



## 1999 Annual Medical Center questionnaire of Library and Computer use

|   |    |
|---|----|
| Highlights .....  | 2  |
| Background information .....                                    | 4  |
| Methodology.....  | 4  |
| Response rates .....  | 4  |
| Comparisons with previous surveys .....                         | 5  |
| Library use .....   | 6  |
| Frequency of library use.....                                   | 6  |
| Reasons for using the library.....                              | 6  |
| Where people use library resources .....                        | 6  |
| Computer use .....  | 7  |
| Frequency of computer use.....                                  | 7  |
| Computer ownership.....   | 7  |
| Type of computer used.....                                      | 7  |
| Uses of computers.....  | 8  |
| Where people use computers.....                                 | 9  |
| Usefulness of resources .....                                   | 9  |
| Where people go for computer support.....                       | 10 |
| New services.....   | 10 |
| Use of computers in teaching .....                              | 10 |
| Perceptions of library and computing services.....              | 11 |
| Expertise of staff.....   | 12 |
| Value from and time using computing and library resources ..... | 13 |
| Communications mechanisms.....                                  | 17 |

This report was prepared by Susan Grajek, Director of Research & Communications, Information Technology Services - Medicine. You may contact her via telephone (203-737-4150) or electronic mail ([susan.grajek@yale.edu](mailto:susan.grajek@yale.edu)).

## Highlights

### Library use

- An estimated 84% (+/-3%) of the Medical Center has used library resources in the past six months. Significantly more faculty (98%) and students (100%) and fewer administrative M&P staff (70%) and C&T staff (66%) had used library resources.
- More than 50% of the Medical Center uses the libraries to locate research information, copy or read a particular article or book, and locate clinical information.
- Students commonly access library resources from the Medical Library (87%) and home (64%); faculty from their offices (72%), home (52%), and the Medical Library (55%); M&P staff from the Medical Library (49%) and their offices (81%); C&T staff from the Medical Library (89%); and Hospital staff from the Medical Library (59%) and the Hospital floor (66%).
- One-third more faculty, students and M&P staff use library resources from off-campus in 1999 (56%) than in 1998 (42%).

### Computer use

- An estimated 99% (margin of error +/-1%) of the Medical Center has used a computer (or had one used by someone on their behalf) in the past six months.
- People commonly use computers in their offices (59%), home (69%) and the Medical Library (44%). Hospital staff also commonly use computers on Hospital floors (89%).
- More than 50% of the Medical Center uses computers for electronic mail, word processing, the Internet, MEDLINE, preparing presentations, Orbis, electronic journals, remote access, locating research information, and Current Contents. For the first time, more people use electronic mail (96%) than word processors (91%).
- Ninety percent (+/-2%) of the Medical Center either owns a computer or has primary use of a Hospital- or University-owned computer. An estimated 72% (+/-4%) of the Schools of Medicine and Nursing faculty, staff and students owns their own computer.
- The most useful resources are word processors, electronic mail, MEDLINE, external Web resources, and remote access, which respondents feel are significantly more useful than other resources. MicroMedex, reporting systems and tools (CRS, Brio, etc.) and palmtops are significantly less useful than other resources.
- Taking into account both a resource's usefulness and the number of people using it, the most valued resources are word processors, electronic mail, MEDLINE, and the Internet. The least valued resources are palmtops and reporting systems and tools.
- Faculty and postdoctoral fellows who teach at least one course per year regularly use email (61% use) but not the Web (8% use) for their courses.

### Perceptions of library and computing services

- The three most commonly used services are the Library Information Desk (48%), the ITS-Med Help Desk (44%), and the Microcomputer Support Center (42%).
- Respondents rate the expertise of Media Services staff significantly higher than Central ITS staff.
- About one-third (37%) of respondents receive more value from library resources than last year, compared with 10% who receive less value this year. For computing resources, 56% receive more value this year and 6% less.

- Respondents feel the value they receive from computing resources has increased more in the last year than the value they receive from library resources. They also feel the time spent using computing resources has increased more in the last year than time spent using library resources. Respondents feel the value they receive from library resources has increased more than the time spent using them. There was no significant difference between time and value for computing resources.
- Two-thirds of the Medical Center would like toll-free dial-up to the Yale network and to be able to send and receive faxes over the network.
- Electronic mailings are preferred by more people (58%) than any other communications mechanism.
- People most prefer to get help from colleagues (67%) and the ITS-Med Help Desk (63%).

## Background information

### Methodology

We selected a random, stratified sample of faculty, postdoctoral fellows, University M&P staff, University C&T staff, students, and residents. Faculty, postdoctoral fellows, C&T staff and M&P staff were drawn from the University's Human Resources database. Students were drawn from student enrollment lists supplied by their registrars. Residents were supplied by the House Staff Office.

We mailed people up to three copies of the survey, over a period of 10 weeks, until they returned a complete survey. People who did not respond to any of the three mailings were telephoned up to three times and asked to either return the survey or complete it over the phone.

People did not complete the survey for the following reasons: left the Medical Center, out of town, on leave, unlisted telephone number, or did not return the phone calls. A preliminary analysis to determine whether people who returned their surveys earlier had different patterns of library or computer use than later respondents revealed no significant differences, suggesting that non-participation was unrelated to the survey's content.

