

# Information Technology User Survey

Survey #4  
Spring 1999

## SUMMARY REPORT

In spring of 1999 the Office of Research, Planning and Development administered survey #4 of the Information Technology User Survey. This report highlights some of the findings of that survey and makes recommendations with respect to how the information may be utilized. Following this report are more detailed descriptions of the responses elicited by the various questions, results of factor analysis, and a copy of the survey instrument.

### Background Data Highlights

- 33% of the respondents are male and 67% are female
- 42% of the respondents are full-time faculty, 32% are full-time TSCM, and 25% are administrative/professional
- Overall, RPD received responses from 64% of the faculty, 48% of TSCM, and 81% of administrative/professional personnel
- 57% of the respondents have a graduate/professional degree beyond the Bachelors
- Approximately 90% of the respondents indicated that they are interested or very interested in working with computers
- 72% indicated that they cannot do their job without a computer
- 70% have a personal computer at home
- 42% frequently use their PC at home to perform ACC work
- 93% of the respondents use a computer to do their job

### Work Impacts Highlights

- 87% of the respondents reported an increase in the number of different tasks they have to do in their job

- 69% reported an increase in time pressures
- 60% reported an increase in the quality of their decision making
- 59% reported an increase in the frequency with which they have to make decisions
- Only 37% reported an increase in face-to-face communications with other departments
- 57% reported an increase in their perceived utility to the organization
- 64% reported an increase in their sense of accomplishment
- 84% reported an increase in the amount of work they do
- 50% reported an increase in the enjoyment they get from their job
- Only 6% reported a need for increased supervision

In addition to the frequencies reported above, a **factor analysis** was performed on the responses to determine which questions had a high level of correlation with one another. The result is the reduction of the original 15 questions to 6 derived variables that I have designated as below:

1. **Stress**

Q9. The number of different things I do in my job has:

Q10. Time pressures in my job have:

Q22. The amount of work I do has:

2. **Interaction**

Q11. My opportunities to work with other people have:

Q15. My face-to-face communications with other departments have:

3. **Decisions**

Q12. The quality of my decision making has:

Q13. My freedom in making decisions has:

Q14. The frequency with which I make decisions has:

4. **Self-Image**

Q16. My professional image has:

Q17. My perceived utility to the organization has:

Q20. Independence in how I do my job has:

5. **Supervision**

Q18. My need for supervision has:

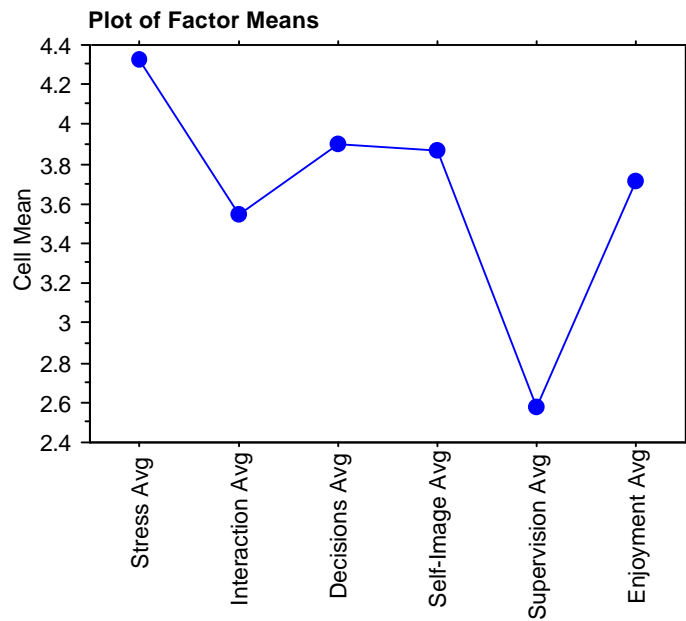
6. **Enjoyment**

Q19. My influence over work of other people has:

Q21. A sense of accomplishment in my work has:

Q23. Enjoyment from my job has:

The chart below indicates the average response for each of these factors on a scale from 1 to 5 where 1 = Decreased, 2 = Somewhat Decreased, 3 = Not Been Affected, 4 = Somewhat Increased, and 5 = Increased. As can be seen, the amount of stress, decision making, enjoyment, and self-image have all increased.



**Frequency of Use Highlights**

- 40% of the respondents enter data into ACC's computer system weekly or daily
- 66% retrieve data from ACC's computer system weekly or daily
- 94% use email weekly or daily
- 90% depend weekly or daily on computers for doing their job

- 31% use a spreadsheet weekly or daily
- 61% use WordPerfect weekly or daily
- 47% use Microsoft Word weekly or daily
- Only 8% view pdf files weekly or daily
- 73% use Netscape or Internet Explorer weekly or daily
- 41% save data on network drives weekly or daily
- 87% use computer-based information weekly or daily

Factor analysis generated the following 8 derived variables:

1. **Data Entry**

- Q24. Enter data into ACC's computer system
- Q25. Retrieve data from ACC's computer system
- Q39. Use Wintegrate to access Colleague

2. **Graphics/Network Drives**

- Q26. Use graphics files
- Q38. Save data on network drives (G, U, or S)
- Q40. In summary, use computer-based information

3. **Email/WordPerfect**

- Q27. Use email
- Q32. Use WordPerfect

4. **Spreadsheets**

- Q28. Use statistical software
- Q29. Use computers to do ACC related financial/budgetary calculations
- Q31. Use a spreadsheet

5. **General Job Activities**

- Q30. Depend on computers for doing my job

6. **MS Office**

- Q33. Use Microsoft Word
- Q34. Use PowerPoint

7. **PDF/Database**

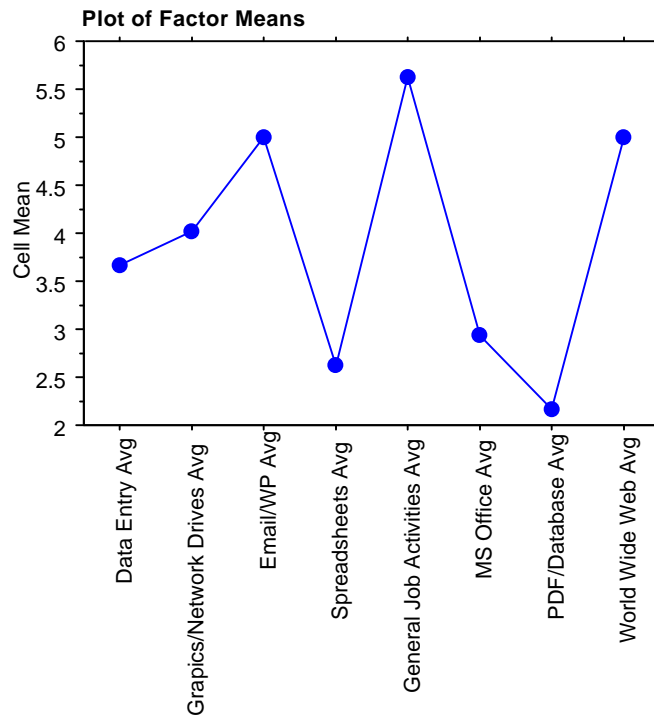
- Q35. View pdf files using Adobe Acrobat

