

University Libraries
NCA Self Study

NCA SELF-STUDY

UNIVERSITY OF COLORADO, BOULDER
UNIVERSITY LIBRARIES

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EXECUTIVE SUMMARY

The University of Colorado at Boulder Libraries (University Libraries) has assembled the largest library collection in the Rocky Mountain Region, exceeding ten million items. Its mission is to support the University community's discovery, communication, and use of knowledge by providing materials, information, and services that support research and instruction.

Despite a relatively small change in campus enrollment, usage of the Libraries services and collections has increased dramatically since the last NCA review. Between 1990 and 1997, the Libraries has experienced a 57% increase in circulation (up to nearly one million books annually) and a 39% increase in closed reserve transactions. Reference librarians now answer nearly 250,000 questions each year and, on average, each Boulder campus faculty, staff, and student asks 11.62 reference questions each year. Interlibrary loan borrowing is also up 48% from 1990 with nearly 18,000 items borrowed annually for CU faculty, staff, and students. Significant budget increases for materials during most of the past decade have positioned the Libraries as seventh in total materials expenditures per student and fourth in total materials expenditures per faculty member among our 29 AAU peers.

Several significant issues brought up in the previous NCA Accreditation Review have been successfully resolved. In 1989, the Libraries was struggling with a failing mainframe computer system and minimal automated databases and indexes. With migration to a fully integrated system in 1995, the Libraries boasts an internally supportive and user-friendly system. The University Libraries' electronic information system (Chinook) provides access to more than five million items in the University Libraries collection as well as to other library collections nation-wide. Chinook was among the first library catalogs to seamlessly interface with the World Wide Web. In addition, Chinook provides access to thousands of remote resources including online

databases, networked CD-ROMs, and full-text electronic journals, as well as the University Libraries homepages.

A well-documented and desperate space shortage has been systematically addressed and accommodation will continue into the 21st century. In 1990 a second tier of bookstacks was constructed in the Music Library nearly doubling that library's capacity. Compact shelving was installed in the Norlin basement in 1992. Unfortunately, these accommodations did not provide adequate space for the growing collection. Consequently, bookstacks were added to Norlin's reading rooms, balconies, and even hallways throughout the 1990's. So much additional shelving was added that a 1996 *Existing Loading Capacity Review for Norlin Library* found that many floors exceeded acceptable load bearing by a factor of two or even three. The overloading of Norlin was addressed in 1997 when a 20,000 square foot warehouse was leased 12 miles from campus. Low-use materials are being removed from Norlin to address floor loading issues as well as free bookstacks space for new books. In 2001, the Libraries will assume joint occupancy of a four million dollar, state-of-the-art, high-density, storage facility on the Fitzsimons campus. Further, a new Science Library, housing the current Science and Math Physics Libraries, is now being planned. Ultimately, we look to renovate Norlin as a state-of-the-art social sciences and humanities library.

Faculty scholarship over the past ten years includes 16 published books and 349 chapters and articles. Over 400 professional talks were presented by Libraries faculty, and 68 grants were awarded. In addition, Libraries faculty have participated in at least 180 national committees and have served as chair for nearly 50 national committees.

However, significant issues remain to be addressed. Staffing concerns include tensions resulting from severe shortages and comparatively low faculty salaries. The cost inflation of materials, particularly journals, remains a significant threat to our collection quality. Capital equipment budgeting shortfalls have left public spaces filled with broken furniture and failing equipment and staff struggling with obsolete and inefficient office equipment.

SECTION I

A. Mission

The mission of the University of Colorado at Boulder is to lead in the discovery, communication, and use of knowledge through instruction, research, and service to the University community and the public. The primary goal of the University Libraries is to be central to the University community's discovery, communication, and use of knowledge by providing materials, information, and other services to support instruction, research and scholarship, and public service. The secondary goal is to serve as a resource for Colorado residents by supplementing individual, business, cultural, educational, governmental, or professional information requirements. The tertiary goal is to share resources with the national and international higher education community.

B. Organizational Structure

The University of Colorado at Boulder Libraries is a centrally administered system consisting of a main library (Norlin) and five external branches. The Libraries supports the largest collection in the Rocky Mountain Region, exceeding ten million items, and the Libraries' electronic information system, [Chinook](#), provides electronic access to more than five million items in other Colorado libraries as well as to the bibliographic records of libraries and systems nationwide. Norlin contains the Libraries' administrative, public, and technical services units, and the Dean's office; humanities and social sciences collections; the [Art & Architecture](#), [East Asian](#), [Government Publications](#), [Science](#), [Special Collections](#), and [Archives](#) departmental libraries; [Circulation](#), [Information Delivery Services](#), [Central Reference](#), and [Technical Services](#). The [Jerry Crail Johnson Earth Sciences Library](#) was constructed as part of the Benson Earth Sciences building in 1997, replacing a facility that had been in use since the 1920s; the [Engineering Library](#) was established in 1966, the [William H. White Business Library](#) in 1970, the [Oliver C. Lester Math Physics Library](#) in 1971, and the [Music Library](#) in 1978. A separately administered law library is in the School of Law.

