



# THE CAMPUS COMPUTING PROJECT

*The 2006 National Survey of Information Technology in U.S. Higher Education*

## Wireless Networks Reach Half of College Classrooms; IT Security Incidents Decline This Past Year

Wireless networks now reach fully half (51.2 percent) of college classrooms compared to just over two-fifths (42.7 percent) in 2005 and a third (31.1 percent) in 2004, according to new data from the annual Campus Computing Survey. Additionally, more than two-thirds (68.8 percent) of campuses participating in the annual survey have a strategic plan for deploying wireless as of fall 2006, up from 64.0 percent in 2005 and 53.3 percent in 2004. By sector, the proportion of classrooms with wireless access ranges from a third (31.7 percent) in community colleges (up from 26.8 in 2005) to almost two-fifths (58.0 percent) in private research universities (compared to 52.8 percent in 2005 and 47.4 percent in 2004).

“Wireless is a great thing,” says Kenneth C. Green, founding director of The Campus Computing Project and a visiting scholar at The Claremont Graduate University in Claremont, CA. “It fosters access, mobility, and collaborative work among students and faculty.” But Green notes that there is evidence of backlash against wireless from some

faculty who would prefer that students not hide behind their computer screens during class.

Data from the 2006 survey reveal that fully three-fifths (60.5 percent) of colleges and universities increased

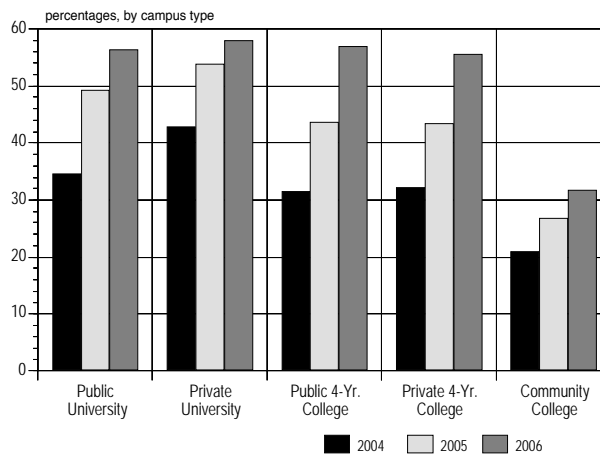
their campus IT budgets for wireless for the current academic year. Green identifies several factors as catalysts for the rising campus investment in wireless networks: the reduced cost and increased performance of wireless

technology; the shifts in student (and consumer) purchasing preferences from desktop to notebook computers; and the appeal and benefits of mobility for students and faculty.

Green also notes that the expansion of wireless networks on campus mirrors the explosive growth of wireless in the consumer and corporate sectors over the past three years. “Households that have high speed Internet access also typically have wireless networks,” says Green. Consequently, “it should be no surprise that students and faculty come to campus expecting their college or university to provide the same wireless connectivity that they experience in their homes.”

The 2006 survey indicates that campus IT officers continue to view network and data security as the “single most important information technology issue confronting their institution” over the next two-to-three years. This is the

**Wireless Classrooms, 2004-2006**



**Single Most Important IT Issue**

2000	2001	2002	2003	2004	2005	2006
Instructional Integration of IT (40.5%)	Instructional Integration of IT (31.5%)	Instructional Integration of IT (24.1%)	Instructional Integration of IT (21.4%)	Network & Data Security (21.2%)	Network & Data Security (30.4%)	Network & Data Security (29.5%)
IT User Support (22.3%)	IT User Support (15.4%)	Upgrade/Replace ERP (18.8%)	Upgrade/Replace ERP (17.6%)	Instructional Integration of IT (18.5%)	Instructional Integration of IT (18.1%)	Instructional Integration of IT (17.3%)
Financing IT (14.6%)	Upgrade/Replace ERP (12.6%)	Financing IT (15.1%)	Financing IT (16.1%)	Upgrade/Replace ERP (17.2%)	Upgrade/Replace ERP (15.9%)	Upgrade/Replace ERP (16.1%)

third consecutive year that IT security has been the leading issue for campus IT officers. Moreover, this stands in striking contrast to the focus on the “instructional integration of information technology” which was the top IT issue from 2000-2003. Six years ago, two-fifths (40.5 percent) of the survey respondents identified “assisting faculty with the instructional integration of technology” as the top IT challenge for their institution. However, in fall 2006, instructional integration ranked a distant second (17.3 percent), well-behind network and data security (30.5 percent, about the same as in 2005), and only slightly ahead of of “upgrading/replacing the campus ERP (Enterprise Resource Protocol, or administrative information) systems (16.3 percent).

