Mass Movement to the Cloud in Five Years

High likelihood of my campus moving to a Cloud/SaaS Solution in Five Years
(scale: 1=not likely; 7=very likely; percentage for very likely (6/7)
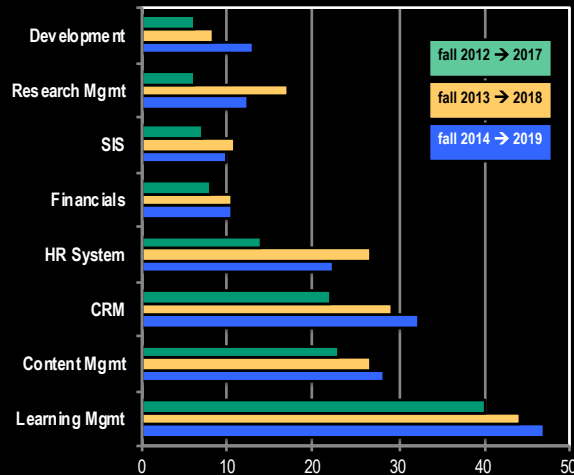
Some gains in 2014, but most CIOs don't see "high cloud" applications coming soon to their campuses

Explanations?

- Absence of provider offerings
- Can't visualize moving to Cloud
- Want to retain command, control & computing
- Let others make the journey first

No Mass Movement to Open Source ERP Applications by Fall 2019

High likelihood of my campus moving to an Open Source ERP Application in Five Years
(scale: 1=not likely; 7=very likely; pct. for 6/7)
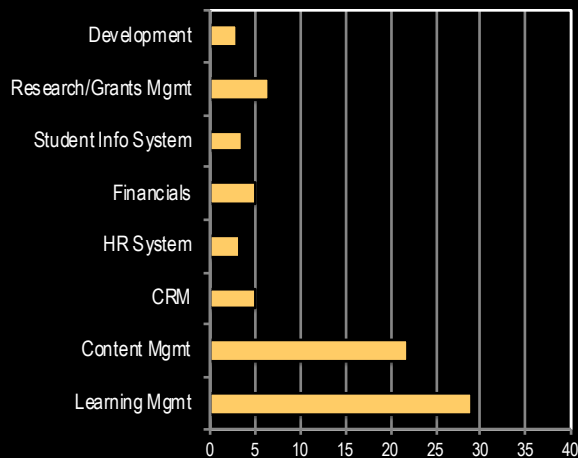
Explanations?

- Many Kuali apps still in development or early release phase
- Risk-aversive campus culture
- Let others make the journey first
- Awaiting evidence regarding costs and effectiveness

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CAMPUS COMPUTING, 2014

Kenneth C. Green • The Campus Computing Project

Lecture Capture, Fall 2014

79% of institutions report that "lecture capture is an important part of the campus plan to deliver instructional content"

Estimated percentage of classes, fall 2014

Legend: audio, video

Categories: All Instituitons, Public Universities, Private Universities, Public 4-Yr. Colleges, Private 4-Yr. Colleges, Community Colleges
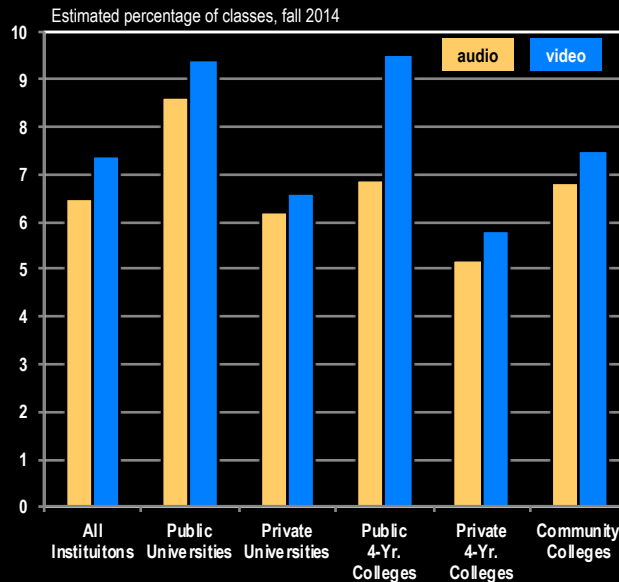
- Another "digital entitlement?"
- Percentages understate real student numbers as much of the activity is in large, lower-division under-graduate classes.
- Video increasingly important for hybrid, flipped, and online courses

Institutional Demography of LMS Providers, 2014

percentage of campuses reporting a campus-standard LMS

	All	Pub Univ	Pvt Univ	Pub 4-Yr	Pvt 4-Yr	Comm Coll
Bb	40.4	55.4	45.2	41.0	34.5	38.5
D2L	10.6	10.8	2.4	20.5	1.2	21.1
eCollege	1.1	--	--	--	--	2.8
Instructure	12.6	9.2	16.7	12.1	9.9	17.4
Jenzabar	1.9	--	--	--	4.7	0.9
Moodle	21.3	4.6	11.9	20.5	38.0	9.2
Sakai	4.3	4.6	11.9	2.4	4.7	1.8

- Market presence varies by sector
- Two –thirds (64%) of campuses report plans to review the current LMS strategy for budget or other reasons

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Activating Mobile Apps, Fall 2010-2014

percentage of institutions reporting that mobile apps are now active or will be deployed during the current academic year

Legend: 2010 | 2011 | 2012 | 2013 | 2014
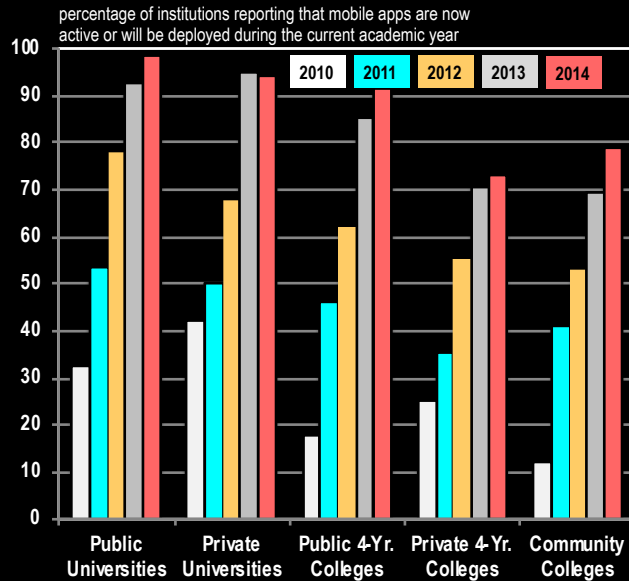
- **Impact of student expectations and consumer market experience**

- **Almost half (48%) of campuses appear to be building their own mobile apps!**

Although mobile is a top IT priority (70%), only 17% of CIOs and sr. IT officers rate mobile services as "excellent"

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Attention Must Be Paid

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Mixed Rating on the Effectiveness of Campus IT Investments

- **Very mixed assessments from presidents, provosts, and IT officers about the effectiveness of IT investments**

- **Unrealistic expectations about the impact on instruction and operations?**

- **Over-promised and under-delivered?**

- *"A failure to communicate?"*

Presidents, Provosts & CIOs
Rating the Effectiveness of Campus IT Investments

pct reporting "very effective (6/7); scale: 1=not effective; 7=very effective
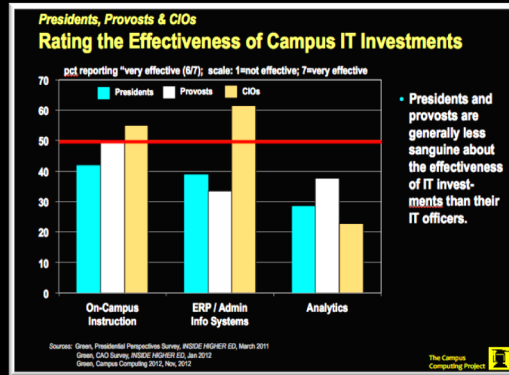
- Presidents and provosts are generally less sanguine about the effectiveness of IT investments than their IT officers.

Sources: Green, Presidential Perspectives Survey, INSIDE HIGHER ED, March 2011
Green, CAO Survey, INSIDE HIGHER ED, Jan 2012
Green, Campus Computing 2012, Nov, 2012

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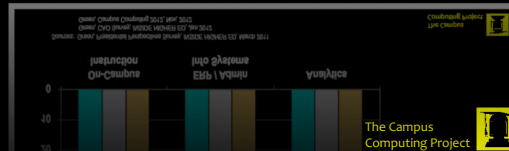
The Key Campus Technology Challenges are No Longer about IT

- IT is the "easy part" of IT issues on campus

- **THE CHALLENGES:** People, planning, policy, programs, priorities, silos, egos, and IT entitlements

- **THE OBLIGATION:** to create an effective infrastructure that enables students, faculty, and administrators

- Provide much-needed support, recognition, and reward for faculty

- Address the rising level of digital demand in the midst of reduced financial resources for IT (and other key programs & services)

- Communicate about the effectiveness of and need for IT resources – to on- and off-campus audiences

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The Context of the Campus IT Conversation

WHAT DO WE KNOW?

- The consumer experience now defines (still rising) expectations about campus IT resources & services.

- There is rising pressure for higher education to provide the much promised productivity bang for all the IT bucks.

TWO KEY ISSUES

- Why don't faculty do more with IT and eLearning?

- Why don't colleges and universities make better use of IT for campus management?

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Access to Digital Resources and Services for Disabled Students is an Impending Law Suit for Many Campuses

- Less than half (48%) of campuses have a strategic plan for ADA compliance

- Less than a fifth of CIOs and IT officers assess IT accessibility and resources for disabled students as "excellent"

- Numbers are slightly better in community colleges and public 4-yr. colleges than in other

WHY ATTENTION MUST BE PAID

- Many campuses assign ADA compliance responsibility for course materials to faculty and departments with no training or review

- TEACH Act provisions may be included in the reauthorization of the Higher Education Act

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Cloud Deployment Issues

- **CAN WE:** timetable for Cloud apps from my ERP provider?

- **COULD WE**: transition process, both tech and culture

- **WHY SHOULD WE**: benefits of moving to Cloud-based ERP

- **WHAT WILL IT COST**: will the Cloud save us money?

- **WHEN DO WE**: transition schedule? transition issues?

- **WHAT CAN OTHERS TELL US:** how can we benefit from the experience of others?

- W**HAT DON'T WE KNOW TO ASK?**

- **HOW DO WE ASSESS SUCCESS?** What changes?

