

ANNUAL REPORT

1998-1999



Raymon H. Mulford Library

Medical College of Ohio

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Executive Summary



Executive Summary

As with the previous year, FY 98/99 proved to be very productive for the Library Services and Educational Technology Service (ETS) divisions. A number of student-oriented services were introduced or improved upon. The new "Instructional Support Center" became operational, receiving a large amount of faculty business, and the "electronic library" continued to evolve.

Of special note, both Library Services and ETS became much more integrally involved in education.

- **Library Services** librarians became involved in the new "problem-based learning" course (PBL), Pathophysiology. They introduced students to the life-long-learning aspect of medical informatics, instructing them on how to use electronic information retrieval tools and resources, and about skills for quality information filtering.
- **Educational Technology Service's** new "*Instructional Support Center*" - an integrated unit aimed at assisting faculty with the development of instructional resources for teaching - proved to be a very successful service. It provided expertise as well as technical resources for increasing faculty effectiveness with class presentations. The Computer Learning Resources Center provided follow-up training sessions for faculty on the Academic Intranet.

Library and ETS faculty also taught in the Public Health, Occupational Health, Occupational Therapy, and Physician Assistant programs, as well as in the "Medical Decision-making" course, and in the departments of pediatrics, family medicine, and medicine. Librarians also sponsored and taught the "Information Management" M-4 elective course four times, while ETS faculty and staff participated in teaching in the educational 'lunch and learn' seminars.

Other highlights of the year included:

- **Library Outreach:** A two year \$184,000 grant was obtained from the National Library of Medicine to provide outreach to the hospitals, health departments and physician clinics in 20 counties. The result should be improved health-care support, and greater visibility for MCO.

A grant of \$23,000 (PI: Marlene Porter) was obtained through the Greater Midwest Region of the Network of Libraries of Medicine to provide library support to physicians serving Hispanics in Northwest Ohio. The Library's "AIDS Information Network" was expanded to include support 17 counties. Funding terminates in September 1999, but the Mulford Library will continue its leadership and participation with its community-based partner organizations.

- **Digital photography and imaging:** ETS initiated the transition at MCO from traditional photography to digital photography and imaging. Staff collaborated on projects with the Department of Anatomy and other faculty on digital photography, image manipulation and scanning for both classroom presentation and for creating CD ROM-based educational products. The move to digital video also began as aging analog equipment was replaced.
- **"Electronic Library:"** The "Electronic Library" continued to evolve with the acquisition of several online resources such as "Harrison's Principles of Internal Medicine," StatRef and MAXX, both of which contain a number of medical texts and reference materials. These proved to be immensely popular with medical students in Pathophysiology. The Library also added 30 more full text online journals to the 450 titles available through OhioLINK.

OhioLINK and the Electronic Library

One of the chief resources and greatest bargains for MCO is the **OhioLINK** higher education library system. Use statistics show that the Mulford Library is by far the heaviest user of its electronic journal center, making up for deficits in the Mulford Library's print collection many times over. At the average cost of biomedical journals, MCO's use of the OhioLINK electronic journal center can be valued at nearly \$1,000,000. MCO is also a heavy user of reciprocal book-borrowing as well.

This year, OhioLINK's initiation of the "remote authentication" feature enabled MCO students and faculty preceptors to reach the full suite of OhioLINK resources directly from any off-campus computer. For the AHECs, it obviated the need for taking the complicated steps of passing through MCO on the Internet in order to get to OhioLINK. It is anticipated that AHEC administrators may be able to discontinue providing expensive MEDLINE subscriptions to its centers and concentrate instead on more specialized information resources.

Plans at the **Mulford Library** for FY 2000 include the addition of two new electronic resources that will be supported with funds provided by the Vice President for Academic Affairs. These are: OVID Evidence-Based Medicine, which will be of great use to physicians and residents, and MD CONSULT, which is aimed at medical students. The latter contains three dozen of the top textbooks in medicine, as well as a number of serial publications from the "Clinics" series.

Student Services

The CLRC became an even more vital part of student education

- It expanded number of computers available to students
- Added up-to-date equipment, including a new digital scanner
- Had a facility face-lift with new carpeting and paint. Student feedback has indicated a high degree of satisfaction with both the facility and the services provided by CLRC staff.

ETS

- Began offering limited no-cost services to students this year
- Initiated high quality digital photography for student photos.
- Plans are being developed to further reorganize and integrate ETS units and budgets to provide a better "instructional design service" for faculty, and better classroom service for students.

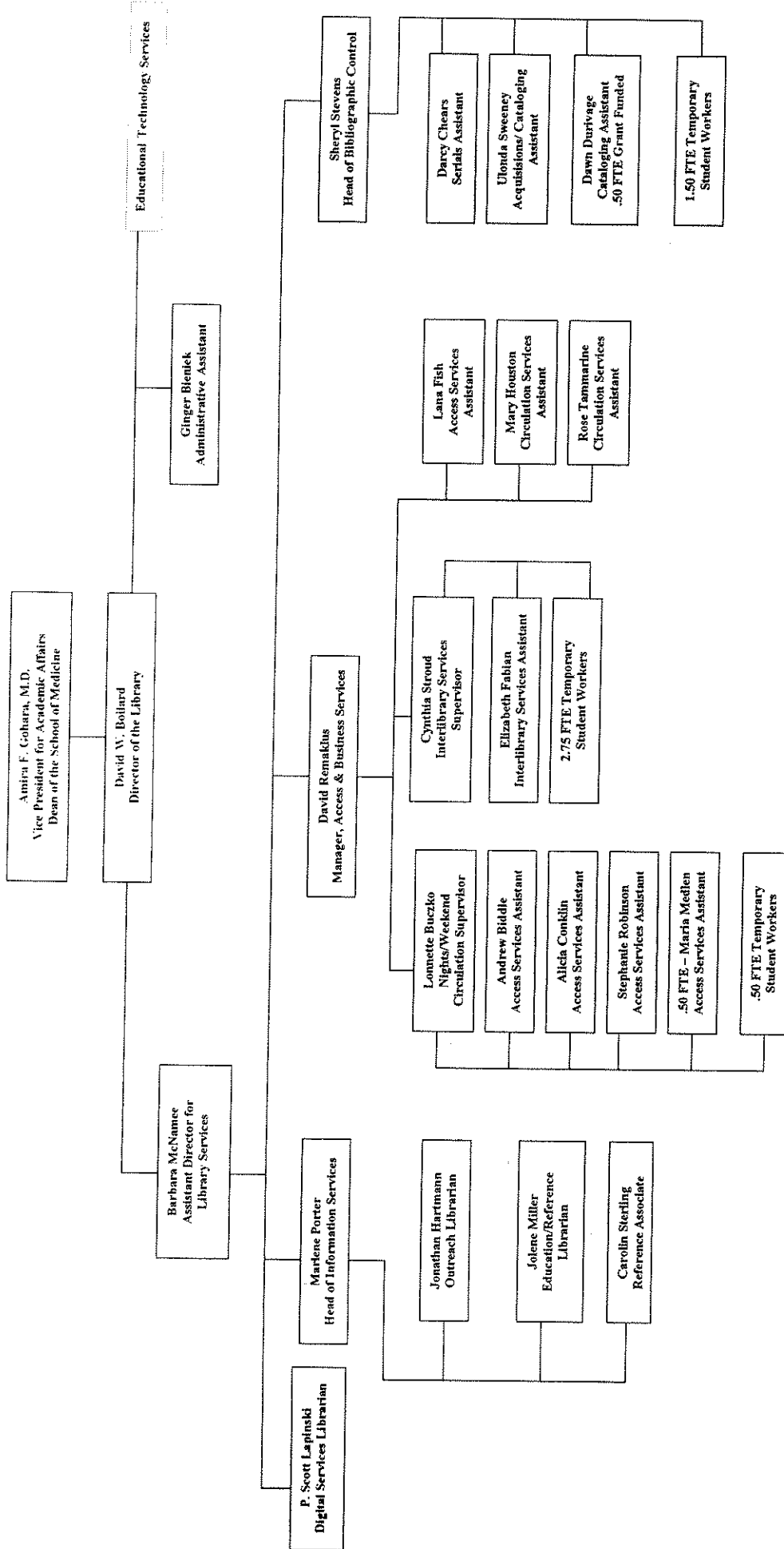
Library

- Provided expanded summer hours to adapt to the new student National Board testing schedules
- Added high volume printers in the Online Resources Room
- Replaced dumb terminals with new computers
- Added a variety of electronic resources to support the PBL program. These included: *Harrison's Principles of Internal Medicine* (changing from CD ROM version to Web version), *William's Obstetrics*, *Rudolph's Pediatrics*, *American Hospital Formulary*, and *Diagnostic & Statistical Manual of Mental Disorders*
- An additional \$17,000 was provided by the VPAA to augment the medical book collection

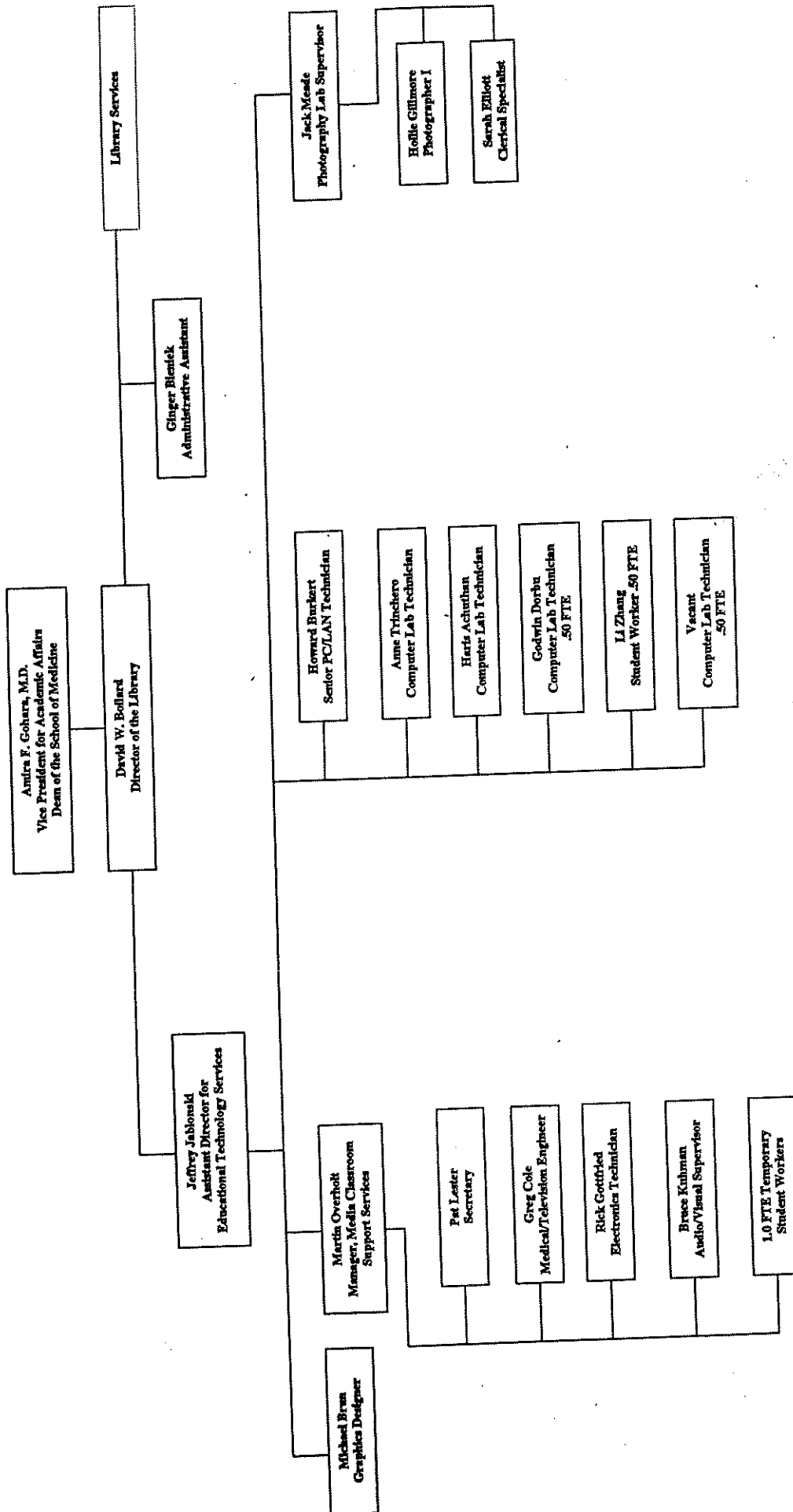
Cultural Diversity

All staff participated in the cultural diversity workshops provided by Tulin Associates in FY 98/98. The Library spent \$3,000 on collection materials to support campus development of cultural diversity initiatives. A member of the Library staff volunteered to serve as an MCO Diversity trainer.

**Raymon H. Mulford Library
Library Services Division
Organization Chart
June 30, 1999**



**Educational Technology Services
Organization Chart
June 30, 1999**



Raymon H. Mulford Library Expenditures for Fiscal Year 1998/99

| | State Account 3100000 | External User Fee 963130 | Foundation Account 174 | Total Expenditures |
|------------------------------|--------------------------|-----------------------------|---------------------------|-----------------------|
| <u>Beginning Balance</u> | <u>\$1,580,269</u> | <u>\$19,780</u> | <u>\$2,215</u> | |
| 100 - Salaries | 780,450 | 4,949 | 0 | \$785,399 |
| 200 - Fringe Benefits | 160,868 | 739 | 0 | 161,607 |
| Payroll Accrual | (1,705) | | | (1,705) |
| TOTAL PERSONNEL | \$939,613 | \$5,688 | | \$945,301 |
| 300 - Supplies | 18,336 | 415 | | 18,751 |
| 400 - Travel & Entertainment | 2,948 | 17,898 | 1,100 | 21,946 |
| 500 - Info & Communication | 593,124 | 2,045 | 164 | 595,333 |
| *Library Crosscharge Account | (3,632) | | | (3,632) |
| 600 - Outside Services | 52,162 | 250 | 0 | 52,412 |
| 700 - Miscellaneous | 0 | 0 | 0 | 0 |
| 900 - Equipment | 0 | 5,158 | 0 | 5,158 |
| 990 - Transfer | 0 | | | |
| TOTAL OPERATING | \$662,938 | \$25,766 | \$1,264 | \$689,968 |
| TOTAL EXPENDITURES | **\$1,602,551 | \$31,454 | \$1,264 | \$1,635,269 |

*The Library is authorized to charge expenditures to its operating budget equal to the balance in the Crosscharge (3101000) account.

**\$17,000 over-expenditure authorized by VPAA for book collection.

\$5,282 unplanned over-expenditure.

**Raymon H. Mulford Library
Grant Expenditures for Fiscal Year 1998/99**

| | NIH AIDS Information Grant | Outreach To Health Care Professionals Grant | NIH Health Information Network NWO Grant |
|------------------------------|-------------------------------|--|---|
| Beginning Balance | \$35,000 | \$23,684 | \$118,403 |
| 100 - Salaries | | 2,341 | 495 |
| 200 - Fringe Benefits | | 574 | 112 |
| Payroll Accrual | | | 186 |
| | | \$2,915 | \$775 |
| TOTAL PERSONNEL | | 1,360 | 819 |
| 300 - Supplies | 4,451 | 69 | 0 |
| 400 - Travel & Entertainment | 809 | 0 | 0 |
| 500 - Info & Communication | 5,281 | 0 | 0 |
| 600 - Outside Services | 0 | 0 | 0 |
| 700 - Miscellaneous | 0 | 0 | 0 |
| 900 - Capital Assets | 10,299 | 12,811 | 0 |
| | \$20,840 | \$17,155 | \$1,594 |
| TOTAL DIRECT COSTS | | | |
| 991 - Indirect Cost Recovery | 4,636 | | |
| TOTAL PROJECT COSTS | \$25,476 | \$17,155 | \$1,594 |

Educational Technology Services Expenditures for Fiscal Year 1998/99

| | Computer Learning Resource Center 33650000 | MeDesign 30250000 | Media Classroom Support Services 1080100 | Photography Services 1080300 | Total Expenditures |
|------------------------------|--|----------------------|--|---------------------------------|-----------------------|
| <u>Beginning Balance</u> | <u>\$289,701</u> | <u>\$52,931</u> | <u>\$194,000</u> | <u>\$63,726</u> | |
| 100 - Salaries | 187,056 | 33,901 | 148,293 | 98,549 | \$467,799 |
| 200 - Fringe Benefits | 37,122 | 9,508 | 34,126 | 24,787 | 105,543 |
| Payroll Accrual | 3,660 | 182 | 1,280 | (309) | 4,813 |
| TOTAL PERSONNEL | \$227,838 | \$43,591 | \$183,699 | \$123,027 | \$578,155 |
| 300 - Supplies | 27,695 | 8,180 | 26,909 | 10,317 | 73,101 |
| 400 - Travel & Entertainment | 3,162 | 847 | 1,486 | 1,391 | 6,886 |
| 500 - Info & Communication | 810 | 459 | (27,839) | (34,294) | (60,864) |
| 600 - Outside Services | 463 | | 1,613 | 661 | 2,737 |
| 700 - Miscellaneous | 0 | 793 | 207 | | 1,000 |
| 900 - Equipment | 0 | | 0 | | 0 |
| 990 - Transfer | 0 | | | | 0 |
| TOTAL OPERATING | \$32,130 | \$10,279 | \$2,376 | (\$21,925) | \$22,860 |
| TOTAL EXPENDITURES | \$259,968 | \$53,870 | \$186,075 | \$101,102 | \$601,015 |

Library Services



Resources & Collections

- **Print book expenditures** increased almost 38.6% to \$60,173. Most of the additional funds were used to enhance the clinical science areas to support the medical school's new problem-based learning (PBL) curriculum.
- **Electronic book expenditures** increased 94.9% to \$6,058. Most of the additional funds were used to purchase titles in the clinical science areas to support the PBL curriculum. New titles purchased included:

Harrison's Online

Williams Obstetrics, 10th ed.

American Hospital Formulary Service, 1999 ed.

Rudolph's Pediatrics, 20th ed.

Diagnostic & Statistical Manual of Mental Disorders, 4th ed.

- **Journal Collection.** Journal subscription expenditures increased 4.9% to \$493,423. The number of print journal titles remained fairly stable at 896 but the number of electronic titles in the collection (unique and print duplicates) increased 34.8% to 798. 427 titles represent Elsevier journals which became available in FY97/98. MCO users accessed full-text electronic journals via OhioLINK 7553 times.
- **Databases.** At OhioLINK's Electronic Journal Center (EJC) the SDI feature, an automatic ability to update a topic against the most recent journal issues posted to the EJC database was activated in October 1998.
- **Collection Maintenance.** Two large collection maintenance projects were undertaken. An inventory of the monograph collection, currently numbering 34,000 was undertaken. Physical items are being matched to electronic records. The last collection inventory was completed prior to 1990. In December, 1998, the book collection was shifted to make the collection more easily accessible for users.
- **Anatomy Slide Demand Shifts.** With the digitization of anatomy slides a dramatic decrease in requests for the physical slides occurred. Reserve checkouts dropped approximately 30 percent over the past year, from 6,715 checkouts last fiscal year to 4,584 checkouts this year. It is believed that the accessibility of slides via the Academic Intranet contributed to the decrease.
- **Low Cost Journal Article Source.** University Microfilm International (UMI), our leading source for copyright paid documents, has closed its document delivery division. UMI prices for Ohionet members were consistently lower than the competitors. At the end of the fiscal year, an account with Carl Uncover was established as a new means for obtaining materials for which royalties must be paid.

Technology

Keeping abreast of new technologies, integrating them into service patterns and upgrading existing equipment continues to be a critical component of providing library services. Faced with the issue of Y2K compliance as well as the need to serve users on campus and remotely, the Library's Digital Services Department tackled many key projects.

