

Student and Employee Campus Technology Surveys - Computer Skills and Access

Technology is vital for continued success of an institution of higher learning. The use of technology is essential to ensure operational excellence and high-quality instructional and student learning services. Pasadena City College (PCC) strives to stay abreast of the latest in technological advances to better serve students, employees, and the community. In fact, part of the PCC mission statement says that the college will serve students by, “fostering a creative learning environment that is technologically challenging...” In Spring 2006, PCC’s Campus Technology Committee conducted a technology survey of the College’s students, faculty, staff, and managers/administrators to: 1) evaluate the effectiveness of its technology and solicit comments on how it can improve; 2) identify the college’s technology needs; and 3) set priorities for technology over the next three to five years. The survey asked students and employees various questions that were grouped in the following four general sections: computer skills and access; perceptions of technology training and support; classroom technology; and perceptions of PCC’s online services and systems. The results of each section will be presented in a series of Research Findings issues. This issue presents a brief overview and highlights of the survey findings on the *computer skills and access* sections.

Brief Overview of Methodology

During the 7th week of the Spring 2006 term, the Institutional Planning and Research Office (IPRO) asked instructors to administer a survey in class to students in a random sample of 61 class sections. A total of 1,193 students completed the survey. IPRO administered the survey to all full-time employees. IPRO asked division/department secretaries to give hourly faculty a survey to complete. Employees completed the survey anonymously and returned them to IPRO. Of the 1,588 surveys sent to employees, 549 employees completed the survey, resulting in a **34.6%** response rate. Classified staff at **51.2%** had the highest response rate, followed by managers/administrators (certificated and classified) at **50.0%**, and contract faculty at **47.7%**. Of the surveys sent to hourly faculty, 126 of them completed and returned the survey, resulting in a **16.4%** response rate.

Snapshot of Respondent Profile

- *Students*

The student survey respondents were fairly representative of PCC’s student population (see Table 1). The majority of the survey respondents were Asian/Pacific Islander (**32.7%**) and Hispanic (**29.5%**). Compared to the overall student population, the survey sample had more Asians/Pacific Islander (**32.7% vs. 27.7%**) and fewer Whites (**13.8% vs. 17.9%**).

Table 1. Demographics of Student Survey Sample vs. Overall PCC

	Spring 2006 Student Sample		Spring 2006 Student Population	
	N	%	N	%
Ethnicity				
African American/Black	55	4.6	1409	5.9
Native American	5	0.4	157	0.7
Asian/Pacific Islander	390	32.7	6651	27.7
Filipino	53	4.4	1169	4.9
Hispanic	352	29.5	7624	31.8
White (Non-Hispanic)	165	13.8	4298	17.9
Other	102	8.5	1108	4.6
Unknown	71	6.0	1563	6.5
Total	1193	100.0	23979	100.0
Enroll Status				
First term Students	228	19.1	4476	18.7
Continuing Students	893	74.9	19460	81.2
Unknown	72	6.0	43	0.2
Total	1193	100.0	23979	100.0

- **Employees**

The employee survey respondents were not representative of PCC’s employee population (see Table 2). Compared to the overall employee population, the survey sample had more contract faculty (**35.3% vs. 25.6%**), more classified staff (**33.1% vs. 22.4%**), and fewer hourly faculty (**22.9% vs. 48.2%**).

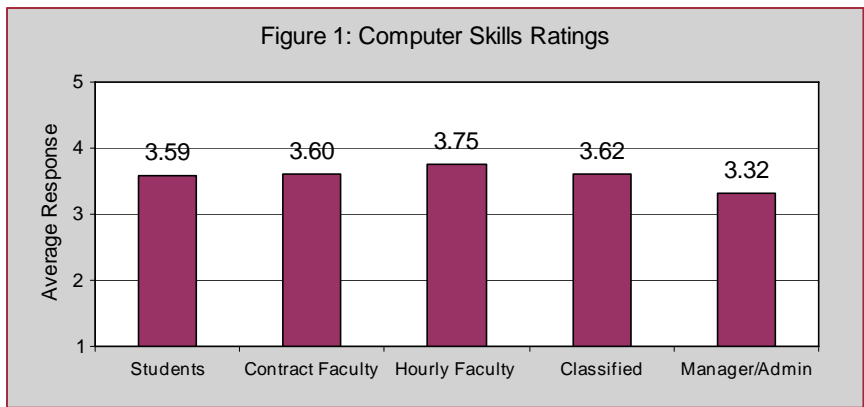
Table 2. Employee Survey Sample vs. Overall PCC Employee Population

Job Classification	Spring 2006 Student Sample		Spring 2006 Student Population	
	N	%	N	%
Contract Faculty	194	35.3	406	25.6
Hourly Faculty	126	22.9	765	48.2
Classified Staff	182	33.2	355	22.4
Manager/Supervisors	18	3.3	32	2.0
Administrator (Certificated)	13	2.4	30	1.8
Unknown	16	2.9	0	0.0
Total	549	100.0	1588	100.0

A possible reason for the disproportionate number of hourly faculty in the survey sample may be due to the manner in which the surveys were administered. Some hourly faculty may have not received a survey. Since hourly faculty were very much underrepresented, it inflated the relative proportions of permanent employees.