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CAMPUS COMPUTING 2014

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
Number of Institutions	470	65	42	83	171	109

GENERAL CAMPUS POLICIES

Does your institution have a written policy / code of conduct / acceptable or appropriate use policy for: (percentages)

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
Campus e-mail accounts?	95.1	96.9	95.2	95.2	94.2	95.4
Campus-hosted individual / personal Web pages?	64.0	73.4	69.0	59.0	63.2	61.5
Fair use of copyrighted content (books, articles, etc.)?	92.8	96.9	92.9	92.8	92.4	90.8
Student use of social networking sites (Facebook, Twitter, etc.)?	35.0	34.4	35.7	24.1	38.6	37.6
Students to record (audio / video) class lectures, presentations, and discussions?	10.7	10.9	9.5	13.3	8.2	12.8

Does your institution have a special computer use / technology fee or annual / term computer use charge for all students? (pct. yes)

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
	55.9	70.8	33.3	76.8	40.4	64.2
Average total annual (full-time) student fee or charge for A/Y 2014-15	$ 237	$ 223	$ 365	$ 214	$ 323	$ 155

Does your institution require or strongly recommend: (percentages)

Computers or laptops for all undergraduate students

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
No	49.0	56.9	35.7	46.3	28.7	83.5
Recommend	43.5	36.9	52.4	43.9	60.8	16.5
Require	7.5	6.2	11.9	9.8	10.5	-

Computers or laptops for undergraduates in specific disciplines or academic programs

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
No	40.7	21.5	28.6	31.7	36.3	70.6
Recommend	36.9	41.5	42.9	40.2	45.0	16.5
Require	22.4	36.9	28.6	28.1	18.7	12.8

Tablet devices (Android, Apple, or Microsoft-based) for all students

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
No	91.3	93.9	95.2	85.4	93.0	89.9
Recommend	7.9	6.2	4.8	13.4	5.3	10.1
Require	0.9	-	-	1.2	1.8	-

Tablet devices for students in specific disciplines or academic programs

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
No	73.4	66.2	73.8	65.9	76.6	78.0
Recommend	15.4	15.4	11.9	25.6	12.9	12.8
Require	11.3	18.5	14.3	8.5	10.5	9.2

As you think about institutional priorities for IT resources and services over the next three years, how do you rate the importance of the following IT issues? (scale: 1 not important; 7-very important)

Percent strongly agree (6 / 7)

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
Assisting faculty integrate technology into instruction	81.4	81.5	90.5	80.5	80.7	79.8
Migrating to Cloud computing	40.1	47.7	52.4	43.9	38.6	30.3
Financing the replacement of aging hardware / software	51.4	60.0	33.3	52.4	52.0	51.4
Hiring / retaining qualified IT staff	75.9	86.2	78.6	84.1	71.9	68.8
Implementing / supporting mobile computing	68.7	67.7	71.4	68.3	64.9	74.3
Providing adequate user support	74.2	72.3	71.4	85.4	69.6	75.2
Supporting online / distance education courses and programs	65.9	80.0	59.5	69.5	53.8	76.1
Upgrading / replacing the campus network	51.0	69.2	54.8	56.1	43.9	45.9
Upgrading / replacing administrative IT / ERP systems	28.4	29.2	38.1	25.6	28.7	25.7
Upgrading / replacing the current campus Learning Management System (LMS)	23.0	35.4	31.0	29.3	21.1	11.0
Upgrading / enhancing network and data security	69.1	76.9	81.0	69.5	64.9	66.1
Data analysis / learning and managerial analytics	54.8	58.5	59.5	64.6	49.7	51.4
Digital content management	24.1	29.2	21.4	29.3	20.5	23.9
Supporting / managing BYOD (Bring Your Own Device)	48.2	47.7	42.9	50.0	45.0	54.1
Professional development for IT personnel (IT staff and senior IT officers)	54.2	50.8	52.4	62.2	52.6	53.2
Leveraging IT resources and services to advance the student success / student completion priorities of my institution	73.8	80.0	64.3	84.1	66.7	77.1
Shared services / IT collaboration with other institutions	27.3	38.5	16.7	35.4	22.8	25.7
Using / leveraging social media as a resource for instruction	16.0	23.1	4.8	19.5	11.7	20.2
IT business continuity / IT disaster planning and recovery	52.5	60.0	45.2	53.7	49.7	54.1

Has your institution established a specific single product standard for any of the following (i.e., your campus supports only one product or application)?

Course / learning management system (percentages)

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
No	5.7	13.9	9.5	2.4	4.7	3.7
Blackboard (including Angel & WebCT)	40.4	55.4	45.2	41.0	34.5	38.5
CampusCruiser	0.2	-	2.4	-	-	-
Desire2Learn	10.6	10.8	2.4	20.5	1.2	21.1
eCollege	1.1	-	-	-	1.2	2.8
Instructure (Canvas)	12.6	9.2	16.7	12.1	9.9	17.4
Jenzabar	1.9	-	-	-	4.7	0.9
Moodle	21.3	4.6	11.9	20.5	38.0	9.2
Sakai	4.3	4.6	11.9	2.4	4.7	1.8
Other	1.9	1.5	-	1.2	1.2	4.6

Lecture capture system (percentages)

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
No	43.8	33.9	35.7	30.1	53.2	48.6
Desire2Learn	0.4	-	-	-	1.2	-
Echo360	10.4	18.5	31.0	15.7	5.3	1.8
Kaltura	3.8	4.6	-	7.2	1.8	5.5
Matterhorn	0.4	-	-	1.2	-	0.9

CAMPUS COMPUTING 2014

	All Institutions	Universities		4-Year Colleges		Community Colleges
		Public	Private	Public	Private	
Lecture capture system (percentages)	13.0	10.8	14.3	14.5	12.9	12.8
Panopto	0.4	-	-	-	0.6	0.9
Polycom						
Sonic Foundry (Mediasite)	4.9	6.2	7.1	6.0	4.7	2.8
TechSmith (Camtasia)	7.9	4.6	-	12.1	7.6	10.1
Tegrity	7.2	13.9	2.4	6.0	7.0	6.4
Vbrick	0.2	-	2.4	-	-	-
Other	7.5	7.7	7.1	7.2	5.9	10.1
As of Fall 2014, has your institution activated mobile apps (or mobile interfaces) for campus resources and services? (percentages)						
No	9.4	1.5	2.4	3.6	13.5	14.7
Yes	73.0	92.3	85.7	81.9	64.9	62.4
Planned for later this academic year (2014-15)	10.2	6.2	9.5	9.6	8.2	16.5
Currently under review	7.5	-	2.4	4.8	13.5	6.4
Current / anticipated Mobile App Provider:						
Blackboard	31.3	47.7	28.6	37.3	25.7	26.6
CampusCruiser	0.6	-	2.4	-	0.6	0.9
Campus Management	0.2	-	-	-	0.6	-
Desire2Learn	5.3	3.1	4.8	9.6	1.2	10.1
eCollege	0.4	-	-	-	0.6	0.9
Ellucian / Datatel MOX	12.3	-	7.1	3.6	18.7	18.3
Ellucian / SunGard Mobile Connection	17.2	20.0	19.0	16.9	15.8	17.4
Instructure	6.8	9.2	4.8	3.6	5.8	10.1
Jenzabar	6.0	-	-	-	11.1	8.3
Kauli	1.1	3.1	2.4	2.4	-	-
Moodlerooms	3.4	1.5	-	1.2	7.6	0.9
Oracle	2.3	3.1	-	3.6	1.8	2.8
uMobile	0.6	3.1	-	-	-	0.9
Other	47.2	56.9	73.8	53.0	40.4	37.6
THE USES OF INFORMATION TECHNOLOGY						
How strongly do you agree or strongly agree:* (percentages)						
Faculty have unreasonable expectations about user support services	41.5	38.5	45.2	37.3	43.3	42.2
Technology has done much to improve instruction on my campus	92.3	92.3	92.9	95.2	86.0	100.0
We are experiencing major cost over-runs / unexpected costs in our ERP deployment activities	18.5	21.5	11.9	21.7	15.2	22.0
Cloud computing offers a viable strategy for key campus ERP applications	68.1	63.1	76.2	69.9	69.6	64.2
Cloud computing will play an increasingly important role in our campus ERP strategy	71.1	67.7	78.6	72.3	70.2	70.6
Cloud computing is an important part of our campus technology plan to reduce IT costs	69.4	70.8	83.3	74.7	67.3	62.4
Cloud computing services offer a level of data reliability and security that equals or exceeds the level of security and reliability we can provide with on-campus hosting	57.7	53.8	64.3	49.4	64.3	53.2
Given the exploding demand for network services, my campus should charge access fees for students who consume excess bandwidth -- more than 20Gb of bandwidth weekly	24.0	20.0	23.8	19.3	27.5	24.8
eBook content will be an important source for instructional resources in five years	90.2	89.2	95.2	92.8	86.0	93.6
Open Source textbooks / OER content will be an important source for instructional resources in five years	78.9	75.4	83.3	75.9	75.4	87.2
Lecture capture is an important part of our campus plan for delivering instructional content	68.1	84.6	81.0	72.3	59.1	64.2
Mobile apps are an important part of our campus plan to enhance instructional resources and campus services	82.1	92.3	85.7	84.3	75.4	83.5
MOOCs offer a viable academic model for the effective delivery of online instruction	38.3	40.0	52.4	38.6	33.9	38.5
MOOCs offer a viable business model for campuses to accrue new revenues from online courses.	19.4	20.0	26.2	25.3	15.8	17.4
Outsourcing instructional services (course development, user support, etc.) offers a viable and effective strategy for many campuses to launch/expand online courses and programs	43.8	35.4	66.7	34.9	43.3	47.7
Outsourcing instructional services (course development, user support, etc.) offers a profitable strategy for many campuses to launch / expand online courses and programs	33.4	29.2	59.5	26.5	31.6	33.9
Senior administrators at my institution (president, provost, CFO, deans, others) view IT as a strategic resource that provides major benefits for my campus	84.7	86.2	83.3	85.5	83.6	85.3
CURRENT IT / COMPUTER FACILITIES AND RESOURCES						
Headcount enrollment on campus as of May 2014	11,564	27,052	12,252	11,951	3,674	14,000
Number of institution owned desktop or notebook computers and workstations						
Desktop / notebook computers	4,407	14,125	6,980	3,870	1,487	2,583