All divisions, departments, and units are responsible directly or indirectly to the Dean and Director of Libraries [[Libraries Organization Chart](#)]. The Dean reports to the Vice Chancellor for Academic Affairs and is a member of the Council of Academic Deans. In addition, the Dean meets monthly with several advisory groups. Since 1979, there has been an elected Library Advisory Board, made up of staff and faculty, that meets monthly with the Dean. The Boulder Faculty Assembly Library Committee also meets with the Dean on a regular basis to advise on policy issues. In 1991, the Dean established a Library Development Advisory Board that meets semi-annually to provide advice, advocacy, and direction on library development initiatives.

As faculty members, librarians are subject to the *Laws of the Regents* and participate in library, campus, and University faculty governance. Procedures and standards for faculty personnel actions are established by the Libraries faculty and documented in the [Library Faculty Handbook](#).

The Libraries faculty appointments differ from other campus faculty in two areas. First, appointments to the Libraries faculty are for twelve rather than nine months. Second, in 1982, when the two-track system concerning tenure was established (*University Faculty Handbook*, III-16, 17), untenured Libraries faculty elected to move to non-tenure track with renewable multi-year appointments. All subsequent appointments were at the instructor level until 1988 when the new Director of Libraries determined that appointments would be made at the assistant professor level. The result is that there are eight (15%) tenured faculty, twenty-one (40%) non-tenure-track faculty, and twenty-three (44%) tenure-track faculty of fifty-two faculty lines.

SECTION II

A. Evidence of Quality

Internal and External Assessment

The University Libraries' primary external assessment is through the [Association of Research Libraries](#) (ARL). Membership in ARL is limited to those libraries meeting the highest standards in collection size, operating expenditures, and staffing levels. Of

110 ARL members, the University Libraries has an overall ranking of 56th (<http://www.arl.org/stats/index/9697.html>). The most frequent comparison group used for the University Libraries, however, is the American Association of Universities' (AAU) 29 public institutions.

Although not a direct indicator of quality, collection use implies quality because it indicates availability of resources and accessibility of collections. Between 1990 and 1997, the Libraries has seen a 57% increase in circulation and a 39% increase in closed reserve transactions ([Chart 1](#)). University Libraries ranks ninth out of 29 libraries in total circulation per full-time student ([Table 1](#)). At any one time, more than 20% of all Boulder faculty and students have library materials checked out. Moreover, the average Boulder faculty, staff, or student asks 11.62 reference questions each academic year.

The amount of resources available per student is another important indicator of quality. Among its peer libraries in the American Association of Universities, University Libraries ranks 23rd in collection size ([Table 2](#)). Since 1990, however, it has added 459,414 items to the collections, representing a 20% increase in total volumes held. Of the 29 AAU libraries, Boulder ranks seventh in total materials expenditures per student ([Table 3](#)) and fourth in total materials expenditures per faculty member ([Table 4](#)). This represents a dramatic improvement from 1990 when Boulder ranked 14th in the AAU in terms of expenditures per student ([Table 5](#)). There have also been an 82% increase in serial expenditures per student and a 13% increase in monograph expenditures per student since 1990 ([Chart 2](#)).

In addition to high collection usage and support for collections, the University Libraries' technical services operations are nationally recognized. The Cataloging Department has become a member of four elite programs: the Name Authority Cooperative Project (NACO, [Table 6](#)), the Program for Cooperative Cataloging (PCC), and the Subject Authority Cooperative Project (SACO). The Libraries has also been designated an OCLC Enhance institution, authorizing our librarians to revise any cataloging records in the national database without review. These memberships entitle the University Libraries to contribute authority and bibliographic records, considered to be commensurate with the Library of Congress cataloging, to a national on-line database (OCLC). Membership in these programs has given the University Libraries an active

voice in determining national standards for cataloging and has a direct impact on the quality of our local library catalog.

Improvements and Changes as a Result of Evaluation

Both the 1989 NCA Accreditation Site Visit Report and the 1992 Program Review Self-Study (PRP) highlighted the need for a functional online computer system. Space shortages, better capital equipment funding, and faculty status for librarians were also raised as issues.

In both evaluations, outside reviewers recommended that the Libraries' automation system, CARL, be replaced with a more functional online system. This was accomplished in 1995 when the [Chinook](#) online system (utilizing Innovative Interfaces, Inc. software) was implemented. Migration to the Innovative Interfaces, Inc.-based system was our most far-reaching accomplishment in the 1990s. Major benefits of the new system include a web-based catalog, fully integrated public and technical service modules, the ability to track materials from purchase to shelf, and the ability to integrate with other databases, both within and outside the campus. [Chinook](#) stands as a vital connection in the campus strategic plan initiative regarding technology and the impetus toward a Total Learning Environment.