### Response rates

| group                         | population  | sample     | responded  | response rate |
|-------------------------------|-------------|------------|------------|---------------|
| pa students                   | 64          | 10         | 9          | 90%           |
| grad students                 | 414         | 20         | 16         | 80%           |
| nursing students              | 141         | 10         | 7          | 70%           |
| eph student                   | 171         | 10         | 8          | 80%           |
| med students                  | 486         | 20         | 14         | 70%           |
| ladder faculty                | 633         | 20         | 12         | 60%           |
| other faculty                 | 1965        | 17         | 6          | 35%           |
| research faculty              | 439         | 20         | 15         | 75%           |
| admin M&P                     | 497         | 20         | 14         | 70%           |
| other M&P                     | 328         | 20         | 11         | 55%           |
| research M&P                  | 404         | 20         | 17         | 85%           |
| admin C&T                     | 866         | 20         | 10         | 50%           |
| other C&T                     | 302         | 20         | 7          | 35%           |
| research C&T                  | 209         | 20         | 12         | 60%           |
| post doc                      | 1017        | 20         | 13         | 65%           |
| residents                     | 388         | 40         | 6          | 15%           |
| nurses                        | 1200        | 24         | 14         | 58%           |
| <b>total</b>                  | <b>7936</b> | <b>331</b> | <b>191</b> | <b>58%</b>    |
| <i>faculty &amp; postdocs</i> | 4054        | 77         | 46         | 60%           |
| <i>students</i>               | 1276        | 70         | 54         | 77%           |
| <i>C&amp;T staff</i>          | 1377        | 60         | 29         | 48%           |
| <i>M&amp;P staff</i>          | 1229        | 60         | 42         | 70%           |
| <i>Hospital staff</i>         | 1588        | 64         | 20         | 31%           |

*The overall response rate was 58% in 1999, 71% in 1998, 74% in 1997, 85% in 1996 and 80% in 1995.*

Human Resources classifies faculty into three groups called ladder (teaching faculty), research, and other, and C&T and M&P staff into three groups called administrative, research, and other. Population estimates given in this report were derived by weighting the responses according to their population N's.

## Comparisons with previous surveys

Results from the 1999 survey were compared with the 1998 survey:

- People are receiving increasingly more value from electronic journals from 1997 to 1999 ( $F(2,316)=4.75$ ,  $p<.01$ ). They are also using electronic journals more (50% in 1997 vs. 67% in 1999) ( $\chi^2=9.74$ ,  $p<.01$ )
- People are receiving less value from CCSS and remote access while traveling.
- More respondents use the EPH library in 1999 (14%) than in previous years (8%) ( $\chi^2=9.9$ ,  $p<.05$ ).
- More respondents use library resources from home or off-site office locations in 1999 (50%) than in previous years (32%) ( $\chi^2=20.89$ ,  $p<.001$ ). Use of library resources in the Medical Library has declined from 1995 (91% of library users came to the Medical Library) to 1999 (70%) ( $\chi^2=21.79$ ,  $p<.001$ ).

## Library use

An estimated 84% (+/-3%) of the Medical Center has used library resources in the past six months.

Significantly more students (100%) and fewer M&P's (72%) used library resources ( $\chi^2=21.0, p<.001$ ).

### Frequency of library use

|                       |     |
|-----------------------|-----|
| several times a day   | 6%  |
| at least once a day   | 18% |
| at least once a week  | 27% |
| at least once a month | 22% |
| once or twice         | 12% |
| never                 | 16% |

### Reasons for using the library

| Purpose   | Medical Center | Comments  |
|---|----------------|---|
| to find information on a particular research question         | 75% +/-3%      | Significantly fewer residents (59%) and M&P staff (70 %) and more students (95%) use library resources for this reason ( $\chi^2=19.2, p<.001$ ). |
| to copy or read a particular article or book I've heard about | 62% +/-4%      |   |
| to find information on a particular clinical question         | 59% +/-4%      | Significantly more Hospital staff (92%) chose this reason ( $\chi^2=13.6, p<.01$ ).   |
| to prepare for a course I am teaching/taking                  | 48% +/-4%      | Significantly more students (65%) and fewer M&P staff (17%) chose this reason ( $\chi^2=16.9, p<.01$ ).   |
| to use reference or text books                                | 45% +/-4%      |   |
| to browse the latest journal issues                           | 34% +/-4%      | Significantly more faculty (57%) chose this reason ( $\chi^2=9.8, p<.05$ ).   |
| to request materials from other libraries                     | 21% +/-4%      |   |
| to find funding opportunities                                 | 15% +/-3%      |   |

### Where people use library resources

| Location                  | Medical Center | Comments   |
|---------------------------|----------------|--|
| Medical Library           | 68% +/-4%      | Significantly more students (86%) use library resources here ( $\chi^2=16.1 p<.01$ ).  |
| home or off-campus office | 47% +/-4%      | Significantly more students (65%) and fewer C&T staff (15%) use library resources here ( $\chi^2=13.4, p<.01$ ).                   |
| University office         | 45% +/-4%      | Significantly more faculty (77%) & M&P staff (81%) and fewer residents (0% ) use library resources here ( $\chi^2=31.7, p<.001$ ). |
| Hospital floor            | 19% +/-3%      | Significantly more Hospital staff (67%) and fewer M&P and C&T staff (0%) use library resources here ( $\chi^2=33.9, p<.001$ ).     |
| Hospital Office           | 19% +/-2%      | Significantly more Hospital staff (33%) and faculty (27%) use library resources here ( $\chi^2=16.8, p<.01$ ).                     |
| EPH Library               | 12% +/-3%      |  |
| Nursing Library           | 7% +/-2%       |  |
| outpatient care setting   | 4% +/-2%       |  |
| while traveling           | 4% +/-2%       |  |

## Computer use

An estimated 99% (margin of error +/-1%) of the Medical Center has used a computer (or had one used by someone on their behalf) in the past six months.