Q36. Use a relational database

## 8. World Wide Web

Q37. Use Netscape or Internet Explorer

Below is a chart indicating the average response for each factor. The following scale is used: 1 = Never, 2 = At Least Once a Year, 3 = Several Times a Month, 4 = A few Times a Week, and 5 = Daily. As can be seen, the usage is high for email/WordPerfect, the world wide web, and general compute use for job related activities.



### Views Toward Computer Services Highlights

- 70% of the respondents agree or somewhat agree that Computer Center personnel promote computer use in their department
- 67% agree or somewhat agree that Computer Center personnel respect their opinions about their computer needs
- 78% agree or somewhat agree that Computer Center personnel are interested in helping them solve their problems

- 79% agree or somewhat agree that Computer Center personnel communicate with them using language that they can understand.
- 59% agree or somewhat agree that Computer Center personnel respond quickly and effectively to their immediate needs
- 64% agree or somewhat agree that Computer Center personnel respond effectively to their long-term needs
- 68% agree or somewhat agree that Computer Center personnel are generally user-oriented
- 61% agree or somewhat agree that Computer Center personnel are easy to contact
- Only 35% agree or somewhat agree that Computer Center personnel can easily handle (at current staffing levels) all the computer needs of the college

For the remaining six items, we have gauged the response by the percentage of people who selected "poor". Furthermore, we have recalculated the percentages by first eliminating all responses of "none provided" and "don't know" so that we are dealing only with a continuum from "poor" to "excellent".

- 18% of the respondents rated as "poor" the quality of computer services provided to their department
- 17% rated as "poor" the helpfulness of computer service staff in providing assistance to their area
- 18% rated as "poor" the responsiveness of the computer center director to their area needs
- 14% rated as "poor" the quality of formal, Colleague software training they've received from ACC personnel
- 8% rated as "poor" the quality of formal, non-Colleague software training they've received from ACC personnel
- 23% rated as "poor" the amount of software training made available to them (all kinds)

## **Concluding Remarks**

The Information Technology User Survey administered in spring of 1999 indicates that technology and computers have become ubiquitous at ACC. Of those who responded, 93% indicated that they use a computer to do their job, 70% have a computer at home, and 42% frequently use their home PC to perform work for ACC. Analysis of the work impacts of technology indicates that computers have both increased job-related stresses and the enjoyment that people are getting from their jobs. In addition, self-image and quality of decision making have improved as a result of technology. An analysis of the frequency of use of various applications indicates that email and internet usage is very high as is the general daily use of computer-based information. The survey also gives estimates on the percentage of people who use spreadsheets regularly, who frequently enter and retrieve data, and who use WordPerfect and/or Microsoft Word. Regarding Computer Services, the results show that while there is general approval of the quality of the services provided, there is also room for improvement. The percentages obtained in this survey can be used as benchmarks to gauge improvement the next time that the survey is administered, and they indicate to us now which areas are most in need of improvement. The results also show quite clearly that there is a strong consensus that Computer Services is understaffed with regard to being able to meet all the computer needs of the college. Finally, the survey indicates a need for the amount of software training that is provided to be increased.

# INFORMATION TECHNOLOGY SURVEY

Spring 1999

## Background Data

### Frequency Distribution for Q1

From (>=)	To (<)	Count	Percent
1.000	2.000	45	32.847
2.000	3.000	92	67.153
	Total	137	100.000

- 1 - Male
- 2 - Female

### Frequency Distribution for Q2

From (>=)	To (<)	Count	Percent
1.000	2.000	58	42.029
2.000	3.000	44	31.884
3.000	4.000	34	24.638
4.000	5.000	2	1.449
	Total	138	100.000

- 1 - Full time Faculty
- 2 - Full time TSCM
- 3 - Administrative/Professional
- 4 - Other

### Frequency Distribution for Q3

From (>=)	To (<)	Count	Percent
1.000	2.000	18	13.333
2.000	3.000	26	19.259
3.000	4.000	14	10.370
4.000	5.000	77	57.037
	Total	135	100.000

- 1 - High School or less
- 2 - Associates Degree
- 3 - Bachelor's Degree
- 4 - Graduate/Professional Degree beyond the Bachelors

### Frequency Distribution for Q4

From (>=)	To (<)	Count	Percent
1.000	2.000	1	.730
2.000	3.000	12	8.759
3.000	4.000	45	32.847
4.000	5.000	79	57.664
	Total	137	100.000

- 1 - Not interested
- 2 - Somewhat interested
- 3 - Interested
- 4 - Very interested

### Frequency Distribution for Q5

From (>=)	To (<)	Count	Percent
1.000	2.000	38	27.941
2.000	3.000	98	72.059
	Total	136	100.000

- 1- Yes
- 2 - No

### Frequency Distribution for Q6

From (>=)	To (<)	Count	Percent
1.000	2.000	96	70.073
2.000	3.000	41	29.927
	Total	137	100.000

- 1 - Yes
- 2 - No

**Frequency Distribution for Q7**

From (>=)	To (<)	Count	Percent
1.000	2.000	57	41.912
2.000	3.000	44	32.353
3.000	4.000	35	25.735
	Total	136	100.000

- 1 - Yes
- 2 - No
- 3 - I don't have a PC at home

**Frequency Distribution for Q8**

From (>=)	To (<)	Count	Percent
1.000	2.000	127	93.382
2.000	3.000	9	6.618
	Total	136	100.000

- 1 - Yes
- 2 - No

# INFORMATION TECHNOLOGY SURVEY

Spring 1999

## Work Impacts

- 1 - Decreased
- 2 - Somewhat Decreased
- 3 - Not Been Affected
- 4 - Somewhat Increased
- 5 - Increased
- 6 - Don't Know

### Frequency Distribution for Q9

From (>=)	To (<)	Count	Percent
1.000	2.000	1	.820
2.000	3.000	3	2.459
3.000	4.000	10	8.197
4.000	5.000	23	18.852
5.000	6.000	83	68.033
6.000	7.000	2	1.639
	Total	122	100.000

