

The Benefits of Additional Library Collection Funds.

Major outcomes and benefits.

Two years ago, Chancellor Berdahl, aware of the damage done to the UC Berkeley library collections by more than a decade of inadequate funding, laid the foundations for their reconstruction. His understanding that the greatness of an academic institution is crucially dependent on the quality of its library resources led him to allocate \$4.6 million in new money, to be invested over a three year period. Two-thirds of the way through this spending cycle, the library is ready to express its appreciation for the Chancellor's confidence, provide an account of specific benefits, with comments from both librarians and faculty, and indicate what remains to be done.

The number of volumes added to the library during the three years of the Chancellor's augmentation is a partial reflection of its impact: 155,000 volumes were acquired in 1997-1998; 166,000 volumes in 1998-1999; and 175,000 volumes in 1999-2000. Without the Chancellor's funding, purchases in the last two years would have declined, due to inflation, to approximately 143,000 volumes and 131,000 volumes – cumulatively 67,000 fewer volumes than were actually acquired.

We have also begun a significant transition towards a library less easily measured in physical volumes. The new funds and substantial coinvestment by the California Digital Library (CDL) have allowed us to participate confidently in the development of a digital collection: several thousand electronic journals; over 70 abstracting and indexing databases; dozens of online dictionaries, encyclopedias, and directories; a growing corpus of hundreds of literary texts in several languages; and over 800 electronic books. We have allocated over a million dollars to digital acquisitions, about half for co-investment with the CDL and the other UC campuses, and half for separate Berkeley resources. These digital commitments have been divided equally among the broad subject divisions: Sciences, Social Sciences, and Humanities. The new funds have allowed us to create an impressive digital library without sacrificing our print collections to do so. For example, we were able to buy long backfiles of the most comprehensive (and expensive) index to the scholarly periodical literature (Web of Science back to 1945) and have been reassured by a flood of faculty messages that this was a wise investment.

This quantifiable reversal of our fortunes has already begun to move Berkeley back up the ranks of the Association of Research Libraries, but it does not do justice to the qualitative improvement of our collections. Strong anecdotal evidence suggests that many faculty have already noticed our progress and benefited from it. It is also fair to speculate that Berkeley's ability to attract and retain highly qualified graduate students will depend not only on adequate financial support but also on the new level of research support fostered by the Chancellor's initiative. This story of renewal is told in more detail in the following report, in faculty comments and assessments (Appendix 1), and in the library selector reports (Appendix 2).

Eventually, we may be able to measure the impact of collection quality on faculty productivity by, for example, comparing citation analyses during the time of dearth with those of the period of recovery, especially for those fields which rely heavily on currency and convenience. Or, for example, we may discover a relationship between these additional print and digital resources and a reduction of graduate students' time to degree. The evidence below and in the appendices repeatedly affirms the efficiency of our having resources onsite or online, rather than having to depend on the largesse of other libraries, within and beyond the UC system. However, we must continue to balance this efficiency against the economy of complementary collection building in cooperation with other campuses.

Faculty comments.

Here are a few faculty comments on our progress (many others are in Appendix 1).

“...two important databases...[have] had an immeasurable impact upon my group's research. These databases combined with powerful search engines enable rapid identification of specific chemical structures and reactions out of the millions that have been reported in the literature. This information, which is essential for cutting edge chemical research, was previously inaccessible due to the prohibitive costs of these databases for individual investigator licenses.” [Jon Ellman, **Chemistry**]

“The electronic journal collection has proved invaluable to my research in several ways. Immediate access to critical research materials greatly improves my productivity, and the productivity of my students. The ease at which these materials can be accessed allows me to quickly review publications which I might otherwise not bother with because they are not directly related to my current research. Tangentially related papers often lead to new and interesting approaches which might not have occurred to me if I had focused only on immediately relevant papers.” [Phil Kaminsky, Industrial **Engineering & Operations Research**]

“I am an editor of global change biology and [Web of Science] is useful for finding referees on key topics and their addresses. I can keep up with work in my field by simply searching for papers that cite my past papers. Fast and easy.” [Dennis Baldocchi, Assoc. Professor, **Ecosystems Science**]

“I opt for strengthening of the digital library. This is the best feature I've found with my 20 years at Cal.” [Professor Nathan Cheung, **EECS**]