A major concern of both the 1989 NCA Accreditation Site Visit Report and the 1992 Program Review Self-Study Report was inadequate space for collections and library users. This was reiterated in a 1995 Library Collection Storage Space Study indicating that the Libraries, overall, was at 135% capacity, needing bookstacks for an additional 1,000,000 volumes. Norlin stacks was at 250% capacity, the [White Business Library](#) was at 220% capacity, and the [Science Library](#) was at 175% capacity. Moreover, a 1996 Norlin Library Existing Load Capacity Review demonstrated that many areas of Norlin had structural floor loading well in excess of recognized safety standards.

To alleviate some of the more desperate overcrowding, compact shelving was installed in the Norlin Library basement in 1992, adding space for an additional 40,000 volumes. In 1997, a 20,000 square foot warehouse was leased 12 miles from campus with shelving erected to hold approximately 325,000 volumes. Items may be

electronically requested for retrieval from the facility within 24 hours. In February of 2001, a state-of-the-art, high-density library storage facility will become operational at the Fitzsimons campus. Three CU campuses (CU-Boulder, CU-Denver, CU-Health Sciences) and the University of Denver will share this 1.6-million volume facility. The Fitzsimons facility will be expandable and will represent the on-going storage solution for the University Libraries and perhaps other libraries within the state.

A new facility for the [Leonard H. Gemmill Engineering Library](#) now unites the engineering collection in a single site with state-of-the-art networking and extensive use of compact shelving. The [Crail Johnson Earth Sciences Library](#), which opened in 1997 and is four times the size of the former library, provides nearly twice the seating and double the number of computers available for public use. The map library, formerly in the basement of Norlin, has been incorporated into this facility.

In addition to new construction, several major renovation projects have been completed and major remodeling has been accomplished in the [Lester Math Physics](#), [White Business Library](#), [Science Libraries](#), and in the [Norlin Library Periodical Room](#). A new [East Asian Library](#), housing materials in Chinese and Japanese, was opened in Norlin in 1990. A new audio-video center in the [Music Library](#) accommodates 90 patrons with remote-control access.

The 1992 PRP commented that the Libraries “continues to be seriously underfunded in the area of capital equipment.” The capital equipment fund provides for desktop computers and printers, patron seating, file cabinets, and tables. The PRP recommendation was for a one-time infusion of \$250,000 to address emergency capital equipment needs. In addition, it was recommended that the annual capital equipment allocation be increased to \$150,000. While some increases have been made in the Libraries capital equipment budget, it is still less than \$80,000 annually. Moreover, the one-time infusion of funds was not provided by the University. Recently, virtually all of the Libraries' capital equipment budget has been invested in public and staff computer workstations, leaving few resources to purchase public carrels, chairs, tables, microform readers, or to replace worn booktrucks or damaged shelving. The result is that office equipment is obsolete and inefficient and public spaces are filled with broken chairs and failing equipment.

The last accreditation review extensively addressed the 1989 reinstatement of tenure for librarians. Since 1989, two groups of librarians appointed on the tenure track have been reviewed, and seven have received tenure. Three Libraries faculty were promoted to full professor. Tenure standards have been clarified and revised and an ongoing series of meetings for those on tenure track and those who supervise them has been instituted. An alternative track for entry-level librarians, in which there is an initial two-year, up-or-out appointment at the instructor level, has been introduced. The Libraries' tenure status will be transitional until the faculty is predominantly tenured or tenure-track.

After conducting a preservation self-study in 1990, the Libraries formed a [Preservation Department](#), incorporating pre-existing materials preparation and bindery activities and adding to them responsibility for the preservation of the collections. Under the direction of a preservation librarian, the department has instituted systematic review of the collections for condition and for surplus duplicates, developed policies governing preservation-conscious binding and storage of materials, revised binding policies to use limited binding funds on those materials that most need it, and introduced a system of automated bindery control.

Integration With Other Campus Units

Library services are, by mission and design, integral to the mission of the University. Budgeting for collection development in the disciplines parallels program-review assessments and designations of campus programs of excellence. Material selections are made by subject-expert librarians on the basis of service contacts, discussion with faculty and students, formal requests for materials received from the campus community, information regarding research grants and contracts, literature reviews, and new course and program announcements. In the area of instruction, the number of course-related and course-integrated library instruction sessions has increased steadily between 1993 and 1997. These sessions have been characterized by increased collaboration with teaching faculty in instructional design and greater emphasis on incorporating library instruction within the campus-wide curriculum. The Libraries is an active participant in the intellectual and cultural life of the campus and larger community,

offering a varied program of exhibits, lectures, and events. Its faculty and staff contribute to a wide range of campus and university committees and programs.

In concert with a campus initiative, in 1994 the University Libraries developed a comprehensive [Diversity Plan](#) that addresses workplace climate and central issues particular to Libraries, such as collection development. The Libraries continues to participate in campus and University-wide diversity efforts as appropriate.

