



INFORMATION TECHNOLOGY
2009 SURVEY ANALYSIS

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1. Introduction

For the second consecutive year, the Division of Information Technology surveyed the University community regarding CSUN technology and technology support services. The survey measured how well the University's technology meets the needs and expectations of faculty, students, and staff. The survey results inform university-wide priority setting for technology investments and help the IT division maintain alignment between its services and the needs of the university community.

The survey included questions on classroom technology, wired and wireless networking, online learning, research computing, training, and support. For the first time, the IT survey asked respondents to assess the relative importance of providing information and services that work in concert with mobile computing devices, and the survey evaluated the areas in which the University could improve the ability of technology users to support, evaluate, and resolve technology questions in a self-service model.

The survey was completed from the end of April through early May of this year. Faculty, students, and staff each received a survey tailored to their uses of technology. Where appropriate, questions that appeared in the 2008 survey were repeated to provide a basis for longitudinal comparisons. Table 1 below presents the response rates received by constituency.

Table 1. 2009 Response Rates

Constituent	Invited to Participate	Surveys Received	Response rate
Students	10,000	616	6%
Faculty	1,178	181	15%
Staff	960	285	30%

Survey responses were received from representatives of all university divisions and schools. Appendix A contains data tables that describe the distribution of responses by organizational entity. Response rates in 2009 were comparable to 2008 for faculty but lower for students and staff. This may be attributable to a change in the timing of the distribution of the survey from earlier to later in the semester.

The remainder of this report presents the key findings. The discussion of the survey results is organized in the following categories:

- Technology in Support of Teaching, Learning, and Research
- Networking
- Support and Training
- Mobile Computing

The report concludes with a summary of recommended follow-up and action. Throughout the report, charts and figures are used to support the presentation of findings. Additional detailed data tables are provided in Appendix B. Except where noted, results from the staff survey include staff working within the IT division. In general, we found no statistically significant and meaningful difference in response provided by IT staff. However, for consistency with the 2008 analysis, we removed these responses from the analysis of the IT services themselves.

2. Technology in Support of Teaching, Learning and Research

This section presents an analysis of student and faculty respondents' assessment of CSUN's classroom technology, support for online learning and support for faculty research. It also includes an assessment provided by students of the computer labs they use most frequently.

2.1 Instructional Technology

Faculty and students report relatively infrequent use for most classroom technologies with the exception of WebCT (learning management system), data projectors and laptops in class for course work. This is consistent with the results from the 2008 survey. In fact, there were no meaningful differences in either faculty or students' assessment of the frequency of use of these technologies in their coursework. Students' mean satisfaction with the performance of these technologies as they are used to support of their coursework was highest for data projectors, computer labs, WebCT, and in-class internet. Additional technologies with mean satisfaction ratings that exceeded good included Turnitin, video, and science labs. Table 2 displays mean frequency of use and the mean satisfaction faculty and students reported for each technology.

Faculty were most satisfied with data projectors, in class internet, and computer labs. They were on average least satisfied with clickers, Moodle, Elluminate, video conferencing, university video network, and WebCT. With the exception of WebCT, the technologies with which faculty were least satisfied were also used least frequently. In general, faculty expressed lower levels of mean satisfaction with each technology than students.

Table 2. Classroom Technology Satisfaction and Frequency of Use¹

	Students		Faculty	
	Frequency of use in your courses over past 12 months	Satisfaction with performance as used support your coursework	Frequency of use in your courses	Satisfaction with the performance
Technology	Mean*	Mean**	Mean*	Mean**
WebCT	3.86	3.64	2.62	2.88
BlackBoard	1.67	2.88	1.65	3.08
Moodle	1.19	2.40	1.20	2.58
Podcasting	1.13	1.89	1.18	3.00
Elluminate	1.20	2.38	1.24	2.73
Turnitin	1.80	3.28	1.49	3.00
Video	1.76	3.14	2.38	3.21
Video conferencing	1.12	2.11	1.19	2.39
University video network	1.43	2.90	1.32	2.50
Clickers	1.62	2.80	1.20	2.25
Laptops in class	2.22	3.58	2.15	3.14
In-class internet access	2.81	3.51	3.05	3.43
Data projector	3.66	3.83	3.52	3.68
Document camera	1.27	2.58	1.23	3.00
Smart board	1.21	2.71	1.20	3.07
Computer labs	2.86	3.71	2.06	3.48
Scientific labs	1.67	3.24	1.30	3.17

*Scale: 1 = never, 2 = seldom (1-2x per year), 3 = sometimes (1-2 x per semester), 4 = Often (every month), 5 = almost always (every week)

**Scale: 1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent

¹ A complete version of this table including number of respondents and standard deviations for each technology is included in Appendix B. This simplified version of the table is included for easier readability.

We did not observe any meaningful differences in the patterns of responses among faculty by college, extent of teaching online or faculty appointment. Among student respondents, the only statistically significant, meaningful relationship we found was between student satisfaction with WebCT and Turnitin and academic standing. Specifically, graduate students were less satisfied on average with WebCT and Turnitin. Graduate students' mean satisfaction with WebCT was 3.16². For Turnitin, graduate students' mean satisfaction was 2.60³.

