

CSU Technology Metrics Student 2003 Survey Report

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Prepared by:

The Social and Behavioral Research Institute

California State University, San Marcos

Study Team:

Richard T. Serpe, Ph.D.; Director
Allen J. Risley, M.A.; Associate Director
Lori Brown Large, M.A.; Survey Study Director
Michael D. Large, Ph.D.; Study Director
Kim Brown, M.A.; Field Research Coordinator

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INTRODUCTION

The Social and Behavioral Research Institute at California State University San Marcos produced the CSU Technology Metrics Student 2003 report for the California State University Chancellor's Office. The report summarizes responses of students in the California State University (CSU) system concerning access to, use of, and satisfaction with computing and network technology. This report also addresses CSU students' attitudes regarding computing and network resources at their campus.

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

DATA

The data came from telephone interviews with 3,204 CSU system students in 2001 and 3,156 students in 2003. The interviews came from students at 21 campuses in the CSU system. Interviews were conducted with students at each of the campuses except the Maritime Academy and Channel Islands campuses, which were excluded because they do not have student populations adequate for sampling. Approximately 150 interviews were conducted at each campus. The number of interviews conducted at each campus was stratified on discipline and class level.

The interview questions addressed attitudes about, access to, use of, and satisfaction with computing and network technology. Additionally, data regarding respondent characteristics were obtained from interview questions and institution databases.

Measures

A number of attitudes regarding technology were assessed using 11-point scales. For example, students were asked about the importance of computing and network resources for completion of their school work. They were asked to respond “using a scale of zero to ten, where zero equals not at all important and ten equals extremely important.” Similarly, satisfaction items used an 11-point scale “where zero equals not at all satisfied and ten equals extremely satisfied.” (See Appendix A for the full text of the questions.) On each of the 11-point scales, higher numbers indicate higher levels of the

quantity being measured. Most of the items regarding access to and use of technology were yes/no type questions. Additionally, some demographic information was provided in campus databases.

RESULTS

Respondent Characteristics

More than half (59.0%) of the respondents in 2003 were female, and 41.0 percent were male. This very closely matches the gender distribution of the 2001 survey, as shown in Table 1. The respondents in 2003 averaged 26.81 years of age, compared to 28.05 years in 2001.

Table 1: Gender of Respondents.

ADMIN	Administration		Frequency	Percent	Valid Percent	Cumulative Percent
1	2001	Valid	1 Male	1295	40.4	40.4
			2 Female	1909	59.6	59.6
			Total	3204	100.0	100.0
2	2003	Valid	1 Male	1293	41.0	41.0
			2 Female	1863	59.0	59.0
			Total	3156	100.0	100.0

Respondents' race/ethnicity is displayed in Table 2. Just over half (52.8%) of the respondents in 2003 were white. Hispanics constituted under a quarter (22.8%) of the sample, and 16.9 percent of the respondents were Asian. African Americans made up 6.9 percent of the respondents.

Table 2: Race or Ethnicity of Respondents.

ADMIN	Administration		Frequency	Percent	Valid Percent	Cumulative Percent	
1	2001	Valid					
		1	White	1647	51.4	52.3	52.3
		2	Hispanic	705	22.0	22.4	74.6
		3	African American	218	6.8	6.9	81.5
		4	Asian	510	15.9	16.2	97.7
		5	American Indian	8	.2	.3	98.0
		6	Other	64	2.0	2.0	100.0
			Total	3152	98.4	100.0	
Missing	7	Decline to state	52	1.6			
	Total		3204	100.0			
2	2003	Valid					
		1	White	1646	52.2	52.8	52.8
		2	Hispanic	710	22.5	22.8	75.6
		3	African American	216	6.8	6.9	82.5
		4	Asian	527	16.7	16.9	99.4
		5	American Indian	6	.2	.2	99.6
		6	Other	12	.4	.4	100.0
			Total	3117	98.8	100.0	
Missing	7	Decline to state	39	1.2			
	Total		3156	100.0			

The breakdown of students by discipline is displayed in Table 3. The behavioral and social sciences students constituted 21.4 percent of the respondents. Additionally, 16.3 percent of the students were undeclared, and business students were 14.2 percent of the sample.

Table 3: Discipline Division of the Students.

ADMIN Administration			Frequency	Percent	Valid Percent	Cumulative Percent
1 2001	Valid	1 Art	164	5.1	5.2	5.2
		2 Business	426	13.3	13.5	18.7
		3 Education	233	7.3	7.4	26.1
		4 Engineering/Computer Science	343	10.7	10.9	37.0
		5 Humanities	154	4.8	4.9	41.8
		6 Science & Math	178	5.6	5.6	47.5
		7 Behavioral/Social Sciences	617	19.3	19.6	67.0
		8 Professional/Technical	201	6.3	6.4	73.4
		9 Undeclared	505	15.8	16.0	89.4
		10 Interdisciplinary Studies	334	10.4	10.6	100.0
		Total	3155	98.5	100.0	
		Missing System	49	1.5		
Total	3204	100.0				
2 2003	Valid	1 Art	133	4.2	4.2	4.2
		2 Business	449	14.2	14.2	18.4
		3 Education	232	7.4	7.4	25.8
		4 Engineering/Computer Science	282	8.9	8.9	34.7
		5 Humanities	160	5.1	5.1	39.8
		6 Science & Math	175	5.5	5.5	45.3
		7 Behavioral/Social Sciences	675	21.4	21.4	66.7
		8 Professional/Technical	201	6.4	6.4	73.1
		9 Undeclared	513	16.3	16.3	89.4
		10 Interdisciplinary Studies	336	10.6	10.6	100.0
		Total	3156	100.0	100.0	

The class level of the students reflects the student population of the system. As was the case in 2001, half (50.5%) of the respondents were upper division students. Table 4 also shows that 29.3 percent of the respondents were lower division, and 20.2 percent were post baccalaureate.

Table 4: Class Level.

ADMIN	Administration		Frequency	Percent	Valid Percent	Cumulative Percent
1 2001	Valid	1 Lower Division	911	28.4	28.4	28.4
		2 Upper Division	1684	52.6	52.6	81.0
		3 Post Baccalaureate	609	19.0	19.0	100.0
		Total	3204	100.0	100.0	
2 2003	Valid	1 Lower Division	924	29.3	29.3	29.3
		2 Upper Division	1595	50.5	50.5	79.8
		3 Post Baccalaureate	637	20.2	20.2	100.0
		Total	3156	100.0	100.0	

The enrollment status of the respondents is displayed in Table 5. Three-fifths (59.2%) of the respondents were continuing undergraduate students, and 20.2 percent were continuing graduate students. Also, 9.3 percent of the students were undergraduate transfers and 8.8 percent were first-time freshmen.

Table 5: Enrollment Status.

ADMIN	Administration		Frequency	Percent	Valid Percent	Cumulative Percent	
1	2001	Valid	1 Continuing Undergraduate	2147	67.0	67.0	67.0
		2 Returning Undergraduate	21	.7	.7	67.7	
		3 Undergraduate Returning Transfer	14	.4	.4	68.1	
		4 Undergraduate Transfer	257	8.0	8.0	76.1	
		5 First Time Freshman	138	4.3	4.3	80.4	
		6 Transitory Undergraduate	18	.6	.6	81.0	
		7 Continuing Graduate	609	19.0	19.0	100.0	
		Total	3204	100.0	100.0		
2	2003	Valid	1 Continuing Undergraduate	1868	59.2	59.2	59.2
		2 Returning Undergraduate	19	.6	.6	59.8	
		3 Undergraduate Returning Transfer	21	.7	.7	60.5	
		4 Undergraduate Transfer	292	9.3	9.3	69.7	
		5 First Time Freshman	278	8.8	8.8	78.5	
		6 Transitory Undergraduate	41	1.3	1.3	79.8	
		7 Continuing Graduate	637	20.2	20.2	100.0	
		Total	3156	100.0	100.0		

The employment status of the students was of interest. As in 2001, over two-thirds (69.9%) of the students in 2003 reported that they were employed. This is shown in Table 6. Those who were employed were asked how many hours per week they worked. On average, those working put in 27.61 hours per week, compared to 28.16 hour per week in 2001.

Table 6: Employment Status of the Students.

ADMIN	Administration		Frequency	Percent	Valid Percent	Cumulative Percent	
1	2001	Valid	0 No	988	30.8	30.9	30.9
			1 Yes	2208	68.9	69.1	100.0
			Total	3196	99.8	100.0	
	Missing	8	Don't Know	5	.2		
		9	Refused	3	.1		
			Total	8	.2		
			Total	3204	100.0		
2	2003	Valid	0 No	951	30.1	30.1	30.1
			1 Yes	2204	69.8	69.9	100.0
			Total	3155	100.0	100.0	
	Missing	8	Don't Know	1	.0		
			Total	3156	100.0		

Technology Attitudes

General Attitudes Regarding Technology

All respondents were asked a series of questions regarding their impressions and beliefs about computing and network technology. Students believed computing and network resources are very important in completing their school work. Where zero indicates *not at all important* and ten indicates *extremely important*, the respondents in 2003, on average, rated the importance of computing and network resources at 8.49.

As Table 7a shows, year of administration was related to a student's perception of the importance of computing and network resources in completing their school work. Students in 2003 rated the importance of computing and network resources slightly higher than did students in 2001 ($p < .05$).

Table 7a: Importance of Computing and Network Resources by Year.

	ADMIN Administration	N	Mean	Std. Deviation
1 QGLOB1 Importance of Computing and Network Resources for Completion of School Work	2001	3191	8.40	1.915
2 QGLOB1 Importance of Computing and Network Resources for Completion of School Work	2003	3150	8.49	1.862

The perceived importance of computing and network resources in completing their school work varied by class level. This is illustrated in Table 7b. Upper-division students viewed computing and network resources as more important in completing their school work than did lower division students ($p < .05$).

Table 7b: Importance of Computing and Network Resources by Class Level.

QGLOB1 Importance of Computing and Network Resources for Completion of School Work

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	924	8.38	1.726	0	10
2 Upper Division	1594	8.57	1.833	0	10
3 Post Baccalaureate	632	8.46	2.102	0	10
Total	3150	8.49	1.862	0	10

Perceptions of importance of computing and network resources in completing school work did not vary by discipline. Table 7c shows consistency in 2003 across disciplines in the ratings of the importance of computing and network resources.

Table 7c: Importance of Computing and Network Resources by Discipline.

QGLOB1 Importance of Computing and Network Resources for Completion of School Work

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	133	8.23	1.954	0	10
2 Business	449	8.57	1.813	0	10
3 Education	230	8.37	2.145	0	10
4 Engineering/Computer Science	281	8.52	1.807	0	10
5 Humanities	160	8.18	2.127	0	10
6 Science & Math	175	8.17	2.110	1	10
7 Behavioral/Social Sciences	675	8.59	1.679	1	10
8 Professional/Technical	201	8.58	1.832	0	10
9 Undeclared	511	8.50	1.812	0	10
10 Interdisciplinary Studies	335	8.63	1.868	0	10
Total	3150	8.49	1.862	0	10

Students rated their satisfaction with the computing and technology resources that were available to them. Satisfaction was evaluated on a scale rating ranging from zero, indicating the respondent was *not at all satisfied*, to ten, indicating the respondent was *extremely satisfied*. This satisfaction rating scale was utilized throughout the interview. The students were fairly satisfied with the available computing and technology resources, as indicated by the average rating of 7.62.

Year of administration affected the respondents' satisfaction with the available computing and technology resources. Table 8a shows there is a slight increase in satisfaction from 2001 to 2003 ($p < .05$).

Table 8a: Satisfaction with the Available Computing and Technology Resources by Year.

	ADMIN Administration	N	Mean	Std. Deviation
QGLOB2 Satisfaction with Computing and Technology Resources Available	1 2001	3117	7.51	1.819
	2 2003	3097	7.62	1.845

Table 8b shows the average satisfaction level with the available computing and technology resources for lower-division, upper-division, and post-baccalaureate students. Lower-division students were more satisfied than upper-division students ($p < .01$), who, in turn, were more satisfied than post-baccalaureate students ($p < .001$), while lower-division students were the more satisfied. Clearly, lower-division students were more satisfied than post-baccalaureate students ($p < .001$).

Table 8b: Satisfaction with the Available Computing and Technology Resources by Class Level

QGLOB2 Satisfaction with Computing and Technology Resources Available					
	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	919	7.85	1.704	0	10
2 Upper Division	1574	7.62	1.826	0	10
3 Post Baccalaureate	604	7.28	2.040	0	10
Total	3097	7.62	1.845	0	10

The level of satisfaction with the available computing and technology resources did not differ for students in different disciplines. Table 8c shows the average satisfaction ratings by discipline.

Table 8c: Satisfaction with the Available Computing and Technology Resources by Discipline.

QGLOB2 Satisfaction with Computing and Technology Resources Available

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	131	7.66	1.846	0	10
2 Business	439	7.69	1.691	0	10
3 Education	218	7.59	1.989	0	10
4 Engineering/Computer Science	282	7.56	1.801	0	10
5 Humanities	156	7.49	1.879	0	10
6 Science & Math	174	7.73	1.701	1	10
7 Behavioral/Social Sciences	671	7.59	1.862	0	10
8 Professional/Technical	198	7.50	1.879	0	10
9 Undeclared	496	7.67	1.878	0	10
10 Interdisciplinary Studies	332	7.66	1.937	0	10
Total	3097	7.62	1.845	0	10

Students were asked how knowledgeable they were of computer hardware and software important to their school work. The students responded on a scale of zero to ten, where zero means *not at all knowledgeable* and ten means *extremely knowledgeable*. On this zero-to-ten scale, the students in 2003, on average, said their knowledge of computer hardware and software important to their school work was 7.56.

The rating of computer hardware and software knowledge in 2003 differed from the rating in 2001. As Table 9a shows, the knowledge rating of 7.56 was higher than the 7.38 rating in 2001 ($p < .001$).

Table 9a: Computer Knowledge Important to Work by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q4A9 Knowledge of Computer Hardware and Software Important to School Work	1 2001	3195	7.38	1.851
	2 2003	3153	7.56	1.715

There was a difference between the computer knowledge self ratings offered by upper-division and lower-division students in 2003. As Table 9b shows, lower-division students rated their knowledge of computer hardware and software important to their school work at 7.42, and upper-division students rated their knowledge even higher, at 7.66 ($p < .01$).

Table 9b: Computer Knowledge Important to Work by Class Level.

Q4A9 Knowledge of Computer Hardware and Software Important to School Work

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	922	7.42	1.714	0	10
2 Upper Division	1594	7.66	1.691	0	10
3 Post Baccalaureate	637	7.53	1.765	1	10
Total	3153	7.56	1.715	0	10

As expected, there were also significant differences in ratings of knowledge of computer

hardware and software among students from different disciplines. This is revealed in Table 9c.

Students in engineering and computer science rated themselves higher than did students in all other disciplines except for art and business students with respect to knowledge of computer hardware and software important to their school work.

Table 9c: Computer Knowledge Important to Work by Discipline.

Q4A9 Knowledge of Computer Hardware and Software Important to School Work

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	133	7.51	1.869	0	10
2 Business	449	7.82	1.594	0	10
3 Education	232	7.38	1.767	1	10
4 Engineering/Computer Science	282	8.02	1.599	1	10
5 Humanities	160	7.33	1.689	0	10
6 Science & Math	174	7.43	1.684	2	10
7 Behavioral/Social Sciences	674	7.47	1.787	0	10
8 Professional/Technical	201	7.46	1.700	2	10
9 Undeclared	512	7.53	1.684	1	10
10 Interdisciplinary Studies	336	7.43	1.723	0	10
Total	3153	7.56	1.715	0	10

General Computer Use

Respondents were asked about the frequency of their computer use. Specifically, they were asked how often they use a computer for any purpose. As Table 10a shows, almost all the students stated that they use a computer at least weekly, and 87.1 percent of the students in 2003 reported using a computer almost every day. The table reveals that students in 2003 were more likely to use computers almost every day than were students in 2001 ($p < .001$).

Table 10a: Frequency of Computer Use for Any Purpose by Year.

			QUSE1 How Often Respondent Uses Computer for Any Purpose						
			1	2	3	4	5	6	Total
			Never	Almost Never	At Least Once a Term	Monthly	Weekly	Almost Everyday	
ADMIN Adminis- tration	1	Count	1	12	15	49	485	2640	3202
	2001	% within ADMIN Administration	.0%	.4%	.5%	1.5%	15.1%	82.4%	100.0%
	2	Count	2	10	10	17	367	2750	3156
	2003	% within ADMIN Administration	.1%	.3%	.3%	.5%	11.6%	87.1%	100.0%
Total		Count	3	22	25	66	852	5390	6358
		% within ADMIN Administration	.0%	.3%	.4%	1.0%	13.4%	84.8%	100.0%

The frequency with which students used computers for any reason is displayed in Table 10b broken down by class level. There was no meaningful variation in the frequency of computer use by class level.

Table 10b: Frequency of Computer Use for Any Purpose by Class Level.

			QUSE1 How Often Respondent Uses Computer for Any Purpose						
			1	2	3	4	5	6	Total
			Never	Almost Never	At Least Once a Term	Monthly	Weekly	Almost Everyday	
CLLEVEL Class Level	1 Lower Division	Count	1	2	3	7	131	780	924
		% within CLLEVEL Class Level	.1%	.2%	.3%	.8%	14.2%	84.4%	100.0%
	2 Upper Division	Count	1	4	4	10	177	1399	1595
		% within CLLEVEL Class Level	.1%	.3%	.3%	.6%	11.1%	87.7%	100.0%
	3 Post Baccalaureate	Count	0	4	3	0	59	571	637
		% within CLLEVEL Class Level	.0%	.6%	.5%	.0%	9.3%	89.6%	100.0%
Total		Count	2	10	10	17	367	2750	3156
		% within CLLEVEL Class Level	.1%	.3%	.3%	.5%	11.6%	87.1%	100.0%

Computer use for any purpose by academic discipline is displayed in Table 10c. Students in all disciplines were very likely to use a computer almost every day, and computer use was unqualified by discipline.

Table 10c: Frequency of Computer Use for Any Purpose by Discipline.

			QUSE1 How Often Respondent Uses Computer for Any Purpose						
			1	2	3	4	5	6	
			Never	Almost Never	At Least Once a Term	Monthly	Weekly	Almost Everyday	Total
DISC Discipline Division	1 Art	Count	0	1	0	2	14	116	133
		% within Discipline	.0%	.8%	.0%	1.5%	10.5%	87.2%	100.0%
	2 Business	Count	1	1	0	4	51	392	449
		% within Discipline	.2%	.2%	.0%	.9%	11.4%	87.3%	100.0%
	3 Education	Count	0	2	0	1	31	198	232
		% within Discipline	.0%	.9%	.0%	.4%	13.4%	85.3%	100.0%
	4 Engineering/ Computer Science	Count	0	0	1	1	24	256	282
		% within Discipline	.0%	.0%	.4%	.4%	8.5%	90.8%	100.0%
	5 Humanities	Count	0	1	1	1	17	140	160
		% within Discipline	.0%	.6%	.6%	.6%	10.6%	87.5%	100.0%
	6 Science & Math	Count	0	0	0	4	23	148	175
		% within Discipline	.0%	.0%	.0%	2.3%	13.1%	84.6%	100.0%
	7 Behavioral/Social Sciences	Count	0	3	4	2	80	586	675
		% within Discipline	.0%	.4%	.6%	.3%	11.9%	86.8%	100.0%
	8 Professional/ Technical	Count	1	2	0	0	19	179	201
		% within Discipline	.5%	1.0%	.0%	.0%	9.5%	89.1%	100.0%
	9 Undeclared	Count	0	0	2	1	65	445	513
		% within Discipline	.0%	.0%	.4%	.2%	12.7%	86.7%	100.0%
	10 Interdisciplinary Studies	Count	0	0	2	1	43	290	336
		% within Discipline	.0%	.0%	.6%	.3%	12.8%	86.3%	100.0%
Total		Count	2	10	10	17	367	2750	3156
		% within Discipline	.1%	.3%	.3%	.5%	11.6%	87.1%	100.0%

Students who reported using a computer at least weekly were asked how many hours per week they used a computer. Their responses are summarized in Table 11a. On average, students queried in 2003 used a computer 16.34 hours per week. This is virtually the same number of hours per week as in 2001, though the proportion of students in 2003 that were in this group was higher than in 2001.

Table 11a: Hours of Computer Use per Week by Year.

	ADMIN Administration	N	Mean	Std. Deviation
QUSE2 Hours Per Week	1 2001	3114	16.37	13.412
Respondent Uses Computer	2 2003	3102	16.34	13.132

The number of hours per week that weekly computer using students used a computer was examined by class level. Table 11b shows that weekly hours of computer usage depended on the class standing of the student. That is, lower-division students used a computer fewer hours in a week than did more advanced students ($p < .001$).

Table 11b: Hours of Computer Use per Week by Class Level.

QUSE2 Hours Per Week Respondent Uses Computer	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	906	14.40	11.786	1	50
2 Upper Division	1568	17.16	13.573	1	80
3 Post Baccalaureate	628	17.07	13.577	1	50
Total	3102	16.34	13.132	1	80

An examination of the number of hours students used a computer per week also revealed differences by class discipline. Table 11c shows that engineering and computer science as well as business students spent the most time using computers. In fact, engineering and computer science students used computers for significantly more hours than any other discipline except business students, and business students used computers more than science and math, education, interdisciplinary studies, undeclared, and behavioral and social sciences students.

Table 11c: Hours of Computer Use per Week by Discipline.

QUSE2 Hours Per Week Respondent Uses Computer

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	129	14.70	10.562	2	50
2 Business	441	18.85	14.737	1	50
3 Education	228	14.28	11.718	1	80
4 Engineering/Computer Science	277	20.65	14.645	1	50
5 Humanities	156	15.75	12.224	1	50
6 Science & Math	169	13.82	11.609	1	50
7 Behavioral/Social Sciences	662	16.22	13.239	1	50
8 Professional/Technical	198	16.35	12.812	1	50
9 Undeclared	509	15.12	12.048	1	50
10 Interdisciplinary Studies	333	15.11	12.897	1	50
Total	3102	16.34	13.132	1	80

Students that use computers, which was 99.9 percent of students in 2003 and 100.0 percent in 2001, were asked where they were using computers. Table 12 shows the locations where students were using computers in both 2001 and 2003. In both administrations, almost all students reported using a computer at home, two-thirds of the students used computers on their campus, and over a third of the students used computers at work. Computer use at these locations is examined below.

Table 12: Computer Use Locations.

	2001		2003	
	Count	%	Count	%
Uses Computer at Home	2996	93.6%	2929	92.9%
Uses Computer on Campus	2228	69.6%	2172	68.9%
Uses Computer at Place of Employment	1268	39.6%	1329	42.1%
Uses Computer at Friend/Relative's House	139	4.3%	141	4.5%
Uses Computer at Public Library	80	2.5%	79	2.5%
Uses Laptop/Mobile Computer	32	1.0%	45	1.4%
Uses Computer at Other Location	32	1.0%	53	1.7%

Computer Use at Home

Table 13a reiterates the fact that almost all of the students who used a computer at all used one at home. The table shows computer use at home for 2001 and 2003. The likelihood of home computer use did not differ between 2001 and 2003.

Table 13a: Uses Computer at Home by Year.

				QUSE3_3 Uses Computer at Home		
				0 Not Chosen	1 Chosen	Total
ADMIN Administration	1	2001	Count	205	2996	3201
			% within ADMIN Administration	6.4%	93.6%	100.0%
	2	2003	Count	225	2929	3154
			% within ADMIN Administration	7.1%	92.9%	100.0%
Total			Count	430	5925	6355
			% within ADMIN Administration	6.8%	93.2%	100.0%

Of those reporting in 2003 that they used a computer, use of a computer at home was examined by class level. A pattern of computer use at home by class level becomes evident looking at Table 13b ($p < .05$). The higher the class standing of the student, the more likely they were to use a computer at home, given that they were using a computer at all.

Table 13b: Uses Computer at Home by Class Level.

		QUSE3_3 Uses Computer at Home			
		0 Not Chosen	1 Chosen	Total	
CLLEVEL Class Level	1 Lower Division	Count	85	838	923
		% within CLLEVEL Class Level	9.2%	90.8%	100.0%
	2 Upper Division	Count	105	1489	1594
		% within CLLEVEL Class Level	6.6%	93.4%	100.0%
	3 Post Baccalaureate	Count	35	602	637
		% within CLLEVEL Class Level	5.5%	94.5%	100.0%
Total		Count	225	2929	3154
		% within CLLEVEL Class Level	7.1%	92.9%	100.0%

Home computer use by those reporting some computer use was analyzed by academic discipline. Table 13c shows home computer use by discipline. However, it reveals no differences in use of computers at home by discipline.

Table 13c: Uses Computer at Home by Discipline.

		QUSE3_3 Uses Computer at Home			
		0 Not Chosen	1 Chosen	Total	
DISC Discipline Division	1 Art	Count	8	125	133
		% within DISC Discipline Division	6.0%	94.0%	100.0%
	2 Business	Count	27	421	448
		% within DISC Discipline Division	6.0%	94.0%	100.0%
	3 Education	Count	19	213	232
		% within DISC Discipline Division	8.2%	91.8%	100.0%
	4 Engineering/Computer Science	Count	18	264	282
		% within DISC Discipline Division	6.4%	93.6%	100.0%
	5 Humanities	Count	10	150	160
		% within DISC Discipline Division	6.3%	93.8%	100.0%
	6 Science & Math	Count	11	164	175
		% within DISC Discipline Division	6.3%	93.7%	100.0%
	7 Behavioral/Social Sciences	Count	55	620	675
		% within DISC Discipline Division	8.1%	91.9%	100.0%
	8 Professional/Technical	Count	13	187	200
		% within DISC Discipline Division	6.5%	93.5%	100.0%
	9 Undeclared	Count	41	472	513
		% within DISC Discipline Division	8.0%	92.0%	100.0%
	10 Interdisciplinary Studies	Count	23	313	336
		% within DISC Discipline Division	6.8%	93.2%	100.0%
Total		Count	225	2929	3154
		% within DISC Discipline Division	7.1%	92.9%	100.0%

Those students using a computer at home were asked about the frequency of their use of a computer at home. Table 14a summarizes the frequency of home computer use in 2001 and 2003. About 98 percent of the students in both 2001 and 2003 who used a computer at home did so at least weekly. The table shows, though, that students in 2003 were a little more likely than those in 2001 to use a computer at home almost every day ($p < .01$).