Faculty/Staff Professional Development

The faculty and staff have always enjoyed support for professional development. This support has taken varied forms. Leave time for research and travel has been generous. Funds for travel and research have, however, been dependent upon the available budget. Such support increased slightly and became more formalized with the introduction of tenure-track positions for the Libraries faculty. Evidence of this support can be seen in the number of faculty who have received tenure as well as an impressive record of scholarly output and professional service.

B. Activities Librarianship

A primary goal of the University Libraries is to provide support for the teaching, research, and activities of the Boulder campus. The public services departments of the University Libraries answer nearly 250,000 reference questions and circulate nearly 1,000,000 books each academic year. Service trends have increased dramatically since the last NCA review with circulation activity up 57%, interlibrary borrowing up 48%, and library instructional activities up 48%. The technical services departments of the University Libraries purchase, catalog, and prepare 85,000 monographs and more than 125,000 serial issues annually for public use.

Public service librarians provide thousands of hours of instructional activities annually, including orientation tours, course-related and course-integrated instruction sessions, reference assistance and in-depth research consultations, and traditional and independent-study credit courses. Teaching spaces in the library have been upgraded to accommodate hands-on learning. The emphasis of credit courses offered by the Libraries

has shifted from upper-division students, focusing instead on meeting the information literacy needs of lower-division students at critical junctures in their undergraduate education. Library instruction has also expanded beyond its traditional campus boundaries to become an important outreach tool for enhancing community and state relations.

In the past ten years, technical service's policies and practices have continually been revised to accommodate an increasing quantity and variety of materials. These not only include traditional print resources but electronic, microform, and video resources, some of which are accessible only through the online catalog. Since 1988, serial records have been converted from manual to online catalog records, and steady progress has been made in getting previously uncataloged materials into the online catalog. In addition, the provision of online authority records has enhanced patron access to materials by providing consistency in headings and appropriate cross-referencing. As the decade ends, the Technical Services department is deeply involved in a massive project to conduct a full collection inventory in order to provide complete, accurate online records for all of its holdings. Access has become an especially critical issue for materials being moved off-site. The inventory, which began in 1998, is expected to take well into the next decade to complete.

Scholarship/Creative Work/Service

It is an objective of the Libraries to have a nationally recognized, excellent faculty. The accomplishments of the present faculty reflect the disciplinary and collaborative requirements of librarianship, which place emphasis on professional involvement at international, national, and local levels in addition to scholarship and creative work.

Our faculty has demonstrated its leadership through involvement in international organizations as well as continuing education efforts in foreign countries. Such leadership is evidenced by participation in at least 180 national committees with 48 chairs coming from the University Libraries. In addition, faculty are members of at least 117 state/regional committees and chair at least 32. Faculty are also active in campus and University governance with membership in more than 173 relevant groups. Such

involvement is complemented by more than half the faculty having professional editorial duties, more than a third having been recognized by receiving awards from their profession, and a significant number having been sought as consultants on a variety of subjects. Participation extends into the community as well with many faculty using their professional expertise in talks to community audiences. Other types of activities reflect personal commitments, as in minority advocacy, historical societies, and charitable organizations.

The faculty scholarly record for the past ten years includes 16 books, 349 chapters and articles, and 226 book reviews. Over 400 talks and presentations by the Libraries faculty attest to their role as leaders sought out by other members of the profession. The 68 grants awarded to the faculty demonstrate their abilities as researchers as well as their involvement in the professional community. One of our faculty regularly teaches for the Library of Congress, another was elected head of a large division of the [American Library Association](#), and another has established a unique archive of human rights materials from all over the world.

The Libraries paraprofessional staff are also involved in the academic community. Many have published creative and scholarly works, exhibited artworks, conducted training sessions, and made classroom and public presentations. In addition, Libraries paraprofessional staff have taken active roles in the University and in the broader community, serving on committees, library task forces, faculty search committees, and exam boards for library paraprofessional positions.

C. SWOT Analysis **Strengths**

The 1989 NCA Site Visit Report observed that “the decisions made in the next ten years in the area of campus information technology will be strategically vital and will involve the wise investment of millions of dollars.” In the decade since that report, the Libraries has successfully automated most processing functions and invested heavily in online intellectual resources. In 1989, the Libraries was struggling with a failing mainframe computer system and minimal automated databases and indexes. Today the

Libraries has a robust integrated online system with access to thousands of online databases, networked CD-ROMs, and online services.

The Libraries has been in the center of the explosion of electronic information. The Libraries' first purchases of electronic products occurred during fiscal year 88/89 when we placed subscriptions for 21 CD-ROMs at a cost of \$21,232. During 93/94, the Libraries ordered its first electronic journal and first online access to a database. As of June 1998, the numbers had expanded to 75 CD-ROMs and 105 electronic subscriptions to various indexing, abstracting, and full-text services with access to thousands of electronic resources.