2.2 Support for Online Learning

The minority of faculty respondents teach partially or primarily online. In fact, 74.5% of faculty reported that all their courses meet in person. From a list of eight options, faculty, who did not teach online, most frequently selected no one has asked me (19.3%), does not improve learning outcomes (16.0%), and takes too long to create (13.8%) as the top three reasons that they have not taught an online or hybrid course. The top two reasons faculty identified were the same as in the 2008 survey. Interestingly, in 2008, a quarter of respondents said they had no interest in teaching online. In 2009, 9.5% of respondents selected this as a top three reason that they did not teach online or hybrid courses.

Faculty indicated that there is room for improvement in the support provided for online and hybrid courses. Faculty who teach online were asked to indicate their agreement with five statements regarding support for creating and delivering online courses. As Table 3 illustrates, there was a small difference in reported means from 2008 to 2009 for these statements.

Table 3. Faculty Assessment of Support for Teaching Online

	N	2009 Mean*	Std. Deviation	2008 Mean
The technologies available to create online courses meet my needs	47	3.43	1.211	3.29
Support for developing online courses meets my needs	46	3.13	1.222	2.82
Support for delivering online courses meets my needs	47	3.11	1.184	2.95
The technical support for online courses meets my needs	47	3.09	1.248	3.10
My online students receive the technical support they require	45	2.93	1.053	2.78

*Scale: 1 = strongly disagree, 2 = disagree, 3 = neither disagree or agree, 4 = agree, 5 = strongly agree

² (N = 100, S.D. = 1.391)

³ (N = 42, S.D. = 1.531)

2.3 Computer Labs

The student survey asked respondents to evaluate their satisfaction with the availability and condition of computer labs. As Table 4 indicates, students rated labs between good and very good in each of six areas of performance.

Table 4. Assessment of Computer Labs (student respondents)

Please rate the computer lab you use most frequently in terms of:	N	2009 Mean*	Std. Deviation	2008 Mean*
Availability of computers	504	3.34	1.232	3.39
Availability of printers	473	3.26	1.308	3.28
Condition of computers	504	3.66	1.096	3.50
Condition of printers	465	3.59	1.107	3.51
Availability of software	453	3.49	1.198	3.51
Knowledge of lab staff	406	3.48	1.188	3.24

*Scale: 1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent

There were several significant associations between students' academic standing and their satisfaction with labs. Specifically, mean satisfaction with the availability of printers was lower for graduate students. Likewise, graduate students and seniors were less satisfied on average with the condition of printers and the condition of computers. It is possible that these students are using different labs than undergraduates or use them for more specialized purposes.

We also found an inverse relationship between the frequency students reported using the lab to check email, access the internet and print materials and their satisfaction with lab availability and condition. The more frequently students reported visiting labs to perform these tasks, the higher the rating they provided. For example, students who reported visiting labs every week to access the internet rated the availability of computers as 3.48 and the condition of computers as 3.79 using a five point scale (where 1 = poor and 5 = excellent). In contrast, students who seldom visit or sometimes visit provided lower ratings. A similar relationship was observed for students who check email weekly and the condition of computers and students who print weekly and their assessment of the availability and condition of printers and computers.

2.4 Support for Research

Faculty were asked to evaluate how well CSUN technology supports their current and future research needs as well as their ability to collaborate with faculty at other institutions. Using a five point agree-to-disagree scale, respondents mean agreement with three statements regarding technology support for research and collaboration were between neutral and slightly above neutral (Table 5). Respondents mean agreement was lowest for the statement that CSUN technology helps them collaborate effectively with faculty at other institutions. Mean responses were not appreciably different than those provided by the faculty surveyed in 2008. We found no apparent relationships between faculty assessment of technology's support for research and faculty appointment, college or the importance faculty placed on specific technologies to their research.

Table 5. Faculty Assessment of CSUN Technology Support Research and Collaboration (N = 187)

	Mean	Std. Deviation	2008 Mean
CSUN's technology supports my current research needs	3.31	0.962	3.44
CSUN's technology will likely support my research needs in the future	3.38	0.933	3.41
CSUN's technology helps me collaborate effectively with faculty at other institutions	3.06	0.871	3.17

*Scale: 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, 5 = strongly agree

As in 2008, we found a meaningful statistical relationship between agreement that technology supported current and future research needs and faculty evaluation of the wired and wireless networks. As Table 6 illustrates, faculty who strongly disagreed or disagreed that technology supports their research needs also disagreed that the capacity and availability of the wireless network meets their needs. Interestingly, no similar relationship was found for their assessment of the wired network. However, faculty who disagreed or strongly disagreed that CSUN technology would support their future research needs also provided a significantly lower mean assessment of the capacity of the wired network's ability to meet their needs. As in 2008, these results suggest that there may be faculty with specialized research needs that are highly dependent on the wired and wireless network and may introduce requirements that are beyond what the rest of the faculty, students, and staff require.