### Frequency of computer use

|                          |     |
|--------------------------|-----|
| several times a day      | 72% |
| at least once a day      | 18% |
| at least once a week     | 7%  |
| at least once a month    | 2%  |
| less often or not at all | 1%  |

### Computer ownership

An estimated 90% +/-2% of the Medical Center and 95% +/-2% of the Schools of Medicine and Nursing either owns a computer or has primary use of a Hospital- or University-owned computer. An estimated 65% +/-4% of the Medical Center own their own computer.

### Type of computer used

Overall, an estimated 44% +/-4% of the Schools of Medicine and Nursing uses Macintoshes and 69% +/-4% uses Windows PC's.

|                      | Macintosh |      | Windows PC |      |
|----------------------|-----------|------|------------|------|
|                      | 1998      | 1999 | 1998       | 1999 |
| Faculty              | 37%       | 53%  | 71%        | 58%  |
| Postdoctoral fellows | 43%       | 50%  | 57%        | 70%  |
| Students             | 43%       | 40%  | 50%        | 66%  |
| M&P staff            | 21%       | 38%  | 78%        | 79%  |
| C&T staff            | 23%       | 37%  | 73%        | 78%  |

## Uses of computers

| Purpose   | Medical Center | Comments   |
|---|----------------|--|
| electronic mail   | 96% +/-1%      | Significantly fewer Hospital staff (82%) use electronic mail ( $\chi^2=12.9, p<.05$ ).   |
| word processor  | 91% +/-2%      | Significantly fewer Hospital staff (71%) use word processors ( $\chi^2=18.4, p<.001$ ).  |
| external Web resources                                      | 87% +/-3%      |  |
| Yale Web resources  | 81% +/-3%      | Significantly more M&P staff (97%) and fewer Hospital staff (59%) use Yale web resources ( $\chi^2=14.4, p<.01$ ).                                     |
| MEDLINE   | 80% +/-3%      | Significantly more faculty (96%) and fewer C&T staff (50%) use MEDLINE ( $\chi^2=19.3, p<.001$ ).  |
| prepare presentations                                       | 73% +/-4%      | Significantly more faculty (91%) use computers to prepare presentations ( $\chi^2=15.5, p<.01$ ).  |
| Orbis   | 71% +/-4%      | Significantly more students (88%) use Orbis (52%) ( $\chi^2=13.2, p<.01$ ).  |
| electronic journals   | 66% +/-4%      |  |
| remote access   | 60% +/-4%      | Significantly more faculty (91%) and students (84%) and fewer C&T staff (33%) use remote access ( $\chi^2=31.4, p<.001$ ).                             |
| find information on a particular research question          | 58% +/-4%      | Significantly more students (85%) and fewer C&T (33%) & Hospital staff (38%) use computers to look for research information ( $\chi^2=28.6, p<.001$ ). |
| find information on a particular clinical question          | 49% +/-4%      | Significantly fewer C&T staff (11%) use computers to look for clinical information ( $\chi^2=16.2, p<.01$ ).   |
| analyze research data                                       | 48% +/-4%      | Significantly more faculty (78%) and fewer Hospital staff (12%) use computers to analyze research data ( $\chi^2=21.6, p<.001$ ).                      |
| organizational tool (record-keeping, scheduling, budgeting) | 47% +/-4%      |  |
| major campus mainframes                                     | 46% +/-4%      | Significantly more students (79%) use mainframes ( $\chi^2=19.1, p<.001$ ).  |
| CCSS  | 44% +/-4%      | Significantly more Hospital staff (100%) use CCSS ( $\chi^2=31.3, p<.001$ ).   |
| access patient care records                                 | 40% +/-4%      | Significantly more Hospital staff (88%) use computers to access patient care records ( $\chi^2=26.1, p<.001$ ).  |
| prepare for a course taking/teaching                        | 39% +/-4%      | Significantly more students (62%) use computers to prepare for a course ( $\chi^2=17.2, p<.01$ ).  |
| medical education software                                  | 32% +/-4%      |  |
| prepare grant proposals                                     | 31% +/-4%      | Significantly more faculty (74%) use computers to prepare grant proposals ( $\chi^2=30.9, p<.001$ ).   |
| MicroMedex  | 30% +/-4%      | Significantly more Hospital staff (59%) use MicroMedex ( $\chi^2=9.9, p<.05$ ).  |
| access admin systems  | 27% +/-4%      | Significantly more M&P staff (72%) use computers to access administrative systems ( $\chi^2=12.6, p<.05$ ).  |
| Web of Science  | 26% +/-4%      |  |
| molecular biology computing                                 | 26% +/-4%      |  |
| scheduling  | 26% +/-3%      |  |
| find funding opportunities                                  | 25% +/-3%      | Significantly more faculty (57%) use computers to find funding opportunities ( $\chi^2=21.8, p<.001$ ).  |
| remote access while travelling                              | 24% +/-4%      |  |
| business management systems                                 | 23% +/-4%      | Significantly more M&P staff (53%) use business management systems ( $\chi^2=18.9, p<.001$ ).  |
| reporting systems & tools (CRS, Brio, etc.)                 | 22% +/-4%      | Significantly more M&P staff (49%) use reporting systems & tools ( $\chi^2=17.2, p<.01$ ).   |
| palm tops   | 19% +/-3%      |  |



