

CAMPUS COMPUTING, 2013

The 24th National Survey of Computing and
Information Technology in US Higher Education

Kenneth C. Green

THE CAMPUS COMPUTING PROJECT

campuscomputing.net

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2013 Project Sponsors



Methodology

- 451 institutional participants
- Web-based data collection
- Survey period: Sept 6 – Oct 9
- 80% of the 2013 participating campuses also participated in the 2012 survey



2013 Survey Participants

<u>Category</u>	Dept of Ed N (adjusted)	<u>Survey N</u>	Participation <u>Rate (%)</u>
Public Research & Doctoral Universities	168	68	40%
Private Research & Doctoral Universities	92	39	42%
Public 4-Year Colleges (Baccalaureate & Masters)	374	88	24%
Private 4-Year Colleges (Baccalaureate & Masters)	824	162	20%
Associate Degree/ Public Community Colleges	1018	94	9%



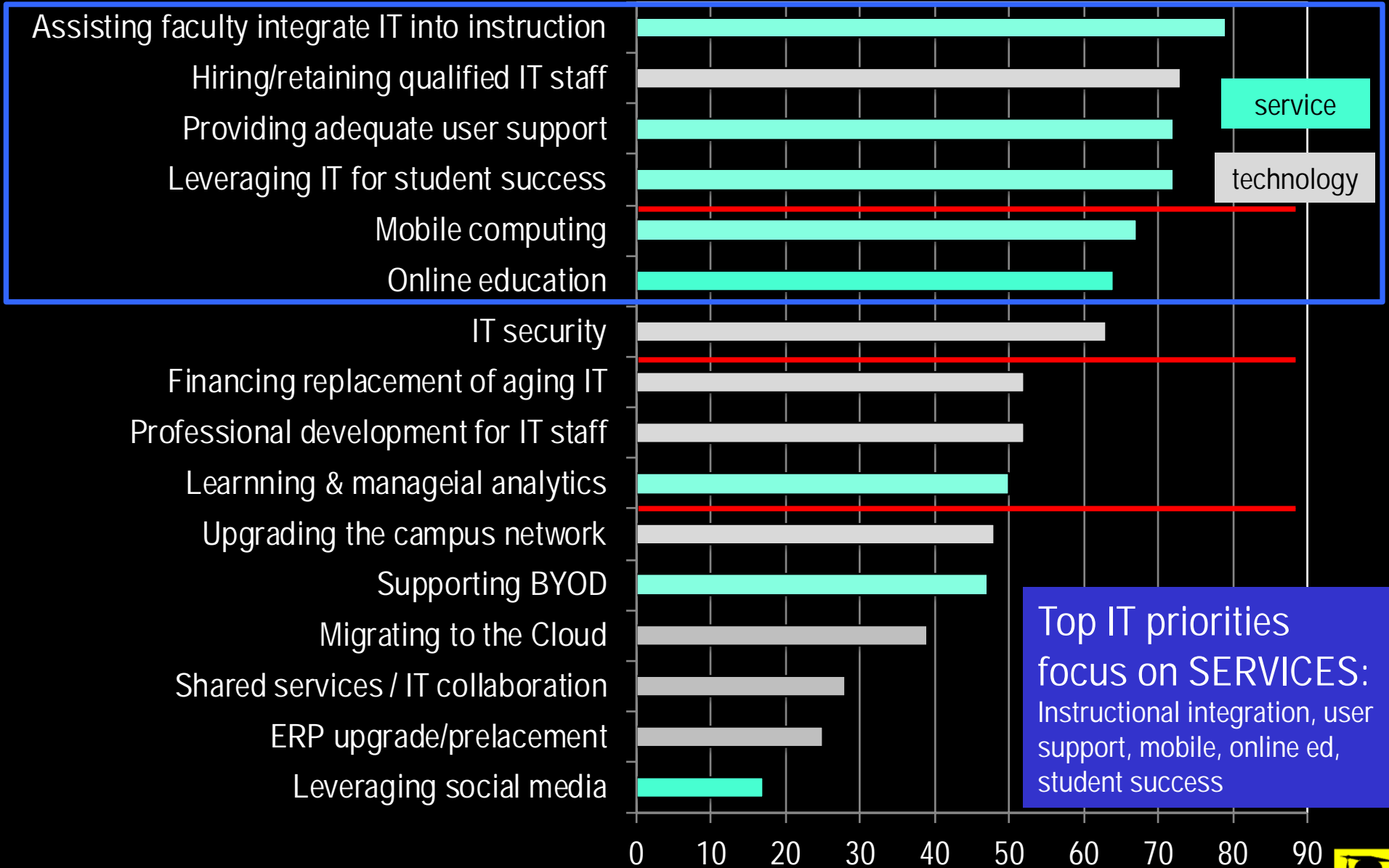
2013 Highlights

- Top IT priorities focus on instruction, advancing the campus completion agenda & supporting mobile.
- Tablets and smart phones surpass laptops as important in IT planning.
- Big gains (again) in the deployment of mobile apps.
- Budget cuts continue to decline, but public campuses remain more at risk than private/non-profits.
- Mixed assessments from CIOs about the effectiveness of campus IT investments.
- Slow transition to the Clouds continues.
- Data document the rising role of video.
- Transitions continue in the LMS market.



Top Institutional IT Priorities Over the Next Two-Three Years, Fall 2013

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



Top IT priorities
focus on SERVICES:
Instructional integration, user
support, mobile, online ed,
student success

Top Institutional IT Priorities Over the Next Two-Three Years, Fall 2013

(scale score 1=not important; 7=very important; percentage for 6/7)

	2013	2012
Assisting faculty integrate technology into instruction	79	74
Hiring / retaining qualified IT staff	73	69
Providing adequate user support	72	
Leveraging IT resources and services to advance the student success / student completion priorities of my institution	72	
Implementing / supporting mobile computing	67	61
Providing online / distance education	64	61
Upgrading / enhancing network and data security	63	54
Financing the replacement of aging hardware and software	52	50
Professional development for IT personnel	50	
Data analysis / learning and managerial analytics	50	
Upgrading / replacing the campus network	48	42
Supporting / managing BYOD	47	
Migrating to Cloud computing	39	33
Shared services / IT collaboration with other institutions	28	
Upgrading / replacing administrative IT / ERP systems	25	25
Using / leveraging social media as a resource for instruction	17	

Top priorities focus on instructional integration, user support, and IT staffing



Top Institutional IT Priorities by Sector, Fall 2013

All Campuses	Public Universities	Private Universities	Public 4-Yr. Colleges	Private 4-Yr. Colleges	Community Colleges
Assisting Faculty Integrate IT into Instruction (79%)	TIE: Instructional Integration & Online Ed on the Web (79%)	Assisting Faculty Integrate IT into Instruction (84%)	Instructional Integration & Leveraging IT for Student Success (82%)	Assisting Faculty Integrate IT into Instruction (78%)	Leveraging IT for Student Success (80%)
Hiring/Retaining Qualified IT Staff (73%)	Hiring/Retaining Qualified IT Staff (tie: 72%)	Hiring/Retaining Qualified IT Staff (74%)	Hiring/Retaining Qualified IT Staff (79%)	Hiring IT Staff & Adequate User Support (69%)	Providing Online Ed on the Web (76%)
Providing Adequate User Support (72%)	TIE: User Support & Mobile Computing (72%)	TIE: User Support & Mobile Computing (72%)	Providing Adequate User Support (76%)	Supporting Mobile Computing (67%)	Assisting Faculty Integrate IT into Instruction (75%)

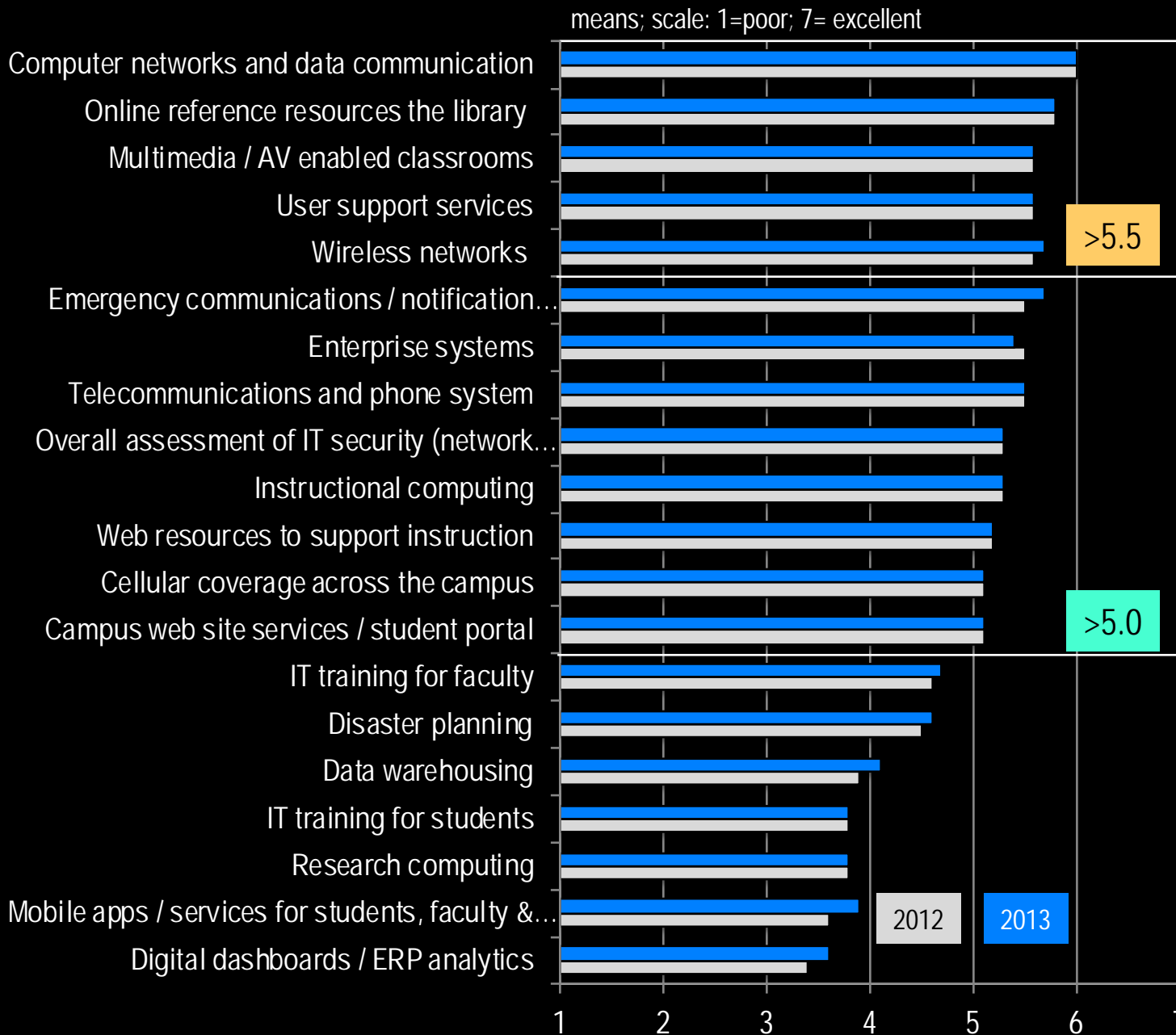


Top Institutional IT Priorities, 2013

	Campus Computing Survey (pct.. reporting "very important")	EDUCAUSE "Top 10 IT Issues" (panel assessment)
1	Assisting faculty integrate technology into instruction (74%)	Leveraging the wireless and device explosion on campus
2	Hiring / retaining qualified IT staff (73%)	Improving student outcomes by leveraging technology
3	Providing adequate user support (73%)	Developing a campus-wide cloud strategy
4	Leveraging IT resources to advance student success / student completion priorities (72%)	Developing an agile and open IT organizational model to accommodate a changing IT environment
5	Implementing/supporting mobile computing (67%)	IT security: the balance between infrastructure openness and security
6	Providing Online Education (64%)	Funding IT strategically
7	Network and Data Security (64%)	Developing a sustainable strategy for online ed
8	Financing the replacement of aging IT (52%)	Supporting the trend towards consumerization and BOYD
9	TIE: Professional development for IT personnel & Learning/Managerial Analytics (50%)	Transforming the institution's business with IT
10	Upgrading the campus network (48%)	Using analytics to support critical outcomes



Rating the IT Infrastructure, Fall 2013



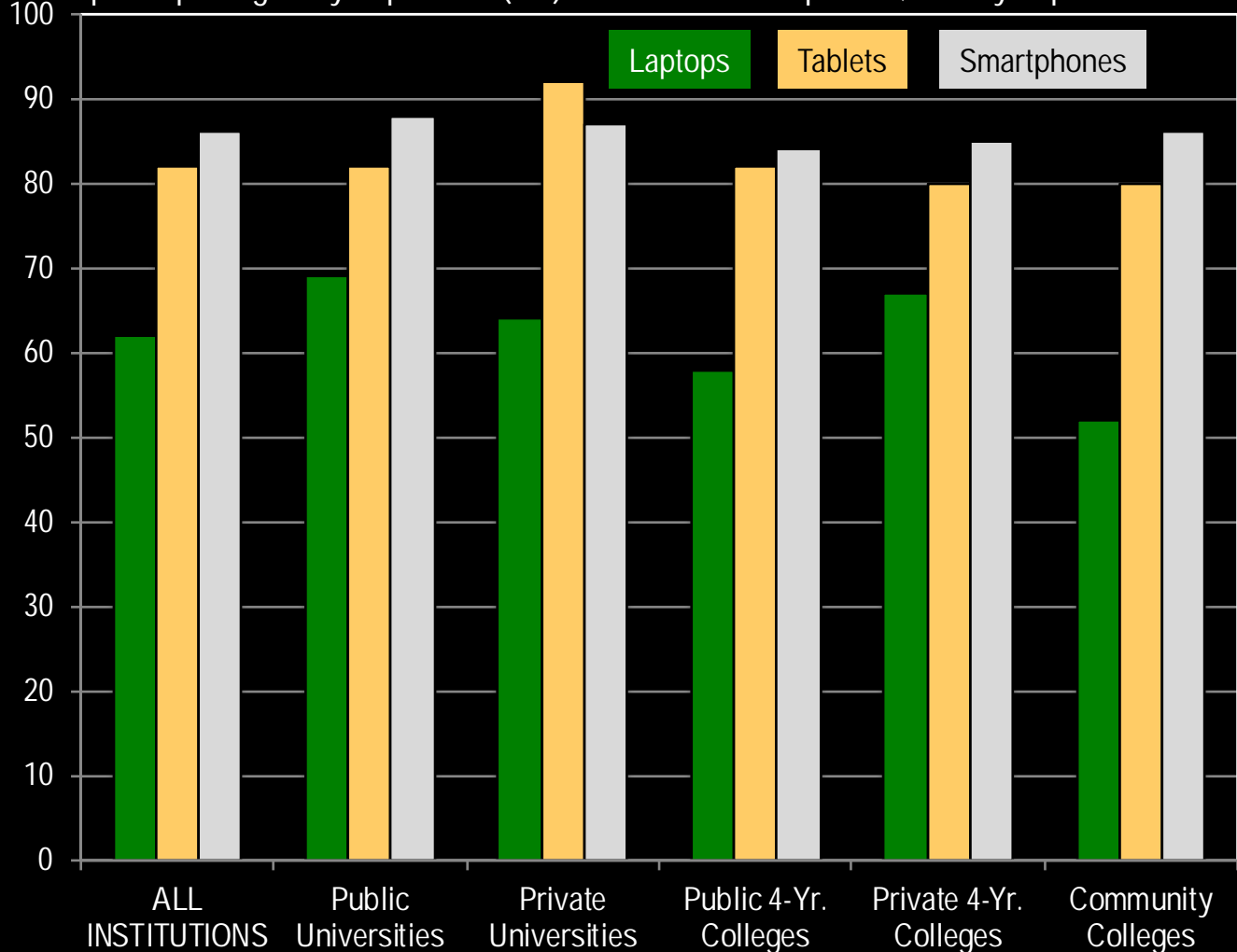
- Highest rankings for the network, "hardware," and content
- Lower rankings for services
- Would faculty and students agree with the ranking for user support services?



Tablets & Smartphones Over Laptops!

How important are these 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

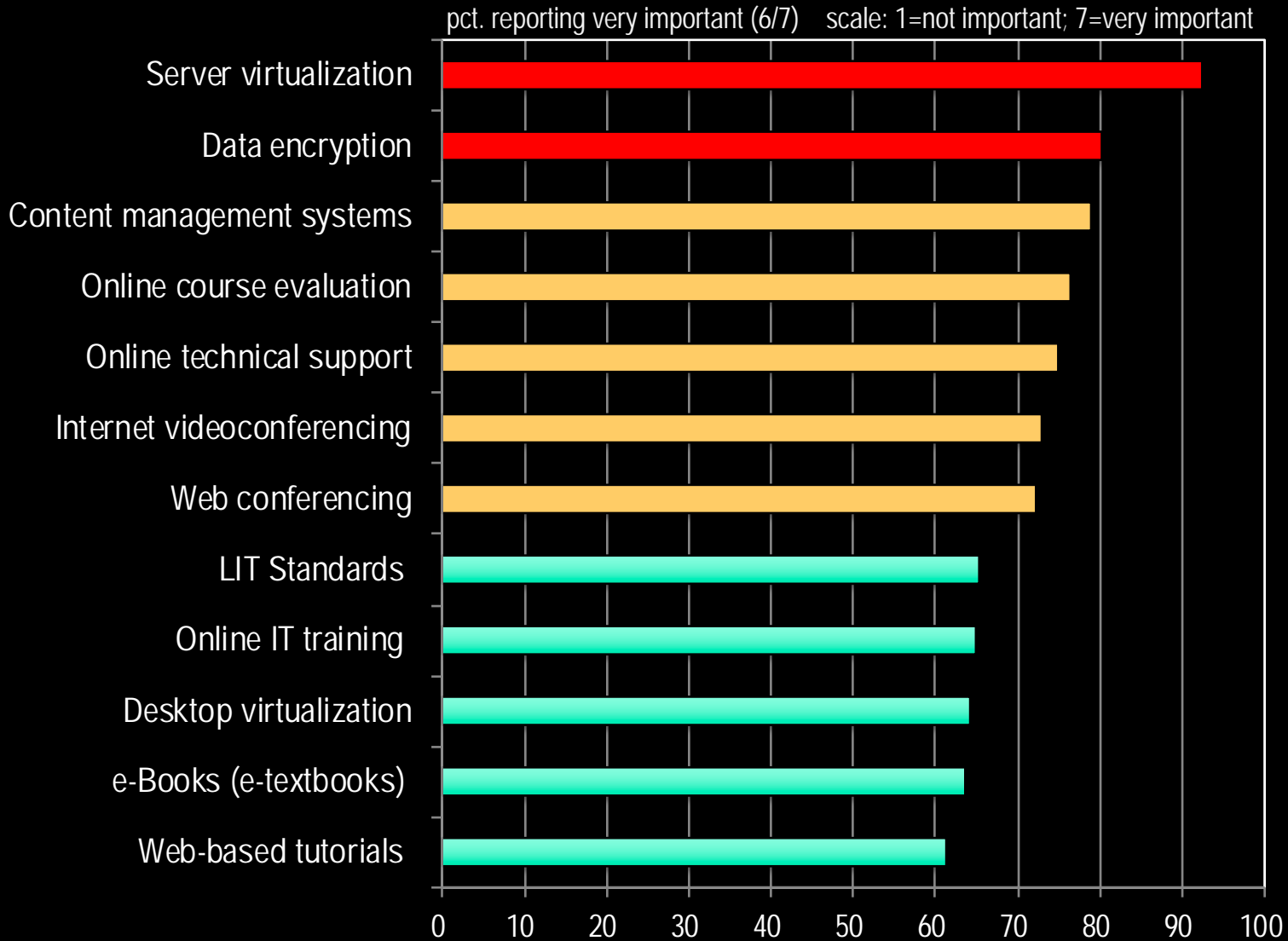


"Skating to where the digital puck" is going:

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

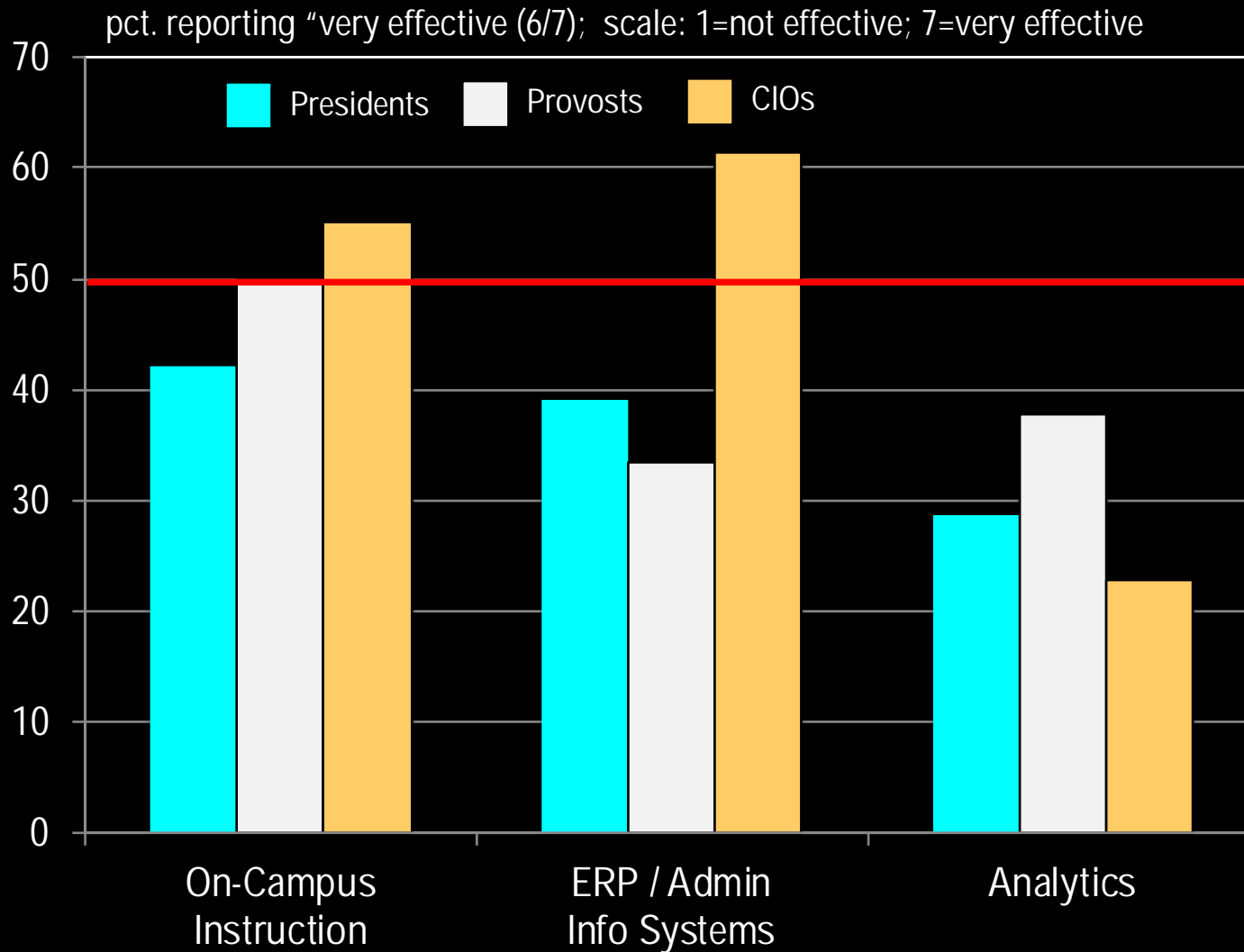
Other Top IT Planning Issues

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



- Planning priorities include a mix of security, technology, and service issues.