Computer Skills

On a scale of “1 = Poor , 2 = Below Average, 3 = Average, 4 =Above Average, and 5 = Excellent,” students and employees were asked to rate their computer skills. The findings are as follows (see Figure 1):



- The hourly faculty report the **highest** average rating of **3.75**, while managers/administrators report the **lowest** with an average rating of **3.32**.
- The classified staff, contract faculty and students report similar computer skills, a bit over, mid-level average computer skills.

Possible Action Implications for the College

- * Overall, students and employees rate themselves as having slightly above average computer skills. How does this impact technology at the college? How does PCC stay abreast in the latest technological advances if its students and employees do not have the computer skills?
- * Does the college need to examine the types of technology training it provides employees? The college may consider creating more opportunities for employees to improve their computer skills such as free online classes or tutorials.
- * With today's rapid technology advances, students may need to have higher computer skills to be better prepared for the future technological demands of their careers. What can the college do to help students improve their computer skills?

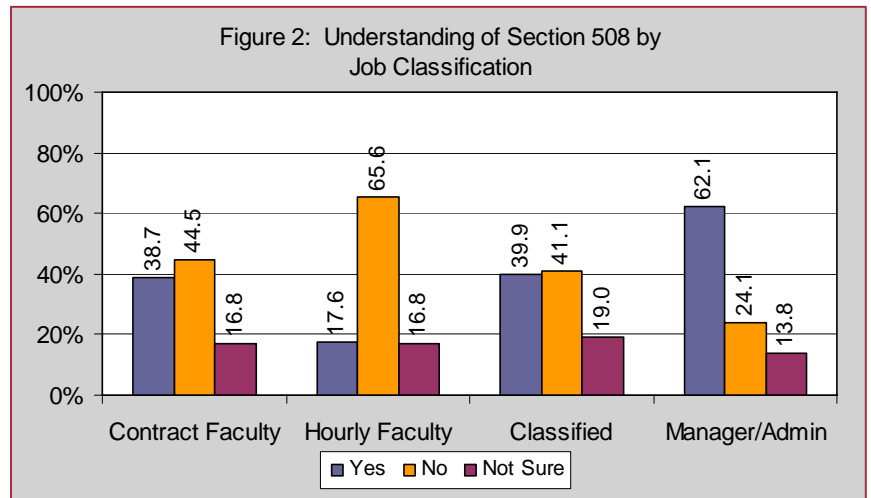
Section 508 (ADA) Compliant

In 1998, Congress passed the Workforce Investment Act that strengthened Section 508 of the Rehabilitation Act of 1973 (Section 508). It requires Federal agencies to develop, procure, maintain or use electronic and information technology so that Federal employees and members of the public with disabilities would have access to and use of

information and data comparable to that of employees and members of the public without disabilities. In California, Section 508 was codified in Government Code 11135 by the State Legislature in 2002 through S.B. 105. Government Code 11135 requires community colleges to comply with the accessibility requirements of Section 508 of the Rehabilitation Act of 1973 as amended, and to also apply the US Access Board accessibility standards to the electronic and information technology products and services that it buys, creates, uses, and maintains. The standards provide criteria specific to various types of technologies, including:

- * software applications and operating systems;
- * web-based information or applications;
- * telecommunication products;
- * video and multimedia products;
- * self contained, closed products (e.g., information kiosks, calculators, and fax machines); and
- * desktop and portable computers.

To assess employees' knowledge of Section 508 they were asked to indicate if they knew what it means to have accessible resources that are Section 508 (ADA) compliant. The findings are as follows (see Figure 2):



- Three out of five contract faculty and classified employees report not knowing or not sure of what it means to have accessible resources that are Section 508 (ADA) compliant.
- Four out of five hourly faculty report not knowing or not sure of what it means to have accessible resources that are Section 508 (ADA) compliant.
- While **62.1%** of the managers/administrators report knowing what it means to have accessible resources that are Section 508 compliant, over a third (**37.9%**) of them report not knowing or not sure.

Possible Action Implications for the College

- * These findings indicate there is a significant need to education employees about Section 508.
- * Given the large difference between the proportion of managers/administrators and other employees who report knowing what Section 508 is, the college needs to examine how information about Section 508 is being communicated to all employees throughout the college. The information is apparently not getting to all the employees.
- * Given the large number of employees who do not know or are not sure what Section 508 is, the college may need to assess whether PCC's technologies such as the college's web site, web-based information and applications, online courses, etc., are in compliance with the Section 508 standards.