## Where people use computers

| Location                  | Medical Center | Comments   |
|---------------------------|----------------|--|
| home or off-campus office | 69% +/-4%      | Significantly more students (88%) use computers here ( $\chi^2=16.2$ , $p<.01$ ).  |
| University office         | 59% +/-4%      | Significantly more C&T (94%) and M&P staff (89%) and fewer students (44%) use computers here ( $\chi^2=58.1$ , $p<.001$ ).         |
| Medical Library           | 44% +/-4%      | Significantly more students (85%) and fewer Hospital (12%) and M&P staff (31%) use computers here ( $\chi^2=40.7$ , $p<.001$ ).    |
| Hospital floor            | 32% +/-4%      | Significantly more Hospital staff (88%) and fewer M&P staff (3%) use computers here ( $\chi^2=49.0$ , $p<.001$ ).                  |
| Hospital office           | 19% +/-3%      |  |
| outpatient care setting   | 16% +/-3%      |  |
| while traveling           | 10% +/-3%      | Significantly more students (25%) and fewer Hospital and C&T staff (0%) use computers while traveling ( $\chi^2=13.6$ , $p<.01$ ). |
| EPH Library               | 8% +/-2%       |  |
| Nursing Library           | 5% +/-2%       |  |

## Usefulness of resources

Respondents rated the usefulness of 18 electronic resources using the following five-point scale:

1=crucial to my work

2=extremely useful

3=somewhat useful

4=not very useful

5=useless

| Mean rating | Resource                                    |
|-------------|---|
| 1.40        | word processor                              |
| 1.51        | electronic mail                             |
| 1.70        | MEDLINE                                     |
| 1.78        | External Web resources                      |
| 1.93        | Remote access                               |
| 2.00        | major campus mainframes                     |
| 2.15        | Yale Web resources                          |
| 2.23        | Electronic Journals                         |
| 2.46        | CCSS  |
| 2.48        | Orbis                                       |
| 2.57        | molecular biology computing                 |
| 2.78        | Web of Science                              |
| 2.78        | Medical education software                  |
| 2.81        | Remote access while travelling              |
| 2.90        | BMS   |
| 3.26        | MicroMedex                                  |
| 3.36        | Reporting systems & tools (CRS, Brio, etc.) |
| 3.87        | Palm tops                                   |

The most useful resources were word processors, electronic mail, MEDLINE, external Web resources and remote access, which respondents felt were significantly more useful than other resources ( $F(17,167)=21.16$ ,  $p<.001$ ). Palm tops, reporting systems and tools, and MicroMedex were rated as significantly less useful than other resources.

## Where people go for computer support

The survey asked respondents where they preferred to go for computing help. Hospital staff were dropped from these analyses because they rarely use ITS-Med.

| Preferred source of help  | Schools of Medicine & Nursing estimate | Comments   |
|---------------------------|--|--|
| informally via colleagues | 65% +/-4%                              |  |
| phone-in help desk        | 62% +/-4%                              | Significantly fewer students (39%) preferred the phone-in help desk ( $\chi^2=9.8, p<.05$ ). |
| training classes          | 44% +/-4%                              | Significantly fewer students (27%) preferred classes ( $\chi^2=9.8, p<.05$ ).                |
| web sites                 | 38% +/-4%                              |  |
| books & manuals           | 38% +/-4%                              |  |
| walk-in help desk         | 32% +/-4%                              | Significantly more students (61%) preferred the walk-in help desk ( $\chi^2=21.0, p<.001$ ). |

## New services

The survey listed 10 possible new services and asked respondents which they would use if they were available

| New service                              | Schools of Medicine & Nursing estimate | Comments  |
|--|--|---|
| toll-free dial-up access to Yale network | 67% +/-4%                              | Significantly more students (88%) and fewer C&T's (44%) would use this service ( $\chi^2=17.8, p<.001$ ). |
| network fax                              | 67% +/-4%                              |   |
| access to Hospital information systems   | 44% +/-4%                              |   |
| optical form scanning                    | 44% +/-4%                              |   |
| encryption                               | 43% +/-4%                              |   |
| voice recognition                        | 29% +/-4%                              |   |
| videoconferencing                        | 22% +/-4%                              |   |
| small database development               | 21% +/-4%                              | Significantly fewer students (6%) and more M&P's (32%) would use this service ( $\chi^2=9.6, p<.05$ ).    |
| pager access via web page                | 17% +/-3%                              |   |
| palm top/PDA support                     | 15% +/-3%                              |   |

## Use of computers in teaching

The survey asked respondents who teach at least one course per year about their use of computers in teaching. Ten faculty answered the questions, with a +/-11% margin of error.

|   |     |
|---|-----|
| Use email to communicate with students                        | 70% |
| Don't use email now to communicate with students, but plan to | 10% |
| Have a Web site I've developed for my course(s)               | 10% |
| Plan to develop a Web site for my course(s)                   | 0%  |
| Use other Web sites for course materials and/or assignments   | 10% |
| Use medical education software in course(s)                   | 10% |