Rating the Effectiveness of Campus IT Investments, 2012

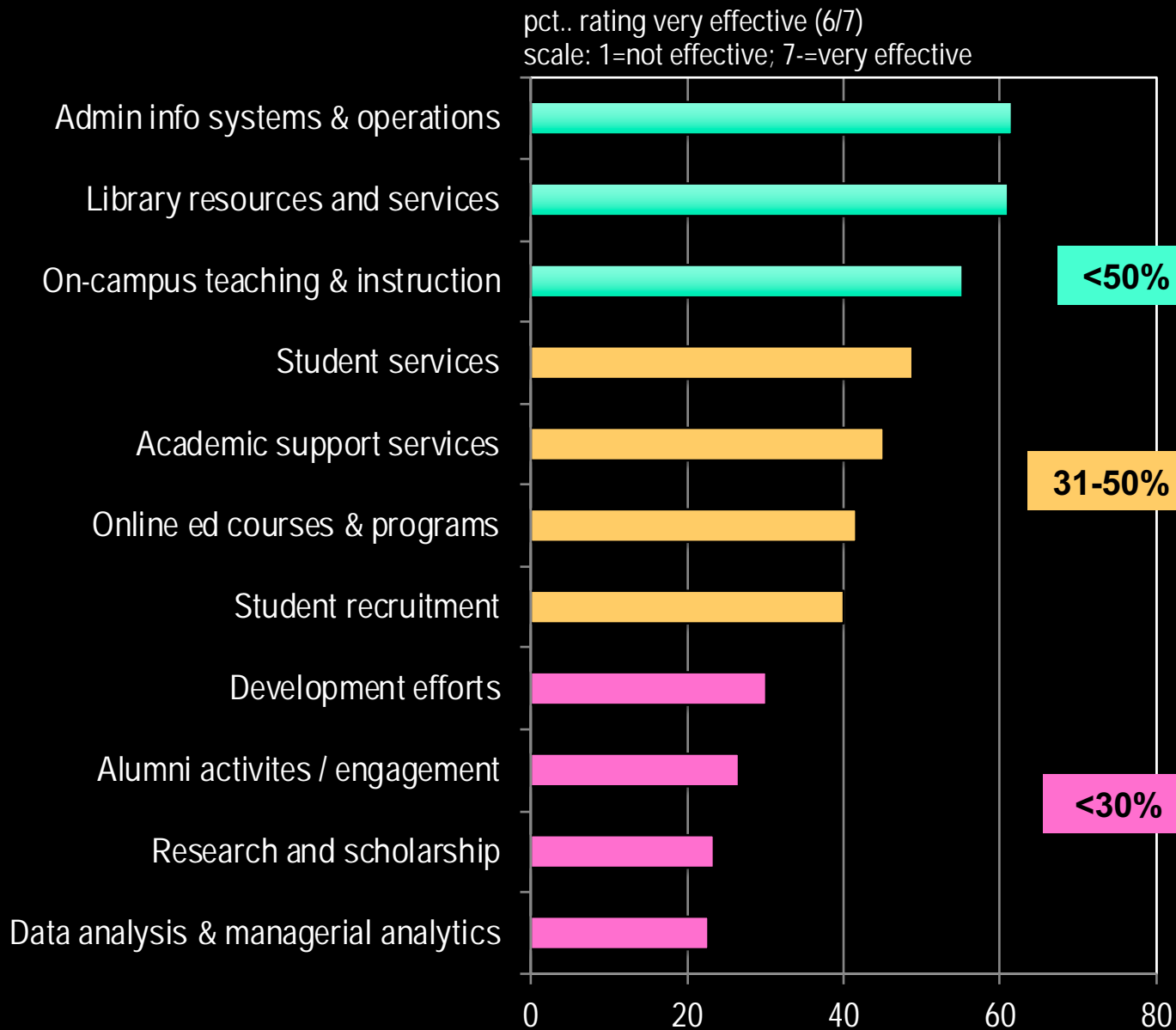


- Presidents and provosts are generally less sanguine about the effectiveness of IT investments than their IT officers.

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



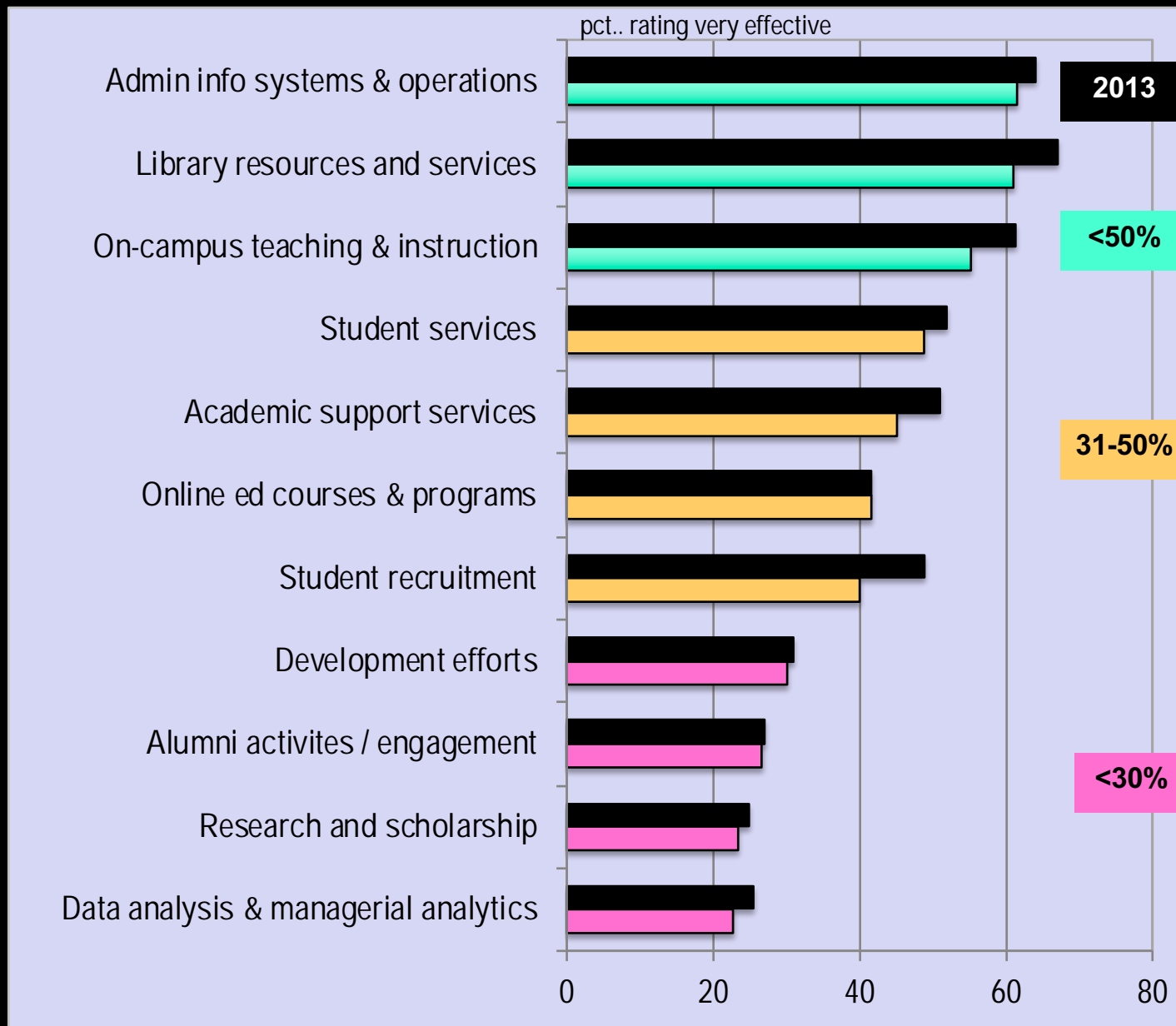
CIOs Rate the Effectiveness of Campus Investments in Information Technology, 2012



- Very mixed assessments about the effectiveness of campus IT investments



CIOs Rate the Effectiveness of Campus Investments in Information Technology, 2012 vs. 2013

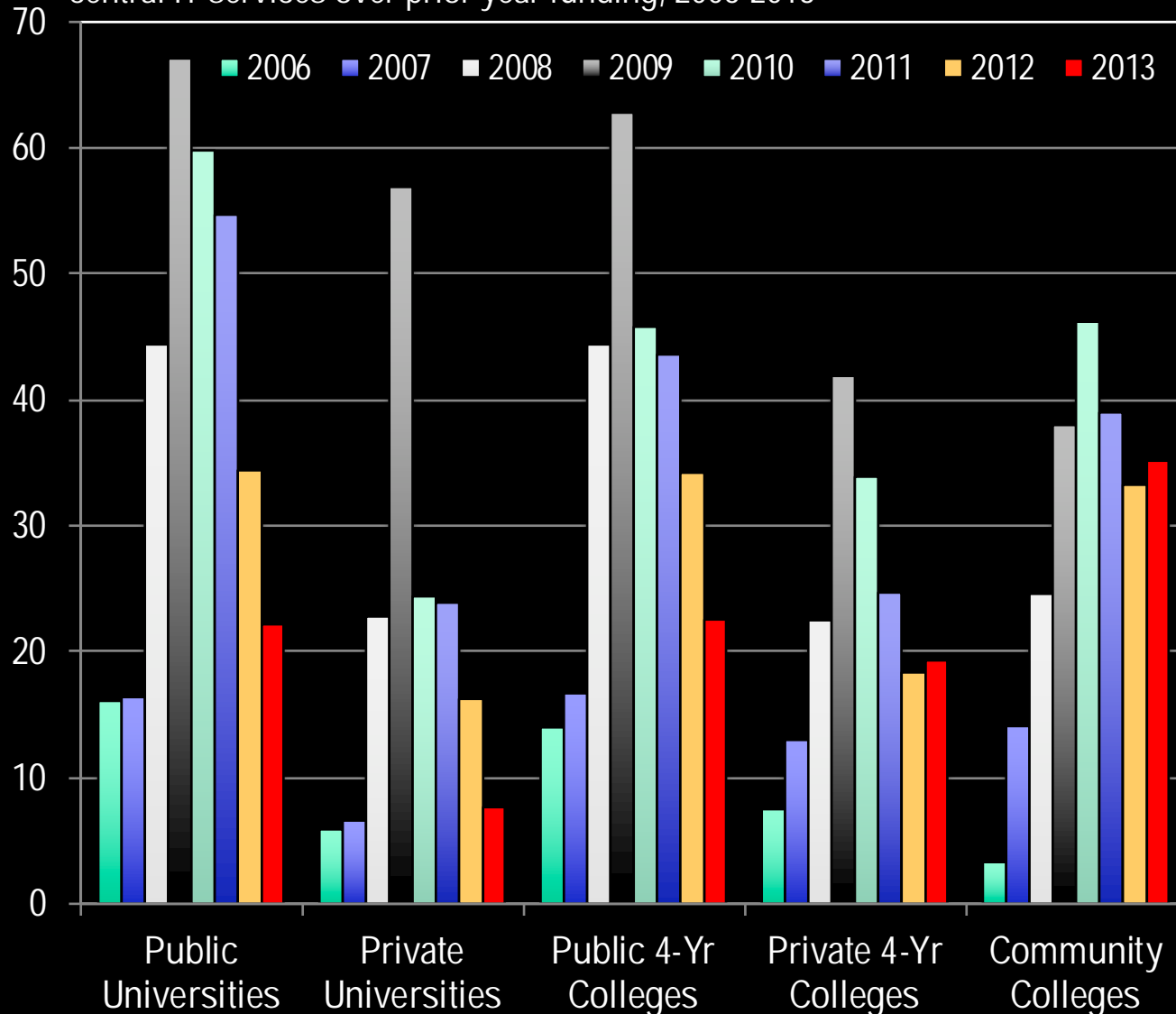


- Modest gains in 2013 survey
- Core message remains the same as last year: IT is doing ok, but not great.



Budget Cuts, 2006-2013

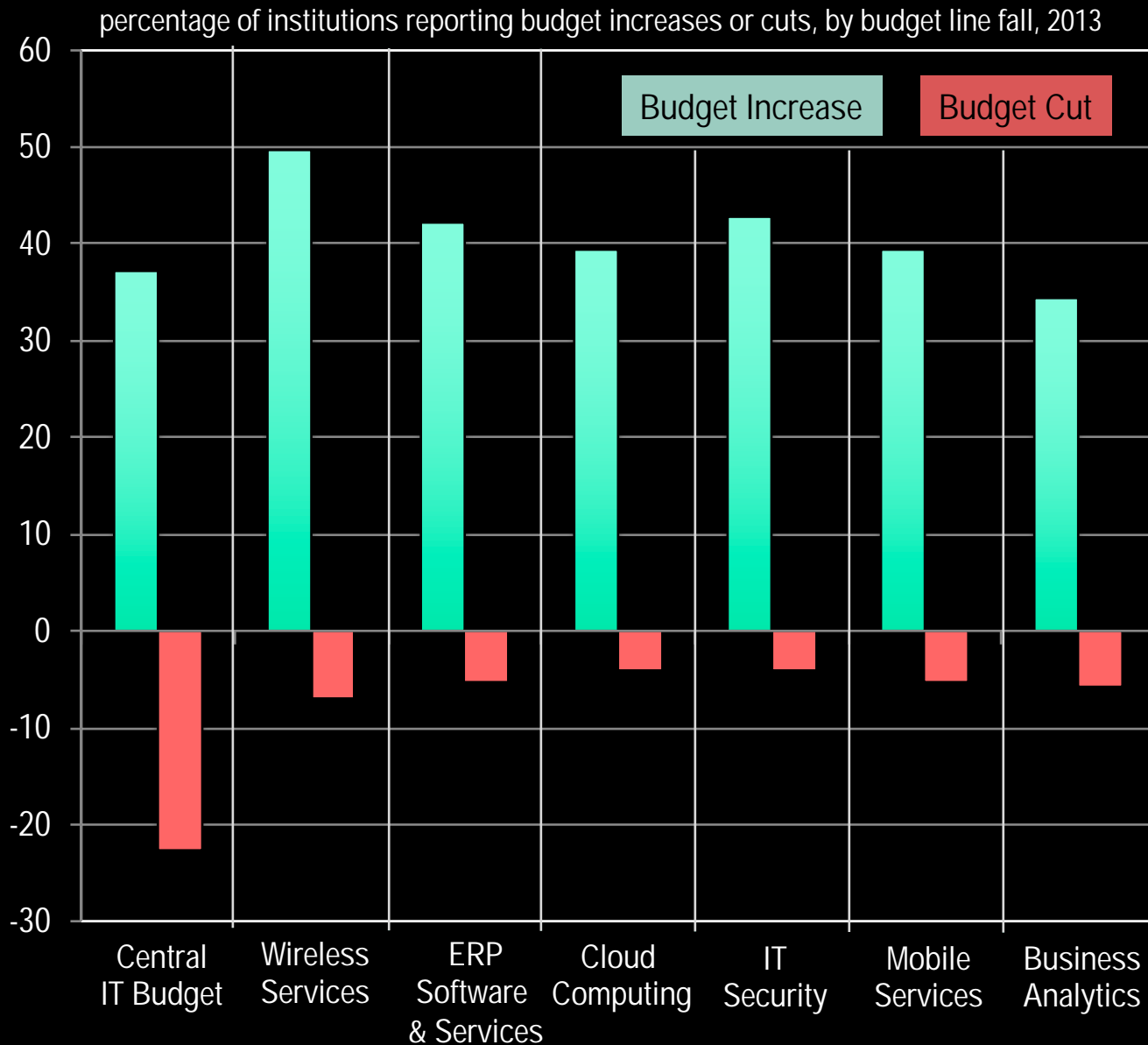
percentage of institutions reporting budget reductions for central IT services over prior year funding, 2006-2013



- **THE GOOD NEWS:** declines in budget cuts continue
- Still experiencing the compounding consequences of continuing budget cuts
- Privates fare better than publics
- One-sixth (16%) experienced additional mid-year cuts, averaging 9%



Budget Cuts vs. Budget Gains, Fall 2013



- Investing in security, cloud, mobility & analytics
- Reduced spending in public labs and for replacement hardware
- Student lab replacement cycle now 3-4 years (77%) vs. 2-3 years (55%) in 2008



ERP Expenditures

(estimated annual expenditures for licensing and maintenance fees)

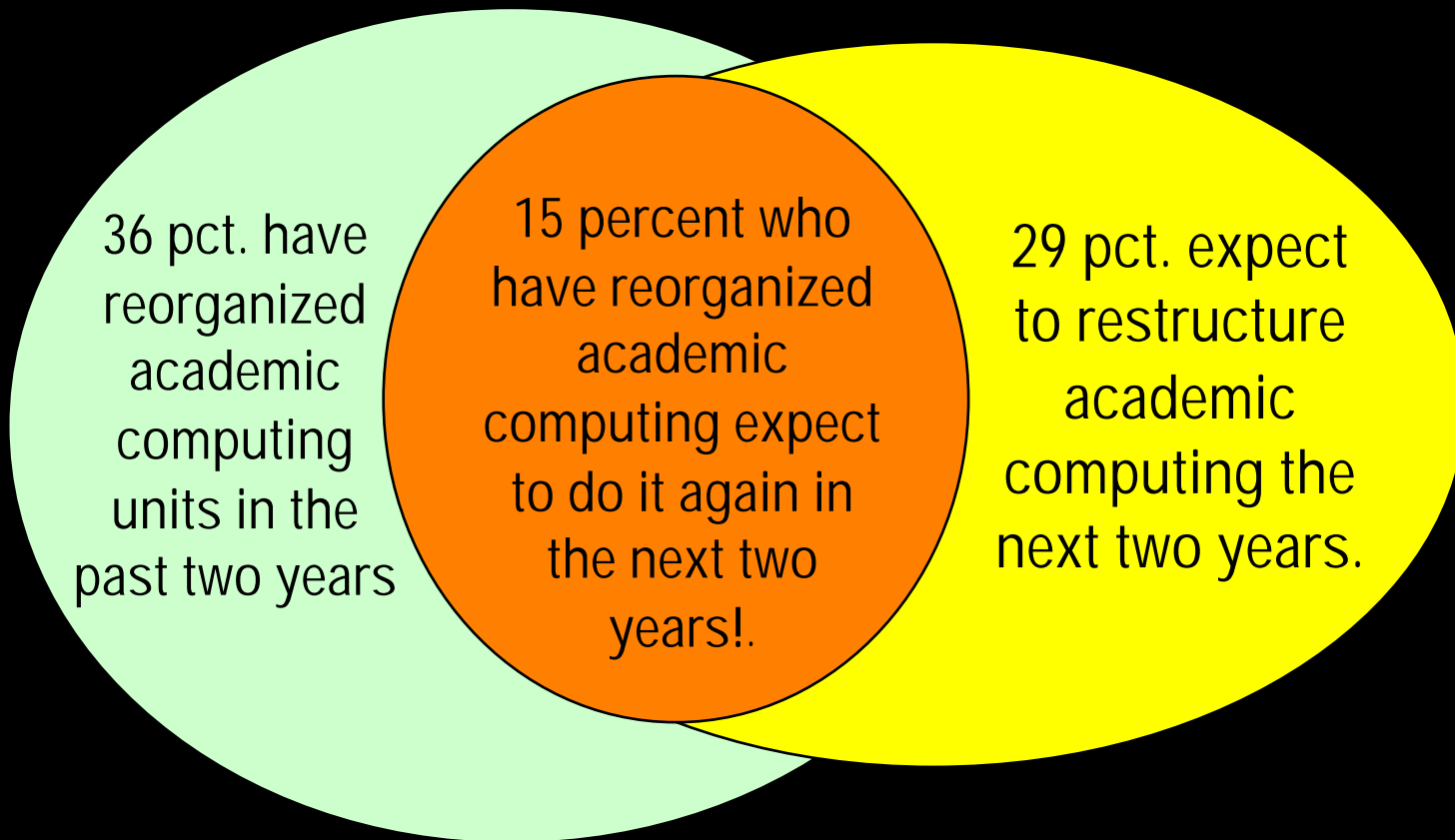
<i>means by sector, fall 2013</i>	All	Universities		4-Yr. Colleges		Community
	Institutions	Public	Private	Public	Private	Colleges
Alumni / Advancement / Development	\$ 46,298	\$ 81,451	\$ 140,328	\$ 29,157	\$ 34,277	\$ 21,436
Business Intelligence / Data Analytics	53,128	121,986	71,404	49,969	22,466	39,932
CRM	53,645	117,082	106,702	39,846	46,534	21,429
Finance / Accounting	165,289	403,416	508,036	184,853	42,853	63,524
Student Information System	196,131	484,404	216,192	172,786	102,942	163,845
Human Resources: Recruitment	35,266	84,848	36,220	43,156	18,738	25,847
Human Resources: Records & Payroll	90,787	273,702	211,140	49,487	33,782	51,582
Grants and Research Management	28,638	64,949	85,840	13,130	5,809	10,182
Learning Management Systems	131,000	270,866	239,935	111,882	68,136	106,373
Lecture Capture & Video Management	35,047	74,270	47,749	29,115	16,428	28,829
Library System Management	60,086	128,432	95,674	59,663	39,137	42,865
ePortfolio Services	15,598	20,067	66,071	12,753	8,011	5,476

- 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%)



Reorganizing IT Units, Fall 2013

Organizational structures for many IT units are in transition.