CAMPUS COMPUTING 2014

	All Institutions	Universities		4-Year Colleges		Community Colleges
		Public	Private	Public	Private	
Proportion of individuals who own desktop or notebook computers (pct.)						
Students						
Desktops	26.1	24.4	14.6	27.3	13.5	50.4
Notebooks	74.5	78.2	85.8	76.0	86.5	48.1
Smartphones	79.0	78.2	83.0	80.5	82.4	71.6
Tablets	31.3	33.5	33.4	32.5	31.8	27.5
Faculty						
Desktops	55.0	61.1	51.0	57.4	42.7	70.3
Notebooks	54.6	55.8	59.8	54.7	58.1	46.5
Smartphones	70.4	66.5	74.0	71.1	70.3	70.9
Tablets	32.1	33.4	33.5	31.4	31.8	31.7
Total number of computer labs, clusters and classrooms as of May 2014	122.0	241.2	161.7	141.5	59.5	119.0
How many dedicated to individual departments or units?	45.6	95.2	55.9	59.1	18.1	44.8
Proportion of the classrooms that are multimedia or AV enabled (pct.)	77.5	70.3	70.4	74.8	78.6	84.6
Percentage of operating systems installed on institutionally-owned computers and servers						
Computers / clients						
Mac	197.2	250.6	237.2	196.3	235.0	91.8
Windows 7	178.1	223.2	168.7	192.8	158.8	173.9
Windows 8	8.9	15.9	13.7	9.7	5.6	7.5
Unix	2.8	9.8	3.0	2.3	1.7	0.7
Linux	3.0	5.7	4.4	3.1	2.5	1.5
Network servers						
Mac	2.8	3.4	3.2	2.6	2.9	2.3
Windows	67.3	47.0	50.7	68.2	69.0	82.5
Solaris / Open Solaris	2.8	6.8	4.9	3.6	1.2	1.4
Unix (non-Solaris)	3.8	6.4	6.5	2.1	3.8	2.7
Linux	20.9	33.1	31.6	21.9	20.3	9.5
Novell	1.0	0.5	1.4	0.5	1.8	0.5
Total number (FTE) of IT help desk / technical support personnel	36.3	116.6	78.0	32.2	11.4	14.6
User Support Ratio (enrollment / FTE help desk personnel)	318.6	232.0	157.1	371.1	322.3	958.9
Percentage of faculty with individual / personal Web page	27.0	30.4	35.7	32.4	24.9	20.9
Percentage of your faculty have taught an online course (80 pct. of content online) over the past two years:						
Full-time faculty	24.3	26.5	16.2	26.2	14.8	39.3
Part-time faculty	22.1	23.1	16.5	23.0	17.2	30.4
Percentage of classes that use:						
LMS / course management tools for online course resources	68.0	64.5	69.3	69.2	70.8	64.4
Audio lecture capture	6.5	8.6	6.2	6.9	5.2	6.8
Video lecture capture	7.4	9.4	6.6	9.5	5.8	7.5
Online video resources	27.9	25.4	23.2	25.4	32.0	26.5
Open Source / OER curricular resources	4.4	4.4	4.5	3.3	4.8	4.7
Anti-plagiarism software for written assignment	23.5	23.2	21.6	24.9	23.1	23.9
"Clickers" / classroom response system	8.5	15.0	8.8	7.6	7.5	6.8
ACADEMIC & INSTRUCTIONAL COMPUTING POLICIES AND PROCEDURES & RESOURCES						
Does your campus / institution (percentage reporting "yes")						
Have a policy or program for rewarding courseware development or providing incentives for faculty to develop instructional software / courseware or educational content?	42.8	56.9	42.9	55.4	26.9	49.5
Have a formal program to recognize and reward the use of information technology as part of the routine faculty review and promotion process?	16.4	18.5	9.5	16.9	12.3	23.9
Have a formal program to assess the impact of IT on instruction and learning outcomes?	23.2	26.2	26.2	28.9	15.8	27.5
Have a formal policy regarding ownership of Web-based curriculum resources and intellectual property developed by faculty?	63.6	84.6	76.2	68.7	46.8	68.8
Charge students for access to digital content (online reserve readings, course packets, recorded content, etc.)?	6.4	10.8	7.1	7.2	2.3	9.2
Inform / counsel students about privacy issues related to social networking sites (Facebook, LinkedIn, etc.)?	68.5	80.0	76.2	60.2	78.4	49.5
Encourage the use of the Creative Commons license on digital works?	42.1	56.9	50.0	39.8	39.8	35.8
Encourage faculty to use Open Source / OER instructional content for their courses?	32.8	30.8	19.0	37.3	28.7	42.2
Support faculty efforts to develop Open Source / OER instructional content for their courses?	32.8	32.3	28.6	38.6	24.6	43.1
Maintain a campus page on Facebook?	97.9	98.5	100.0	97.6	98.2	96.3
Have an institutional presence on YouTube?	93.2	98.5	100.0	89.2	94.7	88.1
Have an institutional presence on iTunesU?	63.2	89.2	88.1	67.5	55.0	47.7
Maintain an institutional account on Twitter?	93.8	98.5	92.9	94.0	97.1	86.2
Have a campus / department license for anti-plagiarism software (e.g., Plagiarism-Finder, Turnitin, SafeAssign)?	73.0	81.5	81.0	85.5	64.3	68.8
Outsource various aspects of your online program activities (recruitment, course development, student services)?	29.1	33.8	33.3	27.7	35.1	16.5
Support Single Sign On (SSO) access to campus services?	73.2	84.6	81.0	80.7	64.3	71.6

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CAMPUS COMPUTING 2014

	All Institutions	Universities		4-Year Colleges		Community Colleges
		Public	Private	Public	Private	
Does your institution have a strategic plan for: (percentages)						
Information technology						
no	7.0	9.2	7.1	4.8	8.2	5.5
currently preparing a plan	20.7	20.0	21.4	16.9	25.3	16.5
yes	72.3	70.8	71.4	78.3	66.5	78.0
Instructional technology / instructional integration of IT						
no	18.1	21.5	11.9	13.3	22.4	15.6
currently preparing a plan	27.7	18.5	35.7	30.1	31.8	22.0
yes	54.2	60.0	52.4	56.6	45.9	62.4
Deploying course / learning management tools						
no	18.1	13.9	14.3	16.9	20.6	19.3
currently preparing a plan	17.5	12.3	19.1	16.9	21.8	13.8
yes	64.4	73.9	66.7	66.3	57.7	67.0
Online / distance education						
no	22.6	15.4	19.1	18.1	35.9	11.0
currently preparing a plan	25.0	21.5	28.6	24.1	30.6	17.4
yes	52.5	63.1	52.4	57.8	33.5	71.6
Wireless networks						
no	7.3	4.6	-	6.0	10.6	7.3
currently preparing a plan	7.9	6.2	2.4	7.2	7.1	12.8
yes	84.9	89.2	97.6	86.8	82.4	79.8
Network and data security						
no	5.5	1.5	2.4	2.4	8.8	6.4
currently preparing a plan	17.5	13.9	9.5	16.9	24.1	12.8
yes	77.0	84.6	88.1	80.7	67.1	80.7
IT disaster recovery						
no	5.1	4.6	2.4	2.4	7.1	5.5
currently preparing a plan	26.2	30.8	16.7	14.5	32.4	26.6
yes	68.7	64.6	81.0	83.1	60.6	67.9
Administrative systems / ERP upgrade / replacement						
no	17.1	12.3	9.5	16.9	18.8	20.2
currently preparing a plan	13.4	10.8	16.7	7.2	15.3	15.6
yes	69.5	76.9	73.8	75.9	65.9	64.2
Digital content management						
no	35.4	29.2	19.1	24.1	44.1	40.4
currently preparing a plan	32.6	32.3	42.9	41.0	28.2	29.4
yes	32.0	38.5	38.1	34.9	27.7	30.3
Data warehousing						
no	24.7	12.3	9.5	15.7	35.3	28.4
currently preparing a plan	32.0	29.2	38.1	31.3	34.1	28.4
yes	43.3	58.5	52.4	53.0	30.6	43.1
Business intelligence / analytics						
no	27.5	12.3	7.1	20.5	39.4	31.2
currently preparing a plan	34.3	38.5	42.9	33.7	32.4	32.1
yes	38.2	49.2	50.0	45.8	28.2	36.7
Open Source deployment and development						
no	67.2	58.5	59.5	55.4	71.2	78.0
currently preparing a plan	11.7	18.5	11.9	14.5	7.1	12.8
yes	21.1	23.1	28.6	30.1	21.8	9.2
Lecture capture (audio and video)						
no	29.9	16.9	19.1	21.7	35.9	38.5
currently preparing a plan	31.3	24.6	35.7	36.1	33.5	26.6
yes	38.8	58.5	45.2	42.2	30.6	34.9
Campus video management						
no	27.1	23.1	23.8	20.5	32.4	27.5
currently preparing a plan	22.8	21.5	26.2	22.9	21.2	24.8
yes	50.1	55.4	50.0	56.6	46.5	47.7
Emergency communications / notification						
no	2.4	3.1	2.4	-	2.4	3.7
currently preparing a plan	5.1	3.1	2.4	2.4	7.1	6.4
yes	92.5	93.9	95.2	97.6	90.6	89.9
Digital preservation / data archiving						
no	23.9	20.0	14.3	16.9	28.8	27.5
currently preparing a plan	37.3	47.7	54.8	41.0	31.8	30.3
yes	38.8	32.3	31.0	42.2	39.4	42.2
Cloud computing						
no	30.3	26.2	11.9	25.3	31.8	41.3
currently preparing a plan	40.7	38.5	50.0	41.0	41.2	37.6
yes	29.0	35.4	38.1	33.7	27.1	21.1
Server virtualization						
no	3.4	3.1	-	4.8	2.9	4.6
currently preparing a plan	11.1	7.7	7.1	7.2	12.4	15.6
yes	85.5	89.2	92.9	88.0	84.7	79.8

	All Institutions	Universities		4-Year Colleges		Community Colleges
		Public	Private	Public	Private	
Does your institution have a strategic plan for: (percentages)						
508 accessibility / compliance for Web pages / resources						
no	23.2	13.9	23.8	12.1	39.4	11.9
currently preparing a plan	28.1	33.9	40.5	20.5	27.1	27.5
yes	48.6	52.3	35.7	67.5	33.5	60.6
Email and document archiving to address eDiscovery						
no	26.7	21.5	19.1	15.7	36.5	25.7
currently preparing a plan	26.9	24.6	23.8	33.7	25.3	26.6
yes	46.5	53.9	57.1	50.6	38.2	47.7
Identity and access management						
no	15.4	9.2	11.9	7.2	22.4	15.6
currently preparing a plan	39.2	41.5	26.2	33.7	41.8	43.1
yes	45.4	49.2	61.9	59.0	35.9	41.3
Digital textbooks / digital curricular materials						
no	48.4	43.1	38.1	41.0	55.3	50.5
currently preparing a plan	36.9	40.0	52.4	36.1	31.8	37.6
yes	14.7	16.9	9.5	22.9	12.9	11.9
Social media (Facebook, Twitter, etc.)						
no	25.6	29.2	16.7	25.3	27.7	23.9
currently preparing a plan	28.8	27.7	35.7	33.7	26.5	26.6
yes	45.6	43.1	47.6	41.0	45.9	49.5
Mobile computing / mobile resources and services						
no	21.8	23.1	7.1	14.5	28.2	22.0
currently preparing a plan	33.7	30.8	40.5	38.6	31.2	33.0
yes	44.6	46.2	52.4	47.0	40.6	45.0
When did your institution develop / last update the campus plan for the IT issues listed below? (percentages)						
Overall campus IT plan						
past 12 months	52.1	46.2	54.8	54.2	49.1	57.8
13 to 24 months ago	18.5	20.0	11.9	22.9	19.9	14.7
more than 24 months ago	29.4	33.9	33.3	22.9	31.0	27.5
IT security						
past 12 months	64.3	72.3	71.4	72.3	58.5	59.6
13 to 24 months ago	16.0	12.3	9.5	18.1	17.5	16.5
more than 24 months ago	19.8	15.4	19.1	9.6	24.0	23.9
IT disaster recovery						
past 12 months	56.0	56.9	66.7	62.7	51.5	53.2
13 to 24 months ago	17.0	16.9	14.3	19.3	15.8	18.4
more than 24 months ago	27.0	26.2	19.1	18.1	32.8	28.4
Cloud computing						
past 12 months	59.4	70.8	71.4	60.2	55.6	53.2
13 to 24 months ago	16.8	12.3	9.5	22.9	17.0	17.4
more than 24 months ago	23.8	16.9	19.1	16.9	27.5	29.4
Mobile Computing						
past 12 months	62.8	61.5	69.1	63.9	60.8	63.3
13 to 24 months ago	18.5	20.0	19.1	24.1	15.8	17.4
more than 24 months ago	18.7	18.5	11.9	12.1	23.4	19.3
Identity and access management						
past 12 months	62.1	66.2	69.1	63.9	59.7	59.6
13 to 24 months ago	14.9	13.9	11.9	21.7	13.5	13.8
more than 24 months ago	23.0	20.0	19.1	14.5	26.9	26.6
508 accessibility / compliance						
past 12 months	41.2	41.5	31.0	47.0	35.9	48.6
13 to 24 months ago	20.5	27.7	16.7	24.1	16.5	21.1
more than 24 months ago	38.4	30.8	52.4	28.9	47.7	30.3
FUTURE ISSUES AFFECTING CAMPUS COMPUTING						
How important are the following to campus computing / information technology environment and IT policy and planning over the next 2-3 years? (mean scores; scale: 1=not important; 7=very important)						
percentages reporting "very important (scale score of 6/7)						
Hardware						
Laptop / netbook computers	64.3	72.3	71.4	68.7	65.5	51.4
Smart phones	83.2	83.1	90.5	84.3	81.9	81.7
Tablet devices	82.3	86.2	81.0	81.9	81.3	82.6
Instructional applications and resources						
Developing instructional software	20.5	20.0	29.3	26.5	17.5	17.4
Using instructional software in classes	72.1	76.9	80.5	75.9	64.9	74.3
Using instructional software as a supplement to classes	80.2	84.6	85.4	80.7	79.5	76.1
Web-based tutorials	59.3	56.9	58.5	65.1	51.5	68.8
e-Books (e-textbooks)	60.1	55.4	61.0	68.7	52.0	68.8
Open Source / OER textbooks	33.5	36.9	22.0	44.6	26.3	38.5
Learning management systems	91.0	95.4	97.6	91.6	89.5	88.1
Online education	72.5	86.2	75.6	74.7	59.1	82.6