## Perceptions of library and computing services

The survey asked respondents about 13 services, asking them to indicate whether they used them and to rate the expertise of staff providing the service. The services were:

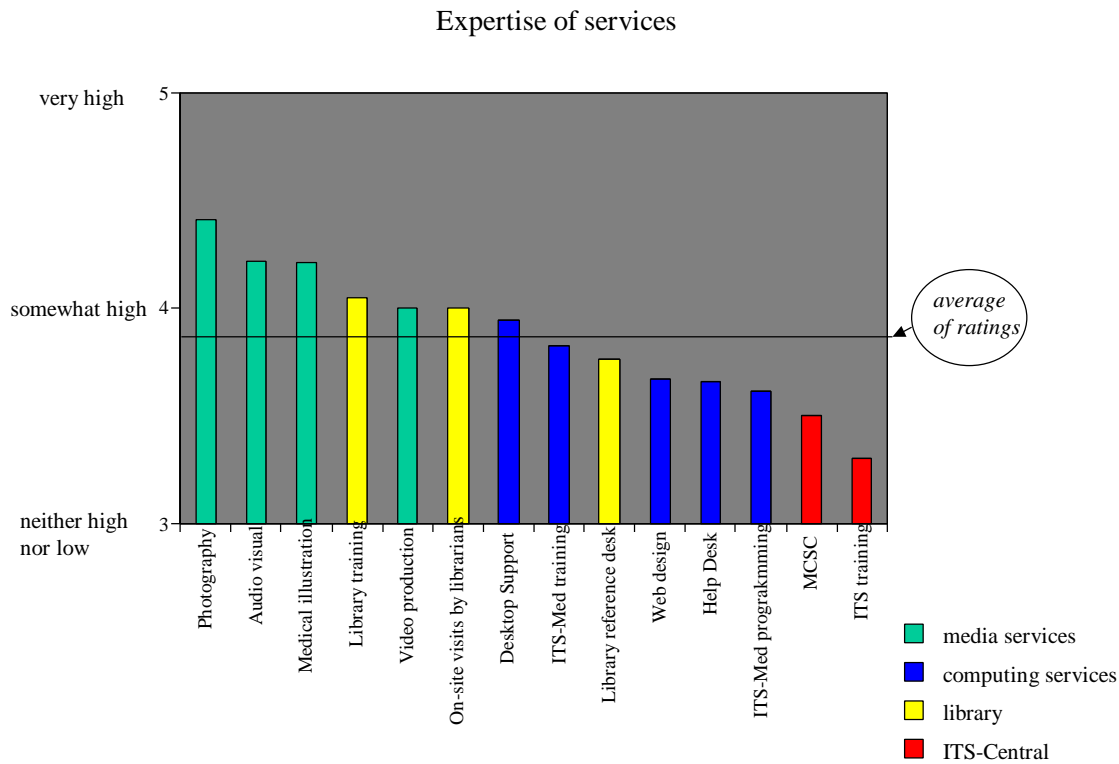
- training sessions offered by the Medical Library
- training sessions offered by ITS-Med
- training sessions offered by central campus ITS
- on-site visits by computing support staff (Desktop Support)
- ITS-Med programming support (includes Administrative Systems)
- Help and advice from Microcomputer Support Center staff (MCSC)
- Computing Help Desk phone line (785-3200)
- Medical Library Information Desk
- Medical illustration services provided by ITS-Med
- Photography services provided by ITS-Med
- Web design services provided by ITS-Med
- Video production services provided by ITS-Med
- Audio Visual services provided by ITS-Med

### Use of services

| Service                   | % of Schools of Medicine & Nursing using | Comments  |
|---------------------------|--|---|
| Library Reference Desk    | 48% +/-4%                                |   |
| Help Desk                 | 44% +/-4%                                | Significantly fewer students (10%) and more M&P staff (69%) used this service ( $\chi^2=31.1, p<.001$ ).              |
| MCSC                      | 42% +/-4%                                |   |
| Desktop Support           | 37% +/-4%                                | Significantly fewer students (4%) and more M&P (58%) and C&T staff (57%) used this service ( $\chi^2=33.2, p<.001$ ). |
| Photography               | 29% +/-4%                                | Significantly fewer students (4%) and more faculty (48%) used this service ( $\chi^2=20.7, p<.001$ ).                 |
| Medical illustration      | 22% +/-3%                                |   |
| Audio visual              | 18% +/-3%                                |   |
| ITS-Med training          | 17% +/-3%                                | Significantly fewer students (4%) and more M&P staff (30%) used this service ( $\chi^2=10.9, p<.05$ ).                |
| Library training sessions | 14% +/-4%                                |   |
| ITS-Med programming       | 13% +/-3%                                |   |
| ITS-Central training      | 9% +/-2%                                 | Significantly fewer students (0%) and more M&P staff (23%) used this service ( $\chi^2=16.8, p<.01$ ).                |
| Video production          | 7% +/-2%                                 |   |
| Web design                | 6% +/-2%                                 |   |
| Library on-site visits    | 3% +/-2%                                 |   |