- **OSLER Y2K Compliant.** In a major project to bring the OSLER Integrated Catalog to Y2K compliance the innovative Innofaces system was upgraded to a new ALPHA server. A full turnkey support contract was signed, freeing MCO's Information Systems Department from supporting OSLER hardware. Total, cost of the upgrade was \$51,000. The OSLER tape backup drive was replaced.
- **Pentium Class at last!** With the acquisition of fifteen new computers, all library workstations (public and staff) were upgraded to Pentium class systems.
- A Windows NT WebServer (Intranet Information Server-IIS) and the STATREF Intranet server were installed to provide **Web access to many medical texts** on CD-ROM for campus and AHEC users.
- **Network Servers Topology & Access to Resources.** Scott Lapinski, Digital Services Librarian, created a 'blueprint' of MCO network servers to serve as a communication and planning tool in several discussions between the Library CCI and AHEC personnel where client/server topology was a critical element in service delivery.
- **URL validation software.** New validation software was identified and run monthly. This resolved many problems with previous URL validation software installed on the CCI web server. On a monthly basis, over URL's are validated for just *one page* of the Library's web pages (Instructions to Authors).
- **Ariel Upgrade to Win95.** Ariel software is commonplace in academic libraries throughout the United States. Transcending fax delivery in quality, it is the preferred method for rapid electronic transfer of journal articles. Upgrading to the most recent version of software, and adding a new laser printer in the Interlibrary Services Unit improved turnaround, overall article print quality and the readability of graphical images in electronically transferred articles.

Service Improvements Meet Needs

IMPROVEMENTS BENEFITTING STUDENTS.

The Library strives to provide resources, services and a facility which support the needs of all students at the Medical College of Ohio. Despite a rapidly growing electronic environment, many traditional aspects of library service continue to be important to Mulford Library student users including hours of service, copying, printing facilities and collection access. In that regard, the Library continued to meet student needs through:

- **Support for Problem Based Learning.** \$17,000 was spent to enhance textbooks and reference resources in the clinical sciences areas, to support the new problem-based learning (PBL) curriculum. Additionally, evening reference hours were reinstated four nights weekly to support students' information needs prior to PBL small group meetings. During three hours of class time, librarians discussed information strategies and quality filtering techniques to assist first year students in becoming familiar with the medical literature and enhance their skills in finding accurate information quickly.
- **Extended summer hours.** The change to electronic testing for National Board Examinations resulted in a longer window during which students could take the test. Second year students were surveyed to determine what Library hours would best meet their needs as they prepared to take National Boards. Longer than normal summer hours from May - through August 15 were maintained. In comparison to the previous year, the Library was open for twelve more hours each week during this 14 week period.
- **High Volume, High Quality Printers.** Two high volume laserjet printers were installed in the Online Resources Room. For users, the printers provided greater reliability, faster output, and a higher quality print required by Web-based resources such as electronic textbooks, full-text electronic journals and graphics rich Web-sites. 300,000 pages were printed in the Online Resources Room.
- **Access to the Academic Intranet.** For students who needed remote access to the Academic Intranet, Information Systems provided CD-ROMs from which students could upload the necessary software. Installation instructions were included. The Library received 30 such notebooks to circulate and answered questions regarding installation. Rarely were any of the notebooks in the library for over a few hours.

IMPROVEMENTS BENEFITTING ALL LIBRARY USERS.

Throughout fiscal 1998/99 there were many enhancements to **electronic resources, document delivery and remote and local resource accessibility** including :

- The R.H. Mulford **Library Home page and website** were redesigned to increase user friendliness and intuitive paths to resources. Upon Library users' requests the two most frequently used databases were added to the Homepage as direct link options.
- The more powerful **Web-based version of the OSLER catalog** was promoted as the primary access method. Telnet access (text-based only) to OSLER was removed from campus desktops (via NAL) and was replaced by a direct link icon on the campus-wide MCO Applications setup. OSLER Web pages were redesigned to parallel Library Web page design.
- **OhioLINK** launched new search software in March, 1999, for many of the health sciences related databases. Although changing has meant training users on the new software, the **benefits of change** have been access to a **Links to Holdings** feature and **citation to full-text links** in cases where the citation appears as part of the Electronic Journal Center.
- More frequent use of Ariel software in Interlibrary Services resulted in more **rapid turnaround for interlibrary loan requests** and laser quality copies of journal articles for users. Over 1800 Interlibrary loan requests were filled using the Ariel system, an electronic means of transferring journal articles.
- By the summer of 1999, all **dumb terminals**, a hallmark of the early 1990's second generation of online catalogs, were removed from the Library and replaced with 15 Pentium class computers capable of using Web-based resources.
- In April 1999 OhioLINK installed **Remote Authentication** software which supports remote access to many OhioLINK resources via any Internet Service Provider (ISP). Registered Mulford Library users could finally get **access to OhioLINK services from off- campus sites anywhere in the United States.**
- Since 1997, the Library has provided open access to the Web. This year, a **formal Web policy**, approved by the Library Advisory Committee was posted in the Online Resources Room reflecting for all Library users the spirit in which access to the Web is provided in the Mulford Library.
- **Copiers.** IKON Corporation was granted the copier contract. As a result seven new photocopy machines were installed in the Photocopy Room on the Library's fifth floor. A collating machine was added in response to user suggestions.
- **Entrance Counts.** Entrance counts have again shown a drop from those of the previous year. This has been the case for the past four consecutive years. Much of this may be explained by patrons being able to access full-text Library information and resources from their desktops.

Educational Services

The Library's role in informatics and information management education continues to grow. As new services and database features are added, Library users learn how to efficiently access, search and utilize electronic and print resources while developing critical thinking, problem solving and life-long learning skills. Curriculum integration in all four professional schools continues to be a major goal. The need to accommodate all users, local and remote, at any time of the day, drove one major initiative to develop new means to educate users, including Web-based instruction modules.

- **OhioLINK's Electronic Journal Center (EJC) features and ISI's citation databases features** were demonstrated at noon brown bag sessions. Key among the features were the ability to set up saved searches that could keep researchers and clinicians easily in touch with the most recent literature, replacing the need to browse the print version of *Current Contents*.
- **Orientation Activities.** The Library oriented over 400 new students this year, from the Schools of Allied Health, Medicine, and Nursing.
- **Course-Integrated Instruction.** Library faculty provided course-integrated instruction for classes in the School of Allied Health (evidence-based medicine and occupational medicine) and the School of Medicine (pathophysiology and medical decision-making).
- **Information Management Elective.** In its second year, Personal Information Management for the Medical Professions, an elective for fourth-year medical students, was offered four times. Ten students participated in the elective this year, for a total of one-hundred contact hours with library faculty.
- **Dataware Training.** This spring, OhioLINK switched interfaces for the biomedical databases, resulting in a great demand for training. The Library offered both lunch-time demonstrations and hands-on sessions. Advertising these sessions via broadcast email encouraged many faculty, staff, and students to participate in these sessions. 224 people attended.
- **Internet Training.** The topically focused, short-session format continued to be used. 152 people participated in the four session series.
- **Web-Based Instruction.** The instruction Web pages went live in the Spring, including online library guides, a tutorial for the online catalog, the Library's training schedule, information about the personal information management elective, and information for faculty (scheduling a library training session and how to design an effective library assignment). In the works are tutorials for MEDLINE and CINAHL, policy for non-MCO classes using the MCO Library, resources from the Internet classes, and help guides for new electronic resources.

Outreach Services

Through participation in the Medical College of Ohio's AHEC program and three robust grant-funded outreach projects, the Library continues to work with health providers in the counties comprising northwest Ohio, providing information access and delivery of materials to previously underserved areas and populations. In addition to providing remote information access and reference assistance, over 30 site visits were made during which librarians covered over 3000 miles.

AHEC ACTIVITIES.

- **MedReach.** Outreach Librarian Jonathan Hartmann assisted in the redesign of the MedReach Web site. The site was redesigned to make it more user-friendly and to provide access to more information resources. Sixty-four physicians and eight AHEC sites have access accounts for MedReach.
- **Usage Monitored.** Remote usage of resources by AHEC sites was monitored by generating statistics Graphing program in Excel.
- **Visits.** Quarterly site visits to the AHEC sites in Sandusky, Bryan, Lima, and the Urban AHEC in Toledo continued.
- **New Sites.** AHEC computers with MedReach access were installed at Fisher-Titus Medical Center in Norwalk and at Henry County Hospital in Napoleon.
- **AHEC Preceptor Day.** Outreach Librarian Jonathan Hartmann demonstrated teaching applications of MedReach for MCO AHEC Preceptors on AHEC Preceptor Day.

AIDS GRANT ACTIVITIES.

- **New Site.** David's House in Toledo became another community-based partner. A new PC was specified, ordered and set-up.
- **Resources.** 20 audiovisuals were purchased to be permanently located at the AIDS community-based partner sites for educational use.
- **Homepage.** The AIDS Information Access Web site was accessed 977 times. Enhancements to AIDS web page included canned AIDSLINE searches and article request forms.
- **Visits.** Quarterly visits to the community-based partner sites in Defiance, Lima, Fremont, and Tiffin continued.
- **Training.** Training of 14 community-based partner staff in the use of HIV/AIDS electronic information resources continued.
- **Access.** Access to Dataware AIDSLINE and MEDLINE was established for over 30 AIDS community-based partners.

HISPANIC GRANT ACTIVITIES.

- **Grant Won.** Marlene Porter, Principle Investigator, obtained a \$23,000 from NLM grant titled: *Information Services Outreach to Health Professionals serving Hispanics in the Northwest Ohio Region* (November 1998).
- **Internet Access.** Five personal computers and a laptop were specified and ordered. Personal computers were delivered to three partners in Fremont, Willard and Toledo, providing World Wide Web access for over 48 health professionals.

HIN GRANT ACTIVITIES.

- **Grant Won.** David Boilard, Principle Investigator, obtained a two-year grant from the National Library of Medicine for \$184,236 titled "Health Information Network for Northwest Ohio." The grant will target health professionals in hospitals, departments of public health and some clinics in twenty counties.
- **Merged Electronic Catalog.** Four institutions were contacted (St. Vincent's, Toledo, Flower and Mercy Health College) and work begun on creating a merged electronic catalog that will be accessible to all in the grant service area via the World Wide Web.
- **Personnel.** Jonathan Hartmann was named as full-time Outreach Librarian for the project. A part-time librarian, Janice Flahiff, and a technical assistant, Dawn Durivage were hired.

Cross Collaboration

- **Information Systems.** In conjunction with Information Systems' Y2K equipment deployments, all non-Y2K compliant hardware in the Library was identified and upgraded.

For faculty, staff and students who wanted MCO to serve as their Internet Service provider, Information Systems provided CD-ROMs from which MCO users could upload the necessary software. Installation instructions were included. The Library received 30 such notebooks to circulate. Rarely were any of the notebooks in the library for over a few hours. In all, the Library helped Information Systems put this material into the hands of over xxx including students who needed the software to access the Academic Intranet.

- **OhioLINK.** Thanks to the efforts of Marlene Porter, the Library played a significant role in initiating, designing and teaching an Advanced MEDLINE Dataware course for college and university health sciences librarians in the state of Ohio. The course ensured that high quality database searching and instruction would transfer with users to the new Dataware search software.

- **Grants & Research Administration/Information Systems.** Additional enhancements were made to the Faculty Publications Database (FPD), incorporating new fields and record design to accommodate curriculum vitae information.
- **Pediatrics, School of Medicine.** Scott Lapinski participated in the Curriculum Revision Committee, with a focus on the integration of medical informatics skills.
- **Microbiology.** *Microbes in Motion* a CDROM purchased by the Microbiology Department was installed in cooperation with information Systems for campus wide access.
- **Child and Family Assessment Unit, School of Nursing.** A CD-ROM product, *Child Abuse and Neglect* was obtained from the School of Nursing. The Library coordinated the installation process to ensure campus wide access.
- **MCO History Committee.** Scott Lapinski and David Boilard along with nine others are actively involved in activities and discussions aimed at organizing archiving institutional information.
- **AHEC/CCI Joint support of WinFrame / NT 3.51 server continued between Library, CCI and AHEC.** WINFRAME is the principal means of access for AHEC preceptors to many Mulford Library resources, including MEDLINE.

COST EFFECTIVE STRATEGIES

The Library staff continues to be aware of the need for cost containment striving to meet service needs while keeping cost low. Savings were realized in the following instances:

- **Tape Backup Replacement.** A new \$2,000 tape drive for OSLER was delivered at no cost to the institution after an 'unknown' warranty on the old unit was discovered.
- **HP4000TN Laserjet Printers.** Heavy use laserjets were installed in the Online Resources Room and were configured to use less toner. Previous desktop laser quality models proved unable to meet the printing demands. During the first half on the year, 300 reams of paper were used, 13 printer drums replaced and 64 toner cartridges were installed. The total printing expense for the Online Resources Room for the year was \$9,302.00.
- **Elimination of dumb terminals.** Abandoning dumb terminals (old technology) in favor of Pentium class computers freed 10 OSLER computer ports. The 10 "new" ports, will become necessary as the HIN grant partners come into the system and will save approximately \$20,000 of grant resources.

PERSONNEL & FACILITIES

Knowledgeable, service-oriented personnel strongly effect a users' experience and perception of the Library and the resources-even when users are accessing the Library remotely. Likewise, a facility that is conducive to study, technological expansion and logical convenient placement of resources is critical to user friendliness and the ability to adjust to new information resources and information management technologies. Of significance this year was the Library's increased deployment of cross training among Access Services staff whose jobs have been most impacted by online access to full-text materials and patron initiated borrowing.

PERSONNEL

- **Cross training.** Increased cross training efforts were pursued across three units to better utilize Access Services staff, bringing variety to daily work schedules, and to integrating changes in workflow created by increasing access to electronic resources. Access Services staff were cross-trained to perform duties in various units within the Department. Fewer student workers were hired as a result of increased work output by existing staff.
- **Anne Bushel resigns.** Reference Associate, Anne Bushel, resigned in April, 1999. Ms. Bushel who had worked with the Library since 1977 in both the Public Services and Technical Services area, earned a Master's Degree in Library Science from the University of Michigan in 1996. Ms. Bushel accepted a position as a reference librarian at the Bromfield Library, the Ohio State University-Mansfield campus.

FACILITIES

- **New Office Spaces.** Digital Services and Bibliographic Services moved into new office space on the fifth floor when renovations begun in March 1998 were completed in August, 1998. Users were vocal about the loss of study space on the Fifth Floor to "more offices."
- **Improved Lighting.** New lights were installed over the Fourth floor Circulation Desk work area.

Library Statistics



| BOOK & NON-PRINT EXPENDITURES, 1997-1999 | | | |
|---|-------------------|-------------------|-----------------|
| | FY 1997/98 | FY 1998/99 | % Change |
| Books | \$43,410 | \$60,173 | +38.6 % |
| Audiovisuals | \$2,604 | \$2,733 | +5.0 % |
| Electronic Resources* | \$3,109 | \$6,058 | +94.9 % |
| TOTALS | \$49,123 | \$68,964 | +40.4 % |

In text

* Excluding electronic journals

| NUMBER OF BOOK & NON-PRINT ACQUISITIONS, 1997-1999 | | | |
|---|-------------------|-------------------|-----------------|
| | FY 1997/98 | FY 1998/99 | % Change |
| PURCHASED | | | |
| Books | 573 | 831 | +45.0% |
| Audiovisuals | 11 | 10 | -9.0% |
| Electronic Resources | 4 | 7 | +75.0% |
| Total | 588 | 848 | +42.2% |
| GIFTS/FREE | | | |
| Books | 166 | 60 | -63.9% |
| MCO Theses | 61 | 46 | -24.6% |
| Audiovisuals | 1 | 2 | +100.0% |
| Total | 228 | 108 | +92.1% |
| TOTAL | 816 | 956 | +17.2% |

| BOOK & NON-PRINT ACQUISITIONS BY GENERAL SUBJECT, FY 1998/99 | | | | |
|---|------------------------|-----------------------------|--------------------|-------------------------|
| | Items Purchased | % of Total Purchases | Total Spent | % of Total Spent |
| Clinical Sciences | 564 | 66.5% | \$47,661 | 69.1 % |
| Basic Sciences | 121 | 14.3% | \$9,545 | 13.8 % |
| Nursing | 80 | 9.4% | \$3,562 | 5.2 % |
| Allied Health | 41 | 4.8% | \$2,661 | 4.0 % |
| All Other | 42 | 5.0% | \$5,535 | 7.9 % |
| TOTALS | 848 | 100.0% | \$68,964 | 100.0 % |

**BOOK & NON-PRINT
PURCHASES, 1988-1999**

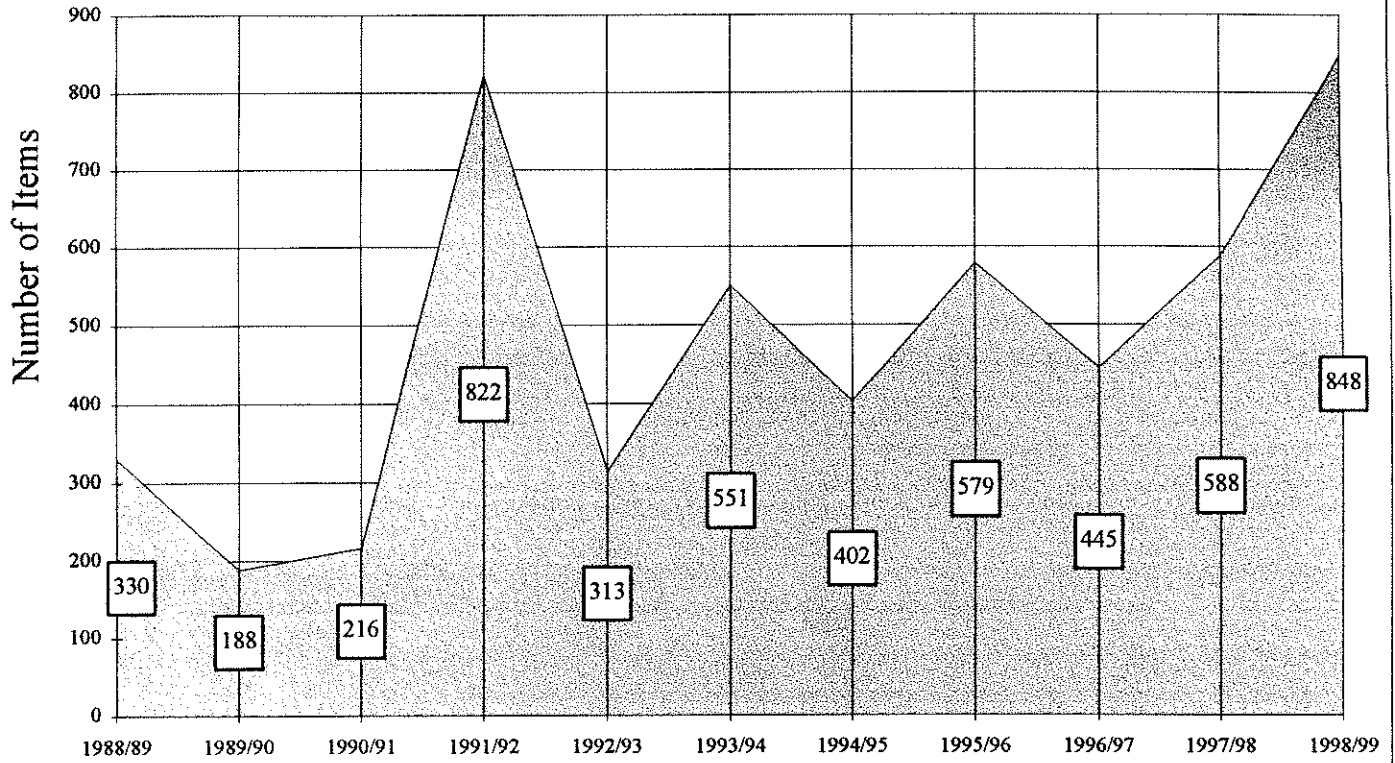
| FISCAL YEAR | NO. OF ITEMS |
|------------------------|-------------------------|
| 1988/89 | 330 |
| 1989/90 | 188 |
| 1990/91 | 216 |
| 1991/92 | 822 |
| 1991/93 | 313 |
| 1993/94 | 552 |
| 1994/95 | 402 |
| 1995/96 | 579 |
| 1996/97 | 445 |
| 1997/98 | 588 |
| 1998/99 | 848 |
| TOTAL | 5,283 |

