

# **CSU Technology Metrics Staff Survey Report**

Conducted for:

**The California State University Chancellor's Office**

Prepared by:

**The Social and Behavioral Research Institute**

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# CSU Information Competence Survey Report

## INTRODUCTION

The CSU Technology Metrics report was produced for the California State University Chancellor's Office by the Social and Behavioral Research Institute at California State University, San Marcos. The report summarizes responses of staff members in the California State University (CSU) system concerning access to and satisfaction with computing and network technology. This report also addresses CSU staffs' attitudes regarding computing resources at their campus.

The report contains an account of the data, a description of the results, and a summary of the key findings. Additionally, Appendix A contains the questionnaire items and Appendix B displays the responses to key survey items.

## DATA

The data come from telephone interviews with 2,320 staff members of the CSU system from 21 campuses. The interviews were conducted between July 5<sup>th</sup> and August 1<sup>st</sup> of 2000. More than 100 interviews were conducted with staff at each of the campuses except the Maritime Academy and Channel Islands campuses. These campuses were excluded because they do not have student populations adequate for sampling.

The interview questions addressed attitudes, access, use, and satisfaction with computing and network technology. Data regarding respondent characteristics come from interview questions and institution databases.

## RESULTS

### Respondent Characteristics

The respondents were mostly (62.4%) female, and averaged 45.72 years of age. As indicated in Table 1, about two-thirds (65.6%) of the respondents were white. The Hispanic category was the second largest, comprising 14.7% of the respondents, while Asian and African American categories were half that size.

**Table 1: Ethnic Origin.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 African American	166	7.2	7.2	7.2
	2 Asian	170	7.3	7.3	14.5
	3 Other - Non White	47	2.0	2.0	16.5
	4 Hispanic	340	14.7	14.7	31.2
	5 White	1520	65.5	65.6	96.8
	6 Pacific Islander	74	3.2	3.2	100.0
	Total		2317	99.9	100.0
Missing	99 Did Not Answer	1	.0		
	System	2	.1		
	Total	3	.1		
Total		2320	100.0		

The level of education of the staff members was also of interest. The distribution of respondents across education levels is displayed in Table 2. Almost all (99.4%) the respondents had at least a high school education. Most (82.9%) had a bachelor's degree, and 17.1% had a post-graduate degree.

**Table 2: Respondents' Level of Education.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Elementary School Completed	1	.0	.0	.0
	2 Junior High School Completed	1	.0	.0	.1
	3 Some High School Education	12	.5	.5	.6
	4 High School Diplomia or GED	244	10.5	10.5	11.1
	5 Some College	705	30.4	30.4	41.5
	6 Trade or Craft Certificate	28	1.2	1.2	42.8
	7 Associate Degree	197	8.5	8.5	51.3
	8 Bachelor's Degree	734	31.6	31.7	82.9
	9 Master's Degree	274	11.8	11.8	94.7
	10 Professional Degree	21	.9	.9	95.6
	11 Doctorate	101	4.4	4.4	100.0
	Total	2318	99.9	100.0	
Missing	System	2	.1		
	Total	2320	100.0		

Almost all (99.1%) of the respondents were full-time employees. Table 3 shows the collective bargaining classifications of the staff members responding to the survey. The largest classification was *clerical and administrative support services*, constituting a third (35.4%) of the respondents. The

**Table 3: Collective Bargaining Classification.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Confidential Class	47	2.0	2.0	2.0
	2 Management Personnel Plan	368	15.9	15.9	17.9
	3 Executive Management Class	1	.0	.0	17.9
	4 Physicians	3	.1	.1	18.1
	5 Health Care Support	22	.9	.9	19.0
	6 Academic Support	223	9.6	9.6	28.6
	7 Operations & Svcs	44	1.9	1.9	30.5
	8 Skilled Crafts	98	4.2	4.2	34.7
	9 Clerical & Adminimstrative Support Svcs	822	35.4	35.4	70.2
	10 Public Safety	21	.9	.9	71.1
	11 Technical & Support Svcs	671	28.9	28.9	100.0
	Total	2320	100.0	100.0	

*management personnel plan* (MPP) classification accounted for 15.9% of those surveyed.

Table 4 summarizes the numbers of people interviewed in different job family classes. The largest category was professional, which accounted for almost a third (31.5%) of the sample. The crafts classification constituted only 6.7% of those surveyed. The respondents, on average, have been at their current campus for 11.74 years, and in their current position for 6.64 years.

**Table 4: Job Family Class.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 MPP	369	15.9	15.9	15.9
	2 Professional	731	31.5	31.5	47.4
	3 Clerical	612	26.4	26.4	73.8
	4 Technical	452	19.5	19.5	93.3
	5 Crafts	156	6.7	6.7	100.0
	Total	2320	100.0	100.0	

## Technology Attitudes

All respondents were asked a series of questions regarding their impressions and beliefs about computing and network technology. Respondents were asked their impressions of the computing and network technology resources available to them in comparison to other CSU campuses. They were

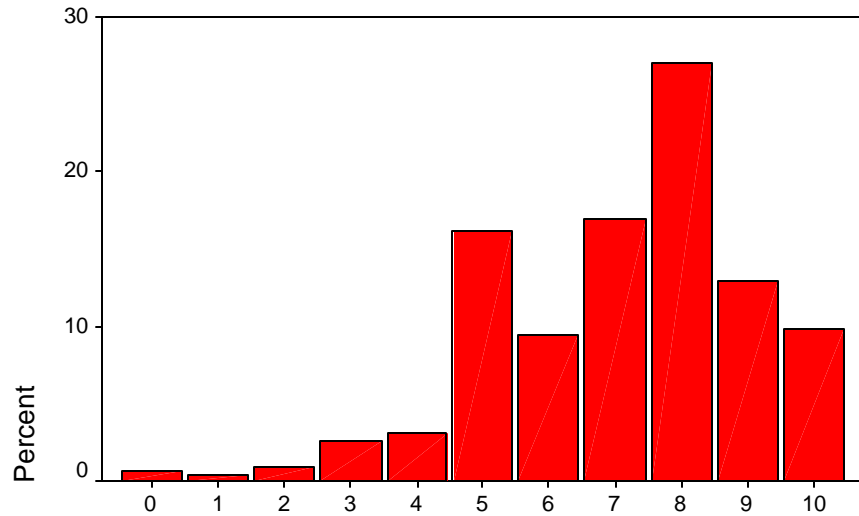
asked to rate their resources using a scale of zero to ten, where zero meant their resources were much lower than other campuses and ten meant their resources were much higher. The responses are summarized in Table 5. While 844 people responded by saying they didn't know, ratings from 1,472 respondents averaged 7.10 on the scale, indicating that most people thought they were relatively well off compared to other CSU campuses.

**Table 5: Average Scores on Technology Attitude Items.**

	N	Minimum	Maximum	Mean	Std. Deviation
QGLOB1 Respondent's Impression of Computing and Network Resources Compared to Other Campuses?	1472	0	10	7.10	1.95
QGLOB2 Importance of Computing and Network Resources for Completion of Job Tasks	2316	0	10	9.05	1.63
QGLOB3 Satisfaction with Computing and Technology Resources Available to Respondent	2304	0	10	7.47	2.00
Valid N (listwise)	1471				

As indicated by the standard deviation in Table 5, there was substantial variability in the responses regarding the level of computing technology *relative to other CSU campuses*. The distribution of responses is displayed in Figure 1. This figure shows that while people tended to perceive themselves as relatively well off, there is still significant room for improvement. That is, half

(50.1%) of the individuals providing a response rated the technology resources available to them compared to other CSUs at 7 or lower.



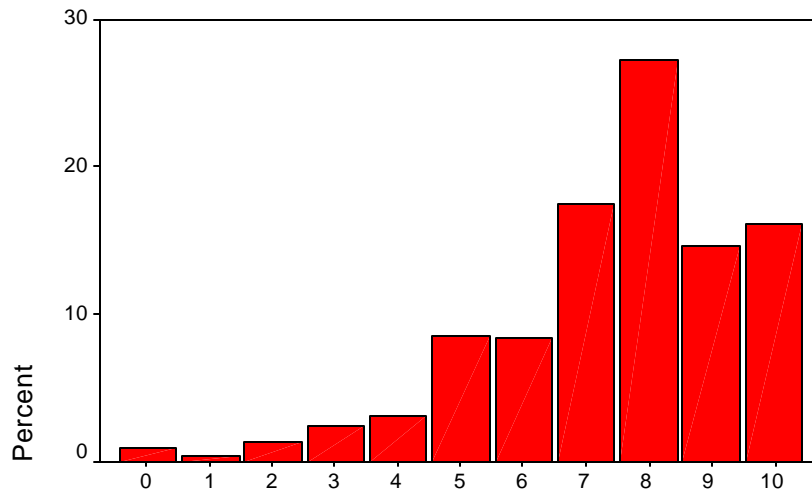
Relative Impressions of Technology Resources

Figure 1: Respondent's Impression of Computing and Network Resources Compared to Other CSUs.

Table 5 also reveals that respondents believed computing and network resources are very important in completing their job tasks. Where zero indicates not at all important, and ten indicates extremely important, the respondents, on average, rated the importance of computing and network resources at 9.05.

The respondents also rated their satisfaction with the computing and technology resources that were available to them. The respondents, on average, were fairly satisfied. This item used the satisfaction rating utilized throughout the interview. This satisfaction rating ranged from zero, indicating the respondent was not at all satisfied, to ten, indicating the respondent was completely satisfied. Thus, the average rating of 7.47, displayed in Table 5, suggests a substantial degree of satisfaction with the

available computing and technology resources. However, the distribution of responses, seen in Figure 2, shows a number of respondents are not completely satisfied. In fact, less than a third (30.8%) of the staff members responded with a 9 or 10.



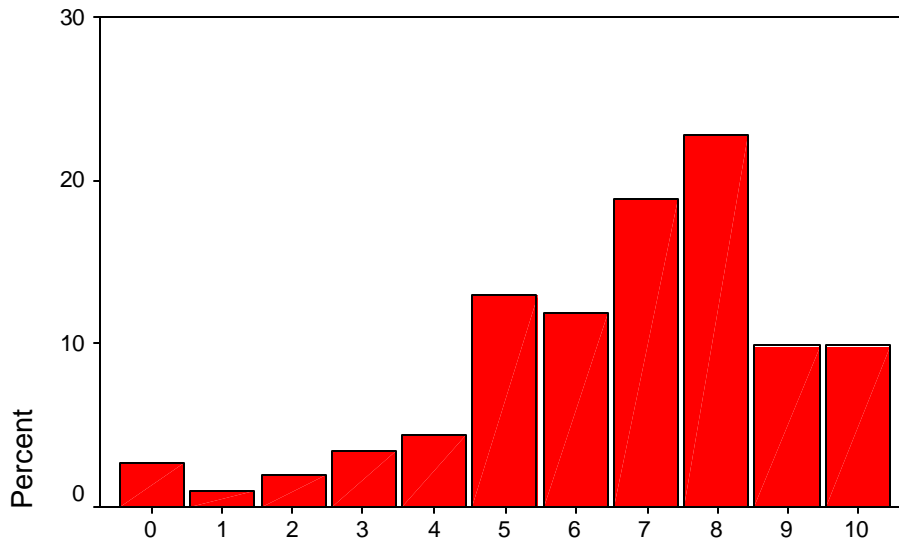
Satisfaction with Technology Resources Available

Figure 2: Satisfaction with Computing and Technology Resources Available to Respondent.