Table 14a: Frequency of Computer Use at Home by Year.

		QUSE43A How Often Respondent Uses a Computer at Home							
		1	2	3	4	5	6	Total	
		Never	Almost Never	At Least Once a Term	Monthly	Weekly	Almost Everyday		
ADMIN Adminis- tration	1 2001	Count	1	8	15	46	593	2331	2994
		% within ADMIN Administration	.0%	.3%	.5%	1.5%	19.8%	77.9%	100.0%
	2 2003	Count	3	4	7	46	467	2398	2925
		% within ADMIN Administration	.1%	.1%	.2%	1.6%	16.0%	82.0%	100.0%
Total		Count	4	12	22	92	1060	4729	5919
		% within ADMIN Administration	.1%	.2%	.4%	1.6%	17.9%	79.9%	100.0%

The frequency of home computer use by those using computers at home is broken down in Table 14b by class level. The frequency of computer use at home did not depend on a student's class level.

Table 14b: Frequency of Computer Use at Home by Class Level.

		QUSE43A How Often Respondent Uses a Computer at Home							
		1 Never	2 Almost Never	3 At Least Once a Term	4 Monthly	5 Weekly	6 Almost Everyday	Total	
CLLEVEL Class Level	1 Lower Division	Count	0	2	2	20	135	676	835
		% within Class Level	.0%	.2%	.2%	2.4%	16.2%	81.0%	100.0%
	2 Upper Division	Count	3	1	4	22	230	1229	1489
		% within Class Level	.2%	.1%	.3%	1.5%	15.4%	82.5%	100.0%
	3 Post Baccalaureate	Count	0	1	1	4	102	493	601
		% within Class Level	.0%	.2%	.2%	.7%	17.0%	82.0%	100.0%
Total		Count	3	4	7	46	467	2398	2925
		% within Class Level	.1%	.1%	.2%	1.6%	16.0%	82.0%	100.0%

The frequency of computer use at home by students who had reported that they used a computer at home was consistent across academic discipline. Table 14c shows home computer use separately for students in different disciplines.

Table 14c: Frequency of Computer Use at Home by Discipline.

			QUSE43A How Often Respondent Uses a Computer at Home						
			1 Never	2 Almost Never	3 At Least Once a Term	4 Monthly	5 Weekly	6 Almost Everyday	Total
DISC Discipline Division	1 Art	Count	0	0	1	2	19	103	125
		% within Discipline	.0%	.0%	.8%	1.6%	15.2%	82.4%	100.0%
	2 Business	Count	0	0	0	7	58	356	421
		% within Discipline	.0%	.0%	.0%	1.7%	13.8%	84.6%	100.0%
	3 Education	Count	0	1	0	6	41	165	213
		% within Discipline	.0%	.5%	.0%	2.8%	19.2%	77.5%	100.0%
	4 Engineering/Computer Science	Count	0	0	0	2	29	232	263
		% within Discipline	.0%	.0%	.0%	.8%	11.0%	88.2%	100.0%
	5 Humanities	Count	0	1	0	3	26	119	149
		% within Discipline	.0%	.7%	.0%	2.0%	17.4%	79.9%	100.0%
	6 Science & Math	Count	0	1	0	4	27	132	164
		% within Discipline	.0%	.6%	.0%	2.4%	16.5%	80.5%	100.0%
	7 Behavioral/Social Sciences	Count	1	1	4	11	109	493	619
		% within Discipline	.2%	.2%	.6%	1.8%	17.6%	79.6%	100.0%
	8 Professional/Technical	Count	0	0	1	1	26	159	187
		% within Discipline	.0%	.0%	.5%	.5%	13.9%	85.0%	100.0%
	9 Undeclared	Count	0	0	0	7	71	393	471
		% within Discipline	.0%	.0%	.0%	1.5%	15.1%	83.4%	100.0%
	10 Interdisciplinary Studies	Count	2	0	1	3	61	246	313
		% within Discipline	.6%	.0%	.3%	1.0%	19.5%	78.6%	100.0%
Total		Count	3	4	7	46	467	2398	2925
		% within Discipline	.1%	.1%	.2%	1.6%	16.0%	82.0%	100.0%

Students in 2003 who had indicated that they used a computer at home almost every day were asked how many hours per day they used a computer at home. Students saying they used a computer at home almost every day averaged 2.53 hours of home computer use per day.

The hours of computer use at home is displayed by class level in Table 15a. The amount of computer use at home was associated with the class standing of the student. Specifically, post-baccalaureate students used computers at their home fewer hours per day than did lower division ($p < .001$) or upper-division students ($p > .01$).

Table 15a: Hours of Computer Use at Home per Day by Class Level.

QUSE43BC Number of Hours Per Day Respondent Uses Computer at Home

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	675	2.7908	2.31151	.00	12.00
2 Upper Division	1224	2.5503	2.08713	.00	12.00
3 Post Baccalaureate	491	2.1394	1.78599	.00	12.00
Total	2390	2.5338	2.10771	.00	12.00

The amount of computer use by students at home also depended on academic discipline. As Table 15b shows, science and math students used computers at home less than did students in engineering and computer science ($p < .05$) and students in business ($p < .05$). Though there were some differences by discipline, all disciplines averaged between two and three hours of home computer use per day.

Table 15b: Hours of Computer Use at Home per Day by Discipline.

QUSE43BC Number of Hours Per Day Respondent Uses Computer at Home

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	103	2.9199	2.29615	.25	10.00
2 Business	356	2.7746	2.28442	.00	12.00
3 Education	165	2.1652	1.92058	.25	12.00
4 Engineering/Computer Science	230	2.8207	2.05111	.25	12.00
5 Humanities	119	2.2332	1.66174	.25	12.00
6 Science & Math	132	2.0473	1.87341	.25	12.00
7 Behavioral/Social Sciences	490	2.5394	2.18656	.00	12.00
8 Professional/Technical	159	2.2956	1.91758	.50	12.00
9 Undeclared	391	2.5366	2.13871	.00	12.00
10 Interdisciplinary Studies	245	2.5478	2.06201	.00	12.00
Total	2390	2.5338	2.10771	.00	12.00

Computer Use on Campus

As mentioned above, over two-thirds of the students who reported any computer use said they used a computer on campus. Table 16a shows that this on-campus computer use did not vary by year of administration.

Table 16a: Uses Computer on Campus by Year.

				QUSE3_1 Uses Computer on Campus		
				0 Not Chosen	1 Chosen	Total
ADMIN Administration	1	2001	Count	973	2228	3201
			% within ADMIN Administration	30.4%	69.6%	100.0%
	2	2003	Count	982	2172	3154
			% within ADMIN Administration	31.1%	68.9%	100.0%
Total			Count	1955	4400	6355
			% within ADMIN Administration	30.8%	69.2%	100.0%

The likelihood of computer use on campus did vary by class level ($p < .001$), as illustrated in Table 16b. Post-baccalaureate students were much less likely to use a computer on campus than were undergraduate students.

Table 16b: Uses Computer on Campus by Class Level.

			QUSE3_1 Uses Computer on Campus		
			0 Not Chosen	1 Chosen	Total
CLLEVEL Class Level	1 Lower Division	Count	248	675	923
		% within CLLEVEL Class Level	26.9%	73.1%	100.0%
	2 Upper Division	Count	430	1164	1594
		% within CLLEVEL Class Level	27.0%	73.0%	100.0%
	3 Post Baccalaureate	Count	304	333	637
		% within CLLEVEL Class Level	47.7%	52.3%	100.0%
Total	Count		982	2172	3154
	% within CLLEVEL Class Level		31.1%	68.9%	100.0%

Table 16c displays the percentages of students in different disciplines that used a computer on campus. Academic discipline was associated with campus computer use ($p < .001$). Most notably, education students were less likely to use computers on campus than other students, while science and math as well as business students were more likely than other students to use computers on campus.

Table 16c: Uses Computer on Campus by Discipline.

		QUSE3_1 Uses Computer on Campus			
		0 Not Chosen	1 Chosen	Total	
DISC Discipline Division	1 Art	Count	40	93	133
		% within DISC Discipline Division	30.1%	69.9%	100.0%
	2 Business	Count	122	326	448
		% within DISC Discipline Division	27.2%	72.8%	100.0%
	3 Education	Count	106	126	232
		% within DISC Discipline Division	45.7%	54.3%	100.0%
	4 Engineering/Computer Science	Count	68	214	282
		% within DISC Discipline Division	24.1%	75.9%	100.0%
	5 Humanities	Count	54	106	160
		% within DISC Discipline Division	33.8%	66.3%	100.0%
	6 Science & Math	Count	41	134	175
		% within DISC Discipline Division	23.4%	76.6%	100.0%
	7 Behavioral/Social Sciences	Count	198	477	675
		% within DISC Discipline Division	29.3%	70.7%	100.0%
	8 Professional/Technical	Count	70	130	200
		% within DISC Discipline Division	35.0%	65.0%	100.0%
	9 Undeclared	Count	168	345	513
		% within DISC Discipline Division	32.7%	67.3%	100.0%
	10 Interdisciplinary Studies	Count	115	221	336
		% within DISC Discipline Division	34.2%	65.8%	100.0%
Total		Count	982	2172	3154
		% within DISC Discipline Division	31.1%	68.9%	100.0%

Students using computers on campus were asked about how often they used a computer on campus. Table 17a shows how often students have been using computers on campus. About 85 percent of students reported using computers at least weekly both in 2001 and 2003. However, the table shows that students in 2003 were more likely than those in 2001 to use a computer on campus almost every day ($p < .001$).

Table 17a: Frequency of Computer Use on Campus by Year.

		QUSE41A How Often Respondent Uses Computer on Campus							
		1	2	3	4	5	6	Total	
		Never	Almost Never	At Least Once a Term	Monthly	Weekly	Almost Everyday		
ADMIN Adminis- tration	1 2001	Count	5	60	210	343	957	650	2225
		% within ADMIN Administration	.2%	2.7%	9.4%	15.4%	43.0%	29.2%	100.0%
	2 2003	Count	6	41	174	259	942	742	2164
		% within ADMIN Administration	.3%	1.9%	8.0%	12.0%	43.5%	34.3%	100.0%
Total		Count	11	101	384	602	1899	1392	4389
		% within ADMIN Administration	.3%	2.3%	8.7%	13.7%	43.3%	31.7%	100.0%

Table 17b shows the frequency of computer use on campus by students at different class levels in 2003. The frequency of computer use on campus was dependent on class level ($p < .001$). Only 22.9 percent of post-baccalaureate students used computers almost daily compared to over a third of the undergraduate students.

Table 17b: Frequency of Computer Use on Campus by Class Level.

		QUSE41A How Often Respondent Uses Computer on Campus							
		1	2	3	4	5	6	Total	
		Never	Almost Never	At Least Once a Term	Monthly	Weekly	Almost Everyday		
CLLEVEL Class Level	1 Lower Division	Count	3	5	45	88	285	246	672
		% within Class Level	.4%	.7%	6.7%	13.1%	42.4%	36.6%	100.0%
	2 Upper Division	Count	2	19	83	127	509	420	1160
		% within Class Level	.2%	1.6%	7.2%	10.9%	43.9%	36.2%	100.0%
	3 Post Bacca- laureate	Count	1	17	46	44	148	76	332
		% within Class Level	.3%	5.1%	13.9%	13.3%	44.6%	22.9%	100.0%
Total		Count	6	41	174	259	942	742	2164
		% within Class Level	.3%	1.9%	8.0%	12.0%	43.5%	34.3%	100.0%

The frequency of computer use on campus was also contingent on academic discipline ($p < .05$).

Overall, about a third of the students used computers on campus, but nearly half (48.8%) of the engineering and computer science students, and 41.0 percent of the science and math students used computers on campus almost every day. On-campus computers use is tabulated for students in each discipline in Table 17c.

Table 17c: Frequency of Computer Use on Campus by Discipline.

		QUSE41A How Often Respondent Uses Computer on Campus							
		1 Never	2 Almost Never	3 At Least Once a Term	4 Monthly	5 Weekly	6 Almost Everyday	Total	
DISC Discipline Division	1 Art	Count	0	2	9	13	39	30	93
		% within Discipline	.0%	2.2%	9.7%	14.0%	41.9%	32.3%	100.0%
	2 Business	Count	1	6	24	46	147	101	325
		% within Discipline	.3%	1.8%	7.4%	14.2%	45.2%	31.1%	100.0%
	3 Education	Count	0	6	13	19	51	36	125
		% within Discipline	.0%	4.8%	10.4%	15.2%	40.8%	28.8%	100.0%
	4 Engineering/ Computer Science	Count	1	5	6	18	79	104	213
		% within Discipline	.5%	2.3%	2.8%	8.5%	37.1%	48.8%	100.0%
	5 Humanities	Count	0	1	4	14	48	39	106
		% within Discipline	.0%	.9%	3.8%	13.2%	45.3%	36.8%	100.0%
	6 Science & Math	Count	0	1	12	14	52	55	134
		% within Discipline	.0%	.7%	9.0%	10.4%	38.8%	41.0%	100.0%
	7 Behavioral/ Social Sciences	Count	1	9	48	55	193	170	476
		% within Discipline	.2%	1.9%	10.1%	11.6%	40.5%	35.7%	100.0%
	8 Professional/ Technical	Count	0	3	11	13	61	42	130
		% within Discipline	.0%	2.3%	8.5%	10.0%	46.9%	32.3%	100.0%
	9 Undeclared	Count	3	5	28	45	160	101	342
		% within Discipline	.9%	1.5%	8.2%	13.2%	46.8%	29.5%	100.0%
	10 Interdisciplinary Studies	Count	0	3	19	22	112	64	220
		% within Discipline	.0%	1.4%	8.6%	10.0%	50.9%	29.1%	100.0%
Total		Count	6	41	174	259	942	742	2164
		% within Discipline	.3%	1.9%	8.0%	12.0%	43.5%	34.3%	100.0%

Students who used computers on campus almost every day were asked the number of hours per day that they used a computer on campus. On average, students using computers on campus used them for 2.47 hours a day.

The average number of hours that students of different class levels used computers on campus is displayed in Table 18a. The amount of on campus computer use did not differ by the students' class level.

Table 18a: Hours of Computer Use on Campus per Day by Class Level.

QUSE41BC Number of Hours Per Day Respondent Uses a Computer on Campus

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	244	2.6209	2.40610	.25	12.00
2 Upper Division	418	2.3850	2.21483	.00	12.00
3 Post Baccalaureate	76	2.4237	1.97221	.20	9.00
Total	738	2.4670	2.25656	.00	12.00

Table 18b displays the average numbers of hours of on-campus computer use for students in different academic disciplines that used computers on campus almost every day. The number of on-campus computer use hours in 2003 did not vary by academic discipline.

Table 18b: Hours of Computer Use on Campus per Day by Discipline.

QUSE41BC Number of Hours Per Day Respondent Uses a Computer on Campus

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	30	2.7400	2.74058	.20	12.00
2 Business	101	2.4233	2.36584	.00	12.00
3 Education	36	2.5417	1.96532	.50	8.00
4 Engineering/Computer Science	102	2.5049	2.20850	.25	12.00
5 Humanities	38	2.2829	1.84370	.25	10.00
6 Science & Math	55	1.6909	1.10655	.50	5.00
7 Behavioral/Social Sciences	170	2.6559	2.55081	.00	12.00
8 Professional/Technical	41	2.1646	2.08387	.25	12.00
9 Undeclared	101	2.3114	1.96408	.00	12.00
10 Interdisciplinary Studies	64	3.0195	2.60506	.25	12.00
Total	738	2.4670	2.25656	.00	12.00

Computer Use at Work

Computer use at work was less common than it was at home or on campus. Table 19a shows the likelihood that a student used a computer at their place of employment in both 2001 and 2003. The table demonstrates a slight increase in the percentage of students using a computer at their place of employment from 2001 to 2003 ($p < .05$). That is, computer use at work nudged up from 39.6 percent in 2001 to 42.1 percent in 2003.

Table 19a: Uses Computer at Place of Employment by Year.

				QUSE3_2 Uses Computer at Place of Employment		
				0 Not Chosen	1 Chosen	Total
ADMIN Administration	1 2001	Count		1933	1268	3201
		% within ADMIN Administration		60.4%	39.6%	100.0%
	2 2003	Count		1825	1329	3154
		% within ADMIN Administration		57.9%	42.1%	100.0%
Total	Count			3758	2597	6355
	% within ADMIN Administration			59.1%	40.9%	100.0%

The likelihood of computer use at work was also assessed in relation to class level. Table 19b shows a dramatic relationship between class level and computer use at work ($p < .001$). The higher the class standing of the student, the more likely they were to be using a computer at work.

Table 19b: Uses Computer at Place of Employment by Class Level.

		QUSE3_2 Uses Computer at Place of Employment			
		0 Not Chosen	1 Chosen	Total	
CLLEVEL Class Level	1 Lower Division	Count	676	247	923
		% within CLLEVEL Class Level	73.2%	26.8%	100.0%
	2 Upper Division	Count	916	678	1594
		% within CLLEVEL Class Level	57.5%	42.5%	100.0%
	3 Post Baccalaureate	Count	233	404	637
		% within CLLEVEL Class Level	36.6%	63.4%	100.0%
Total		Count	1825	1329	3154
		% within CLLEVEL Class Level	57.9%	42.1%	100.0%

Use of a computer at work also varied by academic discipline ($p < .001$) in 2003. Interestingly, the education students, who tended to use computers less on campus than students in all the other disciplines, were by far the ones most likely to use a computer at their place of employment. This is shown in Table 19c.

Table 19c: Uses Computer at Place of Employment by Discipline.

		QUSE3_2 Uses Computer at Place of Employment			
		0 Not Chosen	1 Chosen	Total	
DISC Discipline Division	1 Art	Count	94	39	133
		% within DISC Discipline Division	70.7%	29.3%	100.0%
	2 Business	Count	244	204	448
		% within DISC Discipline Division	54.5%	45.5%	100.0%
	3 Education	Count	100	132	232
		% within DISC Discipline Division	43.1%	56.9%	100.0%
	4 Engineering/ Computer Science	Count	162	120	282
		% within DISC Discipline Division	57.4%	42.6%	100.0%
	5 Humanities	Count	93	67	160
		% within DISC Discipline Division	58.1%	41.9%	100.0%
	6 Science & Math	Count	114	61	175
		% within DISC Discipline Division	65.1%	34.9%	100.0%
	7 Behavioral/Social Sciences	Count	400	275	675
		% within DISC Discipline Division	59.3%	40.7%	100.0%
	8 Professional/ Technical	Count	110	90	200
		% within DISC Discipline Division	55.0%	45.0%	100.0%
	9 Undeclared	Count	298	215	513
		% within DISC Discipline Division	58.1%	41.9%	100.0%
	10 Interdisciplinary Studies	Count	210	126	336
		% within DISC Discipline Division	62.5%	37.5%	100.0%
Total		Count	1825	1329	3154
		% within DISC Discipline Division	57.9%	42.1%	100.0%

Those students reporting computer use at their place of employment were asked how frequently they used a computer there. The frequency of computer use at work for both 2001 and 2003 is displayed in Table 20a. As the table demonstrates, there was virtually no change in the frequency of computer use at work.

Table 20a: Frequency of Computer Use at Place of Employment by Year.

		QUSE42A How Often Respondent Uses Computer at Place of Employment							
		1	2	3	4	5	6	Total	
		Never	Almost Never	At Least Once a Term	Monthly	Weekly	Almost Everyday		
ADMIN Adminis- tration	1 2001	Count	7	10	10	37	208	992	1264
		% within ADMIN Administration	.6%	.8%	.8%	2.9%	16.5%	78.5%	100.0%
	2 2003	Count	7	9	13	31	229	1039	1328
		% within ADMIN Administration	.5%	.7%	1.0%	2.3%	17.2%	78.2%	100.0%
Total		Count	14	19	23	68	437	2031	2592
		% within ADMIN Administration	.5%	.7%	.9%	2.6%	16.9%	78.4%	100.0%

The frequency of computer use at the students place of employment for students at different class levels in 2003 is displayed in Table 20b. The frequency of computer use at work was associated with class standing ($p < .001$). The more advanced the student, the more frequently the student used a computer at work.

Table 20b: Frequency of Computer Use at Place of Employment by Class Level.

		QUSE42A How Often Respondent Uses Computer at Place of Employment							
		1	2	3	4	5	6		
		Never	Almost Never	At Least Once a Term	Monthly	Weekly	Almost Everyday	Total	
CLLEVEL Class Level	1 Lower Division	Count	1	4	3	9	62	168	247
		% within Class Level	.4%	1.6%	1.2%	3.6%	25.1%	68.0%	100.0%
	2 Upper Division	Count	5	3	3	18	112	536	677
		% within Class Level	.7%	.4%	.4%	2.7%	16.5%	79.2%	100.0%
	3 Post Bacca- laureate	Count	1	2	7	4	55	335	404
		% within Class Level	.2%	.5%	1.7%	1.0%	13.6%	82.9%	100.0%
Total		Count	7	9	13	31	229	1039	1328
		% within Class Level	.5%	.7%	1.0%	2.3%	17.2%	78.2%	100.0%

Table 20c shows the frequency of computer use at work in 2003 for students in different disciplines who used a computer at work. The table reveals no significant relationship between the frequency of computer use at work and academic discipline.

Table 20c: Frequency of Computer Use at Place of Employment by Discipline.

		QUSE42A How Often Respondent Uses Computer at Place of Employment							
		1 Never	2 Almost Never	3 At Least Once a Term	4 Monthly	5 Weekly	6 Almost Everyday	Total	
DISC Discipline Division	1 Art	Count	0	0	0	1	9	29	39
		% within Discipline	.0%	.0%	.0%	2.6%	23.1%	74.4%	100.0%
	2 Business	Count	1	2	1	4	29	166	203
		% within Discipline	.5%	1.0%	.5%	2.0%	14.3%	81.8%	100.0%
	3 Education	Count	0	0	2	2	14	114	132
		% within Discipline	.0%	.0%	1.5%	1.5%	10.6%	86.4%	100.0%
	4 Engineering/ Computer Science	Count	0	0	1	4	12	103	120
		% within Discipline	.0%	.0%	.8%	3.3%	10.0%	85.8%	100.0%
	5 Humanities	Count	0	2	1	2	12	50	67
		% within Discipline	.0%	3.0%	1.5%	3.0%	17.9%	74.6%	100.0%
	6 Science & Math	Count	1	0	0	1	13	46	61
		% within Discipline	1.6%	.0%	.0%	1.6%	21.3%	75.4%	100.0%
	7 Behavioral/ Social Sciences	Count	1	2	3	5	50	214	275
		% within Discipline	.4%	.7%	1.1%	1.8%	18.2%	77.8%	100.0%
	8 Professional/ Technical	Count	0	0	1	2	18	69	90
		% within Discipline	.0%	.0%	1.1%	2.2%	20.0%	76.7%	100.0%
	9 Undeclared	Count	1	1	4	4	49	156	215
		% within Discipline	.5%	.5%	1.9%	1.9%	22.8%	72.6%	100.0%
	10 Interdisciplinary Studies	Count	3	2	0	6	23	92	126
		% within Discipline	2.4%	1.6%	.0%	4.8%	18.3%	73.0%	100.0%
Total		Count	7	9	13	31	229	1039	1328
		% within Discipline	.5%	.7%	1.0%	2.3%	17.2%	78.2%	100.0%

Students in 2003 reporting that they used a computer at work almost every day were asked about the number of hours per day that they used a computer at work. On average, students using a computer at work did so for 4.51 hours per week.

The number of hours students who used a computer at work every day used the computers each day was examined by class level. Class level was associated with the number of hours per day that students used a computer at work, given that they used a computer at work every day. That is, among students using a computer at work every day, upper division students used computers more than did post-baccalaureate students ($p < .001$) and lower-division students ($p < .01$). This is illustrated in Table 21a.

Table 21a: Hours of Computer Use at Place of Employment per Day by Class Level.

QUSE42BC Number of Hours Per Day Respondent Uses a Computer at Place of Employment

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	167	4.1575	2.84202	.25	12.00
2 Upper Division	535	5.0216	2.87940	.00	12.00
3 Post Baccalaureate	333	3.8581	2.94144	.00	12.00
Total	1035	4.5078	2.94090	.00	12.00

For students who used computers at work every day, the number of hours that students used a computer at work was different for students in different disciplines in 2003. This is seen in Table 21b. It is interesting to note that education students used computers at work less than art ($p < .01$), business ($p < .001$), behavioral and social science ($p < .001$), engineering and computer science ($p < .001$), and professional/technical students ($p < .05$).

Table 21b: Hours of Computer Use at Place of Employment per Day by Discipline.

QUSE42BC Number of Hours Per Day Respondent Uses a Computer at Place of Employment

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	29	5.5517	3.43133	.50	12.00
2 Business	164	5.1863	3.01689	.05	12.00
3 Education	114	3.0899	2.53976	.50	12.00
4 Engineering/Computer Science	103	4.8519	2.92480	.25	12.00
5 Humanities	50	4.5700	2.68216	.50	10.00
6 Science & Math	46	3.7663	2.51131	.50	9.00
7 Behavioral/Social Sciences	213	4.8545	2.85756	.25	12.00
8 Professional/Technical	69	4.6014	3.04087	.00	12.00
9 Undeclared	155	4.1584	2.92699	.25	12.00
10 Interdisciplinary Studies	92	4.3940	2.95089	.00	12.00
Total	1035	4.5078	2.94090	.00	12.00

Computer Skill Level

Students provided evaluations of their computer skill levels. Table 22a contains the ratings students in 2001 and 2003 applied to themselves with respect to their computer skills. The table shows that students in 2003 rated their computer skill level more highly than did students in 2001 ($p < .001$).

Table 22a: Computer Skill Level by Year.

