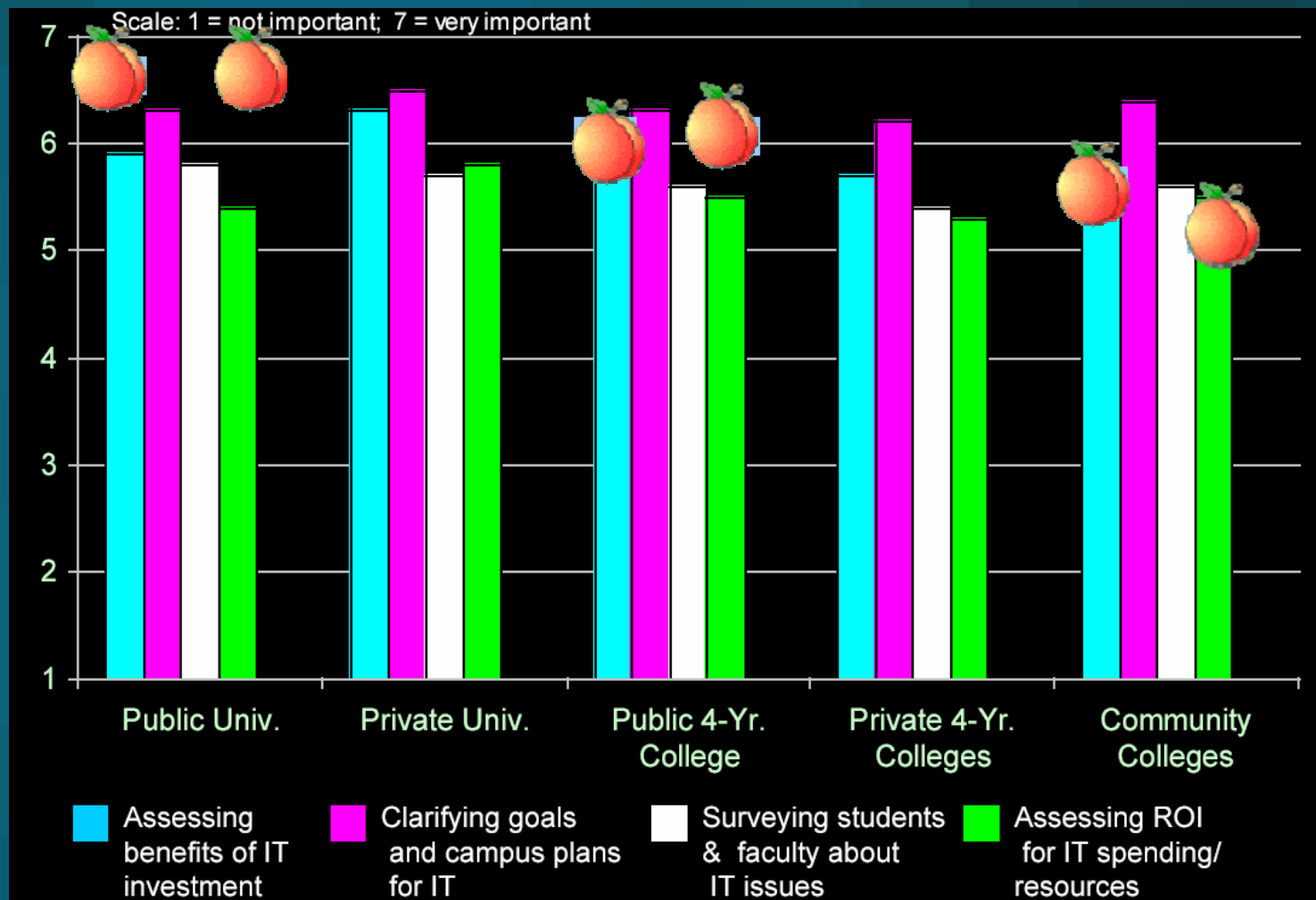


# Identifying Benchmarking Data for IT Leaders

Dr. Catherine Finnegan  
OIIIT Board of Regents