Table 6. Faculty Assessment of Networks by Assessment of Technology Support for Research

CSUN technology supports my research needs		Wireless capacity meets my needs	Wireless availability meets my needs	I can easily log on to the wireless network
Strongly disagree/ disagree (N = 32)	Mean	2.75	2.47	2.66
	Std. Deviation	1.164	1.191	1.153
Neither disagree nor agree (N = 72)	Mean	3.33	3.25	3.21
	Std. Deviation	0.904	0.900	0.903
Agree/strongly agree (N = 80)	Mean	3.49	3.45	3.41
	Std. Deviation	0.871	0.980	1.002
Total (N = 184)	Mean	3.30	3.20	3.20
	Std. Deviation	0.971	1.044	1.023

*Scale: 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, 5 = strongly agree

Finally, we asked faculty about the importance of specific technologies to their research needs. Faculty placed the highest importance on high performance computing, data storage and e-journals and lowest on web and video conferencing. The rank ordering of importance was very similar to that provided by the faculty who participated in the 2008 study.

3. Wired and Wireless Network

We did not expect to find appreciably different assessments of the wired and wireless networks than provided by respondents in 2008. Projects to improve the availability and capacity of the wireless network were underway during the summer of 2009 and their impacts will not be evident until the 2010 survey results. As in 2008, the 2009 respondents provided slightly higher mean agreement that the capacity and availability of the wired network met their needs than they did for the wireless network. Mean agreement from all three survey populations for all five statements about the wired and wireless networks ranged between neutral and agree.

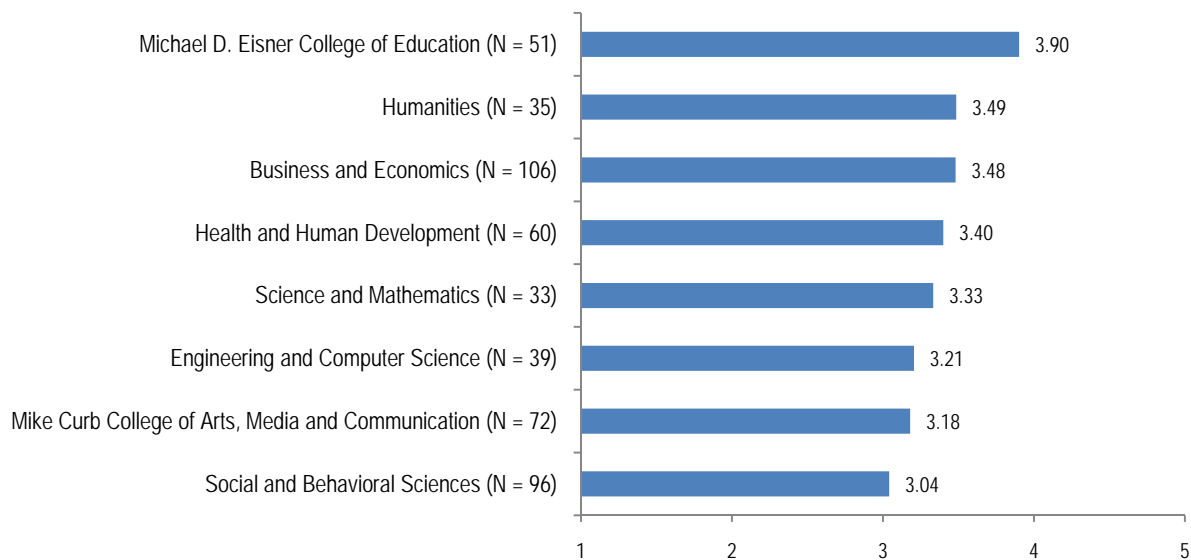
Table 7. Assessment of Wired and Wireless Networks

	Students ⁴			Staff Excluding the Division of IT (N = 259)		Faculty (N = 184)	
	N	Mean*	Std. Deviation	Mean*	Std. Deviation	Mean*	Std. Deviation
<i>Wireless</i> capacity meets my needs	522	3.57	1.192	3.24	0.883	3.30	0.971
<i>Wireless</i> availability meets my needs	522	3.34	1.244	3.16	0.934	3.20	1.044
Can easily log on to <i>wireless</i> network	525	3.43	1.251	3.32	0.886	3.20	1.023
<i>Wired</i> capacity meets my needs	472	3.62	1.156	3.38	0.913	3.38	0.945
<i>Wired</i> availability meets my needs	466	3.56	1.188	3.41	0.890	3.40	1.008

*Scale: 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, 5 = strongly agree

Among students, 61.7% agreed or strongly agreed that the capacity and 51.9% agreed or strongly agreed that the availability of the CSUN *wireless* network met their needs. The majority (62.1%) also agreed or strongly agreed that the capacity of *wired* network met their needs. Similarly, 59.9% agreed or strongly agreed that the availability of the *wired* network met their needs. As in 2008, we found a relationship between students' assessment of the availability of the wireless network and their college. As Figure 1 illustrates, the mean agreement was highest among students in the colleges of Education, Humanities, Business and Economics and Health and Human Development. It was lowest for students in Social and Behavioral Sciences, Arts Media and Communication, and Engineering and Computer Science. With the exception of an increase in agreement among College of Education students, the rank ordering and mean agreement is very similar to the results from the 2008 survey.