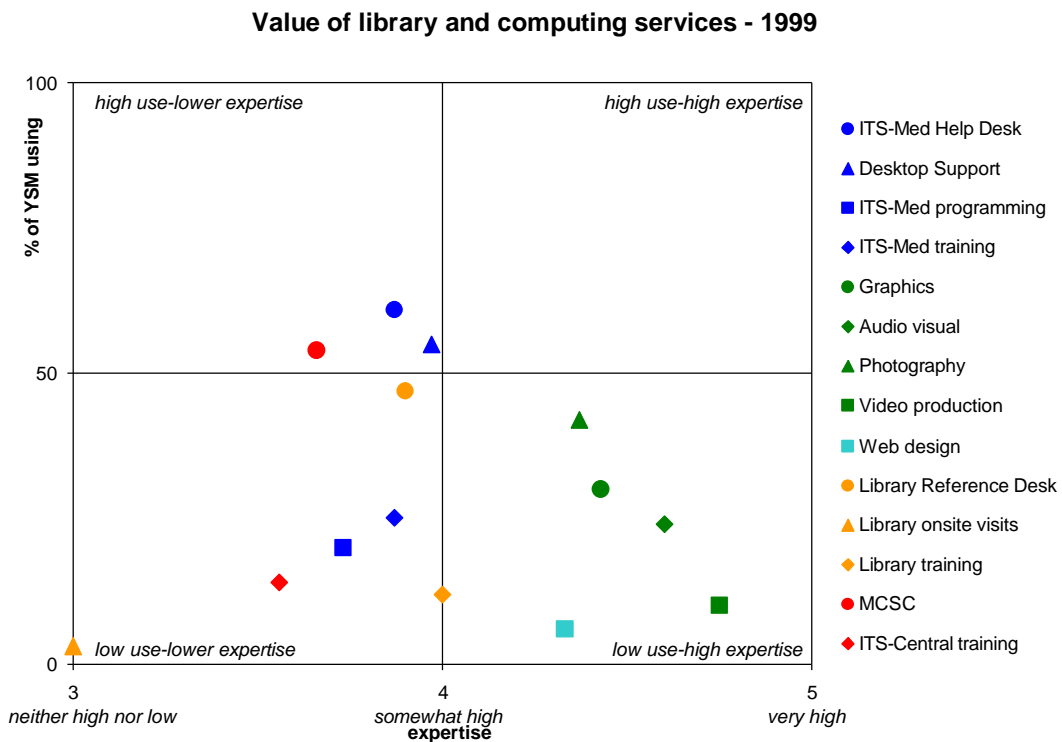
## Expertise of staff

Expertise ratings are shown below. Respondents rated Media Services expertise significantly higher than Central ITS ( $F(4,109)=3.35$ ,  $p<.05$ ).



## Value of services

Combining use and usefulness is one way to compare the value of various services, as shown below:



## Value from and time using computing and library resources

The survey asked respondents how the value from and time spent using library and computing resources has changed in the past year.

|                      | library resources |      | computing resources |      |
|----------------------|-------------------|------|---------------------|------|
|                      | value             | time | value               | time |
| more since last year | 17%               | 27%  | 28%                 | 27%  |
| somewhat more        | 20%               | 28%  | 28%                 | 28%  |
| about the same       | 53%               | 36%  | 38%                 | 36%  |
| somewhat less        | 4%                | 3%   | 3%                  | 3%   |
| less than last year  | 6%                | 6%   | 3%                  | 6%   |

The value of library resources increased more for students than for M&P staff ( $F(4,131)=4.04$ ,  $p<.01$ ). The increase of time spent using library resources increased more for students than for M&P staff, C&T staff and Hospital staff ( $F(4,132)=4.61$ ,  $p<.01$ ).

Respondents felt the value they receive from computing resources has increased more in the last year than the value they receive from library resources ( $t(131)=2.94$ ,  $p<.01$ ). They also felt the time spent using computing resources has increased more in the last year than time spent using library resources ( $t(131)=4.80$ ,  $p<.001$ ). Respondents felt the value they receive from library resources has increased more than the time spent using them ( $t(131)=3.97$ ,  $p<.001$ ). There was no significant difference between time and value for computing resources.

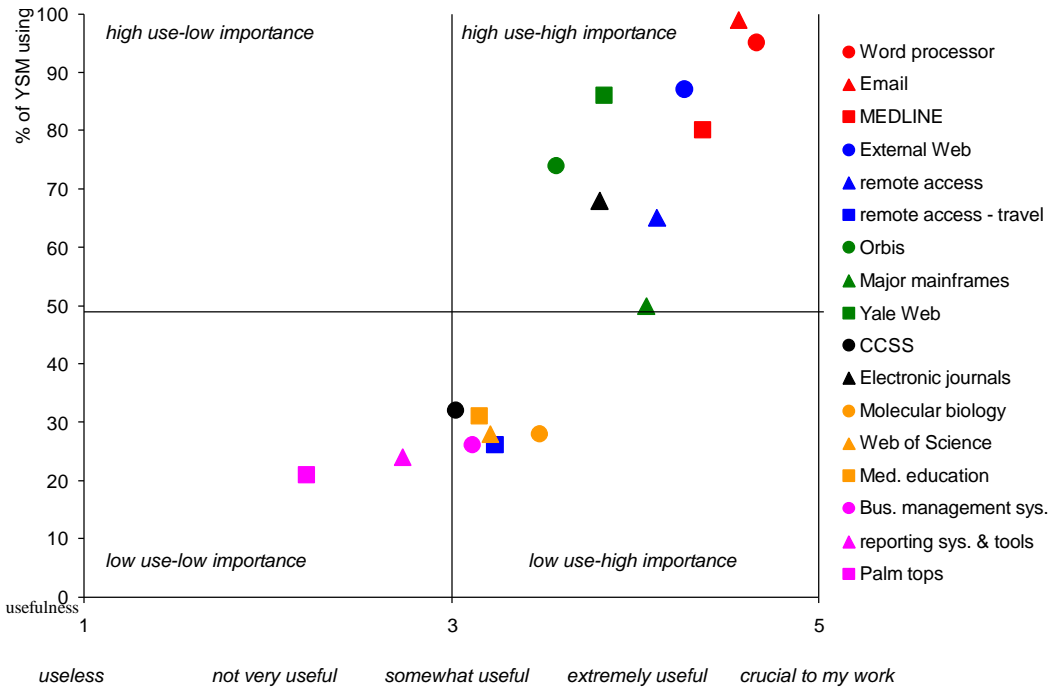
When responses to other questions from the survey were correlated with value ratings, the following factors were significantly correlated with *library* resource increases in value