Respondents were also asked if they were aware of any efforts to improve computing and network resources on their campus in the last two years. As indicated in Table 6, most (87.2%) of the respondents were aware of such efforts to improve their computing and network resources. Those 2,204 respondents indicating they were aware of improvement efforts were asked about the consequences of these efforts. Explicitly, these respondents were asked to rate on a scale of zero to ten, where zero equals no improvement at all and ten equals extremely improved, how much they thought these efforts to improve computing and network resources have improved their work conditions. On average, the respondents offered a rating of 6.72, suggesting these efforts have been perceived as helpful in improving work conditions for many respondents. Figure 3 illustrates that there is significant variability in the responses.

**Table 6: Awareness of Efforts to Improve Computing and Network Resources.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 No	272	11.7	11.8	11.8
	1 Yes	2024	87.2	88.2	100.0
	Total	2296	99.0	100.0	
Missing	8 Don't Know	24	1.0		
Total		2320	100.0		



How Efforts to Improve Technology Improved Work Conditions

Figure 3: How Much Efforts to Improve Computing and Networking Resources Have Improved Work Conditions.

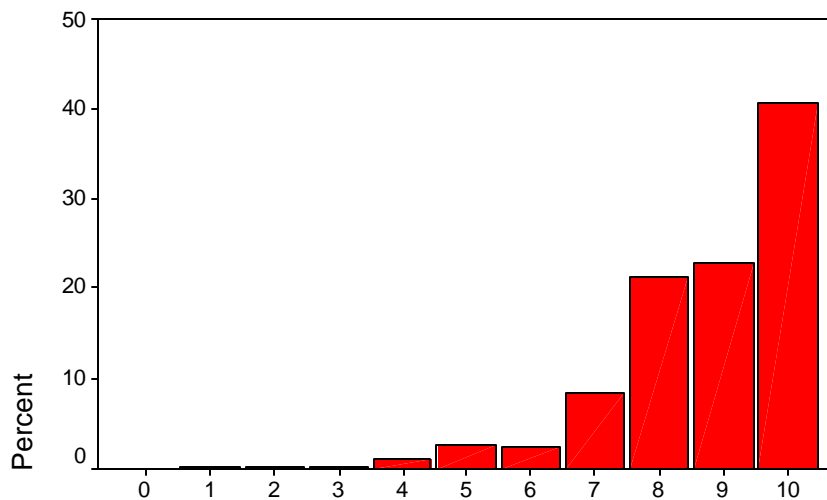
### Online Information Services

The satisfaction of staff members with online information services was of interest in the study. Respondents were asked if they had used various online information services, and if so, how satisfied they were with those services. Again, for the satisfaction questions a scale of zero to ten, with zero indicating “not at all satisfied” and ten indicating “completely satisfied.”

**Table 7: Use of Online Information Services.**

		0 No	1 Yes
Campus Access to the Internet and World Wide Web	Count	89	2229
	%	3.8%	96.2%
Used Campus E-mail Services?	Count	68	2252
	%	2.9%	97.1%
Use of Campus Network and Information System from Off-Campus w/ Modem, DSL, or ISDN	Count	1145	1159
	%	49.7%	50.3%
Use of Campus Network and Information System From Off-Campus Using An ISP?	Count	1697	619
	%	73.3%	26.7%

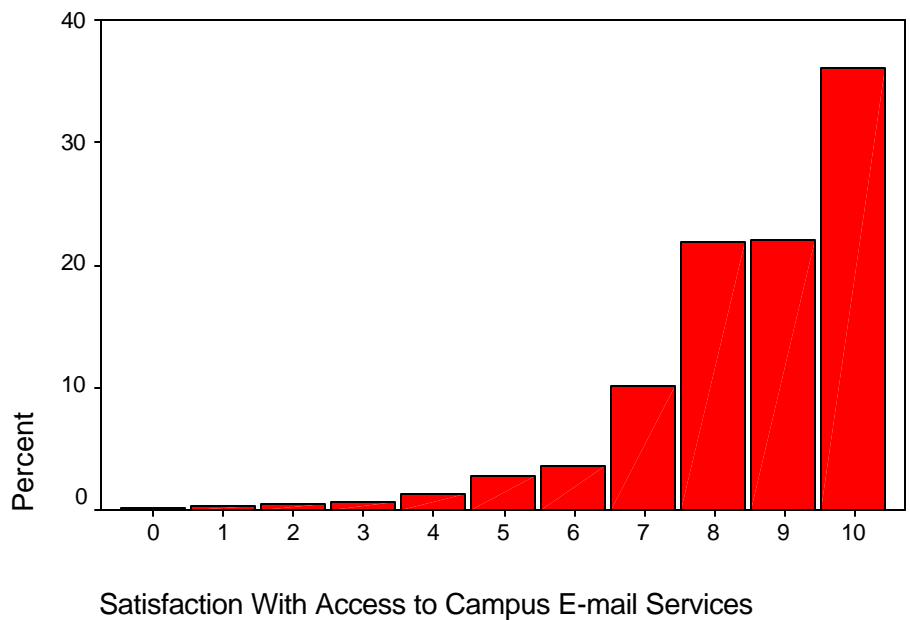
Almost all (96.2%) of the respondents indicated that they had used campus access to the Internet and World Wide Web. This is seen in Table 7. Additionally, as indicated in Table 8, staff members were satisfied with their campus access to the Internet. On the zero-to-ten satisfaction scale, satisfaction with campus access to the Internet was rated 8.74. There is some variability in responses, as seen in Figure 4.



Satisfaction With Campus Access to Internet

Figure 4: Satisfaction With Campus Access to Internet.

Almost all (97.1%) staff reported using campus e-mail services. This is illustrated in Table 7. Satisfaction with access to campus e-mail service was also high. This is seen in Table 8. On the zero-to-ten satisfaction scale, satisfaction with access to campus e-mail was 8.52. The distribution of satisfaction scores is displayed in Figure 5. Less than half (41.9%) of the respondents rated their satisfaction with campus e-mail services at a level of 8 or below.



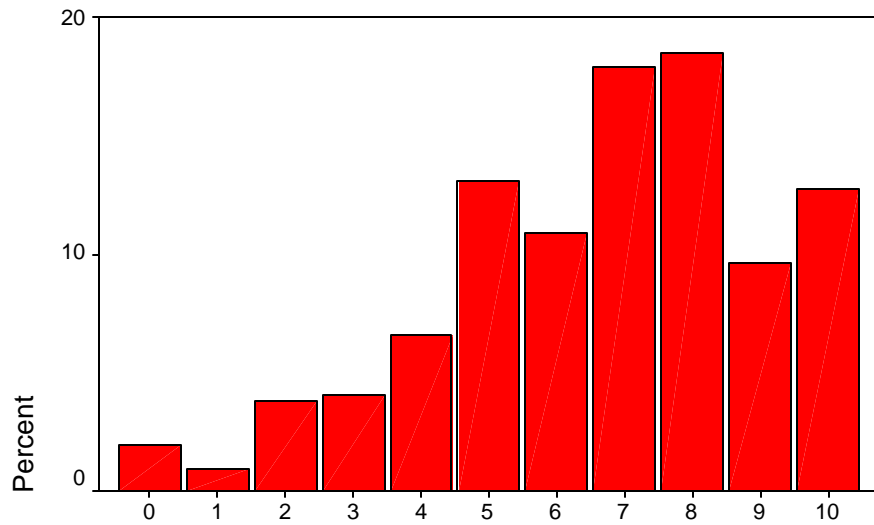
Satisfaction With Access to Campus E-mail Services

Figure 5: Satisfaction With Access to Campus E-mail Services.

**Table 8: Average Satisfaction Ratings of Online Information Services.**

	N	Minimum	Maximum	Mean	Std. Deviation
QI4B1B Satisfaction With Campus Access to Internet	2224	0	10	8.74	1.48
QI4B2B Satisfaction With Access to Campus E-mail Services	2249	0	10	8.52	1.66
QI4B3B Satisfaction With Campus Network and Information System from off-Campus	1145	0	10	6.65	2.39
QI4B4B Satisfaction With Access to Campus Network and Information Systems From Off-Campus Using an ISP	613	0	10	7.13	2.16
Valid N (listwise)	435				

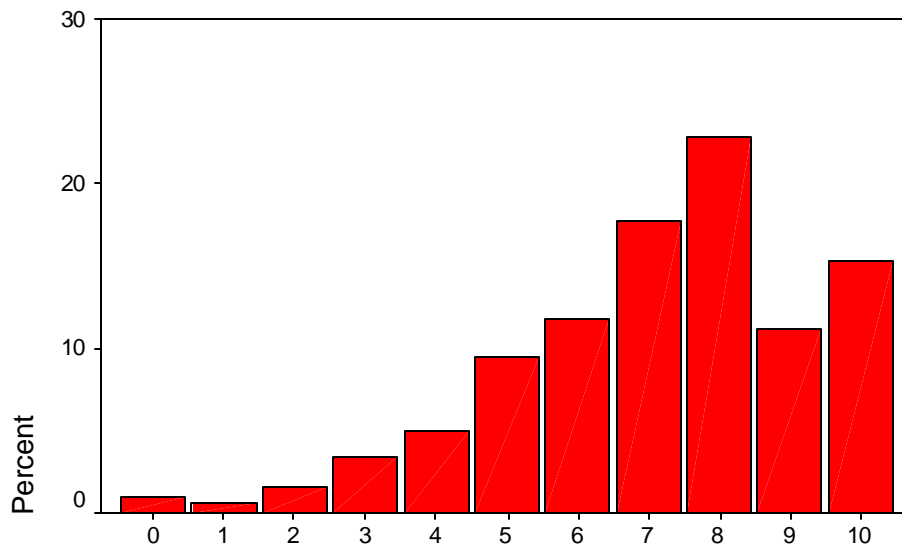
Off-campus use of campus network and information systems was less common. As indicated in Table 7, about half (50.3%) the staff members indicated that they used campus network and information systems from off campus. Though satisfaction with access to campus network and information systems from off campus is fair (6.65), it is lower than for Internet and e-mail access. Figure 6 shows there is an appreciable number of people (22.4%) that indicated a very high level of satisfaction.



Satisfaction Campus Network from off-Campus

Figure 6: Satisfaction With Campus Network and Information System from off-Campus.

Access to campus network and information systems through some other Internet service provider (ISP) was less commonly used than the other online information services. Only about a quarter (26.7%) of the respondents indicated that they accessed campus network and information systems using another ISP. Those that had used an ISP to access campus network and information systems expressed greater satisfaction (7.13) with this access than was expressed with access through the campus (6.65). The range of responses is pictured in Figure 7.



Satisfaction With Campus Network From off-Campus ISP

Figure 7: Satisfaction With Access to Campus Network and Information Systems From an off-Campus ISP.

## Administrative Productivity and Quality

A series of questions were asked regarding satisfaction with administrative productivity systems. Specifically, the staff members were asked about their university's financial information system and their human resources or personnel information system.