		QUSE5 Computer Skill Level					
		1 No Skills	2 Minimal Skills	3 Good Skills	4 Excellent Skills	Total	
ADMIN Administration	1 2001	Count	6	523	1981	691	3201
		% within ADMIN Administration	.2%	16.3%	61.9%	21.6%	100.0%
	2 2003	Count	4	385	1973	790	3152
		% within ADMIN Administration	.1%	12.2%	62.6%	25.1%	100.0%
Total		Count	10	908	3954	1481	6353
		% within ADMIN Administration	.2%	14.3%	62.2%	23.3%	100.0%

The skill level of students in 2003 varied by class level ($p < .001$). These ratings are tabulated in Table 22b. Post-baccalaureate and upper-division students rated their computer skill level higher than did lower-division students.

Table 22b: Computer Skill Level by Class Level.

		QUSE5 Computer Skill Level					
			1 No Skills	2 Minimal Skills	3 Good Skills	4 Excellent Skills	Total
CLLEVEL Class Level	1 Lower Division	Count	2	130	617	173	922
		% within Class Level	.2%	14.1%	66.9%	18.8%	100.0%
	2 Upper Division	Count	2	191	969	431	1593
		% within Class Level	.1%	12.0%	60.8%	27.1%	100.0%
	3 Post Bacca- laureate	Count	0	64	387	186	637
		% within Class Level	.0%	10.0%	60.8%	29.2%	100.0%
Total		Count	4	385	1973	790	3152
		% within Class Level	.1%	12.2%	62.6%	25.1%	100.0%

Table 22c shows how students in different disciplines rated their computer skills. There was some variability in how students in different academic disciplines rated their computer skills ($p < .001$). Not surprisingly, the biggest difference entailed engineering and computer science students rating themselves more highly than other students.

Table 22c: Computer Skill Level by Discipline.

		QUSE5 Computer Skill Level					
		1 No Skills	2 Minimal Skills	3 Good Skills	4 Excellent Skills	Total	
DISC Discipline Division	1 Art	Count	0	20	83	30	133
		% within Discipline	.0%	15.0%	62.4%	22.6%	100.0%
	2 Business	Count	1	46	289	112	448
		% within Discipline	.2%	10.3%	64.5%	25.0%	100.0%
	3 Education	Count	0	32	146	54	232
		% within Discipline	.0%	13.8%	62.9%	23.3%	100.0%
	4 Engineering/ Computer Science	Count	0	22	144	116	282
		% within Discipline	.0%	7.8%	51.1%	41.1%	100.0%
	5 Humanities	Count	0	15	114	31	160
		% within Discipline	.0%	9.4%	71.3%	19.4%	100.0%
	6 Science & Math	Count	0	25	107	43	175
		% within Discipline	.0%	14.3%	61.1%	24.6%	100.0%
	7 Behavioral/ Social Sciences	Count	0	93	418	164	675
		% within Discipline	.0%	13.8%	61.9%	24.3%	100.0%
	8 Professional/ Technical	Count	0	27	124	49	200
		% within Discipline	.0%	13.5%	62.0%	24.5%	100.0%
	9 Undeclared	Count	2	57	325	127	511
		% within Discipline	.4%	11.2%	63.6%	24.9%	100.0%
	10 Interdisciplinary Studies	Count	1	48	223	64	336
		% within Discipline	.3%	14.3%	66.4%	19.0%	100.0%
Total		Count	4	385	1973	790	3152
		% within Discipline	.1%	12.2%	62.6%	25.1%	100.0%

Academic Computer Use

The percentage of the students' computer use that was class or academically related was of interest. Just over half (53.91%) of the time students in 2003 spent on computers was academically related. As Table 23a shows, this represents a slight decrease from the 55.61 percent of computer time that was academically related for students in 2001 ($p < .05$).

Table 23a: Percentage of Computer Use Time That Is Academically Related by Year.

	ADMIN Administration	N	Mean	Std. Deviation
QUSE7 Percentage of Total Computer Use That is Class or Academically Related	1 2001	3191	55.61	27.277
	2 2003	3131	53.91	26.382

The percentage of total computer usage that was academically related for students at different class levels is displayed in Table 23b. The percentage of the time that students spent on computers that was academically related was consistent across class level.

Table 23b: Percentage of Computer Use Time That Is Academically Related by Class Level.

QUSE7 Percentage of Total Computer Use That is Class or Academically Related

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	915	53.79	24.555	0	100
2 Upper Division	1580	54.52	26.612	0	100
3 Post Baccalaureate	636	52.56	28.266	0	100
Total	3131	53.91	26.382	0	100

Table 23c contains the percentage of total computer usage that was academically related for students in different disciplines. The table shows that there were differences by discipline in the percentage of students' computer time that was academically related. Interdisciplinary studies students spent a higher percentage of their time on a computer engaged in academically related activity than did engineering and computer science students ($p<.001$) or business students ($p<.001$).

Table 23c: Percentage of Computer Use Time That Is Academically Related by Discipline.

QUSE7 Percentage of Total Computer Use That is Class or Academically Related

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	132	50.91	28.356	1	100
2 Business	446	50.29	25.968	0	100
3 Education	231	54.37	26.931	0	100
4 Engineering/Computer Science	279	49.27	26.570	0	100
5 Humanities	158	53.01	25.263	0	100
6 Science & Math	174	56.72	24.575	1	100
7 Behavioral/Social Sciences	671	54.74	26.157	0	100
8 Professional/Technical	197	54.10	25.511	0	100
9 Undeclared	509	54.70	26.728	0	100
10 Interdisciplinary Studies	334	59.45	26.328	0	100
Total	3131	53.91	26.382	0	100

Beliefs about Computer Skills

Students were asked to rate the importance of computer literacy for their employment goals. Students believed computer literacy to be very importance to their employment goals, as indicated by their average importance rating of 9.08 on the zero-to-ten importance scale in 2003. This importance rating, shown in Table 24a, is essentially identical to the rating students in 2001 gave to the importance of computer literacy to their employment goals.

Table 24a: Importance of Computer Literacy for Employment Goals by Year.

	ADMIN Administration	N	Mean	Std. Deviation
QUSE9 Importance of Computer Literacy for	1 2001	3195	9.12	1.516
Future Employment Goals	2 2003	3152	9.08	1.554

Table 24b shows how students at different class levels rated the importance of computer literacy to their employment goals. As the table shows, the importance rating students gave depended on their class level. Upper-division students regarded computer literacy as more important to their employment goals than did lower-division students ($p < .01$).

Table 24b: Importance of Computer Literacy for Employment Goals by Class Level.

QUSE9 Importance of Computer Literacy for Future Employment Goals

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	922	8.95	1.602	0	10
2 Upper Division	1593	9.14	1.521	0	10
3 Post Baccalaureate	637	9.11	1.558	0	10
Total	3152	9.08	1.554	0	10

Students' beliefs about the importance of computer literacy for their employment goals was examined for students in different academic disciplines. These importance ratings did vary by discipline, as Table 24c illustrates. Engineering and computer science students rated computer literacy as more important than did art ($p<.05$), science and math ($p<.05$), and education students ($p<.01$). Additionally, business students rated computer literacy as more important than did education students ($p<.05$).

Table 24c: Importance of Computer Literacy for Employment Goals by Discipline.

QUSE9 Importance of Computer Literacy for Future Employment Goals

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	133	8.80	2.029	0	10
2 Business	448	9.28	1.235	1	10
3 Education	232	8.87	1.734	0	10
4 Engineering/Computer Science	282	9.38	1.129	5	10
5 Humanities	159	9.04	1.526	0	10
6 Science & Math	175	8.86	1.787	0	10
7 Behavioral/Social Sciences	675	9.06	1.549	0	10
8 Professional/Technical	201	9.06	1.621	0	10
9 Undeclared	511	9.07	1.553	0	10
10 Interdisciplinary Studies	336	9.00	1.695	0	10
Total	3152	9.08	1.554	0	10

Students in 2003 were asked about how well they thought their university had prepared them for the technology skills they would need at graduation. On a zero-to-ten scale with higher numbers indicating better preparation, students offered an average rating of 6.60. This rating varied by class level. Table 25a shows that upper-division students believed they were more well prepared by their university with the technology skills needed at graduation than did post-baccalaureate students ($p < .001$) or lower-division students ($p < .05$).

Table 25a: Adequacy of University's Preparation of Students with Technology Skills by Class Level.

Q1A8 Rating of How Well University Has Prepared Student with Technology Skills for Graduation

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	902	6.50	2.364	0	10
2 Upper Division	1559	6.79	2.386	0	10
3 Post Baccalaureate	575	6.21	2.809	0	10
Total	3036	6.60	2.475	0	10

Students in different academic disciplines provided different ratings of how well their university prepared them with the technology skills needed at graduation. Table 25b shows that engineering and computer science students thought their university had better prepared them for the technology skills they would need than humanities ($p<.01$), education ($p<.05$), and behavioral and social sciences students ($p<.05$) did. Further, business students rated the preparation they received as more adequate than did humanities students ($p<.05$).

Table 25b: Adequacy of University's Preparation of Students with Technology Skills by Discipline.

Q1A8 Rating of How Well University Has Prepared Student with Technology Skills for Graduation

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	130	6.36	2.411	0	10
2 Business	434	6.85	2.334	0	10
3 Education	221	6.32	2.576	0	10
4 Engineering/Computer Science	278	7.06	2.300	0	10
5 Humanities	158	6.07	2.716	0	10
6 Science & Math	168	6.58	2.338	0	10
7 Behavioral/Social Sciences	643	6.45	2.544	0	10
8 Professional/Technical	193	6.54	2.334	0	10
9 Undeclared	485	6.60	2.523	0	10
10 Interdisciplinary Studies	326	6.72	2.498	0	10
Total	3036	6.60	2.475	0	10

Workstations, Software, and Help

Hardware

Respondents were asked about access to the computer workstations, software, and maintenance. They were asked if they had access to a university-provided computer workstation to complete their school work. Almost all (93.8%) of the students in 2003 reported having access to a university-provided computer workstation.

Access to a university-provided computer workstation to complete their school work was constant across administrations. This is illustrated in Table 26a, which shows the likelihood of having access to a computer workstation was quite high in both 2001 and 2003.

Table 26a: Access to a University-provided Computer Workstation Needed to Complete Work by Year.

				Q4A1 Access to a University-Provided Computer Workstation Needed to Complete Work		
				0 No	1 Yes	Total
ADMIN Administration	1	2001	Count	186	2956	3142
			% within ADMIN Administration	5.9%	94.1%	100.0%
	2	2003	Count	200	2894	3094
			% within ADMIN Administration	6.5%	93.5%	100.0%
Total			Count	386	5850	6236
			% within ADMIN Administration	6.2%	93.8%	100.0%

Class level was linked to the likelihood that students reported having access to a university-provided computer workstation to complete their work ($p < .001$). This is seen in Table 26b. Post-baccalaureate students were much less likely than other students to indicate that they had access to the computer workstations they needed to complete their work.

Table 26b: Access to a University-provided Computer Workstation Needed to Complete Work by Class Level.

			Q4A1 Access to a University-Provided Computer Workstation Needed to Complete Work		
			0 No	1 Yes	Total
CLLEVEL Class Level	1 Lower Division	Count	42	879	921
		% within CLLEVEL Class Level	4.6%	95.4%	100.0%
	2 Upper Division	Count	79	1497	1576
		% within CLLEVEL Class Level	5.0%	95.0%	100.0%
	3 Post Baccalaureate	Count	79	518	597
		% within CLLEVEL Class Level	13.2%	86.8%	100.0%
Total	Count		200	2894	3094
	% within CLLEVEL Class Level		6.5%	93.5%	100.0%

There was also a small effect on reporting having access to a university-provided computer workstation based on discipline ($p < .05$). Table 26c shows that education, professional/technical, and undeclared students were less likely to indicate that they had access to university-provided computer workstations to complete their work.

Table 26c: Access to a University-provided Computer Workstation Needed to Complete Work by Discipline.

		Q4A1 Access to a University-Provided Computer Workstation Needed to Complete Work			
			0 No	1 Yes	Total
DISC Discipline Division	1 Art	Count	4	128	132
		% within DISC Discipline Division	3.0%	97.0%	100.0%
	2 Business	Count	27	415	442
		% within DISC Discipline Division	6.1%	93.9%	100.0%
	3 Education	Count	24	200	224
		% within DISC Discipline Division	10.7%	89.3%	100.0%
	4 Engineering/Computer Science	Count	12	270	282
		% within DISC Discipline Division	4.3%	95.7%	100.0%
	5 Humanities	Count	12	144	156
		% within DISC Discipline Division	7.7%	92.3%	100.0%
	6 Science & Math	Count	10	164	174
		% within DISC Discipline Division	5.7%	94.3%	100.0%
	7 Behavioral/Social Sciences	Count	36	627	663
		% within DISC Discipline Division	5.4%	94.6%	100.0%
	8 Professional/Technical	Count	18	178	196
		% within DISC Discipline Division	9.2%	90.8%	100.0%
	9 Undeclared	Count	41	454	495
		% within DISC Discipline Division	8.3%	91.7%	100.0%
	10 Interdisciplinary Studies	Count	16	314	330
		% within DISC Discipline Division	4.8%	95.2%	100.0%
Total		Count	200	2894	3094
		% within DISC Discipline Division	6.5%	93.5%	100.0%

Students indicating that they had access to a university-provided computer workstation were asked how satisfied they were with the workstations available. Overall, the students were fairly satisfied with the workstations to which they had access, giving an average satisfaction rating of 7.76 in 2003.

Students' satisfaction with the university-provided computer workstations available to them was greater in 2003 than it had been in 2001. Table 27a shows that the average level of satisfaction rose from 7.57 in 2001 to 7.76 in 2003 ($p < .001$).

Table 27a: Satisfaction with Available University-provided Computer Workstations by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q4A1C Satisfaction with University-Provided Computer Workstation Available to Respondent	1 2001	2806	7.57	2.016
	2 2003	2768	7.76	1.964

The level of satisfaction with computer workstations was different for students at class levels. This is seen in Table 27b. Lower-division students were more satisfied with the workstations provided for them than were upper-division ($p < .01$) and post-baccalaureate students ($p < .001$), and upper-division students were more satisfied than were post-baccalaureate students ($p < .05$).

able 27b: Satisfaction with Available University-provided Computer Workstations by Class Level

Q4A1C Satisfaction with University-Provided Computer Workstation Available to Respondent

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	850	8.00	1.697	0	10
2 Upper Division	1451	7.71	2.011	0	10
3 Post Baccalaureate	467	7.45	2.208	0	10
Total	2768	7.76	1.964	0	10

The level of satisfaction with computer workstations was the same for students in different academic disciplines. Table 27c shows the average satisfaction levels for all disciplines.

Software

Table 27c: Satisfaction with Available University-provided Computer Workstations by Discipline.

Q4A1C Satisfaction with University-Provided Computer Workstation Available to Respondent

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	124	7.74	1.830	1	10
2 Business	403	7.69	1.926	0	10
3 Education	185	7.83	1.775	1	10
4 Engineering/Computer Science	268	7.76	1.935	0	10
5 Humanities	131	7.53	2.095	0	10
6 Science & Math	160	7.88	1.844	0	10
7 Behavioral/Social Sciences	598	7.83	1.997	0	10
8 Professional/Technical	168	7.69	1.883	2	10
9 Undeclared	432	7.75	1.973	0	10
10 Interdisciplinary Studies	299	7.73	2.179	0	10
Total	2768	7.76	1.964	0	10

The availability of software was also addressed in the questionnaire. Students were asked if they had access to university-provided software they needed to complete their work. Most (84.5%) of the students in 2003 indicated that they had access to the software they needed to complete their school work. As Table 28a shows, the percentage of students reporting access to necessary software did not change from 2001.

Table 28a: Access to University-provided Computer Software Needed to Complete Work by Year.

				Q4A2 Access to a University-Provided Computer Software Needed to Complete Work		
				0 No	1 Yes	Total
ADMIN Administration	1	2001	Count	399	2365	2764
			% within ADMIN Administration	14.4%	85.6%	100.0%
	2	2003	Count	427	2325	2752
			% within ADMIN Administration	15.5%	84.5%	100.0%
Total			Count	826	4690	5516
			% within ADMIN Administration	15.0%	85.0%	100.0%

The likelihood that a student had access to university-provided software needed to complete school work is shown in Table 28b by class level. As the table shows, access to needed software was not constant across class level ($p < .001$). Specifically, post-baccalaureate students were less likely than other students to report having access to the software they needed to complete their work.

Table 28b: Access to University-provided Computer Software Needed to Complete Work by Class Level.

			Q4A2 Access to a University-Provided Computer Software Needed to Complete Work		Total
			0 No	1 Yes	
CLLEVEL Class Level	1 Lower Division	Count	139	703	842
		% within CLLEVEL Class Level	16.5%	83.5%	100.0%
	2 Upper Division	Count	191	1249	1440
		% within CLLEVEL Class Level	13.3%	86.7%	100.0%
	3 Post Baccalaureate	Count	97	373	470
		% within CLLEVEL Class Level	20.6%	79.4%	100.0%
Total		Count	427	2325	2752
		% within CLLEVEL Class Level	15.5%	84.5%	100.0%

The availability of computer software necessary to complete schoolwork also varied by discipline. This can be seen in Table 28c. Students in education were much less likely to state that they had access to university-provided computer software necessary to complete their work than were students in other disciplines.

Table 28c: Access to University-provided Computer Software Needed to Complete Work by Discipline.

			Q4A2 Access to a University-Provided Computer Software Needed to Complete Work		Total
			0 No	1 Yes	
DISC Discipline Division	1 Art	Count	22	101	123
		% within DISC Discipline Division	17.9%	82.1%	100.0%
	2 Business	Count	48	350	398
		% within DISC Discipline Division	12.1%	87.9%	100.0%
	3 Education	Count	44	139	183
		% within DISC Discipline Division	24.0%	76.0%	100.0%
	4 Engineering/Computer Science	Count	34	232	266
		% within DISC Discipline Division	12.8%	87.2%	100.0%
	5 Humanities	Count	22	111	133
		% within DISC Discipline Division	16.5%	83.5%	100.0%
	6 Science & Math	Count	24	132	156
		% within DISC Discipline Division	15.4%	84.6%	100.0%
	7 Behavioral/Social Sciences	Count	94	500	594
		% within DISC Discipline Division	15.8%	84.2%	100.0%
	8 Professional/Technical	Count	18	154	172
		% within DISC Discipline Division	10.5%	89.5%	100.0%
	9 Undeclared	Count	75	354	429
		% within DISC Discipline Division	17.5%	82.5%	100.0%
	10 Interdisciplinary Studies	Count	46	252	298
		% within DISC Discipline Division	15.4%	84.6%	100.0%
Total		Count	427	2325	2752
		% within DISC Discipline Division	15.5%	84.5%	100.0%

Those stating that they had access to university-provided computer software necessary for their work were asked how satisfied they were with that software. Those students in 2003 with access to software were generally satisfied with the software available, as indicated by an average satisfaction rating of 8.11. Table 29a shows that this represents no significant change from the average satisfaction rating of 8.02 in 2001.

Table 29a: Satisfaction with Available University-provided Software by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q4A2C Satisfaction with University-Provided Software Available to Respondent	1 2001	2282	8.02	1.762
	2 2003	2262	8.11	1.700

The class level of the student had no bearing on the level of satisfaction expressed by the student with the university-provided software. This is seen in Table 29b.

Table 29b: Satisfaction with Available University-provided Software by Class Level.

Q4A2C Satisfaction with University-Provided Software Available to Respondent

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	686	8.16	1.556	2	10
2 Upper Division	1220	8.11	1.742	0	10
3 Post Baccalaureate	356	8.01	1.815	0	10
Total	2262	8.11	1.700	0	10

The students' level of satisfaction with the university-provided software is broken down by discipline in Table 29c. The table shows that there were no differences in satisfaction with the software provided to them by the university among students in different disciplines.

Table 29c: Satisfaction with Available University-provided Software by Discipline.

Q4A2C Satisfaction with University-Provided Software Available to Respondent

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	99	8.09	1.648	3	10
2 Business	343	8.20	1.759	0	10
3 Education	135	8.10	1.782	1	10
4 Engineering/Computer Science	230	8.13	1.557	2	10
5 Humanities	108	7.96	1.663	2	10
6 Science & Math	129	8.19	1.585	2	10
7 Behavioral/Social Sciences	484	8.09	1.761	0	10
8 Professional/Technical	150	7.81	1.762	2	10
9 Undeclared	343	8.21	1.604	0	10
10 Interdisciplinary Studies	241	8.09	1.762	1	10
Total	2262	8.11	1.700	0	10

Personal Computers

Students were asked if they currently owned an operational computer. Almost all (95.4%) of the respondents in 2003 said that they did own an operational computer. Table 30a reveals that this is a slight increase over the 94.1 percent that owned an operational computer in 2001 ($p < .05$).

Table 30a: Student Owns an Operational Computer by Year.

				QCOMP1 Currently Owns an Operational Computer		
				0 No	1 Yes	Total
ADMIN Administration	1	2001	Count	189	3008	3197
			% within ADMIN Administration	5.9%	94.1%	100.0%
	2	2003	Count	146	3009	3155
			% within ADMIN Administration	4.6%	95.4%	100.0%
Total			Count	335	6017	6352
			% within ADMIN Administration	5.3%	94.7%	100.0%

Table 30b shows the breakdown of computer ownership by class level. This table shows that post-baccalaureate students were slightly more likely to own an operational computer than were other students in 2003 ($p < .05$).

Table 30b: Student Owns an Operational Computer by Class Level.

			QCOMP1 Currently Owns an Operational Computer		Total
			0 No	1 Yes	
CLLEVEL Class Level	1 Lower Division	Count	49	875	924
		% within CLLEVEL Class Level	5.3%	94.7%	100.0%
	2 Upper Division	Count	80	1514	1594
		% within CLLEVEL Class Level	5.0%	95.0%	100.0%
	3 Post Baccalaureate	Count	17	620	637
		% within CLLEVEL Class Level	2.7%	97.3%	100.0%
Total	Count		146	3009	3155
	% within CLLEVEL Class Level		4.6%	95.4%	100.0%

The percentage of students in different disciplines who owned an operational computer is shown in Table 30c. The likelihood of computer ownership was consistent across the different disciplines.

Table 30c: Student Owns an Operational Computer by Discipline.

		QCOMP1 Currently Owns an Operational Computer			
		0 No	1 Yes	Total	
DISC Discipline Division	1 Art	Count	3	130	133
		% within DISC Discipline Division	2.3%	97.7%	100.0%
	2 Business	Count	15	433	448
		% within DISC Discipline Division	3.3%	96.7%	100.0%
	3 Education	Count	9	223	232
		% within DISC Discipline Division	3.9%	96.1%	100.0%
	4 Engineering/Computer Science	Count	17	265	282
		% within DISC Discipline Division	6.0%	94.0%	100.0%
	5 Humanities	Count	7	153	160
		% within DISC Discipline Division	4.4%	95.6%	100.0%
	6 Science & Math	Count	11	164	175
		% within DISC Discipline Division	6.3%	93.7%	100.0%
	7 Behavioral/Social Sciences	Count	34	641	675
		% within DISC Discipline Division	5.0%	95.0%	100.0%
	8 Professional/Technical	Count	11	190	201
		% within DISC Discipline Division	5.5%	94.5%	100.0%
	9 Undeclared	Count	24	489	513
		% within DISC Discipline Division	4.7%	95.3%	100.0%
	10 Interdisciplinary Studies	Count	15	321	336
		% within DISC Discipline Division	4.5%	95.5%	100.0%
Total		Count	146	3009	3155
		% within DISC Discipline Division	4.6%	95.4%	100.0%

The age of the computers owned by the students was an issue of interest in the survey. Students who reported having an operational computer were asked how old their computer was. Table 31a summarizes their responses. As the table shows, over a quarter of the students in 2003 reported having a personal computer that was less than one year old, and 77.7% reported having a computer three years old or newer.

Table 31a: Age of Computer in 2003.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Less than One Year	846	26.8	28.2	28.2
	2 One to Three Years	1486	47.1	49.5	77.7
	3 More than Three Years	671	21.3	22.3	100.0
	Total	3003	95.2	100.0	
Missing	8 Don't Know	6	.2		
	System	147	4.7		
	Total	153	4.8		
Total		3156	100.0		

The age of students' computers was related to class standing ($p < .001$). That is, lower-division students in 2003 were much more likely to have a computer less than one year old than were upper-division or post baccalaureate students. This is seen in Table 31b.

Table 31b: Age of Computer by Class Level.

			QCOMP2B Age of Computer-Years			
			1 Less than One Year	2 One to Three Years	3 More than Three Years	Total
CLLEVEL Class Level	1 Lower Division	Count	288	429	158	875
		% within CLLEVEL Class Level	32.9%	49.0%	18.1%	100.0%
	2 Upper Division	Count	403	748	358	1509
		% within CLLEVEL Class Level	26.7%	49.6%	23.7%	100.0%
	3 Post Baccalaureate	Count	155	309	155	619
		% within CLLEVEL Class Level	25.0%	49.9%	25.0%	100.0%
Total	Count		846	1486	671	3003
	% within CLLEVEL Class Level		28.2%	49.5%	22.3%	100.0%

Table 31c summarizes the age of students' computers in 2003 broken down by academic discipline. There was no variation in the age of the students' computers by discipline.

Table 31c: Age of Computer by Discipline.

		QCOMP2B Age of Computer-Years			Total	
		1 Less than One Year	2 One to Three Years	3 More than Three Years		
DISC Discipline Division	1 Art	Count	43	67	20	130
		% within Discipline	33.1%	51.5%	15.4%	100.0%
	2 Business	Count	139	200	93	432
		% within Discipline	32.2%	46.3%	21.5%	100.0%
	3 Education	Count	49	109	64	222
		% within Discipline	22.1%	49.1%	28.8%	100.0%
	4 Engineering/ Computer Science	Count	88	117	59	264
		% within Discipline	33.3%	44.3%	22.3%	100.0%
	5 Humanities	Count	42	81	30	153
		% within Discipline	27.5%	52.9%	19.6%	100.0%
	6 Science & Math	Count	40	90	34	164
		% within Discipline	24.4%	54.9%	20.7%	100.0%
	7 Behavioral/ Social Sciences	Count	181	313	147	641
		% within Discipline	28.2%	48.8%	22.9%	100.0%
	8 Professional/ Technical	Count	51	96	43	190
		% within Discipline	26.8%	50.5%	22.6%	100.0%
	9 Undeclared	Count	140	244	104	488
		% within Discipline	28.7%	50.0%	21.3%	100.0%
	10 Interdisciplinary Studies	Count	73	169	77	319
		% within Discipline	22.9%	53.0%	24.1%	100.0%
Total		Count	846	1486	671	3003
		% within Discipline	28.2%	49.5%	22.3%	100.0%

Laptops. Students in 2003 who reported that they currently owned an operational computer were asked if they owned a laptop computer. Table 32a shows their responses. A third of the students who own computers said they owned a laptop computer.