| <i>People who have received more value from library resources compared to last year:</i> | Students | M&P staff | Faculty | Hospital staff | C&T staff |
|--|----------|-----------|---------|----------------|-----------|
| Spend more time using library resources this year  | ♦        | ♦         | ♦       | ♦              |           |
| Use libraries to find clinical information   |          |           | ♦       |                |           |
| Use libraries to locate research information   | ♦        |           |         |                |           |
| Use library resources at home/off-campus office  |          |           | ♦       |                |           |
| Use library resources in a Hospital office   |          |           | ♦       |                |           |
| Use library resources in outpatient care setting   |          |           | ♦       |                |           |
| Use library resources while traveling  |          |           | ♦       |                |           |
| Use computers in the Medical Library   |          | ♦         |         |                |           |
| Find MEDLINE useful  |          |           |         | ♦              | ♦         |
| Library reference desk staff had high expertise  |          |           |         |                | ♦         |
| Library staff had high expertise in onsite visits  | ♦        |           |         |                |           |
| <i>Tie-ins with computing:</i>   |          |           |         |                |           |
| Get more value from computing this year  | ♦        | ♦         | ♦       | ♦              |           |
| Spend more time using computing resources this year                                      | ♦        | ♦         | ♦       | ♦              |           |
| Use a Macintosh  |          |           | ♦       |                |           |
| Use computers in a Hospital office   |          |           | ♦       |                |           |
| Use computers in outpatient care settings  | ♦        |           | ♦       |                |           |
| Use computers on the Hospital floor  | ♦        | ♦         | ♦       |                |           |
| Use computers to access patient records  | ♦        |           |         |                |           |
| Use computers to find clinical information   |          |           | ♦       | ♦              |           |
| Use computers to prepare grant proposals   |          |           | ♦       |                |           |
| Use palmtops   |          | ♦         |         |                |           |
| Find email useful  |          | ♦         |         |                |           |
| Use the web  |          | ♦         | ♦       |                |           |
| Find Yale web resources useful   |          | ♦         |         |                |           |
| Find external web resources useful   |          |           |         | ♦              |           |
| Find major campus mainframes more useful   | ♦        |           |         |                |           |
| <i>Tie-ins with media services</i>   |          |           |         |                |           |
| AV staff had high expertise  |          |           | ♦       |                |           |

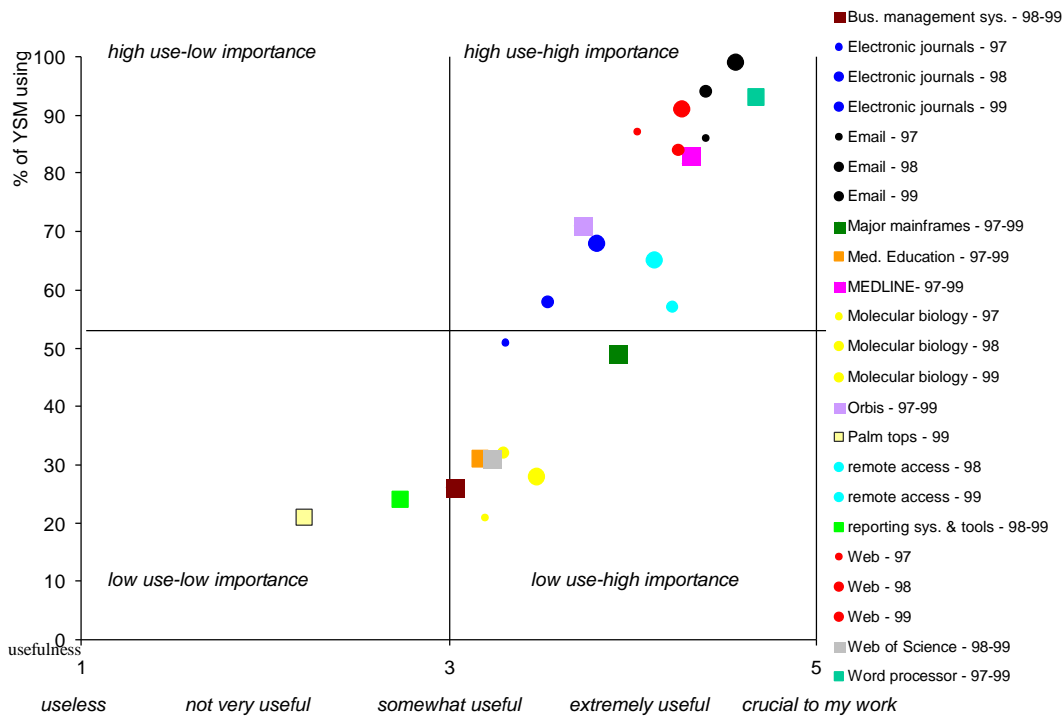
When responses to other questions from the survey were correlated with value ratings, the following factors were significantly correlated with *computing* resource increases in value