CAMPUS COMPUTING 2014

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
Instructional applications and resources						
Online course evaluation	76.5	80.0	78.0	85.5	67.8	80.7
Classroom "clickers" / response system	23.9	44.6	19.5	25.3	16.4	23.9
Student ePortfolios	38.0	38.5	46.3	44.6	43.9	20.2
Audio lecture capture	37.3	41.5	46.3	39.8	35.7	32.1
Video lecture capture	49.9	58.5	63.4	48.2	49.7	41.3
User support services / campus services						
Online IT training	63.2	60.0	59.5	63.9	58.5	73.4
Online technical support	74.3	80.0	71.4	80.7	69.6	74.3
Computer resale program	6.4	6.2	9.5	8.4	3.5	8.3
Alumni services via the campus Web site	39.4	38.5	54.8	32.5	47.4	26.6
Internet / Web issues & resources						
Internet videoconferencing	73.0	80.0	85.7	71.1	66.7	75.2
Guest access on campus networks	48.3	61.5	52.4	48.2	44.4	45.0
LTI standards for developing apps	56.0	67.7	59.5	57.8	50.9	54.1
Data encryption	78.7	89.2	90.5	85.5	71.3	74.3
Content management systems	76.0	72.3	83.3	79.5	71.9	78.9
Wikis	18.5	24.6	14.3	16.9	20.5	14.7
Podcasting	19.4	15.4	7.1	22.9	19.9	22.9
Blogging	23.6	20.0	23.8	26.5	24.6	22.0
Web conferencing	73.4	80.0	81.0	74.7	70.2	70.6
Server virtualization	91.1	95.4	83.3	96.4	89.5	89.9
Desktop virtualization	64.0	66.2	54.8	75.9	59.1	65.1
Network virtualization	44.3	46.2	40.5	45.8	40.9	48.6
Vendor Services / Outsourcing						
Data back-up / storage	34.5	32.3	47.6	37.3	35.1	27.5
ERP services	16.6	12.3	26.2	15.7	14.6	19.3
Instructional technology services	9.6	12.3	11.9	6.0	8.2	11.9
User support	8.1	4.6	9.5	7.2	5.8	13.8
ResNet services	9.1	10.8	-	16.9	9.4	5.5
Network services	4.5	1.5	-	3.6	3.5	10.1
eProcurement	11.3	20.0	14.3	14.5	7.0	9.2
Campus portal	11.3	9.2	4.8	14.5	9.9	14.7
Web hosting	29.8	13.8	42.9	26.5	36.3	26.6
Video streaming	37.4	26.2	35.7	31.3	45.6	36.7
Student email services	77.4	80.0	76.2	75.9	77.2	78.0
Course development	4.7	3.1	4.8	7.2	6.4	0.9
Online course delivery	17.0	18.5	26.2	14.5	15.2	17.4
RATING THE TECHNOLOGY INFRASTRUCTURE AND SERVICES						
How would you rate the following technology resources and services at your insitution? (scale: 1=poor; 7=excellent)						
Percent very effective (6 /7)						
Campus web site services / student portal	40.2	43.1	35.7	38.6	39.8	42.2
Cellular coverage across the campus	41.5	35.4	38.1	36.1	51.5	34.9
Computer networks and data communication	75.7	72.3	83.3	78.3	73.7	76.1
Data warehousing	24.0	32.3	28.6	26.5	19.9	22.0
Digital dashboards / ERP analytics	11.9	18.5	11.9	13.3	11.7	7.3
Disaster planning	25.3	33.8	38.1	28.9	19.9	21.1
Emergency communications / notification system(s)	67.7	72.3	90.5	72.3	66.7	54.1
Enterprise systems	50.2	47.7	54.8	49.4	46.2	56.9
Instructional computing	50.0	50.8	57.1	53.0	42.1	56.9
IT accessibility: IT resources and services for users with disabilities	18.9	21.5	16.7	21.7	14.0	23.9
IT security (network attacks, secure data bases, identity mgmt., etc.)	48.1	60.0	57.1	44.6	40.4	52.3
IT training for faculty	27.9	43.1	23.8	31.3	28.1	17.4
IT training for students	12.8	18.5	14.3	19.3	9.4	9.2
Mobile apps / services for students, faculty & staff	17.0	24.6	23.8	19.3	14.6	11.9
Multimedia / AV enabled classrooms	64.7	61.5	59.5	66.3	62.0	71.6
Online reference resources in campus library / library system	66.2	63.1	76.2	65.1	65.5	66.1
Research computing	15.5	38.5	35.7	12.0	6.4	11.0
Telecommunications and phone system	60.2	61.5	57.1	60.2	56.7	66.1
User support services	58.5	52.3	61.9	62.7	55.6	62.4
Web resources to support instruction	41.7	47.7	35.7	38.6	38.6	47.7
Wireless networks	66.6	70.8	69.0	68.7	66.7	61.5
How would you rate the effectiveness of your institution's investment in technology resources and services in recent years? (scale: 1=not effective; 7-=very effective)						
Percent very effective (6 / 7)						
Academic support services (including advising and retention efforts)	53.4	58.5	52.4	54.2	52.0	55.0
Alumni activities / engagement	30.0	40.0	35.7	30.1	36.8	22.0
Administrative information systems and operations	63.2	63.1	59.5	63.9	65.5	65.1
Data analysis and managerial analytics	29.6	35.4	26.2	31.3	27.5	32.1
Development efforts	31.7	38.5	31.0	25.3	40.9	31.2
Instructional support services for faculty	51.9	53.8	50.0	63.9	45.6	57.8

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
Rating the effectiveness of IT investments (continued; pct. very effective)						
Library resources and services	64.3	70.8	69.0	67.5	65.5	60.6
On-campus teaching and instruction	63.0	64.6	61.9	67.5	63.7	61.5
Online / distance courses and programs	44.9	60.0	26.2	54.2	43.9	68.8
Research and scholarship	24.5	50.8	47.6	25.3	24.6	39.4
Student recruitment	53.8	58.5	76.2	50.6	61.4	46.8
Student services	54.9	61.5	57.1	56.6	48.5	61.5
ADDRESSING BUDGET ISSUES BY (percentages)						
Charging fees to departments and service units (networking, printing, etc.)						
Doing this already	30.9	64.6	40.5	31.3	20.5	22.9
Beginning in 2014-15	1.9	-	-	2.4	2.9	1.8
Reviewing for 2014-15	7.2	12.3	7.1	10.8	4.7	5.5
Decided not to do	60.0	23.1	52.4	55.4	71.9	69.7
Requiring a computer / IT fee for all students						
Doing this already	57.5	76.9	38.1	74.7	40.4	67.0
Beginning in 2014-15	0.6	-	-	1.2	1.2	-
Reviewing for 2014-15	4.5	6.2	2.4	3.6	4.7	4.6
Decided not to do	37.5	16.9	59.5	20.5	53.8	28.4
Regulating the amount of campus bandwidth students can consume						
Doing this already	32.3	26.2	35.7	32.5	35.1	30.3
Beginning in 2014-15	2.8	-	-	2.4	4.7	2.8
Reviewing for 2014-15	10.4	9.2	7.1	9.6	9.9	13.8
Decided not to do	54.5	64.6	57.1	55.4	50.3	53.2
Leasing rather than buying hardware						
Doing this already	20.9	16.9	40.5	14.5	28.1	9.2
Beginning in 2014-15	1.9	-	-	1.2	3.5	1.8
Reviewing for 2014-15	8.9	12.3	4.8	14.5	7.0	7.3
Decided not to do	68.3	70.8	54.8	69.9	61.4	81.7
Reducing hours in public access facilities						
Doing this already	22.1	30.8	16.7	25.3	15.8	26.6
Beginning in 2014-15	3.4	1.5	-	7.2	2.3	4.6
Reviewing for 2014-15	6.8	6.2	9.5	9.6	6.4	4.6
Decided not to do	67.7	61.5	73.8	57.8	75.4	64.2
Reducing services (e.g., less consulting, training)						
Doing this already	28.5	26.2	16.7	33.7	26.3	33.9
Beginning in 2014-15	3.0	1.5	4.8	2.4	3.5	2.8
Reviewing for 2014-15	14.5	24.6	19.1	13.3	11.7	11.9
Decided not to do	54.0	47.7	59.5	50.6	58.5	51.4
Phasing out public computer labs						
Doing this already	13.8	21.5	11.9	19.3	14.6	4.6
Beginning in 2014-15	3.8	-	-	6.0	6.4	1.8
Reviewing for 2014-15	16.4	20.0	16.7	21.7	15.8	11.0
Decided not to do	66.0	58.5	71.4	53.0	63.2	82.6
Reorganizing operations (e.g., combining IT units)						
Doing this already	58.9	67.7	64.3	63.9	56.1	52.3
Beginning in 2014-15	4.7	7.7	4.8	3.6	5.3	2.8
Reviewing for 2014-15	16.6	20.0	19.1	15.7	13.5	19.3
Decided not to do	19.8	4.6	11.9	16.9	25.2	25.7
Reducing staff						
Doing this already	28.7	38.5	35.7	25.3	22.2	33.0
Beginning in 2014-15	4.3	3.1	2.4	2.4	4.1	7.3
Reviewing for 2014-15	6.4	9.2	4.8	4.8	3.5	11.0
Decided not to do	60.6	49.2	57.1	67.5	70.2	48.6
Using information technology to reduce instructional costs						
Doing this already	50.0	63.1	40.5	51.8	39.8	60.6
Beginning in 2014-15	2.3	1.5	2.4	-	2.9	3.7
Reviewing for 2014-15	19.2	20.0	19.1	24.1	22.2	10.1
Decided not to do	28.5	15.4	38.1	24.1	35.1	25.7
Making greater use of student assistants for user support needs						
Doing this already	78.7	86.2	78.6	74.7	84.2	68.8
Beginning in 2014-15	2.8	4.6	-	1.2	2.9	3.7
Reviewing for 2014-15	7.7	1.5	11.9	13.3	4.1	11.0
Decided not to do	10.9	7.7	9.5	10.8	8.8	16.5
Outsourcing computing / IT services						
Doing this already	30.0	29.2	35.7	28.9	31.6	26.6
Beginning in 2014-15	2.6	4.6	2.4	3.6	0.6	3.7
Reviewing for 2014-15	16.8	23.1	21.4	21.7	11.7	15.6
Decided not to do	50.6	43.1	40.5	45.8	56.1	54.1
Outsourcing student portal service						
Doing this already	10.0	10.8	7.1	8.4	6.4	17.4
Beginning in 2014-15	1.5	-	2.4	2.4	1.2	1.8
Reviewing for 2014-15	6.8	6.2	14.3	7.2	5.9	5.5
Decided not to do	81.7	83.1	76.2	81.9	86.6	75.2