⁴ The Table includes a column for students to indicate the number of respondents for each question. For faculty and staff the number of respondents did not vary by question and are reported in the table header.

Figure 1. Availability of CSUN wireless network meets my needs (student respondents)

The distribution of faculty responses contained a sizeable grouping of respondents who were neutral towards each of the statements; there were about 33% - 40% of respondents who neither agreed nor disagreed with each statement. Also, about 20% of faculty respondents disagreed or strongly disagreed with the three statements pertaining to the wireless network.

Among staff, excluding those who work within the division of IT, the minority (approximately 40%) agreed or strongly agreed that the capacity and availability of the wireless network met their needs. The percentage that agreed or strongly agreed was higher for the two statements regarding the wired network. There were 47.5% of respondents who agreed or strongly agreed the capacity of the wired network met their needs and 50.2% who agreed that the availability of the wired network met their needs. For each of the five statements, many respondents were neutral and 18% or less disagreed or strongly disagreed.

As Table 8 illustrates, mean agreements in 2009 were lower than in 2008. However, the differences for most statements are less than .25 and none are more than .40. Therefore, we conclude that the 2009 respondents have provided a very similar assessment as the 2008 respondents.

Table 8. Comparison of Assessment of Wired and Wireless Network 2008 to 2009

	Students 2009 Mean	Students 2008 Mean	Staff (Excl. IT) 2009 Mean	Staff (Excl. IT) 2008 Mean	Faculty 2009 Mean	Faculty 2008 Mean
Wireless capacity meets my needs	3.57	3.73	3.24	3.30	3.30	3.41
Wireless availability meets my needs	3.34	3.66	3.16	3.29	3.20	3.32
Wired capacity meets my needs	3.62	3.83	3.38	3.56	3.38	3.60
Wired availability meets my needs	3.56	3.77	3.41	3.58	3.40	3.66

*Scale: 1 = strongly disagree, 2 = disagree, 3 = neither disagree nor agree, 4 = agree, 5 = strongly agree

4. Support and Training

Faculty, students, and staff who receive support from CSUN's IT professionals both within the division of IT and in departments are generally satisfied with the support they receive. However, individuals who rely primarily on informal support networks (themselves, colleagues, and friends) were less satisfied. We asked respondents to state their agreement with three statements regarding their access to support, its quality, and timeliness. Across all three surveyed populations, respondents on average rated their agreement approximately halfway between neutral and agree (Table 9). The highest overall means were reported by staff. Mean agreement was slightly higher than in 2008, although the differences were too small to be meaningful.

As Table 10 illustrates, faculty who received their primary support from the division of IT and IT staff in their departments agreed more strongly that their support needs were met than those who primarily relied on self-help and support from friends or colleagues. A similar pattern was observed for staff. Among students, the majority (79.4%) reported their primary source of support was friends, family members, or faculty members. The same relationship observed for faculty and staff also held true among students. The fifth of students who received primary support either from an IT professional in their college or the division of IT, (e.g., help desk or walk-in center) also reported higher mean satisfaction that their support needs were being met.

It cannot be concluded from the survey data why some faculty, students, and staff did not use a local or division of IT staff resource as their primary source of technology support. One potential clue was that among faculty respondents a larger proportion of respondents who were engaged at CSUN part-time reported that they relied on themselves, friends, or family as their primary source of IT support. It may indicate that support services in departments and within IT are not available at times that are convenient to part-time faculty.

Table 9. Satisfaction with Technology Support

	Student Respondents (N = 630)		Staff Excluding IT (N = 257)		Faculty (N = 183)	
	Mean*	Std. Deviation	Mean*	Std. Deviation	Mean*	Std. Deviation
I have access to the technology support I need	3.58	0.891	3.82	0.981	3.56	0.941
My technology problems are resolved in a timely manner	3.44	0.903	3.76	1.040	3.46	1.047
I am satisfied with the quality of CSUN technology support	3.47	0.929	3.67	1.070	3.44	1.107

*Scale: 1 - strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

Table 10. Faculty Assessment of Support by Primary Source of Support

Primary Source of Support		Access to the technology support I need	Technology problems resolved in a timely manner	Satisfied with quality of CSUN technology support
IT Division resource: help desk, walk-in, FTC, web site (N = 46)	Mean*	3.85	3.89	3.93
	Std. Deviation	0.842	0.823	0.879
Technology support in department or college (N = 68)	Mean*	3.68	3.72	3.60
	Std. Deviation	0.999	0.944	1.067
Self-help, friends, and colleagues (N = 69)	Mean*	3.26	2.91	2.96
	Std. Deviation	0.869	1.054	1.104
Total (N = 183)	Mean*	3.56	3.46	3.44
	Std. Deviation	0.941	1.047	1.107

*Scale: 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

4.1 Help Desk, Walk-In Center, and Faculty Technology Center

Respondents who engaged the division of IT services including the Help Desk, Walk-In Center, and the Faculty Technology Center were generally satisfied with the services they received. Respondents who used the Help Desk were asked to indicate their agreement with three statements regarding the Help Desk's effectiveness. As Table 11 indicates, the mean agreement with all three statements from all respondents exceeded 3.50 on a five point scale (1 = strongly disagree, 5 = strongly agree). The highest mean agreement was from staff and exceeded 4.00. Faculty provided mean agreements between neutral and agree (means of 3.50) indicating there may be an opportunity to improve the Help Desk's ability to respond to faculty.