This year’s survey offers some good news about IT security: the percentage of colleges and universities experiencing various security incidents and threats - stolen computers with confidential data, hack attacks on the campus network, and major spyware and virus infestations - declined this past year, while the percentage reporting identity management events was up slightly (20.5 percent in 2006, vs. 19.7 percent in 2005). Although more than half of public and private universities and public four-year colleges report attacks on their campus networks this past year, the numbers are down from the levels reported in the 2005 survey. Similarly, virus and spyware infestations dropped dramatically this past year. One example: almost half (46.1 percent) of public universities reported major computer virus problems in the 2005 survey, compared to a fourth (24.7 percent) in 2006.

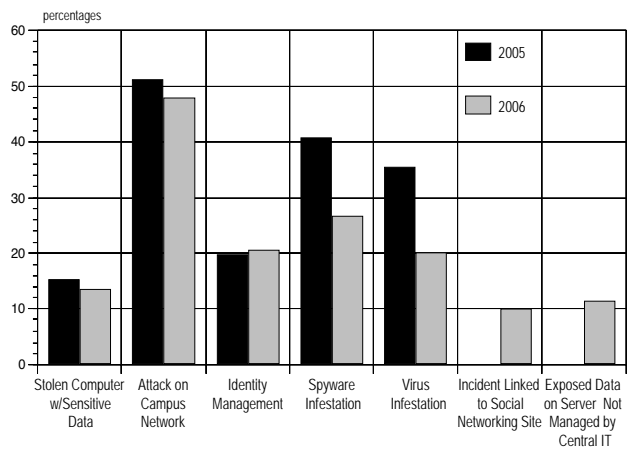
Yet even with this good news about security issues, the survey points to two items that could pose significant future problems. One-

tenth (11.3 percent) of the institutions participating in the 2006 survey report security issues linked to “the exposure of sensitive data on a computer server not managed by central IT services.” The problem of exposed data in distributed computing environments was highest in public

incident this past year linked to social networking sites such as Facebook or MySpace. Security incidents involving social networking sites ranged from 7.5 percent in community college to 13.7 percent at private research universities.

“There is a tension about distributed computing and security protocols on many campuses,” says Green. “Research labs, as well as some academic departments and service units, often want to manage their own data and hardware. But the survey data confirm recent news reports that network servers not managed by central IT services may be particularly vulnerable to hackers.” Green comments that the “quest for independence from central IT services can mirror the behavior of a moody adolescent: the teenager wants to assert his or her independence by not following the rules of house, but still expects the benefits of affiliation with the family, as well as a helping hand should problems emerge.”

### IT Security Incidents, 2005 vs 2006



universities (34.2 percent), followed by private universities (23.5 percent), and public four-year colleges (15.7 percent).

Additionally, one-tenth (9.9 percent) of institutions report a security

## THE CAMPUS COMPUTING PROJECT

Begun in 1990, The Campus Computing Project is the largest continuing study of the role of information technology and eLearning in American higher education. The project’s national studies draw on qualitative and quantitative data to help inform faculty, campus officials, policy-makers, and others interested in a wide array of information technology planning and policy issues that affect colleges and universities in the United States.

The 2006 Campus Computing Survey was supported, in part, by the following sponsors: Adobe Systems, Apple Computer, BearingPoint, Bedford Freeman & Worth Publishing Group, Blackboard, Center for Digital Education, Datatel, Dell Inc., eCollege, EDUCAUSE, Follett Higher Education Group, Gateway Computer, Hewlett Packard, Houghton Mifflin Company, IBM Higher Education, Jenzabar, Longsight Group, McGraw-Hill, Mellon Foundation, Microsoft, Pearson Education, PerceptIS, Oracle, rSmart Group, SAS, SunGard Higher Education, Sun Microsystems, Thomson Learning, and TouchNet.

For additional information, please contact:

### THE CAMPUS COMPUTING PROJECT

KENNETH C. GREEN

VISITING SCHOLAR, SCHOOL OF EDUCATIONAL STUDIES

THE CLAREMONT GRADUATE UNIVERSITY • CLAREMONT, CA 91711 • USA

### MAILING ADDRESS

P.O. Box 261242 • ENCINO, CA 91426-1242 • USA

TEL: 818.990.2212 • FAX: 818.784.8008 • [www.campuscomputing.net](http://www.campuscomputing.net)