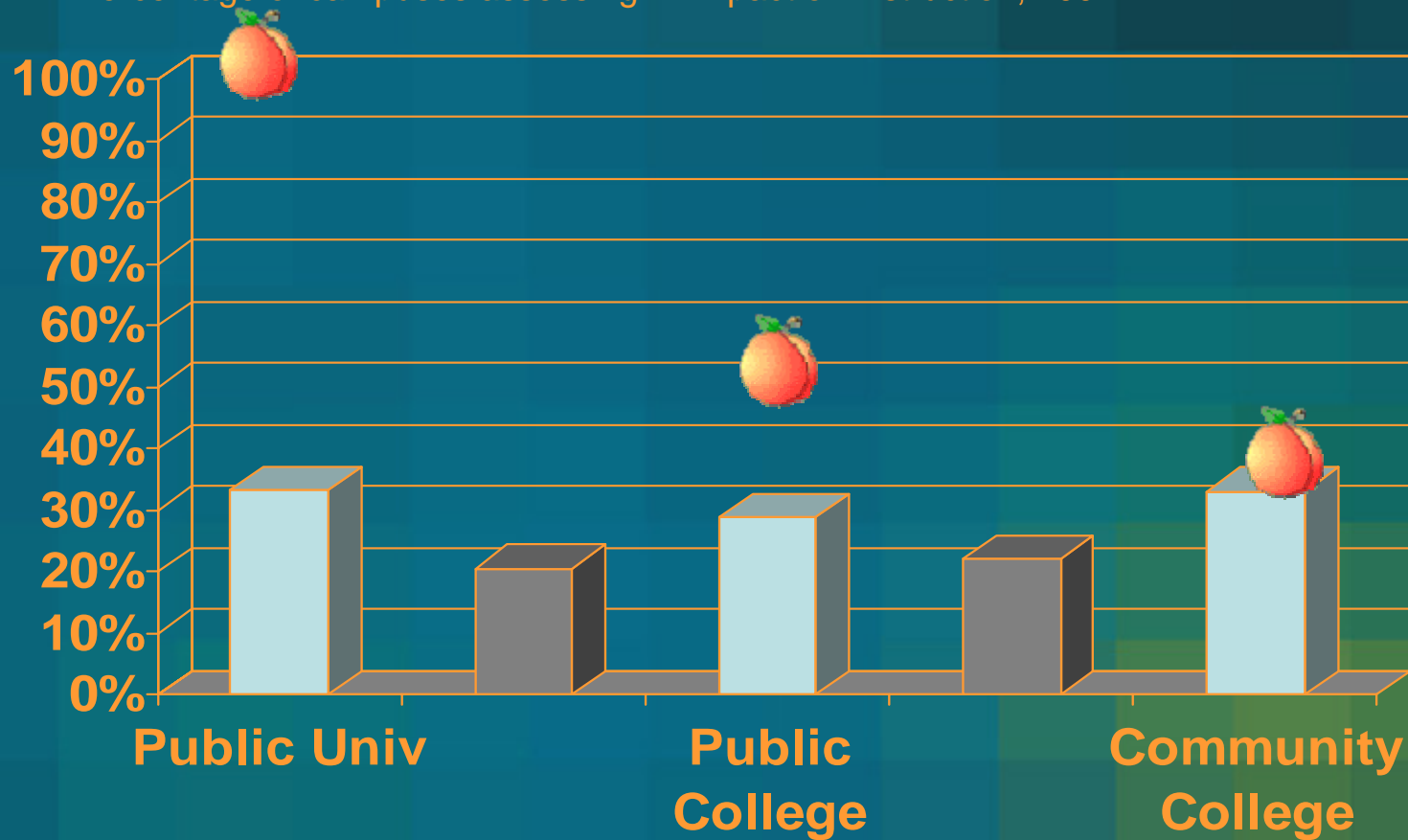
# What CIOs Say About IT Assessment and Evaluation



Adapted from Campus Computing Study, 2004.