### Frequency Distribution for Q10

From (>=)	To (<)	Count	Percent
1.000	2.000	4	3.306
2.000	3.000	11	9.091
3.000	4.000	22	18.182
4.000	5.000	18	14.876
5.000	6.000	65	53.719
6.000	7.000	1	.826
	Total	121	100.000

### Frequency Distribution for Q11

From (>=)	To (<)	Count	Percent
1.000	2.000	6	4.878
2.000	3.000	7	5.691
3.000	4.000	44	35.772
4.000	5.000	16	13.008
5.000	6.000	47	38.211
6.000	7.000	3	2.439
	Total	123	100.000

**Frequency Distribution for Q12**

From (>=)	To (<)	Count	Percent
1.000	2.000	1	.870
2.000	3.000	0	0.000
3.000	4.000	40	34.783
4.000	5.000	25	21.739
5.000	6.000	44	38.261
6.000	7.000	5	4.348
	Total	115	100.000

**Frequency Distribution for Q13**

From (>=)	To (<)	Count	Percent
1.000	2.000	2	1.639
2.000	3.000	1	.820
3.000	4.000	54	44.262
4.000	5.000	27	22.131
5.000	6.000	34	27.869
6.000	7.000	4	3.279
	Total	122	100.000

**Frequency Distribution for Q14**

From (>=)	To (<)	Count	Percent
1.000	2.000	0	0.000
2.000	3.000	2	1.681
3.000	4.000	45	37.815
4.000	5.000	27	22.689
5.000	6.000	43	36.134
6.000	7.000	2	1.681
	Total	119	100.000

**Frequency Distribution for Q15**

From (>=)	To (<)	Count	Percent
1.000	2.000	5	4.098
2.000	3.000	20	16.393
3.000	4.000	50	40.984
4.000	5.000	20	16.393
5.000	6.000	25	20.492
6.000	7.000	2	1.639
	Total	122	100.000

**Frequency Distribution for Q16**

From (>=)	To (<)	Count	Percent
1.000	2.000	1	.826
2.000	3.000	0	0.000
3.000	4.000	43	35.537
4.000	5.000	29	23.967
5.000	6.000	37	30.579
6.000	7.000	11	9.091
	Total	121	100.000

**Frequency Distribution for Q17**

From (>=)	To (<)	Count	Percent
1.000	2.000	1	.826
2.000	3.000	0	0.000
3.000	4.000	41	33.884
4.000	5.000	29	23.967
5.000	6.000	40	33.058
6.000	7.000	10	8.264
	Total	121	100.000

**Frequency Distribution for Q18**

From (>=)	To (<)	Count	Percent
1.000	2.000	21	17.355
2.000	3.000	18	14.876
3.000	4.000	73	60.331
4.000	5.000	4	3.306
5.000	6.000	3	2.479
6.000	7.000	2	1.653
	Total	121	100.000

**Frequency Distribution for Q19**

From (>=)	To (<)	Count	Percent
1.000	2.000	2	1.667
2.000	3.000	0	0.000
3.000	4.000	60	50.000
4.000	5.000	19	15.833
5.000	6.000	33	27.500
6.000	7.000	6	5.000
	Total	120	100.000

**Frequency Distribution for Q20**

From (>=)	To (<)	Count	Percent
1.000	2.000	5	4.167
2.000	3.000	2	1.667
3.000	4.000	49	40.833
4.000	5.000	26	21.667
5.000	6.000	37	30.833
6.000	7.000	1	.833
	Total	120	100.000

**Frequency Distribution for Q21**

From (>=)	To (<)	Count	Percent
1.000	2.000	3	2.439
2.000	3.000	8	6.504
3.000	4.000	32	26.016
4.000	5.000	35	28.455
5.000	6.000	44	35.772
6.000	7.000	1	.813
	Total	123	100.000

**Frequency Distribution for Q22**

From (>=)	To (<)	Count	Percent
1.000	2.000	0	0.000
2.000	3.000	1	.833
3.000	4.000	17	14.167
4.000	5.000	36	30.000
5.000	6.000	65	54.167
6.000	7.000	1	.833
	Total	120	100.000

**Frequency Distribution for Q23**

From (>=)	To (<)	Count	Percent
1.000	2.000	8	6.667
2.000	3.000	11	9.167
3.000	4.000	39	32.500
4.000	5.000	30	25.000
5.000	6.000	30	25.000
6.000	7.000	2	1.667
	Total	120	100.000

# INFORMATION TECHNOLOGY SURVEY

Spring 1999

## Frequency of Use

- 1 - Never
- 2 - At Least Once a Year
- 3 - Several Times a Year
- 4 - Several Times a Month
- 5 - A Few Times a Week
- 6 - Daily

### Frequency Distribution for Q24

From (>=)	To (<)	Count	Percent
1.000	2.000	44	35.200
2.000	3.000	8	6.400
3.000	4.000	13	10.400
4.000	5.000	10	8.000
5.000	6.000	15	12.000
6.000	7.000	35	28.000
	Total	125	100.000

### Frequency Distribution for Q25

From (>=)	To (<)	Count	Percent
1.000	2.000	10	8.065
2.000	3.000	4	3.226
3.000	4.000	14	11.290
4.000	5.000	14	11.290
5.000	6.000	23	18.548
6.000	7.000	59	47.581
	Total	124	100.000

### Frequency Distribution for Q26

From (>=)	To (<)	Count	Percent
1.000	2.000	40	32.258
2.000	3.000	12	9.677
3.000	4.000	19	15.323
4.000	5.000	19	15.323
5.000	6.000	18	14.516
6.000	7.000	16	12.903
	Total	124	100.000

**Frequency Distribution for Q27**

From (>=)	To (<)	Count	Percent
1.000	2.000	2	1.653
2.000	3.000	1	.826
3.000	4.000	4	3.306
4.000	5.000	0	0.000
5.000	6.000	15	12.397
6.000	7.000	99	81.818
	Total	121	100.000

**Frequency Distribution for Q28**

From (>=)	To (<)	Count	Percent
1.000	2.000	63	52.066
2.000	3.000	10	8.264
3.000	4.000	16	13.223
4.000	5.000	19	15.702
5.000	6.000	8	6.612
6.000	7.000	5	4.132
	Total	121	100.000

**Frequency Distribution for Q29**

From (>=)	To (<)	Count	Percent
1.000	2.000	59	48.361
2.000	3.000	10	8.197
3.000	4.000	16	13.115
4.000	5.000	11	9.016
5.000	6.000	13	10.656
6.000	7.000	13	10.656
	Total	122	100.000