Table 32a: Owns a Lap-Top Computer in 2003.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 No	1936	61.3	64.4	64.4
	1 Yes	1072	34.0	35.6	100.0
	Total	3008	95.3	100.0	
Missing	8 Don't Know	1	.0		
	System	147	4.7		
	Total	148	4.7		
Total		3156	100.0		

The likelihood that a computer owner had a laptop varied by class level ($p < .01$). This is illustrated in Table 32b. Post baccalaureate students were considerably more likely to own a laptop than were other students.

Table 32b: Owns a Lap-Top Computer by Class Level.

		QCOMP4 Owns a Lap-Top Computer			
		0 No	1 Yes	Total	
CLLEVEL Class Level	1 Lower Division	Count	578	296	874
		% within CLLEVEL Class Level	66.1%	33.9%	100.0%
	2 Upper Division	Count	993	521	1514
		% within CLLEVEL Class Level	65.6%	34.4%	100.0%
	3 Post Baccalaureate	Count	365	255	620
		% within CLLEVEL Class Level	58.9%	41.1%	100.0%
Total		Count	1936	1072	3008
		% within CLLEVEL Class Level	64.4%	35.6%	100.0%

Table 32c shows laptop ownership by academic discipline. The likelihood of owning a laptop did not differ by discipline.

Table 32c: Owns a Lap-Top Computer by Discipline.

		QCOMP4 Owns a Lap-Top Computer			
			0 No	1 Yes	Total
DISC Discipline Division	1 Art	Count	97	33	130
		% within Discipline	74.6%	25.4%	100.0%
	2 Business	Count	268	165	433
		% within Discipline	61.9%	38.1%	100.0%
	3 Education	Count	153	70	223
		% within Discipline	68.6%	31.4%	100.0%
	4 Engineering/ Computer Science	Count	170	95	265
		% within Discipline	64.2%	35.8%	100.0%
	5 Humanities	Count	93	60	153
		% within Discipline	60.8%	39.2%	100.0%
	6 Science & Math	Count	109	55	164
		% within Discipline	66.5%	33.5%	100.0%
	7 Behavioral/ Social Sciences	Count	409	232	641
		% within Discipline	63.8%	36.2%	100.0%
	8 Professional/ Technical	Count	130	60	190
		% within Discipline	68.4%	31.6%	100.0%
	9 Undeclared	Count	293	195	488
		% within Discipline	60.0%	40.0%	100.0%
	10 Interdisciplinary Studies	Count	214	107	321
		% within Discipline	66.7%	33.3%	100.0%
Total		Count	1936	1072	3008
		% within Discipline	64.4%	35.6%	100.0%

Those respondents with laptop computers were asked about wireless networking capability. Table 33a shows that 48.4 percent of the students with laptop computers have wireless networking capabilities. That is, 17.0 percent of those who own computers, or 16.1 percent of all students have wireless networking capability.

Table 33a: Has Wireless Networking Capability on Lap-Top Computer in 2003.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 No	538	17.0	51.6	51.6
	1 Yes	505	16.0	48.4	100.0
	Total	1043	33.0	100.0	
Missing	8 Don't Know	28	.9		
	9 Refused	1	.0		
	System	2084	66.0		
	Total	2113	67.0		
Total		3156	100.0		

The likelihood of having wireless networking capability in 2003 depended on class level ($p < .05$). That is, as Table 33b shows, lower-division students were more likely to have wireless networking capability. This coheres with the finding noted above that lower-division students were more likely to have newer computers than were other students.

Table 33b: Has Wireless Networking Capability on Lap-Top Computer by Class Level.

			QCOMP4A Has Wireless Networking Capability on Lap-Top Computer		
			0 No	1 Yes	Total
CLLEVEL Class Level	1 Lower Division	Count	130	157	287
		% within CLLEVEL Class Level	45.3%	54.7%	100.0%
	2 Upper Division	Count	276	235	511
		% within CLLEVEL Class Level	54.0%	46.0%	100.0%
	3 Post Baccalaureate	Count	132	113	245
		% within CLLEVEL Class Level	53.9%	46.1%	100.0%
Total	Count		538	505	1043
	% within CLLEVEL Class Level		51.6%	48.4%	100.0%

Table 33c shows the percentage of students in different disciplines in 2003 that have wireless networking capabilities. A review of this table reveals no differences in the percentage of students with wireless networking capability across disciplines.

Table 33c: Has Wireless Networking Capability on Lap-Top Computer by Discipline.

		QCOMP4A Has Wireless Networking Capability on Lap-Top Computer			Total
		0 No	1 Yes		
DISC Discipline Division	1 Art	Count	15	18	33
		% within Discipline	45.5%	54.5%	100.0%
	2 Business	Count	80	80	160
		% within Discipline	50.0%	50.0%	100.0%
	3 Education	Count	34	35	69
		% within Discipline	49.3%	50.7%	100.0%
	4 Engineering/ Computer Science	Count	49	46	95
		% within Discipline	51.6%	48.4%	100.0%
	5 Humanities	Count	28	28	56
		% within Discipline	50.0%	50.0%	100.0%
	6 Science & Math	Count	28	27	55
		% within Discipline	50.9%	49.1%	100.0%
	7 Behavioral/ Social Sciences	Count	120	102	222
		% within Discipline	54.1%	45.9%	100.0%
	8 Professional/ Technical	Count	31	27	58
		% within Discipline	53.4%	46.6%	100.0%
	9 Undeclared	Count	98	91	189
		% within Discipline	51.9%	48.1%	100.0%
	10 Interdisciplinary Studies	Count	55	51	106
		% within Discipline	51.9%	48.1%	100.0%
Total		Count	538	505	1043
		% within Discipline	51.6%	48.4%	100.0%

Those with laptops in 2003 were also asked if they could get technical assistance from campus for their laptop computer. As Table 34a shows, over half (54.9%) of the students with laptops that gave an answer said that they could get assistance. However, 47.0 percent of those with laptops replied that they did not know if they could get technical assistance from their campus for their laptop.

Table 34a: Technical Assistance Is Available from Campus for Lap-Top Computer in 2003.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 No	262	8.3	45.1	45.1
	1 Yes	319	10.1	54.9	100.0
	Total	581	18.4	100.0	
Missing	8 Don't Know	490	15.5		
	9 Refused	1	.0		
	System	2084	66.0		
	Total	2575	81.6		
Total		3156	100.0		

Class level was strongly associated with reporting the ability to get technical assistance from campus for their laptop computer ($p < .001$). That is, lower-division students were dramatically more likely to state that they could get technical assistance from their campus. This is demonstrated in Table 34b.

Table 34b: Technical Assistance Is Available from Campus for Lap-Top Computer by Class Level.

		QCOMP4B Can Get Technical Assistance from Campus for Lap-Top Computer			
		0 No	1 Yes	Total	
CLLEVEL Class Level	1 Lower Division	Count	54	129	183
		% within CLLEVEL Class Level	29.5%	70.5%	100.0%
	2 Upper Division	Count	145	140	285
		% within CLLEVEL Class Level	50.9%	49.1%	100.0%
	3 Post Baccalaureate	Count	63	50	113
		% within CLLEVEL Class Level	55.8%	44.2%	100.0%
Total		Count	262	319	581
		% within CLLEVEL Class Level	45.1%	54.9%	100.0%

The percentage of students reporting the availability of campus technical assistance for their laptop is broken down by discipline in Table 34c. There were no differences by discipline in the likelihood that a student reported having technical assistance for their laptop available from their campus.

Table 34c: Technical Assistance Is Available from Campus for Lap-Top Computer by Discipline.

		QCOMP4B Can Get Technical Assistance from Campus for Lap-Top Computer			
			0 No	1 Yes	Total
DISC Discipline Division	1 Art	Count	10	12	22
		% within DISC Discipline Division	45.5%	54.5%	100.0%
	2 Business	Count	45	48	93
		% within DISC Discipline Division	48.4%	51.6%	100.0%
	3 Education	Count	12	15	27
		% within DISC Discipline Division	44.4%	55.6%	100.0%
	4 Engineering/Computer Science	Count	22	31	53
		% within DISC Discipline Division	41.5%	58.5%	100.0%
	5 Humanities	Count	7	16	23
		% within DISC Discipline Division	30.4%	69.6%	100.0%
	6 Science & Math	Count	9	18	27
		% within DISC Discipline Division	33.3%	66.7%	100.0%
	7 Behavioral/Social Sciences	Count	60	75	135
		% within DISC Discipline Division	44.4%	55.6%	100.0%
	8 Professional/Technical	Count	17	15	32
		% within DISC Discipline Division	53.1%	46.9%	100.0%
	9 Undeclared	Count	42	50	92
		% within DISC Discipline Division	45.7%	54.3%	100.0%
	10 Interdisciplinary Studies	Count	38	39	77
		% within DISC Discipline Division	49.4%	50.6%	100.0%
Total		Count	262	319	581
		% within DISC Discipline Division	45.1%	54.9%	100.0%

Connectivity

Internet

Students' use and satisfaction with connectivity were assessed in 2003. Students were asked if they had used their campus access to the Internet including the world wide web. Over four-fifths (83.4%) of the students reported using campus e-mail services or access to the Internet.

Class level was related to the likelihood that a student used their campus network access to the Internet ($p < .001$). Table 35a shows that post baccalaureate students were more likely than other students to use campus Internet access.

Table 35a: Uses Campus Network to Access the Internet from Campus by Class Level.

			Q4B1A1 Uses Campus Network to Access the Internet and World Wide Web While on Campus		
			0 No	1 Yes	Total
CLLEVEL Class Level	1 Lower Division	Count	117	805	922
		% within CLLEVEL Class Level	12.7%	87.3%	100.0%
	2 Upper Division	Count	216	1376	1592
		% within CLLEVEL Class Level	13.6%	86.4%	100.0%
	3 Post Baccalaureate	Count	189	446	635
		% within CLLEVEL Class Level	29.8%	70.2%	100.0%
Total		Count	522	2627	3149
		% within CLLEVEL Class Level	16.6%	83.4%	100.0%

Use of the campus network to gain Internet access was examined by discipline. As Table 35b shows, use of campus access to the Internet varied by discipline ($p < .001$). Most notably, education students were less likely to use campus access to the Internet than other students. Further, humanities students were somewhat less likely to use their campus access to the Internet, while science and math students were much more likely to do so.

Table 35b: Uses Campus Network to Access the Internet from Campus by Discipline.

		Q4B1A1 Uses Campus Network to Access the Internet and World Wide Web While on Campus			
		0 No	1 Yes	Total	
DISC Discipline Division	1 Art	Count	22	111	133
		% within Discipline	16.5%	83.5%	100.0%
	2 Business	Count	60	387	447
		% within Discipline	13.4%	86.6%	100.0%
	3 Education	Count	65	166	231
		% within Discipline	28.1%	71.9%	100.0%
	4 Engineering/Computer Science	Count	33	249	282
		% within Discipline	11.7%	88.3%	100.0%
	5 Humanities	Count	34	125	159
		% within Discipline	21.4%	78.6%	100.0%
	6 Science & Math	Count	13	162	175
		% within Discipline	7.4%	92.6%	100.0%
	7 Behavioral/Social Sciences	Count	105	568	673
		% within Discipline	15.6%	84.4%	100.0%
	8 Professional/Technical	Count	38	163	201
		% within Discipline	18.9%	81.1%	100.0%
	9 Undeclared	Count	85	427	512
		% within Discipline	16.6%	83.4%	100.0%
	10 Interdisciplinary Studies	Count	67	269	336
		% within Discipline	19.9%	80.1%	100.0%
Total		Count	522	2627	3149
		% within Discipline	16.6%	83.4%	100.0%

Students acknowledging that they had used their campus access to the Internet were asked about how satisfied they were with this access. An average satisfaction rating of 8.48 in 2003 indicates that students were quite satisfied.

Average satisfaction with Internet access ratings are displayed in Table 36a by class level. This table shows there were no differences by class level.

Table 36a: Satisfaction with Campus Network Access by Class Level.

Q4B1B1 Satisfaction with Campus Network to Access the Internet While on Campus

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	805	8.54	1.574	0	10
2 Upper Division	1376	8.50	1.718	0	10
3 Post Baccalaureate	445	8.31	1.924	0	10
Total	2626	8.48	1.714	0	10

There were differences in satisfaction with campus Internet access by students from different academic disciplines. That is, students in engineering and computer science were less satisfied than were students in education ($p < .01$), interdisciplinary studies ($p < .05$), and behavioral and social sciences ($p < .05$). These differences are shown in Table 36b.

Table 36b: Satisfaction with Campus Network Access by Discipline.

Q4B1B1 Satisfaction with Campus Network to Access the Internet While on Campus

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	111	8.47	1.470	3	10
2 Business	387	8.47	1.684	1	10
3 Education	166	8.75	1.378	2	10
4 Engineering/Computer Science	249	8.11	2.010	0	10
5 Humanities	125	8.44	1.552	2	10
6 Science & Math	162	8.46	1.657	3	10
7 Behavioral/Social Sciences	568	8.54	1.726	0	10
8 Professional/Technical	162	8.50	1.676	2	10
9 Undeclared	427	8.46	1.778	0	10
10 Interdisciplinary Studies	269	8.61	1.708	0	10
Total	2626	8.48	1.714	0	10

Students were asked about the use of their campus-provided e-mail accounts. Just over half (52.6%) of the students said that they did use their campus-provided e-mail accounts. The likelihood of using their campus e-mail varied by class level ($p < .001$). Specifically, as Table 37a indicates, post-baccalaureate students were considerably less likely than undergraduates to use their campus e-mail accounts.

Table 37a: Uses Campus Provided E-Mail Account by Class Level.

		Q4B2A1 Uses Campus Provided E-Mail Account			
		0 No	1 Yes	Total	
CLLEVEL Class Level	1 Lower Division	Count	380	544	924
		% within CLLEVEL Class Level	41.1%	58.9%	100.0%
	2 Upper Division	Count	727	867	1594
		% within CLLEVEL Class Level	45.6%	54.4%	100.0%
	3 Post Baccalaureate	Count	387	248	635
		% within CLLEVEL Class Level	60.9%	39.1%	100.0%
Total		Count	1494	1659	3153
		% within CLLEVEL Class Level	47.4%	52.6%	100.0%

Use of their campus-provided e-mail account also differed for students in different disciplines ($p < .001$). Table 37b shows that engineering and computer science students, as well as professional and technical students, and science and math students were more likely to use their campus e-mail

accounts than were other students. Further, education students were less likely than other students to use their campus-provided e-mail.

Table 37b: Uses Campus Provided E-Mail Account by Discipline.

		Q4B2A1 Uses Campus Provided E-Mail Account			
		0 No	1 Yes	Total	
DISC Discipline Division	1 Art	Count	66	67	133
		% within DISC Discipline Division	49.6%	50.4%	100.0%
	2 Business	Count	226	221	447
		% within DISC Discipline Division	50.6%	49.4%	100.0%
	3 Education	Count	136	95	231
		% within DISC Discipline Division	58.9%	41.1%	100.0%
	4 Engineering/Computer Science	Count	105	177	282
		% within DISC Discipline Division	37.2%	62.8%	100.0%
	5 Humanities	Count	73	87	160
		% within DISC Discipline Division	45.6%	54.4%	100.0%
	6 Science & Math	Count	74	101	175
		% within DISC Discipline Division	42.3%	57.7%	100.0%
	7 Behavioral/Social Sciences	Count	313	362	675
		% within DISC Discipline Division	46.4%	53.6%	100.0%
	8 Professional/Technical	Count	83	118	201
		% within DISC Discipline Division	41.3%	58.7%	100.0%
	9 Undeclared	Count	265	248	513
		% within DISC Discipline Division	51.7%	48.3%	100.0%
	10 Interdisciplinary Studies	Count	153	183	336
		% within DISC Discipline Division	45.5%	54.5%	100.0%
Total		Count	1494	1659	3153
		% within DISC Discipline Division	47.4%	52.6%	100.0%

Those making use of their campus-provided e-mail accounts were asked how satisfied they were with their access to campus e-mail services. Overall, students were quite satisfied with their access to campus e-mail services, as indicated by an average satisfaction rating of 8.02. Table 38a shows that there were differences in satisfaction ratings by class level. Post-baccalaureate students were less satisfied with campus e-mail services than were lower-division ($p < .001$) and upper-division students ($p < .05$).

Table 38a: Satisfaction with Access to Campus E-mail Services by Class Level.

Q4B2B Satisfaction with Access to Campus E-Mail Services

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	543	8.24	1.977	0	10
2 Upper Division	863	8.02	2.255	0	10
3 Post Baccalaureate	246	7.57	2.481	0	10
Total	1652	8.02	2.213	0	10

Table 38b shows the average satisfaction ratings for students in different disciplines. The table demonstrates that there were no significant differences in satisfaction with campus e-mail services by discipline.

Table 38b: Satisfaction with Access to Campus E-mail Services by Discipline.

Q4B2B Satisfaction with Access to Campus E-Mail Services

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	67	8.18	2.146	0	10
2 Business	219	8.07	2.054	1	10
3 Education	95	8.07	2.242	1	10
4 Engineering/Computer Science	177	7.72	2.179	1	10
5 Humanities	87	7.63	2.677	0	10
6 Science & Math	100	8.26	2.063	3	10
7 Behavioral/Social Sciences	360	8.11	2.249	0	10
8 Professional/Technical	118	7.81	2.296	0	10
9 Undeclared	247	7.97	2.265	0	10
10 Interdisciplinary Studies	182	8.30	2.052	1	10
Total	1652	8.02	2.213	0	10

In 2003, students were asked if they used their campus network from off campus using a modem, cable, DSL, or ISDN. About three quarters (73.7%) of the students had accessed their campus network from off campus using one of these means. Table 39a shows that there were no differences in use of the campus network from off campus between students at different class levels.

Table 39a: Uses Campus Network from Off-Campus, Using a Modem, Cable, DSL, or ISDN by Class Level.

		Q4B3A Uses Campus Network from Off-Campus, Using a Modem, Cable, DSL, or ISDN			
		0 No	1 Yes	Total	
CLLEVEL Class Level	1 Lower Division	Count	260	659	919
		% within CLLEVEL Class Level	28.3%	71.7%	100.0%
	2 Upper Division	Count	395	1193	1588
		% within CLLEVEL Class Level	24.9%	75.1%	100.0%
	3 Post Baccalaureate	Count	172	463	635
		% within CLLEVEL Class Level	27.1%	72.9%	100.0%
Total		Count	827	2315	3142
		% within CLLEVEL Class Level	26.3%	73.7%	100.0%

The students in different disciplines reported similar likelihoods of using their campus network by any of these modes from off campus. This is illustrated in Table 39b.

Table 39b: Uses Campus Network from Off-Campus, Using a Modem, Cable, DSL, or ISDN by Discipline.

		Q4B3A Uses Campus Network from Off-Campus, Using a Modem, Cable, DSL, or ISDN			
			0 No	1 Yes	Total
DISC Discipline Division	1 Art	Count	38	95	133
		% within DISC Discipline Division	28.6%	71.4%	100.0%
	2 Business	Count	119	328	447
		% within DISC Discipline Division	26.6%	73.4%	100.0%
	3 Education	Count	64	167	231
		% within DISC Discipline Division	27.7%	72.3%	100.0%
	4 Engineering/Computer Science	Count	86	195	281
		% within DISC Discipline Division	30.6%	69.4%	100.0%
	5 Humanities	Count	35	122	157
		% within DISC Discipline Division	22.3%	77.7%	100.0%
	6 Science & Math	Count	42	132	174
		% within DISC Discipline Division	24.1%	75.9%	100.0%
	7 Behavioral/Social Sciences	Count	173	499	672
		% within DISC Discipline Division	25.7%	74.3%	100.0%
	8 Professional/Technical	Count	47	154	201
		% within DISC Discipline Division	23.4%	76.6%	100.0%
	9 Undeclared	Count	138	372	510
		% within DISC Discipline Division	27.1%	72.9%	100.0%
	10 Interdisciplinary Studies	Count	85	251	336
		% within DISC Discipline Division	25.3%	74.7%	100.0%
Total		Count	827	2315	3142
		% within DISC Discipline Division	26.3%	73.7%	100.0%

The students who had accessed their campus network from off campus were asked if they had done so using a dial-in modem. Nearly two-thirds (64.6%) of these students had connected to their campus network using a dial-in modem. Table 40a shows by class level the likelihood of students connecting to their campus network using a dial-in modem. There was some variability the likelihood of connecting by dial-in modem by class level ($p < .05$). Lower-division students were less likely than other students to use a dial-in modem to connect to their campus network.

Table 40a: Uses Campus Network from Off-Campus, Using a Dial-in Modem by Class Level.

		Q4B3A1 Uses Campus Network from Off-Campus, Using a Dial-in Modem			
		0 No	1 Yes	Total	
CLLEVEL Class Level	1 Lower Division	Count	259	396	655
		% within CLLEVEL Class Level	39.5%	60.5%	100.0%
	2 Upper Division	Count	407	778	1185
		% within CLLEVEL Class Level	34.3%	65.7%	100.0%
	3 Post Baccalaureate	Count	148	309	457
		% within CLLEVEL Class Level	32.4%	67.6%	100.0%
Total		Count	814	1483	2297
		% within CLLEVEL Class Level	35.4%	64.6%	100.0%

Table 40b displays the percentages of students in different disciplines that accessed their campus network using a dial-in modem. Students in different disciplines did not differ in this regard.

Table 40b: Uses Campus Network from Off-Campus, Using a Dial-in Modem by Discipline.

		Q4B3A1 Uses Campus Network from Off-Campus, Using a Dial-in Modem			
		0 No	1 Yes	Total	
DISC Discipline Division	1 Art	Count	35	60	95
		% within DISC Discipline Division	36.8%	63.2%	100.0%
	2 Business	Count	132	196	328
		% within DISC Discipline Division	40.2%	59.8%	100.0%
	3 Education	Count	58	107	165
		% within DISC Discipline Division	35.2%	64.8%	100.0%
	4 Engineering/Computer Science	Count	77	115	192
		% within DISC Discipline Division	40.1%	59.9%	100.0%
	5 Humanities	Count	43	76	119
		% within DISC Discipline Division	36.1%	63.9%	100.0%
	6 Science & Math	Count	42	90	132
		% within DISC Discipline Division	31.8%	68.2%	100.0%
	7 Behavioral/Social Sciences	Count	163	332	495
		% within DISC Discipline Division	32.9%	67.1%	100.0%
	8 Professional/Technical	Count	53	99	152
		% within DISC Discipline Division	34.9%	65.1%	100.0%
	9 Undeclared	Count	133	236	369
		% within DISC Discipline Division	36.0%	64.0%	100.0%
	10 Interdisciplinary Studies	Count	78	172	250
		% within DISC Discipline Division	31.2%	68.8%	100.0%
Total		Count	814	1483	2297
		% within DISC Discipline Division	35.4%	64.6%	100.0%

Students who had accessed their campus network from off campus using a dial-in modem were asked how satisfied they were using a dial-in modem to connect to the network from off campus. For the most part, students using a dial-in modem to connect to the campus network were satisfied, as evidenced by an average satisfaction rating of 7.43. Satisfaction did not vary by class level, as can be seen in Table 41a.

Table 41a: Satisfaction with Access to Campus Network Using a Dial-in Modem by Class Level.

Q4B3B1 Satisfaction with Campus Network from Off-Campus, Using a Dial-in Modem

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	396	7.49	2.081	0	10
2 Upper Division	777	7.44	2.173	0	10
3 Post Baccalaureate	309	7.36	2.339	0	10
Total	1482	7.43	2.184	0	10

Table 41b shows the average satisfaction ratings with connecting to the campus network by modem for students in each discipline. As the table shows, these ratings were consistent across academic disciplines.

Table 41b: Satisfaction with Access to Campus Network Using a Dial-in Modem by Discipline.

Q4B3B1 Satisfaction with Campus Network from Off-Campus, Using a Dial-in Modem

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	60	7.40	1.942	3	10
2 Business	196	7.42	2.085	0	10
3 Education	107	7.47	2.263	0	10
4 Engineering/Computer Science	115	7.10	2.271	0	10
5 Humanities	76	7.18	2.237	0	10
6 Science & Math	90	7.51	1.967	1	10
7 Behavioral/Social Sciences	332	7.43	2.339	0	10
8 Professional/Technical	99	7.62	2.044	0	10
9 Undeclared	236	7.53	2.117	1	10
10 Interdisciplinary Studies	171	7.51	2.229	0	10
Total	1482	7.43	2.184	0	10

Students saying they connected to their campus network from off campus were also asked if they connected to the network using a cable modem. Over a third (37.4%) of the students said they had connect to campus by cable modem. Table 42a shows there is no difference by class level in the likelihood of connecting to the campus network using a cable modem.

Table 42a: Uses Campus Network from Off-Campus Using a Cable Modem by Class Level.

			Q4B3A2 Uses Campus Network from Off-Campus, Using a Cable Modem		
			0 No	1 Yes	Total
CLLEVEL Class Level	1 Lower Division	Count	409	246	655
		% within CLLEVEL Class Level	62.4%	37.6%	100.0%
	2 Upper Division	Count	720	461	1181
		% within CLLEVEL Class Level	61.0%	39.0%	100.0%
	3 Post Baccalaureate	Count	306	150	456
		% within CLLEVEL Class Level	67.1%	32.9%	100.0%
Total		Count	1435	857	2292
		% within CLLEVEL Class Level	62.6%	37.4%	100.0%

The likelihood of connecting to the campus network using a cable modem is displayed by discipline in Table 42b. Connecting to the campus network using a cable modem did not vary by discipline.