“I use both the Web of Science and the electronic journal database all the time for writing grant proposals, manuscripts and review articles. They are invaluable resources to someone who works off campus and can't access the print collection without a having to drive over and circle the neighborhood for ages looking for a parking place. They have been of enormous importance to me in several ways. I can access the latest papers that I need to read and reference from journals to which I don't subscribe. I can find obscure referenced works on my favorite topic via the Web of Science and then either link directly to the paper itself or hop to the electronic journal database to look it up. This is brilliant for writing topical reviews - I can do all my background reading without leaving my desktop, and download certain papers. The comprehensibility of both databases is really staggeringly helpful. I guess my only suggestion, then, is more, more!” [Jenn Fletcher, **Plant and Microbial Biology**]

“Having [the Early American Imprints microform set] at hand saves a great deal of time that would have to be spent in travel. I am grateful for the enlightened librarians and administrators who approved this purchase. Cheers for all of them.” [Robert Middlekauff, Preston Hotchkis Professor, Emeritus, **History**]

I found especially useful the Schiller [database of his complete works] which is accessible on line. In general, I found that in the past two years many more of the esoteric items which I require are found in the Berkeley Library. My impression, based on a wide variety of activities in German, is that the over-all collection is much improved and more easily accessed.

[Kenneth Weisinger, Professor, **German** and Comparative Literature, Director, UCB Study Abroad]

"These data [in the Global Financial Database] offer an unparalleled research tool for empirical studies of current and especially historical economic questions relating to the evolution of the world economy. A good number of our students and faculty are benefiting. These data are available at other universities; for example, they can be downloaded in the Littauer economics library at Harvard. To be competitive in the job market, our students must have equal access. Going back a step, we cannot hope to recruit the best graduate students unless we provide such research resources."

[Maurice Obstfeld, Chair, Department of **Economics**]

[The new tools] "are absolutely critical to my work, saved me many hours and much money in research assistance, and probably improved the quality of my work. My last book would have taken months longer without it and that will probably be true of the book I am working on now." [Claude Fischer, **Sociology**]

An incoming biosciences graduate student was heard to say that one of the criteria she used in determining which university to attend was the size and quality of their online journal collection. Apparently, thanks in large part to the Chancellor's new library funds, Berkeley met this criterion.

Impact on the library print collections.

The new money allowed us to begin to rebuild our once premier and recently depleted serials collections by selectively reinstating cancelled journals and even new journals that otherwise would have been unaffordable including those:

- most heavily cited
- requested by several faculty
- having Berkeley faculty on their editorial boards and strong program relevance
- in rapidly changing fields
- containing articles frequently requested through document delivery services
- frequently requested on interlibrary loan

We were able to reinstate standing orders for requested monographic series including those:

- in which titles are more expensive when purchased individually
- which are more time consuming and less reliable to buy one title at a time
- needing backfills which we could not previously afford

We were able to establish or reinstate approval plans to alert us to new publications from otherwise elusive sources, such as Pan Pacifica and the World Bank.

We were able to refresh our badly dated reference collections with more current information resources including:

- new titles, especially in emerging and interdisciplinary fields
- updated editions of old titles already in the collection

We were also able to replace essential primary research collections, such as Early American Imprints, long underused because they were practically unusable, in more practical formats.

We were able to match departmental funds for new faculty, thereby spending on areas implicitly targeted by the campus for program growth.

Development of digital resources.

The new digital resources have many advantages for the scholar in:

- saving time and the frustrations of transportation, traffic and parking
- performing once tedious search and display tasks swiftly and accurately
- linking catalogs and indexes directly to resources which can be read onscreen
- bringing texts and images to the workstation whenever they are needed
- allowing improved currency and more timely updating.

However, they usually place a heavy burden on library collections budget by:

- replacing or recompiling earlier print resources at many times the cost
- changing one-time purchases into ongoing annual licenses
- requiring substitution of expensive library licenses for faculty subscriptions
- offering powerful new services irresistible to scholars but costly to the library
- requiring multi-year licenses, hard to revise as budgets or programs change.

Collaborative initiatives.