**Frequency Distribution for Q30**

From (>=)	To (<)	Count	Percent
1.000	2.000	2	1.613
2.000	3.000	0	0.000
3.000	4.000	5	4.032
4.000	5.000	6	4.839
5.000	6.000	10	8.065
6.000	7.000	101	81.452
	Total	124	100.000

**Frequency Distribution for Q31**

From (>=)	To (<)	Count	Percent
1.000	2.000	44	36.975
2.000	3.000	7	5.882
3.000	4.000	20	16.807
4.000	5.000	11	9.244
5.000	6.000	23	19.328
6.000	7.000	14	11.765
	Total	119	100.000

**Frequency Distribution for Q32**

From (>=)	To (<)	Count	Percent
1.000	2.000	22	19.130
2.000	3.000	6	5.217
3.000	4.000	7	6.087
4.000	5.000	10	8.696
5.000	6.000	20	17.391
6.000	7.000	50	43.478
	Total	115	100.000

**Frequency Distribution for Q33**

From (>=)	To (<)	Count	Percent
1.000	2.000	27	23.077
2.000	3.000	12	10.256
3.000	4.000	8	6.838
4.000	5.000	15	12.821
5.000	6.000	22	18.803
6.000	7.000	33	28.205
	Total	117	100.000

**Frequency Distribution for Q34**

From (>=)	To (<)	Count	Percent
1.000	2.000	67	55.372
2.000	3.000	15	12.397
3.000	4.000	16	13.223
4.000	5.000	8	6.612
5.000	6.000	9	7.438
6.000	7.000	6	4.959
	Total	121	100.000

**Frequency Distribution for Q35**

From (>=)	To (<)	Count	Percent
1.000	2.000	65	54.167
2.000	3.000	6	5.000
3.000	4.000	20	16.667
4.000	5.000	19	15.833
5.000	6.000	7	5.833
6.000	7.000	3	2.500
	Total	120	100.000

**Frequency Distribution for Q36**

From (>=)	To (<)	Count	Percent
1.000	2.000	77	66.957
2.000	3.000	4	3.478
3.000	4.000	12	10.435
4.000	5.000	4	3.478
5.000	6.000	4	3.478
6.000	7.000	14	12.174
	Total	115	100.000

**Frequency Distribution for Q37**

From (>=)	To (<)	Count	Percent
1.000	2.000	2	1.739
2.000	3.000	2	1.739
3.000	4.000	8	6.957
4.000	5.000	19	16.522
5.000	6.000	35	30.435
6.000	7.000	49	42.609
	Total	115	100.000

**Frequency Distribution for Q38**

From (>=)	To (<)	Count	Percent
1.000	2.000	31	27.193
2.000	3.000	5	4.386
3.000	4.000	14	12.281
4.000	5.000	17	14.912
5.000	6.000	24	21.053
6.000	7.000	23	20.175
	Total	114	100.000

**Frequency Distribution for Q39**

From (>=)	To (<)	Count	Percent
1.000	2.000	52	45.217
2.000	3.000	4	3.478
3.000	4.000	13	11.304
4.000	5.000	16	13.913
5.000	6.000	14	12.174
6.000	7.000	16	13.913
	Total	115	100.000

**Frequency Distribution for Q40**

From (>=)	To (<)	Count	Percent
1.000	2.000	2	1.802
2.000	3.000	0	0.000
3.000	4.000	4	3.604
4.000	5.000	8	7.207
5.000	6.000	18	16.216
6.000	7.000	79	71.171
	Total	111	100.000

# INFORMATION TECHNOLOGY SURVEY

Spring 1999

## Views Toward Computer Services (part 1)

- 1 - Disagree
- 2 - Somewhat Disagree
- 3 - Somewhat Agree
- 4 - Agree
- 5 - No Opnion

### Frequency Distribution for Q41

From (>=)	To (<)	Count	Percent
1.000	2.000	10	8.333
2.000	3.000	13	10.833
3.000	4.000	26	21.667
4.000	5.000	58	48.333
5.000	6.000	13	10.833
	Total	120	100.000

### Frequency Distribution for Q42

From (>=)	To (<)	Count	Percent
1.000	2.000	13	10.924
2.000	3.000	20	16.807
3.000	4.000	27	22.689
4.000	5.000	53	44.538
5.000	6.000	6	5.042
	Total	119	100.000

### Frequency Distribution for Q43

From (>=)	To (<)	Count	Percent
1.000	2.000	11	9.821
2.000	3.000	12	10.714
3.000	4.000	43	38.393
4.000	5.000	44	39.286
5.000	6.000	2	1.786
	Total	112	100.000

### Frequency Distribution for Q44

From (>=)	To (<)	Count	Percent
1.000	2.000	5	4.386
2.000	3.000	16	14.035
3.000	4.000	32	28.070
4.000	5.000	58	50.877
5.000	6.000	3	2.632
	Total	114	100.000

**Frequency Distribution for Q45**

From (>=)	To (<)	Count	Percent
1.000	2.000	24	20.168
2.000	3.000	24	20.168
3.000	4.000	41	34.454
4.000	5.000	29	24.370
5.000	6.000	1	.840
	Total	119	100.000

**Frequency Distribution for Q46**

From (>=)	To (<)	Count	Percent
1.000	2.000	10	8.475
2.000	3.000	23	19.492
3.000	4.000	33	27.966
4.000	5.000	42	35.593
5.000	6.000	10	8.475
	Total	118	100.000

**Frequency Distribution for Q47**

From (>=)	To (<)	Count	Percent
1.000	2.000	13	10.744
2.000	3.000	22	18.182
3.000	4.000	29	23.967
4.000	5.000	53	43.802
5.000	6.000	4	3.306
	Total	121	100.000

**Frequency Distribution for Q48**

From (>=)	To (<)	Count	Percent
1.000	2.000	18	14.876
2.000	3.000	28	23.140
3.000	4.000	36	29.752
4.000	5.000	38	31.405
5.000	6.000	1	.826
	Total	121	100.000

**Frequency Distribution for Q49**

From (>=)	To (<)	Count	Percent
1.000	2.000	36	29.752
2.000	3.000	32	26.446
3.000	4.000	29	23.967
4.000	5.000	13	10.744
5.000	6.000	11	9.091
	Total	121	100.000

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Spring 1999

## Views Toward Computer Services (part 2)

- 1 - None Provided
- 2 - Poor
- 3 - Fair
- 4 - Good
- 5 - Excellent
- 6 - Don't Know

### Frequency Distribution for Q50

From (>=)	To (<)	Count	Percent
1.000	2.000	0	0.000
2.000	3.000	21	16.935
3.000	4.000	33	26.613
4.000	5.000	44	35.484
5.000	6.000	22	17.742
6.000	7.000	4	3.226
	Total	124	100.000