Table 42b: Uses Campus Network from Off-Campus Using a Cable Modem by Discipline.

		Q4B3A2 Uses Campus Network from Off-Campus, Using a Cable Modem			
		0 No	1 Yes	Total	
DISC Discipline Division	1 Art	Count	64	31	95
		% within DISC Discipline Division	67.4%	32.6%	100.0%
	2 Business	Count	187	141	328
		% within DISC Discipline Division	57.0%	43.0%	100.0%
	3 Education	Count	104	60	164
		% within DISC Discipline Division	63.4%	36.6%	100.0%
	4 Engineering/Computer Science	Count	111	82	193
		% within DISC Discipline Division	57.5%	42.5%	100.0%
	5 Humanities	Count	70	50	120
		% within DISC Discipline Division	58.3%	41.7%	100.0%
	6 Science & Math	Count	76	53	129
		% within DISC Discipline Division	58.9%	41.1%	100.0%
	7 Behavioral/Social Sciences	Count	318	175	493
		% within DISC Discipline Division	64.5%	35.5%	100.0%
	8 Professional/Technical	Count	93	58	151
		% within DISC Discipline Division	61.6%	38.4%	100.0%
	9 Undeclared	Count	249	120	369
		% within DISC Discipline Division	67.5%	32.5%	100.0%
	10 Interdisciplinary Studies	Count	163	87	250
		% within DISC Discipline Division	65.2%	34.8%	100.0%
Total		Count	1435	857	2292
		% within DISC Discipline Division	62.6%	37.4%	100.0%

In general, students connecting to the campus network by cable modem were satisfied with their access to the campus network. Their average satisfaction rating was 8.23. Table 43a shows that the satisfaction of students with using a cable modem connect to the campus network was consistent across class levels.

Table 43a: Satisfaction with Access to Campus Network Using a Cable Modem by Class Level.

Q4B3B2 Satisfaction with Campus Network from Off-Campus, Using a Cable Modem

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	246	8.32	1.795	0	10
2 Upper Division	461	8.29	1.746	0	10
3 Post Baccalaureate	150	7.94	2.083	0	10
Total	857	8.23	1.826	0	10

There was also consistency in the satisfaction levels of students in different disciplines. This is seen in Table 43b.

Table 43b: Satisfaction with Access to Campus Network Using a Cable Modem by Discipline.

Q4B3B2 Satisfaction with Campus Network from Off-Campus, Using a Cable Modem

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	31	8.77	1.023	7	10
2 Business	141	8.41	1.545	3	10
3 Education	60	8.07	2.007	2	10
4 Engineering/Computer Science	82	8.13	1.838	1	10
5 Humanities	50	7.74	2.008	0	10
6 Science & Math	53	8.43	1.658	4	10
7 Behavioral/Social Sciences	175	8.14	1.960	0	10
8 Professional/Technical	58	8.76	1.342	3	10
9 Undeclared	120	7.96	2.072	0	10
10 Interdisciplinary Studies	87	8.36	1.855	1	10
Total	857	8.23	1.826	0	10

Those accessing their campus network from off campus were asked if they connected using DSL. A third (33.4%) of the students reported using DSL to connect to their campus network. This varied depending on class level ($p < .05$). As Table 44a shows, the more advanced the student in terms of class level, the less likely they were to use DSL to connect to their campus network.

Table 44a: Uses Campus Network from Off-Campus, Using DSL by Class Level.

			Q4B3A3 Uses Campus Network from Off-Campus, Using DSL		Total
			0 No	1 Yes	
CLLEVEL Class Level	1 Lower Division	Count	414	243	657
		% within CLLEVEL Class Level	63.0%	37.0%	100.0%
	2 Upper Division	Count	788	395	1183
		% within CLLEVEL Class Level	66.6%	33.4%	100.0%
	3 Post Baccalaureate	Count	326	130	456
		% within CLLEVEL Class Level	71.5%	28.5%	100.0%
Total	Count		1528	768	2296
	% within CLLEVEL Class Level		66.6%	33.4%	100.0%

Table 44b shows the percentage of students in different disciplines that connect to their campus network by DSL. A review of the table reveals no statistically significant differences in the percentage of students using DSL by discipline.

Table 44b: Uses Campus Network from Off-Campus, Using DSL by Discipline.

		Q4B3A3 Uses Campus Network from Off-Campus, Using DSL			
		0 No	1 Yes	Total	
DISC Discipline Division	1 Art	Count	66	29	95
		% within DISC Discipline Division	69.5%	30.5%	100.0%
	2 Business	Count	205	121	326
		% within DISC Discipline Division	62.9%	37.1%	100.0%
	3 Education	Count	115	50	165
		% within DISC Discipline Division	69.7%	30.3%	100.0%
	4 Engineering/Computer Science	Count	129	64	193
		% within DISC Discipline Division	66.8%	33.2%	100.0%
	5 Humanities	Count	72	48	120
		% within DISC Discipline Division	60.0%	40.0%	100.0%
	6 Science & Math	Count	92	39	131
		% within DISC Discipline Division	70.2%	29.8%	100.0%
	7 Behavioral/Social Sciences	Count	320	174	494
		% within DISC Discipline Division	64.8%	35.2%	100.0%
	8 Professional/Technical	Count	102	51	153
		% within DISC Discipline Division	66.7%	33.3%	100.0%
	9 Undeclared	Count	257	112	369
		% within DISC Discipline Division	69.6%	30.4%	100.0%
	10 Interdisciplinary Studies	Count	170	80	250
		% within DISC Discipline Division	68.0%	32.0%	100.0%
Total		Count	1528	768	2296
		% within DISC Discipline Division	66.6%	33.4%	100.0%

Students using DSL to connect to campus were asked about their satisfaction with doing so. These students were quite satisfied, as evidenced by the average satisfaction rating of 8.51. As Table 45a shows, the students' satisfaction with connecting to campus by DSL was consistent across class levels.

Table 45a: Satisfaction with Accessing the Campus Network Using DSL by Class Level.

Q4B3B3 Satisfaction with Campus Network from Off-Campus, Using DSL

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	243	8.67	1.613	0	10
2 Upper Division	395	8.44	1.752	0	10
3 Post Baccalaureate	129	8.39	1.808	0	10
Total	767	8.51	1.721	0	10

Satisfaction with connecting to campus by using DSL was examined by discipline. There were no differences by discipline in the students' satisfaction with connecting to their campus network using DSL. The satisfaction ratings by discipline are found in Table 45b.

Table 45b: Satisfaction with Accessing the Campus Network Using DSL by Discipline.

Q4B3B3 Satisfaction with Campus Network from Off-Campus, Using DSL

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	29	8.86	1.217	6	10
2 Business	121	8.55	1.658	2	10
3 Education	50	8.50	1.632	2	10
4 Engineering/Computer Science	64	8.23	1.892	0	10
5 Humanities	48	8.40	1.783	2	10
6 Science & Math	39	8.56	1.635	2	10
7 Behavioral/Social Sciences	174	8.39	1.873	0	10
8 Professional/Technical	50	8.72	1.841	0	10
9 Undeclared	112	8.62	1.538	4	10
10 Interdisciplinary Studies	80	8.54	1.735	1	10
Total	767	8.51	1.721	0	10

Students connecting to their campus network from off campus were asked if they used an ISDN line. Only five percent of the students reported using ISDN to connect to their campus network. As Table 46 shows, there was no difference in use of ISDN to connect to campus by class level. There were too few cases using ISDN to break down by discipline.

Table 46: Uses Campus Network Using ISDN by Class Level.

			Q4B3A4 Uses Campus Network from Off-Campus, Using ISDN		
			0 No	1 Yes	Total
CLLEVEL Class Level	1 Lower Division	Count	617	30	647
		% within CLLEVEL Class Level	95.4%	4.6%	100.0%
	2 Upper Division	Count	1115	58	1173
		% within CLLEVEL Class Level	95.1%	4.9%	100.0%
	3 Post Baccalaureate	Count	420	26	446
		% within CLLEVEL Class Level	94.2%	5.8%	100.0%
Total		Count	2152	114	2266
		% within CLLEVEL Class Level	95.0%	5.0%	100.0%

The students reporting use of ISDN lines to connect to their campus network expressed a high degree of satisfaction, offering an average satisfaction rating of 8.03. However, as Table 47 makes clear, satisfaction with connecting to campus by ISDN was not contingent on class level.

Table 47: Satisfaction with Accessing the Campus Network Using ISDN.

Q4B3B4 Satisfaction with Campus Network from Off-Campus, Using ISDN

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	30	7.93	2.083	0	10
2 Upper Division	58	8.00	2.052	2	10
3 Post Baccalaureate	26	8.19	1.721	3	10
Total	114	8.03	1.975	0	10

Online Resources

Students were asked about their use of and satisfaction with online resources. Specifically, they were asked if they used electronic information resources such as online interlibrary loan, online database searches, or online catalogs. Year of administration was related to the likelihood of using online information resources ($p < .01$). This is seen in Table 48a. While 81.8 percent of students in 2001 used online information resources, this rose to 84.4 percent in 2003.

Table 48a: Uses Electronic Information Resources by Year.

				Q1D1 Uses Electronic Information Resources		
				0 No	1 Yes	Total
ADMIN Administration	1	2001	Count	580	2609	3189
			% within ADMIN Administration	18.2%	81.8%	100.0%
	2	2003	Count	491	2651	3142
			% within ADMIN Administration	15.6%	84.4%	100.0%
Total			Count	1071	5260	6331
			% within ADMIN Administration	16.9%	83.1%	100.0%

The likelihood that students reported using online information resources varied by class level ($p < .001$). Table 48b shows that post baccalaureate students were less likely to use electronic information resources than were the other students.

Table 48b: Uses Electronic Information Resources by Class Level.

			Q1D1 Uses Electronic Information Resources		Total
			0 No	1 Yes	
CLLEVEL Class Level	1 Lower Division	Count	141	779	920
		% within CLLEVEL Class Level	15.3%	84.7%	100.0%
	2 Upper Division	Count	208	1383	1591
		% within CLLEVEL Class Level	13.1%	86.9%	100.0%
	3 Post Baccalaureate	Count	142	489	631
		% within CLLEVEL Class Level	22.5%	77.5%	100.0%
Total		Count	491	2651	3142
		% within CLLEVEL Class Level	15.6%	84.4%	100.0%

The likelihood of using online information resources also depended on discipline. This is illustrated in Table 48c. Humanities and professional/technical students were more likely to use online information resources than were other students, and engineering and computer science students were less likely to do so.

Table 48c: Uses Electronic Information Resources by Discipline.

		Q1D1 Uses Electronic Information Resources		Total	
		0 No	1 Yes		
DISC Discipline Division	1 Art	Count	21	112	133
		% within DISC Discipline Division	15.8%	84.2%	100.0%
	2 Business	Count	68	379	447
		% within DISC Discipline Division	15.2%	84.8%	100.0%
	3 Education	Count	41	189	230
		% within DISC Discipline Division	17.8%	82.2%	100.0%
	4 Engineering/Computer Science	Count	63	219	282
		% within DISC Discipline Division	22.3%	77.7%	100.0%
	5 Humanities	Count	15	145	160
		% within DISC Discipline Division	9.4%	90.6%	100.0%
	6 Science & Math	Count	23	151	174
		% within DISC Discipline Division	13.2%	86.8%	100.0%
	7 Behavioral/Social Sciences	Count	83	590	673
		% within DISC Discipline Division	12.3%	87.7%	100.0%
	8 Professional/Technical	Count	19	180	199
		% within DISC Discipline Division	9.5%	90.5%	100.0%
	9 Undeclared	Count	95	413	508
		% within DISC Discipline Division	18.7%	81.3%	100.0%
	10 Interdisciplinary Studies	Count	63	273	336
		% within DISC Discipline Division	18.8%	81.3%	100.0%
Total		Count	491	2651	3142
		% within DISC Discipline Division	15.6%	84.4%	100.0%

Students who said that they had used online information resources were asked about their satisfaction with the *quality* of the online information resources. On the zero-to-ten satisfaction scale, the average rating in 2003 was 7.93. As Table 49a shows, this is a slight increase from 2001 ($p < .05$).

Table 49a: Satisfaction with the Quality of Electronic Information Resources by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q1D1A Satisfaction with Quality of the Electronic Information Resources	1 2001	2602	7.81	1.697
	2 2003	2641	7.93	1.687

Students' ratings of satisfaction with the quality of the online information resources were very consistent across class level. This is seen in Table 49b.

Table 49b: Satisfaction with the Quality of Electronic Information Resources by Class Level.

Q1D1A Satisfaction with Quality of the Electronic Information Resources

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	776	7.97	1.644	0	10
2 Upper Division	1380	7.91	1.714	0	10
3 Post Baccalaureate	485	7.93	1.679	0	10
Total	2641	7.93	1.687	0	10

Similarly, the quality of the online information resources was rated consistently by students across academic disciplines. Table 49c illustrates this point.

Table 49c: Satisfaction with the Quality of Electronic Information Resources by Discipline.

Q1D1A Satisfaction with Quality of the Electronic Information Resources

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	112	7.79	1.852	0	10
2 Business	378	7.98	1.679	0	10
3 Education	187	7.92	1.719	2	10
4 Engineering/Computer Science	219	7.83	1.534	4	10
5 Humanities	144	7.87	1.703	1	10
6 Science & Math	150	7.99	1.618	3	10
7 Behavioral/Social Sciences	590	7.99	1.760	0	10
8 Professional/Technical	180	7.89	1.613	2	10
9 Undeclared	411	7.84	1.717	0	10
10 Interdisciplinary Studies	270	8.08	1.592	2	10
Total	2641	7.93	1.687	0	10

Those who used online information resources were also asked about their satisfaction with the *ease of use* of the online information resources available through their campus library. The average satisfaction rating with the ease of use of information in 2003 was 7.75, indicating that students were rather satisfied. This represents a slight increase over the 7.59 rating in 2001 ($p < .01$), as shown in Table 50a.

Table 50a: Satisfaction with the Ease of Use of the Electronic Information Resources by Year

	ADMIN Administration	N	Mean	Std. Deviation
Q1D1C Satisfaction with Ease of Use of Electronic Library Resources through the Campus Library	1 2001	2597	7.59	1.849
	2 2003	2640	7.75	1.769

The students' level of satisfaction with the ease of use of the online information resources did not vary by class level. The students' average level of satisfaction by class level is shown in Table 50b.

Table 50b: Satisfaction with the Ease of Use of the Electronic Information Resources by class Level.

Q1D1C Satisfaction with Ease of Use of the Electronic Library Resources through the Campus Library

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	774	7.75	1.725	0	10
2 Upper Division	1381	7.78	1.773	0	10
3 Post Baccalaureate	485	7.65	1.827	1	10
Total	2640	7.75	1.769	0	10

Academic discipline was also unrelated to students' satisfaction with the ease of use of the online information resources. As Table 50c shows, satisfaction was high for students in all disciplines.

Table 50c: Satisfaction with the Ease of Use of the Electronic Information Resources by Discipline.

Q1D1C Satisfaction with Ease of Use of the Electronic Library Resources through the Campus Library

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	111	7.65	1.891	1	10
2 Business	379	7.79	1.721	0	10
3 Education	187	7.54	1.767	1	10
4 Engineering/Computer Science	218	7.64	1.646	1	10
5 Humanities	144	7.60	1.966	0	10
6 Science & Math	151	7.99	1.653	3	10
7 Behavioral/Social Sciences	589	7.74	1.853	0	10
8 Professional/Technical	180	7.76	1.656	2	10
9 Undeclared	410	7.75	1.792	0	10
10 Interdisciplinary Studies	271	7.91	1.679	2	10
Total	2640	7.75	1.769	0	10

Administrative Information Systems

Students were asked if they used their campus online information system to get information about registration. Most (85.8%) of the students in 2003 reported using their campus online information system to access information about registration. This is a dramatic increase over the percentage of students gaining registration information online in 2001 ($p < .001$). This is seen in Table 51a.

Table 51a: Uses Campus Online Information Systems to Get Information about Registration by Year.

				Q3A2A Uses Campus Online Information Systems to Get Information about Registration		Total
				0 No	1 Yes	
ADMIN Administration	1	2001	Count	1059	2135	3194
			% within ADMIN Administration	33.2%	66.8%	100.0%
	2	2003	Count	447	2700	3147
			% within ADMIN Administration	14.2%	85.8%	100.0%
Total			Count	1506	4835	6341
			% within ADMIN Administration	23.8%	76.2%	100.0%

The likelihood that students accessed information about registration online is displayed by class level in Table 51b. This table shows that there was no relationship between class level and the likelihood of using the campus online information system to get information about registration.

Table 51b: Uses Campus Online Information Systems to Get Information about Registration by Class Level.

			Q3A2A Uses Campus Online Information Systems to Get Information about Registration		
			0 No	1 Yes	Total
CLLEVEL Class Level	1 Lower Division	Count	130	792	922
		% within CLLEVEL Class Level	14.1%	85.9%	100.0%
	2 Upper Division	Count	210	1378	1588
		% within CLLEVEL Class Level	13.2%	86.8%	100.0%
	3 Post Baccalaureate	Count	107	530	637
		% within CLLEVEL Class Level	16.8%	83.2%	100.0%
Total	Count		447	2700	3147
	% within CLLEVEL Class Level		14.2%	85.8%	100.0%

The likelihood that students accessed registration information online did vary by discipline ($p < .01$). Most notably, students in humanities were less likely than others to use campus online information systems to get information about registration than were other students. This is seen in Table 51c.

Table 51c: Uses Campus Online Information Systems to Get Information about Registration by Discipline.

			Q3A2A Uses Campus Online Information Systems to Get Information about Registration		Total
			0 No	1 Yes	
DISC Discipline Division	1 Art	Count	21	111	132
		% within DISC Discipline Division	15.9%	84.1%	100.0%
	2 Business	Count	60	388	448
		% within DISC Discipline Division	13.4%	86.6%	100.0%
	3 Education	Count	42	189	231
		% within DISC Discipline Division	18.2%	81.8%	100.0%
	4 Engineering/Computer Science	Count	29	252	281
		% within DISC Discipline Division	10.3%	89.7%	100.0%
	5 Humanities	Count	37	123	160
		% within DISC Discipline Division	23.1%	76.9%	100.0%
	6 Science & Math	Count	30	145	175
		% within DISC Discipline Division	17.1%	82.9%	100.0%
	7 Behavioral/Social Sciences	Count	107	565	672
		% within DISC Discipline Division	15.9%	84.1%	100.0%
	8 Professional/Technical	Count	17	183	200
		% within DISC Discipline Division	8.5%	91.5%	100.0%
	9 Undeclared	Count	59	453	512
		% within DISC Discipline Division	11.5%	88.5%	100.0%
	10 Interdisciplinary Studies	Count	45	291	336
		% within DISC Discipline Division	13.4%	86.6%	100.0%
Total		Count	447	2700	3147
		% within DISC Discipline Division	14.2%	85.8%	100.0%

Those who reported using their campus online information system were asked how satisfied they were with their online access to information about registration. Respondents were quite satisfied in 2003, giving an average satisfaction rating of 8.10. As Table 52a shows, though, this does represent a small decrease in satisfaction from 2001 ($p < .01$).

Table 52a: Satisfaction with Online Access to Registration Information by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q3A2B Satisfaction with Online Access to Information about Registration	1 2001	2134	8.26	1.850
	2 2003	2698	8.10	2.075

The level of satisfaction with online access to information about registration was qualified by class level. That is, upper-division students were more satisfied than were post-baccalaureate students. This is illustrated in Table 52b.

Table 52b: Satisfaction with Online Access to Registration Information by Class Level.

Q3A2B Satisfaction with Online Access to Information about Registration

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	791	8.09	1.968	0	10
2 Upper Division	1378	8.20	2.011	0	10
3 Post Baccalaureate	529	7.84	2.357	0	10
Total	2698	8.10	2.075	0	10

Table 52c shows the average satisfaction levels with online access to information about registration. The table shows that satisfaction with access to online registration information did not depend on academic discipline.

Table 52c: Satisfaction with Online Access to Registration Information by Discipline.

Q3A2B Satisfaction with Online Access to Information about Registration

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	110	7.92	2.059	2	10
2 Business	388	8.11	1.995	0	10
3 Education	189	8.16	1.997	0	10
4 Engineering/Computer Science	252	8.00	2.151	0	10
5 Humanities	123	8.15	1.906	0	10
6 Science & Math	145	8.06	2.261	0	10
7 Behavioral/Social Sciences	564	8.12	2.046	0	10
8 Professional/Technical	183	8.28	2.050	0	10
9 Undeclared	453	8.08	2.100	0	10
10 Interdisciplinary Studies	291	8.05	2.184	0	10
Total	2698	8.10	2.075	0	10

Students were also asked about use of their campus online information system to get information about grades. In 2003, 87.9 percent of the students used their campus online information system to get information about grades. This is a sizable increase over the 71.0 percent that accessed their grades online in 2001 ($p < .001$). This is revealed in Table 53a.

Table 53a: Uses Campus Online Information Systems to Get Information about Grades by Year.

				Q3A3A Uses Campus Online Information Systems to Get Information about Grades		
				0 No	1 Yes	Total
ADMIN Administration	1	2001	Count	925	2269	3194
			% within ADMIN Administration	29.0%	71.0%	100.0%
	2	2003	Count	382	2766	3148
			% within ADMIN Administration	12.1%	87.9%	100.0%
Total			Count	1307	5035	6342
			% within ADMIN Administration	20.6%	79.4%	100.0%

The likelihood that students used their campus online information system to get information about grades varied by class level in 2003 ($p < .001$), as Table 53b demonstrates. Post-baccalaureate students were significantly less likely to access their grades online than were undergraduates.

Table 53b: Uses Campus Online Information Systems to Get Information about Grades by Class Level.

			Q3A3A Uses Campus Online Information Systems to Get Information about Grades		
			0 No	1 Yes	Total
CLLEVEL Class Level	1 Lower Division	Count	94	829	923
		% within CLLEVEL Class Level	10.2%	89.8%	100.0%
	2 Upper Division	Count	160	1428	1588
		% within CLLEVEL Class Level	10.1%	89.9%	100.0%
	3 Post Baccalaureate	Count	128	509	637
		% within CLLEVEL Class Level	20.1%	79.9%	100.0%
Total	Count		382	2766	3148
	% within CLLEVEL Class Level		12.1%	87.9%	100.0%

Table 53c shows the percentage of students that reported accessing grade information using their campus online information system in 2003. The table shows that accessing grade information varied by discipline. Education students were the least likely to use their campus online information system to access grades.

Table 53c: Uses Campus Online Information Systems to Get Information about Grades by Discipline.

		Q3A3A Uses Campus Online Information Systems to Get Information about Grades			
		0 No	1 Yes	Total	
DISC Discipline Division	1 Art	Count	17	116	133
		% within DISC Discipline Division	12.8%	87.2%	100.0%
	2 Business	Count	54	393	447
		% within DISC Discipline Division	12.1%	87.9%	100.0%
	3 Education	Count	43	188	231
		% within DISC Discipline Division	18.6%	81.4%	100.0%
	4 Engineering/Computer Science	Count	21	261	282
		% within DISC Discipline Division	7.4%	92.6%	100.0%
	5 Humanities	Count	26	134	160
		% within DISC Discipline Division	16.3%	83.8%	100.0%
	6 Science & Math	Count	21	153	174
		% within DISC Discipline Division	12.1%	87.9%	100.0%
	7 Behavioral/Social Sciences	Count	82	591	673
		% within DISC Discipline Division	12.2%	87.8%	100.0%
	8 Professional/Technical	Count	19	181	200
		% within DISC Discipline Division	9.5%	90.5%	100.0%
	9 Undeclared	Count	53	459	512
		% within DISC Discipline Division	10.4%	89.6%	100.0%
	10 Interdisciplinary Studies	Count	46	290	336
		% within DISC Discipline Division	13.7%	86.3%	100.0%
Total		Count	382	2766	3148
		% within DISC Discipline Division	12.1%	87.9%	100.0%

Those accessing grade information on their campus online information system were asked about how satisfied they were with online access to this information. The satisfaction rating in 2003 was 8.60, indicating a high level of satisfaction. Table 54a shows that this is not significantly different from the satisfaction rating in 2001.

Table 54a: Satisfaction with Online Access to Grade Information by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q3A3B Satisfaction with Online Access to Information about Grades	1 2001	2268	8.57	1.877
	2 2003	2763	8.60	1.873

The average satisfaction levels with online access to grades in 2003 are displayed in Table 54b broken down by class level. The table reveals that there were no real differences in satisfaction by class level.

Table 54b: Satisfaction with Online Access to Grade Information by Class Level.

Q3A3B Satisfaction with Online Access to Information about Grades

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	828	8.64	1.811	0	10
2 Upper Division	1426	8.61	1.874	0	10
3 Post Baccalaureate	509	8.54	1.968	0	10
Total	2763	8.60	1.873	0	10

Students' average levels of satisfaction with online access to grade information by discipline in 2003 are displayed in Table 54c. This table shows no significant differences in satisfaction by academic discipline.

Table 54c: Satisfaction with Online Access to Grade Information by Discipline.

Q3A3B Satisfaction with Online Access to Information about Grades

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	116	8.54	1.805	0	10
2 Business	392	8.68	1.786	0	10
3 Education	188	8.69	1.841	0	10
4 Engineering/Computer Science	261	8.49	1.939	0	10
5 Humanities	133	8.50	1.869	2	10
6 Science & Math	153	8.54	1.993	0	10
7 Behavioral/Social Sciences	591	8.56	1.893	0	10
8 Professional/Technical	181	8.68	1.943	0	10
9 Undeclared	458	8.70	1.778	0	10
10 Interdisciplinary Studies	290	8.55	1.981	0	10
Total	2763	8.60	1.873	0	10

Respondents were asked about using campus online information systems to get information regarding financial aid. Table 55a shows that 40.7 percent of the students said they had used their online information system to get student aid information in 2003. This was a substantial increase over the 28.8 percent in 2001 that had accessed financial aid information through their campus online information system ($p < .001$).