**COST & NUMBER OF JOURNAL SUBSCRIPTIONS,
1997-1999**

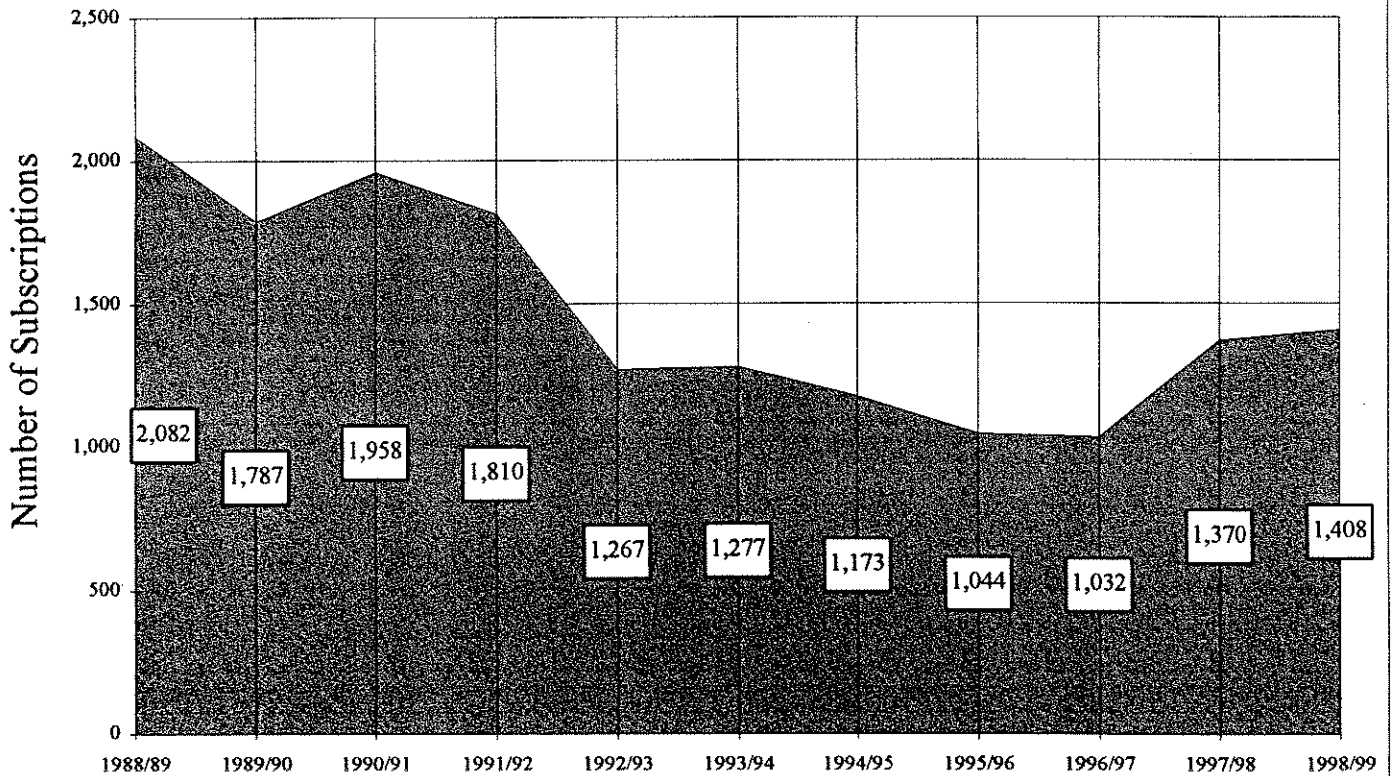
| | FY 1997/98 | FY 1998/99 | % Change |
|-------------------------------|-------------------|-------------------|-----------------|
| EXPENDITURES | \$470,197 | \$493,423 | +4.9% |
| NUMBER OF TITLES* | 1,399 | 1,435 | +2.6% |
| Paid | 1,370 | 1,408 | +2.8% |
| Free | 29 | 27 | -6.9% |
| Print | 901 | 896 | -0.6% |
| Electronic (unique) | 498 | 539 | +8.2% |
| Electronic (print duplicates) | 94 | 259 | +175.5% |
| Added * | 444 | 51 | -88.5% |
| Cancelled | 75 | 11 | -85.3% |
| No Longer Published | 2 | 4 | +100.0% |

* Excludes electronic copies of titles also received in print format

Books & Non-Print Acquisitions Last 11 Fiscal Years



Paid Journal Subscriptions Last 11 Fiscal Years



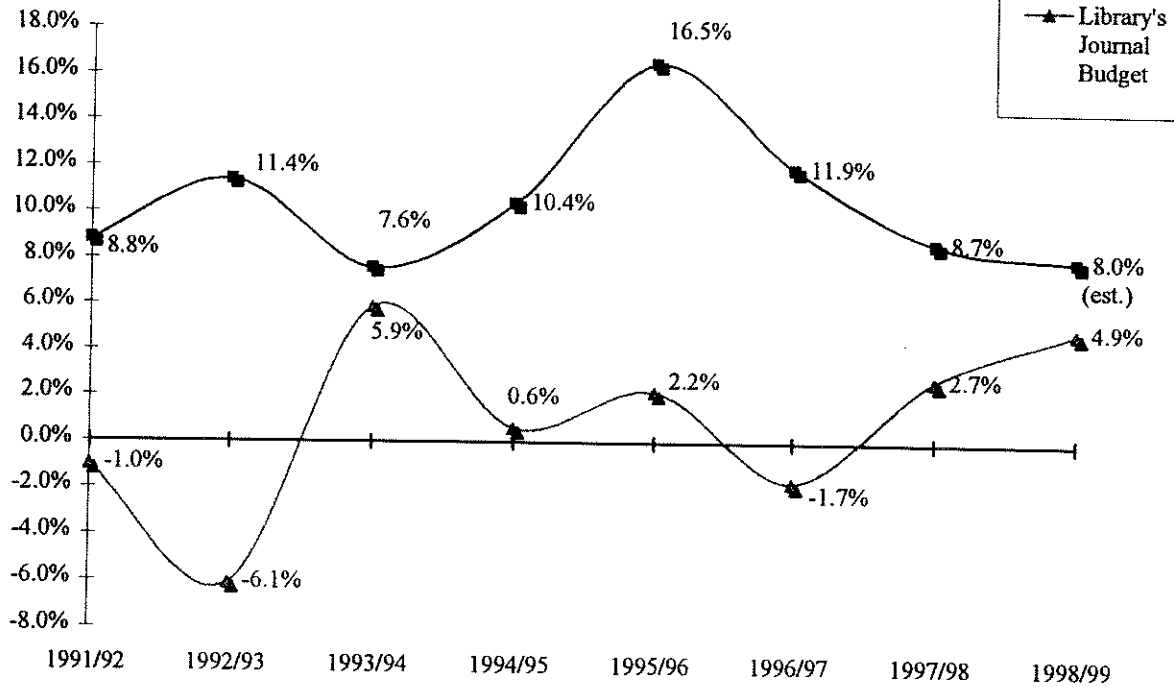
**JOURNAL SUBSCRIPTION
EXPENDITURES,
1988-1999**

| FISCAL YEAR | AMOUNT SPENT | PERCENT CHANGE |
|------------------------|-------------------------|---------------------------|
| 1988/89 | \$371,575 | |
| 1989/90 | \$408,060 | + 9.8 % |
| 1990/91 | \$458,839 | + 12.4 % |
| 1991/92 | \$454,381 | - 1.0 % |
| 1991/93 | \$426,852 | - 6.1 % |
| 1993/94 | \$452,101 | + 5.9 % |
| 1994/95 | \$454,937 | + 0.6 % |
| 1995/96 | \$464,921 | + 2.2 % |
| 1996/97 | \$457,466 | - 1.7 % |
| 1997/98 | \$470,197 | + 2.7 % |
| 1998/99 | \$493,423 | + 4.9 % |
| NET CHANGE | \$121,848 | + 32.8% |

**NUMBER OF PAID
JOURNAL SUBSCRIPTIONS,
1988-1999**

| FISCAL YEAR | NO. OF TITLES | PERCENT CHANGE |
|------------------------|--------------------------|---------------------------|
| 1988/89 | 2,082 | |
| 1989/90 | 1,787 | -14.2% |
| 1990/91 | 1,958 | +9.6% |
| 1991/92 | 1,810 | -7.6% |
| 1991/93 | 1,258 | -30.5% |
| 1993/94 | 1,277 | +1.5% |
| 1994/95 | 1,173 | -8.1% |
| 1995/96 | 1,044 | -11.0% |
| 1996/97 | 1,032 | -2.0% |
| 1997/98 | 1,370 | +32.8% |
| 1998/99 | 1,408 | +2.8% |
| NET CHANGE | -674 | -32.3% |

Journal Budget vs Inflation Last 8 Fiscal Years



Journal Budget vs Inflation

Last 8 Fiscal Years

| | 1991/92 | 1992/93 | 1993/94 | 1994/95 | 1995/96 | 1996/97 | 1997/98 | 1998/99 |
|-------------------------------------|---------|---------|---------|---------|---------|---------|---------|-------------|
| % Change - Average Cost per Title | 8.8% | 11.4% | 7.6% | 10.4% | 16.5% | 11.9% | 8.7% | 8.0% (est.) |
| % Change - Library's Journal Budget | -1.0% | -6.1% | 5.9% | 0.6% | 2.2% | -1.7% | 2.7% | 4.9% |

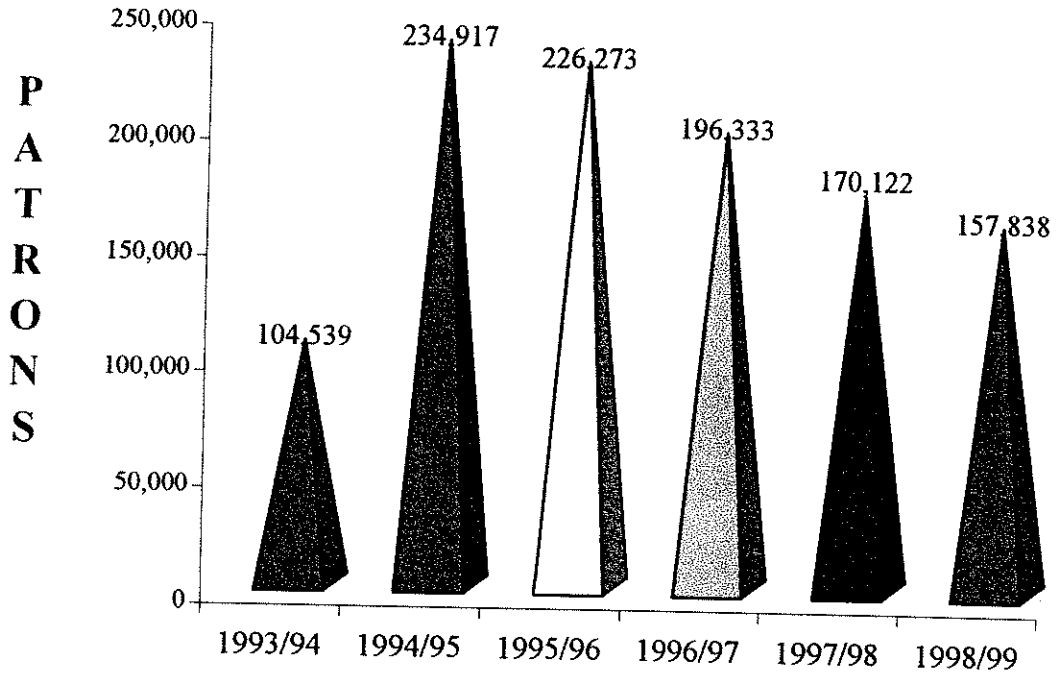
| COLLECTION SIZE AS OF JUNE 30, 1999 | |
|--|----------------|
| BOOKS | 36,486 |
| AUDIOVISUALS | 252 |
| ELECTRONIC RESOURCES * | 53 |
| JOURNALS | |
| Total Subscriptions | 1,435 |
| Total Volumes | 108,408 |
| TOTAL VOLUMES | 145,199 |

* Excluding electronic journals

| COLLECTION MAINTENANCE COSTS | | | | |
|---|------------------------------|------------------------------|--------------------------------|--------------------------------|
| | FY 1997/98 TOTALS | FY 1998/99 TOTALS | FY 1997/98 AVERAGES | FY 1998/99 AVERAGES |
| Books | \$43,410 | \$60,173 | \$75.76 | \$72.41 |
| Audiovisuals | \$2,604 | \$2,733 | \$236.72 | \$273.30 |
| Electronic Resources | \$3,109 | \$6,058 | \$777.25 | \$865.43 |
| Journal Subscriptions | \$470,197 | \$493,423 | \$323.60 | \$350.44 |
| OCLC (Cataloging & Union List Maintenance) | \$4,417 | \$4,616 | | |
| Binding | \$15,040 | \$10,709 | \$6.47 | \$6.58 |
| TOTALS | \$538,777 | \$577,712 | | |

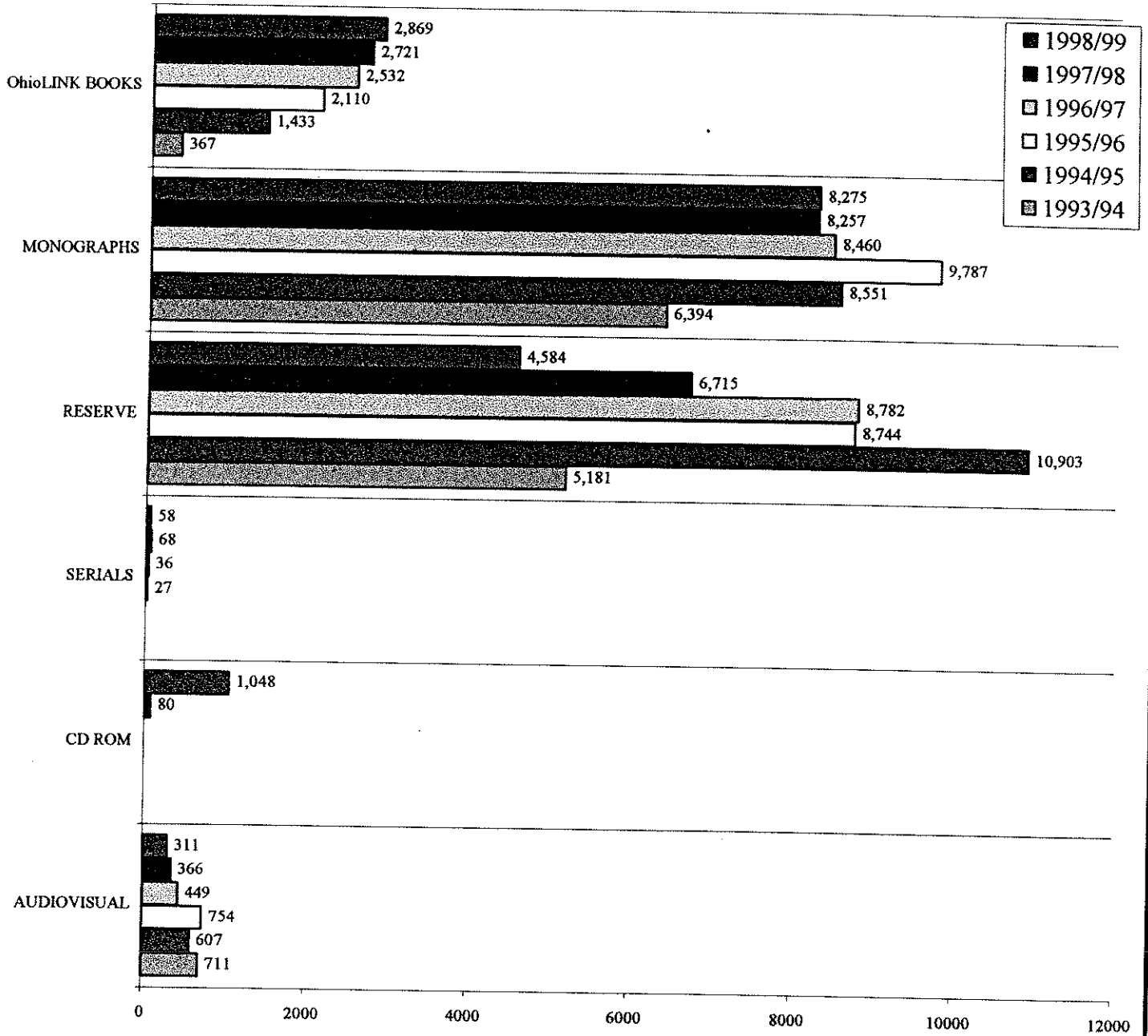
Library Entrance Count

Fiscal Year 1998/99



| 1993/94 | 1994/95 | 1995/96 | 1996/97 | 1997/98 | 1998/99 | TREND 1 YR. | TREND 5 YR. |
|---------|---------|---------|---------|---------|---------|----------------|----------------|
| 104,539 | 234,917 | 226,273 | 196,333 | 170,122 | 157,838 | -7.2% | -27.5% |

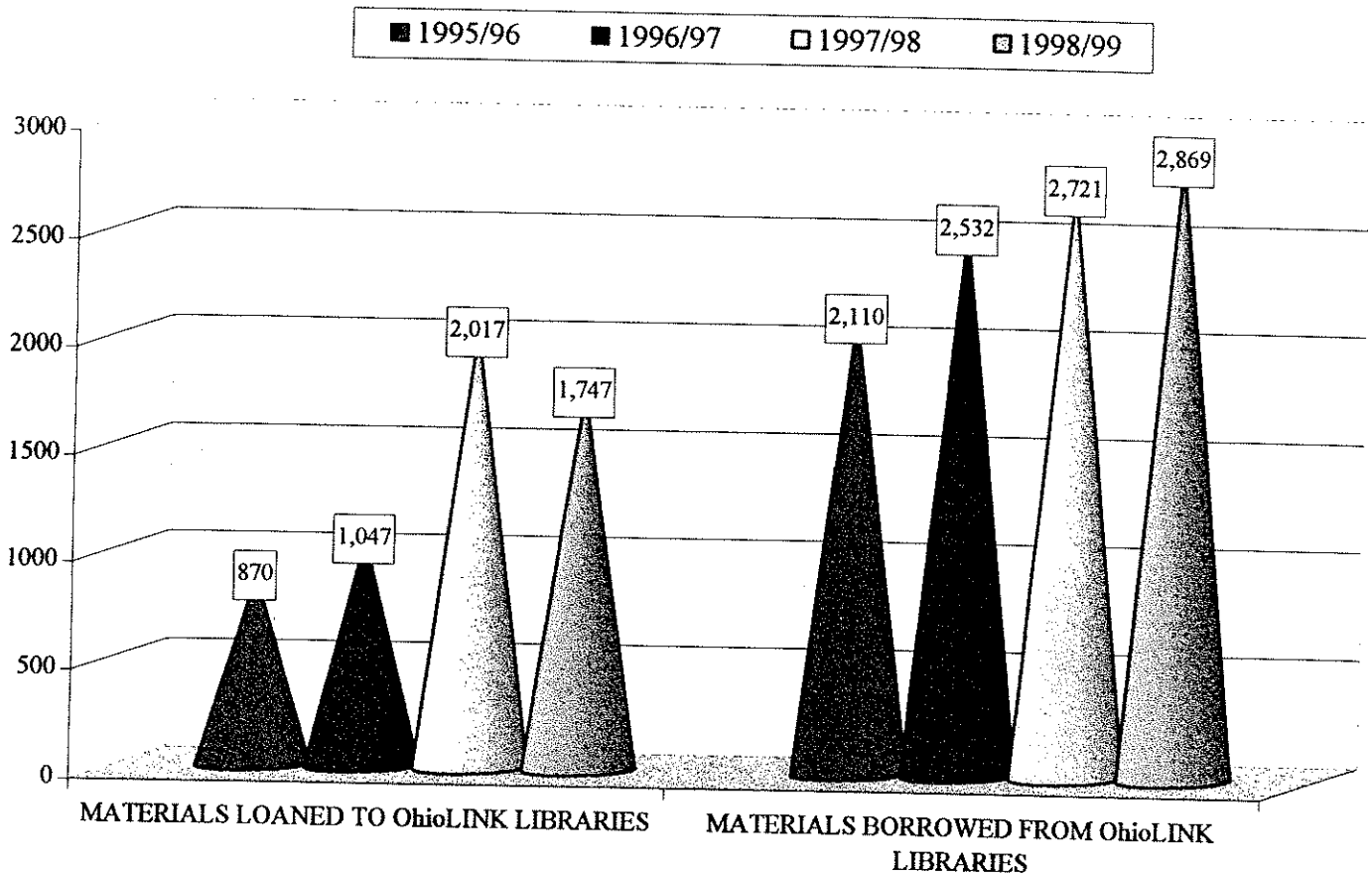
Items Circulated -- FY 1998/99



| MATERIAL TYPE | 1993/94 | 1994/95 | 1995/96 | 1996/97 | 1997/98 | 1998/99 |
|---------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| AUDIOVISUAL | 711 | 607 | 754 | 449 | 366 | 311 |
| SERIALS | 0 | 0 | 27 | 36 | 68 | 58 |
| RESERVE | 5,181 | 10,903 | 8,744 | 8,782 | 6,715 | 4,584 |
| MONOGRAPHS | 6,394 | 8,551 | 9,787 | 8,460 | 8,257 | 8,275 |
| OhioLINK BOOKS | 367 | 1,433 | 2,110 | 2,532 | 2,721 | 2,869 |
| CD ROM | N/A | N/A | N/A | N/A | 80 | 1,048 |
| SUPPL ELECTRONIC MATERIAL | N/A | N/A | N/A | N/A | N/A | 3 |
| TOTAL | 12,653 | 21,494 | 21,422 | 20,259 | 18,207 | 17,148 |