In 1990, the Libraries hired a systems librarian and established an automation office, which currently has four FTE staff and a student-employee budget. This office now supports more than 650 desktop computers, split about evenly between staff and public areas, all of which are connected to the campus Ethernet. These machines are capable of accessing not only [Chinook](#) but also hundreds of CD-ROM databases and thousands of Internet resources. Libraries automation office staff are in the midst of deploying a wide range of networked office technologies, such as Microsoft Exchange Server, to improve workflow and develop efficiency in the workplace.

The University of Colorado Libraries was one of the first libraries to place its online catalog, [Chinook](#), on the World Wide Web in a seamless interface with its other resources including its World Wide Web homepage. Moreover, each Libraries department and branch has a [homepage](#) that offers information about the collections, services, hours, policies, and activities available at the University Libraries as well as links to other important web sites. For example, the [Government Publications Homepage](#) has become a recognized resource for state, local, national, and international governmental information. Its [foreign](#) and [international](#) pages were recognized by the *Scout Report*, a reviewing tool for research and education. Government Publications' "[Colorado by the Numbers](#)," an electronic statistical abstract for the State of Colorado, received the Colorado Library Association Literary Award in 1997.

While electronic information systems are augmenting or replacing traditional printed information sources, books and periodicals will continue to serve as a primary source of information and scholarly communication for the immediate future.

Consequently, the Libraries continues to invest heavily in print resources. Budgeting for print resources was strong during most of the past decade. Total materials expenditures currently exceed \$8,000,000 annually. Resources per student, when compared for the years from 1990 to 1997, increased substantially with serial expenditures up 82%, interlibrary borrowing up 48%, and monographic expenditures up 13%. Of the 29 AAU public institutions, Boulder is now seventh in total materials expenditures per student and fourth in total materials expenditures per faculty member.

An expanding materials budget has enabled the Libraries to establish and support collections of particular excellence. The University's [Center for British Studies](#) is based upon the Libraries' exceptional collections of British Studies materials, including recent acquisitions of microform sets of original manuscripts of early books, newspapers, and personal papers from British archives, some of which are available nowhere else in North America. The library was designated an "Early English Books Research Center" by University Microfilms International. In 1990, the [American Music Research Center](#) collection was brought to CU and housed in the [Music Library](#). In 1992, the [Archives Department](#) began an ambitious [Human Rights Initiative](#) to collect materials concerning contemporary human rights affairs and is now the largest academic repository of contemporary non-governmental human rights materials in the United States. The Humanities Special Purchase Fund, with an annual allocation of between \$250,000 and \$500,000, has been responsible for the purchase of major collections of photo books, music scores, Hispanic literature, Chinese gazetteers, Meiji-era books, and historical sources on the Bolshevik Revolution.

Opportunities

Program planning is underway on a new Science Library that will house the current [Lester Math Physics](#) and [Science](#) libraries. This will be a regional research center for traditional and digital resources in the physical and natural sciences. The new library is expected to house an ever diminishing amount of print materials in order to function primarily for electronic document access, information assistance, and instructional development and delivery. The new Science Library will house sophisticated

computational tools and design/demonstration studios as well as electronic classrooms with electronic docking stations and wireless connections to the campus network.

Construction of this new library will not, however, result in a significant gain of bookstack space for the University Libraries. Instead of using precious campus space for bookstacks, the Regents have chosen to construct a high-density storage facility for little-used books on the future campus of the University of Colorado Health Sciences Center at the Fitzsimons Army Medical Center. This \$4,000,000 multi-institutional facility is based on the [Harvard University Remote Storage Facility](#) and will house 1.6 million volumes. It is anticipated that the University Libraries will eventually house a total of 800,000 volumes in this facility. Access will be provided by daily courier service to retrieve items requested through the online catalog. Eventually, journal articles will be scanned and delivered electronically on demand. The facility is scheduled to open in February of 2001, and loading will begin shortly thereafter.

After the completion of the new Science Library, the library space plan calls for the renovation of Norlin Library to become CU's library of the future for the social sciences and humanities. The intent of this renovation is to resolve the issues of a confusing floor plan, obsolete fixtures, and inadequate seating. A state-of-the-art information technology infrastructure will also be integrated into the 1939 building to support scholarship and learning in the twenty-first century.

Weaknesses

Staffing levels remain a weakness in the University Libraries. Under-staffing was noted in the 1989 NCA evaluation, and the 1992 PRP External Review Report characterized the University Libraries as “significantly understaffed.” While ten permanent FTE were added to the Libraries staffing between 1990 and 1998, the University Libraries still ranks in the bottom 20% of staffing when compared to other AAU libraries ([Table 7](#)). When compared according to collection size, the University Libraries professional staffing ranked 21st among 29 AAU public institutions ([Table 8](#)). When compared by full-time students, the University Libraries ranked 24th of 29 ([Table 9](#)). Another 20 professional lines would need to be added to bring staffing to the AAU

median. Moreover, the Libraries relies upon student staffing to operate most service desks and perform many processing tasks. However, the hourly wages the Libraries offers are no longer competitive with the rest of the campus. The result has been more difficulty in recruiting student workers, particularly those with work-study awards, and high turnover. An annual increase of approximately \$150,000 is needed to increase wages to competitive levels and to provide adequate staffing of the Libraries during evening and weekend hours.