Table 55a: Uses Campus Online Information Systems to Get Information about Financial Aid by Year.

				Q3A4A Uses Campus Online Information Systems to Get Information about Financial Aid		
				0 No	1 Yes	Total
ADMIN Administration	1	2001	Count	2273	918	3191
			% within ADMIN Administration	71.2%	28.8%	100.0%
	2	2003	Count	1853	1274	3127
			% within ADMIN Administration	59.3%	40.7%	100.0%
Total			Count	4126	2192	6318
			% within ADMIN Administration	65.3%	34.7%	100.0%

Table 55b shows the percentage of respondents who used their campus online information system to gain information regarding financial aid by class level. As the table shows, the likelihood that a student obtained financial aid information from their campus online information system depended on their class level ($p < .001$). Lower-division students were more likely than upper-division students to obtain financial aid information from their campus online information system, and both were much more likely than post-baccalaureate students to do so.

Table 55b: Uses Campus Online Information Systems to Get Information about Financial Aid by Class Level.

			Q3A4A Uses Campus Online Information Systems to Get Information about Financial Aid		
			0 No	1 Yes	Total
CLLEVEL Class Level	1 Lower Division	Count	475	445	920
		% within CLLEVEL Class Level	51.6%	48.4%	100.0%
	2 Upper Division	Count	924	652	1576
		% within CLLEVEL Class Level	58.6%	41.4%	100.0%
	3 Post Baccalaureate	Count	454	177	631
		% within CLLEVEL Class Level	71.9%	28.1%	100.0%
Total	Count		1853	1274	3127
	% within CLLEVEL Class Level		59.3%	40.7%	100.0%

The percentage of students in 2003 that used their campus online information system to gain information regarding financial aid is displayed in Table 55c by discipline. The table shows that online access of financial aid information did not vary by discipline.

Table 55c: Uses Campus Online Information Systems to Get Information about Financial Aid by Discipline.

		Q3A4A Uses Campus Online Information Systems to Get Information about Financial Aid			
			0 No	1 Yes	Total
DISC Discipline Division	1 Art	Count	72	59	131
		% within DISC Discipline Division	55.0%	45.0%	100.0%
	2 Business	Count	281	161	442
		% within DISC Discipline Division	63.6%	36.4%	100.0%
	3 Education	Count	154	76	230
		% within DISC Discipline Division	67.0%	33.0%	100.0%
	4 Engineering/Computer Science	Count	163	117	280
		% within DISC Discipline Division	58.2%	41.8%	100.0%
	5 Humanities	Count	102	58	160
		% within DISC Discipline Division	63.8%	36.3%	100.0%
	6 Science & Math	Count	97	75	172
		% within DISC Discipline Division	56.4%	43.6%	100.0%
	7 Behavioral/Social Sciences	Count	387	282	669
		% within DISC Discipline Division	57.8%	42.2%	100.0%
	8 Professional/Technical	Count	116	82	198
		% within DISC Discipline Division	58.6%	41.4%	100.0%
	9 Undeclared	Count	292	219	511
		% within DISC Discipline Division	57.1%	42.9%	100.0%
	10 Interdisciplinary Studies	Count	189	145	334
		% within DISC Discipline Division	56.6%	43.4%	100.0%
Total		Count	1853	1274	3127
		% within DISC Discipline Division	59.3%	40.7%	100.0%

The students who had accessed financial aid information from their campus online information system gave ratings of how satisfied they were with their access to this information. In 2003, the average satisfaction rating was 7.92, indicating a high level of satisfaction. As Table 56a shows, this is not different from the satisfaction level in 2001.

Table 56a: Satisfaction with Online Access to Financial Aid Information by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q3A4B Satisfaction with Online Access to Information about Financial Aid	1 2001	915	7.99	1.978
	2 2003	1272	7.92	2.017

Satisfaction with their campus online access to information about financial aid was consistently high across each class level. Table 56b shows the average satisfaction rating for each class level in 2003.

Table 56b: Satisfaction with Online Access to Financial Aid Information by Class Level.

Q3A4B Satisfaction with Online Access to Information about Financial Aid

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	444	8.01	1.760	1	10
2 Upper Division	651	7.93	2.048	0	10
3 Post Baccalaureate	177	7.64	2.448	0	10
Total	1272	7.92	2.017	0	10

Satisfaction with their campus online access to information about financial aid was also consistent across academic discipline. The average satisfaction ratings by discipline are shown in Table 56c.

Table 56c: Satisfaction with Online Access to Financial Aid Information by Discipline.

Q3A4B Satisfaction with Online Access to Information about Financial Aid

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	59	7.81	2.240	0	10
2 Business	160	8.07	1.936	0	10
3 Education	76	8.25	1.856	3	10
4 Engineering/Computer Science	117	7.73	1.946	1	10
5 Humanities	57	7.61	2.051	1	10
6 Science & Math	75	8.12	1.889	0	10
7 Behavioral/Social Sciences	282	7.91	2.082	0	10
8 Professional/Technical	82	7.88	2.134	0	10
9 Undeclared	219	7.86	1.956	0	10
10 Interdisciplinary Studies	145	7.90	2.111	1	10
Total	1272	7.92	2.017	0	10

Usage of campus online information systems to get information about billing was also assessed. In 2003, 40.1 percent of the students said they had accessed billing information on their campus online information system. As Table 57a shows, this is double the percentage of students accessing billing information online as did so in 2001 ($p < .001$).

Table 57a: Uses Campus Online Information Systems to Get Information about Billing by Year.

				Q3A5A Uses Campus Online Information Systems to Get Information about Billing		
				0 No	1 Yes	Total
ADMIN Administration	1	2001	Count	2558	634	3192
			% within ADMIN Administration	80.1%	19.9%	100.0%
	2	2003	Count	1881	1257	3138
			% within ADMIN Administration	59.9%	40.1%	100.0%
Total			Count	4439	1891	6330
			% within ADMIN Administration	70.1%	29.9%	100.0%

Use of campus online information systems to get information about billing is displayed in Table 57b by class level. As the table shows, gaining billing information from campus online information systems was unrelated to class level.

Table 57b: Uses Campus Online Information Systems to Get Information about Billing by Class Level.

		Q3A5A Uses Campus Online Information Systems to Get Information about Billing			
		0 No	1 Yes	Total	
CLLEVEL Class Level	1 Lower Division	Count	544	376	920
		% within CLLEVEL Class Level	59.1%	40.9%	100.0%
	2 Upper Division	Count	944	641	1585
		% within CLLEVEL Class Level	59.6%	40.4%	100.0%
	3 Post Baccalaureate	Count	393	240	633
		% within CLLEVEL Class Level	62.1%	37.9%	100.0%
Total		Count	1881	1257	3138
		% within CLLEVEL Class Level	59.9%	40.1%	100.0%

Obtaining information about billing from the campus online information systems was also independent of academic discipline. Table 57c shows the likelihood of getting billing information online is the same across disciplines.

Table 57c: Uses Campus Online Information Systems to Get Information about Billing by Discipline.

		Q3A5A Uses Campus Online Information Systems to Get Information about Billing			Total
		0 No	1 Yes		
DISC Discipline Division	1 Art	Count	80	53	133
		% within DISC Discipline Division	60.2%	39.8%	100.0%
	2 Business	Count	261	183	444
		% within DISC Discipline Division	58.8%	41.2%	100.0%
	3 Education	Count	145	85	230
		% within DISC Discipline Division	63.0%	37.0%	100.0%
	4 Engineering/Computer Science	Count	154	127	281
		% within DISC Discipline Division	54.8%	45.2%	100.0%
	5 Humanities	Count	92	68	160
		% within DISC Discipline Division	57.5%	42.5%	100.0%
	6 Science & Math	Count	102	73	175
		% within DISC Discipline Division	58.3%	41.7%	100.0%
	7 Behavioral/Social Sciences	Count	409	262	671
		% within DISC Discipline Division	61.0%	39.0%	100.0%
	8 Professional/Technical	Count	124	75	199
		% within DISC Discipline Division	62.3%	37.7%	100.0%
	9 Undeclared	Count	309	201	510
		% within DISC Discipline Division	60.6%	39.4%	100.0%
	10 Interdisciplinary Studies	Count	205	130	335
		% within DISC Discipline Division	61.2%	38.8%	100.0%
Total		Count	1881	1257	3138
		% within DISC Discipline Division	59.9%	40.1%	100.0%

Students stating that they used their campus online information system to obtain billing information also indicated how satisfied they were with the online access to information about billing. In 2003, the average satisfaction level was 8.16. This is not significantly different from the satisfaction level in 2001, as Table 58a shows.

Table 58a: Satisfaction with Online Access to Billing Information by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q3A5B Satisfaction with Online Access to Information about Billing	1 2001	631	8.24	1.852
	2 2003	1257	8.16	1.955

Table 58b displays the satisfaction levels with online access to billing information through the campus online information system by class level. As can be seen in this table, satisfaction did not vary by class satisfaction levels with online access to billing information through the campus online information system by level.

Table 58b: Satisfaction with Online Access to Billing Information by Class Level.

Q3A5B Satisfaction with Online Access to Information about Billing

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	376	8.16	1.787	1	10
2 Upper Division	641	8.18	1.974	1	10
3 Post Baccalaureate	240	8.08	2.152	0	10
Total	1257	8.16	1.955	0	10

Satisfaction levels with online access to billing information through the campus online information system are displayed in Table 58c by academic discipline. As the table shows, satisfaction was not related to discipline.

Table 58c: Satisfaction with Online Access to Billing Information by Discipline.

Q3A5B Satisfaction with Online Access to Information about Billing

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	53	7.96	1.818	3	10
2 Business	183	8.27	1.870	1	10
3 Education	85	8.24	2.255	0	10
4 Engineering/Computer Science	127	7.92	2.155	1	10
5 Humanities	68	7.75	2.147	0	10
6 Science & Math	73	8.12	1.929	2	10
7 Behavioral/Social Sciences	262	8.31	1.762	2	10
8 Professional/Technical	75	8.45	1.605	4	10
9 Undeclared	201	8.03	2.066	1	10
10 Interdisciplinary Studies	130	8.19	1.985	1	10
Total	1257	8.16	1.955	0	10

The likelihood of using the campus online information system to get information about progress toward their degree changed from 2001 to 2003 ($p < .001$). Table 59a shows that the likelihood of getting progress toward degree information increased significantly in 2003 to over a third (36.7%) of the students.

Table 59a: Uses Campus Online Information Systems to Get Information about Progress toward Degree by Year.

				Q3A7A Uses Campus Online Information Systems to Get Information about Progress Towards Degree		
				0 No	1 Yes	Total
ADMIN Administration	1	2001	Count	2471	714	3185
			% within ADMIN Administration	77.6%	22.4%	100.0%
	2	2003	Count	1977	1146	3123
			% within ADMIN Administration	63.3%	36.7%	100.0%
Total			Count	4448	1860	6308
			% within ADMIN Administration	70.5%	29.5%	100.0%

The likelihood of accessing information about progress toward their degree through the campus online information system was related to class level ($p < .001$). Table 59b shows that post baccalaureate students were considerably less likely to use the campus online information system to get information about progress toward their degree than were undergraduate students.

Table 59b: Uses Campus Online Information Systems to Get Information about Progress toward Degree by Class Level.

		Q3A7A Uses Campus Online Information Systems to Get Information about Progress Towards Degree			
		0 No	1 Yes	Total	
CLLEVEL Class Level	1 Lower Division	Count	588	331	919
		% within CLLEVEL Class Level	64.0%	36.0%	100.0%
	2 Upper Division	Count	946	628	1574
		% within CLLEVEL Class Level	60.1%	39.9%	100.0%
	3 Post Baccalaureate	Count	443	187	630
		% within CLLEVEL Class Level	70.3%	29.7%	100.0%
Total		Count	1977	1146	3123
		% within CLLEVEL Class Level	63.3%	36.7%	100.0%

Using the campus online information system to get information about progress toward their degree was also associated with academic discipline ($p < .01$). Engineering and computer science students were more likely to get information about their progress to their degree online than were other students, while undeclared and interdisciplinary students were less likely to get information about progress to degree online. This is seen in Table 59c.

Table 59c: Uses Campus Online Information Systems to Get Information about Progress toward Degree by Discipline.

		Q3A7A Uses Campus Online Information Systems to Get Information about Progress Towards Degree			
			0 No	1 Yes	Total
DISC Discipline Division	1 Art	Count	80	52	132
		% within DISC Discipline Division	60.6%	39.4%	100.0%
	2 Business	Count	280	164	444
		% within DISC Discipline Division	63.1%	36.9%	100.0%
	3 Education	Count	155	73	228
		% within DISC Discipline Division	68.0%	32.0%	100.0%
	4 Engineering/Computer Science	Count	155	121	276
		% within DISC Discipline Division	56.2%	43.8%	100.0%
	5 Humanities	Count	96	63	159
		% within DISC Discipline Division	60.4%	39.6%	100.0%
	6 Science & Math	Count	106	68	174
		% within DISC Discipline Division	60.9%	39.1%	100.0%
	7 Behavioral/Social Sciences	Count	410	260	670
		% within DISC Discipline Division	61.2%	38.8%	100.0%
	8 Professional/Technical	Count	115	83	198
		% within DISC Discipline Division	58.1%	41.9%	100.0%
	9 Undeclared	Count	350	159	509
		% within DISC Discipline Division	68.8%	31.2%	100.0%
	10 Interdisciplinary Studies	Count	230	103	333
		% within DISC Discipline Division	69.1%	30.9%	100.0%
Total		Count	1977	1146	3123
		% within DISC Discipline Division	63.3%	36.7%	100.0%

Students' satisfaction with their online access to information about their progress to their degree was assessed. The average level of satisfaction with online access to information about progress to degree was 7.67 in 2003. As can be seen in Table 60a, this represents a slight decrease in satisfaction from 2001 ($p < .05$).

Table 60a: Satisfaction with Online Access to Progress toward Degree Information by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q3A7B Satisfaction with Online Access to Information about Progress toward Degree	1 2001	713	7.91	1.980
	2 2003	1143	7.67	2.115

Satisfaction levels with online access to information about their progress to their degree was dependent on the student's class level. Table 60b shows that post baccalaureate students were more satisfied than upper-division students with the access to information on their progress toward their degree ($p < .05$).

Table 60b: Satisfaction with Online Access to Progress toward Degree Information by Class Level.

Q3A7B Satisfaction with Online Access to Information about Progress toward Degree

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	330	7.69	1.936	0	10
2 Upper Division	626	7.55	2.204	0	10
3 Post Baccalaureate	187	8.05	2.076	0	10
Total	1143	7.67	2.115	0	10

Table 60c shows the satisfaction levels with online access to information about their progress to their degree by academic discipline. Satisfaction with access to this information did not vary by discipline.

Table 60c: Satisfaction with Online Access to Progress toward Degree Information by Discipline.

Q3A7B Satisfaction with Online Access to Information about Progress toward Degree

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	52	7.69	1.721	3	10
2 Business	163	8.00	1.895	0	10
3 Education	73	8.27	1.677	4	10
4 Engineering/Computer Science	121	7.33	2.200	1	10
5 Humanities	63	7.83	1.947	0	10
6 Science & Math	67	7.49	2.149	0	10
7 Behavioral/Social Sciences	259	7.47	2.271	0	10
8 Professional/Technical	83	7.83	2.077	1	10
9 Undeclared	159	7.61	2.202	0	10
10 Interdisciplinary Studies	103	7.59	2.268	0	10
Total	1143	7.67	2.115	0	10

Help and Technical Support

Students were asked about their use of different modes of help with computer hardware and software. They were asked if they had used (1) a telephone call center or online help desk, (2) a campus walk-in help desk, (3) computer lab staff, or (4) other students. For each of these modes of help that the students used, the student's satisfaction with that help was assessed.

Telephone Call Center or Online Help Desk

Table 61a shows that over a third (35.0%) of the students in 2003 had used their campus' telephone call center or online help desk. This is a significant increase from the 25.5 percent of the students reporting use of their telephone call center or online help desk in 2001 ($p < .001$).

Table 61a: Used Telephone Call Center or Online Campus Help Desk by Year.

				Q4A4_1 Telephone Call Center Used or Online Campus Help Desk		
				0 Not Chosen	1 Chosen	Total
ADMIN Administration	1	2001	Count	1403	479	1882
			% within ADMIN Administration	74.5%	25.5%	100.0%
	2	2003	Count	1880	1014	2894
			% within ADMIN Administration	65.0%	35.0%	100.0%
Total			Count	3283	1493	4776
			% within ADMIN Administration	68.7%	31.3%	100.0%

Use of the campus telephone call centers or online help desks also varied by class level in 2003 ($p < .01$). Lower-division students were considerably more likely to make use of the telephone call center or online help desk than were other students. This is seen in Table 61b.

Table 61b: Used Telephone Call Center or Online Campus Help Desk by Class Level.

			Q4A4_1 Telephone Call Center Used or Online Campus Help Desk		Total
			0 Not Chosen	1 Chosen	
CLLEVEL Class Level	1 Lower Division	Count	526	353	879
		% within CLLEVEL Class Level	59.8%	40.2%	100.0%
	2 Upper Division	Count	1001	496	1497
		% within CLLEVEL Class Level	66.9%	33.1%	100.0%
	3 Post Baccalaureate	Count	353	165	518
		% within CLLEVEL Class Level	68.1%	31.9%	100.0%
Total		Count	1880	1014	2894
		% within CLLEVEL Class Level	65.0%	35.0%	100.0%

There was also some variation in 2003 in the use of the telephone call center or online help desk by academic discipline ($p < .05$), as indicated in Table 61c. Specifically, interdisciplinary studies students were more likely than others to get help from their campus telephone call center or online help desk.

Table 61c: Used Telephone Call Center or Online Campus Help Desk by Discipline.

		Q4A4_1 Telephone Call Center Used or Online Campus Help Desk			
		0 Not Chosen	1 Chosen	Total	
DISC Discipline Division	1 Art	Count	90	38	128
		% within DISC Discipline Division	70.3%	29.7%	100.0%
	2 Business	Count	275	140	415
		% within DISC Discipline Division	66.3%	33.7%	100.0%
	3 Education	Count	134	66	200
		% within DISC Discipline Division	67.0%	33.0%	100.0%
	4 Engineering/Computer Science	Count	189	81	270
		% within DISC Discipline Division	70.0%	30.0%	100.0%
	5 Humanities	Count	91	53	144
		% within DISC Discipline Division	63.2%	36.8%	100.0%
	6 Science & Math	Count	114	50	164
		% within DISC Discipline Division	69.5%	30.5%	100.0%
	7 Behavioral/Social Sciences	Count	399	228	627
		% within DISC Discipline Division	63.6%	36.4%	100.0%
	8 Professional/Technical	Count	112	66	178
		% within DISC Discipline Division	62.9%	37.1%	100.0%
	9 Undeclared	Count	300	154	454
		% within DISC Discipline Division	66.1%	33.9%	100.0%
	10 Interdisciplinary Studies	Count	176	138	314
		% within DISC Discipline Division	56.1%	43.9%	100.0%
Total		Count	1880	1014	2894
		% within DISC Discipline Division	65.0%	35.0%	100.0%

Those making use of the telephone call center or online help desk were asked about their satisfaction with the telephone call center or online help desk services. Table 62a shows that students were fairly satisfied with the telephone call center or online help desk services, and that there was no difference in satisfaction levels between 2001 and 2003.

Table 62a: Satisfaction with Telephone Call Centers or Online Help Desks by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q4A4_1S Satisfaction with Telephone Call Centers or Online Campus Help Desk Services	1 2001	354	7.63	2.297
	2 2003	994	7.55	1.964

Satisfaction with the telephone call center or online help desk services is displayed in Table 62b by class level. The table shows that satisfaction with the telephone call center or online help desk services did not vary by class level.

Table 62b: Satisfaction with Telephone Call Centers or Online Help Desks by Class Level.

Q4A4_1S Satisfaction with Telephone Call Centers or Online Campus Help Desk Services

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	349	7.56	1.800	1	10
2 Upper Division	481	7.59	1.922	0	10
3 Post Baccalaureate	164	7.38	2.379	0	10
Total	994	7.55	1.964	0	10

Satisfaction with the telephone call center or online help desk services was also consistent across academic discipline. This is illustrated in Table 62c.

Table 62c: Satisfaction with Telephone Call Centers or Online Help Desks by Discipline.

Q4A4_1S Satisfaction with Telephone Call Centers or Online Campus Help Desk Services

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	36	7.64	1.930	3	10
2 Business	138	7.56	1.910	0	10
3 Education	66	7.26	2.349	0	10
4 Engineering/Computer Science	80	7.45	1.868	4	10
5 Humanities	52	7.90	1.537	4	10
6 Science & Math	48	7.75	1.851	1	10
7 Behavioral/Social Sciences	222	7.58	1.968	1	10
8 Professional/Technical	64	7.50	1.755	2	10
9 Undeclared	152	7.36	1.889	1	10
10 Interdisciplinary Studies	136	7.68	2.230	0	10
Total	994	7.55	1.964	0	10

Walk-in Help Desk

Nearly a third (32.7%) of the students in 2003 indicated that they had made use of their campus walk-in help desk. This is a significant increase over the percentage of students using a walk-in help desk in 2001 ($p < .001$). Table 63a shows that the percentage of students using a walk-in help desk increased from 27.7 percent in 2001.

Table 63a: Used Campus Walk-In Help Desk by Year.

				Q4A4_2 Campus Walk-In Help Desk Used		
				0 Not Chosen	1 Chosen	Total
ADMIN Administration	1	2001	Count	1609	615	2224
			% within ADMIN Administration	72.3%	27.7%	100.0%
	2	2003	Count	1947	947	2894
			% within ADMIN Administration	67.3%	32.7%	100.0%
Total			Count	3556	1562	5118
			% within ADMIN Administration	69.5%	30.5%	100.0%

The percentage of students in 2003 that used a walk-in help desk is shown in Table 63b by class level. Class level was associated with the likelihood of getting help from a walk-in help desk ($p < .05$). Specifically, post-baccalaureate students were less likely than other students to seek help from a campus walk-in help desk.

Table 63b: Used Campus Walk-In Help Desk by Class Level.

			Q4A4_2 Campus Walk-In Help Desk Used		
			0 Not Chosen	1 Chosen	Total
CLLEVEL Class Level	1 Lower Division	Count	574	305	879
		% within CLLEVEL Class Level	65.3%	34.7%	100.0%
	2 Upper Division	Count	997	500	1497
		% within CLLEVEL Class Level	66.6%	33.4%	100.0%
	3 Post Baccalaureate	Count	376	142	518
		% within CLLEVEL Class Level	72.6%	27.4%	100.0%
Total	Count		1947	947	2894
	% within CLLEVEL Class Level		67.3%	32.7%	100.0%

The likelihood of using a campus walk-in help desk was also qualified by the students' academic discipline ($p < .05$). Table 63c shows that education as well as science and math students were less likely to have used a campus walk-in help desk. Conversely, interdisciplinary studies students were more likely than other students to use a walk-in help desk.

Table 63c: Used Campus Walk-In Help Desk by Discipline.

		Q4A4_2 Campus Walk-In Help Desk Used			
		0 Not Chosen	1 Chosen	Total	
DISC Discipline Division	1 Art	Count	87	41	128
		% within DISC Discipline Division	68.0%	32.0%	100.0%
	2 Business	Count	279	136	415
		% within DISC Discipline Division	67.2%	32.8%	100.0%
	3 Education	Count	150	50	200
		% within DISC Discipline Division	75.0%	25.0%	100.0%
	4 Engineering/Computer Science	Count	191	79	270
		% within DISC Discipline Division	70.7%	29.3%	100.0%
	5 Humanities	Count	98	46	144
		% within DISC Discipline Division	68.1%	31.9%	100.0%
	6 Science & Math	Count	121	43	164
		% within DISC Discipline Division	73.8%	26.2%	100.0%
	7 Behavioral/Social Sciences	Count	415	212	627
		% within DISC Discipline Division	66.2%	33.8%	100.0%
	8 Professional/Technical	Count	113	65	178
		% within DISC Discipline Division	63.5%	36.5%	100.0%
	9 Undeclared	Count	302	152	454
		% within DISC Discipline Division	66.5%	33.5%	100.0%
	10 Interdisciplinary Studies	Count	191	123	314
		% within DISC Discipline Division	60.8%	39.2%	100.0%
Total		Count	1947	947	2894
		% within DISC Discipline Division	67.3%	32.7%	100.0%

Those students who had used a campus walk-in help desk were asked to indicate their level of satisfaction with the walk-in help desk services. Generally, students in 2003 were quite satisfied with the walk-in help desks. This is evidenced by the 8.04 satisfaction rating displayed in Table 64a. This was virtually the same satisfaction rating as in 2001.

Table 64a: Satisfaction with Walk-in Help Desk by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q4A4_2S Satisfaction with Campus Walk-in Help Desk Services	1 2001	614	8.09	1.917
	2 2003	943	8.04	1.769

The average satisfaction ratings students gave to the campus walk-in help desk services are displayed in Table 64b by class level. As the table shows, satisfaction with walk-in help desk services did not vary by class level.

Table 64b: Satisfaction with Walk-in Help Desk by Class Level.

Q4A4_2S Satisfaction with Campus Walk-in Help Desk Services

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	305	8.06	1.658	2	10
2 Upper Division	496	8.00	1.863	0	10
3 Post Baccalaureate	142	8.13	1.664	3	10
Total	943	8.04	1.769	0	10

Table 64c provides the average satisfaction ratings students gave to the campus walk-in help desk services by academic discipline. Students' satisfaction ratings with their campus walk-in help desk services were unrelated to discipline.

Table 64c: Satisfaction with Walk-in Help Desk by Discipline.