The new funds have made possible several kinds of productive collaboration: among librarians and disciplines; between librarians and faculty; and between our campus, the other UC campuses, and the new California Digital Library (CDL). Collaboration allows interconnected and complementary collection building, but the spirit of cooperation was undermined, during the years of inadequacy, by a parochial concern for core responsibilities. New fields at the boundaries, neglected then, can now be nurtured. Old fields, temporarily out of fashion, can be maintained, until the academic wheel of fortune returns to them. Many of the new electronic journal licenses allow UC-wide access to a given title, providing there is at least one print subscription to that title at one of the campuses. This structure has motivated many intercampus selector groups to cooperate

more closely. Although UC-wide collaborative selection of monographs has been conceptually explored, its implementation would be extremely labor intensive, and faculty still put pressure on the selectors to provide onsite copies where possible. Where the costs make duplicative holdings unfeasible, libraries are providing increasingly efficient systems of materials delivery, such as CDL Request.

We have also been able to co-invest with the other nine campuses and the CDL in resources which would have been much more difficult to negotiate and fund, had we tried to pay for them independently. By pooling access throughout the UC system we have been able to reduce the likelihood that our users will be turned away, but we continue to be faced by the dilemma of paying for more predictable access rather than new content.

The cost of sustaining excellence.

The Chancellor's increase to the collections budget reflected his understanding that the library has to factor in an anticipated increase of about 9% annually, simply to maintain its current list of journal and other ongoing subscriptions. The inflation rate for monographs has never been as high, and we currently estimate it to be 3.5% annually. Inflation in the cost of scholarly library resources has eased somewhat from the devastating period of the early nineties. Libraries have long recognized that even these lower rates are unsustainable; fortunately, there is some evidence that those responsible for the increases in prices have also reached a similar conclusion and are attempting to break the destructive cycle.

New products continue to appear in the information market-place, often irresistibly attractive to scholars who would benefit from them and usually more expensive than their print precursors. The convenience of the internet is rapidly changing the habits of many but not all of our users. The digital transformation of printed resources is occurring differentially among the disciplines and being embraced unequally by scholars, of varying experience and proclivities, within the disciplines. For some time to come, the library will have to be responsive to these pressures to provide similar content in multiple forms. Many of the new resources most in demand will require us to pay for more simultaneous access opportunities (sometimes called "ports"). There are, for example, currently eighteen ports for the most important database in the field of Chemistry for the entire chemistry community, not just at Berkeley but for all the UC campuses. As demand increases, such constraints, now uncomfortable, will become intolerable.

Libraries used to buy standard reference sources; now we have to license them. The larger multi-volume dictionaries and encyclopedias required us to pay for new editions occasionally, for example: the International Encyclopedia of the Social Sciences, every thirty years; and the Oxford English Dictionary (OED), a couple of times a century. The new publishing economy requires us to license, rather than purchase these essential tools; and the **annual** payments for the OED, for example, even after collective solidarity with the other UC libraries and with many other library consortia cut the cost in half, still exceeds the **purchase** price for the print edition. The 20 volume, 22,000 page print OED can currently be had for \$995. The purchase cost of the CD-ROM version is even

cheaper (\$395). But UC wide web access to the OED, before our time-consuming negotiations, was expected to cost over \$35,000, an annual subscription which paid for temporary. The publisher justifies the annual subscription model by promising quarterly revisions which are expected, eventually, to double the length of the text. Because of its anticipated size and known complexity, the third edition of the OED may never be available in print form. As the potential of the OED and dozens of other new tools in most other disciplines is more fully realized in the scholarly community, they promise to transform teaching and research; but funding them, especially in FTE-based business models which raise the costs for the larger campuses, will be an ever-growing challenge.

Eventually, the delivery of information resources (texts, images, sound, video) to libraries and users may save staff time and architectural space. However, during this transitional period, as we try both to sustain old standards of bibliographic control and physical access and to cope with complex, highly diversified procedures and platforms, library operational costs are actually higher than they have ever been. Outreach, promotion, instruction, and equipment infrastructure are all increasingly costly, but separate from the collections budget. Space demands, especially as the rate at which we acquire physical volumes (currently estimated to be about 400 each day) returns to adequacy, are beginning to overwhelm supply. The construction of a larger off-site storage facility and the unavoidable, incremental conversion of popular “fixed shelf” stacks to awkward and expensive compact shelving will relieve some of these space pressures, even as they compromise convenience to those who depend most on printed resources.

This outline of the benefits of funds already received is, of course, also an alert that funding for library collections has to be sustained. In helping us from a long, demoralising depression, the Chancellor has begun to restore the faith of faculty, students, and library staff that the library can after all serve its users’ needs. To maintain this momentum back towards distinction is essential.

Alan Ritch
Associate University Librarian and Director, Collections
The Library
October 2, 2000