Only a third (33.6%) of the respondents reported accessing their university's financial information system for the completion of job tasks. This is seen in Table 9. Table 10 shows average

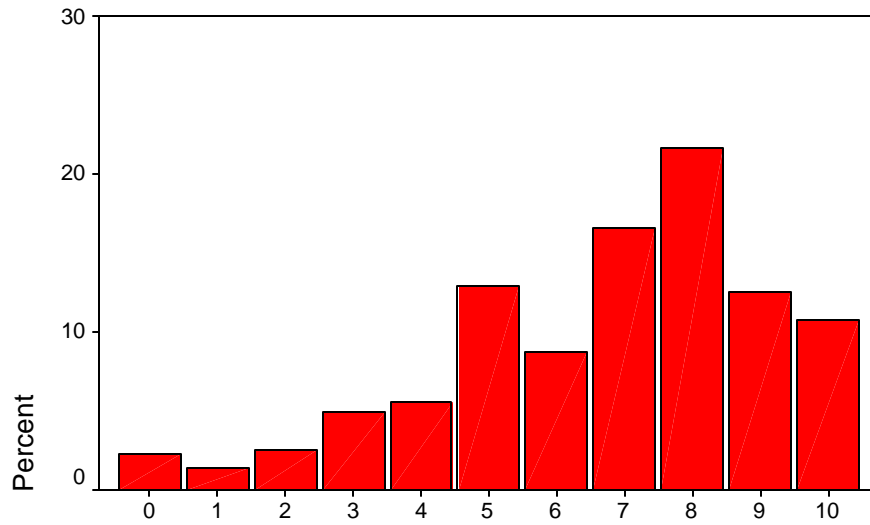
**Table 9: Use of Administrative Productivity Systems.**

		Does Respondent Access the University's Financial System for Completion of Job Tasks?		Does Respondent Access the University's Human Resources or Personnel Information System for Completion of Job Tasks?	
		Count	%	Count	%
0	No	1526	66.4%	1764	76.6%
1	Yes	772	33.6%	539	23.4%

ratings of satisfaction with the university's financial information system. Those that use the university's financial information system were asked how satisfied they were with the systems availability or uptime. On the zero-to-ten satisfaction scale, satisfaction with the financial system availability was 6.71, suggesting that users are reasonably satisfied. Figure 8 shows that there are many who are not completely satisfied.

**Table 10: Satisfaction with Administrative Productivity Systems.**

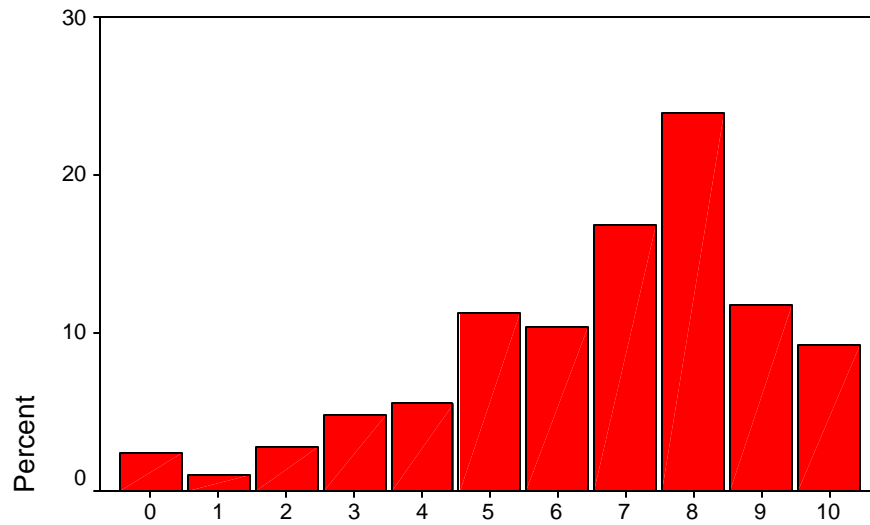
	N	Minimum	Maximum	Mean	Std. Deviation
QI3B1A Satisfaction With University's Financial Information System's Availability or Uptime	765	0	10	6.71	2.40
QI3B1B Satisfaction With University's Financial Information Online Processing Response Time	713	0	10	6.70	2.35
QI3B2A Satisfaction With University's Human Resources Information System's Availability or Uptime	536	0	10	7.13	2.15
QI3B2B Satisfaction With University's Human Resources Information System's Online Processing Response Time	481	0	10	7.03	2.13
Valid N (listwise)	245				



Satisfaction With Financial Information System's Availability

Figure 8: Satisfaction With University's Financial System's Availability or Uptime.

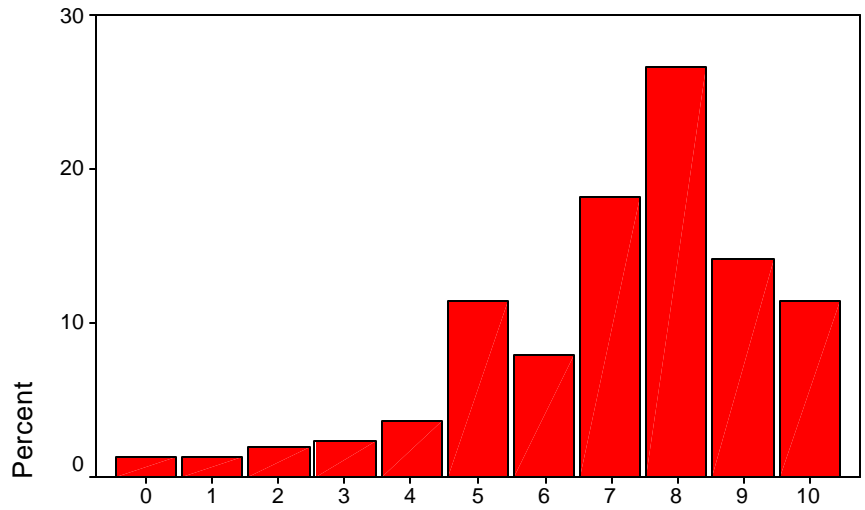
Similarly, respondents were reasonably satisfied with the financial information system's processing response time, rating it at 6.70. Figure 9 displays the range of satisfaction with financial information system's processing response time.



Satisfaction With Financial Information Response Time

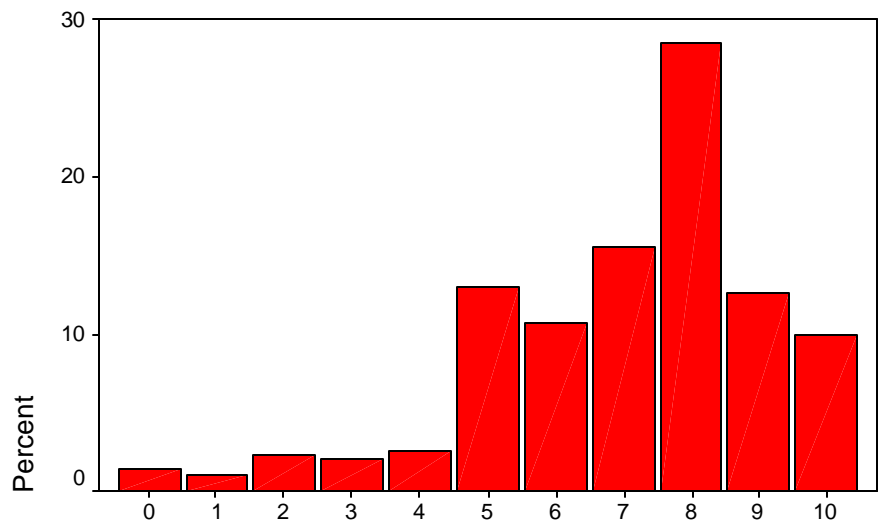
Figure 9: Satisfaction With University's Financial Information Online Processing Response Time.

Less than a quarter (23.4%) of the staff members reported using the university's human resources or personnel information system. This is also seen in Table 9. Those who did report using the system were asked about their satisfaction with the system. Reported satisfaction with the human resources system was higher than the reported satisfaction with the financial system. This is illustrated in Table 10. The availability of the human resources information system was rated higher (7.13) than the availability of financial system (6.71), and the human resources system was also rated more highly (7.03) than the financial system (6.70) with respect to satisfaction with response time. Respondents were reasonably satisfied with both systems. This can be seen in Figures 10 and 11.



Satisfaction With Human Resources System's Availability

Figure 10: Satisfaction With University's Human Resources Information System's Availability.



Satisfaction With Human Resources System Response Time

Figure 11: Satisfaction With Human Resources Information System's Processing Response Time.

## Personal Productivity

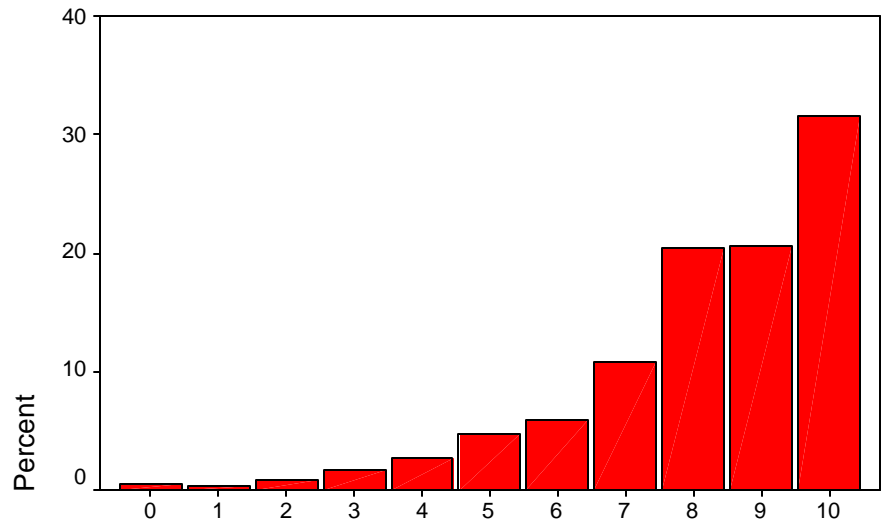
Respondents were asked about satisfaction with computer and network hardware and software, as well as support.

### Workstations and Software

Almost all (97.2%) of the respondents said they had access to a computer workstation to complete their job tasks. This is seen in Table 11. Additionally, the respondents said they were satisfied with the computer workstation that was available to them. As displayed in Table 12, on average, the respondents rated their satisfaction at 8.16 on the zero-to-ten satisfaction scale. Figure 12 shows there is appreciable variability in staff members' satisfaction with the available computer workstations.