Patron Initiated Circulation

FY 1998/99

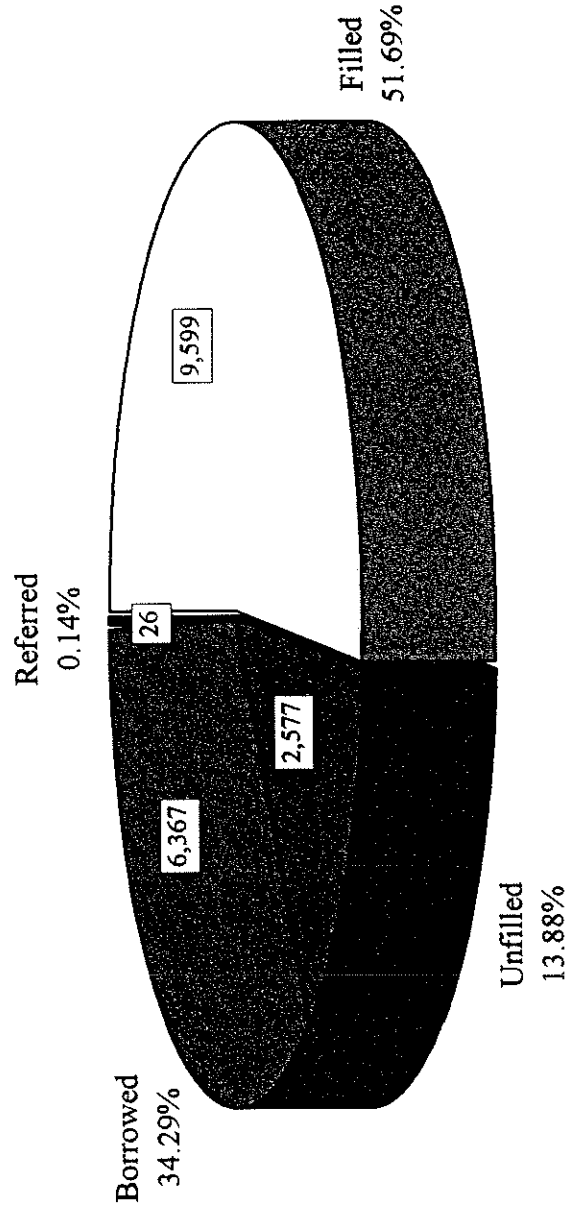


| | 1994/95 | | 1995/96 | | 1996/97 | | 1997/98 | | 1998/99 | | Trend 1 YR. |
|----------|---------|------|---------|------|---------|------|---------|------|---------|------|----------------|
| Borrowed | 1,433 | 71% | 2,110 | 71% | 2,532 | 71% | 2,721 | 57% | 2,869 | 62% | 5% |
| Loaned | 588 | 29% | 870 | 29% | 1,047 | 29% | 2,017 | 43% | 1,747 | 38% | -13% |
| Total | 2,021 | 100% | 2,980 | 100% | 3,579 | 100% | 4,738 | 100% | 4,616 | 100% | |

PCIRC - Patron Initiated Circulation allows patrons to request items from any of the participating universities in Ohio. All transactions are able to be performed by the patron themselves via computer and materials are delivered to their institution by a courier service.

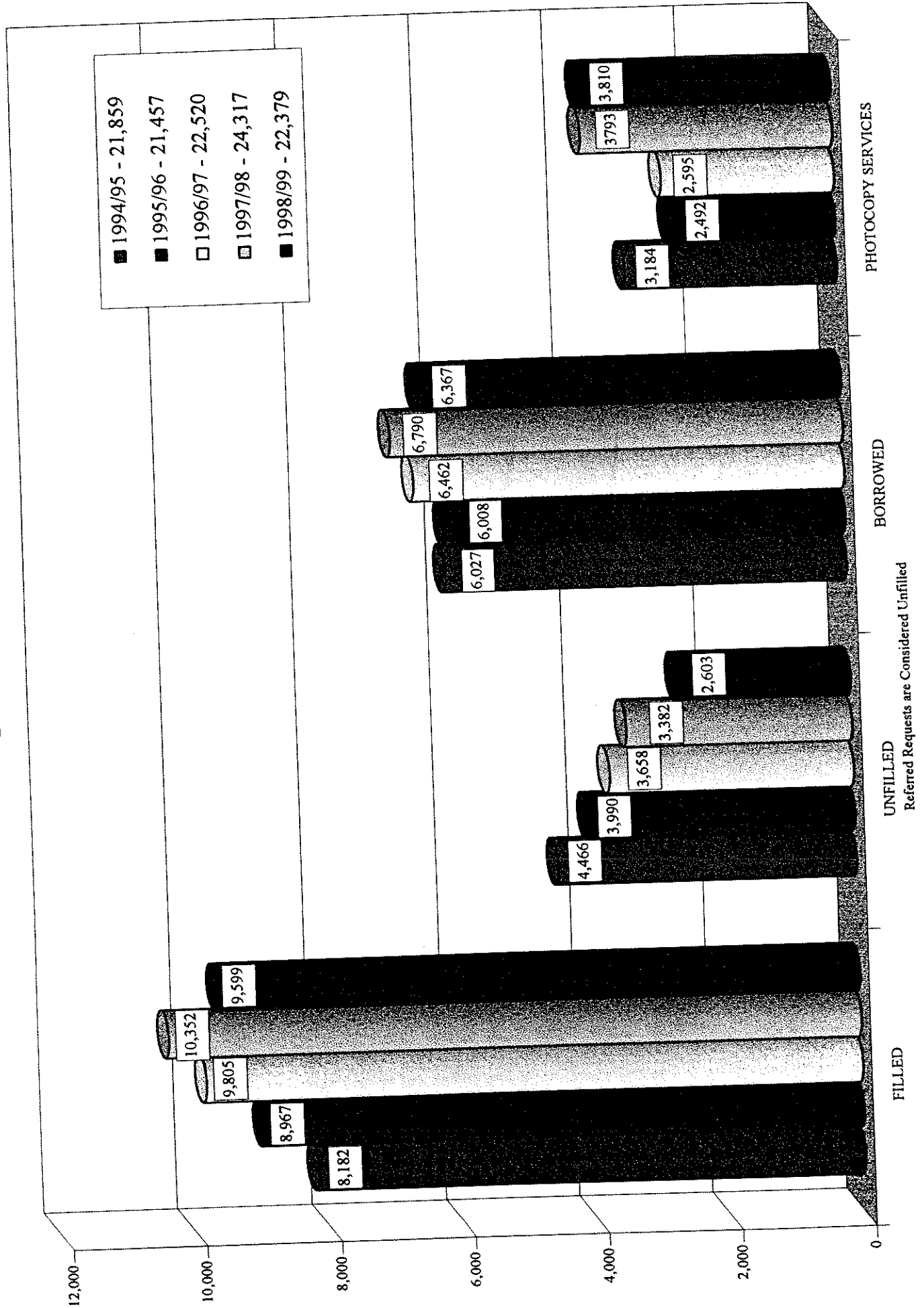
Interlibrary Services

Requests Processed - Fiscal Year 1998/99



TOTAL REQUESTS PROCESSED - 18,569

Interlibrary Services Fiscal Year 1998/99



Fiscal Year 1998/99

Interlibrary Services

| | Filled | Unfilled | Referred | Total Received | Borrowed | Grand Total |
|---|--------------|--------------|-----------|-------------------|--------------|----------------|
| Photocopy Statistics | | | | | | |
| OhioLINK Libraries | 5,011 | 1,013 | | 6,024 | 4,348 | 10,372 |
| Other Ohio Libraries | 157 | 67 | | 224 | 12 | 236 |
| Other Ohio Hospitals | 867 | 207 | 26 | 1,100 | 14 | 1,114 |
| Region 3 Libraries | 2,451 | 708 | | 3,159 | 1,065 | 4,224 |
| National Library of Medicine | | | | | 334 | 334 |
| University Microfilms Institute | | | | | 10 | 10 |
| The Genuine Article | | | | | 7 | 7 |
| Canada Institute for Scientific & Technical Info. | | | | | 22 | 22 |
| Other U.S. Libraries | 190 | 291 | | 481 | 214 | 695 |
| International Libraries | 8 | 13 | | 21 | 2 | 23 |
| Independent Patrons | 230 | 11 | | 241 | | 241 |
| Area Health Education Centers | 396 | 3 | | 399 | | 399 |
| Outreach Nursing Students | 161 | | | 161 | | 161 |
| subtotal | 9,471 | 2,313 | 26 | 11,810 | 6,028 | 17,838 |
| Book Statistics | | | | | | |
| OhioLINK Libraries | 27 | 69 | | 96 | 149 | 245 |
| Other Ohio Libraries | 12 | 15 | | 27 | 8 | 35 |
| Other Ohio Hospitals | 30 | 90 | | 120 | | 120 |
| Region 3 Libraries | 34 | 34 | | 68 | 65 | 133 |
| Other U.S. Libraries | 22 | 45 | | 67 | 60 | 127 |
| International Libraries | 2 | 4 | | 6 | 2 | 8 |
| Independent Patrons | 1 | | | 1 | | 1 |
| Area Health Education Centers | | 4 | | 4 | | 4 |
| subtotal | 128 | 261 | | 389 | 284 | 673 |
| Audio Visual Statistics | | | | | | |
| OhioLINK Libraries | | | | | 40 | 40 |
| Other Ohio Libraries | | | | | 2 | 2 |
| Other Ohio Hospitals | | 1 | | 1 | | 1 |
| Region 3 Libraries | | 1 | | 1 | 2 | 3 |
| Other U.S. Libraries | | 1 | | 1 | 11 | 12 |
| International Libraries | | | | | | |
| Independent Patrons | | | | | | |
| subtotal | 0 | 3 | | 3 | 55 | 58 |
| Total/Grand Total | 9,599 | 2,577 | 26 | 12,202 | 6,367 | 18,569 |

Raymon H. Mulford Library

ACCESS SERVICES

REVENUE REPORT

| | 1994/95 | 1995/96 | 1996/97 | 1997/98 | 1998/99 |
|------------------------------|------------------|------------------|------------------|------------------|---------------|
| CIRCULATION | | | | | |
| EXTERNAL | 5,169.52 | 7,224.48 | 7,682.64 | 7,806.00 | 6,429.00 |
| CROSSCHARGE | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 5,169.52 | 7,224.48 | 7,682.64 | 7,806.00 | 6,429 |
| INTERLIBRARY SERVICES | | | | | |
| EXTERNAL | 33,241.06 | 33,633.00 | 37,875.19 | 35,029.00 | 29,739 |
| CROSSCHARGE | 9,768.18 | 6,873.50 | 7,453.50 | 5,080.00 | 3,688 |
| TOTAL | 43,009.24 | 40,506.50 | 45,328.69 | 40,109.00 | 33,427 |
| TOTAL ACCESS SERVICES | 48,178.76 | 47,730.98 | 53,011.33 | 47,996.00 | 39,856 |

INTERLIBRARY ARTICLE RETRIEVAL EXPENSE

| | 1994/95 | 1995/96 | 1996/97 | 1997/98 | 1998/99 |
|--|-----------------|-----------------|-----------------|------------------|---------------|
| VENDOR EXPENSE | | | | | |
| UMI | 494.00 | 1,281.35 | 1,380.00 | 2,165.00 | 301.00 |
| ISI | 357.30 | 1,369.53 | 1,145.00 | 978.00 | 324.00 |
| CISTI | N/A | N/A | N/A | 1,615.00 | 2,153.00 |
| TOTAL VENDOR EXPENSE | 851.30 | 2,650.88 | 2,525.00 | 4,758.00 | 2,778.00 |
| LIBRARIES | 2,762.37 | 3,697.77 | 5,093.00 | 5,397.00 | 5,597.00 |
| NLM | N/A | N/A | N/A | 4,022.00 | *4,800.00 |
| TOTAL ARTICLE RETRIEVAL EXPENSE | 3,613.67 | 6,348.65 | 7,618.00 | 14,177.00 | 13,175 |

*Estimated

Fiscal Years - 1994/95 to 1998/99

Interlibrary and Photocopy Services

| | 1994/95 | 1995/96 | 1996/97 | 1997/98 | 1998/99 | Trend 1 Year | Trend 5 Years |
|--|---------|---------|---------|---------|---------|-----------------|------------------|
|--|---------|---------|---------|---------|---------|-----------------|------------------|

Lending

| | | | | | | | |
|-------------------------|--------|--------|--------|--------|--------|-------|-------|
| Requests Filled | 8,182 | 8,967 | 9,805 | 10,352 | 9,599 | -7.2% | 17.0% |
| Requests Unfilled | 4,324 | 3,905 | 3,613 | 3,355 | 2,577 | -23% | -40% |
| Requests Referred | 142 | 85 | 45 | 27 | 26 | -3.7% | -82% |
| Total Requests Received | 12,648 | 12,957 | 13,463 | 13,734 | 12,202 | -11% | -3.5% |

Borrowing

| | | | | | | | |
|-------------------|-------|-------|-------|-------|-------|-------|------|
| Material Borrowed | 6,027 | 6,008 | 6,462 | 6,790 | 6,367 | -6.2% | 5.6% |
|-------------------|-------|-------|-------|-------|-------|-------|------|

Interlibrary Loan Requests Processed

| | | | | | | | |
|------------------------|--------|--------|--------|--------|--------|-------|------|
| ILS Requests Processed | 18,675 | 18,965 | 19,925 | 20,524 | 18,569 | -9.5% | 0.5% |
|------------------------|--------|--------|--------|--------|--------|-------|------|

Photocopy Service

| | | | | | | | |
|-------------------------|-------|-------|-------|-------|-------|--------|--------|
| Library Photocopied | 3,184 | 2,492 | 2,464 | 3,138 | 2,717 | -13.4% | -0.15% |
| Depository Filled | N/A | N/A | 131 | 655 | 1,093 | 67% | N/A |
| Total Photocopy Service | 3,184 | 2,492 | 2,595 | 3,793 | 3,810 | 0.4% | 0.20% |

| | | | | | | | |
|---------------------------------|---------------|---------------|---------------|---------------|---------------|-----------|-------------|
| Total Requests Processed | 21,859 | 21,457 | 22,520 | 24,317 | 22,379 | 8% | 2.3% |
|---------------------------------|---------------|---------------|---------------|---------------|---------------|-----------|-------------|

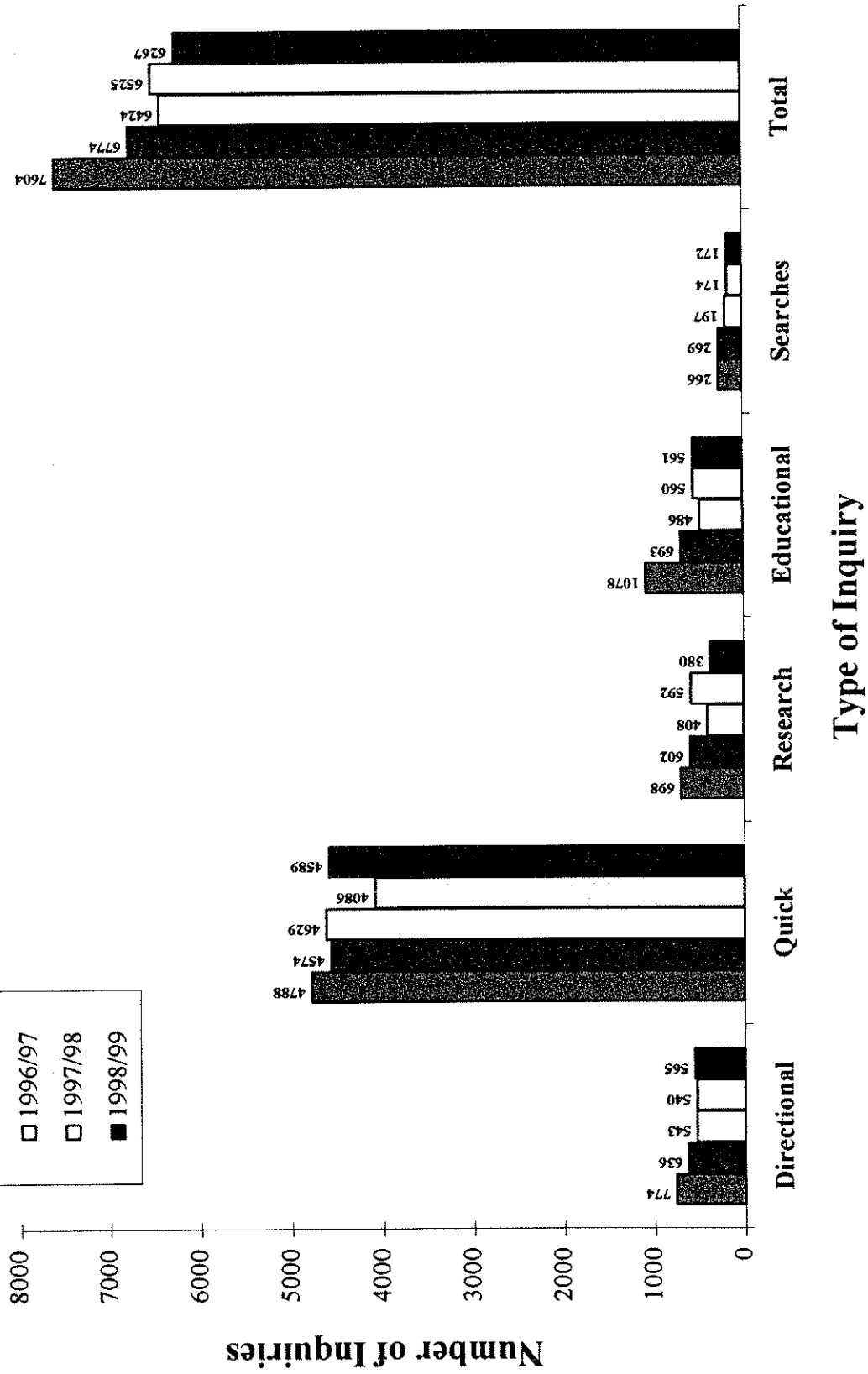
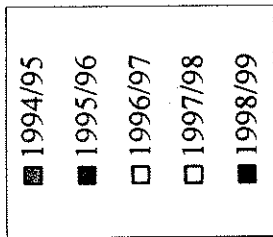
Frequently Requested Journals With History of Demand

| Journal Titles | Requested 10 Times or More | | | | |
|---|----------------------------|---------|---------|---------|---------|
| | 1998/99 | 1997/98 | 1996/97 | 1995/96 | 1994/95 |
| ** Acta Obstetrica et Gynecologica Scandinavica | 10 | | | | |
| Advanced Practice Nursing Quarterly | 16 | | | | |
| American Journal of Reproductive Immunology | 12 | | | | |
| Arthritis Care and Research | 15 | 14 | 25 | | 14 |
| British Journal of Nursing | 19 | 14 | | 14 | 17 |
| * Cell Growth and Differentiation | 11 | 14 | 10 | 25 | |
| Clinical and Experimental Metastasis | 15 | | | | |
| Community Nurse | 16 | | | | |
| Complementary Therapies in Nursing and Midwifery | 17 | | | | |
| Current Biology | 14 | 15 | | | |
| Ethnicity and Disease | 10 | | | | |
| ** Experimental Brain Research | 11 | 14 | 14 | | |
| Family Medicine | 18 | | | | |
| Family Practice | 11 | | | | |
| Foot and Ankle International | 16 | 23 | | | |
| ** Health Affairs | 17 | | | | |
| Human Reproduction | 17 | 25 | | | |
| Infection Control and Hospital Epidemiology | 11 | 22 | | | |
| Journal of Clinical Nursing | 13 | 11 | | | |
| Journal of Cultural Diversity | 13 | | | | |
| Journal of Hand Therapy | 10 | 16 | | | |
| Journal of Health Care for the Poor and Underserved | 13 | | | | |
| Journal of Immunotherapy | 10 | | | | |
| Journal of Intravenous Nursing | 10 | | | 10 | |
| * Journal of Molecular and Cellular Cardiology | 10 | | | 20 | |
| Journal of Multicultural Nursing and Health | 14 | | | | |
| Journal of Nursing Law | 10 | | | | |
| ** Journal of Reproduction and Fertility | 10 | | | | |
| Journal of Women's Health | 20 | | | | |
| ** Medical Journal of Australia | 14 | | | | |
| Medsurg Nursing | 12 | 10 | | | |
| Molecular Biology Reports | 10 | | | | |
| Molecular Carcinogenesis | 13 | 17 | | 14 | 31 |
| Molecular Cell | 14 | | | | |
| * Mutation Research | 12 | | 14 | 12 | |
| Nursing History Review | 10 | | | | |
| Nursing Spectrum | 16 | | | | |
| ** Perceptual and Motor Skills | 14 | | | | |
| Professional Nurse | 12 | 11 | | 14 | 14 |
| Sexuality and Disability | 10 | | | | |