	All Institutions	Universities Public	Private	4-Year Colleges Public	Private	Community Colleges
Addressing Budget Issues By: (continued)						
Outsourcing user support / help desk services						
Doing this already	10.4	13.9	19.1	6.0	5.9	15.6
Beginning in 2014-15	1.5	-	-	2.4	0.6	3.7
Reviewing for 2014-15	13.0	4.6	19.1	14.5	13.5	13.8
Decided not to do	75.1	81.5	61.9	77.1	80.1	67.0
Outsourcing ERP services						
Doing this already	12.6	15.4	19.1	19.3	6.4	12.8
Beginning in 2014-15	0.9	-	2.4	1.2	0.6	0.9
Reviewing for 2014-15	11.7	12.3	16.7	9.6	11.7	11.0
Decided not to do	74.9	72.3	61.9	69.9	81.3	75.2
Outsourcing ResNet services						
Doing this already	7.9	7.7	2.4	9.6	8.8	7.3
Beginning in 2014-15	0.6	-	-	1.2	0.6	0.9
Reviewing for 2014-15	6.0	6.2	7.1	8.4	5.9	3.7
Decided not to do	85.5	86.2	90.5	80.7	84.8	88.1
Outsourcing student email services						
Doing this already	75.7	86.2	76.2	73.5	74.3	73.4
Beginning in 2014-15	4.3	1.5	7.1	7.2	1.8	6.4
Reviewing for 2014-15	8.9	7.7	14.3	6.0	11.7	5.5
Decided not to do	11.1	4.6	2.4	13.3	12.3	14.7
Delaying / deferring ERP deployment / replacement / upgrades						
Doing this already	18.9	18.5	19.1	15.7	20.5	19.3
Beginning in 2014-15	1.7	3.1	-	2.4	1.2	1.8
Reviewing for 2014-15	8.1	6.2	11.9	8.4	8.8	6.4
Decided not to do	71.3	72.3	69.1	73.5	69.6	72.5
Deferring / reducing use of consultants on IT projects						
Doing this already	44.3	47.7	42.9	39.8	42.7	48.6
Beginning in 2014-15	3.0	1.5	4.8	-	4.1	3.7
Reviewing for 2014-15	13.4	12.3	26.2	16.9	11.1	10.1
Decided not to do	39.4	38.5	26.2	43.4	42.1	37.6
Reviewing options for the campus standard Learning Management System						
Doing this already	40.9	47.7	40.5	37.4	38.0	44.0
Beginning in 2014-15	4.3	6.2	4.8	3.6	4.7	2.8
Reviewing for 2014-15	22.1	21.5	35.7	27.7	20.5	15.6
Decided not to do	32.8	24.6	19.1	31.3	36.8	37.6
Migrating to Software as a Service (SaaS) / Cloud-based ERP applications						
Doing this already	18.9	21.5	33.3	22.9	14.6	15.6
Beginning in 2014-15	4.9	4.6	4.8	1.2	2.9	11.0
Reviewing for 2014-15	28.9	35.4	31.0	28.9	29.8	22.9
Decided not to do	47.2	38.5	31.0	47.0	52.6	50.5
CONCERN ABOUT STRATEGIC, BUDGET, AND PERSONNEL ISSUES OVER THE NEXT THREE YEARS (scale: 1=not important; 7=very important)						
percent reporting very important (scale score 6/7)						
Administrative concerns about the benefits of computing in the curriculum	29.4	21.5	21.4	36.1	27.5	34.9
Assessing the benefits of existing investments in computing and technology resources	72.6	76.9	78.6	71.1	68.4	75.2
Assessing the return on investment for IT spending / resources	62.6	60.0	64.3	69.9	59.1	63.3
Business analytics / intelligence	69.4	81.5	76.2	81.9	60.8	63.3
Clarifying goals and campus plans for technology resources	86.0	87.7	92.9	81.9	83.6	89.0
Controlling / restricting file sharing of commercial content (music, media, etc.)	41.5	40.0	40.5	44.6	38.6	45.0
Data warehousing	63.2	70.8	69.0	80.7	52.0	60.6
Developing / updating campus policies for Web-based intellectual property	40.0	41.5	45.2	37.3	42.1	35.8
Establishing / maintaining campus-wide standards for hardware	53.0	40.0	50.0	54.2	50.3	65.1
Establishing / maintaining campus-wide standards for software	63.0	47.7	64.3	66.3	60.8	72.5
Faculty concerns about the benefits of computing in the curriculum	34.9	30.8	35.7	41.0	35.1	32.1
Helping our IT personnel stay current with new technologies	87.9	83.1	83.3	92.8	86.5	90.8
Hosted applications / Software as a Service (SaaS)	48.3	58.5	61.9	39.8	44.4	49.5
Identity Management	78.9	92.3	83.3	89.2	69.0	77.1
Implementing Federated Identity Management	50.4	75.4	47.6	66.3	36.8	45.9
Implementing new technology tools in our continuing ed and workforce development programs	29.1	32.3	28.6	25.3	24.6	37.6
IT business continuity	78.1	80.0	76.2	80.7	76.6	78.0
Managing / distributing digital learning resources	46.6	50.8	52.4	59.0	39.2	44.0
Managing campus video resources (lectures, presentation, etc.)	42.1	49.2	54.8	51.8	35.1	36.7
Migrating administrative / ERP services to the Cloud	17.9	20.0	21.4	18.1	14.0	21.1
Moving more of our user support services to the Web	68.5	72.3	78.6	72.3	62.6	68.8
Negotiating site licensing agreements with academic publishers	30.9	32.3	35.7	39.8	19.9	38.5
Negotiating site licensing agreements with textbook publishers	27.7	27.7	28.6	36.1	17.0	37.6
Operating with a single student user profile for all institutional applications	42.8	47.7	42.9	44.6	38.0	45.9
Promoting the use of Open Education Resource (OER) course materials	15.1	13.8	7.1	18.1	10.5	23.9

CAMPUS COMPUTING 2014

	All Institutions	Universities		4-Year Colleges		Community Colleges
		Public	Private	Public	Private	
CONCERN ABOUT STRATEGIC, BUDGET AND PERSONNEL ISSUES OVER THE NEXT THREE YEARS (scale: 1=not important; 7=very important)						
percent reporting "very important" (scale score 6/7)						
Providing incentives and rewards for faculty to support technology integration into the curriculum	32.3	26.2	35.7	47.0	31.6	24.8
Providing mobile services (apps) for our ERP / administrative systems	52.8	53.8	50.0	57.8	49.7	54.1
Providing mobile services (apps) for our LMS/learning management system	66.2	73.8	71.4	79.5	58.5	61.5
Researching the total cost of ownership (TCO) for our IT purchases	52.6	56.9	57.1	49.4	47.4	58.7
Retaining current IT personnel given off-campus competition	79.6	78.5	97.6	85.5	76.6	73.4
Server consolidation	69.1	87.7	66.7	63.9	66.1	67.9
Sharing digital resources with other campuses / institutions	39.8	40.0	42.9	54.2	34.5	35.8
Storage management	73.8	90.8	78.6	74.7	70.2	67.0
Surveying students and faculty about IT issues and services	65.5	66.2	66.7	66.3	62.0	69.7
Using Open Source tools and applications	25.3	23.1	26.2	27.7	27.5	21.1
Using social media to support student success initiatives	27.2	27.7	14.3	34.9	21.1	35.8
Using technology resources to enhance our distance/online education program	68.1	78.5	76.2	75.9	52.6	77.1
Percentage of colleges and universities that currently provide these technology-based resources and services for students, faculty, and staff						
Public computer labs	93.0	92.3	100.0	88.0	95.9	89.9
Free (paper) printing services for students	73.2	58.5	73.8	61.4	86.5	69.7
3D printing for students	38.7	53.8	45.2	33.7	31.0	43.1
Email accounts for students	98.7	98.5	100.0	100.0	100.0	95.4
Email accounts for faculty, staff and administrators	99.8	100.0	100.0	100.0	99.4	100.0
Email services for alumni (accounts or forwarding)	69.8	80.0	88.1	71.1	72.5	51.4
Computer resale program	25.1	38.5	33.3	19.3	24.6	19.3
On-site computer repair services for students	41.3	63.1	57.1	41.0	46.8	13.8
ePortfolio services for students	53.4	49.2	57.1	62.7	66.7	26.6
ePortfolio services for faculty and staff	32.6	35.4	45.2	34.9	36.3	18.3
IT help desk services on evenings and weekends	69.1	75.4	85.7	71.1	64.9	64.2
Audio lecture capture	63.2	80.0	78.6	71.1	52.0	58.7
Video lecture capture	70.0	87.7	85.7	81.9	57.3	64.2
Percentage of survey participants who agree/strongly agree colleges and universities should provide these technology-based resources and services for students, faculty, and staff						
Public computer labs	87.0	86.2	85.7	84.3	88.3	88.1
Free (paper) printing services for students	66.2	53.8	73.8	60.2	74.3	62.4
3D printing for students	64.7	75.4	73.8	66.3	60.2	60.6
Email accounts for students	93.8	92.3	97.6	95.2	93.6	92.7
Email accounts for faculty, staff and administrators	99.4	98.5	100.0	98.8	100.0	99.1
Email services for alumni (accounts or forwarding)	70.2	78.5	83.3	72.3	69.0	60.6
Computer resale program	28.1	38.5	40.5	26.5	19.3	32.1
On-site computer repair services for students	47.7	66.2	73.8	49.4	48.5	23.9
ePortfolio services for students	85.5	89.2	88.1	89.2	90.6	71.6
ePortfolio services for faculty and staff	71.3	76.9	71.4	75.9	72.5	62.4
IT help desk services on evenings and weekends	89.8	90.8	97.6	95.2	85.4	89.0
Audio lecture capture	86.8	89.2	85.7	90.4	84.8	86.2
Video lecture capture	93.4	98.5	97.6	96.4	92.4	88.1
At campuses where these services are provided, the percentage of survey participants who agree/strongly agree that their campus should provide these technology-based resources and services for students, faculty, and staff						
Public computer labs	92.7	93.3	85.7	95.9	91.5	94.9
Free (paper) printing services for students	82.6	73.7	90.3	84.3	83.8	80.3
3D printing for students	95.6	97.1	94.7	92.9	98.1	93.6
Email accounts for students	94.4	93.8	97.6	95.2	93.6	94.2
Email accounts for faculty, staff and administrators	99.4	98.5	100.0	98.8	100.0	99.1
Email services for alumni (accounts or forwarding)	84.1	96.2	89.2	83.1	79.8	80.4
Computer resale program	75.4	84.0	92.9	93.8	54.8	81.0
On-site computer repair services for students	85.1	85.4	91.7	91.2	83.8	66.7
ePortfolio services for students	96.4	90.6	100.0	98.1	96.5	96.6
ePortfolio services for faculty and staff	94.8	95.7	94.7	100.0	90.3	100.0
IT help desk services on evenings and weekends	98.5	95.9	100.0	98.3	98.2	100.0
Audio lecture capture	98.0	96.2	93.9	98.3	98.9	100.0
Video lecture capture	99.4	100.0	100.0	98.5	100.0	98.6