# What CIOs Do About IT Assessment

Percentage of campuses assessing IT impact on instruction, 2004



Adapted from Campus Computing Study, 2004.

# Assessment and Accountability Matrix

Why Don't Faculty Use IT More?

Why Don't Institutions Make Better Use of IT?

How Do We Compare (benchmark)?

How Are We Doing (service)?

**DATA?**

# Selecting Peers

- USG Sector Peers
- 1999 USG Benchmarking Study
  - Comparator Peers
  - Aspirational Peers
  - [http://www.usg.edu/usg\\_stats/benchmark/](http://www.usg.edu/usg_stats/benchmark/)
- Carnegie Classifications
  - 5 New Schemas for 2005
    - Undergraduate Instructional Profile
    - Graduate Instructional Profile
    - Enrollment Profile
    - Undergraduate Profile
    - Size and Setting
  - Institution may be classified differently in each schema

# Sources of Higher Education IT Benchmarking Data

- Campus Computing Survey
- Educause Core Data Survey
- ECAR Studies

# The Campus Computing Survey

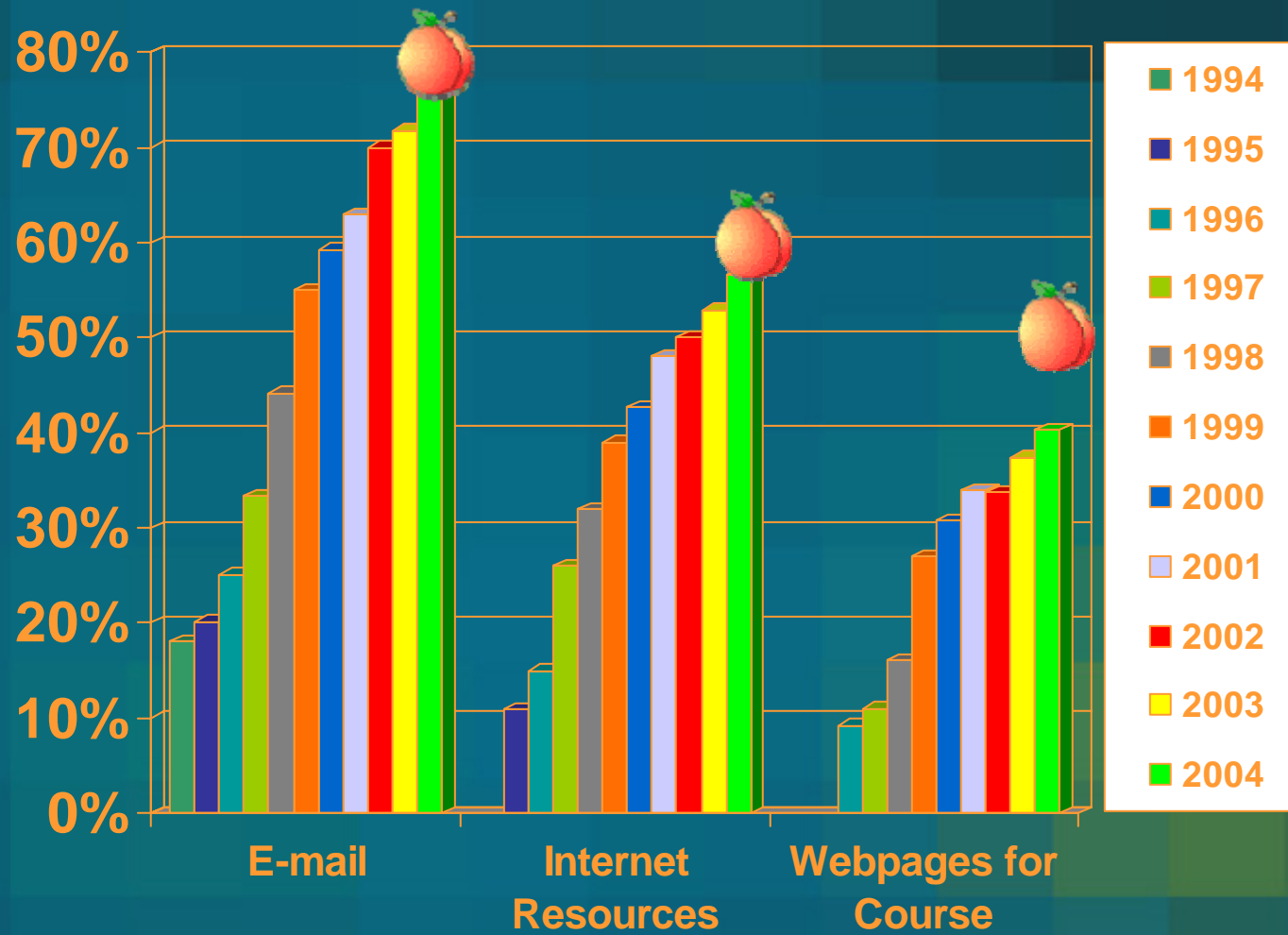
- Begun in 1990; 2005 was 16<sup>th</sup> year of survey
- Directed by Dr. Kenneth C. Green
- Largest continuing study of IT in American higher education
- Focuses on campus planning & policy for IT
- Survey respondents are the campus CIO typically.