Q4A4_2S Satisfaction with Campus Walk-in Help Desk Services

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	40	8.07	1.623	4	10
2 Business	136	8.06	1.645	0	10
3 Education	50	7.84	1.503	5	10
4 Engineering/Computer Science	79	7.90	1.837	0	10
5 Humanities	46	8.17	1.755	2	10
6 Science & Math	43	8.09	1.645	2	10
7 Behavioral/Social Sciences	209	8.03	2.006	0	10
8 Professional/Technical	65	7.95	1.772	2	10
9 Undeclared	152	8.19	1.585	3	10
10 Interdisciplinary Studies	123	7.95	1.868	1	10
Total	943	8.04	1.769	0	10

Computer Lab Staff

The most popular mode of help among students was the campus computer lab staff. In 2003, 61.1 percent of the students sought help from computer lab staff. As Table 65a shows, this is a large increase over the 40.1 percent of students seeking help from their campus computer lab staff in 2001 ($p < .001$).

Table 65a: Used Computer Lab Staff by Year.

				Q4A4_3 Computer Lab Staff Used		Total
				0 Not Chosen	1 Chosen	
ADMIN Administration	1	2001	Count	1515	1015	2530
			% within ADMIN Administration	59.9%	40.1%	100.0%
	2	2003	Count	1127	1767	2894
			% within ADMIN Administration	38.9%	61.1%	100.0%
Total			Count	2642	2782	5424
			% within ADMIN Administration	48.7%	51.3%	100.0%

Use of the campus computer lab staff is broken down by class level in Table 65b for the 2003 data. The table shows that use of computer lab staff was dependent on class level ($p < .001$). Upper-division students were more likely than both lower-division and post baccalaureate students to make use of their campus computer lab staff.

Table 65b: Used Computer Lab Staff by Class Level.

		Q4A4_3 Computer Lab Staff Used			
		0 Not Chosen	1 Chosen	Total	
CLLEVEL Class Level	1 Lower Division	Count	382	497	879
		% within CLLEVEL Class Level	43.5%	56.5%	100.0%
	2 Upper Division	Count	521	976	1497
		% within CLLEVEL Class Level	34.8%	65.2%	100.0%
	3 Post Baccalaureate	Count	224	294	518
		% within CLLEVEL Class Level	43.2%	56.8%	100.0%
Total		Count	1127	1767	2894
		% within CLLEVEL Class Level	38.9%	61.1%	100.0%

Table 65c displays the percentage of students in 2003 within each academic discipline that made use of their campus computer lab staff. Use of the computer lab staff was not related to academic discipline.

Table 65c: Used Computer Lab Staff by Discipline.

		Q4A4_3 Computer Lab Staff Used			
		0 Not Chosen	1 Chosen	Total	
DISC Discipline Division	1 Art	Count	44	84	128
		% within DISC Discipline Division	34.4%	65.6%	100.0%
	2 Business	Count	153	262	415
		% within DISC Discipline Division	36.9%	63.1%	100.0%
	3 Education	Count	83	117	200
		% within DISC Discipline Division	41.5%	58.5%	100.0%
	4 Engineering/Computer Science	Count	102	168	270
		% within DISC Discipline Division	37.8%	62.2%	100.0%
	5 Humanities	Count	62	82	144
		% within DISC Discipline Division	43.1%	56.9%	100.0%
	6 Science & Math	Count	65	99	164
		% within DISC Discipline Division	39.6%	60.4%	100.0%
	7 Behavioral/Social Sciences	Count	243	384	627
		% within DISC Discipline Division	38.8%	61.2%	100.0%
	8 Professional/Technical	Count	78	100	178
		% within DISC Discipline Division	43.8%	56.2%	100.0%
	9 Undeclared	Count	167	287	454
		% within DISC Discipline Division	36.8%	63.2%	100.0%
	10 Interdisciplinary Studies	Count	130	184	314
		% within DISC Discipline Division	41.4%	58.6%	100.0%
Total		Count	1127	1767	2894
		% within DISC Discipline Division	38.9%	61.1%	100.0%

Students who had sought help from their campus computer lab staff were asked how satisfied they were with the services they received from the computer lab staff. Generally, satisfaction was high. In 2003 the average satisfaction rating was 7.93, as shown in Table 66a. This rating is not significantly different from the rating in 2001.

Table 66a: Satisfaction with Computer Lab Services by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q4A4_3S Satisfaction with	1 2001	1011	8.05	1.943
Computer Lab Staff Services	2 2003	1751	7.93	1.818

Satisfaction with computer lab staff services was also compared by class level in 2003. Students' satisfaction with the help services provided by the computer lab staff did not vary by class level, as shown in Table 66b.

Table 66b: Satisfaction with Computer Lab Services by Class Level.

Q4A4_3S Satisfaction with Computer Lab Staff Services

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	493	8.05	1.800	0	10
2 Upper Division	970	7.90	1.796	0	10
3 Post Baccalaureate	288	7.84	1.918	1	10
Total	1751	7.93	1.818	0	10

Table 66c shows the students' ratings of satisfaction with their campus computer lab staff's services broken down by academic discipline in 2003. As the table shows, satisfaction with the computer lab staff help services was consistent across disciplines.

Table 66c: Satisfaction with Computer Lab Services by Discipline.

Q4A4_3S Satisfaction with Computer Lab Staff Services

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	83	8.18	1.661	3	10
2 Business	260	7.84	1.716	2	10
3 Education	115	8.16	1.684	4	10
4 Engineering/Computer Science	165	7.65	1.977	0	10
5 Humanities	82	7.93	1.871	2	10
6 Science & Math	97	8.15	1.488	4	10
7 Behavioral/Social Sciences	382	7.93	1.863	0	10
8 Professional/Technical	99	7.83	2.138	0	10
9 Undeclared	285	7.97	1.706	0	10
10 Interdisciplinary Studies	183	7.95	1.972	1	10
Total	1751	7.93	1.818	0	10

Other Students

In 2003, students were asked if they had received help with computer hardware or software from other students. Nearly half (46.4%) of the students indicated that they had received help from other students. Table 67a shows that class level was associated with the likelihood that a student would get help from other students ($p < .001$). The more advanced the student, the less likely the student was to receive help from other students.

Table 67a: Received Help from Other Students by Class Level.

			Q4A4_4 Other Students		Total
			0 Not Chosen	1 Chosen	
CLLEVEL Class Level	1 Lower Division	Count	436	443	879
		% within CLLEVEL Class Level	49.6%	50.4%	100.0%
	2 Upper Division	Count	798	699	1497
		% within CLLEVEL Class Level	53.3%	46.7%	100.0%
	3 Post Baccalaureate	Count	317	201	518
		% within CLLEVEL Class Level	61.2%	38.8%	100.0%
Total		Count	1551	1343	2894
		% within CLLEVEL Class Level	53.6%	46.4%	100.0%

The percentage of students receiving help from other students was examined by academic discipline. Table 67b shows that the percentages of students getting help from other students did not vary by academic discipline in 2003.

Table 67b: Received Help from Other Students by Discipline.

		Q4A4_4 Other Students			
		0 Not Chosen	1 Chosen	Total	
DISC Discipline Division	1 Art	Count	66	62	128
		% within DISC Discipline Division	51.6%	48.4%	100.0%
	2 Business	Count	221	194	415
		% within DISC Discipline Division	53.3%	46.7%	100.0%
	3 Education	Count	111	89	200
		% within DISC Discipline Division	55.5%	44.5%	100.0%
	4 Engineering/Computer Science	Count	133	137	270
		% within DISC Discipline Division	49.3%	50.7%	100.0%
	5 Humanities	Count	84	60	144
		% within DISC Discipline Division	58.3%	41.7%	100.0%
	6 Science & Math	Count	90	74	164
		% within DISC Discipline Division	54.9%	45.1%	100.0%
	7 Behavioral/Social Sciences	Count	354	273	627
		% within DISC Discipline Division	56.5%	43.5%	100.0%
	8 Professional/Technical	Count	82	96	178
		% within DISC Discipline Division	46.1%	53.9%	100.0%
	9 Undeclared	Count	245	209	454
		% within DISC Discipline Division	54.0%	46.0%	100.0%
	10 Interdisciplinary Studies	Count	165	149	314
		% within DISC Discipline Division	52.5%	47.5%	100.0%
Total		Count	1551	1343	2894
		% within DISC Discipline Division	53.6%	46.4%	100.0%

The students reporting that they received help from other students were asked about their satisfaction with means of obtaining help in 2003. Students were generally satisfied, as indicated by the average satisfaction rating of 7.70. Satisfaction by class level is presented in Table 68a. The table reveals no significant variation in satisfaction by class level.

Table 68a: Satisfaction with Help from Other Students by Class Level.

Q4A4_4S Satisfaction with Help of Other Students

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	443	7.78	1.651	2	10
2 Upper Division	697	7.70	1.761	0	10
3 Post Baccalaureate	200	7.53	1.810	2	10
Total	1340	7.70	1.733	0	10

Students satisfaction with receiving computer help from other students was consistent across academic disciplines. Table 68b shows the average satisfaction level of students with receiving help from other students broken down by academic discipline.

Table 68b: Satisfaction with Help from Other Students by Discipline.

Q4A4_4S Satisfaction with Help of Other Students

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	62	7.47	1.501	4	10
2 Business	192	7.71	1.690	2	10
3 Education	89	7.60	1.976	2	10
4 Engineering/Computer Science	137	7.93	1.639	3	10
5 Humanities	60	7.93	1.326	5	10
6 Science & Math	74	7.72	1.817	1	10
7 Behavioral/Social Sciences	273	7.60	1.949	0	10
8 Professional/Technical	95	7.45	1.815	2	10
9 Undeclared	209	7.63	1.624	2	10
10 Interdisciplinary Studies	149	7.99	1.555	4	10
Total	1340	7.70	1.733	0	10

Training

Participation in Training

Students were asked a number of questions regarding participation in and satisfaction with computer training programs aimed at improving basic computer skills. They were asked how important they believed these programs are. Overall, students in 2003 rated such training programs to be very important, offering an average importance rating of 8.48. This was slightly lower than the importance

rating that students gave to training programs for improving basic computer skills in 2001 ($p < .01$). This is shown in Table 69a.

Table 69a: Importance of Computer Skills Training Programs by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q4A7 Importance of Campus-Based Training Activities or Programs	1 2001	3186	8.61	1.943
	2 2003	3138	8.48	1.972

Table 69b presents the average ratings students in 2003 gave to basic computer skills training programs separately for students at different class levels. The table reveals no differences in importance ratings for students at different class levels.

Table 69b: Importance of Computer Skills Training Programs by Class Level.

Q4A7 Importance of Campus-Based Training Activities or Programs

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	919	8.37	1.881	0	10
2 Upper Division	1588	8.52	1.959	0	10
3 Post Baccalaureate	631	8.54	2.127	0	10
Total	3138	8.48	1.972	0	10

The importance students attached to computer training programs aimed at improving basic computer skills depended on academic discipline. Table 69c shows that students in engineering and computer science considered computer training programs aimed at improving basic computer skills as less important than did behavioral and social sciences students.

Table 69c: Importance of Computer Skills Training Programs by Discipline.

Q4A7 Importance of Campus-Based Training Activities or Programs

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	133	8.29	1.934	0	10
2 Business	448	8.48	1.872	0	10
3 Education	230	8.56	1.837	0	10
4 Engineering/Computer Science	279	8.04	2.343	0	10
5 Humanities	160	8.55	1.869	2	10
6 Science & Math	175	8.49	1.956	0	10
7 Behavioral/Social Sciences	672	8.60	1.952	0	10
8 Professional/Technical	200	8.46	2.064	0	10
9 Undeclared	508	8.46	1.967	0	10
10 Interdisciplinary Studies	333	8.63	1.885	0	10
Total	3138	8.48	1.972	0	10

While students regarded basic computer skills training programs as important, only 13.8% of the students in 2003 participated in these training programs. As Table 70a illustrates, this is similar to the participation rate of students in 2001.

Table 70a: Participated in Training Activities or Programs to Improve Computer Skills by Year.

				Q4A7A Participated in Training Activities or Programs to Improve Computer Skills		
				0 No	1 Yes	Total
ADMIN Administration	1	2001	Count	2722	473	3195
			% within ADMIN Administration	85.2%	14.8%	100.0%
	2	2003	Count	2718	435	3153
			% within ADMIN Administration	86.2%	13.8%	100.0%
Total			Count	5440	908	6348
			% within ADMIN Administration	85.7%	14.3%	100.0%

Participation in basic computer skills training by students at different class levels is presented in Table 70b. Students at all class levels were about equally likely to participate in training programs to improve their basic computer skills.

Table 70b: Participated in Training Activities or Programs to Improve Computer Skills by Class Level.

		Q4A7A Participated in Training Activities or Programs to Improve Computer Skills			
		0 No	1 Yes	Total	
CLLEVEL Class Level	1 Lower Division	Count	815	109	924
		% within CLLEVEL Class Level	88.2%	11.8%	100.0%
	2 Upper Division	Count	1358	234	1592
		% within CLLEVEL Class Level	85.3%	14.7%	100.0%
	3 Post Baccalaureate	Count	545	92	637
		% within CLLEVEL Class Level	85.6%	14.4%	100.0%
Total		Count	2718	435	3153
		% within CLLEVEL Class Level	86.2%	13.8%	100.0%

The likelihood that students participated in training to improve their basic computer skills was also examined by academic discipline. Participation in computer skills training was not concomitant with academic discipline as Table 70c demonstrates.

Table 70c: Participated in Training Activities or Programs to Improve Computer Skills by Discipline.

			Q4A7A Participated in Training Activities or Programs to Improve Computer Skills		
			0 No	1 Yes	Total
DISC Discipline Division	1 Art	Count	112	21	133
		% within DISC Discipline Division	84.2%	15.8%	100.0%
	2 Business	Count	381	68	449
		% within DISC Discipline Division	84.9%	15.1%	100.0%
	3 Education	Count	194	38	232
		% within DISC Discipline Division	83.6%	16.4%	100.0%
	4 Engineering/Computer Science	Count	243	38	281
		% within DISC Discipline Division	86.5%	13.5%	100.0%
	5 Humanities	Count	141	19	160
		% within DISC Discipline Division	88.1%	11.9%	100.0%
	6 Science & Math	Count	156	19	175
		% within DISC Discipline Division	89.1%	10.9%	100.0%
	7 Behavioral/Social Sciences	Count	581	93	674
		% within DISC Discipline Division	86.2%	13.8%	100.0%
	8 Professional/Technical	Count	178	23	201
		% within DISC Discipline Division	88.6%	11.4%	100.0%
	9 Undeclared	Count	433	79	512
		% within DISC Discipline Division	84.6%	15.4%	100.0%
	10 Interdisciplinary Studies	Count	299	37	336
		% within DISC Discipline Division	89.0%	11.0%	100.0%
Total		Count	2718	435	3153
		% within DISC Discipline Division	86.2%	13.8%	100.0%

Types of Training

The different types of programs that students participated in were of interest. Students who had participated in some form of basic computer skills training were asked about the types of training programs they participated in, and how satisfied they were with the training programs in general.

In 2003, half (51.0%) of the students reported having participated in a computer skills training said they participated in a computer-based training. This is a significantly lower percentage compared to 2001 ($p < .01$), as Table 71a shows.

Table 71a: Participated in Computer-Based Training by Year.

				Q4A8A_1 Participated in Computer-Based Training		
				0 Not Chosen	1 Chosen	Total
ADMIN Administration	1	2001	Count	182	292	474
			% within ADMIN Administration	38.4%	61.6%	100.0%
	2	2003	Count	213	222	435
			% within ADMIN Administration	49.0%	51.0%	100.0%
Total			Count	395	514	909
			% within ADMIN Administration	43.5%	56.5%	100.0%

The likelihood of participating in a computer-based training is displayed in Table 71b by class level. The percentage of the students who had participated in computer skills trainings that did a computer-based training did not vary by class level.

Table 71b: Participated in Computer-Based Training by Class Level.

		Q4A8A_1 Participated in Computer-Based Training			
		0 Not Chosen	1 Chosen	Total	
CLLEVEL Class Level	1 Lower Division	Count	61	48	109
		% within CLLEVEL Class Level	56.0%	44.0%	100.0%
	2 Upper Division	Count	111	123	234
		% within CLLEVEL Class Level	47.4%	52.6%	100.0%
	3 Post Baccalaureate	Count	41	51	92
		% within CLLEVEL Class Level	44.6%	55.4%	100.0%
Total		Count	213	222	435
		% within CLLEVEL Class Level	49.0%	51.0%	100.0%

The likelihood of participating in a computer-based training was constant across academic discipline. This is seen in Table 71c, which shows that the percentage of students within a discipline participating in a computer-based training.

Table 71c: Participated in Computer-Based Training by Discipline.

		Q4A8A_1 Participated in Computer-Based Training			
		0 Not Chosen	1 Chosen	Total	
DISC Discipline Division	1 Art	Count	12	9	21
		% within DISC Discipline Division	57.1%	42.9%	100.0%
	2 Business	Count	27	41	68
		% within DISC Discipline Division	39.7%	60.3%	100.0%
	3 Education	Count	18	20	38
		% within DISC Discipline Division	47.4%	52.6%	100.0%
	4 Engineering/Computer Science	Count	19	19	38
		% within DISC Discipline Division	50.0%	50.0%	100.0%
	5 Humanities	Count	8	11	19
		% within DISC Discipline Division	42.1%	57.9%	100.0%
	6 Science & Math	Count	9	10	19
		% within DISC Discipline Division	47.4%	52.6%	100.0%
	7 Behavioral/Social Sciences	Count	52	41	93
		% within DISC Discipline Division	55.9%	44.1%	100.0%
	8 Professional/Technical	Count	11	12	23
		% within DISC Discipline Division	47.8%	52.2%	100.0%
	9 Undeclared	Count	42	37	79
		% within DISC Discipline Division	53.2%	46.8%	100.0%
	10 Interdisciplinary Studies	Count	15	22	37
		% within DISC Discipline Division	40.5%	59.5%	100.0%
Total		Count	213	222	435
		% within DISC Discipline Division	49.0%	51.0%	100.0%

Participation in a workshop to enhance basic computer skills was more common than was computer-based training in 2003. Table 72a shows that 61.8 percent of the students who had received some basic computer skills training had attended a workshop to get this training. The table also shows that workshops were more common in 2003 than they were in 2001 ($p < .05$).

Table 72a: Participated in a Workshop by Year.

			Q4A8A_2 Participated in a Workshop		
			0 Not Chosen	1 Chosen	Total
ADMIN Administration	1 2001	Count	216	258	474
		% within ADMIN Administration	45.6%	54.4%	100.0%
	2 2003	Count	166	269	435
		% within ADMIN Administration	38.2%	61.8%	100.0%
Total	Count		382	527	909
	% within ADMIN Administration		42.0%	58.0%	100.0%

Participation in basic computer-skills training in workshops was examined by class level. Table 72b illustrates that there were no differences in participation in basic computer skills workshops by class level.

Table 72b: Participated in a Workshop by Class Level.

			Q4A8A_2 Participated in a Workshop		Total
			0 Not Chosen	1 Chosen	
CLLEVEL Class Level	1 Lower Division	Count	41	68	109
		% within CLLEVEL Class Level	37.6%	62.4%	100.0%
	2 Upper Division	Count	94	140	234
		% within CLLEVEL Class Level	40.2%	59.8%	100.0%
	3 Post Baccalaureate	Count	31	61	92
		% within CLLEVEL Class Level	33.7%	66.3%	100.0%
Total	Count		166	269	435
	% within CLLEVEL Class Level		38.2%	61.8%	100.0%

Participation in basic computer skills training in workshops was consistent across academic disciplines. Table 72c shows the percentage of students in each discipline who had participated in some basic computer skills training that had participated in a workshop. Though the percentages of students participating appear to vary in the table, the number of cases in each category are too low to provide statistically significant differences unless those differences are extreme.

Those students who had reported participating in basic computer skills training reported participating in computer skills training in other forms, but with frequencies too low to allow for statistical analysis.

Table 72c: Participated in a Workshop by Discipline.

			Q4A8A_2 Participated in a Workshop		Total
			0 Not Chosen	1 Chosen	
DISC Discipline Division	1 Art	Count	3	18	21
		% within DISC Discipline Division	14.3%	85.7%	100.0%
	2 Business	Count	31	37	68
		% within DISC Discipline Division	45.6%	54.4%	100.0%
	3 Education	Count	11	27	38
		% within DISC Discipline Division	28.9%	71.1%	100.0%
	4 Engineering/Computer Science	Count	18	20	38
		% within DISC Discipline Division	47.4%	52.6%	100.0%
	5 Humanities	Count	5	14	19
		% within DISC Discipline Division	26.3%	73.7%	100.0%
	6 Science & Math	Count	10	9	19
		% within DISC Discipline Division	52.6%	47.4%	100.0%
	7 Behavioral/Social Sciences	Count	35	58	93
		% within DISC Discipline Division	37.6%	62.4%	100.0%
	8 Professional/Technical	Count	9	14	23
		% within DISC Discipline Division	39.1%	60.9%	100.0%
	9 Undeclared	Count	26	53	79
		% within DISC Discipline Division	32.9%	67.1%	100.0%
	10 Interdisciplinary Studies	Count	18	19	37
		% within DISC Discipline Division	48.6%	51.4%	100.0%
Total		Count	166	269	435
		% within DISC Discipline Division	38.2%	61.8%	100.0%

Satisfaction with Training

Those respondents who reported having participated in any basic computer skills training were asked about their satisfaction with the training in which they participated. The students were satisfied with the training programs as evidenced by an average satisfaction rating of 7.88 on the zero-to-ten satisfaction scale. Table 73a shows that this satisfaction level does not differ from the average level of satisfaction students expressed for basic computer skills training in 2001.

Table 73a: Satisfaction with Computer Skills Training Programs by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q4A8A1 Satisfaction	1 2001	463	7.77	1.986
with Training Programs	2 2003	433	7.88	1.850

Satisfaction with basic computer skills training programs was also examined for students at different class levels. The results are summarized in Table 73b. The table provides evidence that satisfaction with the training programs were consistent across class levels.

Table 73b: Satisfaction with Computer Skills Training Programs by Class Level.

Q4A8A1 Satisfaction with Training Programs

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	109	7.84	1.759	2	10
2 Upper Division	233	8.04	1.723	0	10
3 Post Baccalaureate	91	7.51	2.203	0	10
Total	433	7.88	1.850	0	10

Table 73c recounts the satisfaction students from different academic disciplines conveyed with the training programs in which they participated. Academic discipline did no bear on the satisfaction students reported with the basic computer skills training in which they participated.

Table 73c: Satisfaction with Computer Skills Training Programs by Discipline.

Q4A8A1 Satisfaction with Training Programs

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	21	7.86	1.558	4	10
2 Business	68	7.71	2.206	0	10
3 Education	37	7.97	1.878	2	10
4 Engineering/Computer Science	37	8.32	1.600	3	10
5 Humanities	19	7.58	2.036	3	10
6 Science & Math	19	7.63	2.087	2	10
7 Behavioral/Social Sciences	93	7.90	1.764	2	10
8 Professional/Technical	23	7.96	2.225	2	10
9 Undeclared	79	7.85	1.618	2	10
10 Interdisciplinary Studies	37	7.89	1.822	2	10
Total	433	7.88	1.850	0	10

Use of Technology in the Classroom

Class Technology Use and Satisfaction

Internet. Students were asked about the types of technologies they were required to use for their classes. The were asked how many classes they had taken over the last two years that required

them to use the Internet. Almost all (93.7%) of the students were required to use the Internet in at least one of their classes. Table 74a shows the proportion of their classes that required Internet use in 2001 and 2003. The proportion of the students' classes that required use of the Internet rose from 0.44 in 2001 to 0.52 in 2003 ($p < .001$).

Table 74a: Proportion of Classes Requiring Use of the Internet by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q1C1P Proportion of Classes Taken That Requirec Use of the Internet	1 2001	3147	.4396	.33484
	2 2003	3095	.5222	.34279

The proportion of students' classes that required use of the Internet is shown for different class levels in Table 74b. The table shows that class standing was related to the proportion of one's classes that required Internet use. Post-baccalaureate students were required to use the Internet in a higher proportion of their classes than were lower-division students ($p < .01$).

Table 74b: Proportion of Classes Requiring Use of the Internet by Class Level.

Q1C1P Proportion of Classes Taken That Required Use of the Internet

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	911	.5026	.33142	.00	1.00
2 Upper Division	1557	.5197	.33729	.00	1.00
3 Post Baccalaureate	627	.5569	.36952	.00	1.00
Total	3095	.5222	.34279	.00	1.00

The proportion of classes that required the use of the Internet was also examined by academic discipline. Only one effect of academic discipline was identified. Table 74c shows that business students had a higher proportion of their classes requiring Internet use than did art students.

Table 74c: Proportion of Classes Requiring Use of the Internet by Discipline.

Q1C1P Proportion of Classes Taken That Required Use of the Internet

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	129	.4420	.32602	.00	1.00
2 Business	442	.5579	.33879	.00	1.00
3 Education	227	.5422	.35240	.00	1.00
4 Engineering/Computer Science	280	.4803	.32326	.00	1.00
5 Humanities	158	.5122	.35301	.00	1.00
6 Science & Math	172	.5152	.33998	.00	1.00
7 Behavioral/Social Sciences	661	.5256	.34898	.00	1.00
8 Professional/Technical	195	.5415	.33785	.00	1.00
9 Undeclared	498	.5045	.34121	.00	1.00
10 Interdisciplinary Studies	333	.5440	.34716	.00	1.00
Total	3095	.5222	.34279	.00	1.00

Students in 2003 were asked about how satisfied they were with how Internet requirements contributed to their learning. Students were somewhat satisfied, offering an average satisfaction rating of 7.64. This satisfaction rating was fairly constant across class levels, as can be seen in Table 75a.

Table 75a: Satisfaction with How Required Internet Use Contributed to Learning by Class Level.

Q1C1B Satisfaction with How Internet Requirement Contributed to Learning

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	867	7.57	1.858	0	10
2 Upper Division	1469	7.67	1.946	0	10
3 Post Baccalaureate	560	7.66	2.020	0	10
Total	2896	7.64	1.935	0	10

The satisfaction with how Internet requirements contributed to learning was analyzed by academic discipline. Table 75b reveals there were no significant differences in satisfaction with Internet requirements by discipline.

Table 75b: Satisfaction with How Required Internet Use Contributed to Learning by Discipline.