The Libraries continues to be under-funded in the areas of capital equipment and basic infrastructure support. The equipment-intensive operations of the Libraries are directly related to the mission of supporting the research and instructional needs of the campus. Providing access to information in electronic formats, for example, requires investments in computer hardware and a network infrastructure. Preserving the print collection requires highly specialized and expensive equipment and supplies. Essential library furniture, including chairs, tables, and carrels, must be replaced. Although the Web is quickly becoming the primary user interface through which indexes, catalogs, journals, and images are accessed, many current public workstations cannot efficiently operate a web browser, and there is insufficient printing capacity. To support access to emerging technologies and services, replacement and ongoing refreshment of this equipment must be a high priority. The Libraries [Information Technology Strategic Plan](#) estimates that it will cost \$150,000 annually to replace the 650 public and administrative desktop computers on a 36-month cycle. This is simply not possible on an \$80,000 annual capital equipment allocation.

Threats

The lack of an elastic market for many library materials, coupled with inflation, particularly for journals, is one of the most significant external threats facing the Libraries. Prices for library materials have increased at a rate much higher than the general U.S. Consumer Price Index (CPI) for the past ten years. In 97/98, for example, the CPI increased 1.7% while library journal prices increased by more than 10%. Some specific journal titles, particularly in the sciences, increased more than 25% annually. In

the past decade, the Libraries' expenditures for purchased journals has increased from \$2,150,000 to \$4,250,000 while the number of journal subscriptions has declined from 14,288 to 13,925.

The impact of inflation is compounded by decreasing allocations for the Libraries' materials budget. At the time of the last NCA review, annual increases to the materials budget were at 15%. This has fallen to a 2.8% increase in 97/98. Such low increases do not cover annual inflation increases. Consequently, the sustained erosion of purchasing power due to inflation and decreasing materials budget increases is resulting in a steady degradation of the collection.

The migration from print to electronic resources has also had a significant financial impact. Electronic versions of print journals or citation indexes are frequently more expensive than their print counterparts. In order to meet the demand for these products, the Libraries has had to cancel paper subscriptions to create budget lines for electronic information/access. The Libraries has pursued outside grant funding and has formed consortial and institutional agreements with the Colorado Alliance, BCR, and the CU President's Office to support our electronic endeavors. While these efforts have been successful, they have not kept pace with the demand for electronic resources or annual inflation rates.

Faculty salaries in the Libraries continue to be less than those of peer institutions ([Table 10](#)). The consequence of not matching the national market for faculty salaries is higher turnover and more difficulty in recruiting. In 96/97, the University initiated a four-year infusion of salary increases for librarians based on an AAU salary compensation study. However, at the conclusion of the program in 2001/02, library faculty will be at only 90% of the 96/97 AAU mean.

SECTION III

Action Plan

Completion of the new Science Library program plan is a top priority for the University Libraries. This planning document will provide the basis for fund-raising and legislative approval for a high technology facility that will become Colorado's primary

resource for print and electronic literature in the sciences. Immediately following approval of the new Science Library effort, the Libraries will argue for a major renovation of the aging Norlin Library. With the science collection removed, Norlin can be retrofitted into a state-of-art library for the humanities and social sciences.

As part of Campaign 2000, the Dean will seek a \$6,000,000 endowment for library development, which will provide ongoing funds for enrichment of the collections and for physical plant improvements. These improvements may include the creation of a preservation laboratory, digital sound laboratories and wireless telecommunications networks, as well as the renovation of existing electronic instruction facilities and of the graduate student study complex. The endowment will also provide funds for discrete projects, such as the digitization of unique print resources, faculty enrichment grants and outreach efforts.

As part of the annual budget allocation process, the Libraries will continue to argue for additional staffing and student wage increases. Without such increases, the Libraries cannot provide the minimum level of service expected of a research library. In addition, the Libraries will campaign for significant increases in the annual capital equipment allocation. In order to take advantage of heavy investments in electronic resources, it is imperative that the Libraries have robust hardware and networking in place.