# Scope of the Survey

- Policies and Procedures
- Facilities and Resources
- Infrastructure
- Organization and Planning
- Budget and Personnel

Survey is reviewed and revised each year, based on recommendations from IT community.

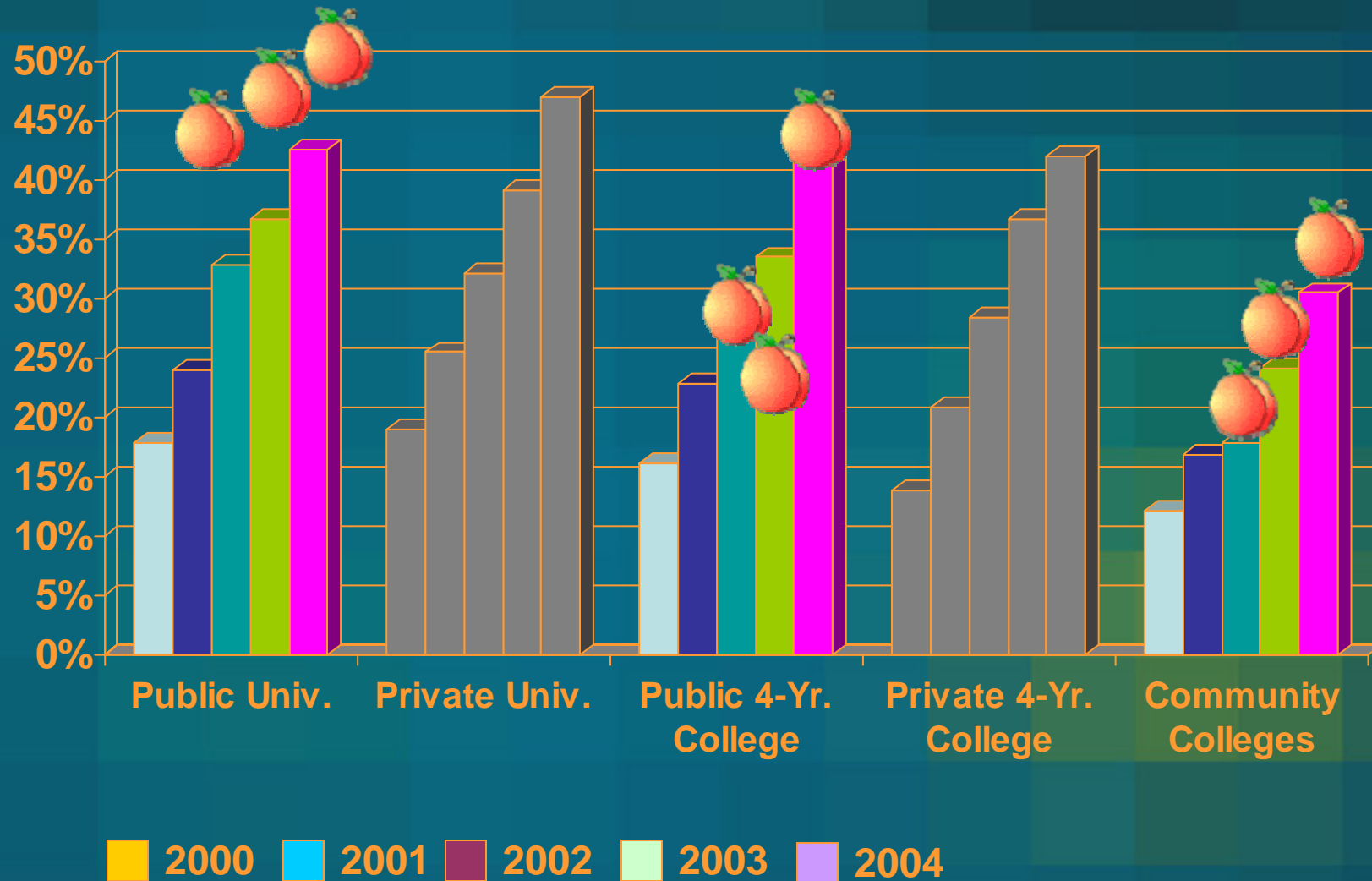
# Technology Use in Courses



Adapted from Campus Computing Study, 2002-2004.

# Rising Use of IT in Instruction

Percentage of courses using course management tools, by sector, 2000-2004



Adapted from Campus Computing Study 2002-2004.

# USG Reports

- Customized Institution Reports providing comparison with:
  - USG sector peers
  - Benchmarking peers
    - Regional
    - Aspirational
  - Carnegie Classification peers
    - Doctoral Extensive
    - Public Masters I, II
    - Public Associates
- Customized reports for each institutional sector compared USG to
  - Approximately 65 peer institutions from 1999 Benchmarking Report each year
  - Approximately 200 Carnegie sector peers each year
- Reports can be accessed through password protected area of ACIT Website

# Educause Core Data Service

- Begun by Educause in 2002
- Available to member institutions and institutions that are part of Systems.
- Online collection and analysis tool
  - Trend data
  - Unit record data
  - Development and sharing of custom reports
  - Downloadable to Excel

# Scope of Survey

- IT Organization, Staffing, and Planning
- IT Financing and Management
- Faculty and Student Computing
- Networking, Advanced Technologies and IT Security
- Information Systems