**Table 11: Access to Personal Productivity Hardware and Software.**

	Does Respondent Have Access to a Computer Workstation to Complete Job Tasks?		Does Respondent Have Access to Software Needed to Complete Job Tasks?	
	Count	%	Count	%
0 No	64	2.8%	109	4.8%
1 Yes	2255	97.2%	2144	95.2%



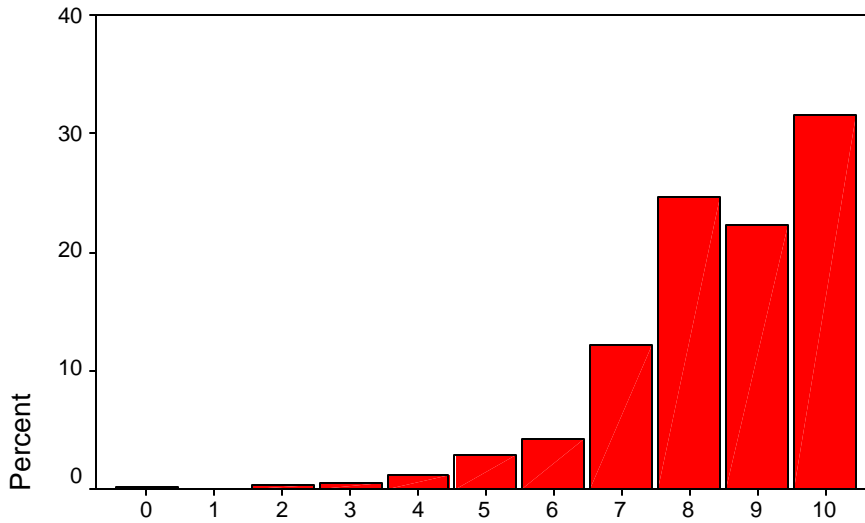
Satisfaction With Workstation Available for Job Tasks

Figure 12: Satisfaction With the Computer Workstation Available for Job Tasks.

Similarly, the vast majority (95.2%) of the staff members indicated that they had the computer software that they needed to complete their job tasks. Table 12 shows their satisfaction ratings of the software that is available to them. On average, the respondents were satisfied with the computer software available to them. This is evidenced in Figure 13.

**Table 12: Satisfaction with Personal Productivity Hardware and Software.**

	N	Minimum	Maximum	Mean	Std. Deviation
QI4A1C Satisfaction With the Computer Workstation Available for Job Tasks	2252	0	10	8.16	1.97
QI4A2C Satisfaction With Software Available to Respondent	2138	0	10	8.45	1.55
Valid N (listwise)	2136				



Satisfaction With Software Available to Respondent

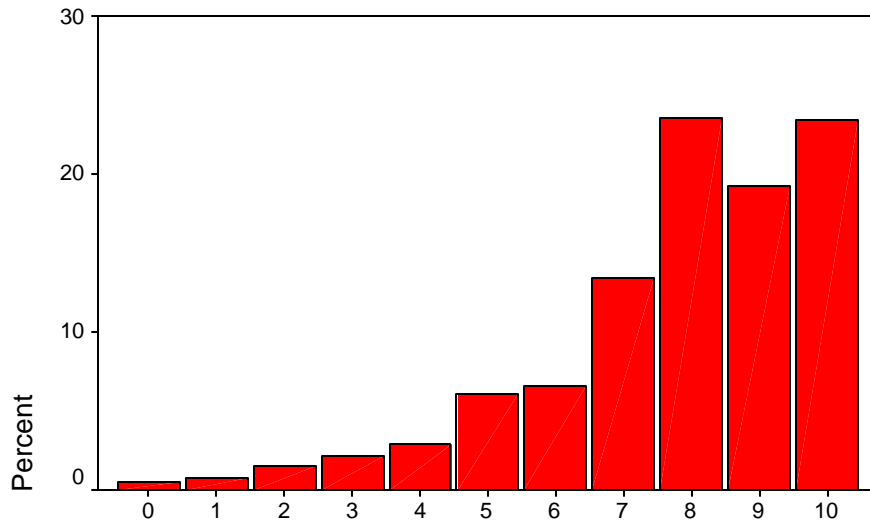
Figure 13: Satisfaction With Software Available to Respondent.

## Support

*Computer Equipment.* Staff members were asked if they had access to help on campus to set up, upgrade, maintain or repair computer equipment. As displayed in Table 13, most (95.7%) of the respondents indicated that they did have access to such help. Those who did have access to help on campus to set up, upgrade, maintain or repair computer equipment were asked if they had ever requested help with their computer equipment. These responses are also in Table 13. Most (91.0%) of those with access have requested help with computer equipment setup, upgrading, maintenance or repairs. Staff members expressed satisfaction both with the quality of work performed and the manner in which their request was handled. This is illustrated in Table 14. The quality of work was rated at 7.82 on the zero-to-ten satisfaction scale, and the manner in which the request was handled was rated at 7.72. Figures 14 and 15 display the distributions of the responses to these items.

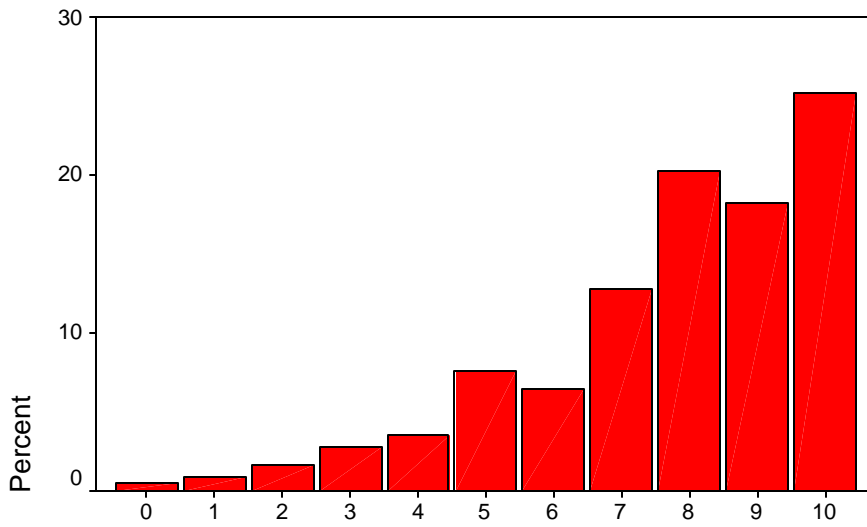
**Table 13: Access to Support for Personal Productivity Hardware and Software.**

	Does Respondent Have Access to Help on Campus to Set Up, Upgrade, Maintain, or Repair a Computer or Computer Equipment?		Has Respondent Ever Requested Help to Set Up, Upgrade, Maintain, or Repair a Computer or Computer Equipment?		Does Respondent Have Access to Help on Campus to Install, Upgrade, or Maintain Software?		Has Respondent Ever received Assistance From the Campus With Installation, Upgrading, or Maintenance of Software?	
	Count	%	Count	%	Count	%	Count	%
0 No	97	4.3%	193	9.0%	152	6.8%	272	13.2%
1 Yes	2150	95.7%	1955	91.0%	2077	93.2%	1795	86.8%



Satisfaction With the Quality of Work Performed (Equipment)

Figure 14: Satisfaction With the Quality of Work Performed (Equipment).



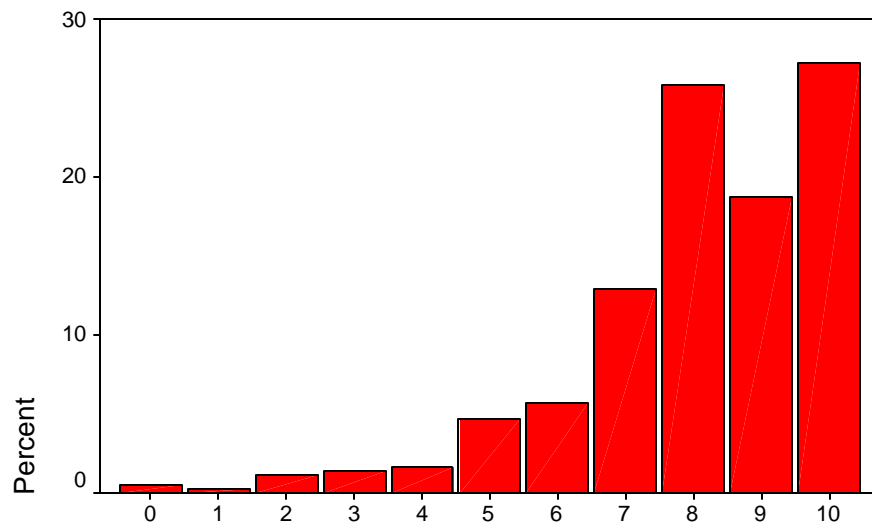
Satisfaction With Way Request Was Handled (Equipment)

Figure 15: Satisfaction With the Way the Request was Handled (Equipment).

*Software.* Respondents were also asked about software support; 93.2% said they had access to help on campus for the installation, upgrading, or maintenance of software. Of those, 86.8% said they had received help with installation, upgrading, or maintenance of software. This is seen in Table 13. Respondents were also satisfied with these services. On the satisfaction scale, respondents rated satisfaction with the quality of the work performed at 8.08, and the way in which their request was handled at 7.95. This is seen in Table 14. Figures 16 and 17 show there is appreciable variability in staff members' satisfaction with these services.

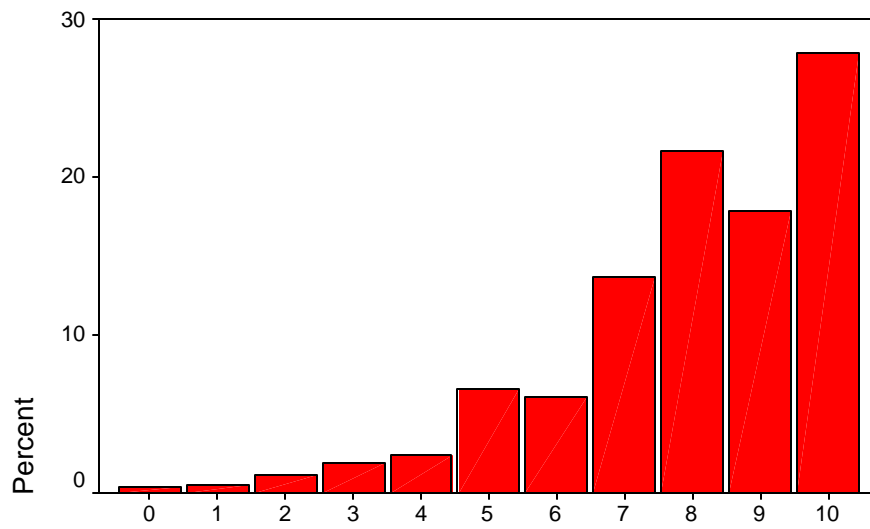
**Table 14: Satisfaction with Support for Personal Productivity Resources.**

	N	Minimum	Maximum	Mean	Std. Deviation
QI4A3C Satisfaction with the Quality of Work Performed -- Hardware	1952	0	10	7.82	2.05
QI4A3D Satisfaction with the Way the Request was Handled -- Hardware	1953	0	10	7.72	2.19
QI4A4C Satisfaction with the Quality of Work Performed -- Software	1793	0	10	8.08	1.87
QI4A4D Satisfaction with the Way the Request was Handled -- Software	1788	0	10	7.95	2.02
Valid N (listwise)	1690				



Satisfaction With the Quality of Work Performed (Software)

Figure 16: Satisfaction With the Quality of Work Performed (Software).



Satisfaction With Way the Request was Handled (Software)

Figure 17: Satisfaction With the Way the Request was Handled (Software).

## Help

The degree of satisfaction with assistance with computer workstations, networks, and software was of interest. Most (97.2%) people had access to help if they have trouble with their computer after it has been installed. This is indicated in Table 15. Of these people, 2,070 (89.2%) said this help was provided through their campus.