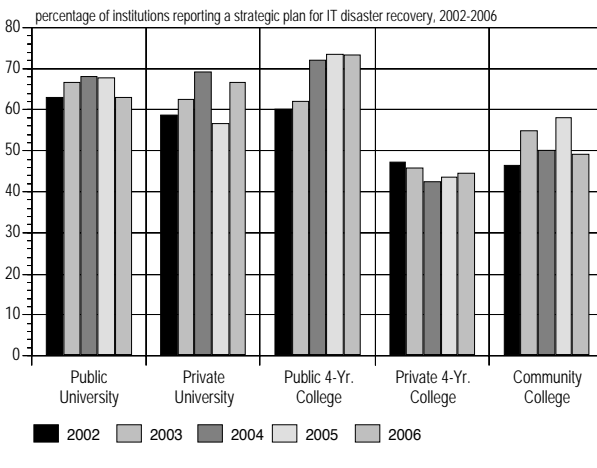
IT disaster planning continues to pose a major challenge for many colleges and universities. Just over half (55.7 percent) of institutions report a strategic plan for IT disaster recovery, essentially unchanged from 2004 (55.5 percent) or even 2002 (53.0 percent). Green comments that “one year after Hurricanes Katrina and Rita and five years after the 9-11 attacks, it is still surprising that so many colleges and universities have yet to complete or update their IT disaster plans.”

This year’s data point to little change in the cautious support for Open Source applications among senior campus technology officers that was first reported in 2004. Over half (53.9 percent, compared to 51.9 percent in 2004) agree “Open Source will play an increasingly important role in our campus IT strategy.” However, less than a third of the survey respondents (28.2 percent, compared to 28.9 percent in 2004) agree that Open Source currently “offers a viable alternative” for key campus or administrative/ERP applications, such as student information systems, campus finance systems, portals, or personnel/human resource software.

Yet even as survey respondents are currently cautious about Open Source ERP applications, the 2006 survey offers evidence documenting the broad deployment of backroom Open Source tools: for example, two-thirds of the survey respondents report some Open Source tool deployment on their campuses, from “sampling for backroom infrastructure (36.4 percent), to operational use for key backroom applications (significant deployment - 13.1 percent), to “mis-

sion critical deployment - using a number of Open Source tools for key central IT operations (13.3 percent), to “committed and contributing (2.8

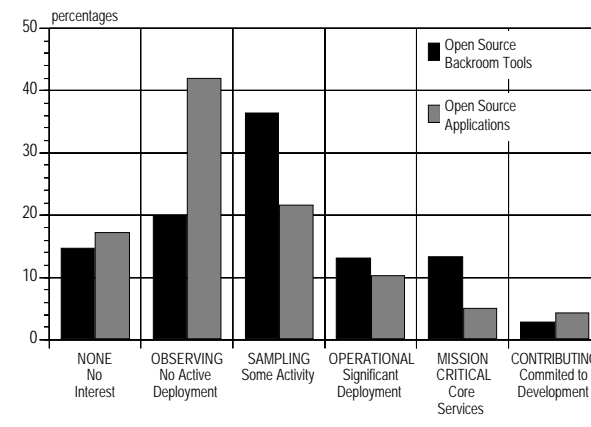
### Little Progress on IT Disaster Recovery Planning?



percent) - institutions that are developing Open Source tools for central IT services.

Not surprisingly, the overall Open Source tool deployment numbers are highest in research universities (56.1

### Campus Strategy on Open Source Tools and Applications



in public universities; 49.0 percent in private universities) and lowest in community colleges (26.6 percent). Additionally, and in fairness to Open Source advocates, the first Open Source ERP applications are just beginning to emerge. The real test for measuring the deployment of Open

ERP applications will not be among leading research universities publically committed to Open Source development and deployment, but among less-resourced public and private four-year colleges and in community colleges. And here the 2006 survey suggests that Open Source Learning Management Systems (LMS) are beginning to gain traction: a tenth (10.2 percent) of private four-year colleges report that they have designated Moodle as the campus-standard LMS, while 5.5 percent of public universities and 3.9 percent of private universities are using Sakai as their LMS standard. Says Green, “While

many campuses are using Open Source tools in the backroom, Open Source applications are still in their infancy. The early data about Moodle and Sakai may bode well for future Open Source applications as these products emerge and campus IT officers share information about the experiences of early adopters.”

Begun in 1990, The Campus Computing Survey, is the largest continuing study of computing and information technology in American higher education. The 2006 survey is based on data provided by campus IT officials, typically the CIO, CTO, or other senior campus IT officer, representing 540 two-and four-year public and private colleges and universities across the United States. Survey respondents completed the questionnaire during September and October, 2006.

Copies of the 2006 Campus Computing Report will be available on December 10th. Price: \$37 (plus \$2.00 shipping). Order from Kenneth Green, c/o Campus Computing, PO Box 261242; Encino, CA 91426-1242. Please use the order form on page 4.