### Frequency Distribution for Q51

From (>=)	To (<)	Count	Percent
1.000	2.000	1	.813
2.000	3.000	20	16.260
3.000	4.000	34	27.642
4.000	5.000	46	37.398
5.000	6.000	20	16.260
6.000	7.000	2	1.626
	Total	123	100.000

### Frequency Distribution for Q52

From (>=)	To (<)	Count	Percent
1.000	2.000	2	1.600
2.000	3.000	22	17.600
3.000	4.000	37	29.600
4.000	5.000	35	28.000
5.000	6.000	18	14.400
6.000	7.000	11	8.800
	Total	125	100.000

**Frequency Distribution for Q53**

From (>=)	To (<)	Count	Percent
1.000	2.000	31	25.203
2.000	3.000	11	8.943
3.000	4.000	23	18.699
4.000	5.000	30	24.390
5.000	6.000	12	9.756
6.000	7.000	16	13.008
	Total	123	100.000

**Frequency Distribution for Q54**

From (>=)	To (<)	Count	Percent
1.000	2.000	25	20.492
2.000	3.000	7	5.738
3.000	4.000	28	22.951
4.000	5.000	36	29.508
5.000	6.000	15	12.295
6.000	7.000	11	9.016
	Total	122	100.000

**Frequency Distribution for Q55**

From (>=)	To (<)	Count	Percent
1.000	2.000	9	7.500
2.000	3.000	23	19.167
3.000	4.000	30	25.000
4.000	5.000	34	28.333
5.000	6.000	15	12.500
6.000	7.000	9	7.500
	Total	120	100.000

# Factor Analysis of WORK IMPACTS

## Factor Analysis Summary

Number of Variables	15
Est. Number of Factors	7
Number of Factors	6
Number of Cases	104
Number Missing	34
Degrees of Freedom	119
Bartlett's Chi Square	757.842
P-Value	<.0001

Factor Extraction Method: Principal Components

Extraction Rule: 75% Variance Rule

Transformation Method: Orthotran/Varimax

## Eigenvalues

	Magnitude	Variance Prop.
Value 1	5.378	.359
Value 2	2.204	.147
Value 3	1.305	.087
Value 4	1.041	.069
Value 5	.950	.063
Value 6	.794	.053
Value 7	.680	.045

## Unrotated Factors

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Q9	.412	.446	-.451	.134	-.229	.311
Q10	.347	.730	-.267	.190	-.098	4.781E-4
Q11	.528	.181	.591	.298	.082	.217
Q12	.707	.035	.121	-.356	.348	-.253
Q13	.765	.023	.143	-.393	-.121	-.260
Q14	.674	.460	.064	-.034	-.133	-.374
Q15	.409	.433	.642	.178	-.069	.123
Q16	.769	-.178	-.098	-.159	.316	.310
Q17	.662	-.336	-.091	-.197	.196	.321
Q18	-.495	.147	.056	.360	.656	-.091
Q19	.670	-.185	-.227	.221	.062	-.008
Q20	.772	-.189	.024	.035	-.108	.193
Q21	.518	-.552	.003	.402	-.194	-.184
Q22	.572	.342	-.395	.186	.309	-.198
Q23	.436	-.617	-.027	.380	-.072	-.216

**Communality Summary**

	SMC	Final Estimate
Q9	.420	.738
Q10	.517	.771
Q11	.455	.803
Q12	.589	.828
Q13	.697	.843
Q14	.655	.828
Q15	.491	.818
Q16	.667	.853
Q17	.529	.740
Q18	.343	.838
Q19	.478	.587
Q20	.605	.683
Q21	.560	.806
Q22	.544	.769
Q23	.536	.768

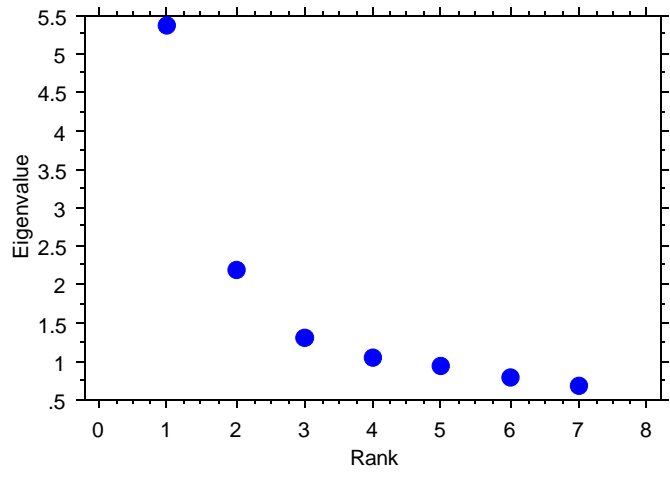
**Oblique Solution Primary Pattern Matrix**

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Q9	-.050	.828	-.014	.213	-.238	-.281
Q10	-.075	.819	.116	-.120	-.005	.060
Q11	.124	-.014	.861	.190	.091	-.058
Q12	-.060	-.116	.027	.379	.116	.761
Q13	.046	-.058	.064	.133	-.340	.695
Q14	.140	.381	.192	-.227	-.128	.635
Q15	-.063	.030	.875	-.058	-.048	.064
Q16	-.011	.084	.063	.877	.038	.077
Q17	.031	-.039	-.001	.824	-.087	1.840E-4
Q18	-.058	-.054	.054	-.066	.859	-.077
Q19	.484	.318	-.017	.318	.048	.063
Q20	.292	.140	.225	.447	-.248	-2.861E-4
Q21	.893	.001	.078	-.050	-.080	-4.656E-5
Q22	.200	.642	-.137	.172	.350	.343
Q23	.874	-.074	-.010	-.009	.037	.030

**Oblique Solution Reference Structure**

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Q9	-.045	.770	-.013	.179	-.227	-.240
Q10	-.067	.762	.109	-.101	-.004	.052
Q11	.110	-.013	.807	.160	.087	-.050
Q12	-.053	-.108	.026	.318	.111	.651
Q13	.041	-.054	.060	.112	-.324	.594
Q14	.124	.354	.180	-.191	-.122	.543
Q15	-.056	.028	.820	-.048	-.045	.055
Q16	-.010	.078	.059	.737	.036	.065
Q17	.027	-.036	-.001	.692	-.083	1.573E-4
Q18	-.052	-.050	.051	-.055	.819	-.066
Q19	.429	.295	-.016	.267	.046	.054
Q20	.259	.130	.211	.376	-.236	-2.446E-4
Q21	.792	.001	.073	-.042	-.076	-3.981E-5
Q22	.178	.597	-.128	.145	.334	.293
Q23	.775	-.069	-.009	-.008	.035	.026

Scree Plot



# Derived Factors for WORK IMPACTS

- 1 - Decreased
- 2 - Somewhat Decreased
- 3 - Not Been Affected
- 4 - Somewhat Increased
- 5 - Increased

"Don't Know" was not used in the analysis that follows.