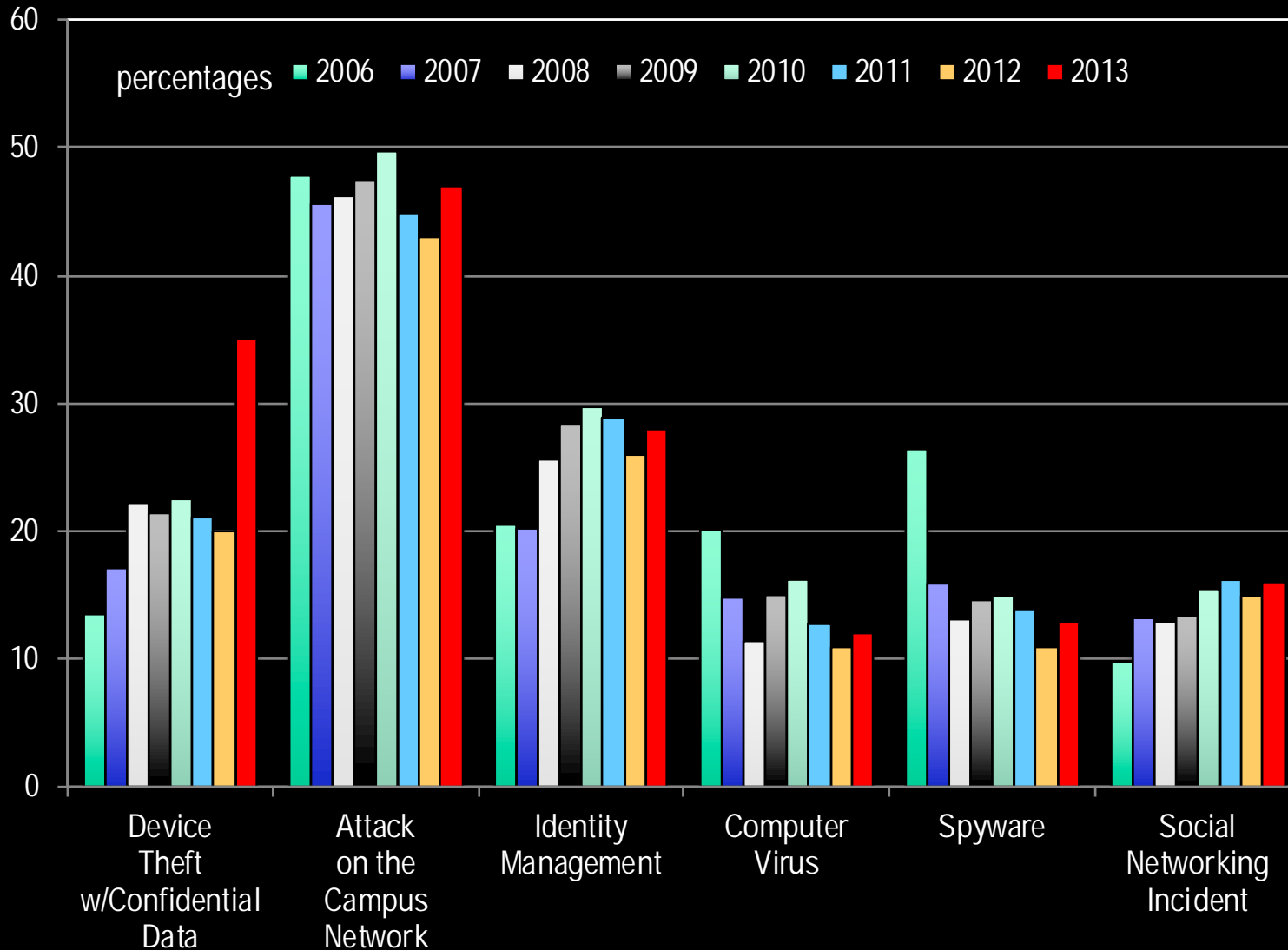


- Public 4-yr. colleges and universities were more likely to have an IT re-org than privates in the past 2 years
- Universities are more likely to anticipate a re-org in the next 2 years

Little change in these numbers in recent years



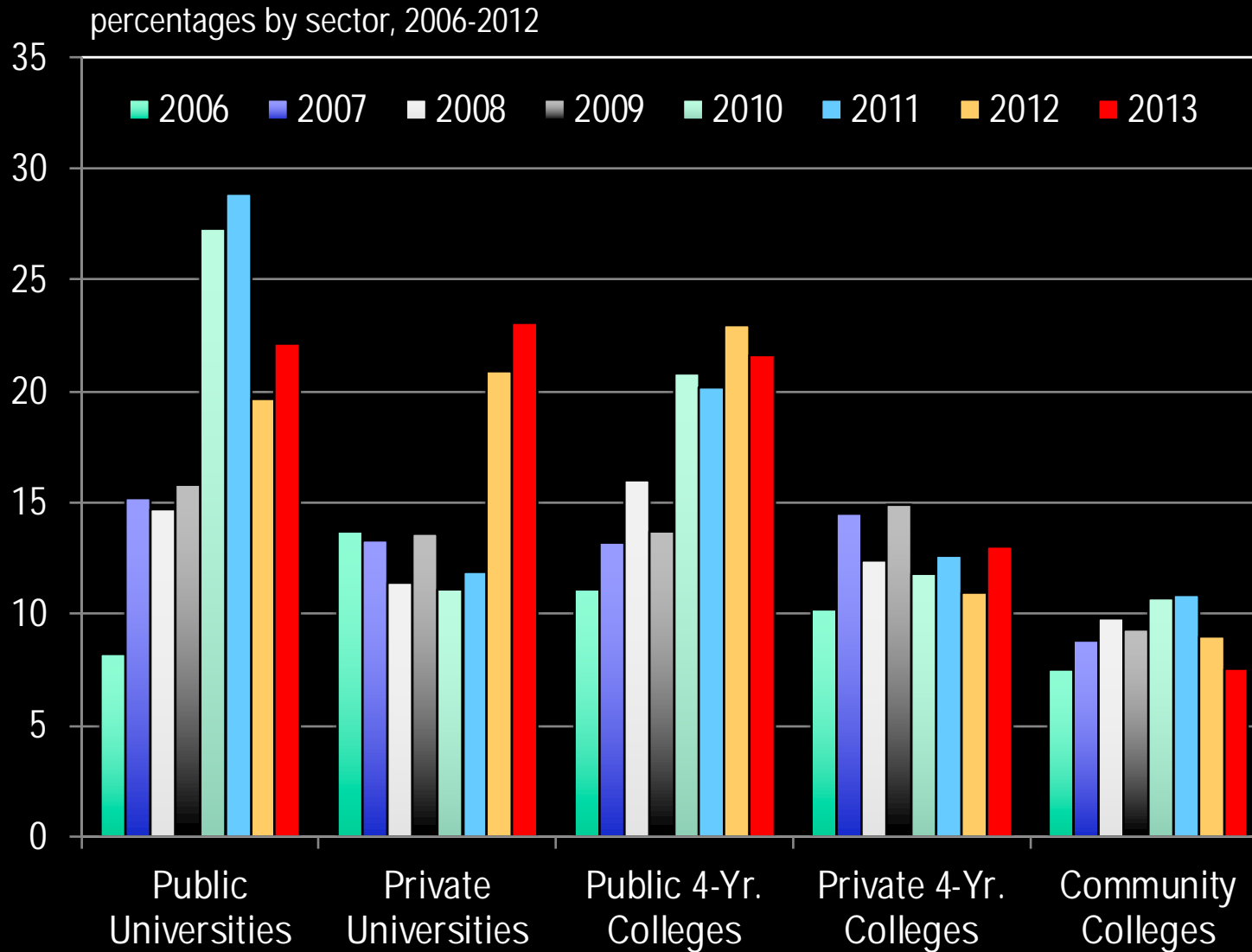
IT Security Incidents, A/Y 2006 – 2013



- Device theft rising (computer, phone, USB drive)
- Other issues "stable"



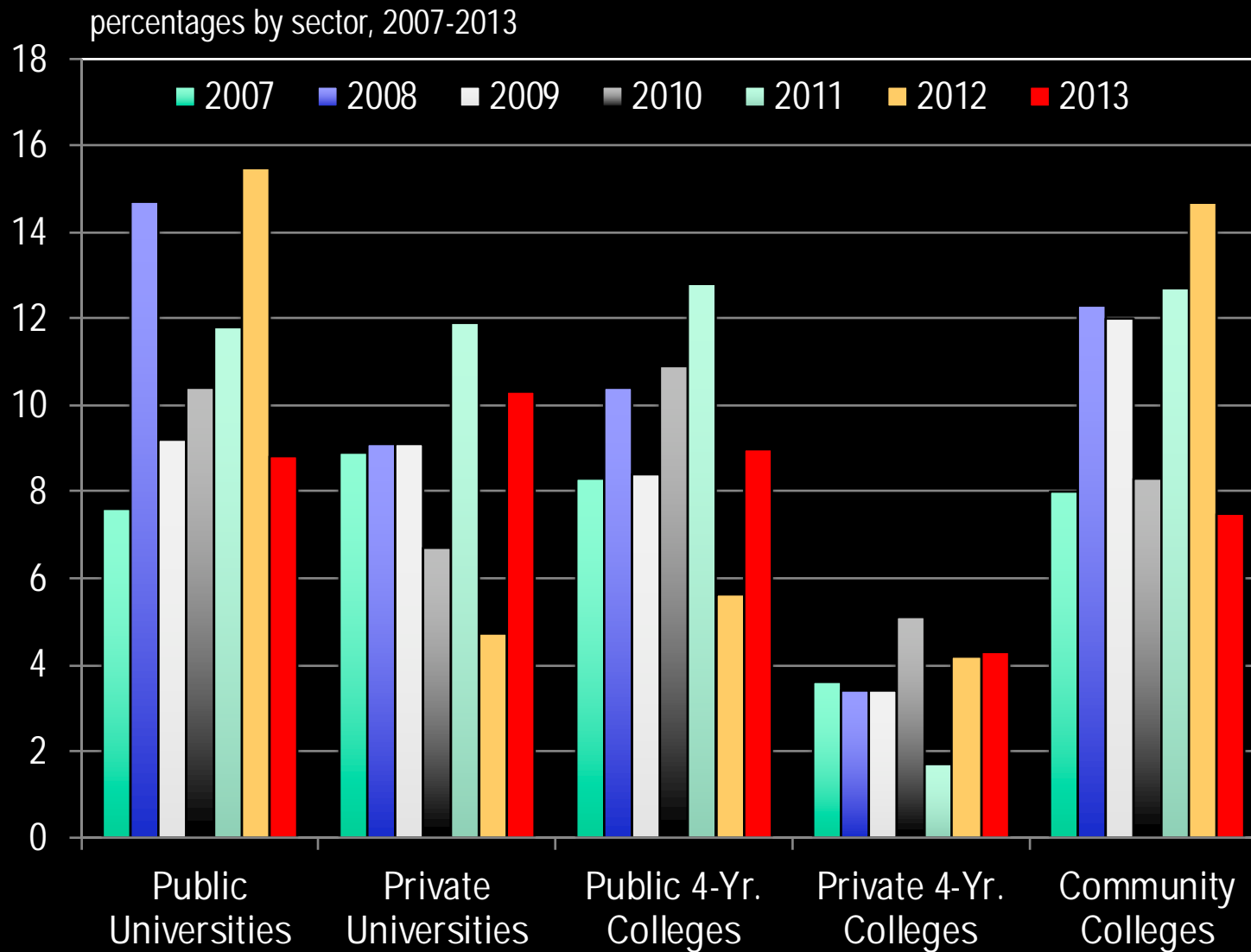
Student Security Incident Linked to a Social Networking Site



- Social networks continue to present campus security challenges



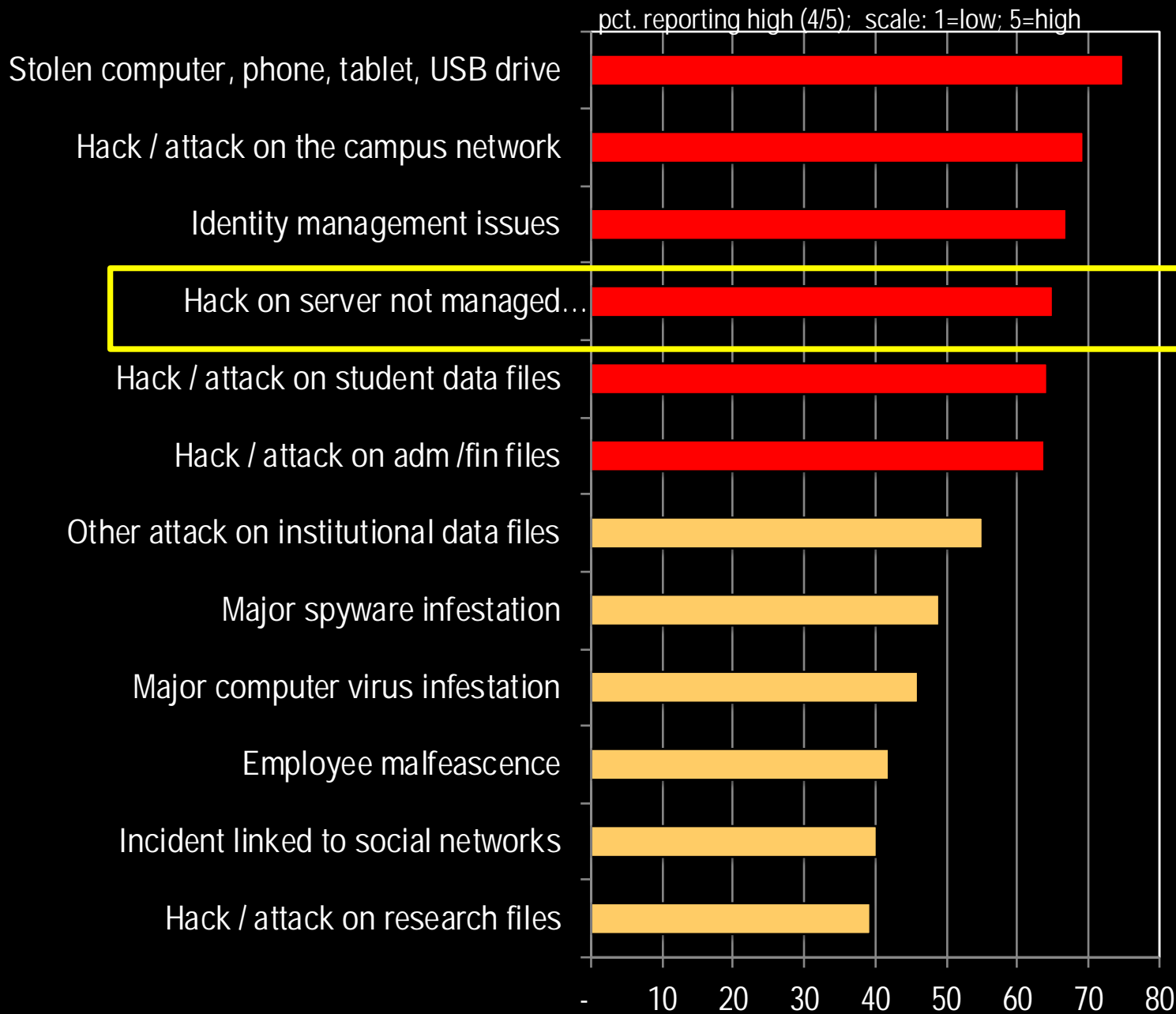
Intentional Employee Misconduct Affecting IT Security



- Employee misconduct reflects rising stress levels among IT staff



The IT Security Concerns of CIOs, Fall 2013



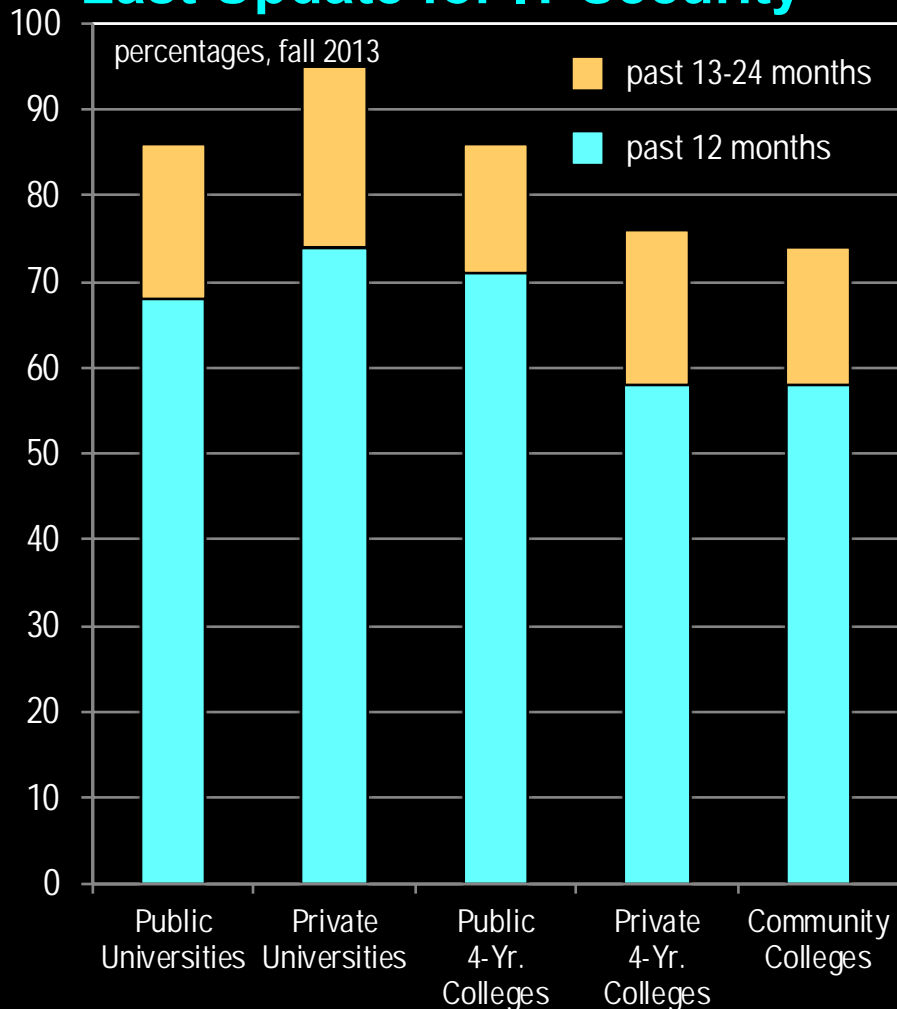
- The theft or loss of a device and network attack are the top security concerns.
- “Independent servers” are the “petulant adolescents” of campus IT security.



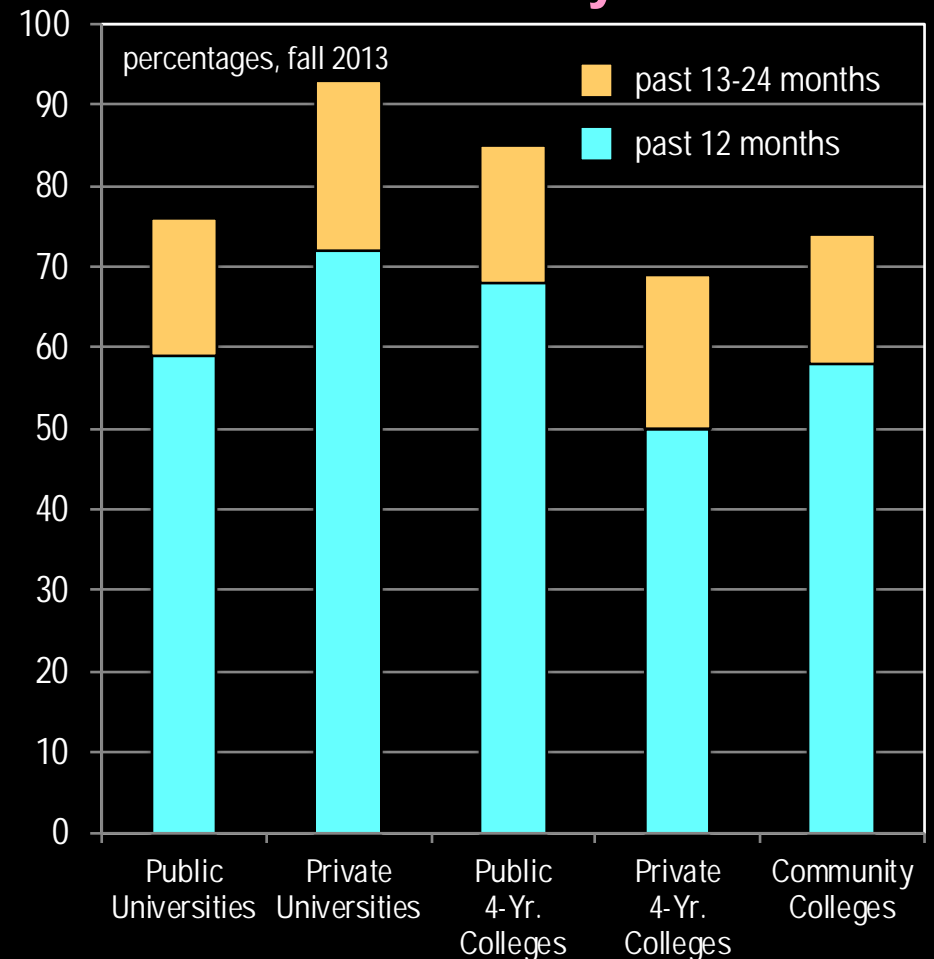
Updating Campus IT Security & Disaster Plans, 2013

- 23 pct.. DO NOT have a strategic plan for network and data security
- 33 pct.. DO NOT have a strategic plan for IT disaster recovery (vs. 39% in 2012)