## ORDER FORM

### THE 2006 CAMPUS COMPUTING SURVEY REPORT

Please send me The 2006 Campus Computing Report:

available 10 December 2006 • ISSN 1521-1614

*Please contact Campus Computing for information about site licensing options.*

- \_\_\_ copies, *Campus Computing 2006* @ US \$37.00 each  
\_\_\_ copies, *Campus Computing 2005* @ US \$33.00 each.  
\_\_\_ copies *Campus Computing 2004* @ US \$30.00 each.  
\_\_\_ copies, *Campus Computing 2003* @ US \$30.00 each.  
\_\_\_ copies, *Campus Computing 2002* @ US \$20.00 each  
\_\_\_ copies, *Campus Computing 2001* @ US \$20.00 each  
\_\_\_ copies, *Campus Computing 2000* @ US \$20.00 each.

Shipping fees: \$2.00 US for book rate/4th class delivery to US and Canadian addresses. CA residents must include sales tax (8.25 pct). Please add US \$10.00 for air delivery to overseas addresses.

Enclosed is a:  personal check     institutional check  
 institutional P/O for \$ \_\_\_\_\_.

*To order the report on the Web:* www.campuscomputing.net.  
*We accept credit card order form available online.*

*Make checks payable to:*

Kenneth Green/Campus Computing  
Federal I.D. # 95-4033424

(Prepaid orders only. Please contact *Campus Computing* for information about overseas shipments, quantity discounts, and credit card payment.)

Name \_\_\_\_\_

Title \_\_\_\_\_

Organization \_\_\_\_\_

Address \_\_\_\_\_

City/ST/ZIP \_\_\_\_\_

Country \_\_\_\_\_

e-mail \_\_\_\_\_

**The Campus Computing Project**  
**PO Box 261242**  
**Encino, CA 91426-1242**



# THE CAMPUS COMPUTING PROJECT

www.campuscomputing.net

PO Box 261242 ♦ Encino, CA ♦ 91426-1242 ♦ USA  
Tel: 818.990.2212 ♦ Fax: 818.784.8008  
cgreen@campuscomputing.net

AVAILABLE ON 10 DEC 2006

FAX TO: 818.784.8008

## THE 2006 CAMPUS COMPUTING REPORT

*Please send me the Campus Computing Reports listed below:* ISSN 1521-1614 **Total**

### The 2006 Campus Computing Report

- \_\_\_ *Print Copy:* 2006 Campus Computing Report (\$37.00 each copy) \$ \_\_\_\_\_
- \_\_\_ *PDF File:* Campus Computing 2006 (\$75.00 for one PDF file; max 5 users) \_\_\_\_\_
- \_\_\_ *Site License,* Campus Computing 2006 (\$150.00 for one PDF file to be posted on a campus server and restricted to authorized campus users) \_\_\_\_\_

### Campus Computing Reports 2001-2005

- \_\_\_ copies, Campus Computing 2005 (\$33.00 each print copy) \_\_\_\_\_
- \_\_\_ copies, Campus Computing 2004 (\$33.00 each print copy) \_\_\_\_\_
- \_\_\_ copies, Campus Computing 2003 (\$30.00 each print copy) \_\_\_\_\_
- \_\_\_ copies, Campus Computing 2002 (\$20.00 each print copy) \_\_\_\_\_
- \_\_\_ copies, Campus Computing 2001 (\$20.00 each print copy) \_\_\_\_\_

*Postage and shipping charges:* \$2.00 per order for US/Canada (book rate) addresses and \$10.00 per order for overseas airmail delivery \_\_\_\_\_

*California Sales Tax – for orders shipped to CA address: 8.25 %* \_\_\_\_\_

**BALANCE DUE US \$** \$ \_\_\_\_\_

**Payment option:**     personal check         institutional/company check  
                           purchase order         credit card

*Credit Card Information:*     MasterCard         Visa

*Card Number:*    |\_|\_|\_|\_|\_|    |\_|\_|\_|\_|\_|    |\_|\_|\_|\_|\_|    |\_|\_|\_|\_|\_|

*Exp. Date:*        |\_|\_|\_|\_|\_|        *Security Code:* |\_|\_|\_|\_|\_|

*Name on Card:* \_\_\_\_\_

### Please send to:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Institution/Org: \_\_\_\_\_

Address: \_\_\_\_\_

City/State: \_\_\_\_\_ ZIP: \_\_\_\_\_ Country: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

e-mail: \_\_\_\_\_

Please make checks payable to: **Kenneth C. Green / Campus Computing**  
PO Box 261242 • Encino, CA • 91426-1242 • USA