## **Stress - Q9, Q10, Q22**

	Mean
Stress	4.331

## **Interaction - Q11, Q15**

	Mean
Interaction	3.546

## **Decisions - Q12, Q13, Q14**

	Mean
Decisions	3.904

## **Self-Image - Q16, Q17, Q20**

	Mean
Self-Image	3.871

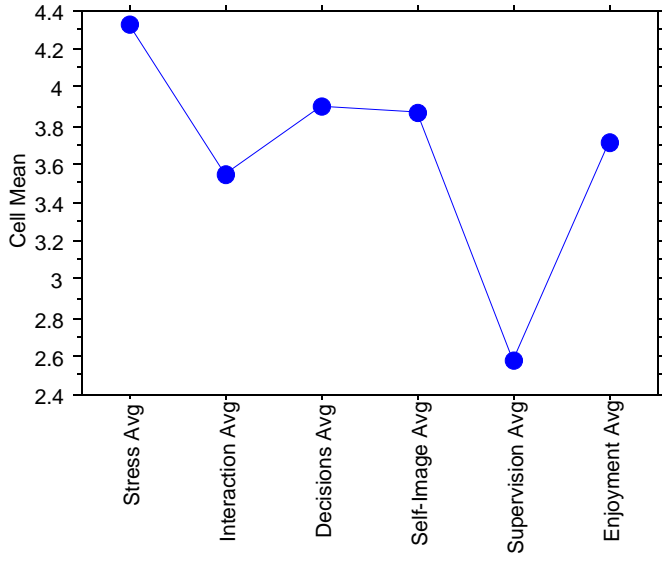
## **Supervision - Q18**

	Mean
Supervision	2.580

## **Enjoyment - Q19, Q21, Q23**

	Mean
Enjoyment	3.715

Plot of Factor Means



# Factor Analysis of FREQUENCY OF USE

## Factor Analysis Summary

Number of Variables	17
Est. Number of Factors	8
Number of Factors	8
Number of Cases	77
Number Missing	61
Degrees of Freedom	152
Bartlett's Chi Square	435.834
P-Value	<.0001

Factor Extraction Method: Principal Components

Extraction Rule: 75% Variance Rule

Transformation Method: Orthotran/Varimax

## Eigenvalues

	Magnitude	Variance Prop.
Value 1	4.151	.244
Value 2	2.330	.137
Value 3	1.882	.111
Value 4	1.267	.075
Value 5	1.043	.061
Value 6	.896	.053
Value 7	.831	.049
Value 8	.726	.043

## Unrotated Factors

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8
Q24	.533	.510	-.170	-.099	-.300	-.237	.105	.056
Q25	.413	.562	.002	.276	-.277	-.010	.311	-.015
Q26	.679	-.104	.089	-.177	.435	.107	-.083	-.064
Q27	.364	.130	.427	.271	.429	-.104	.372	.215
Q28	.603	-.301	-.298	-.264	-.060	-.119	.018	.387
Q29	.603	.369	-.363	.030	.332	-.129	-.065	.110
Q30	.375	.145	.427	-.372	-.445	.384	.073	.147
Q31	.632	-.192	-.309	-.403	-.045	.009	.047	.138
Q32	-.033	.465	.561	-.174	.254	.242	.113	.091
Q33	.375	-.566	.134	.158	-.020	-.243	.430	-.178
Q34	.431	-.629	.101	-.141	-.081	-.125	.080	-.256
Q35	.490	-.267	-.132	.463	-.058	.533	-.032	-.067
Q36	.709	-.100	-.184	.070	.119	.350	-.076	-.150
Q37	.283	-.275	.258	.527	-.135	-.138	-.399	.435
Q38	.407	.043	.618	-.269	.085	-.210	-.383	-.174
Q39	.449	.588	-.341	.138	.013	-.101	-.201	-.290
Q40	.564	.072	.453	.202	-.273	-.162	-.099	-.184

**Communality Summary**

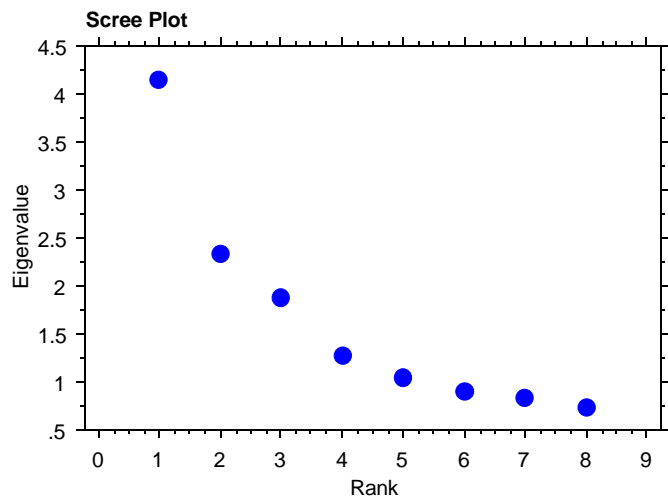
	SMC	Final Estimate
Q24	.476	.744
Q25	.394	.737
Q26	.491	.723
Q27	.247	.784
Q28	.522	.780
Q29	.583	.776
Q30	.329	.855
Q31	.535	.718
Q32	.339	.707
Q33	.396	.779
Q34	.471	.705
Q35	.397	.835
Q36	.503	.717
Q37	.181	.885
Q38	.458	.850
Q39	.564	.818
Q40	.433	.713