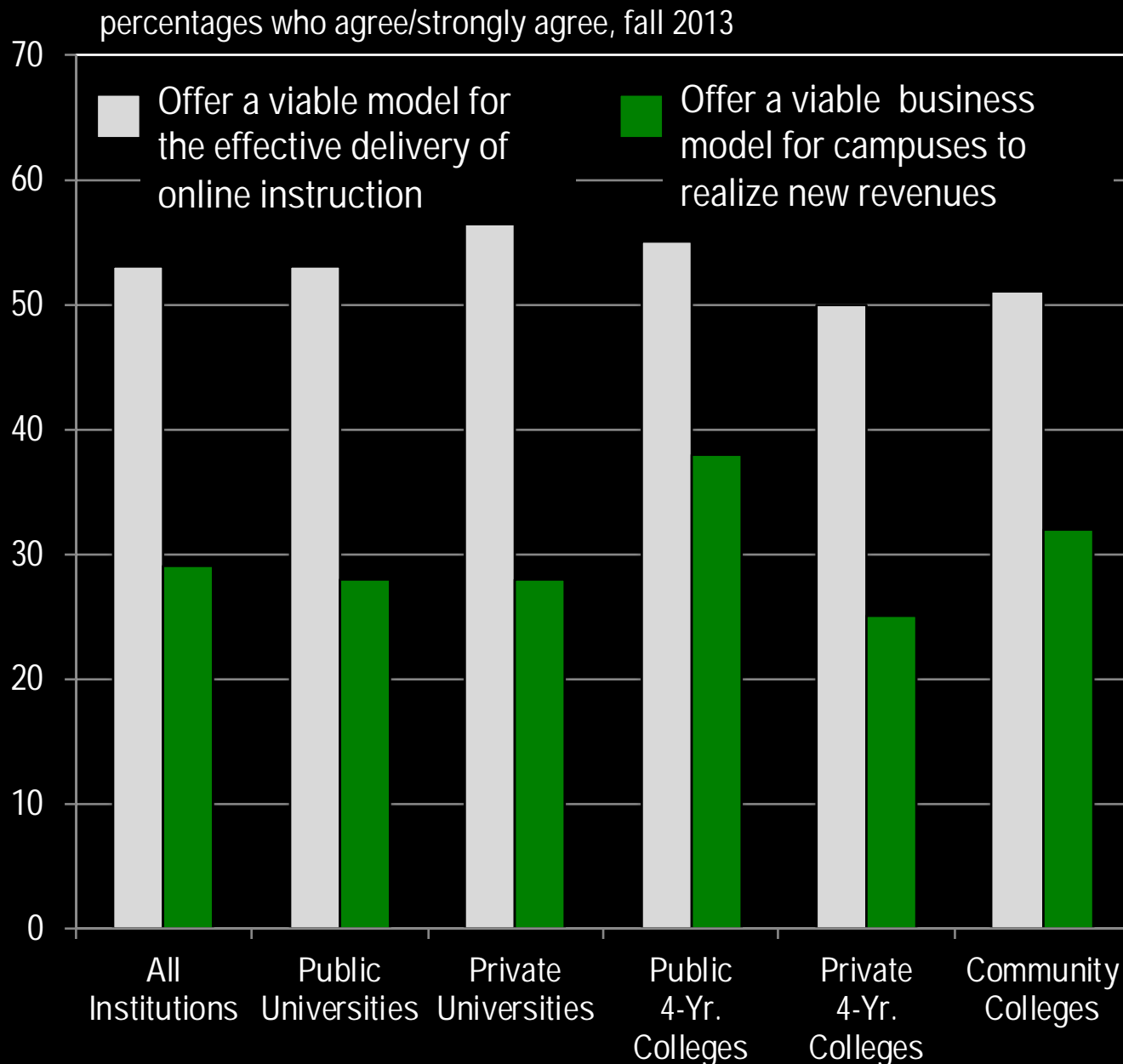
Last Update for IT Security



Last Update for IT Disaster Recovery



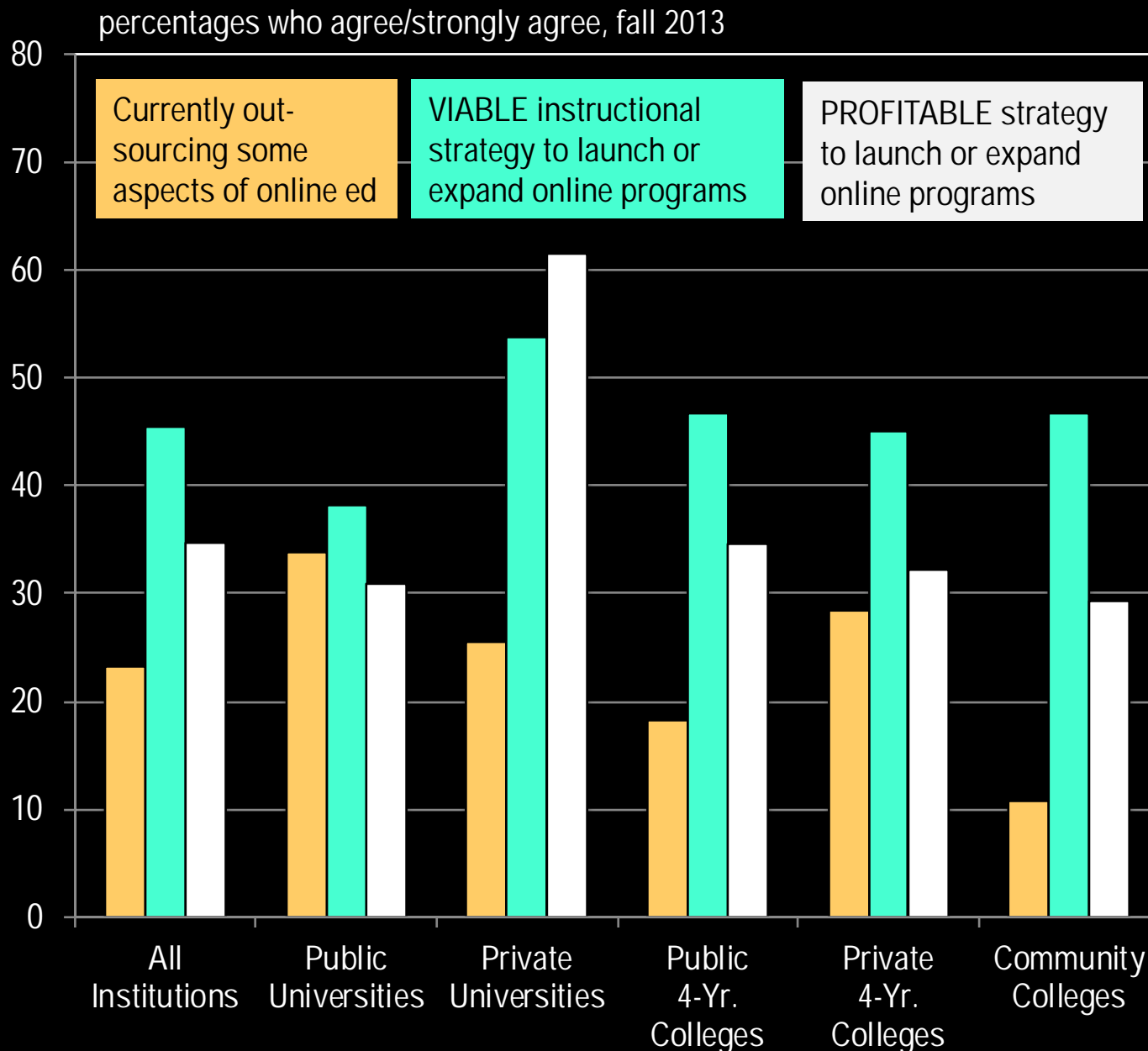
Much Ado About MOOCs?



- A bare majority of CIOs see MOOCs as viable model for online instruction
- More than two-thirds of CIOs are uncertain about the revenue mode
- Incremental gains over 2012



Outsourcing Instructional Services for Online Programs?



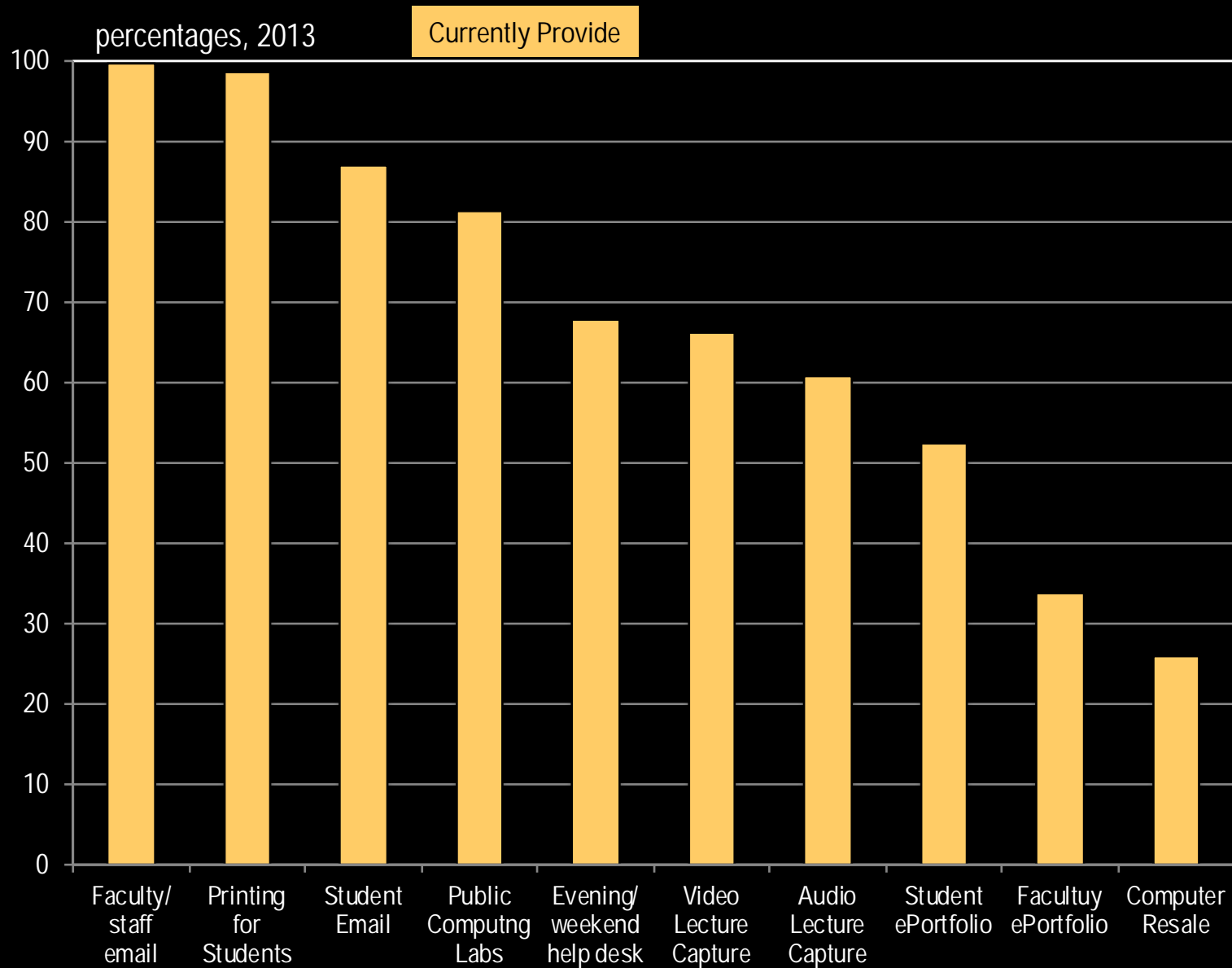
Are perspectives on MOOCs informed by real experience with outsourcing?

- Outsourcing some online ed services is well underway
- Outsourcing viewed as more effective for instruction than for profits.
- CIOs in private universities more supportive of outsourcing instructional services than their peers.



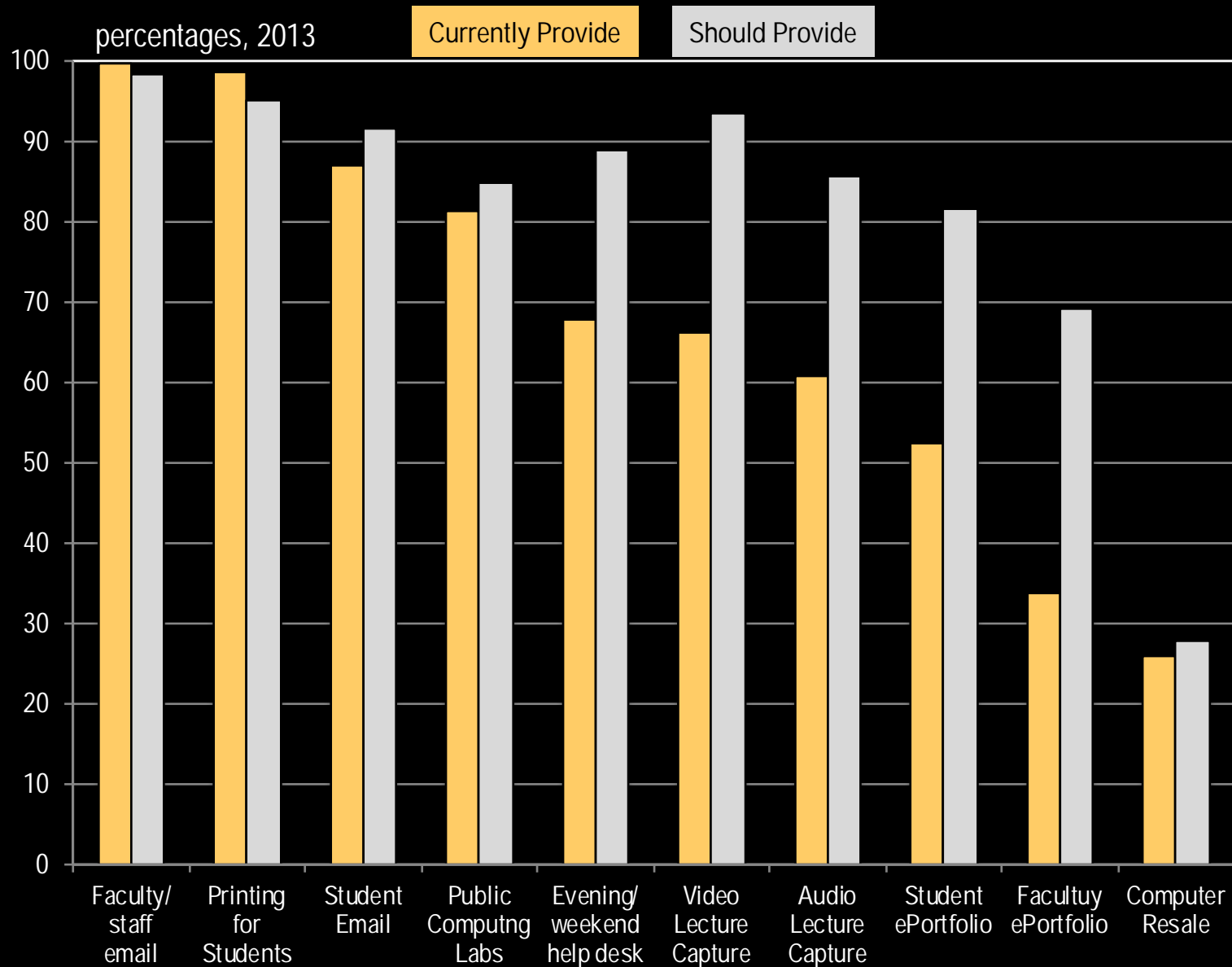
To provide or not to provide

Campus IT Services



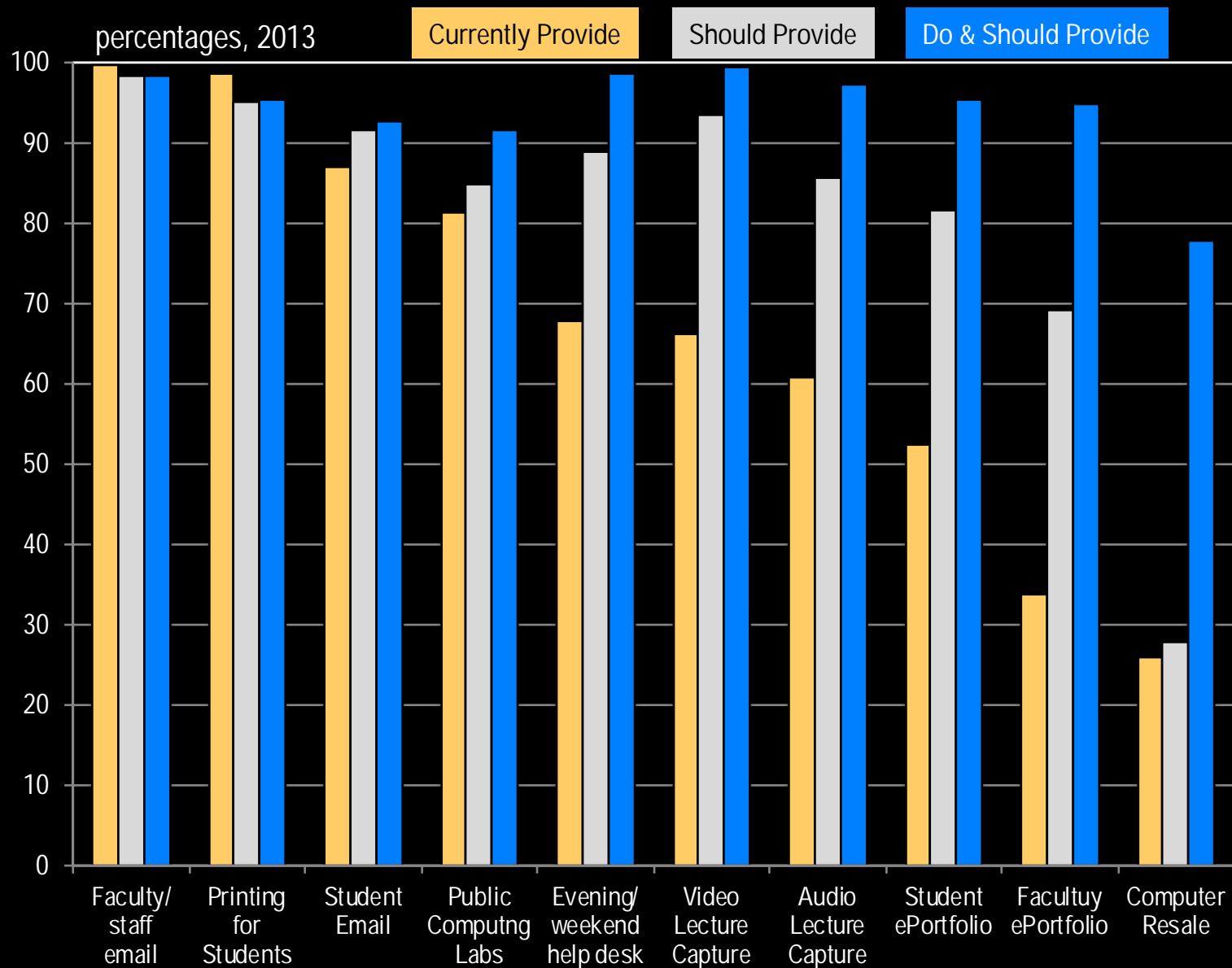
- Do we offer IT services that we could reduce or cut?

To provide or not to provide Campus IT Services



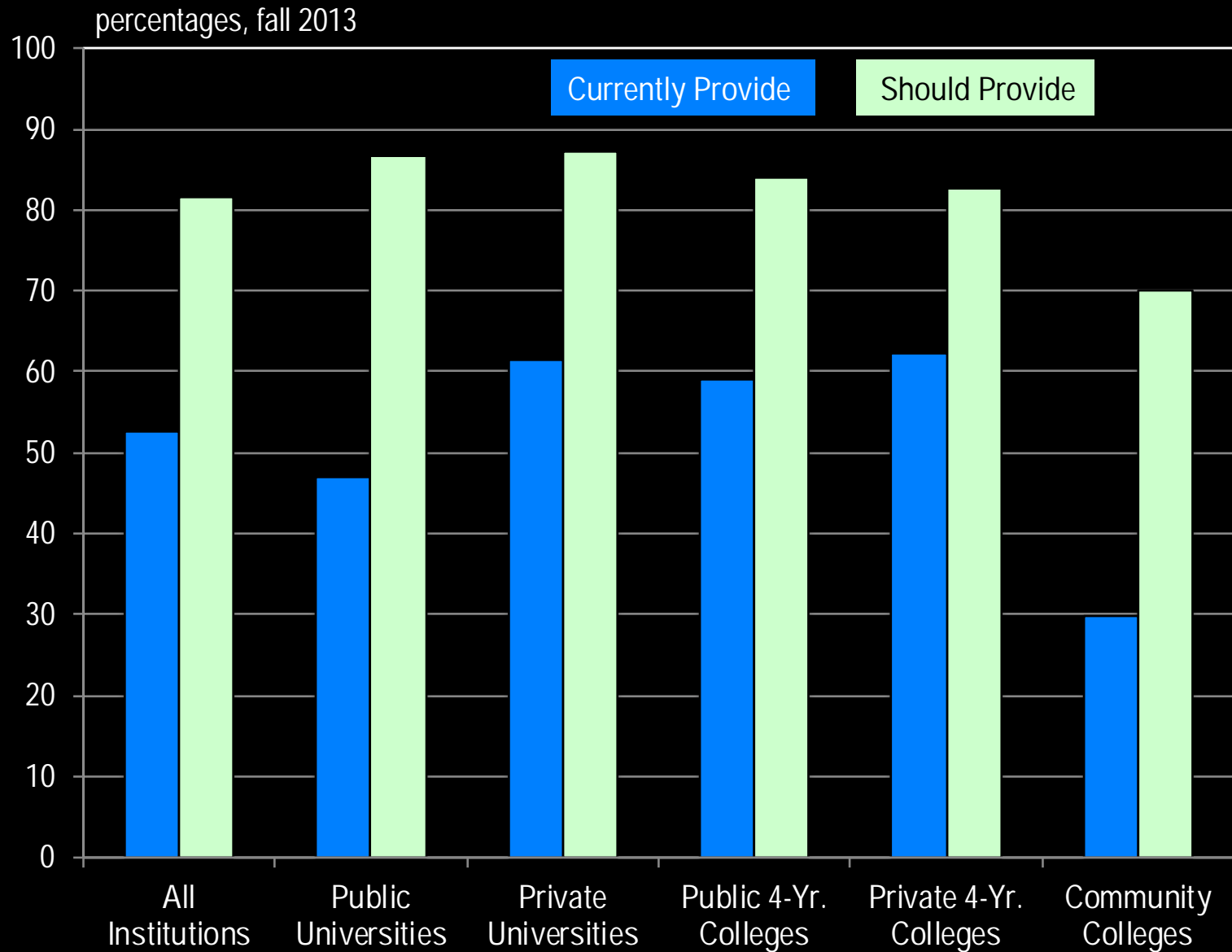
- Few CIOs are prepared to reduce IT services many say they would like to cut.