CAMPUS COMPUTING 2014

	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						
Total computing budget for central IT services						
Reduced >5%	9.4	4.6	2.4	4.8	14.7	10.1
Reduced 4-5%	4.7	6.2	7.1	6.0	0.6	8.3
Reduced 1-3%	11.5	10.8	19.1	10.8	8.2	14.7
No change	40.1	38.5	26.2	42.2	38.8	46.8
Increased 1-3%	25.4	30.8	35.7	25.3	28.2	13.8
Increased 4-5%	4.5	4.6	4.8	4.8	4.7	3.7
Increased >5%	4.5	4.6	4.8	6.0	4.7	2.8
Computer purchases by academic departments						
Reduced >5%	7.7	4.6	-	9.6	9.4	8.3
Reduced 4-5%	5.5	7.7	2.4	7.2	3.5	7.3
Reduced 1-3%	9.4	12.3	14.3	7.2	4.1	15.6
No change	62.5	56.9	66.7	55.4	73.5	52.3
Increased 1-3%	12.4	16.9	16.7	19.3	6.5	11.9
Increased 4-5%	1.9	1.5	-	1.2	1.8	3.7
Increased >5%	0.6	-	-	-	1.2	0.9
All institutional purchases of desktop / notebook computers						
Reduced >5%	9.2	4.6	2.4	8.4	11.8	11.0
Reduced 4-5%	4.5	9.2	4.8	2.4	2.9	5.5
Reduced 1-3%	11.1	13.9	14.3	8.4	8.2	14.7
No change	54.2	55.4	64.3	55.4	55.3	46.8
Increased 1-3%	16.0	12.3	14.3	21.7	14.7	16.5
Increased 4-5%	2.6	3.1	-	2.4	2.9	2.8
Increased >5%	2.6	1.5	-	1.2	4.1	2.8
Institutional support for public computer labs						
Reduced >5%	4.9	4.6	4.8	3.6	5.3	5.5
Reduced 4-5%	3.8	3.1	4.8	2.4	3.5	5.5
Reduced 1-3%	14.7	23.1	14.3	15.7	14.1	10.1
No change	65.5	63.1	64.3	59.0	65.3	72.5
Increased 1-3%	8.7	4.6	9.5	15.7	9.4	4.6
Increased 4-5%	1.1	1.5	-	-	1.8	0.9
Increased >5%	1.3	-	2.4	3.6	0.6	0.9
Network servers						
Reduced >5%	4.3	1.5	-	2.4	5.3	7.3
Reduced 4-5%	3.0	4.6	7.1	1.2	1.2	4.6
Reduced 1-3%	9.0	10.8	7.1	10.8	7.7	9.2
No change	60.8	53.9	71.4	57.8	62.9	59.6
Increased 1-3%	15.4	15.4	11.9	16.9	15.3	15.6
Increased 4-5%	5.1	9.2	-	6.0	5.9	2.8
Increased >5%	2.6	4.6	2.4	4.8	1.8	0.9
Server software and related products						
Reduced >5%	3.2	-	-	2.4	4.1	5.5
Reduced 4-5%	2.6	1.5	7.1	1.2	1.2	4.6
Reduced 1-3%	6.8	15.4	4.8	4.8	5.9	5.5
No change	59.3	47.7	71.4	56.6	61.8	59.6
Increased 1-3%	20.3	23.1	11.9	27.7	21.8	13.8
Increased 4-5%	6.0	9.2	2.4	4.8	3.5	10.1
Increased >5%	1.9	3.1	2.4	2.4	1.8	0.9
Wireless networks						
Reduced >5%	3.0	-	-	3.6	3.5	4.6
Reduced 4-5%	0.6	-	-	-	1.2	0.9
Reduced 1-3%	3.8	6.2	-	4.8	1.8	6.4
No change	42.4	36.9	38.1	33.7	51.2	40.4
Increased 1-3%	25.4	18.5	38.1	30.1	21.2	27.5
Increased 4-5%	13.2	21.5	14.3	14.5	11.8	9.2
Increased >5%	11.5	16.9	9.5	13.3	9.4	11.0
User training and support						
Reduced >5%	5.1	7.7	-	7.2	4.7	4.6
Reduced 4-5%	1.9	-	2.4	1.2	2.9	1.8
Reduced 1-3%	8.1	12.3	7.1	6.0	6.5	10.1
No change	66.5	64.6	81.0	57.8	67.7	67.0
Increased 1-3%	14.3	12.3	7.1	25.3	12.9	11.9
Increased 4-5%	2.6	3.1	-	1.2	2.9	3.7
Increased >5%	1.5	-	2.4	1.2	2.4	0.9
Professional development for IT personnel						
Reduced >5%	6.8	7.7	2.4	4.8	8.2	7.3
Reduced 4-5%	4.5	4.6	2.4	3.6	3.5	7.3
Reduced 1-3%	8.3	12.3	9.5	4.8	7.7	9.2
No change	59.7	52.3	73.8	53.0	65.3	55.1
Increased 1-3%	14.7	15.4	9.5	26.5	10.6	13.8
Increased 4-5%	3.8	4.6	2.4	3.6	3.5	4.6
Increased >5%	2.1	3.1	-	3.6	1.2	2.8

	All Institutions	Universities Public	Private	4-Year Colleges Public	Private	Community Colleges
THIS YEAR'S COMPUTING BUDGET COMPARED TO LAST YEAR'S (continued)						
Campus portal services						
Reduced >5%	3.0	3.1	-	4.8	2.9	2.8
Reduced 4-5%	0.9	1.5	-	-	0.6	1.8
Reduced 1-3%	5.3	9.2	4.8	6.0	2.9	6.4
No change	72.9	75.4	83.3	68.7	73.5	69.7
Increased 1-3%	10.7	9.2	11.9	13.3	12.4	6.4
Increased 4-5%	4.5	-	-	4.8	3.5	10.1
Increased >5%	2.8	1.5	-	2.4	4.1	2.8
ERP software and services						
Reduced >5%	1.9	1.5	2.4	-	1.8	3.7
Reduced 4-5%	-	-	-	-	-	-
Reduced 1-3%	3.0	3.1	2.4	2.4	2.4	4.6
No change	50.5	49.2	45.2	60.2	48.2	49.5
Increased 1-3%	26.9	32.3	35.7	25.3	23.5	26.6
Increased 4-5%	9.8	4.6	11.9	6.0	13.5	9.2
Increased >5%	7.9	9.2	2.4	6.0	10.6	6.4
Cloud computing resources / services / migration						
Reduced >5%	1.7	-	-	-	2.4	3.7
Reduced 4-5%	0.9	1.5	-	-	1.2	0.9
Reduced 1-3%	2.1	4.6	2.4	1.2	1.2	2.8
No change	57.4	50.8	54.8	51.8	60.0	62.4
Increased 1-3%	23.5	23.1	31.0	31.3	21.2	18.4
Increased 4-5%	9.6	15.4	9.5	9.6	8.2	8.3
Increased >5%	4.9	4.6	2.4	6.0	5.9	3.7
Mobile computing resources / services						
Reduced >5%	1.7	-	-	-	2.4	3.7
Reduced 4-5%	0.2	-	-	-	-	0.9
Reduced 1-3%	1.9	1.5	-	1.2	1.8	3.7
No change	58.2	53.9	57.1	53.0	66.5	52.3
Increased 1-3%	27.1	30.8	28.6	30.1	23.5	27.5
Increased 4-5%	7.5	12.3	9.5	9.6	3.5	8.3
Increased >5%	3.4	1.5	4.8	6.0	2.4	3.7
External service providers						
Reduced >5%	3.6	-	-	3.6	5.3	4.6
Reduced 4-5%	1.9	4.6	-	1.2	1.2	2.8
Reduced 1-3%	6.4	12.3	2.4	6.0	4.1	8.3
No change	62.5	52.3	64.3	72.3	61.8	61.5
Increased 1-3%	19.8	26.2	26.2	10.8	19.4	21.1
Increased 4-5%	3.4	3.1	4.8	3.6	4.1	1.8
Increased >5%	2.4	1.5	2.4	2.4	4.1	-
Security issues						
Reduced >5%	2.1	-	-	2.4	2.4	3.7
Reduced 4-5%	0.4	-	-	-	0.6	0.9
Reduced 1-3%	1.7	3.1	-	1.2	0.6	3.7
No change	46.7	33.9	26.2	37.4	53.5	58.7
Increased 1-3%	29.6	30.8	47.6	33.7	28.2	21.1
Increased 4-5%	11.7	12.3	14.3	16.9	10.6	8.3
Increased >5%	7.7	20.0	11.9	8.4	4.1	3.7
Identity management						
Reduced >5%	2.1	-	-	1.2	2.9	3.7
Reduced 4-5%	0.4	-	-	-	-	1.8
Reduced 1-3%	3.0	3.1	2.4	1.2	3.5	3.7
No change	58.6	47.7	38.1	54.2	67.7	62.4
Increased 1-3%	23.9	27.7	47.6	27.7	16.5	21.1
Increased 4-5%	6.0	7.7	4.8	7.2	5.3	5.5
Increased >5%	6.0	13.9	7.1	8.4	4.1	1.8
Consultants for IT projects and services						
Reduced >5%	6.8	3.1	4.8	4.8	10.0	6.4
Reduced 4-5%	3.0	3.1	4.8	2.4	2.9	2.8
Reduced 1-3%	12.4	20.0	21.4	9.6	8.2	12.8
No change	51.8	50.8	52.4	56.6	48.8	53.2
Increased 1-3%	18.3	12.3	16.7	16.9	20.0	21.1
Increased 4-5%	3.8	3.1	-	4.8	5.3	2.8
Increased >5%	3.8	7.7	-	4.8	4.7	0.9
Data warehousing						
Reduced >5%	2.4	-	-	2.4	2.9	3.7
Reduced 4-5%	0.6	-	-	-	1.2	0.9
Reduced 1-3%	2.6	3.1	2.4	3.6	1.8	2.8
No change	68.2	69.2	47.6	53.0	77.7	72.5
Increased 1-3%	16.4	16.9	28.6	22.9	11.8	13.8
Increased 4-5%	6.4	7.7	11.9	9.6	2.9	6.4
Increased >5%	3.4	3.1	9.5	8.4	1.8	-