**Oblique Solution Primary Pattern Matrix**

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8
Q24	.275	.793	.130	.015	2.524E-4	-.222	-.051	.005
Q25	-.155	.790	.219	.021	-.206	.042	.167	.066
Q26	.383	-.110	-.109	-.145	.399	.371	.299	.011
Q27	.019	.073	-.071	.118	.007	-.027	.839	.144
Q28	.873	-1.462E-4	.055	.213	-.124	-.067	-.016	.098
Q29	.468	.439	-.351	-.021	.071	.121	.233	-.242
Q30	.122	.063	.875	3.491E-5	.084	.113	-.010	-.079
Q31	.754	.063	.111	-.090	-.007	.083	-.090	.103
Q32	-.198	-.066	.333	-.186	.213	-.003	.540	-.346
Q33	.044	-.011	-.083	.001	-.044	-.002	.158	.856
Q34	.187	-.168	.008	-.054	.250	.107	-.155	.663
Q35	-.072	-.043	.142	.161	-.210	.884	-.037	.065
Q36	.228	.081	.026	-.098	.098	.702	-.002	.018
Q37	.090	-.083	-.022	.927	.078	.031	.047	-.039
Q38	-.010	-.001	.074	.090	.885	-.125	.050	.052
Q39	-.039	.751	-.280	-.135	.227	.201	-.161	-.194
Q40	-.215	.415	.187	.270	.435	.045	-.011	.330

**Oblique Solution Reference Structure**

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8
Q24	.248	.735	.124	.015	2.349E-4	-.195	-.049	.005
Q25	-.139	.733	.210	.020	-.192	.037	.160	.061
Q26	.344	-.102	-.105	-.138	.371	.325	.287	.010
Q27	.017	.068	-.068	.112	.006	-.024	.805	.133
Q28	.784	-1.356E-4	.053	.203	-.116	-.059	-.015	.091
Q29	.421	.407	-.336	-.020	.066	.107	.223	-.224
Q30	.110	.058	.839	3.322E-5	.078	.099	-.009	-.073
Q31	.677	.058	.106	-.085	-.007	.073	-.087	.095
Q32	-.178	-.061	.320	-.177	.199	-.003	.517	-.320
Q33	.039	-.011	-.080	.001	-.041	-.002	.151	.792
Q34	.168	-.155	.008	-.051	.233	.094	-.148	.613
Q35	-.065	-.040	.136	.153	-.196	.776	-.035	.060
Q36	.205	.076	.025	-.093	.091	.616	-.002	.016
Q37	.081	-.077	-.021	.882	.072	.027	.045	-.036
Q38	-.009	-.001	.071	.086	.823	-.110	.048	.048
Q39	-.035	.697	-.268	-.128	.211	.177	-.154	-.180
Q40	-.194	.385	.180	.257	.405	.039	-.010	.305



# Derived Factors for FREQUENCY OF USE

- 1 - Never
- 2 - At Least Once a Year
- 3 - Several Times a Month
- 4 - A few Times a Week
- 5 - Daily

## Data Entry - Q24, Q25, Q39

Mean  
Data Entry 3.676

## Graphics/Network Drives - Q26, Q38, Q40

Mean  
Graphics/Network Drives 4.017

## Email/WordPerfect - Q27, Q32

Mean  
Email/WP 5.000

## Spreadsheets - Q28, Q29, Q31

Mean  
Spreadsheets 2.630

## General Job Activities - Q30

Mean  
General Job Activities 5.621

## MS Office - Q33, Q34

Mean  
MS Office 2.945

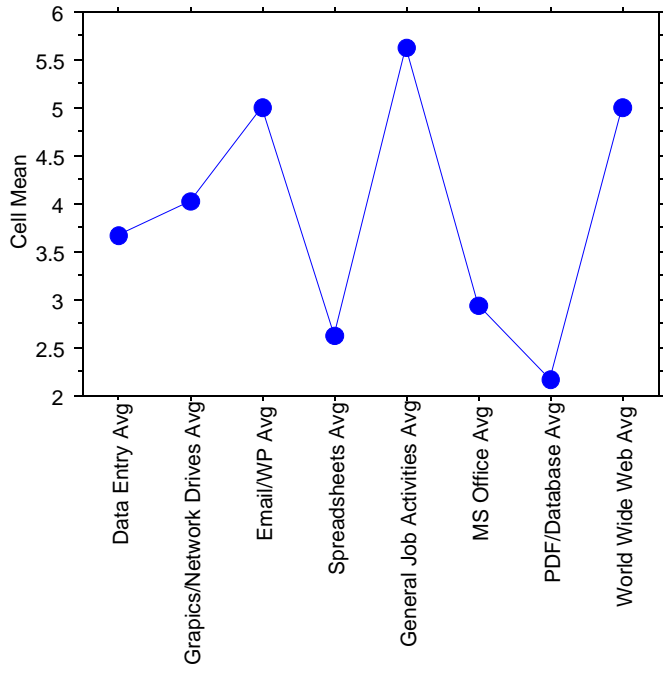
## PDF/Database - Q35, Q36

Mean  
PDF/Database 2.157

## World Wide Web - Q37

Mean  
World Wide Web 5.000

Plot of Factor Means



# Correlation Matrices

Below, for technical reference, are correlation matrices for various sections of the survey.

## WORK IMPACTS Correlation Matrix

	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23
Q9	1.000	.527	.151	.139	.208	.413	.111	.281	.169	-.182	.224	.247	-.001	.332	.026
Q10	.527	1.000	.197	.150	.216	.468	.313	.110	.009	-.078	.154	.121	-.098	.497	-.177
Q11	.151	.197	1.000	.352	.315	.367	.581	.332	.229	-.114	.247	.378	.185	.181	.200
Q12	.139	.150	.352	1.000	.663	.499	.244	.582	.446	-.236	.401	.405	.194	.389	.211
Q13	.208	.216	.315	.663	1.000	.626	.294	.520	.460	-.463	.341	.546	.284	.276	.281
Q14	.413	.468	.367	.499	.626	1.000	.449	.305	.204	-.274	.296	.371	.176	.507	.086
Q15	.111	.313	.581	.244	.294	.449	1.000	.172	.093	-.107	.142	.265	.065	.151	-.087
Q16	.281	.110	.332	.582	.520	.305	.172	1.000	.674	-.284	.530	.623	.321	.389	.323
Q17	.169	.009	.229	.446	.460	.204	.093	.674	1.000	-.327	.392	.514	.412	.273	.352
Q18	-.182	-.078	-.114	-.236	-.463	-.274	-.107	-.284	-.327	1.000	-.340	-.425	-.273	-.087	-.165
Q19	.224	.154	.247	.401	.341	.296	.142	.530	.392	-.340	1.000	.483	.418	.441	.408
Q20	.247	.121	.378	.405	.546	.371	.265	.623	.514	-.425	.483	1.000	.510	.362	.347
Q21	-.001	-.098	.185	.194	.284	.176	.065	.321	.412	-.273	.418	.510	1.000	.169	.643
Q22	.332	.497	.181	.389	.276	.507	.151	.389	.273	-.087	.441	.362	.169	1.000	.054
Q23	.026	-.177	.200	.211	.281	.086	-.087	.323	.352	-.165	.408	.347	.643	.054	1.000

104 observations were used in this computation.