To provide or not to provide Campus IT Services



- Few CIOs are prepared to reduce IT services many say they would like to cut.

ePortfolio Services for Students



- Most CIOs believe that their campuses should offer ePortfolio services, even as many colleges do not.

Let's Talk About Clouds



Where are the Clouds?

High Clouds
ERP & HPC

Middle Clouds
Calendar, CRM & LMS

Low Clouds
mail & calendar

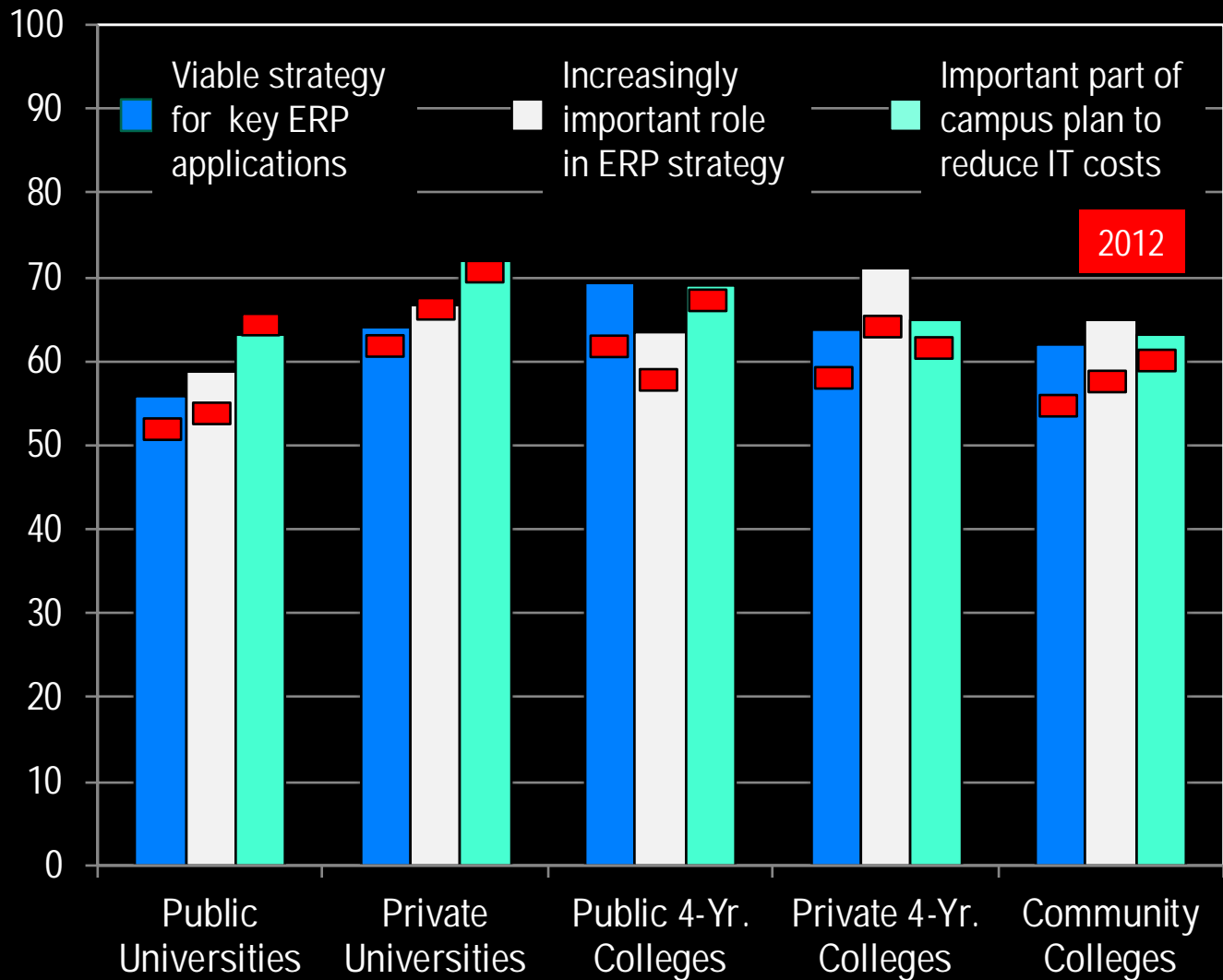
Just over a fourth of campuses (27%) have a strategic plan for Cloud Computing, up from:

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



Affirming the Strategic Importance of Cloud Computing

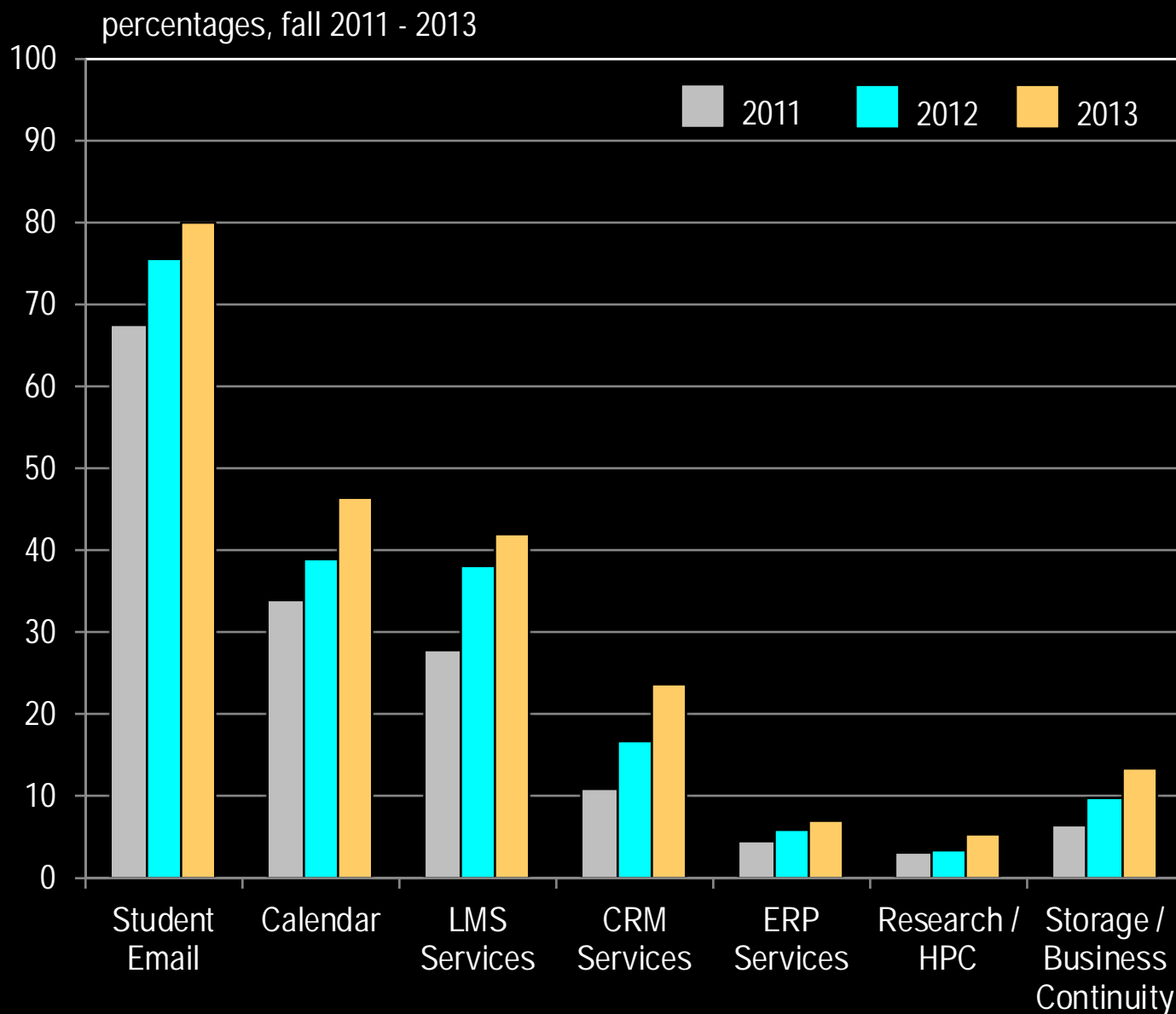
percentage who agree/strongly agree, fall 2013



- Across all sectors, a clear message that CIOs view moving ERP to the Cloud as strategic for their institution.

The Cloud

Slow Migration to Cloud Computing



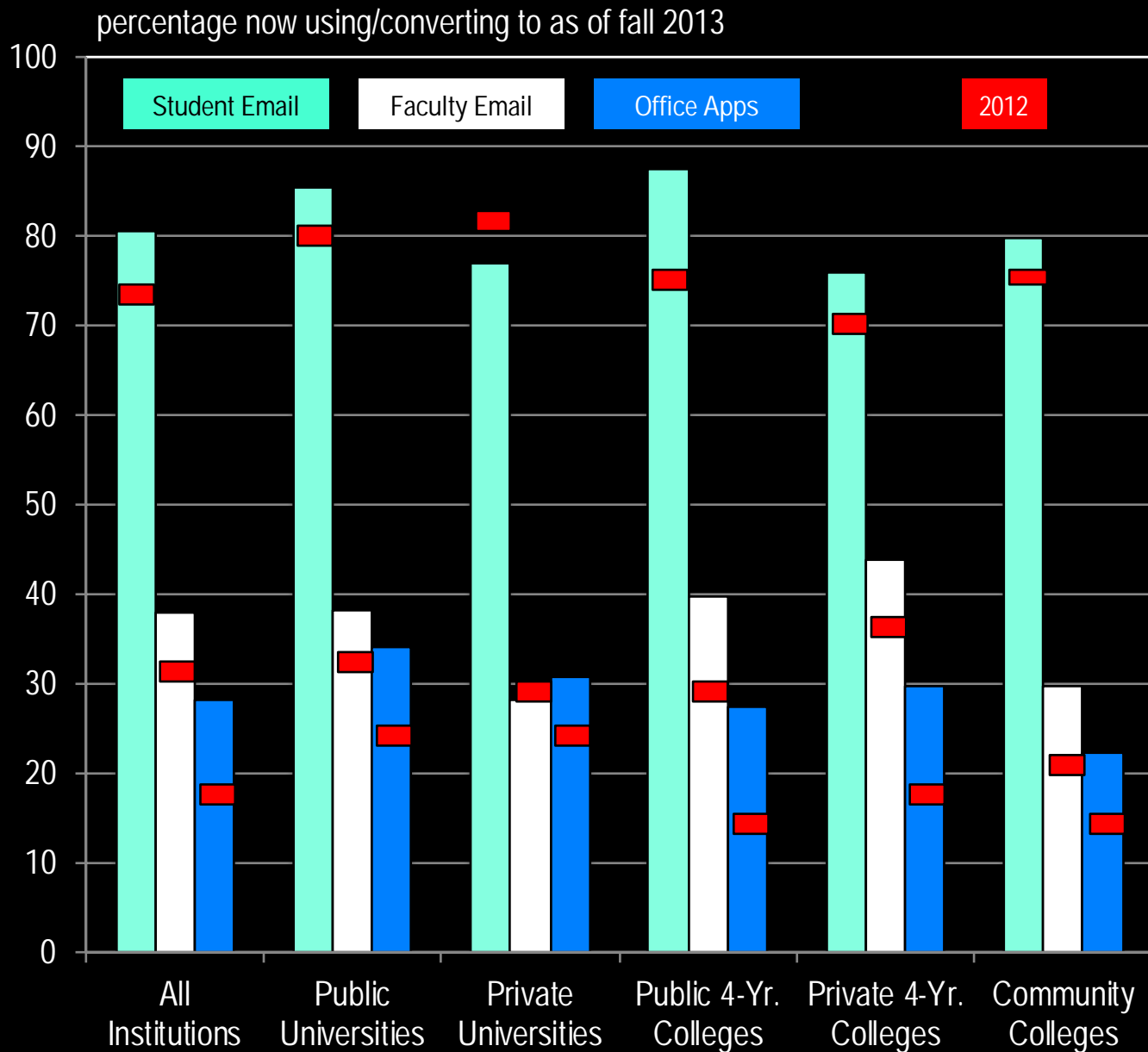
Still little movement to the Cloud for the really big, high-value tasks:

- Risk
- Limited Options from Providers
- Trust
- Control



The Cloud

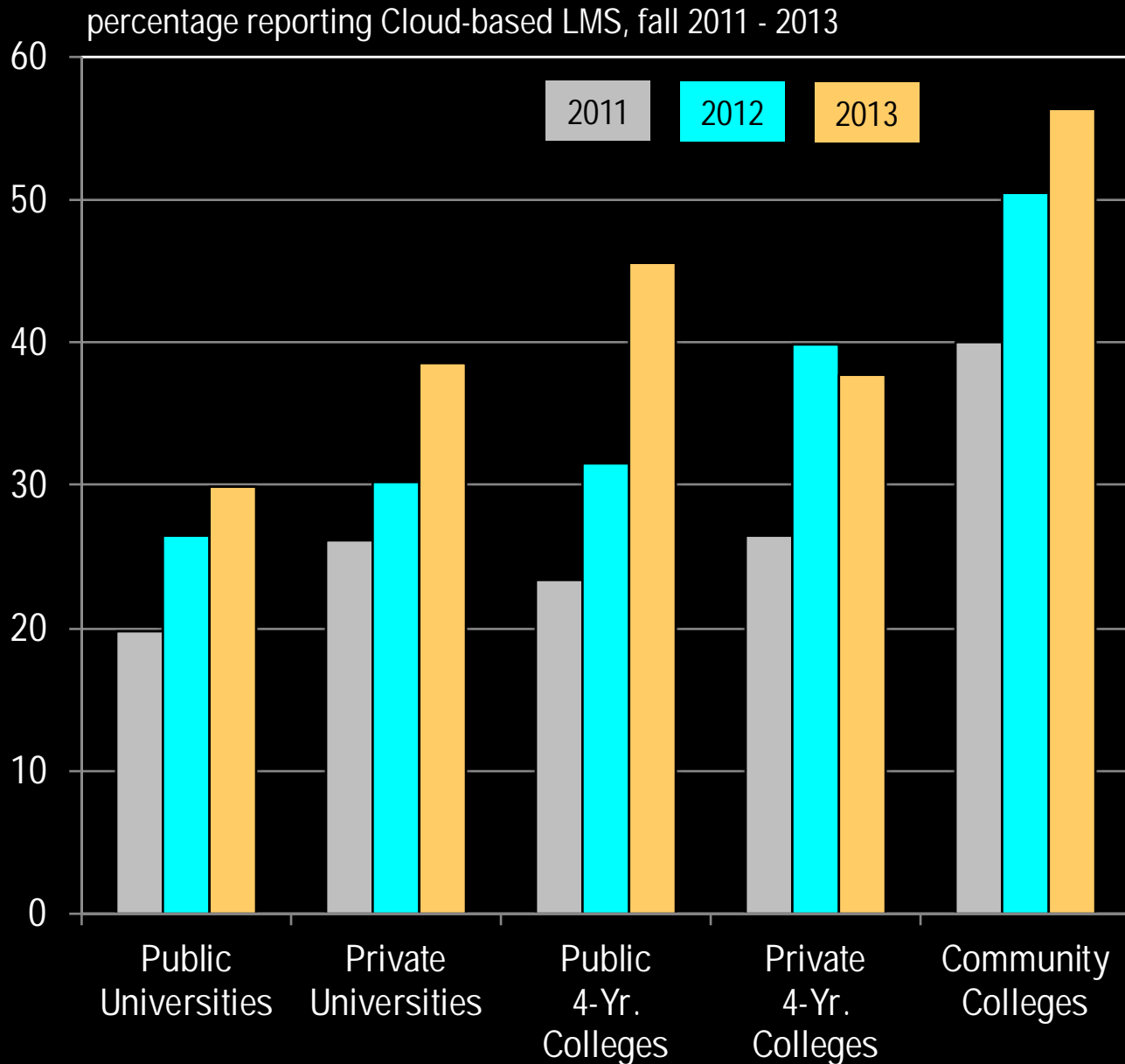
eMail and "Office" Applications



- Student email is now "deep" in the Cloud, courtesy of Google and Microsoft
- Less willing to move faculty & adm. email to Cloud services
- Slow campus movement to Cloud Apps – Google Docs and Microsoft 365
- Small but noticeable gains compared to fall 2012



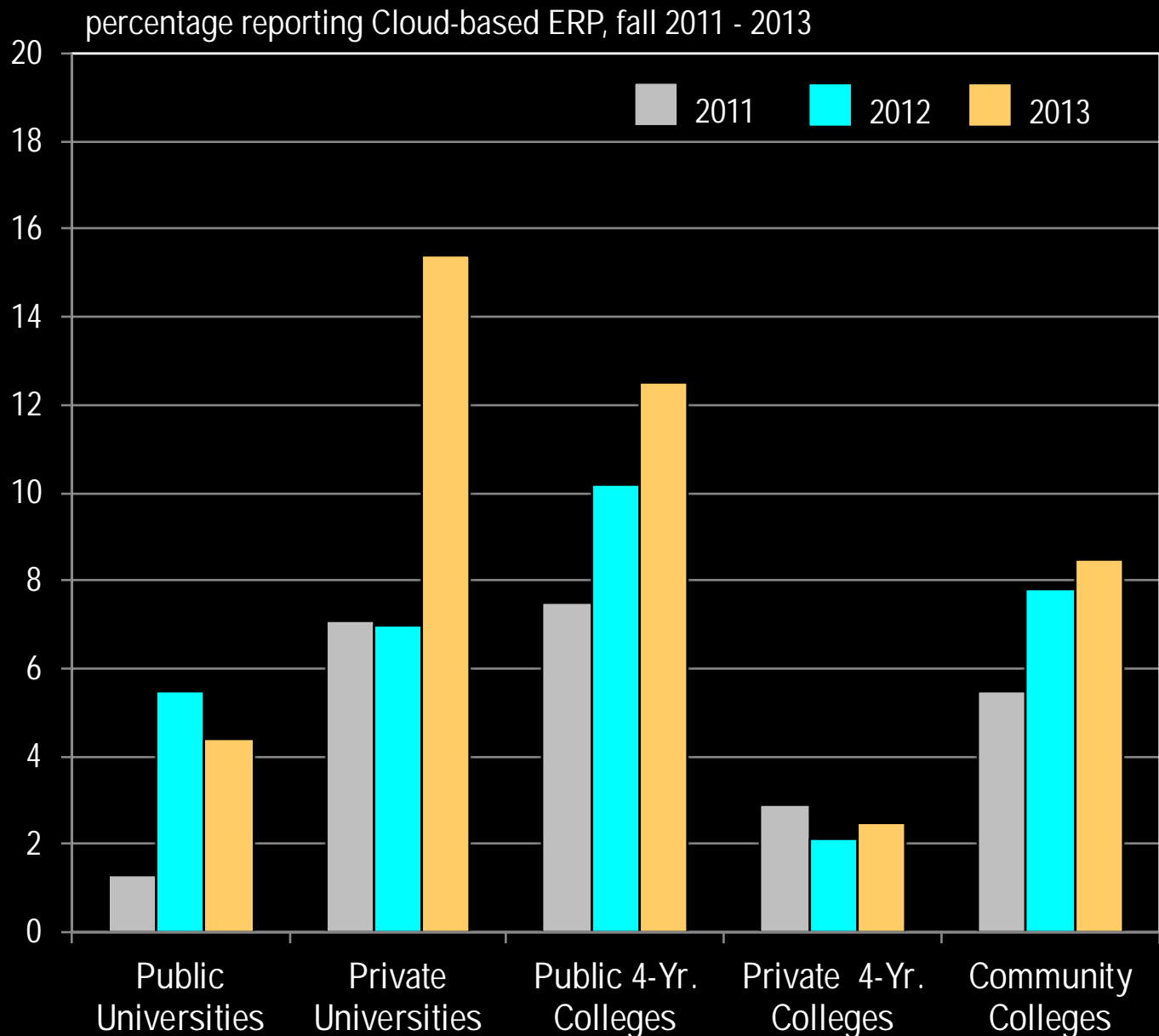
LMS Moves to the Clouds



LMS as the “toe in the Cloud” experience for higher education?