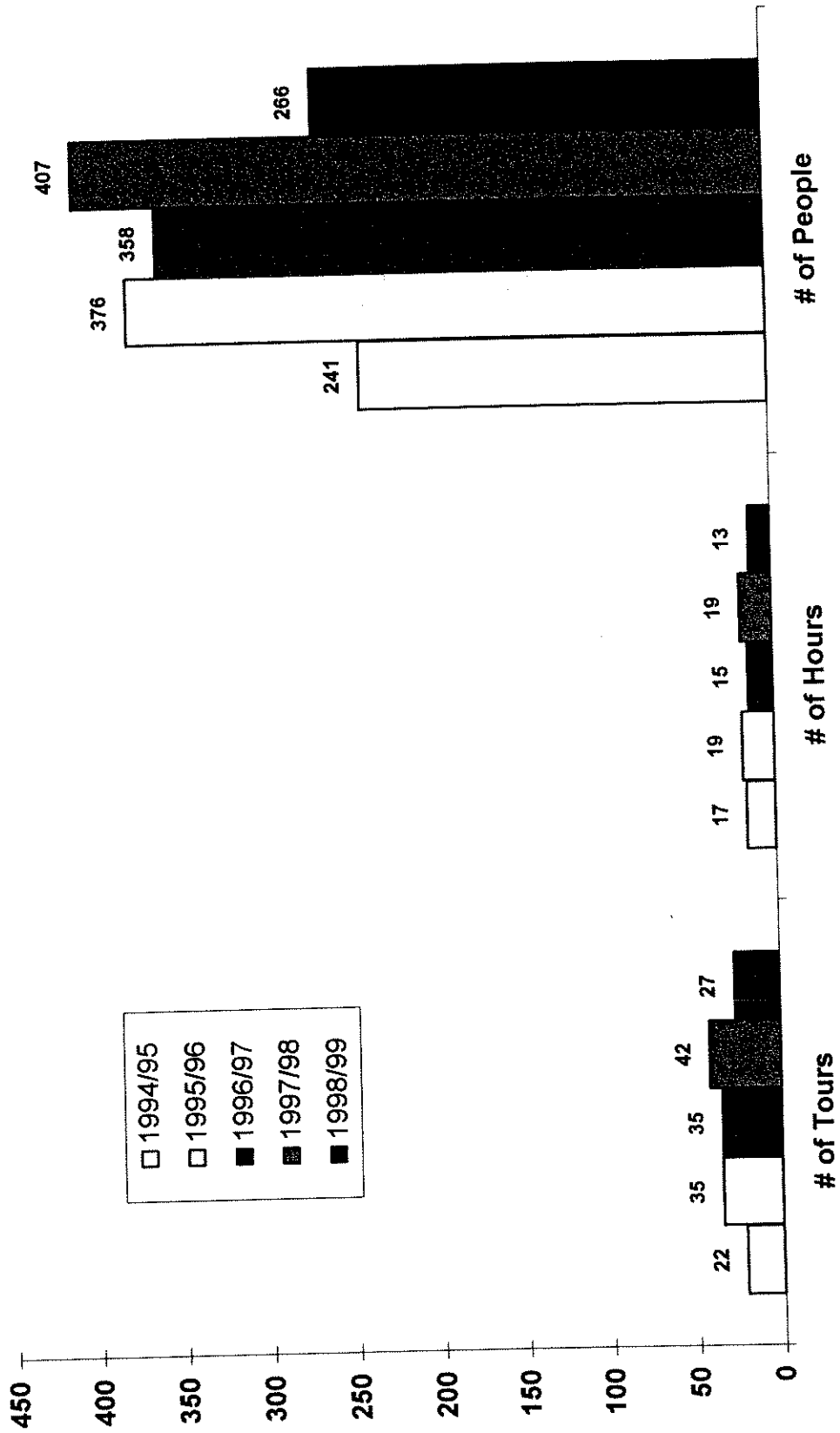
* Recently Added to Collection or Resubscribed

** Dropped from Collection

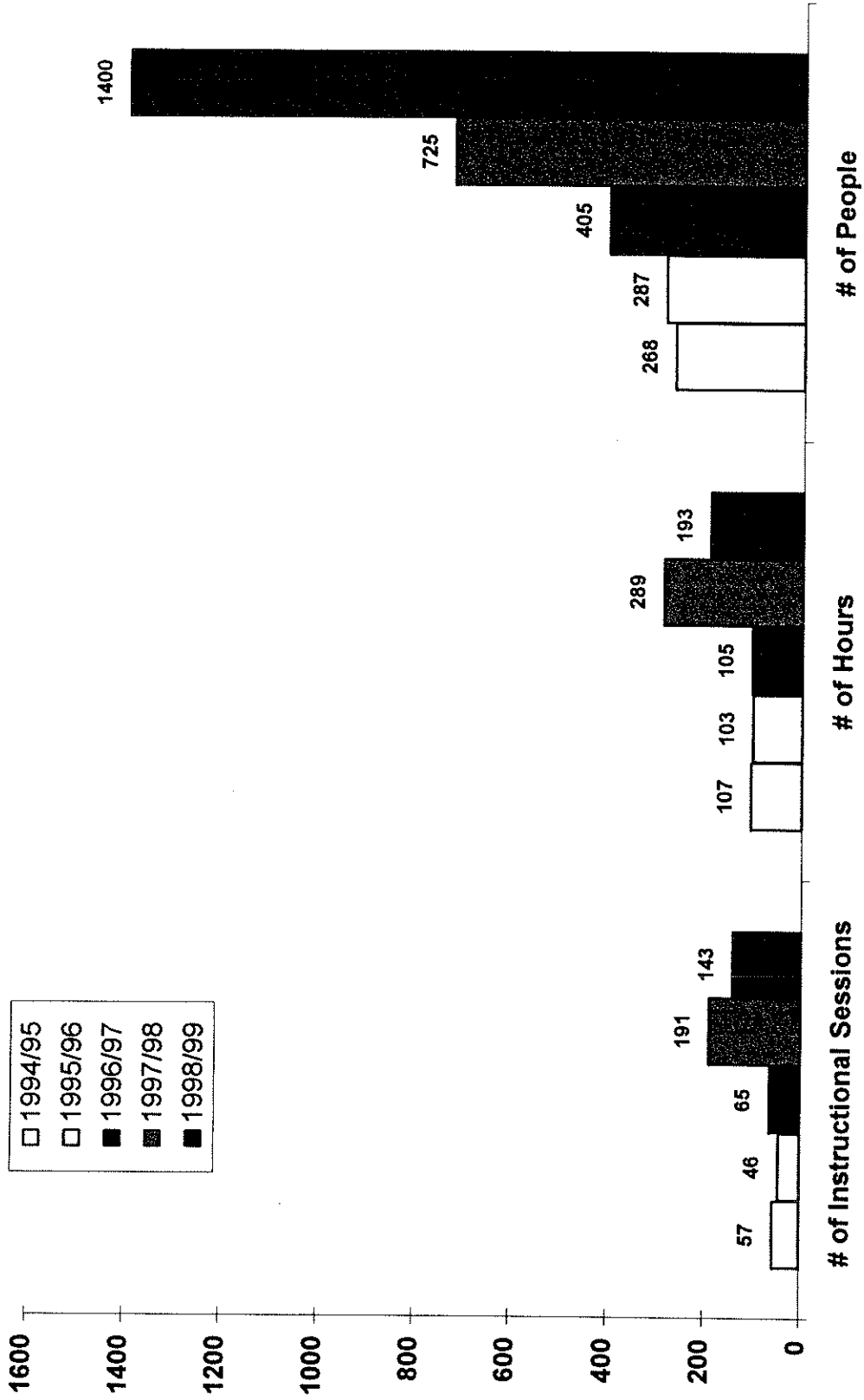
Reference Desk Statistics



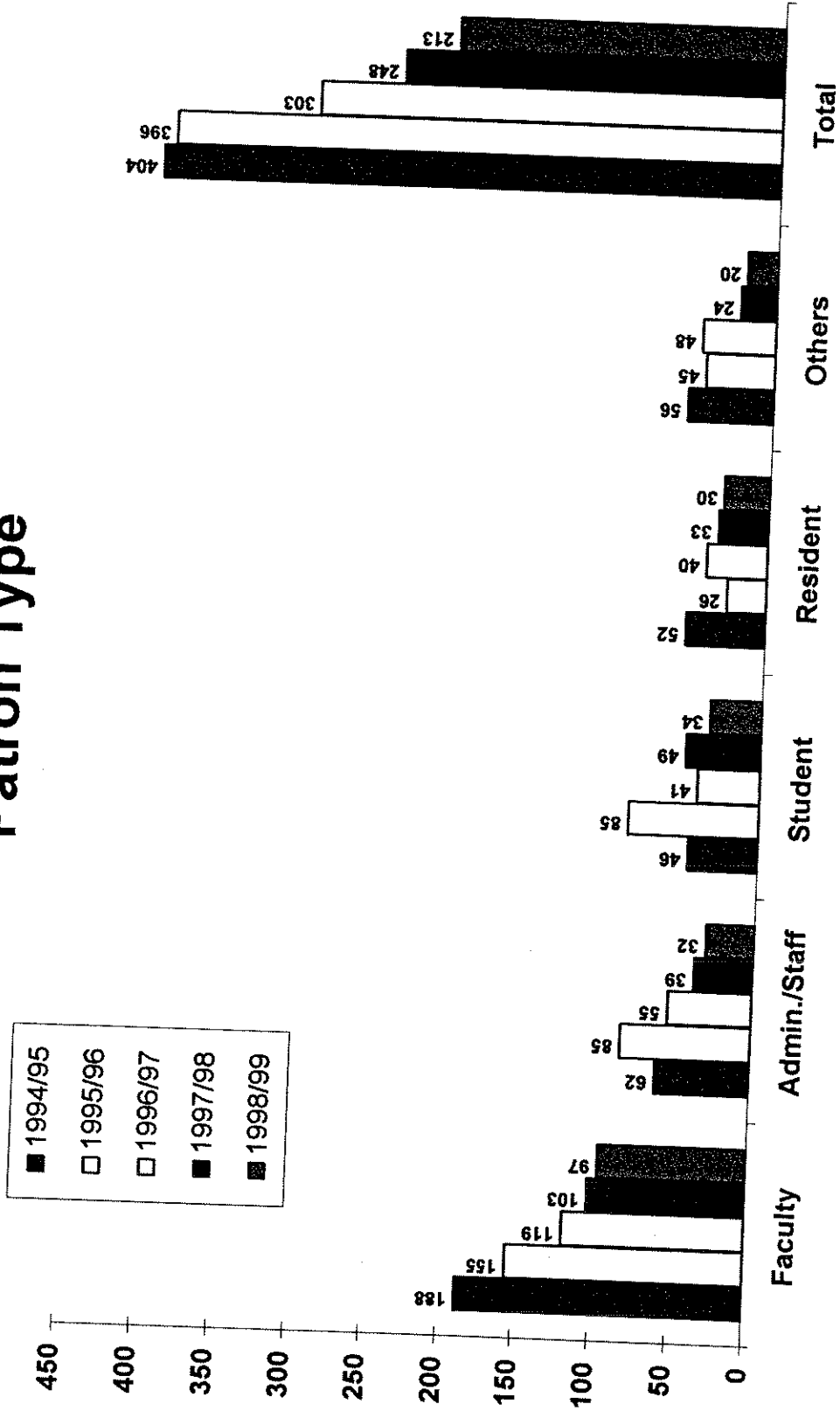
Tour/Orientation Statistics



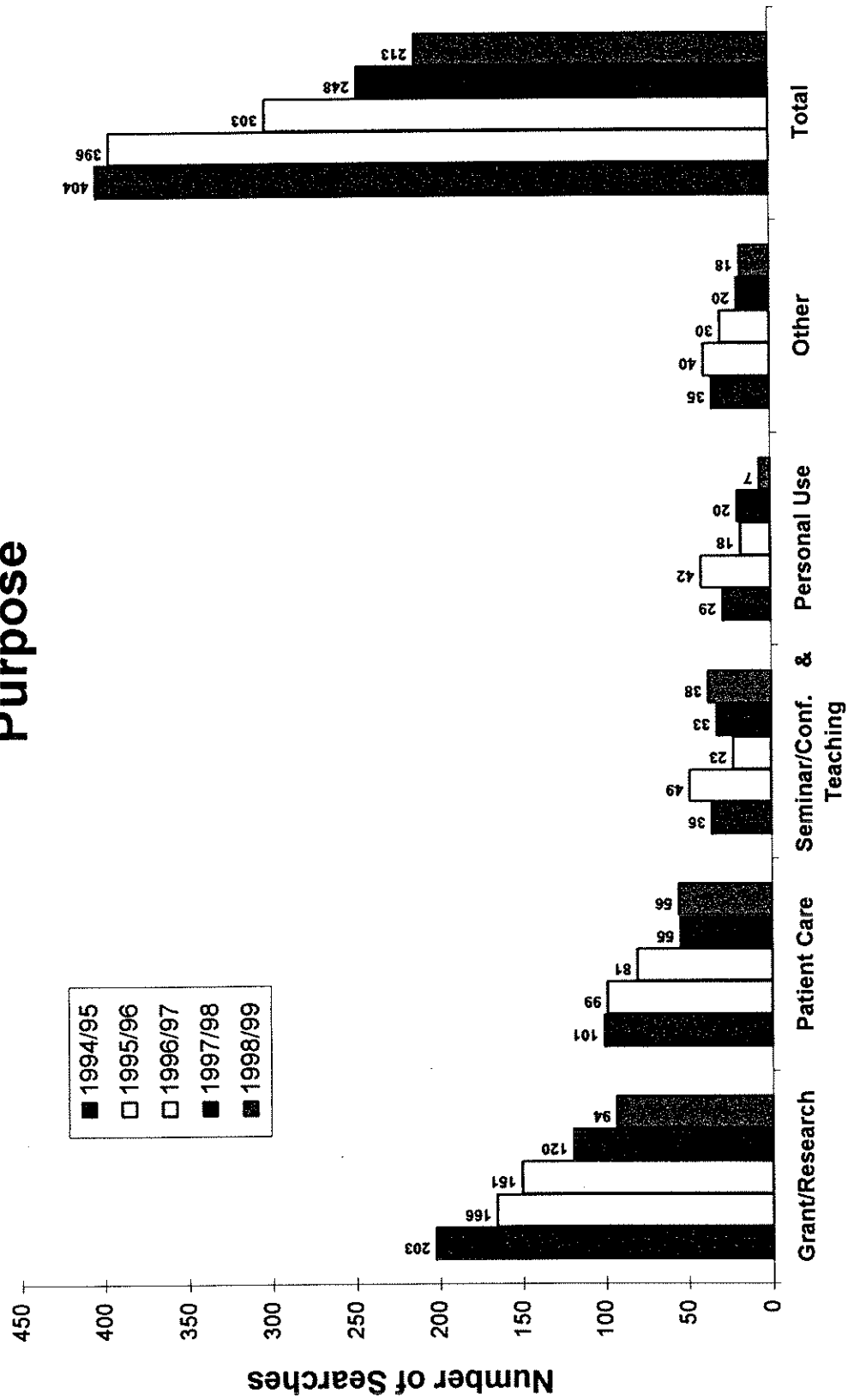
Instructional Sessions Statistics



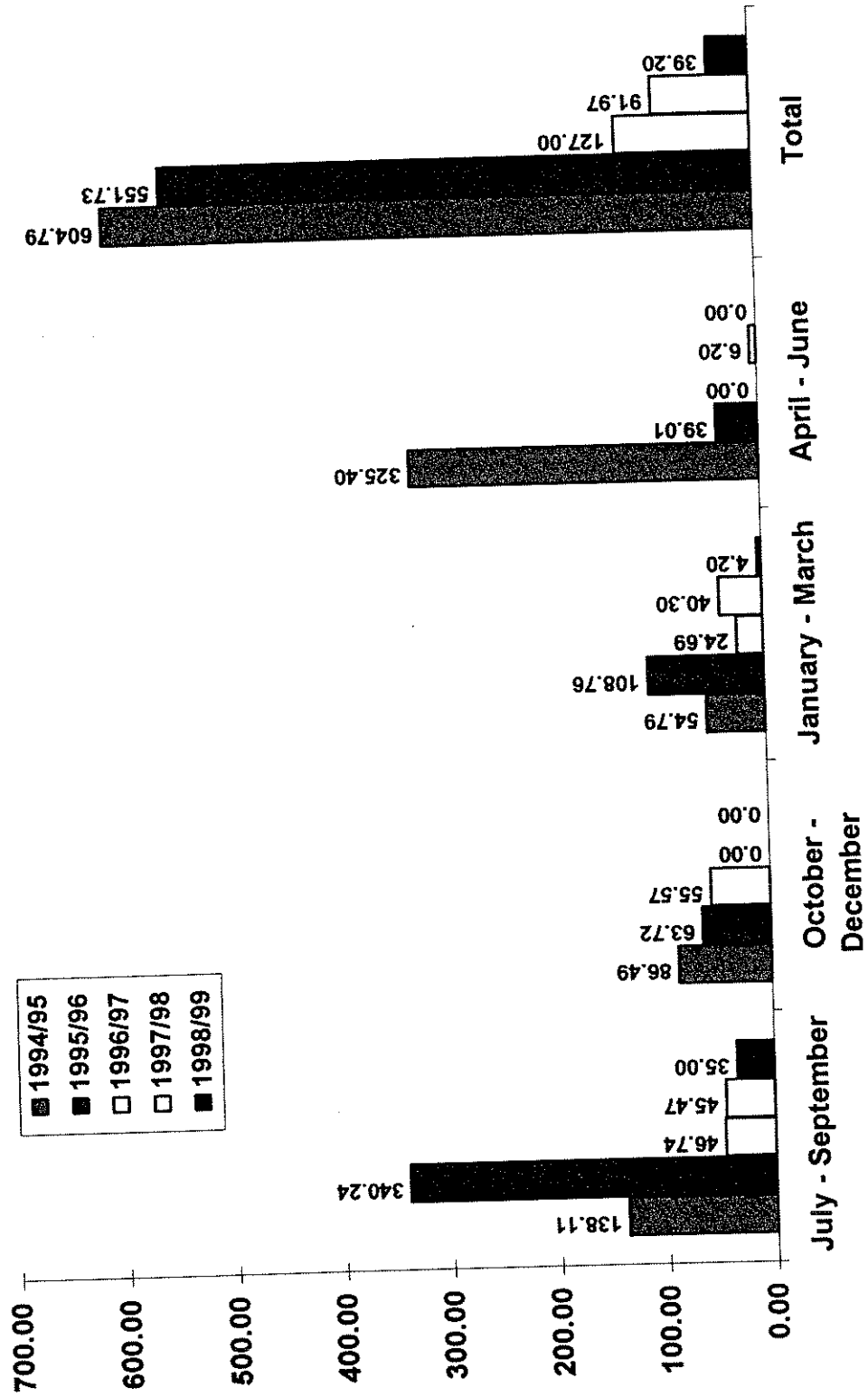
Librarian Performed Literature Searches by Patron Type