34 cases were omitted due to missing values.

## FREQUENCY OF USE Correlation Matrix

	Q24	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32	Q33	Q34	Q35	Q36	Q37	Q38	Q39	Q40
Q24	1.000	.508	.214	.109	.237	.457	.244	.321	.048	-.058	.004	.073	.184	-.013	.130	.486	.282
Q25	.508	1.000	.100	.218	.053	.307	.206	.068	.163	-.015	-.107	.150	.203	.054	.067	.439	.261
Q26	.214	.100	1.000	.303	.340	.407	.185	.425	.041	.216	.325	.323	.438	.102	.389	.159	.247
Q27	.109	.218	.303	1.000	.026	.181	.106	.072	.225	.165	.048	.130	.127	.165	.237	.076	.313
Q28	.237	.053	.340	.026	1.000	.392	.159	.551	-.264	.307	.302	.229	.426	.129	.125	.049	.160
Q29	.457	.307	.407	.181	.392	1.000	.001	.308	.043	.033	-.044	.165	.425	.028	.065	.564	.165
Q30	.244	.206	.185	.106	.159	.001	1.000	.221	.262	.033	.090	.090	.190	.028	.322	.021	.350
Q31	.321	.068	.425	.072	.551	.308	.221	1.000	-.183	.169	.419	.211	.428	.035	.087	.234	.124
Q32	.048	.163	.041	.225	-.264	.043	.262	-.183	1.000	-.173	-.187	-.200	-.056	-.067	.259	-.002	.074
Q33	-.058	-.015	.216	.165	.307	.033	.033	.169	-.173	1.000	.490	.210	.278	.211	.089	-.167	.263
Q34	.004	-.107	.325	.048	.302	-.044	.090	.419	-.187	.490	1.000	.267	.263	.215	.235	-.132	.182
Q35	.073	.150	.323	.130	.229	.165	.090	.211	-.200	.210	.267	1.000	.467	.275	-.055	.107	.240
Q36	.184	.203	.438	.127	.426	.425	.190	.428	-.056	.278	.263	.467	1.000	.147	.160	.343	.259
Q37	-.013	.054	.102	.165	.129	.028	.028	.035	-.067	.211	.215	.275	.147	1.000	.174	-.038	.273
Q38	.130	.067	.389	.237	.125	.065	.322	.087	.259	.089	.235	-.055	.160	.174	1.000	.072	.444
Q39	.486	.439	.159	.076	.049	.564	.021	.234	-.002	-.167	-.132	.107	.343	-.038	.072	1.000	.213
Q40	.282	.261	.247	.313	.160	.165	.350	.124	.074	.263	.182	.240	.259	.273	.444	.213	1.000

77 observations were used in this computation.

61 cases were omitted due to missing values.

**COMPUTER CENTER PERSONNEL Correlation Matrix**

	Q41	Q42	Q43	Q44	Q45	Q46	Q47	Q48	Q49
Q41	1.000	.590	.412	.424	.412	.554	.589	.347	.172
Q42	.590	1.000	.629	.589	.520	.441	.636	.432	.301
Q43	.412	.629	1.000	.719	.622	.585	.690	.572	.418
Q44	.424	.589	.719	1.000	.475	.445	.595	.454	.378
Q45	.412	.520	.622	.475	1.000	.654	.622	.550	.320
Q46	.554	.441	.585	.445	.654	1.000	.696	.612	.320
Q47	.589	.636	.690	.595	.622	.696	1.000	.632	.346
Q48	.347	.432	.572	.454	.550	.612	.632	1.000	.448
Q49	.172	.301	.418	.378	.320	.320	.346	.448	1.000

97 observations were used in this computation.

41 cases were omitted due to missing values.

**PLEASE RATE THE FOLLOWING Correlation Matrix**

	Q50	Q51	Q52	Q53	Q54	Q55
Q50	1.000	.705	.538	.247	.291	.500
Q51	.705	1.000	.574	.240	.415	.498
Q52	.538	.574	1.000	.103	.238	.317
Q53	.247	.240	.103	1.000	.648	.570
Q54	.291	.415	.238	.648	1.000	.668
Q55	.500	.498	.317	.570	.668	1.000

114 observations were used in this computation.

24 cases were omitted due to missing values.

# INFORMATION TECHNOLOGY USER SURVEY

Survey #4

## BACKGROUND DATA

1. Sex  
 Male  Female
  
2. What is your job classification?  
 Full-time Faculty  Administrative/Professional  
 Full-time TSCM  Other
  
3. Highest education level completed.  
 High School or less  
 Associates Degree  
 Bachelor's Degree  
 Graduate/Professional Degree beyond the Bachelors
  
4. How interested are you in working with computers?  
 Not interested  Interested  
 Somewhat interested  Very interested
  
5. Can you perform your current job without the aid of computers?  
 Yes  No
  
6. Do you have a personal computer (PC) in your home?  
 Yes  No
  
7. Do you frequently use your PC at home to perform ACC work?  
 Yes  I don't have a PC at home  
 No
  
8. Do you currently use a computer to perform your job while employed at ACC?  
 Yes (If you answer yes, then complete the survey.)  
 No (If you answer no, then do not continue!!)

## WORK IMPACTS

Please indicate how the following aspects of your job have been impacted by computers.

	Somewhat Decreased	Not Been Affected	Somewhat Increased	Increased	Don't Know	
9. The number of different things I do in my job has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
10. Time pressures in my job have	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
11. My opportunities to work with other people have	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
12. The quality of my decision making has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
13. My freedom in making decisions has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
14. The frequency with which I make decisions has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
15. My face-to-face communications with other departments have	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
16. My professional image has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
17. My perceived utility to the organization has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
18. My need for supervision has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
19. My influence over work of other people has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
20. Independence in how I do my job has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
21. A sense of accomplishment in my work has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
22. The amount of work I do has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■
23. Enjoyment from my job has	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■

## FREQUENCY OF USE

Please indicate how often you use computing to do the following.

	Never	At Least Once a Year	Several Times a Year	A Few Times a Month	Several Times a Week	Daily
24. Enter data into ACC's computer system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Retrieve data from ACC's computer system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Use graphics files	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Use email	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Use statistical software	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Use computers to do ACC related financial/budgetary calculations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Depend on computers for doing my job	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. Use a spreadsheet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. Use WordPerfect	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. Use Microsoft Word	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. Use PowerPoint	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. View pdf files using Adobe Acrobat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. Use a relational database	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. Use Netscape or Internet Explorer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. Save data on network drives (G, U, or S)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. Use Wintegrate to access Colleague	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. In summary, use computer-based information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