**Table 15: Access to Help with the Computer After It Has Been Installed.**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 No	62	2.7	2.8	2.8
	1 Yes	2181	94.0	97.2	100.0
	Total	2243	96.7	100.0	
Missing	8 Don't Know	11	.5		
	9 Refused	1	.0		
	System	65	2.8		
	Total	77	3.3		
Total		2320	100.0		

Those that said they had access to help with their computer through their campus were asked what types of help service were available to them. The staff members' responses are summarized in Table 16. The most common type of help access reported was a telephone call center, identified by 87.8% of the respondents. Most people (70.8%) also had access to a help desk through e-mail or a web site. Also, more than half (57.7%) the respondents said they had access to a walk-in help desk.

**Table 16: Availability of Types of Help Service.**

		0 No	1 Yes
A Telephone Call Center	Count	253	1817
	%	12.2%	87.8%
A Campus Walk-In Help Desk	Count	875	1195
	%	42.3%	57.7%
E-Mail or Web Site Access to A Campus Help Desk	Count	604	1466
	%	29.2%	70.8%

*Telephone call center.* Those indicating that they had access to a telephone call center were asked about their experience with the call center. As indicated in Table 17, a third (33.7%) of the total sample said their access to their telephone call center was not 24 hours a day, seven days a week. However, almost a third (30.1%) of the respondents did not know whether or not they had 24-hour, seven days a week access. Four-fifths (81.7%) of those with access to a telephone call center had used that call center.

**Table 17: Respondent Has 7-Day, 24-Hour Access to A Telephone Call Center.**

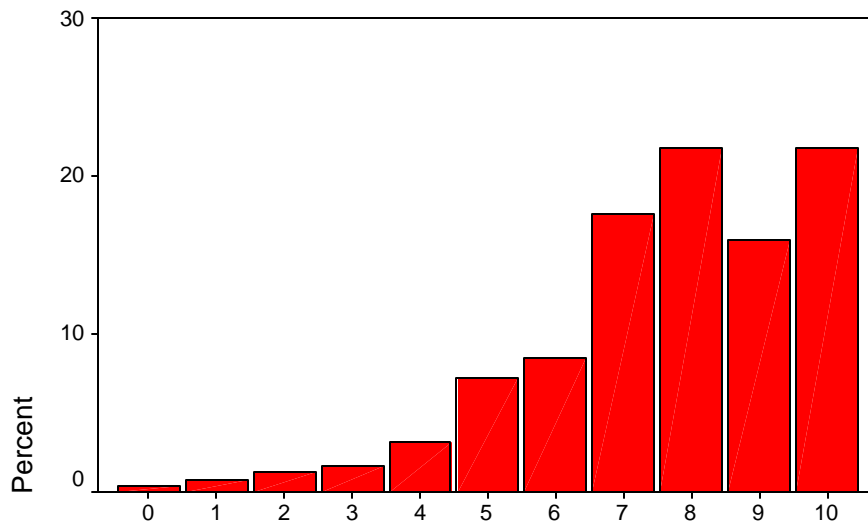
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 No	781	33.7	70.0	70.0
	1 Yes	335	14.4	30.0	100.0
	Total	1116	48.1	100.0	
Missing	8 Don't Know	699	30.1		
	9 Refused	2	.1		
	System	503	21.7		
	Total	1204	51.9		
Total		2320	100.0		

For those that had used the call center, three quarters (77.7%) indicated that the person who received the request was able to solve the problem. Most (87.7%) of those respondents whose problems were not resolved by the person who received their help request were referred to someone else. This second person was able to solve the problem in 252 (86.3%) of the cases.

**Table 18: Satisfaction with the Telephone Call Center.**

	N	Minimum	Maximum	Mean	Std. Deviation
QI4A5B7 Satisfaction With the Way Request(s) for Assistance Have Been Handled by the Telephone Call Center	1481	0	10	7.67	2.01
QI4A5B8 Satisfaction With the Amount of Time It Took To Resolve the Problem	1479	0	10	7.11	2.35
Valid N (listwise)	1478				

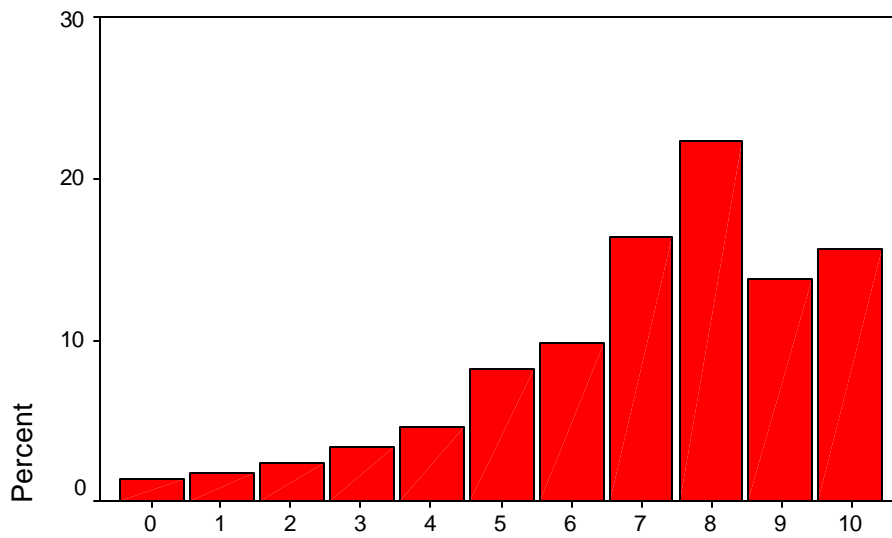
The satisfaction of those who used the help services is of central importance. Table 18 displays the satisfaction ratings of those using the telephone call centers. Overall, staff members were fairly



Satisfaction With Assistance from Call Center

Figure 18: Satisfaction With the Way Request(s) for Assistance Has Been Handled by Call Center.

satisfied (7.67 on the zero-to-ten scale) with the manner in which requests for help were handled by the telephone call centers. Figure 18 illustrates the range of satisfaction with the manner in which calls were handled. The staff members were also satisfied, though less so (7.11), with the amount of time it took to get their problems resolved through the telephone call center. The range of satisfaction levels is displayed in Figure 19.



Satisfaction With Time It Took To Resolve the Problem

Figure 19: Satisfaction With the Amount of Time It Took To Resolve the Problem.

*Walk-in help desk.* Those respondents indicating that they had access to a walk-in help desk were asked how many days per week, and how many hours per day the walk-in help desk was open. Their responses are summarized in Table 19. On average, the help desks were reported to be open just over five days a week. Also, the help desks were reported to be open for an average of 8.25 hours per day.

**Table 19: Operating Time of Walk-In Help Desks.**

	N	Minimum	Maximum	Mean	Std. Deviation
QI4A5C2 How Many Days Per Week Is the Campus Walk-In Help Desk Open?	780	1	7	5.28	.67
QI4A5C3 On Average, How Many Hours A Day Is the Walk-In Help Desk Open?	628	1	10	8.25	.98
Valid N (listwise)	568				

Only about half (48.5%) of those reporting access to a walk-in help desk have used this service when they have computer or software problems. However, for those using the walk-in help desk, most (89.3%) of the respondents said the person who helped was able to solve their problem. Those whose problems were not solved initially were almost always (96.8%) referred to someone else. In most cases (94.9%), the person to whom the problem was referred was able to solve the problem.

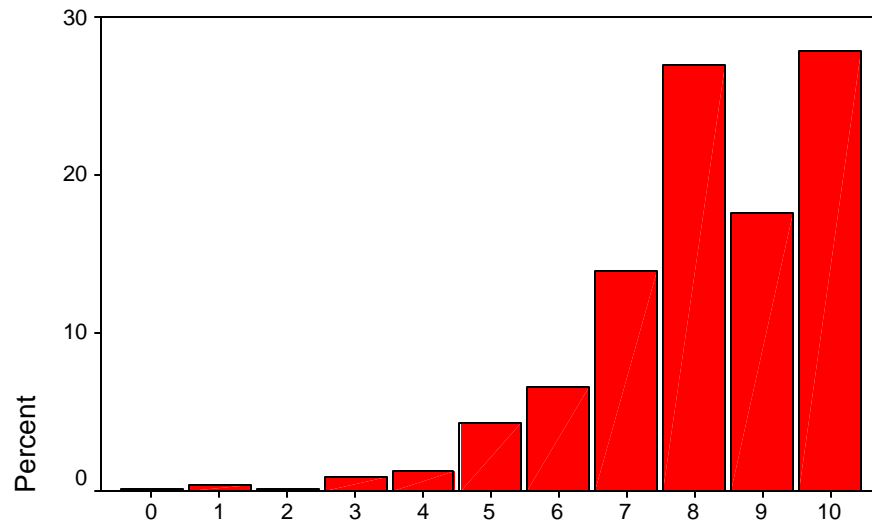
**Table 20: Satisfaction with Walk-In Help Desk.**

	N	Minimum	Maximum	Mean	Std. Deviation
QI4A5C8 Satisfaction With the Way Requests For Assistance Were Handled By the Campus Help Desk	575	0	10	8.19	1.68
QI4A5C9 Satisfaction With the Amount of Time It Took To Resolve the Problem(s)	573	0	10	7.94	1.91
Valid N (listwise)	573				

Those staff members who took a problem to the walk-in help desk were asked about how satisfied they were with the service they received. Their responses are summarized in Table 20.

Respondents were reasonably satisfied with the way in which their requests were handled, as indicated by the average satisfaction rating of 8.19. Figure 20 shows the range of responses from staff members.

Respondents were also fairly satisfied with the amount of time it took to resolve their computer and software problems. Figure 21 shows the distribution of satisfaction responses.



Satisfaction With Assistance from Help Desk

Figure 20: Satisfaction With the Way Requests For Assistance Was Handled by a Campus Help Desk.

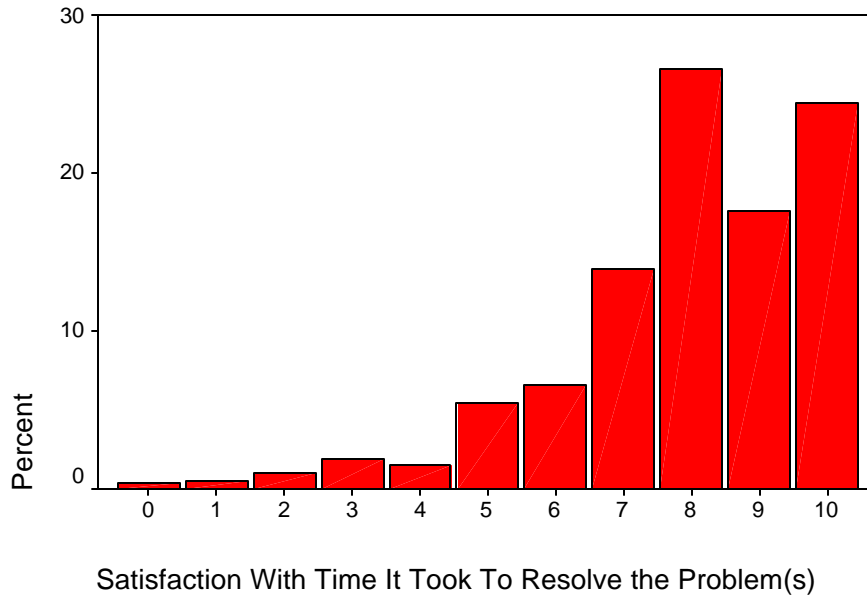


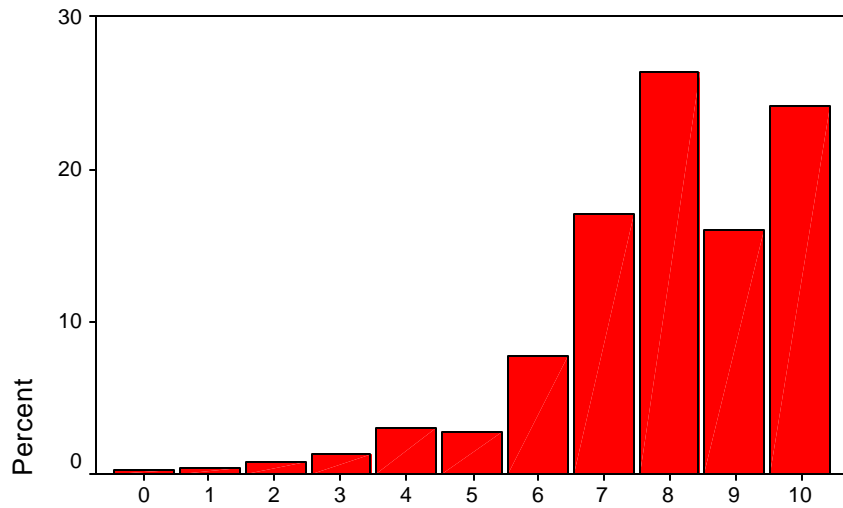
Figure 21: Satisfaction With the Amount of Time To Resolve the Problem(s) (Campus Help Desk).