Off-Campus Computer Access

Students and employees were asked to indicate if they had access to a computer off-campus, where they have access to a computer off-campus, how old their computer is, and how they access the internet. Overall, almost all of the students and employees have access to a computer off-campus. Specifically, over **98.4%** of the hourly faculty report having access to a computer off-campus, followed by **97.8%** of the contract faculty, **92.5%** of the students, **90.3%** of the managers/administrators, and **86.5%** of the classified staff.

The findings are as follows:

- Overall, **94.0%** of the students and employees have access to a computer at home (see Table 3).
- Of the individuals who do not have access to a computer off-campus, the classified staff had the highest proportion (**13.5%**).
- High proportions of students and hourly faculty report having access to a computer in multiple locations, home and work.
- Most students and employees have access to a relatively new computer off-campus, 1 to 3 years old (see Figure 3).
- The students and the contract faculty had the **highest** proportions (**31.5% and 27.3%, respectively**) of individuals with the newest computers (less than a year), while the classified staff had the **highest** proportion (**25.2%**) of individuals with computers older than 3 years.
- While most students and employees use DSL broadband to connect to the internet, there is a meaningful proportion (**between 10% to 23%**) who use a dial-up modem (see Figure 4.). Only **7.1%** of the students and employees report not having internet access.

Table 3. Off-Campus Computer Access

	Students	Contract Faculty	Hourly Faculty	Classified	Manager/Admin.
Off-Campus Computer Access					
<i>Percent</i>					
Yes	92.5	97.8	98.4	86.5	90.3
No	7.5	2.2	1.6	13.5	9.7
Where do you have access to a computer off-campus?					
<i>Percent</i>					
Home	94.2	98.9	94.2	97.9	100.0
Work	29.3	8.3	39.7	5.5	7.1
Elsewhere	25.9	7.8	13.2	15.1	10.7

Figure 3: Age of Off-Campus Computer by Job Classification

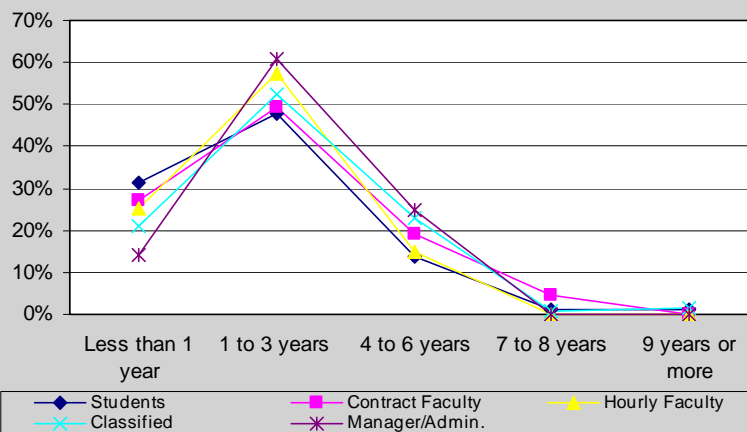
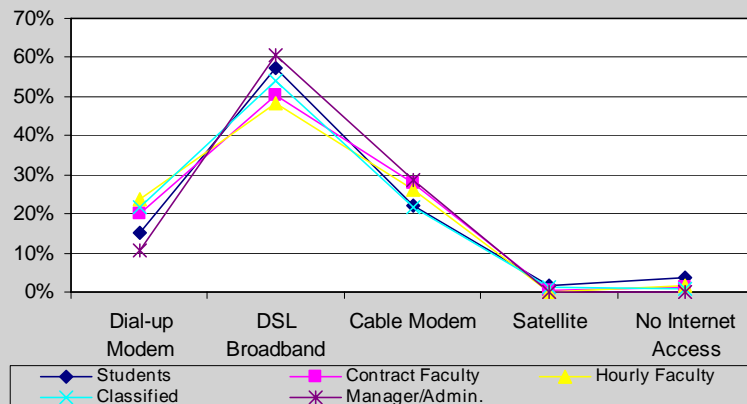


Figure 4: Off-Campus Internet Access



Possible Action Implications for the College

- * How new the computers students have and the speed of their internet connections suggest that internet courses and online services are very feasible. The college may consider offering students more online courses and online support services.
- * Given the findings, the college could explore opportunities for employees telecommuting or conducting staff development training via the internet.
- * Given that a large proportion of students and employees connect to the internet via DSL broadband, they are probably able to download or view large documents, videos, music, etc. This finding may affect the types of documents posted on the college’s web site or the curriculum/materials used to teach online classes.

Note: For more detailed information, stop by the Institutional Planning and Research Office located in C-241. Or, call Cynthia Lopez, Research and Planning Analyst, at 626-585-7866.