IT funding All 912 respondents

Category of Revenue	Mean	Median	Min	Max	Co unt	Total
Operating appropriation to central IT organization	\$4,827,813	\$2,305,827	\$0	\$58,885,907	912	\$4,402,965,837
Capital appropriation to the central IT organization (other than those amortized through rates)	\$841,474	\$180,012	\$0	\$43,000,000	912	\$767,423,940
Appropriation to the central IT organization from revenue generated from student technology fees (if not included above in line 1, operating appropriation)	\$359,292	\$0	\$0	\$12,702,147	912	\$327,674,002
Revenue from sale (chargeback) of central services (e.g., network or phone services, computer repairs) to campus departments	\$1,541,863	\$0	\$0	\$50,539,224	912	\$1,406,179,346
Revenue from sale of central services (e.g., computer repairs) to entities external to the campus	\$124,074	\$0	\$0	\$12,000,000	912	\$113,155,090
Net revenue from resale of products (e.g., computer store sales) to campus departments, students, staff, and others	\$82,633	\$0	\$0	\$14,000,000	912	\$75,361,156
Net revenue from resale of products (e.g., computer store sales) to entities external to the campus	\$12,762	\$0	\$0	\$3,960,000	912	\$11,638,737
If your campus is part of a multicampus system or district, enter your best estimate of the dollar equivalent for systems or services provided at the system or district level.	\$88,867	\$0	\$0	\$3,795,180	912	\$81,046,652
Other	\$134,484	\$0	\$0	\$14,513,638	912	\$122,649,513
<b>Total IT Funding</b>	<b>Mean</b> \$8,013,261	<b>Median</b> \$3,396,805	<b>Min</b> \$75,196	<b>Max</b> \$107,106,797	<b>Co unt</b> 912	<b>Total</b> \$7,308,094,273

# ECAR Studies

- Applied research arm of Educause
- 3-4 studies annually
  - Surveys of CIOs
  - Case Studies
  - Interviews
- Research Briefs and Bulletins

# ECAR Studies

- IT Investment and Business Processes
- IT Alignment
- Academic Analytics

<http://www.educause.edu/ecar>

# Sources of Higher Education IT Services Data

- National Survey of Student Engagement (NSSE/ CCSSE)
- CIRP/CSS
- ECAR Studies

# Technology Related Questions in NSSE and CCSSE

- *In your experiences at this college during the current school year, about how often have you done each of the following?  
Used email to communicate with an instructor*
- *How much does this college emphasize each of the following?  
Using computers in academic work*
- *How much has your experience at this college contributed to your knowledge, skills, and personal development in the following areas?  
Using computing and information technology*
- *Indicate how often you use the following services.  
Computer lab*
- *Indicate how satisfied you are with the services at this college.  
Computer lab*
- *Indicate how important the services are to you.  
Computer lab*

# NSSE 2005: Self-Reported Educational and Personal Gains from College

	<i>First-year Students</i>		<i>Seniors</i>	
	<i>Responding "Very much"</i>		<i>Responding "Very much"</i>	
	<i>Part-time</i>	<i>Full-time</i>	<i>Part-time</i>	<i>Full-time</i>
Thinking critically and analytically	38%	40%	46%	52%
Acquiring a broad general education	35%	37%	45%	50%
Using computing and information technology	36%	33%	45%	43%
	<i>Responding "Very little"</i>		<i>Responding "Very little"</i>	
	<i>Part-time</i>	<i>Full-time</i>	<i>Part-time</i>	<i>Full-time</i>
	Developing a deepened sense of spirituality	44%	36%	47%
Voting in local, state, or national elections	38%	21%	38%	27%
Contributing to the welfare of your community	29%	19%	25%	18%

# CCSSE 2004: Technology Related Questions

<b>In your experiences at this college during the current school year, about how often have you done each of the following?</b>	<b>Frequency</b>			
	Never	Sometimes	Often	Very Often
Used email to communicate with an instructor [N = 127,421]	26.60%	35.80%	22.70%	14.90%
<b>How much does this college emphasize each of the following?</b>	<b>Frequency</b>			
	Very little	Some	Quite a bit	Very Much
Using computers in academic work [N = 126,684]	6.90%	18.50%	33.20%	41.40%
<b>How much has your experience at this college contributed to your knowledge, skills, and personal development in the following areas?</b>	<b>Frequency</b>			
	Very little	Some	Quite a bit	Very Much
Using computing and information technology [N = 126,259]	13.50%	27.60%	32.70%	26.10%
<b>Indicate how often you use the following services.</b>	<b>Frequency</b>			
	Don't know/N.A.	Rarely/never	Sometimes	Often
Computer lab [N = 124,161]	13.20%	22.60%	30.10%	34.20%
<b>Indicate how satisfied you are with the services at this college.</b>	<b>Frequency</b>			
	N/A	Not at all	Somewhat	Very
Computer lab [N = 120,310]	21.10%	5.50%	29.30%	44.20%
<b>Indicate how important the services are to you.</b>	<b>Frequency</b>			
	Not at all	Somewhat	Very	
Computer lab [N = 119,451]	14.40%	24.50%	61.00%	