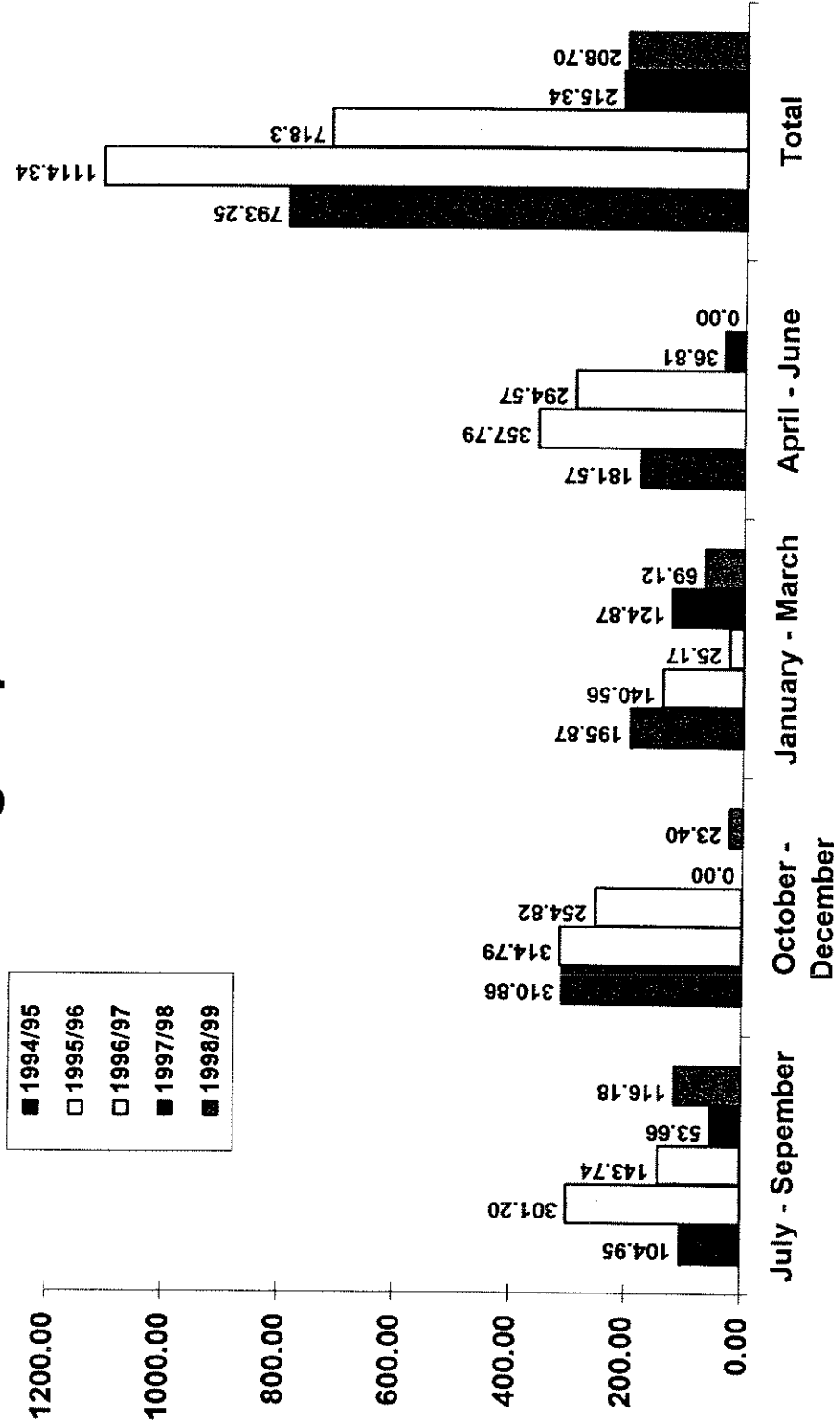
Librarian Performed Literature Searches by Purpose



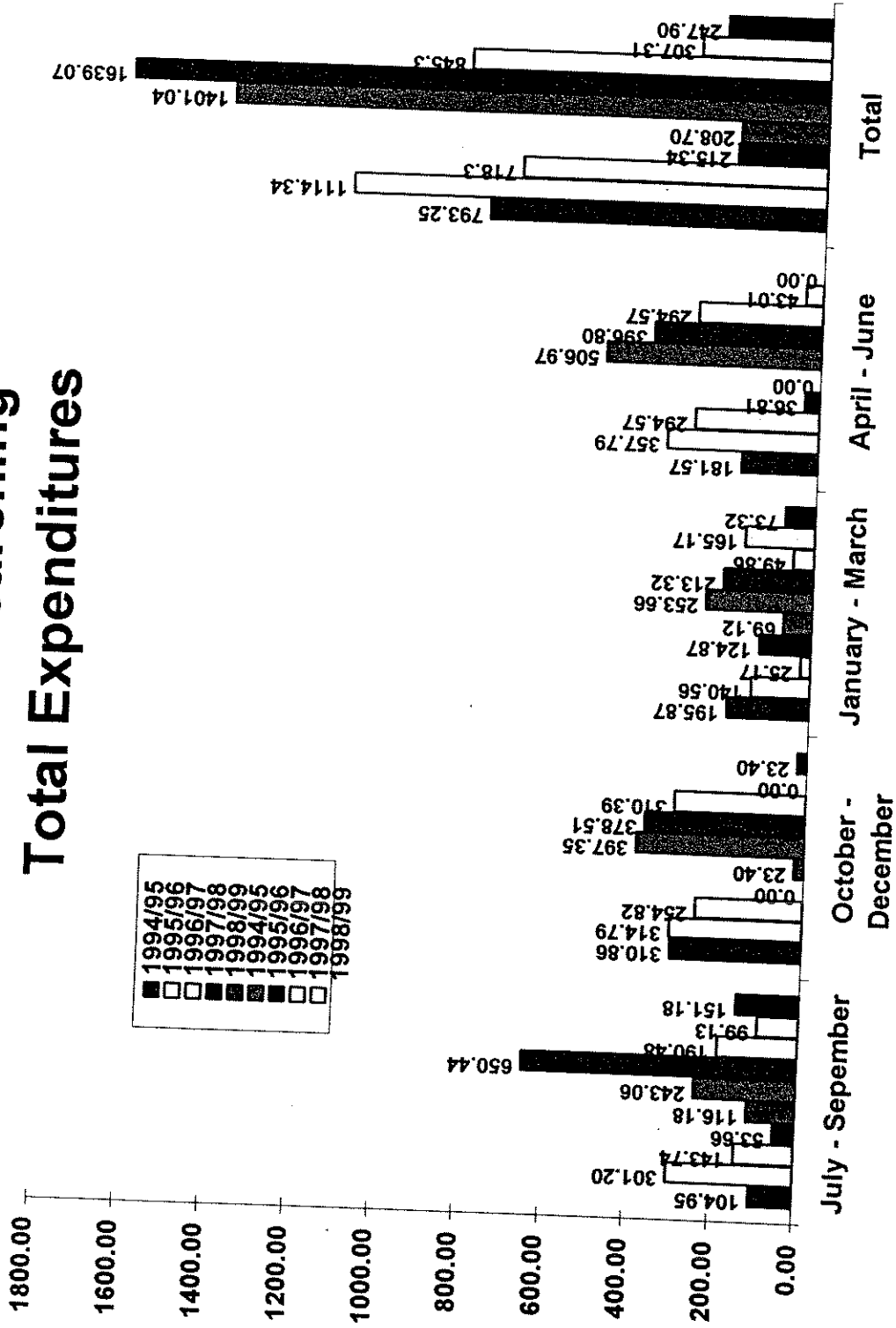
Online Search Ovid Expenditures



Online Searching Dialog Expenditures



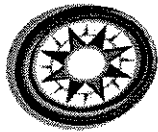
Online Searching Total Expenditures



Educational Technology Services



Educational Technology Services Annual Report FY 99



The mission of Educational Technology Services is to enhance learning at MCO by...

- Providing access and support to students in their use of the latest developments in information technology.
- Helping faculty, researchers, and administrators to increase the effectiveness of their professional presentations by providing consultation, production assistance, and training for all traditional and emerging instructional media.

Introduction

In a recent survey of a 112 higher education institutions participating in the Pew Higher Education Roundtable, 84% percent of the campus leaders indicated "more effective use of technology in teaching and learning" was the most important issue on their campuses.

...84% of campus leaders indicated "more effective use of technology in teaching and learning" was the most important issue on their campuses.

Educational Technology Services directly addresses the issue of increasing the effectiveness of technology in teaching and learning by providing MCO's students and faculty with two support centers. The two centers are the *Computer Learning Resource Center (CLRC)* and the *Instructional Support Center (ISC)*. These two facilities work hand-in-hand to provide a complete spectrum of instructional technology resources ranging from support for the design and production of instructional materials to providing systems for instructional delivery.

The CLRC enhances *learning* at MCO by providing its health science students with convenient access to information technology hardware and access to a broad range of both commercial and in-house developed instructional materials. In a complimentary fashion, the ISC enhances *teaching* at MCO by providing faculty with the resources and support that they need to produce effective instruc-

Customer Service Improvement Highlights

Computer Learning Resource Center (CLRC)

- Improved work environment with new carpeting, floor tile, wall covering, and new service counter furniture
- Added 45 new Pentium II, III, and Mac G3 computers for the CLRC all with 17 to 21" monitors, DVD or CD-ROM, and Zip drives
- Added new peripherals: 4 laser printers, and two new graphic scanners

Instructional Support Center (ISC)

- Improved faculty work center with new work surfaces, chairs, and storage cabinets
- Reduced turnaround time and cost for incoming student photos, graduation photos, and residency application photos using the new digital cameras and photo-quality printer
- Improved instructional video and web-based video production capability with new digital video recording and nonlinear editing equipment

tional presentations. The ISC also supports the delivery of instruction, whether it's using traditional or technology-mediated delivery systems.

ETS Staff Highlights

The ETS staff from the two support centers have expertise in all areas of educational technology including computer networking, instructional systems design, graphic design, photography, video production, and classroom technology support. However, in a field like educational technology, where the half-life of knowledge is now on the order of less than two years, expertise can be rather short-lived if not constantly renewed. One indicator of just how rapidly the area of information technology is changing is exemplified by a recent article in the *Economist* which stated that 70 percent of the computer industry's revenue now comes from products that did not exist 2 years ago. Author and futurist Marvin Cetron tells us that because of the unique nature of technology to build upon itself, "all the technological knowledge we work with today will represent only one percent of the knowledge that will be available in 2050." Such a volatile environment necessitates that any staff members responsible for instructional technology support on campus must continually renew and expand their skills to keep up with the increasingly rapid pace of technological advancement.

... "all the technological knowledge we work with today will represent only one percent of the knowledge that will be available in 2050."

Having a knowledgeable staff is certainly one of the key elements to providing outstanding customer service to our faculty and students. Currently, 6 of 14 full-time ETS staff members (43%) are engaged in coursework toward college degrees pertinent to information technology and thus to their positions here at MCO. If one includes part-time staff in the CLRC, then 8 of 16 (50%) of the ETS staff members are working on degrees related to computers and information technology. The high percentage of ETS staff members working on computer and information technology-related degrees readily demonstrates their commitment to ensuring that the service they give to our customers is nothing short of the best available.

ETS Staff Honors and Awards

- Two ETS staff were honored at an MCO Banquet on 4/22/99 for 20 years of service: Sarah Elliott (Photographic Services) and Bruce Kuhman (Media/Classroom Support Services).
- Photographic Services received a letter of thanks from Dr. Edgar Staren, Chairman of the Department of Surgery, for their assistance in putting together a slide presentation for him.
- Howard Burkert received a letter of appreciation from Jan Ruma of The Hospital Council of Northwest Ohio for his excellent service in coordinating and setting up the CLRC training room for use by the Northwest Ohio Regional Trauma Registry (NORTR) for their software training. According to the letter, using the CLRC's training facility saved NORTR over \$2,000 that it would have had to pay to use a similar facility.
- Howard Burkert received a letter of thanks from J. Michael Porter for his participation in the Toledo Public School 5th grade tours and lectures.
- A number of Hollie Gillmore's digital photographs were on display at the University of Toledo's Center for the Visual Arts and they were also available for viewing on the web.
- The M/CSS staff received a letter of thanks from Karol Zsarnay, Staff Development/Nursing Administration for all their help in scheduling equipment and showing her how to use it.
- Martin Overholt received 2 "People's Choice Awards" for outstanding service.
- Bruce Kuhman received a letter of thanks from Pat Metting on behalf of Student Affairs for all his work on this year's graduation.



COMPUTER LEARNING RESOURCE CENTER

The Computer Learning Resource Center (CLRC) is now in its 12th year of operation. During those 12 years it has expanded from a small lab of 10 computers serving only the School of Medicine to a facility almost triple in size, supporting over 45 networked student workstations, and serving all the schools and health science students here at Medical College of Ohio. Additionally, the CLRC houses a hands-on training facility with 10 workstations for teaching our faculty and students the effective use of information technology.

As detailed in the *Service Improvements* section below, the CLRC has undergone a major face-lift during the past fiscal year as well as replacing all of its outdated equipment with new state-of-the-art technology. When the CLRC opened its doors 12 years ago we were proud to be among one of only a handful of Medical Schools in the entire country to have such a facility. Today, the CLRC remains one of the finest, best-equipped, and best-staffed student computer facilities that you will find on any campus.

Although it is true that the number of students who own their own computers is increasing as computer technology becomes more affordable. It is also true that students need and demand easy access to computer equipment and high-speed network access on campus even more than ever. As pointed out by a number of recent reports in the *Chronicle of Higher Education*, student demand for centralized computer resources such as the CLRC have actually risen dramatically even when students have been required to purchase or are provided with their own portable computers.

In addition to serving its function of access, the CLRC also serves an expanding role as a test bed for the campus's growing library of in-house produced instructional materials such as *Anatomy Revealed*, *Gait Analysis*, and *Muscle Alive*.

Plans for the Next Fiscal Year

During the next fiscal year, the training room in the CLRC will be moved to the 6th floor south mezzanine. This will accomplish two goals: (1) it will allow for up to 15 additional student workstations to be located in the CLRC, and (2) the new training area will be approximately 30% larger in size which will allow additional flexibility in class size and seating arrangement.

Students Choose Schools Based on Availability of Technology

A recent article in USA Today reported that many students are beginning to pick universities based on how "wired" they are. This is because students are performing more functions online, from registering for classes and communicating with professors to gaining access to course materials. The CLRC is clearly one of MCO's most visible commitments to the use of state-of-the-art technology in education. The CLRC, since its inception, has been one of the primary places on campus that prospective students are shown during campus tours. We have continued to receive much praise from both students and parents as they tour our facility.

CLRC Staffing Changes

- Godwin Dorbu (formerly a temporary CLRC worker) applied for and was promoted to a permanent halftime Computer Laboratory Technician position in the CLRC.
- Haris Achuthan (formerly a halftime CLRC worker) applied for and was promoted to a full-time Computer Laboratory Technician position in the CLRC.
- “Kelly” Juarez applied for and accepted the part-time position left vacant by Godwin Dorbu when he was promoted to the permanent part-time position formerly held by Haris Achuthan.
- Samir Bhagwat was hired to fill a vacant student worker position in the CLRC and then resigned after a couple of months. His position remains currently unfilled.
- Ruth Jacobs (Sr. PC/LAN Technician) resigned her position to accept another position off campus.
- Howard Burkert (a full-time Computer Lab Technician in the CLRC) applied for and was accepted to fill the Sr. PC/LAN Technician position formerly held by Ruth Jacobs.

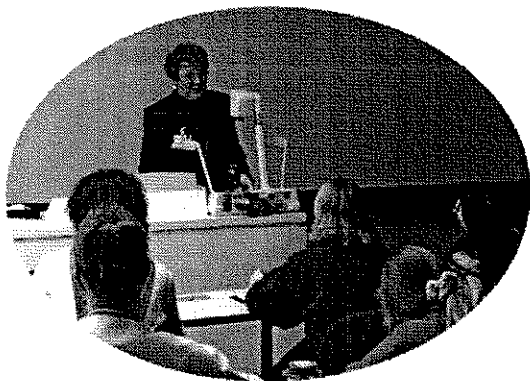
Service Improvements

- The CLRC remodeling/renovation project (which began at the end of the previous fiscal year) was completed at the beginning of this fiscal year. Renovations included new carpeting and tile, new wall covering on the north wall, fresh paint, and better utilization of available space by removing the old central office area. At the end of the fiscal year new both the entrance and center service counters and office furniture were replaced. A new glass-encased bulletin board was also placed just outside the CLRC containing hours and other relevant information pertaining to the CLRC.
- Through use of OBR Academic Intranet Development grant and capital equipment monies, 49 new Gateway computers were purchased and used to replace all the lab’s existing outdated computers. Thirty-five of the computers were placed in the main lab space and 10 were placed in the CLRC training room. The main help desk’s aging Macintosh computer was also replaced with a new Apple Macintosh G3. Additional equipment purchased to replace outdated equipment included a new Macintosh compatible Umax flatbed scanner, and a new hi-resolution (1024 x 768) projector for the CLRC Training Room.
- Design and planning was conducted to renovate the southwest corner of the south mezzanine into a new training room that would replace the one currently in the northeast corner of the CLRC. This new training area would be about 30% larger and allow for further expansion of the CLRC for student workstations.
- Brenda Fitzgerald took over faculty support for the exam grading scanner and the scanner was moved to the 3rd floor Mulford Library Building. The moving of this function allowed CLRC staff additional time to concentrate on their primary mission of assisting students.

- The CLRC staff is also studying the possibility of switching the CLRC PC server over from Novell to Windows NT. Windows NT is much easier to set up and administer than Novell and would therefore be an easier and less expensive system to maintain and hence more reliable.

CLRC Activities

- The CLRC served as the training site for the Northwest Ohio Regional Trauma Center Registry's (NORTR) software training. Using the CLRC's training facility saved NORTR over \$2,000 that it would have otherwise had to pay for the use of a similar training facility.
- A pre-release version of the Anatomy Revealed CD was made available in the CLRC for student testing and feedback.
- CLRC staff members attended all ERAS (Electronic Residency Application System) meetings as well as setting up bookmarks in Netscape to aid students in the residency application process.



INSTRUCTIONAL SUPPORT CENTER

Using the new tools of instructional technology allows, and in some cases even necessitates, “unbundling” some of the roles and responsibilities that we have always assumed that faculty and teachers have. Given the myriad areas of expertise and the time that it takes to produce web-based or multimedia instructional materials, it no longer makes sense for faculty to be solely responsible for the complete instructional cycle: design—production—delivery. Faculty will always remain the subject-matter experts; however, they will increasingly need to rely on assistance from instructional designers, photographers, videographers, graphic designers, computer network technicians, and digital media specialists to produce complex and compelling instructional presentations. The recent increasing emphasis on faculty productivity will also mean that learning to be proficient with the myriad software and hardware tools necessary to produce a multimedia instructional presentation is simply not an efficient or effective use of faculty time.

If faculty are to increase their productivity by increasing their research and teaching activities, then they will need to increasingly rely on assistance in creating timely and effective instructional presentations. The Instructional Support Center (ISC) provides just this sort of assistance by guiding faculty in the selection and use of both traditional and technology-mediated delivery systems. By using the expertise of the ISC, faculty members can concentrate on developing and delivering quality instruction without having to become experts in the increasing number of areas peripheral to instructional development.

Plans for the Next Fiscal Year

There are two driving forces for change in the coming year: (1) technological changes in the production of multimedia instructional materials, and (2) the need to seamlessly extend the range of instructional production services to our faculty.