*E-mail and web-site help.* Staff members who indicated that they had access to e-mail or web-based help were asked about their use and satisfaction with the e-mail and web-based help services. Half (50.3%) of those that reported having access to e-mail or web-based help said they had used this service. In most cases (90.6%) the person who received the request for assistance was able to solve the problem. Four-fifths (80.3%) of those who said the person receiving the request did not resolve the problem were referred to someone else. Most often (86.0%), this second person was able to solve the problem.

The staff members were fairly satisfied with e-mail and web-based service, as suggested by results in Table 21. On the satisfaction scale, respondents rated their satisfaction with the way in which their request was handled at 7.95. Figure 22 shows the variability in the degree to which people were satisfied with how their request was handled. Respondents were a little less satisfied (7.54) with the time it took for their problem to be solved. Figure 23 shows that some people were more satisfied than others.

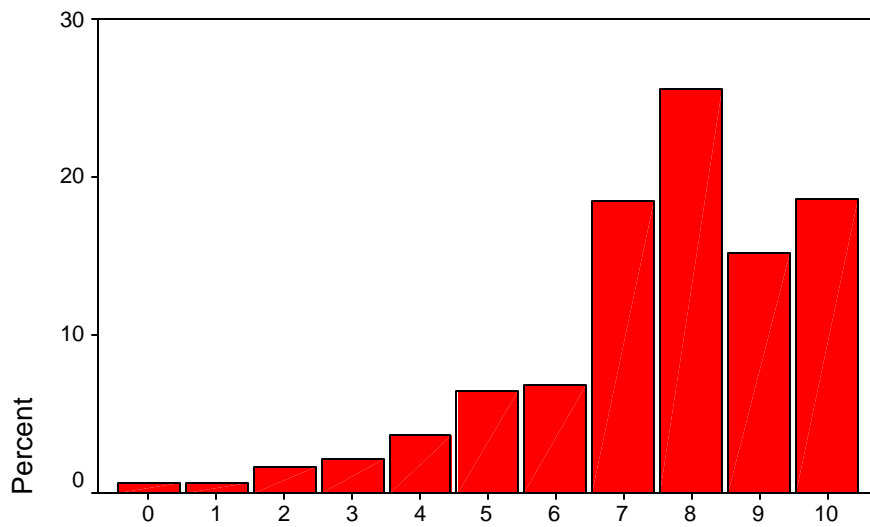
**Table 21: Satisfaction with E-mail or Web-Based Help.**

	Mean	N	Std. Deviation	Std. Error Mean
QI4A5D6 Satisfaction With the Way Requests For Assistance Was Handled By E-Mail or Web Site	7.95	729	1.83	6.78E-02
QI4A5D7 Satisfaction With the Amount of Time It Took To Resolve the Problem(s)	7.54	729	2.06	7.62E-02



Satisfaction With Assistance By E-Mail

Figure 22: Satisfaction With the Way Requests For Assistance Was Handled By E-Mail.



Satisfaction With Time It Took To Resolve the Problem(s)

Figure 23: Satisfaction With the Amount of Time It Took To Resolve the Problem(s) (E-mail).

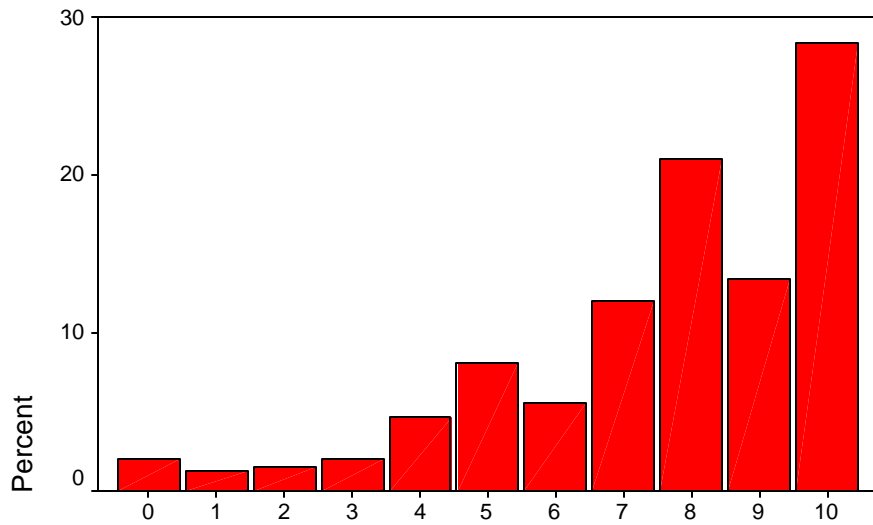
## Replacement and Repair

Respondents were asked if their campus workstations, including peripherals, had required replacement or repair. If replacement or repair had been required, respondents were asked about their level of satisfaction with the manner in which the replacement or repair request was handled.

*Replacement.* Over half (58.9%) of the staff members stated that had needed replacement of their campus workstation. This is seen in Table 22. The level of satisfaction with the way in which their request was handled was 7.43 on the zero-to-ten satisfaction scale. Figure 24 shows the distribution of satisfaction ratings.

**Table 22: Number of Staff members Requiring Replacement or Repair of Computer.**

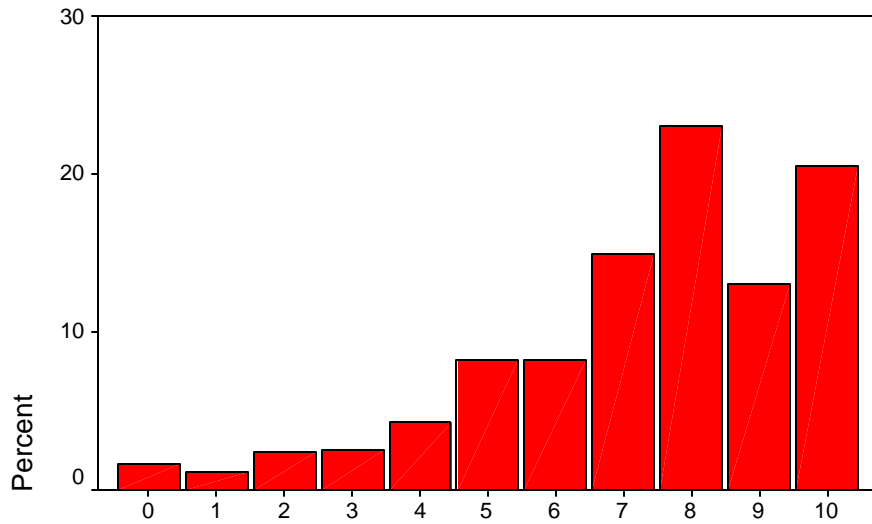
	Has Respondent's Campus Workstation, Including Peripherals, Required Replacement?		Has Respondent's Campus Workstation, Including Peripherals, Required Repair?	
	Count	%	Count	%
0 No	909	41.1%	1075	48.5%
1 Yes	1303	58.9%	1143	51.5%



Satisfaction With Requests For Replacement

Figure 24: Satisfaction With the Way Requests For Replacement Was Handled.

*Repair.* About half (51.5%) of the staff members said they had needed repair of their campus workstation. Their level of satisfaction with how repairs were handled was similar (7.31) to that for how replacement was handled. Figure 25 shows that while some people were extremely satisfied, others were less so.



Satisfaction With the Way Requests For Repair Was Handled?

Figure 25: Satisfaction With the Way Requests For Repair Was Handled.

**Table 23: Types of Training Programs In Which Respondent Has Participated.**

	Computer-Based Training		Video-Taped Training		A Workshop		Other Training Programs	
	Count	%	Count	%	Count	%	Count	%
0 Not Chosen	1103	52.2%	1989	94.1%	675	31.9%	2038	96.5%
1 Chosen	1010	47.8%	124	5.9%	1438	68.1%	75	3.5%

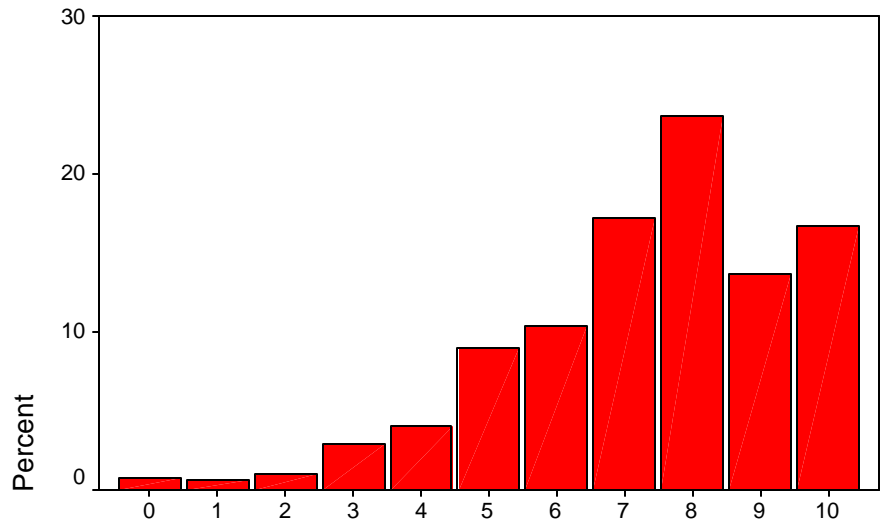
Training

Staff members were asked if their campus offered training activities or programs to help them improve their basic computer skills. Almost all (95.9%) the respondents indicated that such training programs were available. Those indicating that they did have access to training programs were asked about the types of programs in which they had participated. The responses are summarized in Table 23. Workshops were the most common type of training, utilized by two-thirds (68.1%) of the staff members. Computer-based training was also common. About half (47.8%) of the staff members had received training in this form. Other types of training were uncommon.