We also identified a statistically significant relationship between faculty who disagreed or strongly disagreed that CSUN technology supported their research needs and the mean agreement with the three statements regarding Help Desk support. Faculty who felt less strongly that technology was supporting their research needs also agreed less strongly that that the Help Desk support was timely, resolved their issues, and was knowledgeable about the technologies they used. These findings suggest that there may be issues that are more unique to faculty that are difficult for the Help Desk to address.

Table 11. Assessment of the Help Desk

	Students (N = 240)		Staff excluding IT (N = 42)		Faculty (N = 143)	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
The time required to resolve my problem is reasonable	3.74	1.002	4.02	0.811	3.52	1.034
The Help Desk staff is usually able to solve my problem	3.70	1.067	4.07	0.808	3.54	1.112
The Help Desk staff is knowledgeable about the technologies I need to use	3.78	0.985	4.05	0.825	3.54	1.093

*Scale: 1 - strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

The Walk-In Center was used primarily by students and much less frequently by faculty and staff. Students' assessment of the Walk-In Center was positive and on average they agreed (means approach 4.00) that the Walk-In Center was able to resolve their problems, staff were knowledgeable, wait-times reasonable, and services helpful. While only used by a small number of faculty or staff, they too provided mean agreements that were near or above 4.00.

Faculty agreed on average that the Faculty Technology Center was addressing their needs as well (Table 12). Among respondents, 45.7% of faculty had contacted or visited the Faculty Technology Center at least once in the past academic year. Faculty who used the center provided mean responses that were more than halfway between neutral and agree that the Center provided timely service, that staff were knowledgeable, could address their needs, and provided useful service. In fact, ten percent or less of respondents who had visited the Center disagreed or strongly disagreed with each statement. Knowledge of the Center was not universal and only a slight majority of respondents (56.5%) indicated they were aware of its services.

Finally, faculty were asked to identify areas that they would like to receive training in the next twelve months. No single item was selected by more than 15% of respondents. The four items that were selected by more than ten percent of respondents in declining order of interest, were creating online learning content, making instructional materials accessible, pedagogy on online instruction, and website creation.

Table 12. Faculty Assessment of the Faculty Technology Center (N = 83)

	Mean	Std. Deviation
The time spent waiting to see a Faculty Technology Center staff member is reasonable	3.51	0.955
The Faculty Technology Center staff is usually able to address my problem or question	3.67	0.951
The Faculty Technology Center staff is knowledgeable about the technologies I need to use.	3.81	0.981
The types of services available through the Faculty Technology Center are helpful to me.	3.67	1.001

4.2 Self-Help

A specific area of focus for the 2009 survey was to identify areas where respondents would find it useful to have greater access to materials that would enable them to resolve their own technology issues and questions. Respondents were asked about both areas of common interest to students, faculty, and staff and some areas of unique interest to one constituency. Topics of interest for self-help that were of interest to multiple constituents included how to access the campus network, how to use the shared drive, how to set up web pages for course use, and how to use features in *myNorthridge* portal. The majority of faculty were also interested in how to make course materials accessible to individuals with disabilities, how to access software available to faculty, and how to use the learning management system for their courses.

There was also a fair amount of congruence in respondents' preference for how to receive self-help. The preferred format for students, faculty, and staff was technical guides (e.g., step by step tutorials) followed by demonstration guides (online pre-recorded demonstrations). These two formats were selected by a majority of students, faculty, and staff from a list of seven options.

Table 13. Percent of Respondents interested in Self-Help by Topic⁵

Which of the following self-help topics would be useful to you?	Students (N = 620)
How to access the wireless network	51.2%
How to use email	25.0%
How to use features in <i>myNorthridge</i> portal	65.9%
How to remotely access the campus network	69.4%
How to set up a web page for course use	73.2%
How to access and use shared drive space (U-drive)	67.9%

Table 14. Percent of Staff Respondents Interested in Self-Help by Topic

Which of the following self-help topics would be useful to you?	Staff (N = 288)
How to access the wireless network	58.0%
How to use email	43.8%
How to use features in <i>myNorthridge</i> portal	65.3%
How to remotely access the campus network	69.8%
How to access and use shared drive space (U-drive)	66.3%
How to make web documents accessible to individuals with disabilities	55.9%

Table 15. Percent of Faculty Respondents Interested in Self-Help by Topic

Which of the following self-help topics would be useful to you?	Faculty (N = 182)
How to use features in <i>myNorthridge</i> portal	43.4%
How to remotely access the campus network	44.5%
How to set up a web page for course use	59.9%
How to access and use shared drive space (U-drive)	43.4%
How to request and order a new computer	33.0%
How to access software available to faculty	65.4%
How to use a learning management system for my courses	64.8%
How to send emails to my class lists	34.6%
How to make course materials accessible to individuals with disabilities	66.5%

⁵ NA in a table cell indicates that this question was not included in all three surveys (students, faculty, and staff).