# CIRP-

## Annual Freshman Survey

- Helps institutions assess trends in the characteristics, attitudes, values, and aspirations of their entering freshmen.
- Scope of Survey
  - demographic characteristics
  - expectations of the college experience
  - secondary school experiences
  - degree goals and career plans
  - college finances
  - attitudes, values, and life goals
  - reasons for attending college

# CSS

## Graduation Survey

- Used in conjunction with the CIRP Freshman Survey to generate longitudinal data on students' cognitive and affective growth during college.
- Scope of Survey
  - academic achievement and engagement
  - satisfaction with the college experience
  - student involvement cognitive and affective development
  - student values, attitudes, and goals
  - degree aspirations and career plans
  - Internet and other technology use

# Examples of CIRP/CSS Technology Questions

- **Since entering college, indicate how often you:**
  - Turned in course assignments electronically
  - Received course assignments through the Internet
  - Missed class due to employment
  - Used the Internet for research or homework
- **Please rate your satisfaction with your current (or most recent) college in each area:**
  - Computer facilities
  - Quality of computer training/assistance
  - Availability of Internet access

# Additional Questions

- Institutional Options
- 10-20 free questions that are analyzed with survey items

# ECAR Studies of Faculty and Students

- 2003 University Wisconsin Study of Faculty Uses of CMS
- 2004-05 Student Uses of Technology

# ECAR Study of Faculty Use of CMS

- In May 2003 Educause Center for Applied Research (ECAR) contracted with the University of Wisconsin System to conduct study
- Wisconsin System
  - 13 universities; 13, 2-yr colleges (which report as a single institution); statewide extension service
  - 133,701 students (FTE, AY 2001-2002)
- 740 faculty responded
- 140 interviews held

# Scope of Faculty Survey

- Overall Usage
- Familiarity with CMS
- Using CMS for the First Time
- Using CMS Tools
- CMS Advantages and Disadvantages
- Pedagogy and CMS
- CMS Implementation at the USG
- Affiliation and Demographics

# USG Faculty Use of CMS Study

- Adapted ECAR survey to include USG-centric questions.
- Provided access to online survey to Vista administrators to distribute through campus communications channels.
- 33 of 34 institutions participated
- 3,228 faculty responded
- 37% response rate