Satisfaction with the different types of training was assessed. Table 24 summarizes the zero-to-ten satisfaction ratings for the two commonly used types of training. Both computer-based and workshop training programs were rated positively. However, staff members were a little more satisfied with workshop training programs than they were with computer-based training programs. Figures 26 and 27 show range of satisfaction levels for computer-based and workshop training programs.

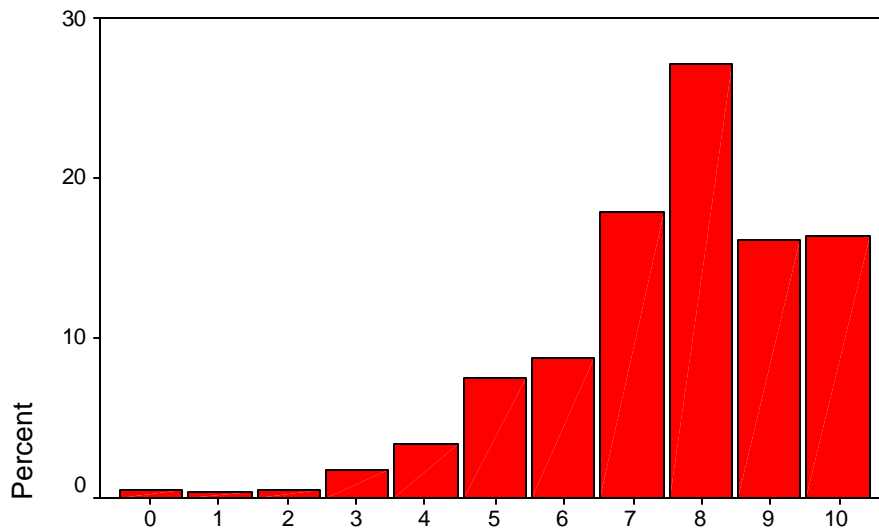
**Table 24: Satisfaction with Training Programs.**

	Mean	N	Std. Deviation	Std. Error Mean
QI4A8A1 Satisfaction With the Computer-Based Training Program	7.42	757	1.98	7.18E-02
QI4A8A3 Satisfaction With the Workshop Training Program	7.78	757	1.83	6.67E-02



Satisfaction With the Computer-Based Training Program

Figure 26: Satisfaction With the Computer-Based Training Program.



Satisfaction With the Workshop Training Program

Figure 27: Satisfaction With the Workshop Training Program.

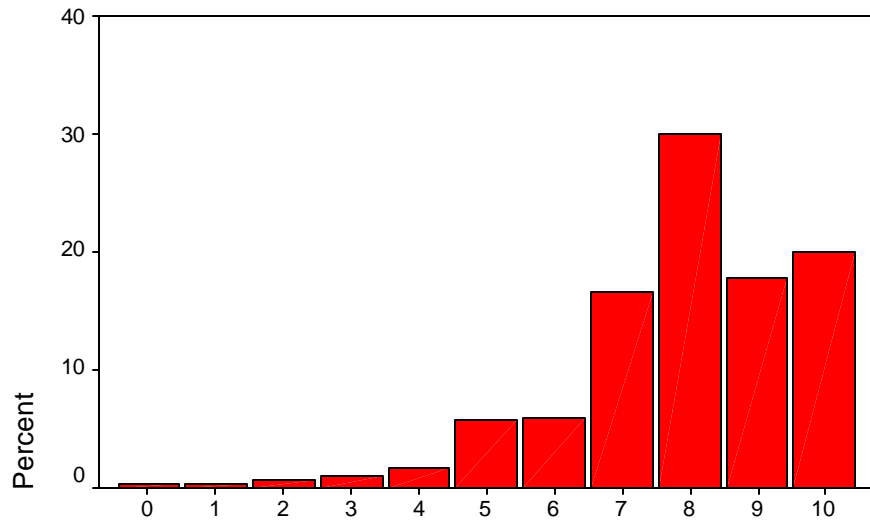
### Equipment

Respondents were asked about their satisfaction with various forms of equipment. Specifically, they were asked, using the zero-to-ten satisfaction scale, how satisfied they were with the working order and capabilities of the computing and network equipment, telephone equipment, and video conferencing equipment that they use at the university. Almost every respondent used computer workstations and telephone equipment, but 43.1% of the staff members did not use video conferencing equipment, so they did not provide evaluations of video conferencing equipment.

**Table 25: Satisfaction with Equipment.**

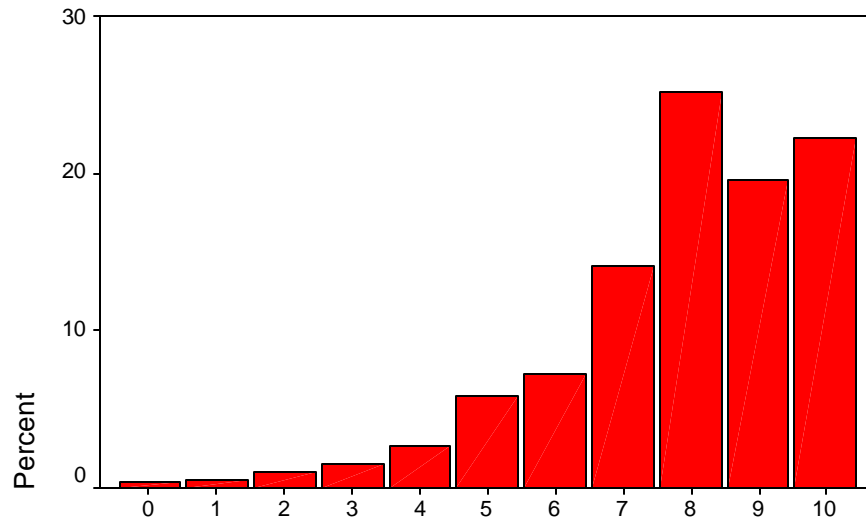
	N	Minimum	Maximum	Mean	Std. Deviation
QI4A9A Satisfaction With the Working Order and Capabilities Of the Computing and Network Equipment Respondent Uses At the University	2240	0	10	7.90	1.76
QI4A9B Satisfaction With the Working Order and Capabilities Of the Telephone Equipment Respondent Uses At the University	2313	0	10	7.88	1.91
QI4A9C Satisfaction With the Working Order and Capabilities Of the Video Conferencing Equipment Respondent Uses At the University	873	0	10	7.50	2.13
Valid N (listwise)	851				

Table 25 displays the average satisfaction ratings for the different types of equipment. Additionally, the ranges of satisfaction for the types of equipment are illustrated in Figures 28, 29, and 30. Satisfaction with the different types of equipment ranged from 7.50 for the video conferencing equipment to 7.90 for computing and network equipment. Staff members were less satisfied with video conferencing equipment than they were with their computing and network equipment and their telephone equipment.



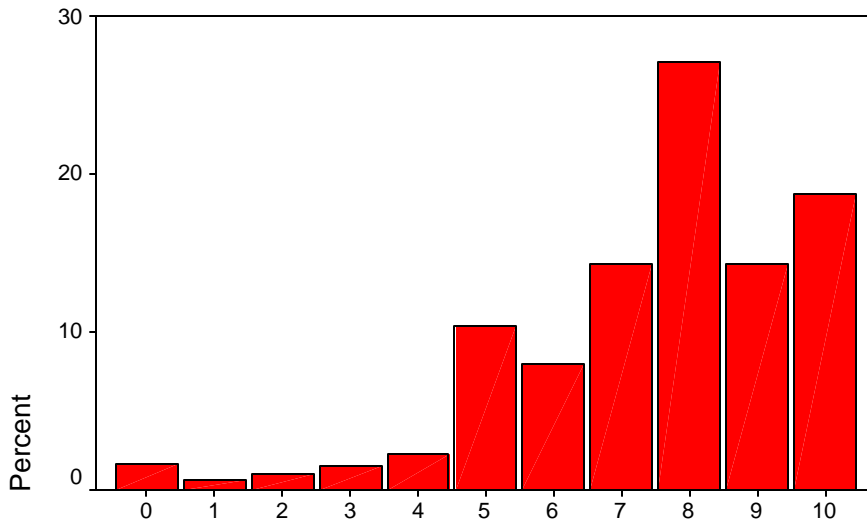
Satisfaction With Capabilities Of Network Equipment Used

Figure 28: Satisfaction With the Working Order Of Network Equipment Respondent Uses At the University.



Satisfaction Telephone Equipment Used

Figure 29: Satisfaction With the Working Order Of the Telephone Equipment Respondent Uses.



Satisfaction With Capabilities Of Video Conferencing Used

Figure 30: Satisfaction With the Working Order Of the Video Conferencing Respondent Uses.

### Personal Purchase

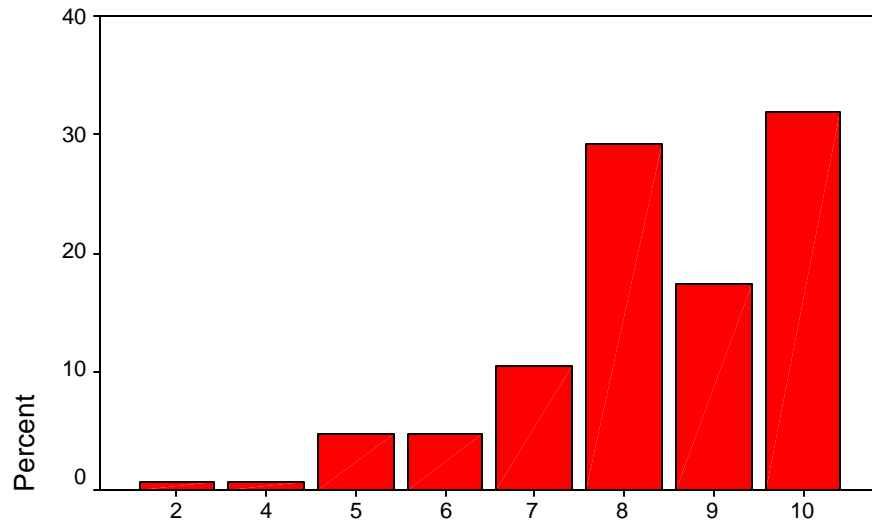
The personal purchase program that allows staff members to purchase computers and peripherals at discount prices was of interest. Staff members were asked if they had access to such a program. Their responses are summarized in Table 26. One out of five (19.3%) said they didn't know if they had access to such a personal purchase program, and less than half (45.4%) stated that they did have access to a personal purchase program. Those acknowledging access to a personal purchase

program were asked if they had made a personal purchase through the program. Of these respondents, 295 people (27.6%) said they had purchased hardware through the program.