University Libraries
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Association of Research Libraries Statistics
Rank-Order Statistics 1997

AAU Public Institutions

Table 1

Total Circulation by Total Fulltime Students

Rank	Academic Institution	Ratio
1.	Washington	99.76
2.	North Carolina	85.32
3.	Kansas	65.01
4.	Virginia	62.22
5.	California, Los Angeles	61.18
6.	Texas	58.32
7.	Indiana	49.95
7.	Florida	49.95
8.	Colorado	45.98
9.	Illinois, Urbana	42.47
10.	Arizona	40.73
11.	Ohio State	38.13
12.	Minnesota	36.41
13.	Oregon	31.77
14.	Pennsylvania	31.76
15.	Wisconsin	31.11
16.	Michigan	29.27
17.	Maryland	28.40
18.	SUNY, Buffalo	26.48
19.	California, Santa Barbara	25.82
20.	Pittsburgh	25.60
21.	Iowa State	25.38
22.	Rutgers	25.30
23.	Nebraska	23.18
24.	Missouri	21.42
25.	Pennsylvania State	18.96
26.	Michigan State	17.71
27.	Purdue	15.47
	California, Berkeley	.

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Table 2

Volumes Held

Rank	Academic Institution	Ratio
1.	Illinois, Urbana	9,024,298
2.	California, Berkeley	8,628,028
3.	Texas	7,495,275
4.	California, Los Angeles	7,010,234
5.	Michigan	6,973,162
6.	Indiana	5,916,992
7.	Wisconsin	5,824,639
8.	Washington	5,715,202
9.	Minnesota	5,490,668
10.	Ohio State	5,087,336
11.	North Carolina	4,819,186
12.	Pennsylvania	4,546,667
13.	Arizona	4,442,961
14.	Virginia	4,433,628
15.	Michigan State	4,118,032
16.	Pennsylvania State	3,934,344
17.	Pittsburgh	3,819,100
18.	Rutgers	3,633,792
19.	Kansas	3,532,810
20.	Florida	3,317,781
21.	SUNY, Buffalo	3,047,830
22.	Missouri	2,816,452
23.	Colorado	2,715,702
24.	Maryland	2,626,800
25.	Nebraska	2,442,115
26.	California, Santa Barbara	2,396,611
27.	Oregon	2,245,443
28.	Purdue	2,241,503
29.	Iowa State	2,124,964

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Table 3

Total Materials Expenditures by Total Fulltime Students

Rank	Academic Institution	Ratio
1.	Pennsylvania	485.35
2.	North Carolina	484.17
3.	Virginia	451.37
4.	Michigan	420.08
5.	Minnesota	401.08
6.	California, Berkeley	383.78
7.	Colorado	381.58
8.	Oregon	322.86
9.	Washington	315.37
10.	Pittsburgh	305.74
11.	Arizona	299.52
12.	Indiana	297.33
13.	Kansas	282.85
14.	Nebraska	275.36
15.	California, Los Angeles	273.34
16.	SUNY, Buffalo	264.30
17.	California, Santa Barbara	260.34
18.	Iowa State	259.48
19.	Wisconsin	252.29
20.	Missouri	251.02
21.	Illinois, Urbana	239.93
22.	Rutgers	222.66
23.	Ohio State	220.24
24.	Florida	210.80
25.	Texas	191.67
26.	Maryland	186.02
27.	Pennsylvania State	176.72
28.	Michigan State	169.71
29.	Purdue	166.47

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Table 4

Total Materials Expenditures by Total Teaching Faculty

Rank	Academic Institution	Ratio
1.	California, Berkeley	8135.69
2.	Virginia	7800.02
3.	Oregon	7554.63
4.	Colorado	6626.63
5.	Minnesota	6434.86
6.	Indiana	6072.51
7.	Arizona	5250.49
8.	California, Los Angeles	5245.64
9.	Michigan	4858.80
10.	California, Santa Barbara	4796.03
11.	Pittsburgh	4663.95
12.	Illinois, Urbana	4377.69
13.	Wisconsin	4225.89
14.	Pennsylvania	4145.50
15.	Nebraska	4140.11
16.	North Carolina	3924.23
17.	Rutgers	3729.37
18.	Kansas	3603.72
19.	Texas	3597.90
20.	Iowa State	3530.05
21.	Ohio State	3264.27
22.	Florida	3200.17
23.	Maryland	3158.20
24.	Purdue	3121.43
25.	Missouri	3054.09
26.	Washington	3051.51
27.	Pennsylvania State	2978.93
28.	Michigan State	2792.62
29.	SUNY, Buffalo	2723.22

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Table 5

Total Materials Expenditures by Total Fulltime Students

Rank	Academic Institution	Ratio
1.	Florida	741.479
2.	Virginia	360.314
3.	California, Berkeley	261.089
4.	Minnesota	254.872
5.	California, Los Angeles	252.250
6.	Pittsburgh	249.394
7.	Pennsylvania	248.435
8.	Michigan	243.965
9.	North Carolina	242.747
10.	Rutgers	212.268
11.	SUNY, Buffalo	204.513
12.	Kansas	204.375
13.	Oregon	203.278
14.	Colorado	202.884
15.	Indiana	201.486
16.	Washington	201.372
17.	Arizona	195.763
18.	Illinois, Urbana	193.825
19.	California, Santa Barbara	180.663
20.	Wisconsin	170.400
21.	Maryland	166.397
22.	Nebraska	156.942
23.	Missouri	148.698
24.	Iowa State	147.090
25.	Texas	130.048
26.	Ohio State	123.863
27.	Pennsylvania State	113.633
28.	Michigan State	106.165
29.	Purdue	105.602