The technological force for change can be visualized in the diagram below. This diagram illustrates

Faculty Suffer from Instructional Technology Stress

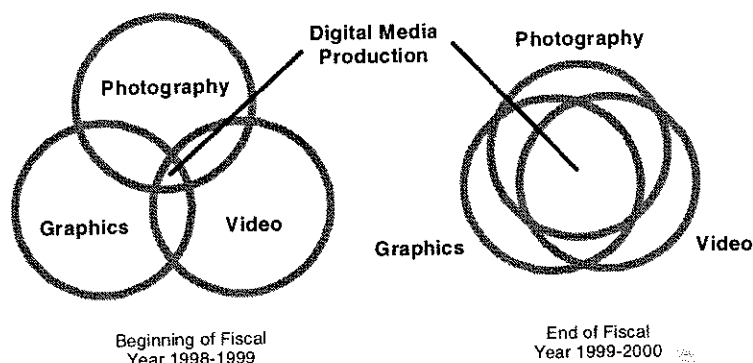
The stress of staying up-to-date with technology affects more professors than traditional stresses such as teaching loads and publishing demands, according to a recent survey conducted by University of California, Los Angeles. The survey shows that 67 percent of professors are regularly stressed by trying to keep up with the emerging technology used in teaching. Fear and the lack of technical support prevent many professors from using new technology—only 38 percent currently use technology to prepare presentations for classes. The survey results indicate that colleges should work to improve instructors' computer skills in order to meet the needs of students who have grown up using computers and are comfortable using new technologies.

the convergence currently taking place in our three main production service areas: video, graphics, and photography. Two of the areas, photography and graphics, are already becoming indistinguishable as we move more heavily into digital photography and computer-generated graphics. What they share in common is the fact that the images—however they are produced or from whatever source they originate—end up as digital files to be manipulated on the computer. In fact, it is already difficult, if not impossible, in many cases to classify work requests as either photography or graphics. In most instances, the work requests are really a combination of both and therefore require a team composed of both a photographer and graphic designer.

It is expected in the coming year that video production will also rapidly converge with the other two areas as the new digital video camera and digital nonlinear editing equipment that we purchase at the end of this fiscal year are installed and put into production.

In addition to the technological changes that are forcing the convergence of these three areas, we also have the changing nature of the services that are being requested by faculty. More and more, the types of instructional materials that we are asked to produce or assist with the production of are multimedia in nature. The instructional materials that are being produced for our Academic Intranet are good examples. Effective use of this instructional delivery system means that the instruction being presented consists of illustrations, photographs, video, and sound components. Integrating all of these components effectively to produce an engaging instructional presentation that can appeal to a variety of learning styles means that it will take a team of experts to assist faculty members. We are rapidly reaching, or perhaps have even reached, the point where a person in one the three main areas of expertise (graphics, photography, video/sound) cannot assist a faculty member without the knowledge and assistance of someone from one or both of the other areas.

Convergence of Instructional Media



The current departmental labels that we are using: Photographic Services, Instructional Graphics, and Video Production (and to some degree, Classroom Support Services) are a carry over from when these areas were once separate departments and are therefore superfluous in the present context. What is proposed is that over the coming year these departmental/accounting labels be abolished. The three departments that currently comprise the ISC would simply become the Instructional Support Center (ISC). The ISC would then consist of a faculty support facility that would offer services in graphic design, photography, video/sound production, and classroom support services. Educational Technology Services (ETS) would then simply consist of two support facilities: one geared toward the support of students and the other geared toward the support of faculty. This consolidation should greatly simplify the current accounting, budgeting, and reporting processes. The change may seem subtle—primarily changes in names—but the current labels are hindering our ability to provide a seamless spectrum of customer services related to the production and delivery of instruction.

Service Improvements

- The new Instructional Support Center (ISC), located in the basement of the Mulford Library Building, was opened at the beginning of fall semester. The ISC provides faculty and other presenters on campus with access to the expertise and technical resources that they need to increase the effectiveness of their presentations whether using traditional overheads and slides or preparing web-based instructional materials for our Academic Intranet.
- The ISC provides a much needed “one-stop-shop” for all research, instructional, and administrative presentation needs. The ISC’s physical space provides shared reception and work areas for Photographic Services, Media/Classroom Support Services, and Instructional Graphic Services. This shared space not only has provided a convenience for customers but also has led to collaboration between the three departments sharing this area—which in turn has led to an increase in both the types and quality of services offered.
- Six high-end workstations (4 Windows and 2 Mac) were purchased with OBR grant money and were placed in the faculty work area. Other production resources now available include a large format scanner capable of scanning both flat copy and digitizing 35mm slides (30 at once), a large format graphics tablet, and a medium-format, high-quality output ink-jet printer.
- New furniture for the faculty work area was ordered and was being installed at the end of this fiscal year.
- Available software resources now include a large healthcare clipart library (several thousand royalty free images in a variety of formats) and an extensive set of graphics software and web graphics production tools.
- ISC staff members are being cross-trained to assist one another in the growing demand for digital graphics production.

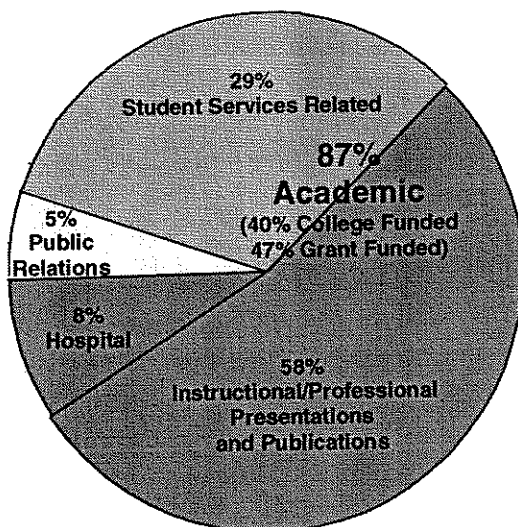
ISC Sponsored Activities

- An ISC Open House was held on 3/4/99 during which about 70-80 faculty and staff toured the facility. Those attending were impressed with the range of services, equipment, and expertise that were available.
- Board of Trustees members toured the CLRC and the ISC facilities on 3/22/99
- All training and end-user support for Segwave Author, the software developed by our Center for Creative Instruction (CCI) for publishing materials to the Academic Intranet, was taken over by Educational Technology Services (ETS) staff members. Over 70 faculty and staff were trained on the use of Segwave Author during this fiscal year.

Photographic Services

- Photography has a new reception area, studio, and renovated lab space within the new Instructional Support Center (ISC).
- Two Kodak/Nikon professional digital camera systems were purchased to meet the growing customer demand for digital photographic output. Also a Kodak “photo-quality” dye-sublimation printer was ordered at the end of this fiscal year. This printer will be used to produce all 3rd/4th year medical student photos.
- All residents and first-year medical students are being photographed with the new digital photo equipment. This will greatly reduce the turnaround time needed to produce student directories.
- Photographic Services completed Black & White portraits of all 4th year medical students to use in the graduation program, class composite, and yearbook. Many students also order additional prints for passport and residency application purposes.
- The figure below illustrates the current profile of Photographic Services’ current customer base. In the years before becoming a part of ETS, and as a part of the department of Communications, the largest portion of photography’s business was photographing and producing material for public relations materials. As can be seen now though, that portion has shrunk to only about 5%

Summary of Photographic Services Clients and Projects



Example Projects in Each Area Served

Student-related Projects:
 Student Portraits (Yearbook Photos)
 Residency Applications Photos
 Graduation and Cap & Gown Photos
 Award Ceremonies
 Program Photos
 Class Composite Photos
 Thesis & Dissertation Photos

Instructional/Professional Presentations Projects:
 Photos for Segway Presentations
 Images for Anatomy Revealed
 Slide/Diachrome Film Processing twice daily
 Poster Presentations
 Professional Slide Presentations
 Research Publications Photos
 Photoshop Training
 Scanning Photos & Slides
 Dept. Web Photos & Portraits

Hospital (On Demand):
 Surgery Documentation
 Child and Adult Abuse
 Medical/Legal Documentation

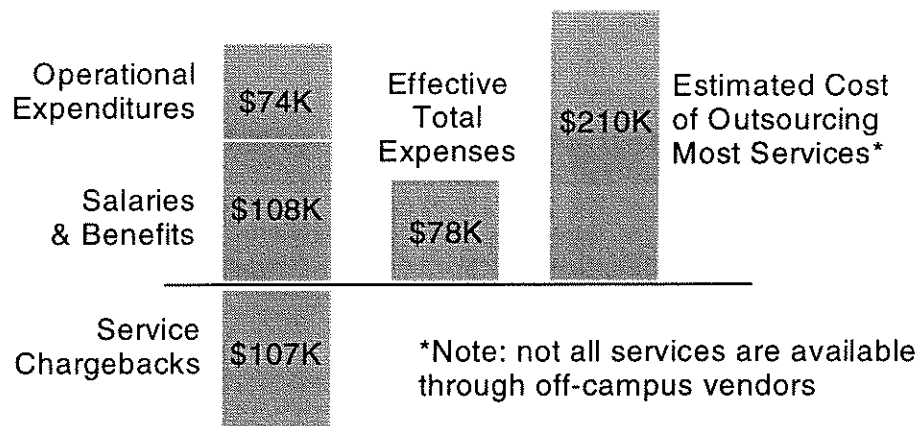
Public Relations:
 MCO Picnic
 MCO Zoo Night
 COSI Night
 Employee Recognition Dinner
 Founder's Day
 Blood Day
 Bright Ideas Board Poster
 Bright Ideas Dinner
 Faculty/Staff Portraits

while the academic customer base has increased to about 87% with over a third of that customer base being directly student related. The color-coded boxed text to the side of the pie chart relates examples of the types of services and projects offered to each of the four categories of clients.

- The bar graph below summarizes the results of a competitive repositioning analysis done during the summer of 1998. The first set of bars on the left show that although the combined operational and personnel budget for Photographic Services was \$182,000, the unit also generated \$107,000 in charge-back services and thereby completely offset the \$74,000 operational budget and \$33,000 of the personnel expenses for this department.

The last bar on the right represents the total estimated cost of outsourcing all the services provided by Photographic Services. This was done by performing a detailed material and labor cost analysis and then comparing those costs with two outside vendors. The outside value of the services provided by photography was about \$210,000.

**Summary of Results of Competitive Repositioning Analysis
(Summer 1998)**



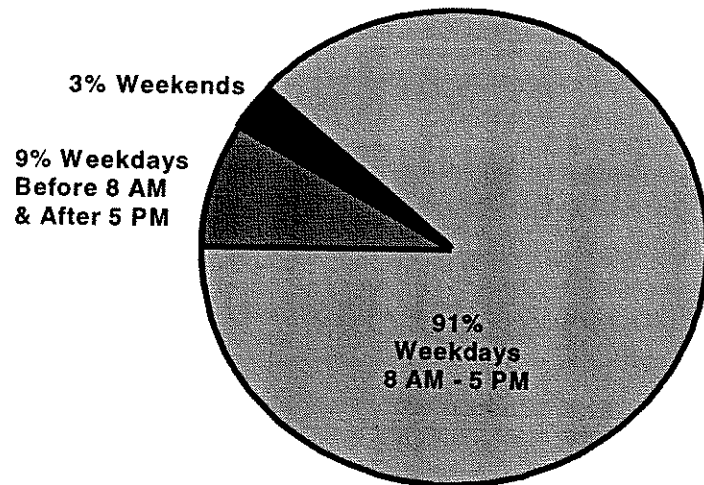
Classroom/Media Support Services

- Completed over 1191 work orders for equipment setups and assistance with presentation technology.
- Equipment Requests in M/CSS are up 6% over the same time period one year ago.
- As can be seen in the diagram to the right, about 12% of all service requests now fall outside of the normal weekday, 9 AM to 5 PM time frame. About 3% of all service requests occur on weekends. M/CSS has been able to accommodate this increase in service hours without increasing its staff and while cutting back overtime by creatively using flextime.
- The diagram below and to the right illustrates how MCO's presentation equipment is being used: 44% of the service requests received were for instructional use, 26% were used by College personnel but for noninstructional use (meetings, etc.), and 26% for use by Hospital personnel.

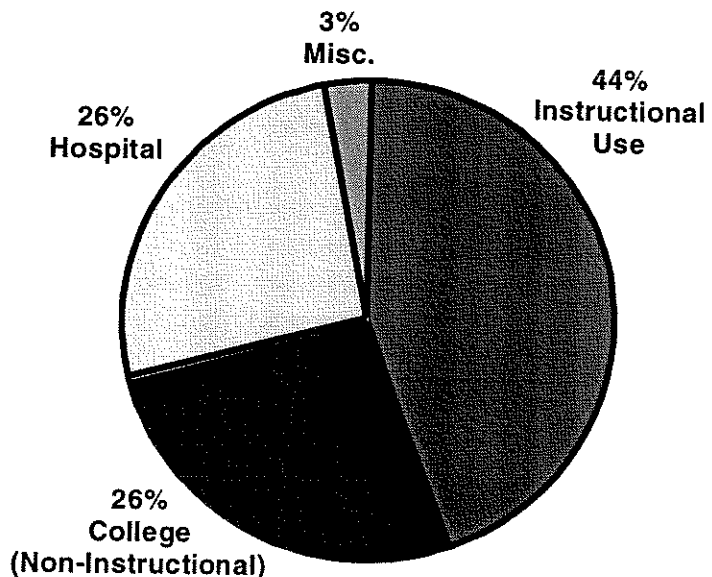
As compared to the previous fiscal year:

- The total number of work orders has increased 6%
- Video projector requests increased 39%
- Overhead projector requests increased 12%
- Slide projector requests increased 12%
- Computer requests increased 44%

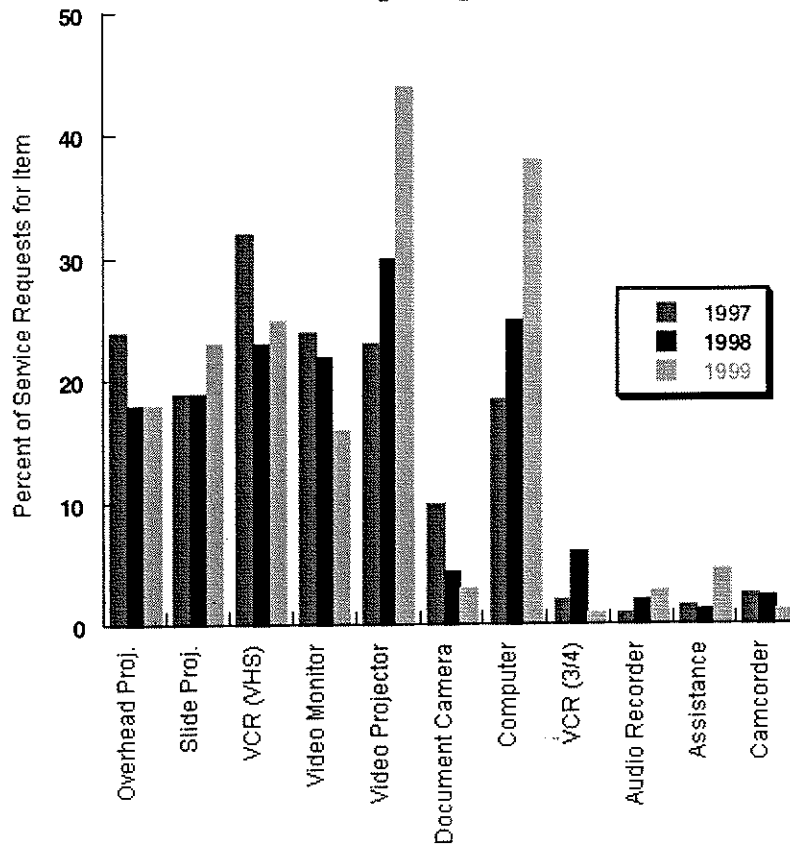
Equipment Requests Time Breakdown



Presentation Equipment Type of Usage



Trends in Equipment Requests



The graph at the top of this page shows trends in equipment use over a 3-year period of time. As might be predicted, the most dramatic changes (increases) occurred in the use of video projectors and computers: over 40% of the equipment requests during the past year have included a video projector and computer.

Classroom and Renovation/Upgrade Projects

1. Health Education Building Classroom Renovations
 - Contractor mostly done but still is finishing up details.
 - New microphones, mixers, equalizers, and amplifiers have been installed in 100 and 110.
 - Center Teaching Stations with LCD-Screen Monitors have been installed in 100 and 110.
2. Pediatric and OB-GYN Clinic Renovation
 - Set up temporary pediatric patient observation room.
 - Consulted on Fertility Clinic video system installation.
3. School of Nursing: designed closed-circuit video observation system for the School of Nursing Computer Learning Resource Center.
4. Vacated the Video Archive Storage Room for move by Student Financial Services.

- **Audiovisual Production Projects**

1. Produced two Nursing In-service Videos for Nursing Resources on Pediatric Patient Care.
2. Produced Nursing In-service Training Videos for Nursing Resources on Stroke Patient Care.
3. Videotaped new "Welcome to MCO" by Dr. McCullough for incorporation into MCO's web page.
4. Produced training tape for MCO Facilities in conjunction with Mr. Sam Hancock on preventing work place harassment.
5. M/CSS staff (Martin Overholt and Greg Cole) met with Paul Scheuer and visited Firelands Hospital regarding distributing Grand Round Conferences on line or via video conferencing and assisted with two trial programs.
6. Researched and ordered Nonlinear Video Editing and Digital Video Camera equipment
7. Completed videos for:
 1. Medicine Residency Program,
 2. Ob-gyn Residency Program,
 3. Dr. Bowlus (Gait Analysis), and
 4. Dr. Cooper (Radial Shunt

Instructional Graphics

Total number of projects (service requests) in the Instructional Graphics area during the 1998-99 fiscal year was 683 and included:

- PowerPoint electronic presentations 11
- Brochures: developed and produced 3
- Photo mounting for publication 7
- Scan/digitize drawings and photographic images 423
- Class composites for the School of Nursing 2
- Med Student ID directories 2
- Physical Therapy Class of 2001 ID 1
- Poster sessions 6
- Publication quality prints 55
- Traditional art services (paste-ups, signage, etc.) 5
- Overhead transparencies 58
- Scientific graphs for publication 35
- One-on-one training sessions 15
- DNA gel labeling for court cases 60

*Note: This includes only formal projects completed entirely by the ISC staff and does not include walk-in assistance or one-on-one tutoring with faculty, students, and staff on subjects ranging from digital image processing to the use of ISC hardware and software.



Appendices

Faculty/staff activities

Library Services

David W. Boilard, A.M.L.S., Director of the Library
Assistant Professor of Family Medicine; Adjunct Assistant Professor of Allied Health

Service & Continuing Education

- Service: American Medical Informatics Association
Association of Academic Health Science Libraries (AAMC)
Annual Statistics Editorial Board
Medical Library Association (MLA)
Chair, Fellowship and Honorary Membership Jury
Chair, MLA/ISI Doctoral Fellowship Jury
Midwest Chapter of the Medical Library Association
Greater Midwest Chapter of the National Network of Libraries of Medicine
Oversight Committee
Ohio Health Science Library Association
OhioLINK
Library Advisory Committee
Multimedia Steering Committee
Health Science Librarians of Northwest Ohio
Toledo Area Library Association
MCO
Library Advisory Committee - ex officio
Director Selection Committee, Center for Classroom of the Future
Architect Selection Committee, Center for Classroom of the Future
Alternate Senator, Dept. Family Medicine
- Interviewer: Medical school applicants
- Mentor: MLA Academy of Health Information Professionals (for 2 librarians)
- Meeting: Annual Midwest Chapter of MLA, Lexington, KY - Sept. 1999
Annual AAMC & Assn. Academic Health Science Librs., N. Orleans - Oct. 1998
Annual Ohio Health Science Library Association, Columbus - Apr. 1999
Annual Medical Library Association, Chicago - May 1999
AAMC Group on Information Resources-IAIMS, Pittsburgh, June 1999
- CE: *Grantsmanship: and Art or Science* MCO seminar - August 1998
Evidence Based Health Care seminar (NLM), Toledo - Sept. 1998
Writing Goals & Measurable Educational Objectives- MCO Faculty Development
Seminars
Planning for Institution-wide Information Integration: IAIMS Model - May 1999
MCO Facilitator for Problem-based Learning curriculum - May-June 1999
- Grant: Obtained: "Health Information Network for NW Ohio (\$184,236) - National Library of Medicine
- Teaching
- Lecturer: "Quality Filtering" - in Information Management M-4 medical elective - 4 hrs.
"Informatics" in Medical Decision Making" M-2 course - 1 hr.
"Informatics" in Pathophysiology M-1 course - 1 hr.
"Interdepartmental Seminar Series" Graduate students - 1 hr.
- Facilitator: "Substance Abuse Disorders" M-1 course - 2 hr.