**Table 26: Respondent Has Access To a Program Enabling them Purchase of Computers and Peripherals At Discount Prices?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 No	815	35.1	43.6	43.6
	1 Yes	1054	45.4	56.4	100.0
	Total	1869	80.6	100.0	
Missing	8 Don't Know	447	19.3		
	9 Refused	4	.2		
	Total	451	19.4		
Total		2320	100.0		

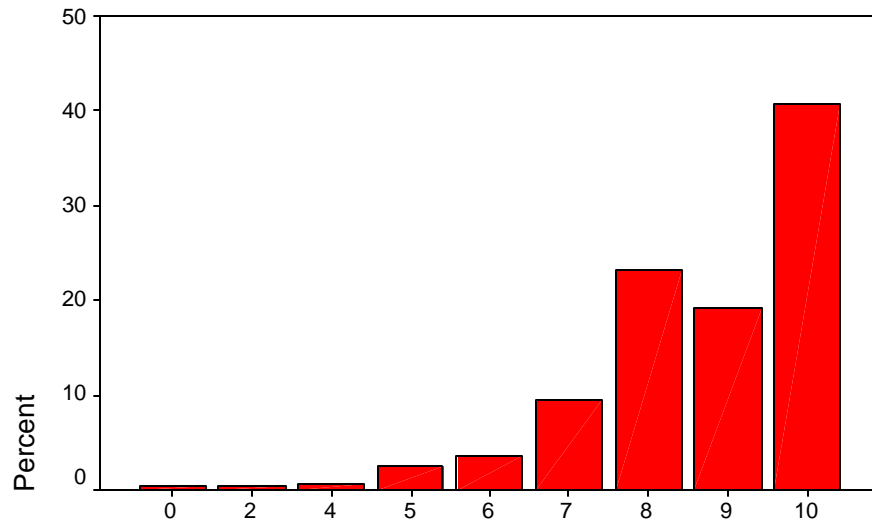
Staff members indicating that they had purchased hardware through the personal purchase program were asked about their satisfaction with the program. Respondents expressed satisfaction with the way in which their request was handled. This is indicated in Figure 31, which shows the distribution of the satisfaction responses. On average, the satisfaction rating was 8.40.



Satisfaction With Purchase Requests

Figure 31: Satisfaction With the Way Respondent's Purchase Request Was Handled.

Respondents also expressed satisfaction with the equipment that they had purchased through the program. The average satisfaction rating was 8.69. Figure 32 shows the range of the satisfaction responses.



Satisfaction Purchases Through Computer Discount Program

Figure 32: Satisfaction With the Equipment

Purchased Through CSU Computer Discount Program.

### Satisfaction and Respondent Characteristics

General satisfaction measures of different aspects computing and network technology were constructed. Specifically, measures were created that reflected satisfaction with online information services, administrative productivity systems, workstations and software, assistance and support, training, equipment, and personal purchase. These measures were analyzed to determine if satisfaction with computing and network technology was related to respondent characteristics.

This analysis suggests some temporal factors are related to satisfaction. Specifically, satisfaction with the personal purchase program was higher for those who were older, had been at their campus longer, and had been in their position longer. This is indicated in Table 27 by the significant, positive correlations between satisfaction with the personal purchase program and the age and time variables.

**Table 27: Satisfaction and Temporal Factors.**

		AGE Employee's Age Imported	FTE Percentage Of Appointm ent	JOBYSR Years Working at the Campus	POSYRS Years Working in Current Position
OLINFSAT Online Information Services	Pearson Correlation	.022	.037	.013	.011
	Sig. (2-tailed)	.284	.075	.541	.606
	N	2282	2282	2280	2269
ADPROSAT Satisfaction with Administrative Productivity Systems	Pearson Correlation	.063*	.013	-.010	-.036
	Sig. (2-tailed)	.042	.685	.757	.250
	N	1024	1024	1024	1017
WSSFTSAT Satisfaction with Workstations and Software	Pearson Correlation	.006	.022	.001	-.030
	Sig. (2-tailed)	.779	.302	.951	.151
	N	2254	2254	2252	2241
ASSUPSAT Satisfaction with Assistance & Support	Pearson Correlation	.026	.027	-.005	-.013
	Sig. (2-tailed)	.231	.201	.814	.531
	N	2194	2194	2192	2184
TRAINSAT Satisfaction with Training	Pearson Correlation	-.054*	.034	-.052*	-.033
	Sig. (2-tailed)	.028	.157	.034	.182
	N	1692	1692	1691	1682
EQUIPSAT Satisfaction with Equipment	Pearson Correlation	.017	.005	.003	-.012
	Sig. (2-tailed)	.411	.827	.873	.565
	N	2316	2316	2314	2302
PURCHSAT Satisfaction with Personal Purchase	Pearson Correlation	.157**	.100	.128*	.124*
	Sig. (2-tailed)	.007	.087	.027	.033
	N	295	295	295	294

\*. Correlation is significant at the 0.05 level (2-tailed).

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Gender was an important determinant of satisfaction. As illustrated in Table 28, females consistently had higher satisfaction scores than males. This was true for all seven general satisfaction measures.

**Table 28: Satisfaction and Gender.**

	GENDER Code - Imported	Gender	N	Mean	Std. Deviation	Std. Error Mean
OLINFSAT Online Information Services	1	Male	843	7.9539	1.5320	5.276E-02
	2	Female	1437	8.3811	1.3503	3.562E-02
ADPROSAT Satisfaction with Administrative Productivity Systems	1	Male	282	6.5491	2.1920	.1305
	2	Female	742	7.0369	1.9811	7.273E-02
WSSFTSAT Satisfaction with Workstations and Software	1	Male	827	8.0568	1.7346	6.032E-02
	2	Female	1425	8.3568	1.6168	4.283E-02
ASSUPSAT Satisfaction with Assistance & Support	1	Male	794	7.4601	1.8810	6.675E-02
	2	Female	1398	7.7687	1.8563	4.965E-02
TRAINSAT Satisfaction with Training	1	Male	541	7.2437	1.8699	8.039E-02
	2	Female	1150	7.5136	1.9384	5.716E-02
EQUIPSAT Satisfaction with Equipment	1	Male	869	7.6956	1.6039	5.441E-02
	2	Female	1445	7.9170	1.4897	3.919E-02
PURCHSAT Satisfaction with Personal Purchase	1	Male	139	8.3165	1.3475	.1143
	2	Female	156	8.7276	1.4055	.1125

Race/ethnicity was also a significant factor. That is, some ethnic categories were more satisfied than others with respect to online information services and the personal purchase program. Regarding online information services, Asians were less satisfied than whites and Hispanics, while Hispanics were more satisfied than Asians and whites. This is seen in Table 29.

**Table 29: Satisfaction and Race/Ethnicity.**

ETHNIC2	Ethnic Origin		OLINFSAT Online Information Services	PURCHSAT Satisfaction with Personal Purchase
1	African American	Mean	8.2912	7.5385
		N	162	13
		Std. Deviation	1.2088	1.7849
2	Asian	Mean	7.8443	7.7143
		N	167	28
		Std. Deviation	1.5093	1.0313
3	Other - Non White	Mean	7.9929	8.4167
		N	47	6
		Std. Deviation	1.6947	1.2007
4	Hispanic	Mean	8.5149	8.9429
		N	335	35
		Std. Deviation	1.2694	1.3546
5	White	Mean	8.1980	8.6692
		N	1497	201
		Std. Deviation	1.4621	1.3606
6	Pacific Islander	Mean	8.2758	8.1250
		N	71	12
		Std. Deviation	1.4485	1.3164
Total		Mean	8.2235	8.5339
		N	2279	295
		Std. Deviation	1.4342	1.3914

Table 29 shows that race/ethnicity also affects staff members' satisfaction with the personal purchase program. Hispanics were more satisfied than African Americans and Asians. Additionally, whites were more satisfied with the personal purchase program than were Asians.

Job family class was related to satisfaction. With respect to online information services, the MPP class was less satisfied than the professional, clerical, and technical classes, and the clerical class

was more satisfied than the other four classes. This is displayed in Table 30. The MPP class was also less satisfied than the professional, clerical, and craft classes with respect to administrative productivity systems. As far as workstations and software, the MPP, professional, and clerical classes were more satisfied than the technical and craft classes. With regard to assistance and support, the clerical class was more satisfied than the MPP and professional classes. Additionally, the clerical class was more satisfied with various types of equipment than were the MPP, technical, and crafts classes.

**Table 30: Satisfaction and Job Family Class.**

JFAMCLAS Job Family Class		OLINFSAT Online Information Services	ADPROSAT Satisfaction with Administrative Productivity Systems	WSSFTSAT Satisfaction with Workstations and Software	ASSUPSAT Satisfaction with Assistance & Support	EQUIPSAT Satisfaction with Equipment
1 MPP	Mean	7.9085	6.3690	8.4770	7.3855	7.6834
	N	369	166	369	359	369
	Std. Deviation	1.3966	2.0004	1.4433	1.8897	1.4613
2 Professional	Mean	8.1938	6.9973	8.3512	7.5030	7.8582
	N	730	311	726	713	730
	Std. Deviation	1.4337	2.0504	1.5944	1.9383	1.4900
3 Clerical	Mean	8.5091	7.0144	8.3876	7.9712	8.0694
	N	607	359	605	596	612
	Std. Deviation	1.2920	2.0337	1.5967	1.7638	1.4496
4 Technical	Mean	8.1971	6.8853	7.9539	7.7139	7.7389
	N	446	149	434	415	452
	Std. Deviation	1.4948	2.0988	1.8154	1.8311	1.6234
5 Crafts	Mean	8.0263	7.4551	7.2542	7.6056	7.4183
	N	130	39	120	111	153
	Std. Deviation	1.7135	1.9499	2.0178	1.8431	1.8394
Total	Mean	8.2226	6.9026	8.2467	7.6560	7.8338
	N	2282	1024	2254	2194	2316
	Std. Deviation	1.4344	2.0519	1.6663	1.8702	1.5364

## SUMMARY

This report has presented the results of a telephone survey of staff members in the CSU system. In general, satisfaction ratings were on the positive side, though there is room for improvement in most respects. Some of the key findings are noted below.

- The data come from telephone interviews with 2,320 staff members of the CSU system from 21 campuses.
- Most people thought they were relatively well off with respect to computing resources available to them compared to those at other CSU campuses.
- The respondents, on average, were fairly, though not extremely, satisfied with the computing and technology resources that were available to them.
- Most (87.2%) of the respondents were aware of efforts to improve their computing and network resources, and these efforts have been perceived as helpful in improving work conditions by many respondents.
- Satisfaction with access to campus network and information systems from off campus is fair, but lower than for Internet and e-mail access.
- Few people access their university's financial information system, and those that do were only moderately satisfied.

- The respondents were fairly satisfied with the computer workstation that was available to them, though there is appreciable variability in satisfaction ratings.
- On average, the respondents were satisfied with the computer software available to them.
- Staff members expressed satisfaction both with the quality of work performed and the manner in which their requests were handled when seeking help with the set up, upgrade, maintenance or repair of computer equipment and software.
- Most (87.8%) respondents reported a telephone call center to be available, and 70.8% also had access to a help desk through e-mail or a web site, while 57.7% said they had access to a walk-in help desk.
- Respondents were somewhat satisfied with the help they received through telephone call centers, walk-in help desks, and e-mail or web-based help desks.
- Respondents were reasonably satisfied with how repairs and replacements of computing equipment were handled.
- Staff members were a little more satisfied with workshop training programs than they were with computer-based training programs.
- Staff members were less satisfied with video conferencing equipment than they were with their computing and network equipment and their telephone equipment.
- Under half (45.4%) of the staff members stated that they had access to a personal purchase program that provides computers and peripherals at discount prices, but those that had used the program expressed satisfaction.

- Females tended to be more satisfied than males with their computing technology.
- The MPP class tended to be less satisfied than others with their computing technology.