| <i>People who have received more value from computing resources compared to last year:</i> | Students | M&P staff | Faculty | Hospital staff | C&T staff |
|--|----------|-----------|---------|----------------|-----------|
| Spend more time using computing resources this year  | ♦        | ♦         | ♦       | ♦              | ♦         |
| Use a Macintosh  |          |           | ♦       |                |           |
| Use a Windows computer   |          |           |         | ♦              | ♦         |
| Connect to the campus network while traveling  |          |           | ♦       |                |           |
| Use computers at home/off-campus office  |          | ♦         |         | ♦              |           |
| Use computers for scheduling   |          |           |         |                | ♦         |
| Use computers in outpatient care settings  |          |           | ♦       |                |           |
| Use computers in University office   | ♦        |           |         |                |           |
| Use computers to find funding opportunities  |          |           |         |                | ♦         |
| Use computers to find research information   |          |           |         |                | ♦         |
| Use email  |          |           |         | ♦              |           |
| Use molecular biology resources  |          |           | ♦       |                |           |
| Use more different computing resources   |          |           | ♦       |                |           |
| Use palmtops   |          |           | ♦       |                |           |
| Use the web  |          |           | ♦       |                |           |
| Find business management systems useful  |          |           | ♦       |                |           |
| Use business management systems  |          |           | ♦       |                |           |
| Find medical education software useful   |          |           |         |                | ♦         |
| Find remote access useful  |          |           |         | ♦              |           |
| Find Yale web resources useful   | ♦        |           |         |                |           |
| Use Desktop Support  |          |           |         |                | ♦         |
| Use the Help Desk  |          |           |         |                | ♦         |
| Help Desk staff had high expertise   |          | ♦         |         |                |           |
| ITS-Med programmers had high expertise   |          | ♦         |         |                | ♦         |
| ITS-Med training class staff have high expertise   |          |           | ♦       |                |           |
| MCSC staff had high expertise  | ♦        |           |         |                |           |
| Prefer getting help books & manuals  |          |           |         | ♦              |           |
| Prefer getting help via training classes   |          |           |         |                | ♦         |
| Prefer getting help via walk-in help desk  |          |           |         |                | ♦         |
| Prefer getting help via web sites  |          |           |         | ♦              |           |
| <i>Tie-ins with media services</i>   |          |           |         |                |           |
| AV staff have high expertise   |          |           |         |                | ♦         |
| Use Medical Illustration   |          |           |         |                | ♦         |
| Medical illustration staff had high expertise  | ♦        |           |         |                |           |
| Use video production service   |          |           | ♦       |                |           |
| Photography staff have high expertise  |          |           | ♦       |                |           |
| <i>Tie-ins with libraries:</i>   |          |           |         |                |           |
| Get more value from library resources this year  | ♦        | ♦         | ♦       | ♦              |           |
| Spend more time using library resources this year  | ♦        |           | ♦       |                |           |
| Use libraries to copy/read articles & books  | ♦        |           |         |                |           |
| Use libraries to find research information   |          |           |         | ♦              |           |
| Use library resources in the Medical Library   |          |           | ♦       |                |           |
| Find electronic journals useful  | ♦        |           |         |                |           |
| Find Micromedex useful   |          |           | ♦       |                |           |
| Find Orbis useful  |          |           | ♦       |                |           |
| Library reference desk staff had high expertise  | ♦        |           | ♦       |                |           |

### Value of library and computing resources - 1999



### Change in value of library and computing resources 1997 - 1999



Combining use and usefulness is one way to compare the value of various resources, as shown below:



## Communications mechanisms

The survey listed eight communications mechanisms and asked respondents which they preferred for learning about library and computing services. Forty percent of respondents preferred only one communications mechanism, 29% had two preferred mechanisms, and 15% had three.

| Communications mechanism                            | % of Schools of Medicine & Nursing preferring |  |
|---|---|--|
| computing news emails (news4u)                      | 58% +/-4%                                     |  |
| Connections paper                                   | 43% +/-4%                                     | Significantly fewer students (20%) preferred this communications mechanism ( $\chi^2=10.1, p<.05$ ). |
| Connections Web                                     | 30% +/-4%                                     |  |
| ITS-Med or Library Web                              | 29% +/-4%                                     |  |
| communications from dept administrator              | 20% +/-4%                                     | Significantly more M&P staff (37%) preferred this communications mechanism ( $\chi^2=10.3, p<.05$ ). |
| communications from ITS-Med staff                   | 17% +/-4%                                     |  |
| communications from Library staff                   | 11% +/-3%                                     |  |
| communications from Faculty Computing Committee rep | 4% +/-2%                                      | Significantly more M&P staff (14%) preferred this communications mechanism ( $\chi^2=9.0, p<.05$ ).  |