ERP Moves (Slowly) to the Cloud

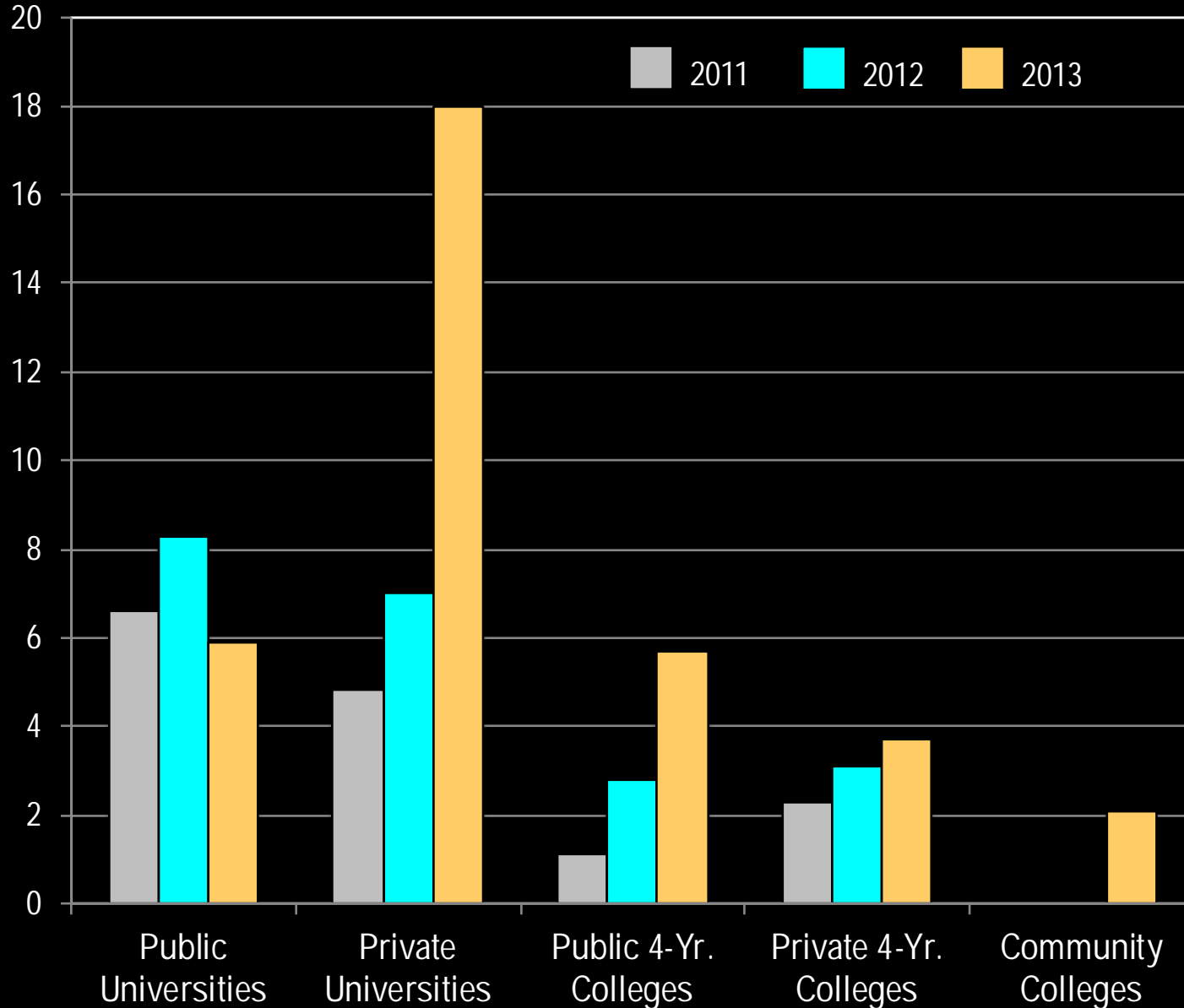


- Do gains in 2013 reflect the rising role of Cloud apps for HR services?
- Do multi-campus system structures foster faster migration to the Cloud for ERP?
 - ✧ Public 4-Yr Colleges
 - ✧ Community Colleges



Research and HPC Move (Slowly) to the Cloud

percentage reporting Cloud-based research & HPC, fall 2011 - 2013



Varying departmental vs. institutional strategies, initiatives, and deployment?



No Mass Movement to the Cloud by 2018

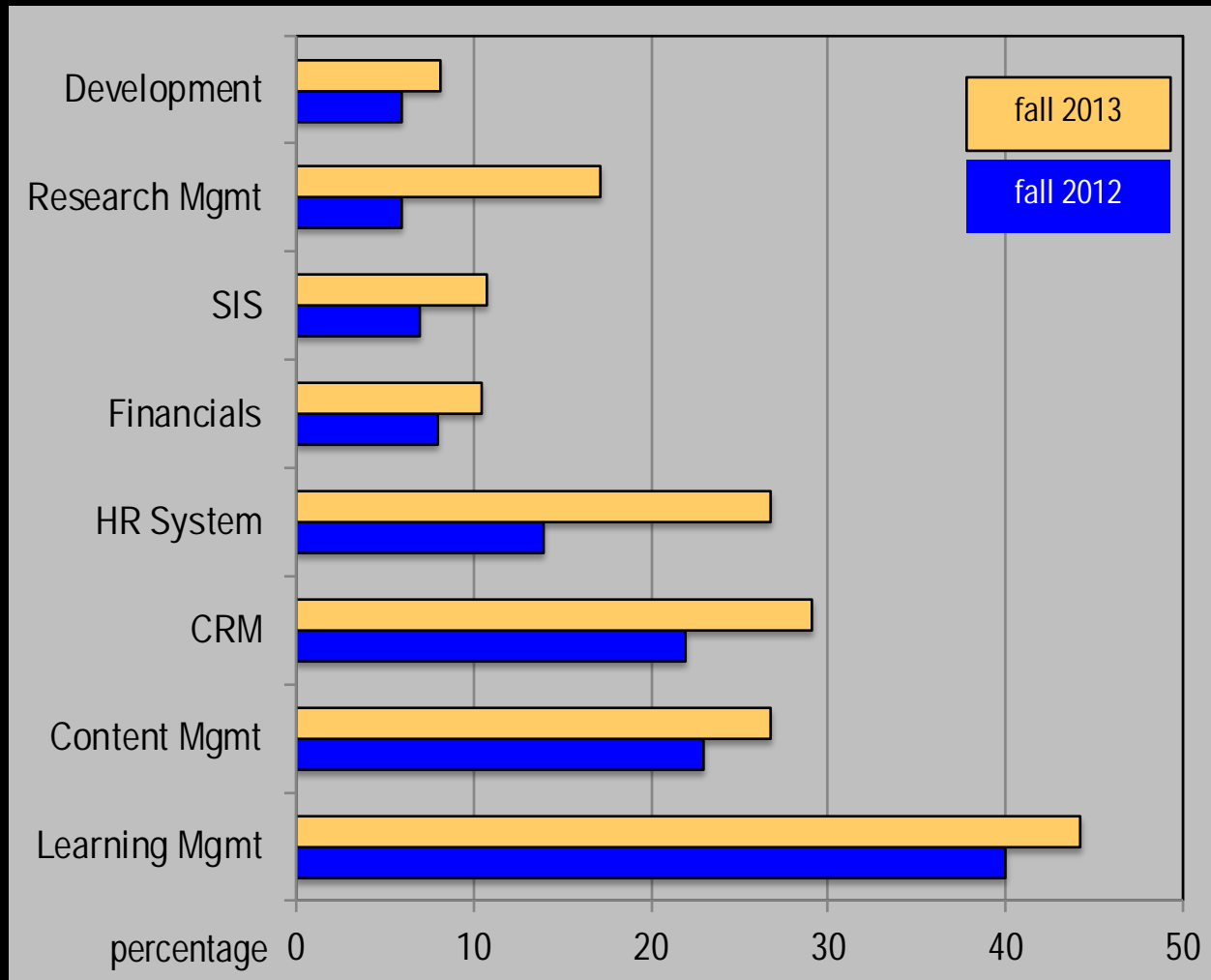
High likelihood of my campus moving to a Cloud/SaaS Solution in Five Years

(scale: 1=not likely; 7=very likely; pct.. for 6/7)

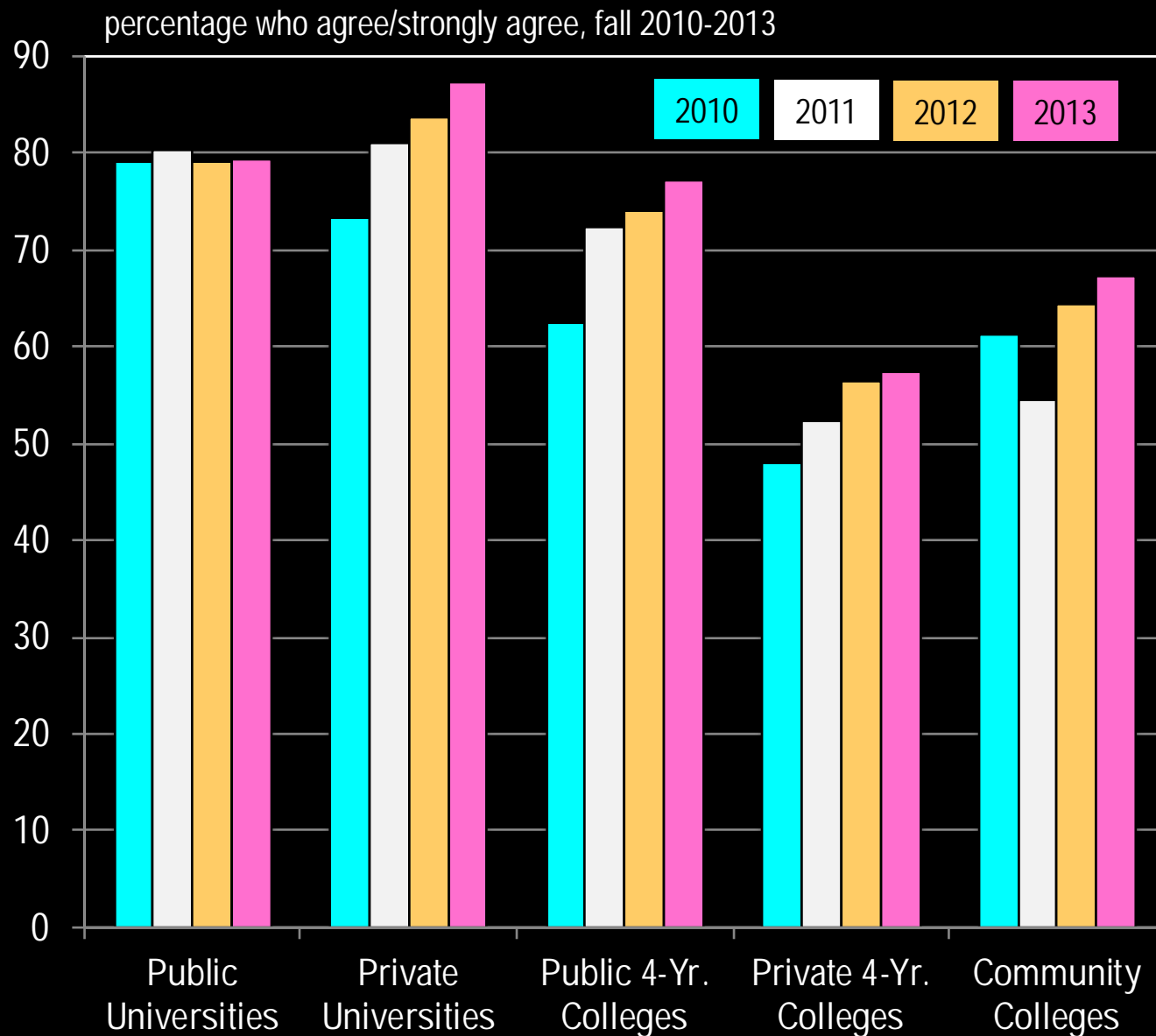
Some gains in 2013, but most CIOs don't see "high cloud" applications coming soon to their campuses

Explanations?

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



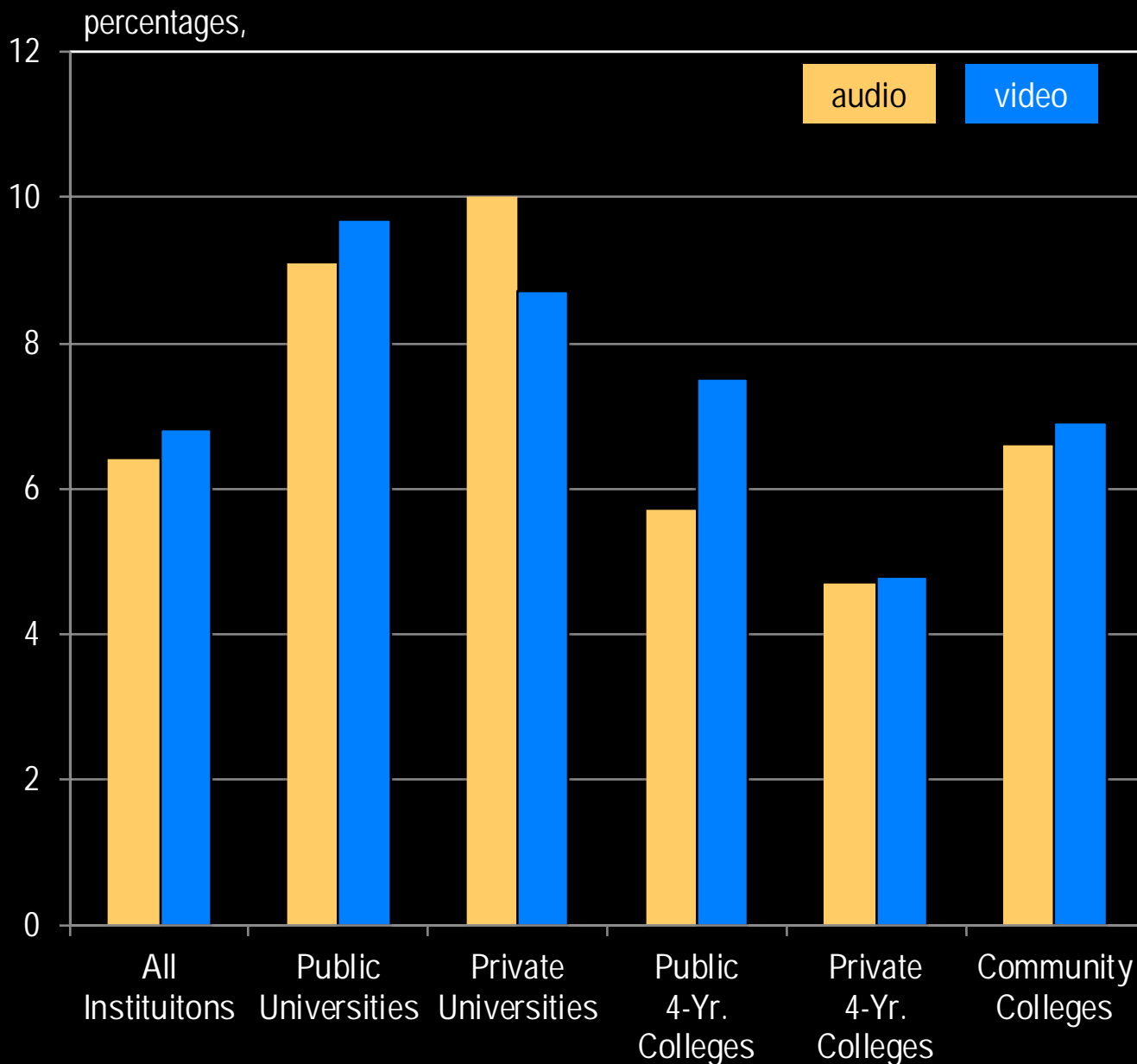
“Lecture Capture is an Important Part of Our Campus Plan for Developing & Delivering Instructional Content”



- Slight gains in the importance of Lecture Capture.
- Growing role of video in lecture capture



Lecture Capture, Fall 2013



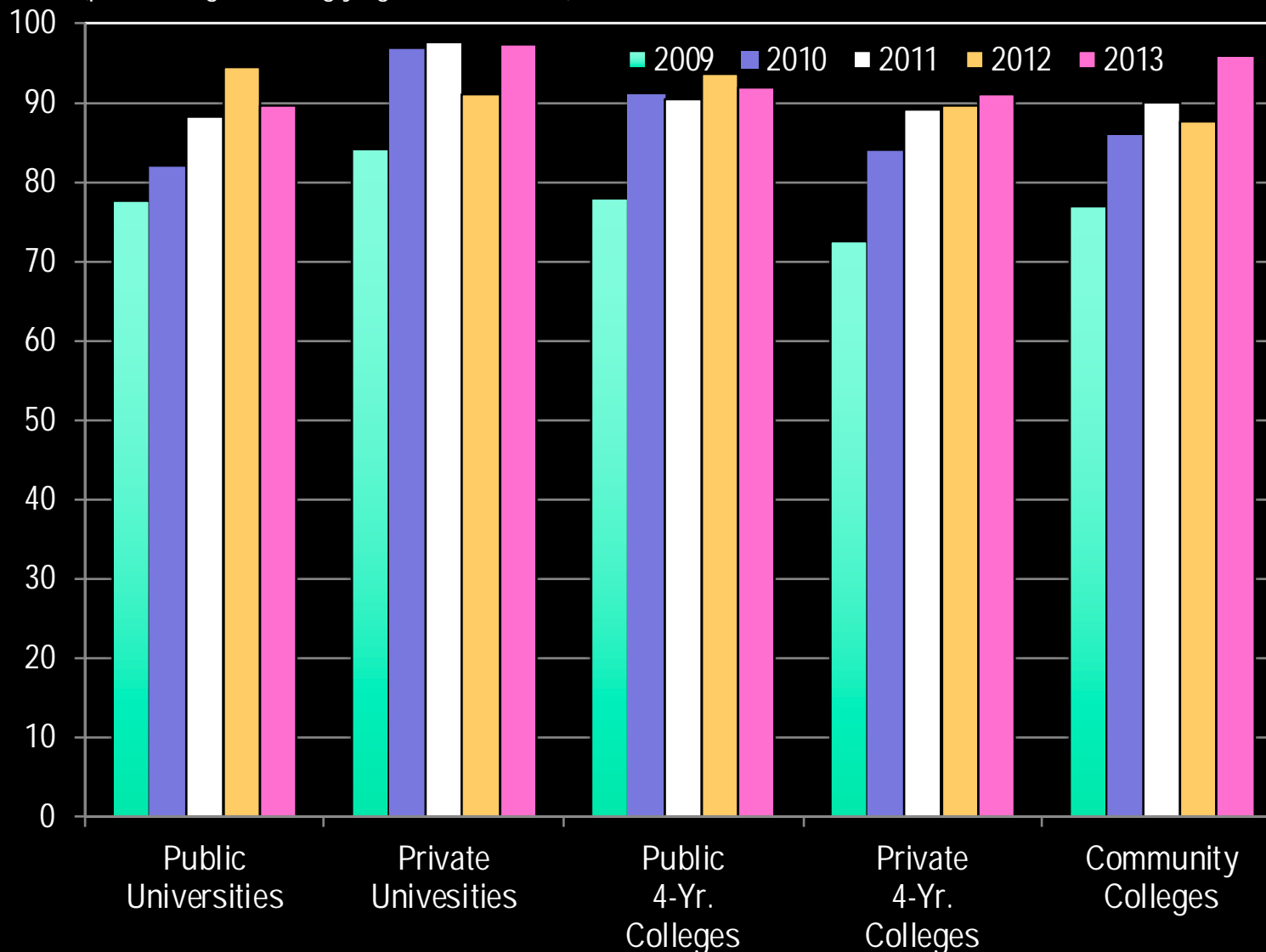
- Percentages understate real numbers as much of the activity is in large, lower-division undergraduate classes.
- Video increasingly important for hybrid, flipped, and online courses



The Future (Still!) Bodes Well for eBooks!

eBook Content Will be an Important Source for Instructional Resources in Five Years

(pct. who agree/strongly agree, 2009 - 2013)

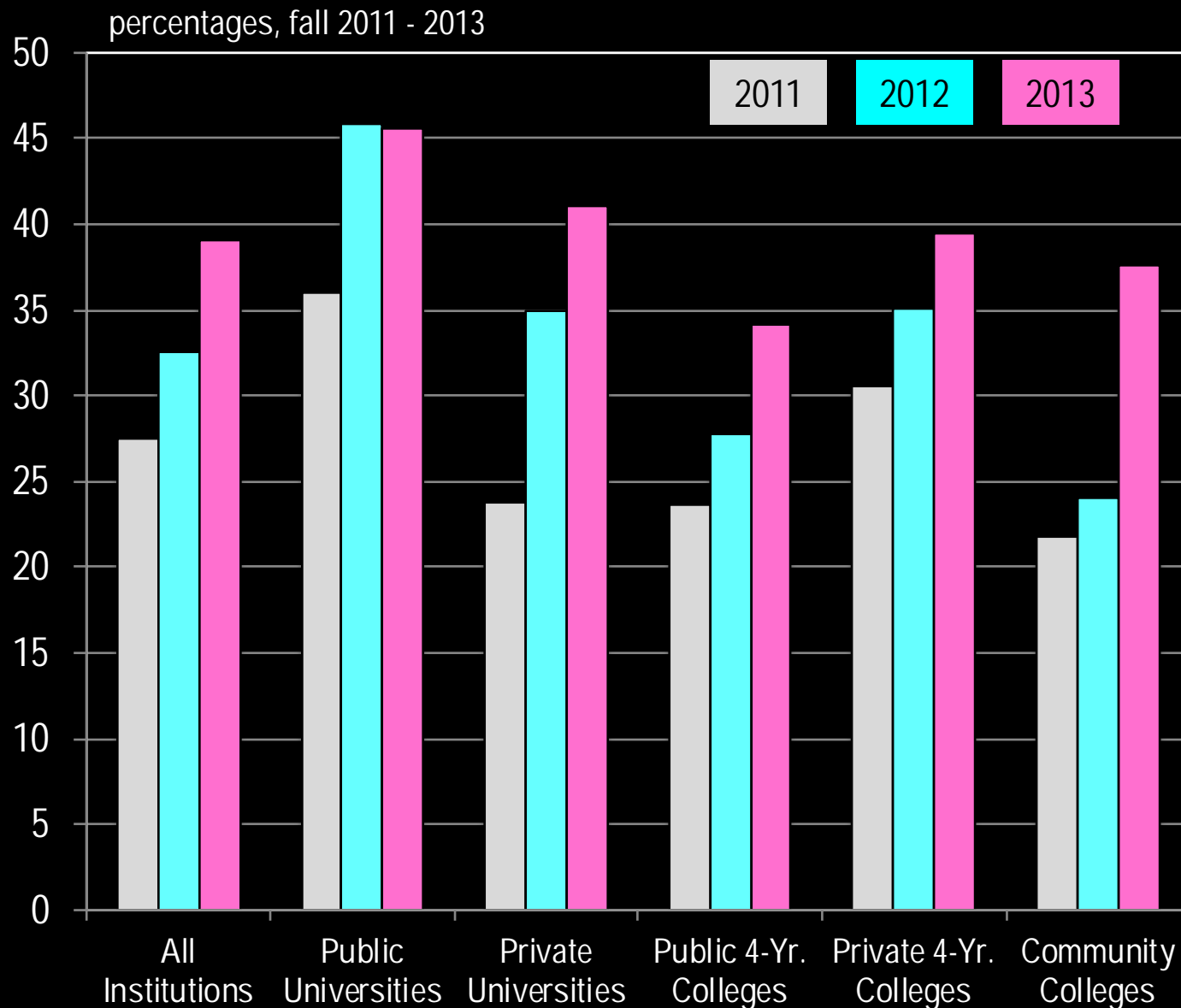


We're still waiting for that future to arrive!

- Students remain less enthusiastic than publishers.
- Still waiting for eTexts to deliver on added-value AND lower cost.