	All Institutions	Universities		4-Year Colleges		Community Colleges
		Public	Private	Public	Private	
THIS YEAR'S COMPUTING BUDGET COMPARED TO LAST YEAR'S (continued)						
CRM services / software						
Reduced >5%	2.6	-	-	1.2	3.5	4.6
Reduced 4-5%	1.1	4.6	-	-	-	1.8
Reduced 1-3%	4.3	10.8	4.8	8.4	-	3.7
No change	71.6	70.8	59.5	67.5	72.4	78.9
Increased 1-3%	12.6	4.6	28.6	19.3	13.5	4.6
Increased 4-5%	4.7	4.6	2.4	1.2	6.5	5.5
Increased >5%	3.2	4.6	4.8	2.4	4.1	0.9
Supporting Open Source projects / applications						
Reduced >5%	3.6	1.5	2.4	3.6	3.5	5.5
Reduced 4-5%	2.6	1.5	4.8	1.2	2.4	3.7
Reduced 1-3%	3.2	6.2	-	2.4	2.9	3.7
No change	81.0	78.5	78.6	84.3	81.2	80.7
Increased 1-3%	7.5	10.8	9.5	6.0	7.7	5.5
Increased 4-5%	1.1	-	-	2.4	1.2	0.9
Increased >5%	1.1	1.5	4.8	-	1.2	-
Business Continuity						
Reduced >5%	2.6	-	-	-	3.5	5.5
Reduced 4-5%	0.6	-	-	-	0.6	1.8
Reduced 1-3%	2.4	6.2	-	2.4	1.2	2.8
No change	68.7	58.5	66.7	74.7	71.8	66.1
Increased 1-3%	19.8	21.5	26.2	19.3	18.2	19.3
Increased 4-5%	3.4	6.2	7.1	2.4	2.9	1.8
Increased >5%	2.6	7.7	-	1.2	1.8	2.8
Business analytics / Business Intelligence products						
Reduced >5%	2.6	-	-	-	3.5	5.5
Reduced 4-5%	0.6	-	-	-	-	2.8
Reduced 1-3%	2.8	6.2	-	1.2	2.4	3.7
No change	59.5	49.2	47.6	47.0	68.8	65.1
Increased 1-3%	21.1	24.6	35.7	30.1	15.3	15.6
Increased 4-5%	8.1	12.3	9.5	13.3	4.7	6.4
Increased >5%	5.3	7.7	7.1	8.4	5.3	0.9
Emergency communication / notification services						
Reduced >5%	1.3	-	-	-	1.8	2.8
Reduced 4-5%	0.6	-	-	1.2	0.6	0.9
Reduced 1-3%	1.1	3.1	-	1.2	-	1.8
No change	77.0	72.3	81.0	80.7	84.1	64.2
Increased 1-3%	13.4	16.9	14.3	13.3	7.7	20.2
Increased 4-5%	4.9	6.2	4.8	2.4	4.1	7.3
Increased >5%	1.7	1.5	-	1.2	1.8	2.8
Media management (capture, cataloging, archiving, etc.)						
Reduced >5%	2.8	1.5	2.4	1.2	3.5	3.7
Reduced 4-5%	0.6	-	2.4	-	-	1.8
Reduced 1-3%	2.8	3.1	2.4	2.4	2.4	3.7
No change	62.1	64.6	47.6	63.9	61.2	66.1
Increased 1-3%	23.5	24.6	42.9	22.9	23.5	15.6
Increased 4-5%	6.2	6.2	2.4	4.8	7.7	6.4
Increased >5%	2.1	-	-	4.8	1.8	2.8
THE CAMPUS TECHNOLOGY BUDGET						
Percentage of campuses experiencing a mid-year cut in the computing budget cut, 2013-14	18.3	12.3	11.9	14.5	18.7	26.6
Percentage of budget that was cut	6.8	5.0	2.6	4.7	8.2	7.2
Central IT services budget for 2014-15 (mean)	$ 9,644,062	$26,643,860	$23,802,769	$7,824,579	$4,043,517	$ 4,051,738
Percentage of central IT budget allocated to: (mean)						
Hardware	16.4	12.2	14.2	14.8	19.0	17.1
Software	14.9	12.4	12.0	13.2	17.3	15.4
Personnel	52.5	57.4	55.9	57.6	46.6	53.5
Content licenses	5.6	4.2	3.5	4.3	6.3	7.1
User support	13.8	14.5	10.6	13.6	14.3	14.2
Network service / support	13.1	16.0	11.3	12.8	14.1	10.8
Note: numbers may not equal 100% because of overlapping budget categories						
Central IT services as an estimated percentage of total institutional computing / IT expenditures	66.2	49.4	64.8	62.4	77.4	62.6
Total institutional computing / IT expenditures as an estimated percentage of the total institutional budget	6.1	4.5	4.7	5.9	5.3	8.8

CAMPUS COMPUTING 2014

	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
Annual expenditures for software licensing and maintenance fees paid to vendors for software and services for the following ERP, administrative, and instructional applications systems for 2013-14 (means)						
Alumni / Advancement / Development	$ 52,236	$ 115,481	$ 128,963	$ 31,831	$ 36,848	$ 16,874
Business Intelligence / Big Data analytics	74,959	149,565	118,556	72,748	35,797	51,008
CRM	65,487	108,571	129,296	48,301	54,174	42,851
Finance / Accounting	159,635	359,789	468,649	130,567	53,704	76,015
ePortfolio services	31,845	47,942	87,365	16,320	22,647	13,900
Grants and Research Management	68,027	115,261	140,074	36,270	12,122	18,493
Learning management systems	145,661	307,432	185,545	123,581	91,308	119,194
Lecture capture and campus video management	48,806	123,069	61,317	35,224	22,529	29,266
Library system management	67,794	152,116	104,282	67,082	49,055	45,378
Human resources (recruitment)	40,466	78,566	40,389	64,655	21,607	24,970
Human resources (HR records and payroll)	107,524	277,484	274,406	63,104	38,899	56,324
Student information system	200,659	411,057	330,986	185,069	109,854	161,493
Current replacement cycle for desktop / notebook computers (percentages)						
Student labs						
1 year	0.2	-	-	-	0.6	-
2 years	2.8	-	4.8	2.4	3.5	2.8
3 years	29.2	27.7	45.2	24.1	33.3	21.1
4 years	45.3	52.3	45.2	44.6	45.6	41.3
5 years	22.6	20.0	4.8	28.9	17.0	34.9
Faculty offices						
1 year	-	-	-	-	-	-
2 years	0.6	-	-	2.4	0.6	-
3 years	16.2	13.9	28.6	18.1	18.1	8.3
4 years	55.3	58.5	64.3	48.2	62.0	45.0
5 years	27.9	27.7	7.1	31.3	19.3	46.8
Administrative offices						
1 year	-	-	-	-	-	-
2 years	0.2	-	-	-	0.6	-
3 years	11.1	9.2	11.9	12.1	14.0	6.4
4 years	55.7	66.2	78.6	50.6	58.5	40.4
5 years	33.0	24.6	9.5	37.4	26.9	53.2
Does your institution have a financial plan to upgrade / enhance / replace the campus network (including wireless network?) (percentages)						
No current plan / policy	6.6	1.5	7.1	4.8	7.6	9.2
Under discussion / development	23.2	26.2	4.8	24.1	27.5	21.1
Currently funded network replacement / upgrade plan	70.2	72.3	88.1	71.1	64.9	69.7
As of September 2014, will your institution have an operational campus-wide (emergency) notification system? (percentages)						
No	0.9	-	-	-	-	3.7
Yes	99.2	100.0	100.0	100.0	100.0	96.3
As of September 2014, will your institution use a third party provider for notification software or services? (percentages)						
No	4.1	1.5	2.4	4.8	1.8	9.3
Blackboard Connect	31.7	29.7	31.7	34.2	31.1	32.0
E2Campus	17.2	9.4	9.8	10.1	21.6	23.7
MIR3	1.8	3.1	4.9	2.5	1.2	-
3n / Everbridge	3.4	4.7	7.3	2.5	4.2	-
Rave	27.7	35.9	31.7	31.7	25.8	20.6
Send Word Now	2.2	1.6	7.3	3.8	1.2	1.0
Other	14.7	15.6	7.3	15.2	13.8	18.6
CampusCruiser	0.5	-	-	-	0.6	1.0
SchoolMessenger	0.9	-	-	-	0.6	3.1
Swiftreach Networks	-	-	-	-	-	-
Over the past year (2013-14), did you activate your notification service?						
No	18.4	14.1	14.6	13.9	20.6	22.7
If yes, for what purpose did you activate your notification service?						
Emergency notification	82.4	90.7	74.3	85.3	79.4	82.7
Student recruitment (contacting prospective students)	4.4	1.9	-	4.4	1.5	13.3
Severe weather alerts	83.5	81.5	74.3	77.9	88.5	85.3
Student services (academic services for current students)	8.5	7.4	2.9	7.4	2.3	24.0
Alumni contact / services	1.1	1.9	-	1.5	0.8	1.3
Other	15.2	16.7	25.7	17.6	11.5	13.3

CAMPUS COMPUTING 2014

	All Institutions	Universities		4-Year Colleges		Community Colleges
		Public	Private	Public	Private	
WEB AND NETWORKING ISSUES						
How important are the following issues on your campus?*						
(1=not important; 7=very important)						
percentage reporting "very imoportant (scale score 6/7)						
100Gb Ethernet	53.2	75.4	64.3	57.8	46.2	43.1
Addressing the rapidly growing demand for network bandwidth	81.1	86.2	78.6	84.3	80.7	77.1
Bandwidth for Software as a Service / SaaS applications	32.6	29.2	45.2	33.7	31.6	30.3
BYOD (Bring your own device) support	60.6	64.6	52.4	63.9	59.6	60.6
Cloud computing	54.7	58.5	76.2	55.4	51.5	48.6
Collaborative agreements with other institutions and community agencies	30.2	40.0	19.0	36.1	25.1	32.1
Data encryption	64.3	72.3	73.8	74.7	60.8	53.2
Digital image libraries / archives	32.6	40.0	40.5	20.5	34.5	31.2
Disaster recovery	71.3	70.8	78.6	79.5	68.4	67.0
Grid computing	8.9	24.6	19.0	6.0	4.7	4.6
Guest access / services on the campus network	47.7	58.5	54.8	48.2	46.8	39.4
Identity management	68.5	83.1	76.2	77.1	58.5	66.1
Internet2	25.7	70.8	57.1	20.5	14.0	9.2
IT Disaster Communications Capacity	58.3	67.7	64.3	65.1	52.0	55.0
Large data sets and 3D modeling / file sharing	19.2	41.5	33.3	16.9	12.9	11.9
Making campus networks accessible to Smart Phones	54.7	66.2	54.8	55.4	55.0	46.8
Net+ services from Internet2	17.0	53.8	23.8	21.7	7.0	4.6
Network security	90.2	92.3	95.2	95.2	86.5	89.0
Quality of cellular coverage that commercial services provide for your campus	38.9	52.3	45.2	42.2	38.6	26.6
Replacement cycle for network infrastructure	71.1	84.6	73.8	69.9	69.0	66.1
Statenets / Statenet services	13.2	32.3	21.4	10.8	9.4	6.4
Video / rich media streaming	59.6	66.2	76.2	60.2	59.6	48.6
Virtual private networks (VPN)	50.9	67.7	64.3	45.8	45.6	47.7
VoIP	60.0	67.7	54.8	66.3	56.7	57.8
Does your institution charge students for printing? (percentages)						
No	18.7	3.1	7.1	9.6	28.1	24.8
Annual / term fee for all printing	1.5	1.5	-	2.4	1.8	0.9
Annual / term fee for specific number of pages	19.4	24.6	11.9	21.7	20.5	15.6
Pay for use / individual page charges	41.3	58.5	57.1	53.0	24.6	42.2
Other payment plan for printing services	19.2	12.3	23.8	13.3	25.2	16.5
Is your institution reviewing or converting to Cloud Services						
for the following applications: (percenatges)						
Calendaring						
No	30.9	26.2	23.8	26.5	28.7	43.1
Under review	21.7	24.6	23.8	26.5	18.1	21.1
Converting to / now using	47.5	49.2	52.4	47.0	53.2	35.8
Administrative computing / ERP services						
No	66.0	63.1	50.0	68.7	70.8	64.2
Under review	25.3	30.8	31.0	22.9	25.2	22.0
Converting to / now using	8.7	6.2	19.1	8.4	4.1	13.8
CRM services						
No	53.0	50.8	45.2	48.2	50.3	65.1
Under review	22.8	27.7	26.2	25.3	19.9	21.1
Converting to / now using	24.3	21.5	28.6	26.5	29.8	13.8
Learning management systems / LMS services						
No	36.6	36.9	35.7	41.0	38.6	30.3
Under review	19.4	30.8	26.2	16.9	19.9	11.0
Converting to / now using	44.0	32.3	38.1	42.2	41.5	58.7
Research and HPC activities						
No	73.0	44.6	45.2	68.7	83.0	88.1
Under review	20.0	44.6	38.1	25.3	11.7	7.3
Converting to / now using	7.0	10.8	16.7	6.0	5.3	4.6
Storage / archiving / business continuity						
No	32.1	24.6	16.7	27.7	33.3	44.0
Under review	48.9	66.2	52.4	49.4	45.0	43.1
Converting to / now using	18.9	9.2	31.0	22.9	21.6	12.8
Is your institution reviewing or converting to outsourced / hosted applications:						
(percenatges)						
Hosted / outsourced email						
For Students						
No	6.2	7.7	4.8	2.4	7.0	7.3
Under review	10.2	6.2	11.9	7.2	14.0	8.3
Converting to / now using	83.6	86.2	83.3	90.4	79.0	84.4
For Faculty						
No	30.0	23.1	33.3	30.1	24.6	41.3
Under review	24.9	30.8	19.1	25.3	22.8	26.6
Converting to / now using	45.1	46.2	47.6	44.6	52.6	32.1