Q1C1B Satisfaction with How Internet Requirement Contributed to Learning

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	120	7.72	1.778	0	10
2 Business	422	7.73	1.830	0	10
3 Education	208	7.59	2.083	0	10
4 Engineering/Computer Science	260	7.58	2.088	0	10
5 Humanities	148	7.13	2.174	0	10
6 Science & Math	162	7.55	1.801	1	10
7 Behavioral/Social Sciences	616	7.72	1.913	0	10
8 Professional/Technical	185	7.69	1.732	2	10
9 Undeclared	463	7.62	1.969	0	10
10 Interdisciplinary Studies	312	7.67	1.934	0	10
Total	2896	7.64	1.935	0	10

E-Mail. The proportion of classes that students took that required use of e-mail was lower than the proportion of classes requiring Internet use. In 2003, 82.6 percent of students were required to use e-mail for at least one class. Table 76a shows the proportion of classes students took that required use of e-mail in 2001 and 2003. This table shows a large increase in the proportion of classes requiring e-mail use from 2001 to 2003 ($p < .001$).

Table 76a: Proportion of Classes Requiring Use of E-mail by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q1C3P Proportion of Classes Taken That Required Use of E-Mail	1 2001	3151	.3098	.33677
	2 2003	3090	.3926	.35655

The proportion of classes requiring e-mail use also varied with class level. As Table 76b shows, post-baccalaureate students had a greater the proportion of their classes requiring e-mail use than upper-division students ($p < .05$) and lower-division students ($p < .001$). Additionally, upper-division students had a greater the proportion of their classes requiring e-mail use than did lower-division students ($p < .001$).

Table 76b: Proportion of Classes Requiring Use of E-mail by Class Level.

Q1C3P Proportion of Classes Taken That Required Use of E-Mail

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	906	.3550	.34687	.00	1.00
2 Upper Division	1557	.3947	.34951	.00	1.00
3 Post Baccalaureate	627	.4416	.38115	.00	1.00
Total	3090	.3926	.35655	.00	1.00

The proportion of classes requiring use of e-mail for students in different disciplines is displayed in Table 76c. The table shows that the proportion of students' classes that required e-mail use did vary by academic discipline.

Table 76c: Proportion of Classes Requiring Use of E-mail by Discipline.

Q1C3P Proportion of Classes Taken That Required Use of E-Mail

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	129	.3188	.32964	.00	1.00
2 Business	440	.4311	.36319	.00	1.00
3 Education	226	.3797	.36295	.00	1.00
4 Engineering/Computer Science	281	.3992	.34386	.00	1.00
5 Humanities	156	.3963	.34812	.00	1.00
6 Science & Math	171	.3296	.34534	.00	1.00
7 Behavioral/Social Sciences	661	.3798	.35485	.00	1.00
8 Professional/Technical	196	.4420	.36911	.00	1.00
9 Undeclared	498	.3769	.34494	.00	1.00
10 Interdisciplinary Studies	332	.4238	.37743	.00	1.00
Total	3090	.3926	.35655	.00	1.00

Students in 2003 indicated their level of satisfaction with how requirements in their class to use e-mail contributed to learning. The average satisfaction rating of 7.97 suggests that students were fairly satisfied. Table 77a shows students' satisfaction with these requirements by class level. Satisfaction with how requirements to use e-mail contributed to learning did not vary by class level.

Table 77a: Satisfaction with How Required E-mail Use Contributed to Learning by Class Level.

Q1C3C Satisfaction with Email in Connection with Course Work

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	734	8.01	2.064	0	10
2 Upper Division	1308	7.92	2.066	0	10
3 Post Baccalaureate	497	8.03	2.037	0	10
Total	2539	7.97	2.059	0	10

Table 77b contains the average ratings of satisfaction with how requirements to use e-mail contributed to learning by students in different disciplines. The table shows there were no differences in satisfaction by academic discipline.

Table 77b: Satisfaction with How Required E-mail Use Contributed to Learning by Discipline.

Q1C3C Satisfaction with Email in Connection with Course Work

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	102	7.88	2.226	0	10
2 Business	377	7.90	2.044	0	10
3 Education	178	7.94	1.918	0	10
4 Engineering/Computer Science	232	7.94	1.991	2	10
5 Humanities	132	7.89	2.110	0	10
6 Science & Math	129	8.09	1.837	1	10
7 Behavioral/Social Sciences	544	7.86	2.209	0	10
8 Professional/Technical	163	8.02	1.939	0	10
9 Undeclared	413	7.94	2.141	0	10
10 Interdisciplinary Studies	269	8.34	1.843	2	10
Total	2539	7.97	2.059	0	10

Computer Labs. Almost three-quarters (73.9%) of the students reported taking classes over the last two years in which some instruction was given in a computer classroom or lab. The proportion of classes taken that were at least in part taught in a computer classroom or lab was 0.17 in 2003. This is illustrated in Table 78a. The proportion of classes taken using a computer lab was the same in 2003 as it had been in 2001.

Table 78a: Proportion of Classes with Instruction in a Computer Lab by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q1C4P Proportion of Classes Taken in Which Any Instruction Was Conducted in a Computer Classroom or Lab	1 2001	3149	.1597	.19509
	2 2003	3099	.1665	.19735

Table 78b shows the proportion of classes that students took that were taught at least in part in a computer lab for students at different class levels. The proportion of computer lab classes students took was related to their class level. Lower-division students took classes that were proportionately less likely to involve a computer lab than the classes upper-division students ($p < .001$) or post-baccalaureate students ($p < .01$) had taken.

Table 78b: Proportion of Classes with Instruction in a Computer Lab by Class Level.

Q1C4P Proportion of Classes Taken in Which Any Instruction Was Conducted in a Computer Classroom or Lab

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	912	.1405	.16242	.00	1.00
2 Upper Division	1558	.1800	.20322	.00	1.00
3 Post Baccalaureate	629	.1708	.22362	.00	1.00
Total	3099	.1665	.19735	.00	1.00

The proportion of classes taken by students that were taught at least in part in a computer classroom or lab is broken down by academic discipline in Table 78c. The proportion of classes taken that were at least in part conducted in a computer classroom or lab was different for students in different disciplines. Not surprisingly, the engineering and computer science students had a higher proportion of their classes involve a computer classroom or lab than students in all other disciplines.

Table 78c: Proportion of Classes with Instruction in a Computer Lab by Discipline.

Q1C4P Proportion of Classes Taken in Which Any Instruction Was Conducted in a Computer Classroom or Lab

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	130	.1364	.16564	.00	1.00
2 Business	442	.1848	.21464	.00	1.00
3 Education	227	.1526	.19021	.00	1.00
4 Engineering/Computer Science	281	.2457	.23323	.00	1.00
5 Humanities	158	.1718	.21985	.00	1.00
6 Science & Math	172	.1611	.17565	.00	1.00
7 Behavioral/Social Sciences	662	.1460	.18138	.00	1.00
8 Professional/Technical	196	.1677	.21826	.00	1.00
9 Undeclared	499	.1546	.17333	.00	1.00
10 Interdisciplinary Studies	332	.1551	.19083	.00	1.00
Total	3099	.1665	.19735	.00	1.00

The responses of students in 2003 indicated that they were somewhat satisfied with how having some instruction in a computer classroom or lab contributed to their learning. Students gave an average satisfaction rating of 7.29. As Table 79a shows, this satisfaction level was not the same at all class levels. That is, upper-division students were more satisfied receiving some instruction in a computer classroom or lab than were lower-division students ($p < .05$).

Table 79a: Satisfaction with How Instruction in a Computer Lab Contributed to Learning by Class Level.

Q1C4B Satisfaction with How Computer Classroom Instruction Contributed to Learning

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	671	7.12	2.226	0	10
2 Upper Division	1200	7.40	2.007	0	10
3 Post Baccalaureate	412	7.25	2.330	0	10
Total	2283	7.29	2.136	0	10

Table 79b shows the satisfaction level of students in different academic disciplines with having at least some instruction in a computer classroom or lab. Discipline was unrelated to satisfaction with the having some instruction in a computer classroom or lab.

Table 79b: Satisfaction with How Instruction in a Computer Lab Contributed to Learning by Discipline.

Q1C4B Satisfaction with How Computer Classroom Instruction Contributed to Learning

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	87	7.43	2.160	0	10
2 Business	331	7.28	1.936	0	10
3 Education	159	7.29	2.265	0	10
4 Engineering/Computer Science	237	7.50	1.884	0	10
5 Humanities	109	7.08	2.253	0	10
6 Science & Math	135	7.19	2.361	0	10
7 Behavioral/Social Sciences	466	7.15	2.125	0	10
8 Professional/Technical	136	7.65	1.848	2	10
9 Undeclared	374	7.16	2.258	0	10
10 Interdisciplinary Studies	249	7.46	2.300	0	10
Total	2283	7.29	2.136	0	10

Distance Learning

Classes Completely Online. Students responded to questions regarding their participation in and attitudes toward distance learning. Proportionally, very few classes were taken that used distance learning, though 16.1 percent of students in 2003 reported taking at least one class that was completely online. The proportion of classes taken that were completely done in distance-learning mode was only 0.02. This proportion was dependent on class level, as Table 80a illustrates. Post-baccalaureate students took a higher proportion of classes that were completely online than did upper-division students ($p < .01$) or lower-division students ($p < .001$).

Table 80a: Proportion of Classes Taken Completely Online by Class Level.

COMPONLP Proportion of Classes Taken Completely Online

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	912	.0142	.05538	.00	1.00
2 Upper Division	1560	.0270	.09469	.00	1.00
3 Post Baccalaureate	629	.0430	.14483	.00	1.00
Total	3101	.0264	.09879	.00	1.00

Table 80b reveals some differences among disciplines in the proportion of classes they took that were completely online. That is, the professional/technical students took a dramatically higher proportion of their classes online than did students in all other disciplines. Additionally, interdisciplinary studies students took a higher proportion of their classes completely online compared to behavioral and social sciences students ($p < .05$).

Table 80b: Proportion of Classes Taken Completely Online by Discipline.

COMPONLP Proportion of Classes Taken Completely Online

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	130	.0120	.04032	.00	.27
2 Business	442	.0223	.08030	.00	1.00
3 Education	227	.0283	.09168	.00	.67
4 Engineering/Computer Science	281	.0253	.11613	.00	1.00
5 Humanities	158	.0135	.04028	.00	.33
6 Science & Math	172	.0156	.04407	.00	.33
7 Behavioral/Social Sciences	663	.0168	.06026	.00	.80
8 Professional/Technical	196	.0794	.22295	.00	1.00
9 Undeclared	499	.0254	.07921	.00	1.00
10 Interdisciplinary Studies	333	.0387	.12241	.00	1.00
Total	3101	.0264	.09879	.00	1.00

Classes Partially Online. Classes that were only partially online were proportionately more frequent than were classes completely online. A total of 44.4 percent of the students in 2003 had taken a class that was taught partially online. That is, the proportion of classes that students took that were partially online was 0.08. Table 81a shows that there was some deviation in the proportion of partially online classes that students of different class levels took. Specifically, post-baccalaureate students had a higher proportion of their classes partially online than did lower-division students ($p < .05$).

Table 81a: Proportion of Classes Taken Partially Online by Class Level.

PARTONLP Proportion of Classes Taken Partially Online

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	912	.0716	.12678	.00	1.00
2 Upper Division	1559	.0804	.13765	.00	1.00
3 Post Baccalaureate	629	.0924	.17678	.00	1.00
Total	3100	.0802	.14365	.00	1.00

Table 81b shows the proportion of classes taken by students in different disciplines that were taught partially online. There were no differences among disciplines in the proportion of classes that students took that were partially online.

Table 81b: Proportion of Classes Taken Partially Online by Discipline.

PARTONLP Proportion of Classes Taken Partially Online

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	130	.0636	.09949	.00	.50
2 Business	442	.0944	.16568	.00	1.00
3 Education	227	.0852	.17852	.00	1.00
4 Engineering/Computer Science	281	.0803	.15126	.00	1.00
5 Humanities	158	.0797	.14660	.00	1.00
6 Science & Math	172	.0639	.12262	.00	.69
7 Behavioral/Social Sciences	662	.0798	.13642	.00	1.00
8 Professional/Technical	196	.0836	.14961	.00	.88
9 Undeclared	499	.0760	.12814	.00	1.00
10 Interdisciplinary Studies	333	.0786	.13427	.00	1.00
Total	3100	.0802	.14365	.00	1.00

Satisfaction with Online Classes. Those students in 2003 that had taken at least one class that was completely or partially online were asked about satisfaction with online classes. Specifically, students were asked how satisfied they were with online courses compared to regular classroom instruction. Overall, students rated their satisfaction with online courses at 6.10, indicating that they were only somewhat satisfied. Table 82a shows the average satisfaction with online classes by class level. Satisfaction with online courses did not vary by class level.

Table 82a: Satisfaction with Online Courses by Class Level.

Q1A2B1 Satisfaction with Online Courses Compared to Regular Classroom Instruction

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	438	6.25	2.269	0	10
2 Upper Division	796	5.96	2.334	0	10
3 Post Baccalaureate	278	6.24	2.375	0	10
Total	1512	6.10	2.326	0	10

Satisfaction with online classes was also assessed by academic discipline. Table 82b reveals no differences in satisfaction with online classes by discipline.

Table 82b: Satisfaction with Online Courses by Discipline.

Q1A2B1 Satisfaction with Online Courses Compared to Regular Classroom Instruction

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	68	5.88	2.459	0	10
2 Business	217	6.21	2.292	0	10
3 Education	90	6.19	2.463	0	10
4 Engineering/Computer Science	127	6.09	2.215	0	10
5 Humanities	74	5.65	2.737	0	10
6 Science & Math	73	5.60	2.216	0	10
7 Behavioral/Social Sciences	326	5.95	2.216	0	10
8 Professional/Technical	108	6.39	2.363	1	10
9 Undeclared	257	6.19	2.294	0	10
10 Interdisciplinary Studies	172	6.37	2.377	0	10
Total	1512	6.10	2.326	0	10

Importance of Distance Learning. There was substantial endorsement of distance learning by students. In 2003, students rated the importance of providing electronic access to course instruction for students at any time and place at 8.11 on a zero-to-ten importance scale. Though a high rating, this is a significant decrease from the rating of 8.48 in 2001 ($p < .001$), as shown in Table 83a.

Table 83a: Importance of Providing Students with Electronic Access to Course Instruction Any Time and Place by Year.

	ADMIN Administration	N	Mean	Std. Deviation
Q1A3 Importance of Providing Electronic Access to Course Instruction for Students at Any Time and Place	1 2001	3135	8.48	2.093
	2 2003	3086	8.11	2.156

The importance that students placed on electronic access to course instruction for students at any time and place varied by class level. Post-baccalaureate students saw providing distance learning opportunities as less important than did both lower-division ($p < .001$) and upper-division students ($p < .01$). This is illustrated in Table 83b.

Table 83b: Importance of Providing Students with Electronic Access to Course Instruction Any Time and Place by Class Level.

Q1A3 Importance of Providing Electronic Access to Course Instruction for Students at Any Time and Place

	N	Mean	Std. Deviation	Minimum	Maximum
1 Lower Division	910	8.31	1.980	0	10
2 Upper Division	1553	8.13	2.140	0	10
3 Post Baccalaureate	623	7.77	2.391	0	10
Total	3086	8.11	2.156	0	10

Perceived importance of distance learning was also assessed by academic discipline. Table 83c contains the average ratings of the importance of distance learning by discipline. No differences in the ratings of importance of electronic access to course instruction any time and place were detected by discipline.

Table 83c: Importance of Providing Students with Electronic Access to Course Instruction Any Time and Place by Discipline.

Q1A3 Importance of Providing Electronic Access to Course Instruction for Students at Any Time and Place

	N	Mean	Std. Deviation	Minimum	Maximum
1 Art	130	8.15	2.222	0	10
2 Business	439	8.21	2.052	0	10
3 Education	227	7.99	2.157	0	10
4 Engineering/Computer Science	281	8.29	2.060	0	10
5 Humanities	156	7.81	2.455	0	10
6 Science & Math	170	7.89	2.265	0	10
7 Behavioral/Social Sciences	661	8.00	2.195	0	10
8 Professional/Technical	194	8.35	1.852	0	10
9 Undeclared	497	8.03	2.266	0	10
10 Interdisciplinary Studies	331	8.38	2.015	0	10
Total	3086	8.11	2.156	0	10

Amount of Required Computer and Internet Use

Students in 2003 judged the adequacy of the amount of computer use that is required of them in their classes. Over three-quarters (76.7%) of the students regarded the amount of computer use required in their classes to be the right amount. However, one in five (19.2%) of the students said the amount of required computer use in their classes was too little. As Table 84a shows, this pattern was consistent across class level.

Table 84a: Amount of Computer Use Required in Classes by Class Level.

		Q1CAMT1 Amount of Computer Use Required in Classes				
		1 Too Little	2 The Right Amount	3 Too Much	Total	
CLLEVEL Class Level	1 Lower Division	Count	158	716	33	907
		% within CLLEVEL Class Level	17.4%	78.9%	3.6%	100.0%
	2 Upper Division	Count	323	1164	69	1556
		% within CLLEVEL Class Level	20.8%	74.8%	4.4%	100.0%
	3 Post Baccalaureate	Count	112	484	23	619
		% within CLLEVEL Class Level	18.1%	78.2%	3.7%	100.0%
Total		Count	593	2364	125	3082
		% within CLLEVEL Class Level	19.2%	76.7%	4.1%	100.0%

Table 84b shows the ratings of students in different disciplines in terms of the adequacy of the amount of computer use required in their classes. Students in different disciplines did not differ in their evaluation of how much computer use should be required in their classes.

Table 84b: Amount of Computer Use Required in Classes by Discipline.

		Q1CAMT1 Amount of Computer Use Required in Classes				
		1 Too Little	2 The Right Amount	3 Too Much	Total	
DISC Discipline Division	1 Art	Count	24	100	6	130
		% within DISC Discipline Division	18.5%	76.9%	4.6%	100.0%
	2 Business	Count	100	325	15	440
		% within DISC Discipline Division	22.7%	73.9%	3.4%	100.0%
	3 Education	Count	37	182	7	226
		% within DISC Discipline Division	16.4%	80.5%	3.1%	100.0%
	4 Engineering/Computer Science	Count	48	225	7	280
		% within DISC Discipline Division	17.1%	80.4%	2.5%	100.0%
	5 Humanities	Count	28	117	10	155
		% within DISC Discipline Division	18.1%	75.5%	6.5%	100.0%
	6 Science & Math	Count	35	132	4	171
		% within DISC Discipline Division	20.5%	77.2%	2.3%	100.0%
	7 Behavioral/Social Sciences	Count	124	505	32	661
		% within DISC Discipline Division	18.8%	76.4%	4.8%	100.0%
	8 Professional/Technical	Count	35	151	9	195
		% within DISC Discipline Division	17.9%	77.4%	4.6%	100.0%
	9 Undeclared	Count	99	370	25	494
		% within DISC Discipline Division	20.0%	74.9%	5.1%	100.0%
	10 Interdisciplinary Studies	Count	63	257	10	330
		% within DISC Discipline Division	19.1%	77.9%	3.0%	100.0%
Total		Count	593	2364	125	3082
		% within DISC Discipline Division	19.2%	76.7%	4.1%	100.0%

In 2003 students were asked about the amount of Internet use that is required of them in their classes. As with computer use, over three-quarters (77.2%) of the students regarded the required amount of Internet use in their classes to be the right amount. Table 85a shows this pattern to be consistent across class level.

Table 85a: Amount of Internet Use Required in Classes by Class Level.

		Q1CAMT2 Amount of Internet Use Required in Classes				
			1 Too Little	2 The Right Amount	3 Too Much	Total
CLLEVEL Class Level	1 Lower Division	Count	165	714	32	911
		% within Class Level	18.1%	78.4%	3.5%	100.0%
	2 Upper Division	Count	302	1189	68	1559
		% within Class Level	19.4%	76.3%	4.4%	100.0%
	3 Post Baccalaureate	Count	116	486	21	623
		% within Class Level	18.6%	78.0%	3.4%	100.0%
Total		Count	583	2389	121	3093
		% within Class Level	18.8%	77.2%	3.9%	100.0%

Table 85b shows how students in different disciplines viewed the amount of Internet use required in their classes. Students in different disciplines did not differ in their view of how adequate the amount of required computer use was in their classes.

Table 85b: Amount of Internet Use Required in Classes by Discipline.

		Q1CAMT2 Amount of Internet Use Required in Classes				
		1 Too Little	2 The Right Amount	3 Too Much	Total	
DISC Discipline Division	1 Art	Count	20	107	3	130
		% within Discipline	15.4%	82.3%	2.3%	100.0%
	2 Business	Count	88	334	19	441
		% within Discipline	20.0%	75.7%	4.3%	100.0%
	3 Education	Count	45	176	4	225
		% within Discipline	20.0%	78.2%	1.8%	100.0%
	4 Engineering/ Computer Science	Count	54	219	8	281
		% within Discipline	19.2%	77.9%	2.8%	100.0%
	5 Humanities	Count	28	122	7	157
		% within Discipline	17.8%	77.7%	4.5%	100.0%
	6 Science & Math	Count	38	133	1	172
		% within Discipline	22.1%	77.3%	.6%	100.0%
	7 Behavioral/ Social Sciences	Count	121	504	36	661
		% within Discipline	18.3%	76.2%	5.4%	100.0%
	8 Professional/ Technical	Count	29	159	7	195
		% within Discipline	14.9%	81.5%	3.6%	100.0%
	9 Undeclared	Count	95	381	22	498
		% within Discipline	19.1%	76.5%	4.4%	100.0%
	10 Interdisciplinary Studies	Count	65	254	14	333
		% within Discipline	19.5%	76.3%	4.2%	100.0%
Total		Count	583	2389	121	3093
		% within Discipline	18.8%	77.2%	3.9%	100.0%

SUMMARY

The SBRI at California State University San Marcos conducted a telephone survey with 3,156 students from California State University campuses throughout the system in 2003. This data was combined with similar data collected in 2001. The purpose of the survey was to provide information about CSU students' access to, use of, and satisfaction with computing and network resources and services considered to be within the scope of the technology infrastructure as defined in the CSU Integrated Technology Strategy.

The results of this survey provide an indication of differences from the first administration to the second in the way CSU students use and think about information technology. Changes in use, attitudes, and satisfaction will be tracked by comparing the results of these biennial student surveys planned through 2006.

In the first two administrations, a total of 6,360 students from CSU campuses have been interviewed. This comprises at least 150 students from each of 21 campuses for both administrations. The California Maritime Academy and CSU Channel Islands were excluded because the number of students on these campuses are too small to provide a sufficient sample.

This summary gives focus to general findings and differences between Administrations 1 and 2. Overall patterns of technology use and satisfaction across class level and academic discipline are consistent with the previous study. The differences between Administrations 1 and 2 as well as the overall pattern of attitudes, use, and satisfaction are given attention in this report.

General Findings

The CSU Student Technology Survey covers three broad areas: attitudes regarding information technology, its availability and use, and satisfaction with resources and services. Key findings in these areas are noted below.

Attitudes

- CSU students believe computing and network resources to be very important for the completion of their school work and students in 2003 rated the importance of computing and network resources slightly higher than did students in 2001.
- Students regarded computer literacy as very important to their employment goals, but believed their university prepared them only somewhat adequately for the technology skills they would need upon graduation.
- Students believed training programs to improve basic computer skills were quite important, though the average importance rating dropped from 8.61 in 2001 to 8.48 in 2003.
- The provision of access to course instruction online any time and place was considered very important to students, though slightly less so in 2002 (8.11) than it was to students in 2001 (8.48).
- Three-quarters of the students said the amount of computer use required in their classes was the right amount.

Access

- Almost all students in both 2001 and 2003 said they had access to the computer hardware that they needed to complete their work.
- Access to needed software, while prevalent, was not universal with 84.5 percent saying they had what they needed in terms of software.
- In 2003, 95.4 percent of students owned a computer, which represents a slight increase from 2001.
- A third of those with computers said they owned a laptop, and half of those with laptops had wireless networking capability.

Use

Required Class Use

- Students reported that just over half (53.91%) of the time they spent on computers was academically related, which is a slight decrease from 55.61 percent in 2001.
- Almost all students took at least one class that required student use of the Internet, and students' use of the Internet was required in 52% of their classes in 2003, compared to 44% in 2001.

- The proportion of classes that required use of e-mail increased significantly from 31 percent in 2001 to 39 percent in 2003.
- Students took courses in which 17 percent held at least some instruction in a computer classroom or lab.
- Two percent of the classes that students took were completely online and eight percent were partially online. Additionally, 16.1 percent of students had taken at least one class that was completely online and 44.4 percent had taken at least one class that was partially online.

Use of Technology and Related Resources

- Most (87.1%) students in 2003 used a computer almost every day, which is an increase over the 82.4 percent in 2001.
- Two-thirds of the students who used a computer said they used a computer on campus.
- More than four-fifths of the students reported using campus access to e-mail or the Internet.
- Half of the students used their campus-provided e-mail accounts.
- The percentage of students using online information resources increased from 81.8 percent in 2001 to 84.4 percent in 2003.
- The percentage of students using their campus online information system to get information about (1) registration, (2) grades, (3) financial aid, (4) billing, and (5) progress toward their degree all increased dramatically from 2001 to 2003.

- Use of three primary sources of help increased from 2001 to 2003, with computer lab staff used by 61.1 percent of students, telephone call centers used by 35.0 percent, and walk-in help desks used by 32.7 percent in 2003.
- Only 13.8 percent of students participated in basic computer-skills training programs.

Satisfaction

- Students were fairly satisfied with the computing and technology resources available to them, and their satisfaction increased slightly from 7.51 in 2001 to 7.62 in 2003.
- Students were very satisfied with their campus access to the Internet and campus e-mail services.
- Students were highly satisfied with their access to information in their campus online information system.
- Students were highly satisfied with telephone call centers or online help desks, campus walk-in help desks, and computer lab staff in helping them with computer difficulties.
- Students who participated in basic computer skills training were quite satisfied with the training they received.
- Students expressed satisfaction with how required Internet and e-mail use as well as computer lab instruction contributed to their learning.
- Students who had taken a partially or completely online course offered a mediocre satisfaction rating of online courses compared to regular course instruction.