**Jonathan Hartmann, M.L.S., Outreach Librarian
Instructor, Department of Medicine**

Service & Continuing Education

Service: Medical Library Association

Ad Hoc Committee on Achievement Award
Academy of Health Information Professionals
Midwest Chapter of the Medical Library Association
Ohio Health Sciences Library Association
Health Science Librarians of Northwest Ohio
Journal Club, HSLNO
Medical College of Ohio Faculty Club

Meeting: Annual Medical Library Association, Chicago - May 1999

CE: *Evidence-Based Medicine*, MLA teleconference, Toledo, OH - September 1998
Accessing HIV/AIDS Information Resources, CDC satellite broadcast site coordinator,
Toledo, OH - February 1999
Critically Appraising the Gold: Evaluating Clinical Studies, Chicago, IL - May 1999

Teaching

Lecturer: "MEDLINE and SCI" - in Information Management M-4 elective course-
"Medical Resources on the Web" to University of Toledo Communication
students, Toledo, OH -

Trainer: MCO personnel in OSLER/MEDLINE/CINAHL/SCI for MCO -

Presenter "MedReach Computerized Medical Information Outreach System" at AHEC Annual
Preceptor Day; also to physicians in Norwalk and Napoleon, OH
"Teaching Applications" to MCO AHEC Preceptors
"Web Resources for Medical Reference" to NORWELD, Bowling Green, OH -

Research

Hartmann, J. An Educational Program in the Medical Applications of Computers for
Rural Physicians. *Medical Reference Services Quarterly* 17 Fall 1998: 25-34
Hartmann, J. "Community Partnering for AIDS Outreach," presented at Annual Meeting of
Medical Library Association, Chicago, IL - May 1999
Hartmann, J. "MedReach: AHEC Medical Information Outreach System," poster presented
at Annual Meeting Medical Library Association, Chicago, IL - May 1999

**P. Scott Lapinski, M.S., Digital Services Librarian
Instructor, Department of Pediatrics**

Service & Continuing Education

Service: American Society for Information Science (ASIS)

Midwest Regional Medical Library Association
Northern Ohio Regional American Society for Information Science Chapter
OhioLINK
Lead Implementers Committee
MCO
Dept. Pediatrics Curriculum Revision Committee

Meeting: ASIS Annual Meeting, Pittsburgh, Oct 1998

Midwest Regional MLA, Lexington, Oct 1998
NORASIS Regional Meeting, Cleveland, Feb 1999
Pediatrics Retreat (Curriculum Revision), March 1999

CE: *Dynamic HTML: Cascading Style Sheets*, ASIS - Oct 1998

**Barbara A. McNamee, A.M.L.S., Assistant Director for Library Services
Instructor, Department of Occupational Therapy**

Service & Continuing Education

Service: American Medical Informatics Association
HealthWeb
Medical Library Association
Midwest Chapter of MLA
OhioLINK

Collection Information Resources Management Committee
Health Sciences Librarians Northwest Ohio
MCO

Medical College Hospitals Information Management Committee
Cultural Diversity Training Team

Meeting: Midwest Chapter MLA Annual Meeting, Lexington, KY, Oct. 1998
Medical Library Association Annual Meeting, Chicago, IL - May 1999.

CE: "Grantsmanship: An Art or Science?" by Dr. G. Malindzak (NIH), MCO - Aug. 1998
"Evidence Based Medicine" MLA teleconference site coordinator, Toledo - Sept. 1998.
"Computer-Use Policies in the Virtual Era" BGSU - March, 1999
"Creating Your Own Future: Strategic Planning and Action," Chicago - May 1999
"Copyright and the Digital Millennium Act," ACRL teleconference, BGSU - May 1999

Trained: "Towards Cultural Competency in Healthcare" a workshop for training the trainers -
March 1999

Teaching:

Lecturer: "Developing a Personal Information Management Plan" - in Information Management
M-4 elective - 12 hrs.

Trainer: MEDLINE/PsycINFO for Dept. Occupational Therapy Faculty - 2 hrs.

**Jolene M. Miller, M.L.S., Reference/Education Librarian
Instructor, Department of Physician Assistant**

Service &, Continuing Education

Service: American Library Association
Association of College and Research Libraries
Medical Library Association
Academy of Health Information Professionals
Credentialing Committee
Research Section Awards Committee

HealthWeb
Midwest Chapter of the Medical Library Association
Health Sciences Librarians of Northwest Ohio
Medical College of Ohio
Academic Intranet Student Orientation Subcommittee

Meeting: Midwest Chapter MLA Annual Meeting, Lexington KY - Oct. 1998
HealthWeb Meeting, Lexington KY - Oct. 1998

Education: (Doctoral - UT): "Quantitative Methods II," "Program Evaluation," "Sociological
Foundations of Education;" "Quantitative Methods I," "Measurement I"

CE: *Evidence-Based Medicine for Librarians* - May 1999

*MCO meets MCO Managed Care College Seminar
Evidence-Based Medicine Teleconference - MCO Sept. 1998*

MCO Faculty Development Seminars: Student Assessment and Evaluation; Writing Measureable Objectives; Writing Objective Test Items, Part I; Writing Objective Test Items, Part II; Introduction to Teaching with Technology; "Teaching with the Web;" "Facilitating Problem-Based Learning"

Teaching

Lecturer: "Structure of Biomedical Literature," "Online Searching Practicum," "Web Resources & Web Searching," and "Elective Summary" - in Information Management M-4 elective - 8 hrs

"Informatics" - in Medical Decision Making M-2 course - 1 hr.

"Informatics" - in Pathophysiology M-1 course - 1 hr.

"Clinical Medicine" - in Physician Assistant PHYA 530 course - 2 hrs.

"Journal Paper Review in Biochemistry" for 03.655 course - 1 hr.

"Environmental and Occupational Health Research Methods" - in Occupational Health 40.602 course - 1 hr.

Trainer: MCO personnel in PubMed/MEDLINE/CINAHL/SCI - 34 hrs.

MCO Residents in library resources - 1 hr.

MCO personnel in Internet Use - 16 hrs.

**Marlene A. Porter, M.L.S., Head of Information Services
Instructor, Department of Family Medicine**

Service & Continuing Education

Service: Medical Library Association (MLA)

Chair, Information Management Education Special Interest Group

Midwest Chapter of the Medical Library Association

Academic Library Association of Ohio

Ohio Health Sciences Library Association (OHSLA)

Communications Committee

OhioLINK

Chair, User Services Committee

Dataware Advanced MEDLINE Training Task Force

Health Sciences Librarians of Northwest Ohio (HSLNO)

Journal Club, HSLNO - July-December 1998

MCO

Faculty Club Board of Directors

Participant in MCO Kids & Bike Safety: March & April 1999

"Library Research" presented at CampMed'99

Meeting: OHSLA Fall meeting, Columbus, OH - October 1998

Annual Ohio Health Science Libraries Spring Meeting, Columbus, OH - April 1999

Annual Medical Library Association, Chicago, IL - May 1999

CE: *The Active Lecture*, MCO Faculty Development Seminar - July 1998

Grantsmanship: An Art or A Science? MCO - August 1998

Evidence Based Medicine Teleconference - September 1998

Writing Objectives MCO Faculty Development Seminar - October 1998

Serving Library Patrons with Disabilities, Columbus, OH - October 1998

PubMed: Training the Trainer, Columbus, OH - October 1998

NORWELD Reference Workshop - December 1998

Leadership Institute Assn. College & Research Libraries, Detroit, MI - April 1999

Grant: *Evidence Based Medicine: A Practicum*, MLA CE course, Chicago, IL – May 1999
Obtained: "Information Services Outreach to Health Professional Serving Hispanics in the Northwest Ohio Region" (\$23,000), National Library of Medicine

Teaching

Lecturer: "Informatics" in Pathophysiology M1 course - 1 hr.
"Informatics" in Medical Decision Making M-2 course, Year II - 1 hr.
"Information Resources" - in Information Management M-4 elective - 8 hrs.

Facilitator: "Substance Use Disorders" M-1 course - 2 hrs.

Trainer: Family Medicine Residents in *Netscape & WWW; Dataware MEDLINE; Dataware MEDLINE & Electronic Journals; Harrison's Online, StatRef! & MAXX*

MCO personnel in Internet Use

MCO personnel in OLSER/MEDLINE/CINAHL

Pediatric doctors in PubMed and Library resources

Ohio academic librarians in "Dataware Advanced MEDLINE" for OhioLINK

Library CD-ROMS to Family Medicine Faculty & Residents.

ISI/Electronic Journal Center

New Faculty Orientation

David Remaklus, Manager of Access and Business Services

Service & Continuing Education

Service: OhioLINK

Intercampus Services Committee

Trained: "Mastering Quickbooks Software" (Real World Training), Toledo

**Sheryl R. Stevens, M.S.L.S., Head of Bibliographic Control
Instructor, School of Nursing**

Service & Continuing Education

Service: Medical Library Association

Academy of Health Information Professionals, Distinguished Level

Midwest Chapter/Medical Library Association

Executive Board Member

Chair, Education Committee

Newsletter Editor, 1998

North Atlantic Serials Interest Group

Ohio Health Sciences Library Association

Health Sciences OCLC Users Group

OhioLINK

OhioLINK Database Management Standards Committee

OhioLINK Cooperative Information Resources Management Committee

MCO - School of Nursing

Faculty Affairs Committee

Curriculum Subcommittee of the Multicultural Affairs Advisory Committee

Meeting: Midwest Chapter of MLA Annual Meeting, Lexington, KY - Oct. 1998

Ohio Health Sciences Library Association Spring Meeting, Columbus, OH – April 1999

Medical Library Association Annual Meeting, Chicago, IL – May 1999

CE: "Evidence-Based Health Care in Action" teleconference, Toledo, OH – September 1998
"Electronic journal" seminar, EBSCO Subscription Services, Novi, MI – March 1999

"Evidence-Based Medicine for Librarians" CE course, Chicago, IL – May 1999

Research

Stevens, S. "Mapping the Literature of Cytotechnology," *Bulletin of the Medical Library Association*. In press, 1999.

Alicia Conklin, Circulation Assistant

Services & Continuing Education

CE: "Towards Cultural Diversity at MCO" Tulin DiversiTeam Assoc., Toledo

Trained: "Advanced MEDLINE"

Courses at UT:

Special Education 2010, 3040; Mathematics 1210, 1220; Art Education 4140; Theory and Social Foundations 1500, 2500; Educational Psychology 3200; Music 2220; Social Sciences 400

Darcy Cheers, Serials Assistant

Services & Continuing Education

Meeting: OhioLINK Regional Briefing, Bowling Green - May 1999

Mary Houston, Circulation Assistant

Services & Continuing Education

CE: How to Deliver Exceptional Customer Service, Toledo
Telephone Workshop - MCO, Toledo

Courses at Owens State CC:

Introduction to Criminal Justice
Criminal Law and Procedure
General Psychology

Trained: MD CONSULT orientation and review
Advanced Dataware MEDLINE

Ulonda Sweeney, Acquisitions/Cataloging Assistant

Services & Continuing Education

CE: "Medical Terminology," University of Toledo, Winter 1999
OhioLINK Regional Briefing, Bowling Green - May 1999

Rosemary Tammarine, Circulation Assistant

Services & Continuing Education

Service: MCO

Safety Committee
Locomotive Committee

CE: Telephone Seminar, MCO

Educational Technology Services

**Jeffrey J. Jablonski, Ph.D. , Assistant Director for Educational Technology Services
Assistant Professor, Dept. Of Public Health; Adjunct Assistant Professor, Graduate
School**

Service and Continuing Education

Service: Northwest State Community College Library Advisory Board.
MCO

Academic Intranet Faculty Development Committee (Chairman)
Center for the Classrooms of the Future Coordination Committee
Center for Classrooms of the Future Architectural Design Committee
MCO Building & Grounds Performance Improvement Council
Academic Intranet Standards Committee
Subcommittee on Web Conferencing Software
Academic Intranet Student Orientation Committee
Subcommittee for developing Student Orientation Presentations (Chair)
Telephony Master Plan Committee
Campus Information Technology Strategic Advisory Committee
Library Advisory Committee - ex officio
MCO Network Steering Committee
Information Technology Strategic Advisory Committee

CE: "Using Adobe Photoshop," Toledo
"Image is Everything and Nothin' But the Net" (Adobe Seminar), Royal Oak, MI
"Microsoft Technet Update," (quarterly), Toledo.
"Presenting Information" seminar by Edward Tufte, Detroit.
"First Things First" (Franklin/Covey), Toledo.
"Worldwide Lessons in Leadership," Toledo.
"Peter Lowe's Success Seminar," Cleveland
"The Manager as Coach," UT, Toledo - Mar. 1999
"Management Skills for the 21st Century" taught by UT Business School professor
Sherman Timmins, Ph.D., Toledo

Teaching

Lecturer: Developed course curriculum and taught "Research Methods" OCCH603 for graduate students in Public Health

Trainer: More than a dozen formal Segwave training classes and has provided MCO faculty with assistance in putting together their Segwave presentations for MCO's Academic Intranet

Other: Assisted in the arrangement and presentation of the two Academic Intranet Update sessions (jointly sponsored by CCI, ETS, and Faculty Development)
Participated in the development and delivery a presentation entitled "Art and Science of Digital Imaging" as a part of Faculty Development's brown-bag lunch series on educational technology
Participated in the *Residency Application Program* by presenting information about CLRC resources available to help students in their application process.
Assisted in the administration (specification and purchase of computer hardware and software, developing guidelines, reviewing faculty applications for equipment, etc.) of the OBR Academic Intranet grant

Research

Assisted in the planning, development, and writing of a proposal/vision statement for
the Classroom of the Future
Assisted in the development of a set of Multimedia Fair Use Guidelines for the faculty

Computer Learning Resource Center

Anne Trincherro, M.Ed., Computer Laboratory Technician

Service & Continuing Education

Meeting: Educational Technology Trade Show, Cleveland - April, 1999

Participated in the Student Services ERAS presentation

CE: Electronic Page Layout

Technical Writing

Apple OS 8.6 Rollout, sponsored by Abacus II, Toledo

Courses at Owens CC:

Currently working on a degree in Digital Media Technology at Owens Community College,
completed the following courses: "Introduction to Desktop Publishing"

Ruth Jacobs, Senior PC/LAN Technician (Resigned in Fall 1998)

Services & Continuing Education

CE: "First Things First," Franklin Covey Seminar, Toledo

"Microsoft Technet Updates," (quarterly) Toledo

Howard Burkert, Senior PC/LAN Technician

Services & Continuing Education

Service: Participated in the *Residency Application Program* evening presentation on April 14,
1999 by presenting information about CLRC resources available to help students
in their application process.

Coordinated and installed software in the CLRC Training Room so that the Northwest
Ohio Regional Trauma Center Registry (NORTR) could conduct their software
training

Led tours of the CLRC in the Toledo Public School 5th Grade Tours of MCO

Meeting: Educational Technology Trade Show, Cleveland - April 1999

CE: "Microsoft Technet Updates" (quarterly), Toledo

"First Things First," Franklin Covey Seminar, Toledo - April 1999

Courses: Received an Associates Degree in Business Computer Systems from Owens
Community College

Attended classes at University of Toledo toward completion B.S. degree, anticipated
date of graduation, Winter 2000

Trained: Novell Certification training classes at Stautzenberger College

Haris Achuthan, Computer Laboratory Technician

Service & Continuing Education

CE: *Troubleshooting and Maintaining PC* (2 day), Toledo

OS 8.5, Apple Computer Seminar, Toledo
Courses: Currently working on a B.S. degree in Electrical Engineering and Economics at the University of Toledo

Kelly Juarez, Computer Laboratory Technician

Service & Continuing Education

Courses: Completed the requirements for a Computer Programming degree from Owens Community College. He will be graduating at the end of July 1999

Godwin Dorbu, Computer Laboratory Technician

Service & Continuing Education

Courses: Working towards a Master's degree in Radiation Therapy at Medical College of Ohio

Instructional Graphics

Mike Brun, Graphic Designer

Service & Continuing Education

Service: Educational Technology Trade Show, Cleveland - April 1999

CE: *Using Adobe Photoshop* to manipulate digital images, Toledo
Presenting Information by Edward Tufte, Detroit.
OS 8.5, Apple Computer Seminar, Toledo

Presentations, Special Projects

Assisted in the presentation of the Segwave Author faculty training sessions
Participated in the Development and delivery a presentation entitled "Art and Science of Digital Imaging" as a part of Faculty Development's brown-bag lunch series on educational technology
Currently providing graphic expertise for the *Campus Signage Design and Implementation* project which is being implemented through the Operations Division /Facilities Planning and Engineering. John Donegan and Don Roberts
Participated in the Student Services ERAS presentation

Media/Classroom Support Services

Martin Overholt, Manager

Service & Continuing Education

Service: Northwest Ohio Distance Learning Consortium
Professional Association of Distance Learning (PADL)
MCO

Building & Grounds Performance Improvement Council
Academic Intranet Standards Committee

Ohio Professional Association of Distance Learning meeting, Findlay

CE: *Worldwide Lessons in Leadership*, Toledo.

Image is Everything and Nothin' But the Net, Adobe Seminars, -Royal Oak, MI.

Courses: Educational technology classes at University of Toledo; working toward a master's

degree in Educational Technology

Pat Lester, Secretary

Service and Continuing Education

CE: *Troubleshooting and Maintaining PCs* (2 day), Toledo
Presentations, Special Projects
Faculty Club Secretary

Rick Gottfried, Electronics Technician II

Service & Continuing Education

CE: *Troubleshooting and Maintaining PCs* (2 day), Toledo
Presentations, Special Projects
Specified and installed technology updates for classroom renovations in HE 100, 110,
103, 105

Greg Cole, Medical TV Engineer

Presentations, Special Projects

Researched, specified and ordered a new nonlinear video editing and digital video
camera equipment

Produced videos for:

- Medicine Residency Program
- Ob-gyn Residency Program
- Dr. Bowlus (Gait Analysis)
- Dr. Cooper (Radial Shunt)
- Two Nursing In-service Videos for Nursing Resources on Pediatric Patient Care
- Nursing In-service Training Videos for Nursing Resources on Stroke Patient Care
- New "Welcome to MCO" by Dr. McCullough for incorporation into MCO's web page
- Training tape for MCO Facilities in conjunction with Mr. Sam Hancock on preventing work place harassment

Bruce Kuhman, Distribution Supervisor

Photographic Services

Sara Elliot, Secretary/Receptionist

Service & Continuing Education

Service: MCO
Graduation Committee

New Student Orientation Committee

CE: *Troubleshooting and Maintaining PCs* (2 day), Toledo

Courses: Completed A+ (Computer) Technician training at Stautzenberger College that consisted of two classes: PC Operating Systems and PC Hardware. She also assembled her own computer as a part of this training program.

Presentations, Special Projects

Created a new FileMaker Pro data log for Photography for tracking billing and services
Built an Excel spreadsheet to track expenditures in Photography
Participated in the New Student Orientation Planning Meeting
Participated in the Medical Student Graduation Committee

Hollie Gillmore, Photographer I

Services & Continuing Education

Courses: Working toward a BA degree in photography and digital imaging at the University of Toledo, completed the following courses: Digital Photography; Introduction to Cyber Arts

CE: *Adobe Photoshop to manipulate digital images* (2 day), Toledo
Image is Everything and Nothin' But the Net, Adobe Seminars, Royal Oak, MI
Troubleshooting and Maintaining the Macintosh, ComputMaster, Toledo
OS 8.5, Apple Computer Seminar, Toledo

Presentations, Special Projects

Participated in the Development and delivery a presentation entitled "Art and Science of Digital Imaging" as a part of Faculty Development's brown-bag lunch series on educational technology
Serving as the primary medical photographer producing digital anatomy photographs for the *Anatomy Revealed* project and is working closely with Dr. Morse, Dr. Bennett-Clarke, and Roy Schneider of CCI. This is an extensive undertaking and may take several years to complete the various phases of development.

Jack Meade, Photographic Supervisor

Service & Continuing Education

CE: Educational Technology Trade Show, Cleveland - April 1999
Photoshop, Problems and Presentation, Toledo

Presentations, Special Projects

Participated in the New Student Orientation Planning Meeting
Photographer for the following events:
MCO Camp Med
CMN (Children's Miracle Network) Telethon (2 Days)
CMN - Bowling Green State University Dance Marathon (2 Days)
MCO Graduation and Convocation
MCO Board of Trustees and Honorees portraits
MCO Zoo Night
Bike Helmet Safety Awards
Ongoing project of photographing all students, faculty, and residents for all MCO publications including MCO student yearbooks