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	All Institutions	Universities Public	Universities Private	4-Year Colleges Public	4-Year Colleges Private	Community Colleges
Converting to Outsourced Applications (continued)						
Email Provider						
Google	48.2	45.3	61.5	50.0	51.9	37.6
Microsoft	50.9	51.6	38.5	50.0	46.9	62.4
Zimbra	0.9	3.1	-	-	1.3	-
Hosted / outsourced "office" applications						
No	24.5	16.9	21.4	20.5	25.2	32.1
Under review	35.1	40.0	31.0	39.8	32.8	33.9
Converting to / now using	40.4	43.1	47.6	39.8	42.1	33.9
Percent under review, Likely Product						
Google Apps / Docs for education	20.5	8.3	27.3	33.3	20.8	14.3
Microsoft Live @ EDU / Office 365 for education	79.5	91.7	72.7	66.7	79.3	85.7
Percent converting to / now using, Product						
Google Apps / Docs for education	45.0	44.4	55.0	39.4	54.2	27.0
Microsoft Live @ EDU / Office 365 for education	55.0	55.6	45.0	60.6	45.8	73.0
ORGANIZATIONAL AND PLANNING ISSUES						
Has your institution reorganized computing / information service units within the past 2 years?* (percentages)						
Central IT services	50.2	64.6	61.9	55.4	42.7	45.0
Libraries	20.9	20.0	31.0	14.5	22.2	20.2
Telecom	30.6	36.9	33.3	38.6	25.1	28.4
Do you anticipate a reorganization of computing / information services within the next 2 years?* (percentages)						
Central IT services	45.7	61.5	54.8	57.8	40.4	32.1
Libraries	17.4	18.5	21.4	18.1	18.7	12.8
Telecom	26.6	30.8	28.6	32.5	27.5	17.4
Percentage of campuses that reorganized IT units in the past two years and expect to reorganize IT units again in the next two years						
Central IT services	30.9	46.2	38.1	38.6	24.0	23.9
Libraries	6.8	7.7	14.3	4.8	7.0	4.6
Telecom	11.7	18.5	9.5	15.7	9.9	8.3
Does institution have a chief information / technology officer (CIO / CTO)? (pct.)						
No	14.3	-	4.8	4.8	22.2	21.1
Currently under discussion	3.2	3.1	-	3.6	3.5	3.7
Yes	82.6	96.9	95.2	91.6	74.3	75.2
What academic and operational units report to the CIO / CTO?* (pct.)						
Academic computing	89.7	88.9	92.5	89.5	90.7	87.8
Administrative computing	99.5	100.0	100.0	98.7	100.0	98.8
Libraries	13.3	3.2	10.0	9.2	20.9	14.6
Media center / services	12.6	7.9	7.5	11.8	14.0	17.1
Telecommunications	73.3	60.3	70.0	76.3	79.8	72.0
Distance / online education programs	94.9	96.8	95.0	96.1	93.0	95.1
Institutional research / analytics	23.6	19.0	22.5	19.7	24.0	30.5
Is the CIO (or senior institutional computing / IT officer) a member of the president's cabinet / executive committee? (percentages)	63.1	61.9	70.0	67.1	52.7	73.2
Does your campus have a						
Chief / senior learning or instructional officer	19.6	13.8	11.9	25.3	7.6	40.4
Chief / senior officer for online education	30.9	50.8	28.6	32.5	18.1	38.5
Chief / senior officer for innovation	8.9	15.4	11.9	8.4	7.6	6.4
Does your institution have a board / trustee committee on computing / information technology?						
No	68.5	60.0	59.5	50.6	76.6	78.0
Under discussion	6.2	9.2	9.5	9.6	3.5	4.6
To begin in A/Y 2014-15	1.9	4.6	2.4	2.4	1.2	0.9
Yes, current board committee on computing / IT issues	23.4	26.2	28.6	37.4	18.7	16.5
Which unit provides tech support for most departmental computer labs?						
Individual department	5.5	16.9	16.7	6.0	1.8	-
Central IT service unit	70.9	29.2	38.1	66.3	84.8	89.9
Both	23.6	53.9	45.2	27.7	13.5	10.1
How does your institution deal with the "life cycle" of desktop computers for faculty, classrooms, clusters, and labs?						
One time allocation	6.8	15.4	7.1	8.4	3.5	5.5
Developing budget	14.5	29.2	4.8	25.3	7.0	12.8
Have budget	78.7	55.4	88.1	66.3	89.5	81.7
Which statement below best describes the way your campus manages the institutional presence and messaging on Facebook, Twitter, and other social media? (percenatges)						
Individual departments operate with great autonomy	34.7	49.2	33.3	37.4	33.9	25.7
A central office monitors the activities of individual departments and units but we do not have broad institutional policies or guidelines for social media	27.9	27.7	33.3	32.5	25.7	25.7
A central office is responsible for setting the overall policies for and monitoring activities for individual departments and units	37.5	23.1	33.3	30.1	40.4	48.6

CAMPUS COMPUTING 2014

	All Institutions	Universities		4-Year Colleges		Community Colleges
		Public	Private	Public	Private	
IT SECURITY INCIDENTS IN THE PAST YEAR						
What types of security incidents did your campus experience in the past year?						
Theft of computer, phone, tablet, thumb drive, or other device containing confidenti	38.3	58.5	57.1	32.5	32.2	33.0
Hack / attack on the campus network	48.3	73.8	73.8	59.0	33.9	37.6
Hack / attack on student / personnel / alumni data files	11.5	30.8	19.0	14.5	5.3	4.6
Hack / attack on administrative / financial files	9.6	27.7	16.7	10.8	2.9	5.5
Hack / attack on research data files	5.7	21.5	16.7	2.4	1.8	0.9
Other attack on institutional data files	10.6	27.7	23.8	10.8	4.1	5.5
Identity management issues	30.6	53.8	28.6	38.6	25.1	20.2
Major computer virus infestation	10.2	21.5	19.0	8.4	7.0	6.4
Major spyware / malware infestation	11.5	20.0	9.5	8.4	11.1	10.1
Student security "incident" related to social networking sites	15.5	23.1	19.0	16.9	18.1	4.6
Exposure / loss of sensitive data in distributed environment (server not managed b	13.4	33.8	26.2	19.3	4.7	5.5
Intentional employee transgressions affecting IT security	10.9	12.3	14.3	9.6	8.8	12.8
Data security, reliability, or integrity issues involving Cloud services	4.5	10.8	2.4	1.2	3.5	5.5
How concerned are you about the following security issues for your institution in the coming year? (means; scale from 1="low" to 5="high")						
Theft of computer, phone, tablet, thumb drive, or other device containing confidenti	4.7	5.0	4.9	4.7	4.7	4.3
Hack / attack on the campus network	4.6	4.8	4.6	4.6	4.6	4.5
Hack / attack on student / personnel / alumni data files	4.3	4.6	4.3	4.4	4.2	4.3
Hack / attack on administrative / financial files	4.4	4.6	4.2	4.4	4.3	4.3
Hack / attack on research data files	3.4	4.4	4.0	3.5	3.0	2.9
Other attack on institutional data files	4.1	4.4	4.0	4.2	4.0	4.0
Identity management issues	4.4	4.5	4.3	4.4	4.4	4.4
Major computer virus infestation	3.8	3.8	3.7	3.7	3.7	3.9
Major spyware / malware infestation	3.9	3.9	3.6	3.8	3.9	4.0
Student security "incident" related to social networking sites	3.7	3.5	3.5	3.7	3.7	3.6
Exposure / loss of sensitive data in distributed environment (server not managed b	4.2	5.2	4.6	4.6	3.8	3.8
Intentional employee transgressions affecting IT security	3.7	3.5	3.7	3.8	3.6	3.8
Data security, reliability, or integrity issues involving Cloud services	4.3	4.4	4.5	4.4	4.3	4.2
MIGRATING TO CLOUD/SaaS-BASED OR OPEN SOURCE APPLICATIONS						
Looking ahead, what's the likelihood that your institution will migrate (or has already migrated) to one or more Cloud / Software as a Service (SaaS) or Open Source applications by fall 2019? (scale: 1=not likely; 7=very likely)						
Percentage reporting "very likely" (scale score 6 or 7 on a 1-7 scale)						
Cloud / Software as a Service (SaaS) Applications						
Collaboration Platforms / Applications	38.5	40.6	35.7	41.5	43.3	28.4
Content Management System	28.2	23.4	28.6	30.5	29.2	27.5
Continuing Education Management Platform	15.2	14.1	19.0	17.1	9.9	21.1
Learning Management System	47.0	42.2	42.9	51.2	48.0	46.8
CRM services	32.3	29.7	40.5	36.6	38.0	18.3
Development System	13.0	7.8	19.0	15.9	14.6	9.2
Financial System	10.5	9.4	21.4	12.2	8.2	9.2
ePortfolio System	34.2	20.3	26.2	40.2	46.8	21.1
Business Intelligence / Big Data analytics	12.0	14.1	16.7	15.9	9.4	10.1
HR System	22.4	18.8	26.2	17.1	25.7	22.0
Lecture Capture	26.1	21.9	31.0	29.3	27.5	22.0
Video Management	24.1	21.9	21.4	31.7	25.1	19.3
Student Information System	9.8	6.3	14.3	11.0	8.8	11.0
Research / Grants Management System	12.2	18.8	16.7	14.6	8.8	10.1
Student ePortfolio System	28.4	17.2	21.4	32.9	42.1	12.8
Open Source Applications						
Collaboration Platforms / Applications	13.0	9.4	14.3	14.6	17.0	7.3
Content Management System	21.8	10.9	26.2	30.5	26.3	12.8
Continuing Education Management Platform	4.1	4.7	11.9	4.9	3.5	0.9
Learning Management System	29.1	21.9	23.8	24.4	42.1	18.3
CRM services	4.9	4.7	4.8	8.5	4.7	2.8
Development System	2.8	4.7	4.8	6.1	0.6	1.8
Financial System	4.9	12.5	2.4	8.5	2.9	1.8
ePortfolio System	13.7	12.5	14.3	18.3	15.8	7.3
Business Intelligence / Big Data analytics	4.7	3.1	2.4	7.3	3.5	6.4
HR System	3.2	6.3	2.4	4.9	1.8	2.8
Lecture Capture	10.7	14.1	11.9	13.4	7.6	11.0
Video Management	7.3	4.7	7.1	8.5	7.0	8.3
Student Information System	3.6	4.7	4.8	6.1	1.8	3.7
Research / Grants Management System	6.4	14.1	11.9	11.0	2.3	2.8
Student ePortfolio System	8.1	1.6	9.5	12.2	9.9	5.5

THE CAMPUS COMPUTING PROJECT