4.3 Training

Staff and faculty were asked to evaluate CSUN's IT training offerings. Among staff, there was high awareness about the IT training courses offered (80.0% of respondents) and about half (49.1%) had attended at least one course in the past twelve months. Among staff (38.9%) agreed or strongly agreed that training classes met their needs and 84.5% agreed or strongly agreed that they had access to the technology training they required to do their jobs.

Excluding the offerings of the Faculty Training Center, faculty were less engaged in CSUN IT training classes. In the past twelve months, 31.7% of faculty respondents have attended at least one IT training class at CSUN. The majority of faculty (59.6%) agreed or strongly agreed that they had access to the technology training they required to do their jobs. A smaller percentage of faculty (44.2%) agreed or strongly agreed that training available to effectively integrate technology into their courses met their needs and only 27.8% agreed or strongly agreed that the training available to create online courses met their needs. Both these items had between 40% and 50% of respondents indicating they neither agreed nor disagreed with the statement. Respondents' assessments were not meaningfully different based on their level of engagement with teaching online or hybrid courses.

5. Mobile Computing

The 2009 survey also sought feedback on the use of mobile computing devices such as cell phones and Personal Digital Assistants' (PDA) capable of accessing the internet. This is an area of emerging importance in technology and the survey was an opportunity to both understand how widely these devices were used by the CSUN community and where the priorities might lie for making services and information available on mobile devices. Among respondents, less than half of students and staff, and a little more than a third of faculty, currently own a cell phone or PDA with the capability of accessing the internet. For those who have them, they are used on a daily basis most frequently by students and staff for text messaging and reading email and by faculty for reading email and accessing the internet (Table 16).

Table 16. Percent who Use Mobile Devices on a Daily Basis, by Use (Respondents with web enabled mobile devices only)

Use	Students (N = 320)	Staff (N = 136)	Faculty (N = 71)
Access internet	35.9%	25.0%	32.4%
Text message	57.5%	36.0%	16.9%
Read documents	25.0%	14.7%	16.9%
Read email	48.4%	40.4%	43.7%

Respondents were asked how important it is to them to access *myNorthridge* portal functions on their web enabled cell phone or PDA. The capability was most important to students and faculty with mobile devices and both sets of respondents reported higher mean importance than staff. Among students with mobile devices, 42.5% said it was important or very important to them to access *myNorthridge* functions. Similarly, 35.2% of faculty with mobile devices indicated it was important or very important to them. This difference in mean importance between students and faculty and staff may be more a reflection of how frequently they use the portal than on their interest in mobile devices. Table 17 identifies the mean importance by constituency.

Table 17. Importance of Accessing *myNorthridge* Portal on Mobile Computing Devices

How important is it to you to be able to access <i>myNorthridge</i> portal functions via your web-enabled cell phone or PDA?	Students (N = 320)	Staff (N = 118)	Faculty (N = 71)
Mean*	3.19	2.70	2.99
Std. Deviation	1.377	1.446	1.347

*Scale: 1 = unimportant, 2 = of little importance, 3 = moderately important, 4 = important, 5 = very important

6. Summary

As in 2008, the survey results confirmed that while there is room for improvement in the satisfaction with some technologies and services, there are no glaring deficiencies that are hindering faculty, students, or staff. The survey confirmed that areas such as the computer labs, Help Desk, Faculty Technology Center, and Walk-In Center are meeting expectations for those constituents who use these services most often. Work underway to upgrade the wireless network and to implement a new learning management system should address two prominent areas of concern for respondents.

The results also suggest several areas for additional follow-up and action:

Technical Support: A focused effort to understand how to best support the faculty, students, and staff whose primary source of support is not a CSUN IT professional is warranted. Steps to both encourage their use of official support services and provide better capabilities to enable self-help could improve the overall support experience.

Online and Hybrid Course Support: There was a decline in the percentage of faculty who reported no interest in teaching online or hybrid courses. IT support and training efforts may be able to facilitate academic strategy and goals in this area by focusing on training offerings to use the learning management system (a logical component of the new implementation) as well as integrating technology into courses. These efforts should be complemented by the expansion of self-help materials to aid faculty access to software. Presently, faculty who teach online indicated mean levels of agreement that were neutral to slight disagreement that current support for the development and delivery of online courses met their needs. As the academic strategy places greater emphasis on online and hybrid courses, it will be important to understand how support requirements are evolving and can be improved.

Faculty Research: The needs of faculty who expressed concern for the ability of technology to support their current and future research needs requires deeper understanding. It was not clear from the survey what the root issues are that drive their diminished confidence. One possibility is that these faculty have unique technology requirements that the current network infrastructure and support services of the institution are not as well prepared to address.

Two Year Trend Data

The responses to the 2009 survey were comparable to those received in 2008. Satisfaction ratings for technology and technology services did not change significantly over the two year period. The two years of results create an important baseline against which progress can be measured. The impacts of initiatives currently underway or recently completed to improve the network infrastructure, implement a new learning management system, and deploy unified help desk software should begin to become apparent in the 2010 survey responses. Going forward, having multiple years of trend data will also enable CSUN to monitor how declining budgets and necessary restructuring of IT services impact faculty, student, and staff satisfaction with technology.