Encouraging the Use of the Creative Commons License for Digital Content

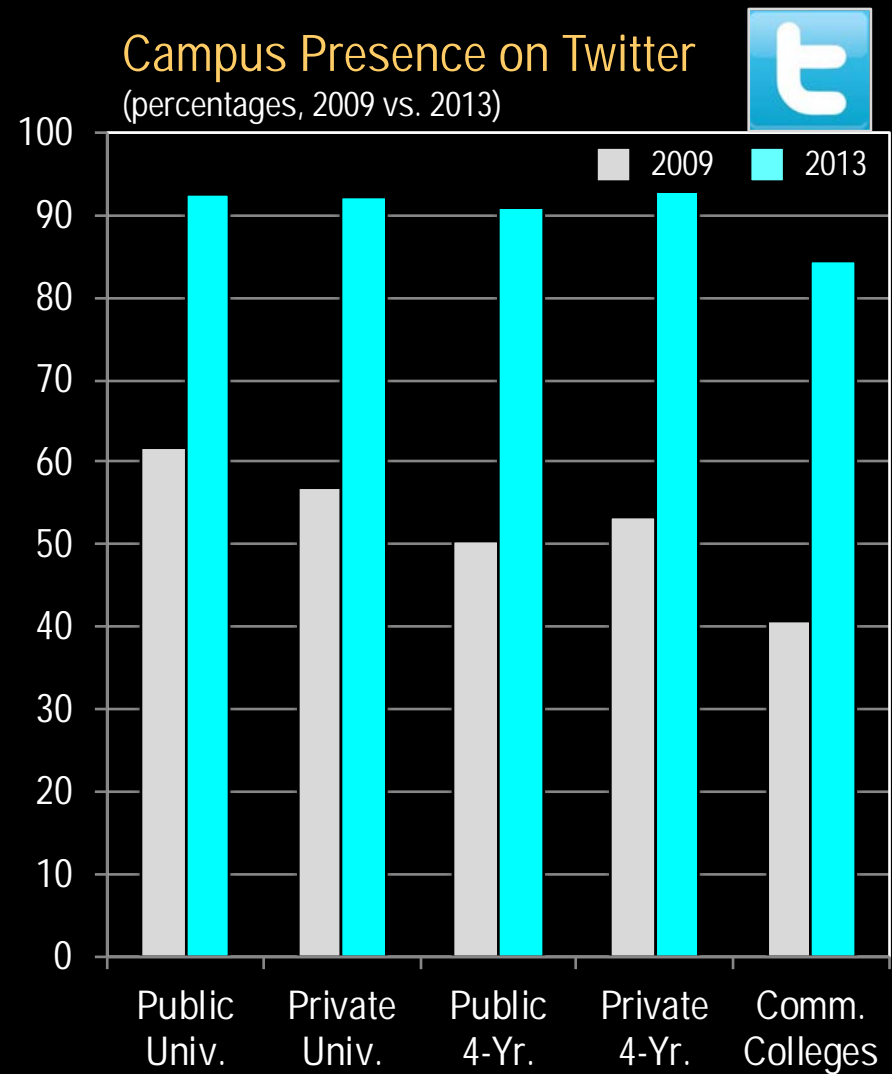
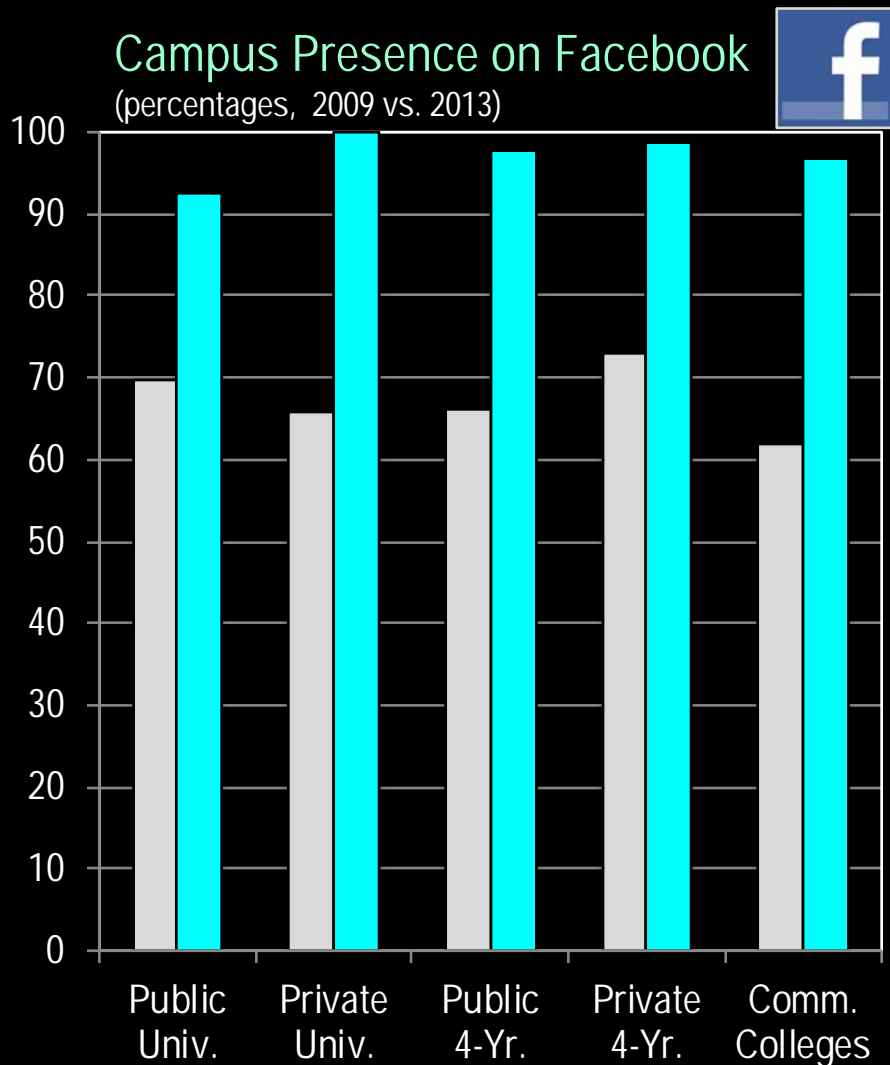


Producers vs. users

- Survey question focuses on the faculty as producers of digital content
- Uncertain impact on the faculty prerogative to select course materials



Institutional Use of Social Media



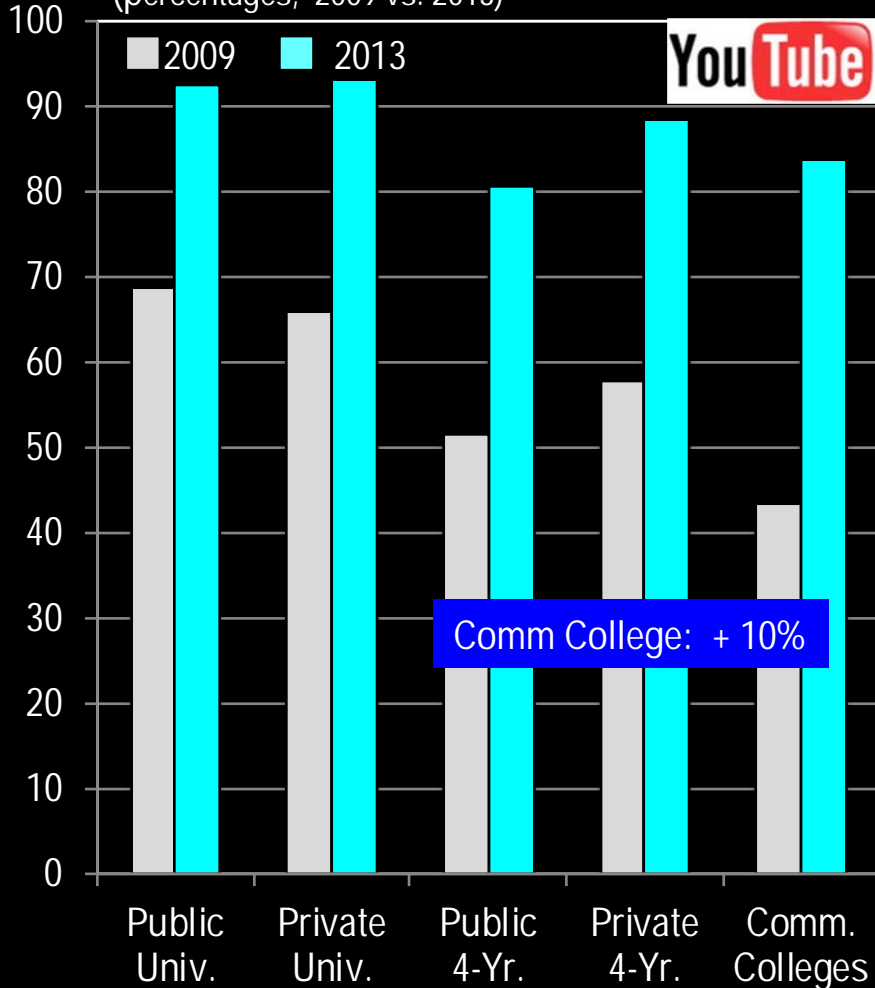
- Facebook: Incremental Gains
- Twitter: +10% for Pvt Univ and Pub 4-Yr.



Institutional Use of Other Media

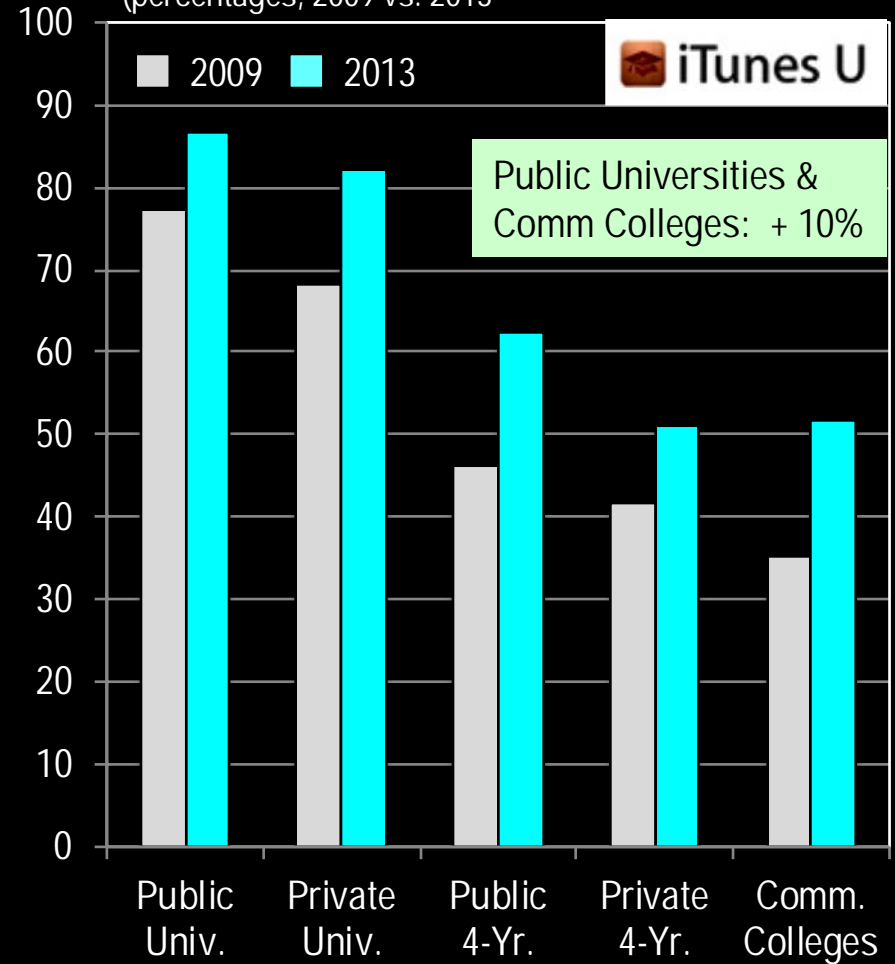
Campus Presence on YouTube

(percentages, 2009 vs. 2013)

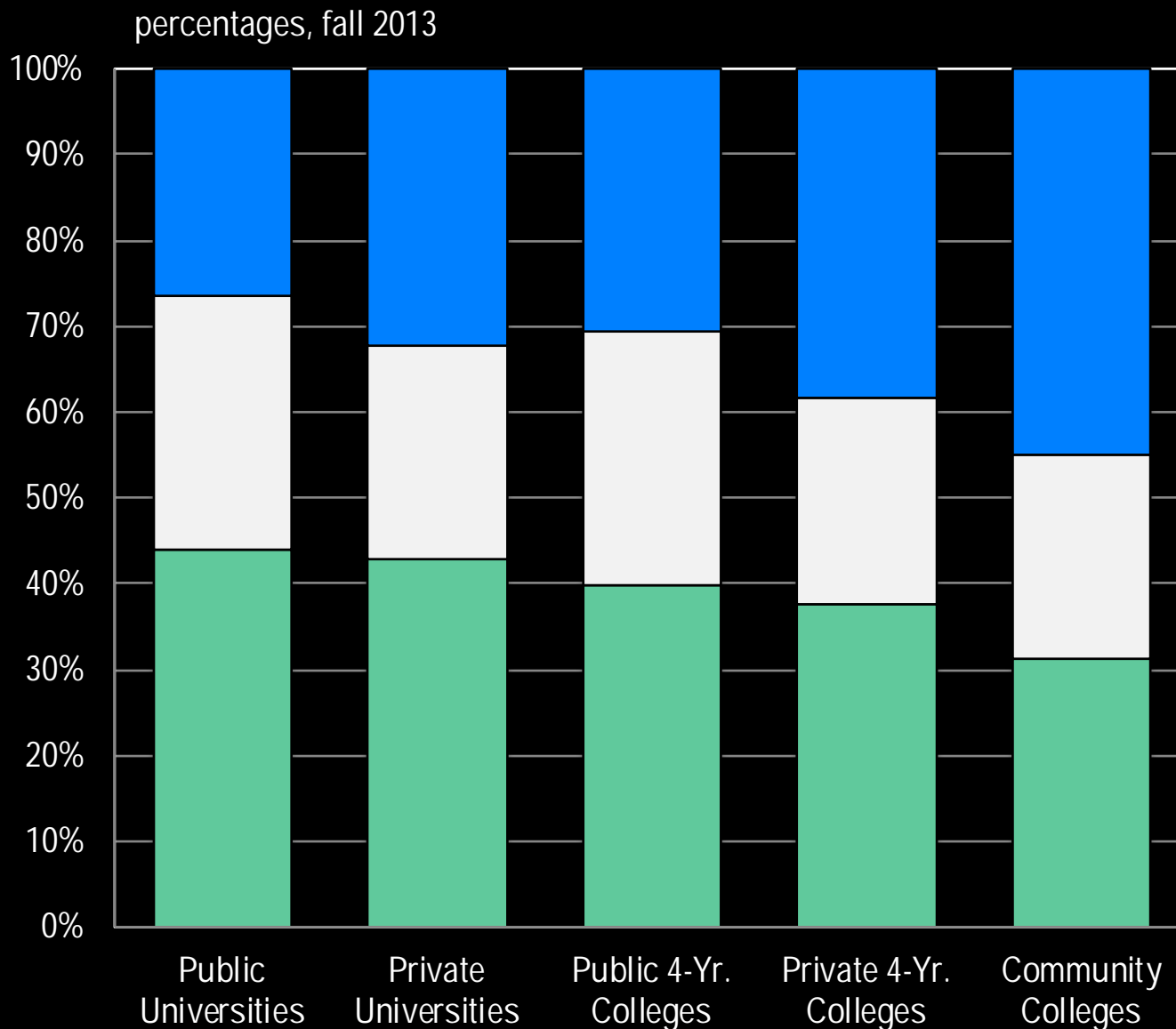


Campus Presence on iTunesU

(percentages, 2009 vs. 2013)



Managing and Monitoring Social Media



- Wide range of institutional policies on and practices on monitoring institutional social media activities.

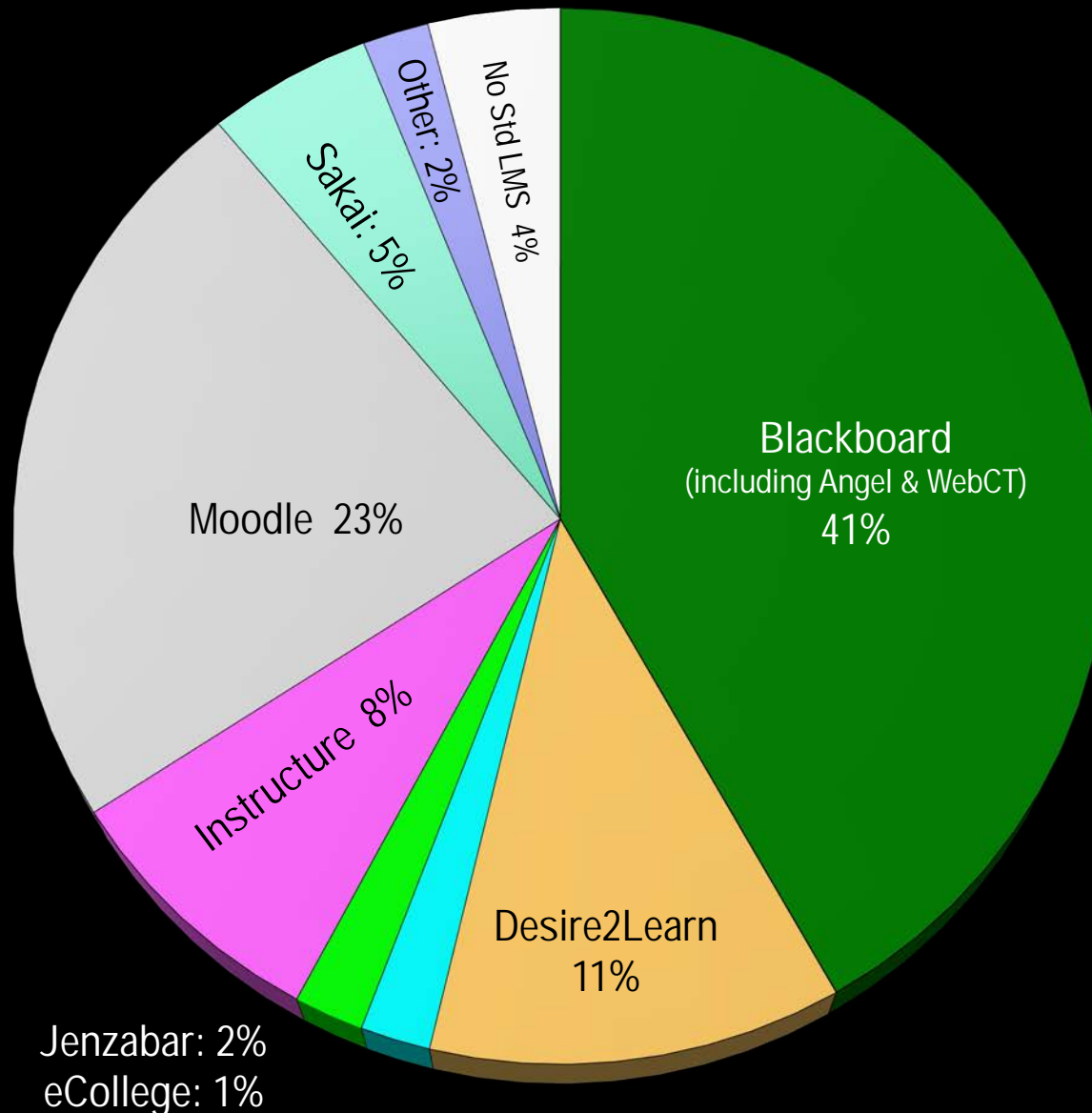
■ Individual units operate with autonomy ■ Central monitoring but no campus policies ■ Campus policies and central monitoring



A Profile of the LMS Market, Fall 2013

Does your campus have a single [campus-wide] LMS?

(percentages, all institutions)



- Topping off on LMS use? 62 pct.. of classes using the LMS in 2013, compared to 58 pct.. 2011 but way up from 17 pct.. in 2000.
- Blackboard share down from 57 pct.. in 2010, 71 pct.. in 2006.