# Summary

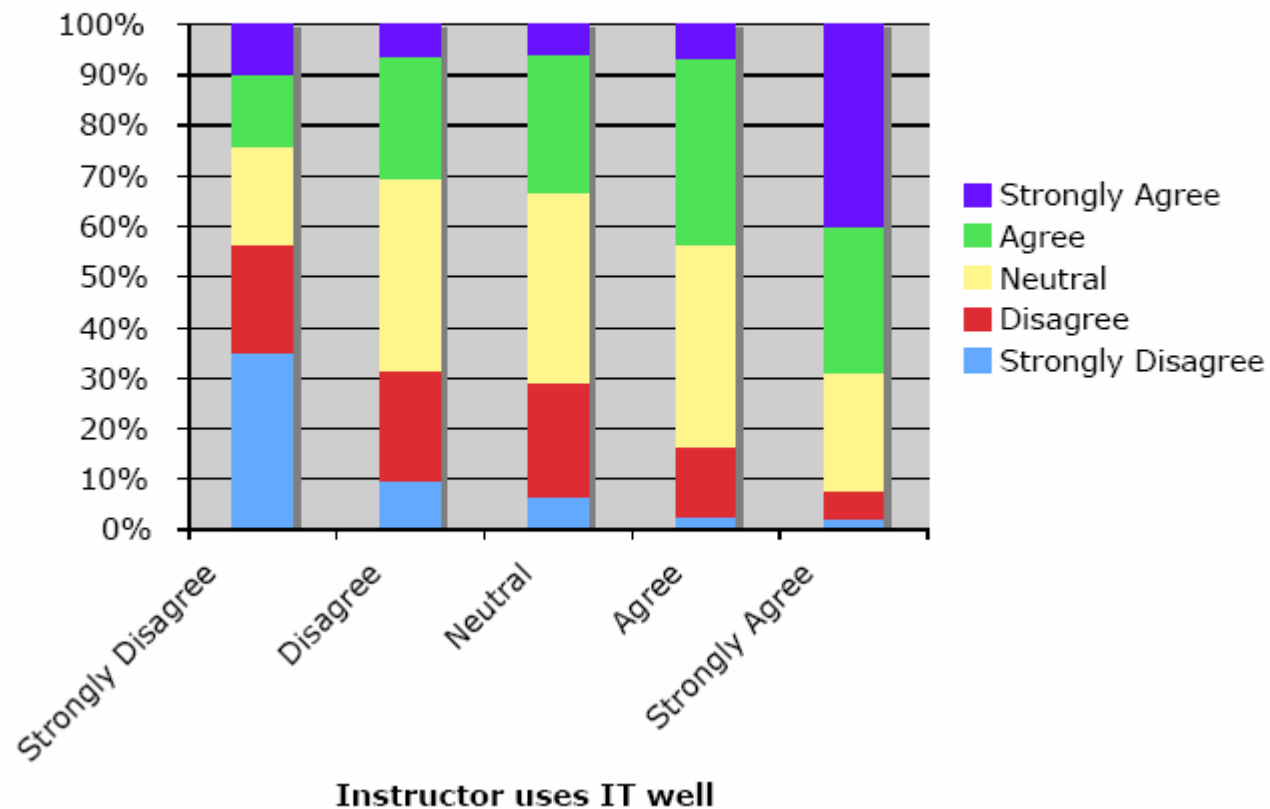
- Nearly half (46.3%) of all USG faculty currently use a CMS in their instruction.
- Almost two-thirds of users have increased their usage over time.
- Over two-thirds of users believe that a CMS has provided important advantages in improving student engagement in learning.
- Over two-fifths of non-users would use a CMS if their issues were addressed.

# ECAR Student Technology Survey

- Quantitative survey of 18,039 freshman and seniors at 63 institutions
- Analysis of comments of over 8,000 students to open-ended questions on use of IT
- Comparison of 11 institutions in both 2004 and 2005 studies

# Example of Findings from ECAR Student Survey

Impact of instructor skill using IT on student engagement in courses that use IT



# Example of Findings from ECAR Student Survey: Most Valuable CMS Tool

Feature	Mean
Keeping track of grades on assignments and tests	2.57
Access to sample exams and quizzes for learning purposes	2.50
Syllabus	2.36
Turning in assignments online	2.27
Getting assignments back from instructors with comments and grades	2.27
Online readings and links to text-based course materials	2.25
Taking exams and quizzes online for grading purposes	2.18
Sharing materials among students	2.09
Online discussion board	1.86

# Key Findings from 2005 ECAR Student Study

- 96% of student respondents own a computer and have access to broadband
- Students use technology first for educational purposes, second for connectedness, and third for entertainment.
- Academic usage is strongly related to student major and class standing (senior vs. freshman)
- Students view technology in the classroom as supplemental to their course experience and not as transformational
- Curriculum and technology use are inter-twined
- The student perspective: technology is improving their learning
- The instructor's skill in using IT in courses makes a significant difference on the student's perception of the impact of IT in courses
- Most students have used course management systems (CMS) and most of those using them have had positive experiences

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*"We have lots of information technology. We just don't have any information."*