Appendix A – Distribution of Respondents

Student Respondents by School and College (N = 778)

Mike Curb College of Arts, Media and Communication	13.4%
Business and Economics	18.3%
Engineering and Computer Science	8.2%
Michael D. Eisner College of Education	10.8%
Health and Human Development	12.1%
Humanities	7.3%
Science and Mathematics	5.3%
Social and Behavioral Sciences	18.1%
Tseng College of Extended Learning	0.3%
Undeclared major	3.2%
Don't know	3.1%

Staff Respondents by Division (N = 335)

Academic Affairs	31.5%
Administration and Finance	29.1%
Student Affairs	18.3%
University Advancement	5.2%
Information Technology	13.8%
University Corporation	2.1%

Faculty Respondents by School and College (N=217)

Mike Curb College of Arts, Media, and Communication	8.8%
Business and Economics	12.9%
Michael D. Eisner College of Education	12.4%
Engineering and Computer Science	6.5%
Health and Human Development	14.7%
Humanities	11.1%
Science and Mathematics	12.9%
Social and Behavioral Sciences	14.3%
Tseng College of Extended Learning	1.8%
Oviatt Library	4.6%

Appendix B – Additional Data Tables

Classroom Technology Satisfaction and Frequency of Use

Technology	Students						Faculty					
	Please indicate how frequently the courses you have taken at CSUN in the past 12 months have made use of the following technologies			Please indicate your level of satisfaction with the performance of the following technologies as they are used to support your coursework			Please indicate how frequently you make use of the following technologies in your courses			Please indicate your satisfaction with the performance of the following technologies		
	N	Mean*	Std. Deviation	N	Mean**	Std. Deviation	N	Mean*	Std. Deviation	N	Mean**	Std. Deviation
WebCT	672	3.86	1.439	620	3.64	1.167	195	2.62	1.741	119	2.88	1.250
BlackBoard	626	1.67	1.313	193	2.88	1.371	193	1.65	1.331	53	3.08	1.385
Moodle	594	1.19	0.697	95	2.40	1.410	189	1.20	0.807	31	2.58	1.432
Podcasting	613	1.13	0.551	80	1.89	1.055	192	1.18	0.655	27	3.00	1.569
elluminate	602	1.20	0.731	96	2.38	1.453	190	1.24	0.845	37	2.73	1.283
Turnitin	631	1.80	1.166	290	3.28	1.335	192	1.49	1.018	53	3.00	1.209
Video	648	1.76	1.212	207	3.14	1.290	195	2.38	1.468	95	3.21	1.202
Video conferencing	642	1.12	0.552	84	2.11	1.326	195	1.19	0.660	31	2.39	1.283
University video network	628	1.43	0.993	144	2.90	1.331	191	1.32	0.839	44	2.50	1.191
Clickers	613	1.62	1.229	200	2.80	1.265	189	1.20	0.714	24	2.25	1.327
Laptops in class	665	2.22	1.543	351	3.58	1.197	193	2.15	1.477	83	3.14	1.180
In-class internet access	666	2.81	1.615	476	3.51	1.276	194	3.05	1.563	141	3.43	1.148
Data projector	672	3.66	1.479	528	3.83	1.117	194	3.52	1.617	155	3.68	1.121
Document camera	622	1.27	0.812	99	2.58	1.310	190	1.23	0.650	29	3.00	1.336
Smart board	611	1.21	0.745	89	2.71	1.494	194	1.20	0.680	27	3.07	1.567
Computer labs	670	2.86	1.591	442	3.71	1.179	194	2.06	1.474	88	3.48	1.268
Scientific labs	650	1.67	1.317	188	3.24	1.380	194	1.30	0.902	29	3.17	1.338

*Scale: 1 = never, 2 = seldom (1-2x per year), 3 = sometimes (1-2 x per semester), 4 = Often (every month), 5 = almost always (every week) **Scale: 1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent