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Table 6
Cooperative Cataloging Statistics, 1993 - 1997

	NEW NAMES	NEW SERIES	CHANGED NAR/SAR	NEW BIB	NEW SUBJECT	CHANGE SUBJECT	CLASS NUMBER
1993	840	32	156	3	0	0	0
1994	1261	435	340	412	5	0	1
1995	691	210	135	555	2	0	3
1996	532	135	140	498	6	2	5
1997	1178	438	330	630	17	1	0

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Table 7

Professional Staff

Rank	Academic Institution	Ratio
1.	California, Berkeley	191
2.	Illinois, Urbana	171
3.	Wisconsin	154
4.	Michigan	151
5.	Pennsylvania State	140
6.	Indiana	138
7.	Washington	134
7.	California, Los Angeles	134
7.	Texas	134
8.	North Carolina	123
9.	Florida	111
10.	Pennsylvania	110
11.	Rutgers	108
12.	Ohio State	101
12.	Pittsburgh	101
12.	Virginia	101
13.	SUNY, Buffalo	99
14.	Minnesota	98
15.	Arizona	91
15.	Maryland	91
16.	Kansas	89
17.	Purdue	63
18.	Michigan State	62
19.	Colorado	55
19.	Missouri	55
20.	Oregon	54
21.	Nebraska	51
22.	Iowa State	48
23.	California, Santa Barbara	40

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Table 8

Professional Staff over Volumes Held

Rank	Academic Institution	Ratio
1.	Pennsylvania State	28102.46
2.	Maryland	28865.93
3.	Florida	29889.92
4.	SUNY, Buffalo	30786.16
5.	Rutgers	33646.22
6.	Purdue	35579.41
7.	Pittsburgh	37812.87
8.	Wisconsin	37822.33
9.	North Carolina	39180.37
10.	Kansas	39694.49
11.	Pennsylvania	41333.34
12.	Oregon	41582.28
13.	Washington	42650.76
14.	Indiana	42876.75
15.	Virginia	43897.31
16.	Iowa State	44270.08
17.	California, Berkeley	45172.92
18.	Michigan	46179.88
19.	Nebraska	47884.61
20.	Arizona	48823.75
21.	Colorado	49376.40
22.	Ohio State	50369.66
23.	Missouri	51208.22
24.	California, Los Angeles	52315.18
25.	Illinois, Urbana	52773.67
26.	Texas	55934.89
27.	Minnesota	56027.22
28.	California, Santa Barbara	59915.28
29.	Michigan State	66419.87

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Table 9

Total Fulltime Students by Professional & Support Staff

Rank	Academic Institution	Ratio
1.	Virginia	59.29
2.	North Carolina	59.54
3.	Pennsylvania	61.09
4.	California, Berkeley	61.10
5.	Michigan	74.11
6.	Washington	77.48
7.	Minnesota	79.57
8.	Illinois, Urbana	80.31
9.	California, Los Angeles	81.40
10.	Texas	81.60
11.	Pittsburgh	84.58
12.	Indiana	86.87
13.	Rutgers	96.76
14.	Arizona	97.00
15.	SUNY, Buffalo	97.09
16.	Wisconsin	97.16
17.	Oregon	100.80
18.	Missouri	101.47
19.	Kansas	105.59
20.	Florida	107.08
21.	Nebraska	113.03
22.	California, Santa Barbara	117.90
23.	Maryland	118.68
24.	Colorado	120.08
25.	Pennsylvania State	122.46
26.	Iowa State	128.49
27.	Ohio State	138.98
28.	Purdue	147.41
29.	Michigan State	201.64

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Table 10

Professional Salaries & Wages by Total Library Expenditures

Rank	Academic Institution	Ratio
1.	SUNY, Buffalo	0.303
2.	Michigan	0.290
3.	Rutgers	0.262
4.	Illinois, Urbana	0.260
5.	Maryland	0.255
6.	Wisconsin	0.247
7.	Indiana	0.235
8.	Kansas	0.225
8.	North Carolina	0.225
9.	Texas	0.224
10.	Washington	0.220
11.	Florida	0.217
12.	Ohio State	0.213
13.	Virginia	0.202
13.	Pittsburgh	0.202
14.	Missouri	0.201
15.	Purdue	0.198
16.	California, Los Angeles	0.189
17.	Arizona	0.188
17.	Pennsylvania	0.188
18.	Nebraska	0.185
19.	California, Santa Barbara	0.181
20.	Oregon	0.180
21.	Minnesota	0.174
22.	Michigan State	0.171
23.	Pennsylvania State	0.162
24.	Iowa State	0.151
25.	Colorado	0.135
	California, Berkeley	.