Institutional Demography of LMS Providers, 2013

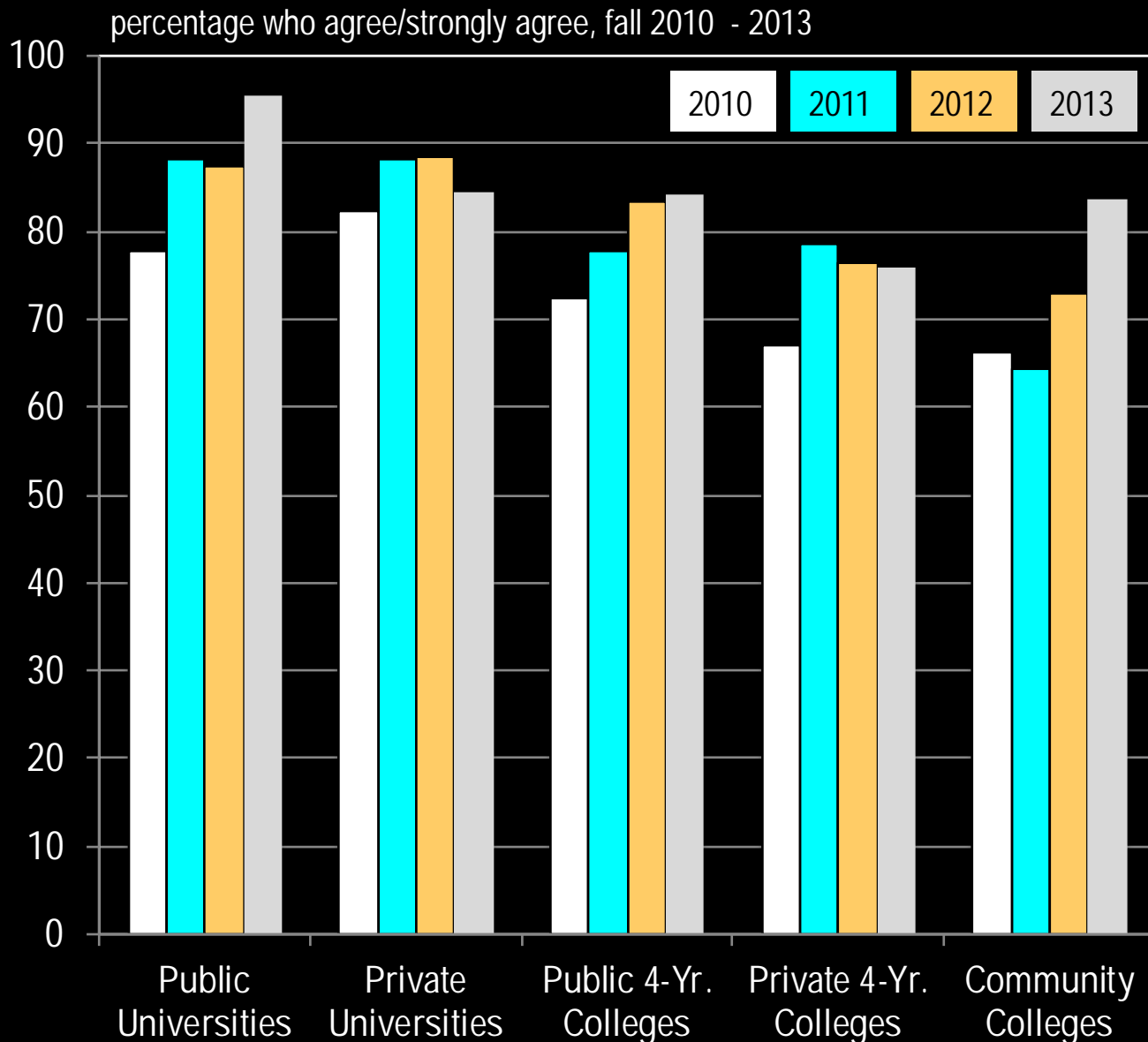
percentage of campuses reporting a campus-standard LMS

	All	Pub Univ	Pvt Univ	Pub 4-Yr	Pvt 4-Yr	Comm Coll
Bb	41.6	51.5	56.4	39.8	35.4	40.9
D2L	11.8	13.2	2.6	21.6	1.9	22.8
eCollege	1.8	--	--	1.1	3.1	2.2
Instructure	8.0	11.8	7.7	5.7	5.6	11.8
Jenzabar	2.0	--	--	--	5.2	0.8
Moodle	23.3	5.9	10.3	21.6	39.5	15.1
Sakai	4.9	5.9	1.3	5.7	4.9	1.1

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



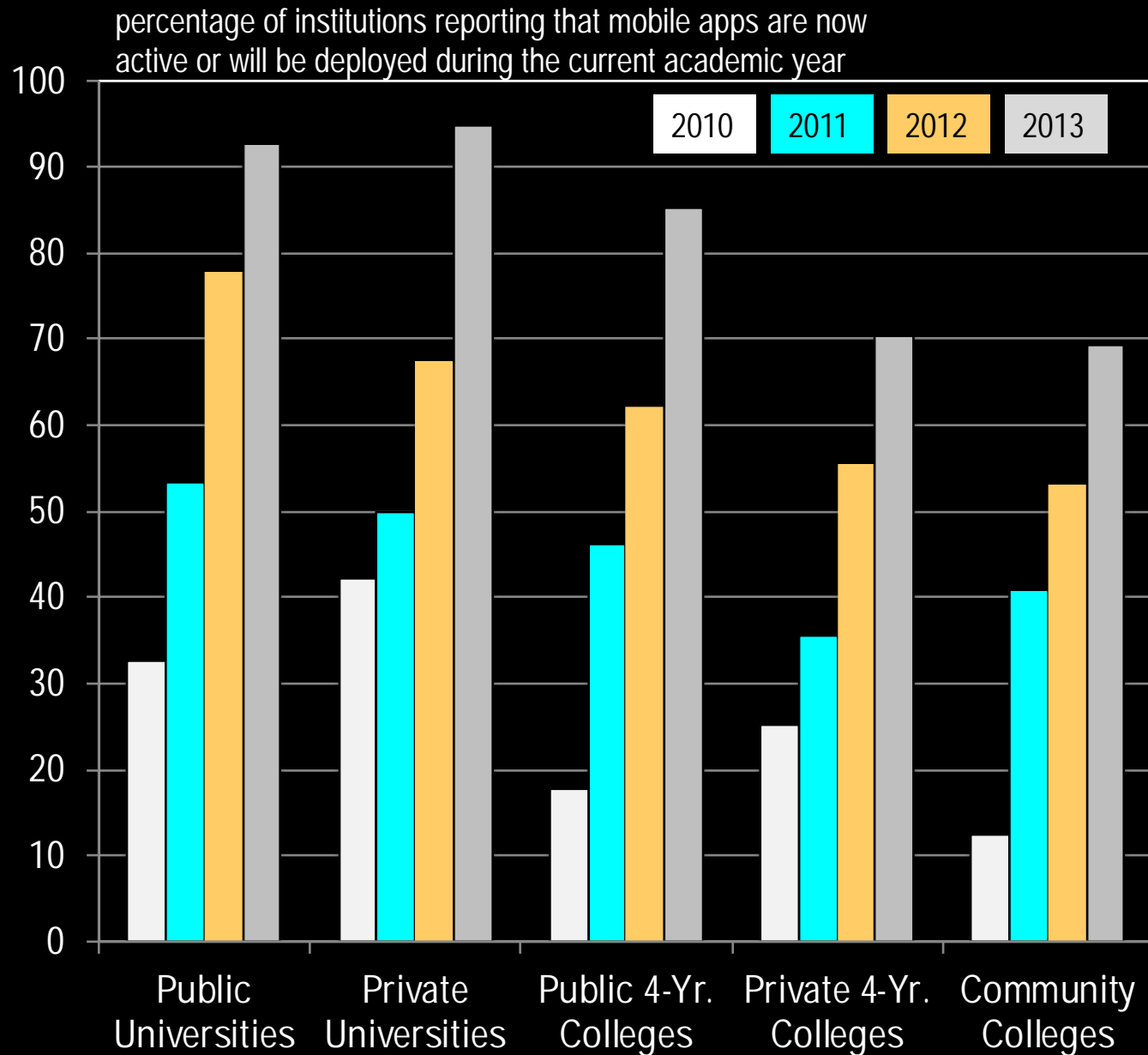
“Mobile Apps are an Important Part of Our Campus Plan to Enhance Instr. Resources & Campus Services”



- Small but steady gains in percentage of campuses that view lecture capture as a key instructional resource.



Activating Mobile Apps, Fall 2010-2013



- Big gains (again) over the past 12 months
- Impact of student expectations and consumer market experience
- More (LMS & ERP) mobile app & service providers means a wide range of costs for deployment

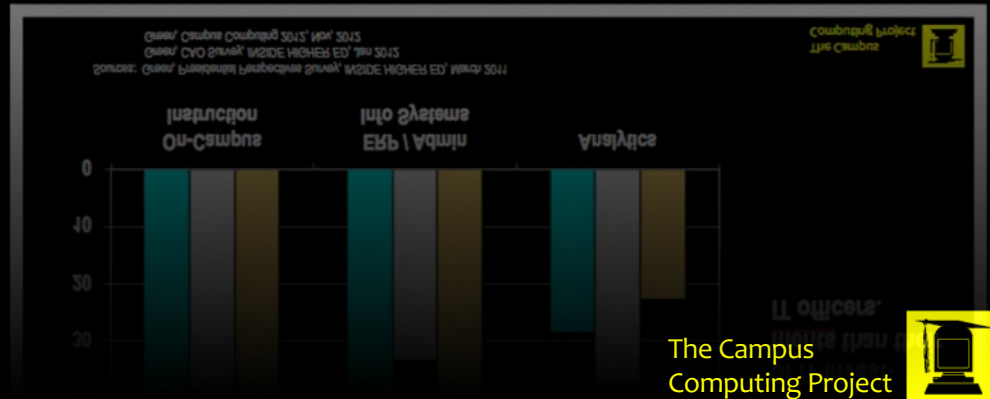
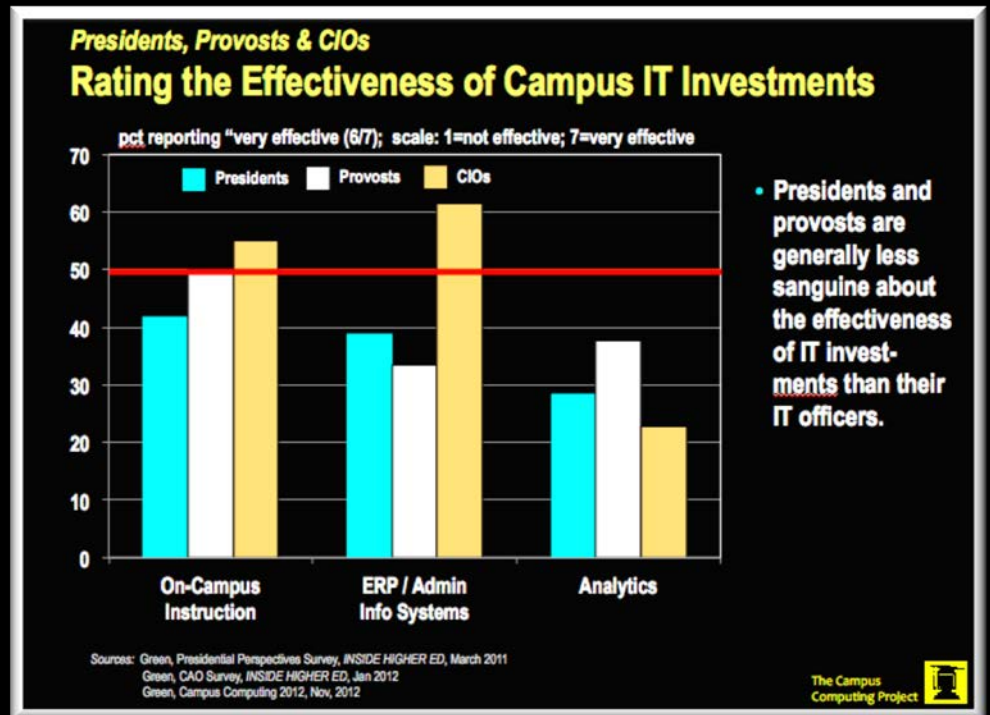


Some Key Issues



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?"



The Key Campus Technology Challenges are No Longer about IT

- IT is the “easy part” of technology on campus
 - **THE CHALLENGES:** People, planning, policy, programs, priorities, silos, egos, and IT entitlements
- 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



The Context of the Campus IT Conversation

WHAT DO WE KNOW?

- The consumer experience now defines (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?



plus ça change

How Do We Get Faculty to...

- 1986: Use computers
- 1996: Use the Internet
- 2012: Use Digital Resources

Underlying Faculty Question

WHY SHOULD I DO THIS?

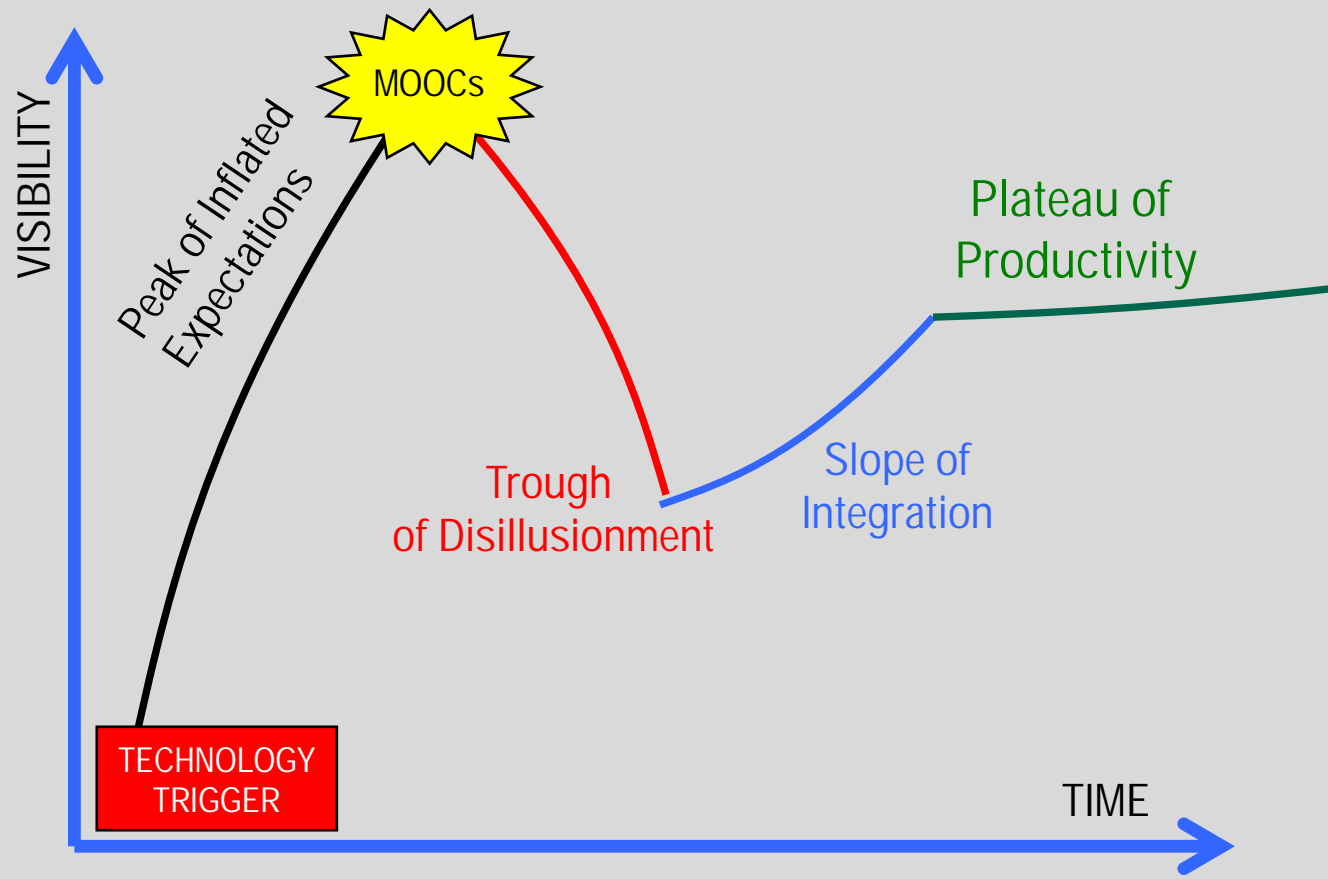
Changing (evolving!) questions but common underlying issues:

- Training
- User support
- Infrastructure
- Recognition & Reward
- Evidence of Benefit



MOOC Madness?

THE GARTNER HYPE CYCLE FOR NEW TECHNOLOGIES



The Gartner Group

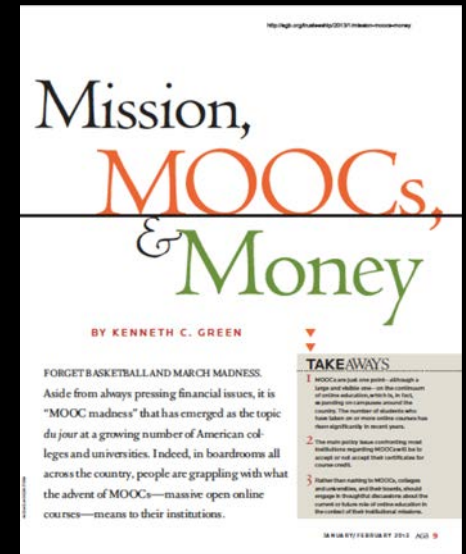
- *Big numbers, big media coverage, big expectations*
- Big dollars?
- Growing trustee and state interest in MOOCs as a way to grow revenue and/or reduce costs



What Do We Know About MOOCs?

Big numbers dominate much of the discussion, but:

- Open enrollment: no pre-reqs, no commitment & no “skin in the game”
- No course fees (no revenue!)
- Big enrollment drops in the first weeks: content, schedule, preparation, student support
- *Ad hoc* student support infrastructure
- Cost accounting for course development and instructional support?

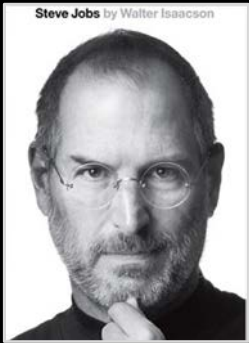


7.5 pct.

Mean completion rate, as reported
by 103 MOOC instructors

March 2013 *Chronicle of Higher Education*
Survey of 103 MOOC Instructors

TARGET: Textbooks



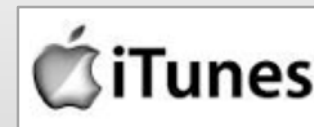
Steve Jobs set his sights on textbooks as the next industry he wanted to transform, seeing it as “an \$8 billion a year industry that was ripe for digital destruction. . . . His idea was to hire great textbook writers to create digital versions and make them a feature on the iPad.” *Walter Issacson, Steve Jobs*

Underlying Premise

**CONTENT
IS KING**

IN THE REAL WORLD

Content becomes King only because of an effective (almost idiot-proof) **infrastructure** and **ecosystem**.



Textbooks Are an Ecosystem

Backend Infrastructure

- Authors
- Editors
- Content Designers
- Instructional Specialists
- Author Contracts
- Supplemental Content

Alliances that Add Value

- Content
- Distribution
- Cross-Licensing
- Tech Firms



Supplement / Supplant Requirements

- Accreditation
- Standards/Regs
- Curricular Sequences

User Support

- Sales Reps
- Teacher's Guides
- Student Handbooks
- Test Sets
- Web Sites
- Conferences
- Communities
- Call Centers

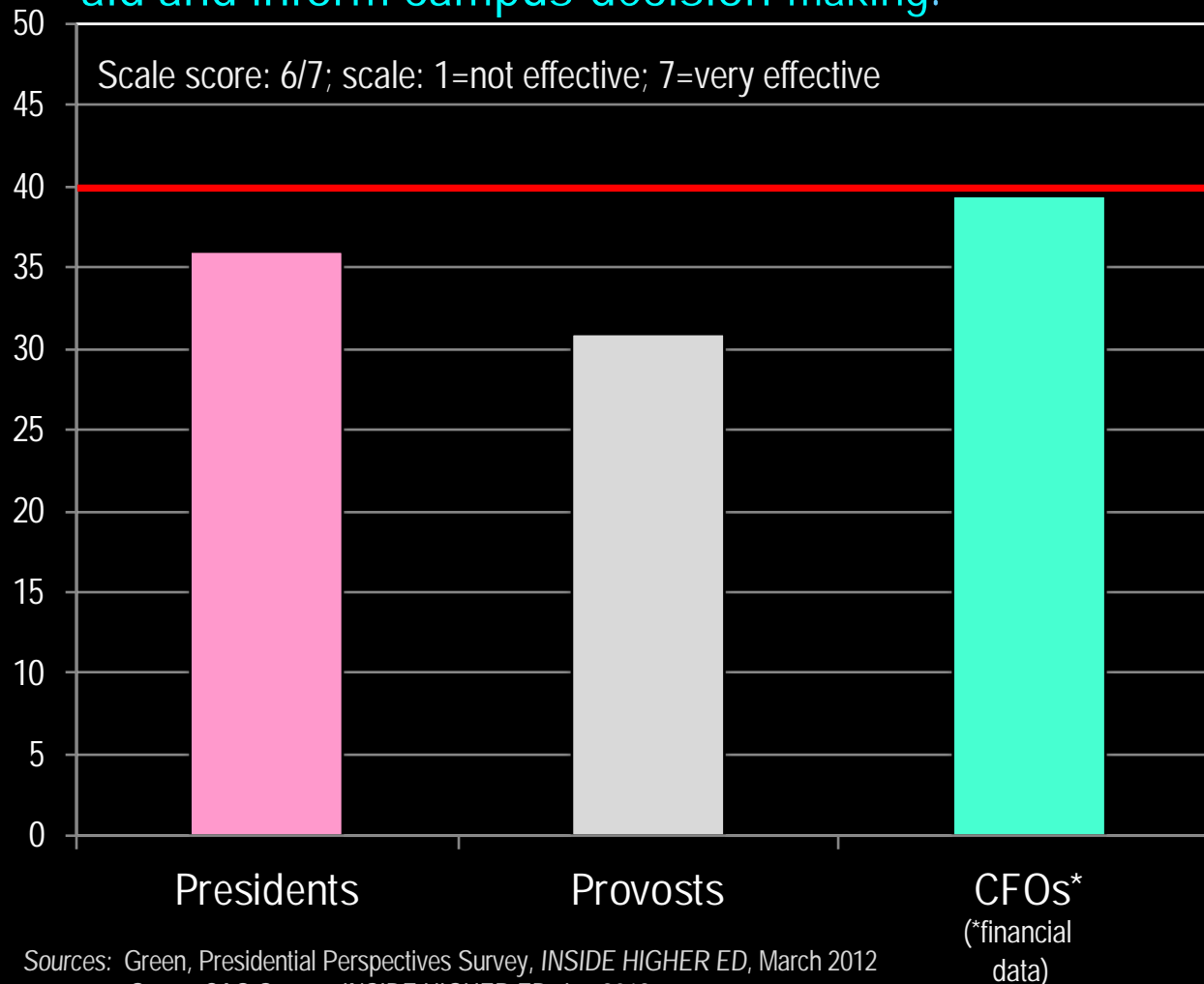
And the ecosystem has also become a fortress.

- No (or low) cost to faculty and institutions
- Convenience
- Quality Control
- User Support



Academe Does NOT Make Effective Use of Data for Decisions

My campus does an effective job of “using data to aid and inform campus-decision-making.”



- Although senior campus officials say they want and value data, the majority do not believe that their institutions do a very effective job of using data for decision-making

Sources: Green, Presidential Perspectives Survey, *INSIDE HIGHER ED*, March 2012
Green, CAO Survey, *INSIDE HIGHER ED*, Jan 2012
Green, CFO Survey, *INSIDE HIGHER ED*, July, 2011



Which Campus Units Make the Best Use of Data?

- Admissions
- Alumni / Development
- Athletics
- Physical Plant
- Food Service

WHY?

- Clear outcomes
- Semi-autonomous
- Independent resources
- Short decision cycles
- Dependent on data

Change the Culture of Data

- **OLD:** What YOU did wrong!
- **NEW:** How do WE do better!

DATA AS A RESOURCE,
NOT A WEAPON!



The Technology Conundrum



We have lots of information technology.
We just have too little information.

© CartoonBank, 2002



The (Digital) Potemkin Campus

- Rising expectations for the role and availability of IT resources to support instruction and operations/mgmt.
- Infrastructure is critical to the effective use of IT.
- *INSTRUCTION*: On-campus and online, the instructional infrastructure is not keeping pace with the demand for resources and services.
- *OPERATIONS*: Higher ed is years behind efforts in the consumer market to leverage the value of data.



Grigory
Potemkin



Catherine
The Great



campuscomputing.net