Assessment of Walk-In Center

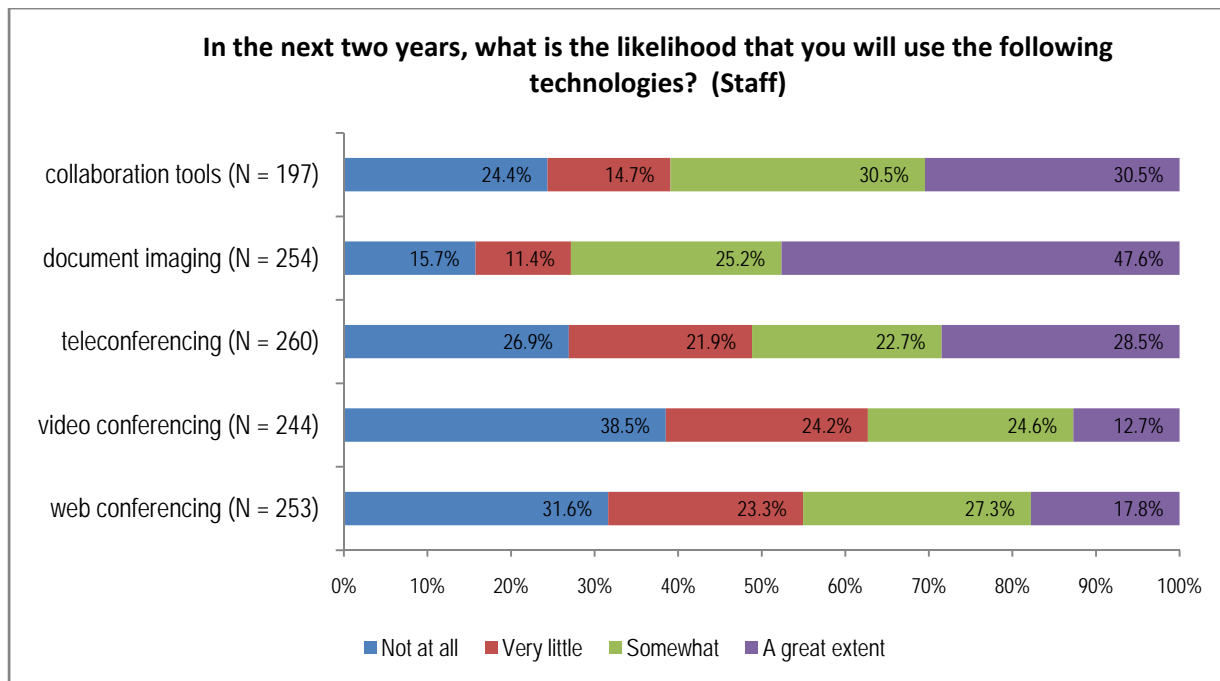
	Students (N = 178)		Staff excluding IT (N = 12)		Faculty (N = 56)	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
The time spent waiting to see a staff member is reasonable	3.81	0.888	4.08	0.515	3.91	0.837
The walk-in center staff is usually able to address my problem or question	3.91	0.910	4.08	0.515	3.82	0.956
The walk-in center staff is knowledgeable about the technologies I need to use	3.86	0.984	4.17	0.389	3.88	0.916
The types of services available through the walk-in center is helpful to me	3.85	0.927	4.08	0.515	3.86	0.903

*Scale: 1 - strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

Assessment of Help Desk

	Students (N = 240)		Staff excluding IT (N = 42)		Faculty (N = 143)	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
The time required to resolve my problem is reasonable	3.74	1.002	4.02	0.811	3.52	1.034
The help desk staff is usually able to solve my problem	3.70	1.067	4.07	0.808	3.54	1.112
The help desk staff is knowledgeable about the technologies I need to use	3.78	0.985	4.05	0.825	3.54	1.093

*Scale: 1 - strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree



Staff Assessment of Support by Source

Primary source of support (all staff)		I have access to the technology support I need	My technology problems are resolved in a timely fashion	I am satisfied with the quality of CSUN technology support
IT walk-in center/ help desk or web site (N= 43)	Mean	4.09	3.93	3.95
	Std. Deviation	0.840	0.910	0.872
Colleagues, friends, and self help (N = 97)	Mean	3.56	3.41	3.32
	Std. Deviation	1.041	1.125	1.123
Local tech support (N= 158)	Mean	3.93	3.94	3.80
	Std. Deviation	0.952	0.953	1.027
Total (N = 298)	Mean	3.83	3.77	3.66
	Std. Deviation	0.984	1.033	1.064

*Scale: 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

Students' Satisfaction with Support, by Primary Source of Support

Primary source of support		I have access to the technology support I need	My technology problems are resolved in a timely manner	I am satisfied with the quality of CSUN technology support
Self-help, friends, family, a faculty member (N =500)	Mean*	3.49	3.35	3.36
	Std. Deviation	0.890	0.886	0.906
College IT professional (N = 33)	Mean*	3.85	3.52	3.76
	Std. Deviation	0.667	0.906	1.001
Division of IT resource (help desk, web site, walk-in center, N = 97)	Mean*	3.99	3.88	3.96
	Std. Deviation	0.835	0.869	0.853
Total	Mean*	3.58	3.44	3.47
	Std. Deviation	0.891	0.903	0.929

*Scale: 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree

Faculty Assessment of Technology Importance for Research and Scholarship

Please indicate the importance of the following technology capabilities to your research and scholarship	N	Mean	Std. Deviation
High performance computing	162	3.71	1.400
Data storage	150	3.53	1.450
e-Journals	152	3.49	1.447
Visualization technologies	145	3.15	1.502
Tools to manage large data sets	154	3.01	1.428
Document collaboration tools	132	2.94	1.487
Digital repository for research results	134	2.74	1.419
Staff support to develop custom research applications	141	2.73	1.429
Simulations	136	2.60	1.482
Web conferencing	135	2.30	1.372
Video conferencing	130	2.07	1.196

*Scale: 1 = no importance, 2 = minor importance, 3 = moderate importance, 4 = high importance, 5 = very high importance