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Op-Ed—Opinions and Editorials

The $160 Million Question: What Happens to the Federal Money Paid for University Research Libraries?

by Albert Henderson

The only major Federal financing of academic library collections is justified as one of the indirect costs of sponsored research. The government pays $4 billion as its “fair share” of indirect costs. The government pays $8 billion direct costs of research contracted to universities. These indirect costs are divided equally among administration and facilities. A tiny fraction supports libraries. The government will provide an estimated $160 million to support the libraries of 100 universities this year, a mere one percent of those libraries’ total spending.

The victims of the library crisis know little of how this policy works. They can, however, testify to the decimated collections of top research universities. The repercussions of the library crisis reach far beyond science and technology as libraries forego purchase of arts and humanities monographs as well as science and technology materials. The cancellation of long-held subscriptions to journals began 35 years ago, a period when the publication of articles doubled and doubled again. Print runs have plummeted, so prices have soared. Publishers now shun most forms of academic esoterica. They politely pass on investments in technology that cannot produce a return. The new media will not survive an unfriendly marketplace. References like Mathematical Reviews and Index Medicus have placed artificial limits on their coverage. Authors must often pay subventions or page charges in order to see their research in print. Interlibrary borrowing has soared in the last ten years. Researchers relinquish vacation time for pilgrimages to distant pockets of resources that are not stale. Skyrocketing traffic in photocopies, hundreds of thousands of which must be procured from foreign sources, further confirms the failing health of academic library collections. Well connected senior scientists bypass library services while students are left in the dark. Opportunities for productive browsing are foreclosed as “duplicative” periodicals have ceased to circulate or even to be found on main library shelves. Worse, delays and red tape hobble the thought process and the preparation of research.

Reform of Federal policy might justifiably resolve these problems. Federally sponsored research accounts for sixty percent of academic research in these universities. It generates growing numbers of articles that contribute to the two grand canyons of the library crisis: One is the gap between what’s published and what libraries can afford; the other is the gap between research that is reported and the human capacity of anyone to keep abreast of relevant developments. If government research is sixty percent of academic research expenditures, why is its “fair share” support of libraries only one percent? Why is Federal policy so carefree about conserving and disseminating the results of its investment in basic research?!

The logic behind the formulas used to calculate Federal support for library overhead is arcane and puzzling. The allocation depends on “the basis of primary categories of users, including students, professional employees, and other users.” As a result, the large full-time equivalent (FTE) student body that is found at most Research Universities will dilute the support of books and journals that interest grant-supported researchers. These esoteric portions of a multi-million volume research collection are the most expensive. At SUNY-Albany for instance, science journals consumed 68% of the 1993 periodical budget while science FTEs amount to only 18% of the campus population. It should be obvious that library collections are not used proportionally to FTE units. Nor is the university income proportional. The current formula allocates an average of 2 points to library overhead. Aren’t those 2 out of every 100 FTE “bodies” responsible for a disproportionate share of total income? What formula would be appropriate? Fundamentally, the library budget and Federal support should be related to the productivity of research rather than a body count. This seems to be a difficult concept today, although it had prevailed for thousands of years. It springs from common sense, and is usually cited as the “Alexandrine library.” The problem developed in dog-eat-dog budget competitions is that the future “use” value of information is highly speculative. It requires faith in the future value of knowledge. FTE figures are concrete, even though they are hardly relevant. The cost of innocence, however, can be more clearly drawn. Just as a physical vacuum can measure the pressure of air, an information vacuum can help measure the value of the missing knowledge. What if the library fails or if other services are discouraged from editing, indexing, abstracting, evaluating, reviewing, and disseminating? Hints have been provided by economists Charles Pierce and Fritz Machlup and investigators that include information scientists John Martyn and Donald W. King, physicist Conyers Herring, psychologist William D. Garvey, and Walter O. Spitzer MD. Former Case Western dean Jesse Shera, in testimony to a Congressional committee, once related how $250,000 was wasted because researchers were unaware of a single article. Under close scrutiny, half or more of research sampled five or more years after publication was rejected on scientific grounds. It was found to be trivial, duplicative, or wrong in varying degrees, often using inappropriate methods or displaying lack of cognizance of other research. Obviously, referees who okayed grants and publication had been no better informed than the authors. These studies did not take the additional step of evaluating the waste in terms of dollars or other resources. They did recommend a greater emphasis on library research. So gnawing questions linger: How much of the $20 billion being invested in academic research will be fruitless as a result of this dimly lit indirect cost policy? How much of the combined total of $300 billion being spent on higher education and R&D will be less productive as a result of impoverished libraries?

University administrators and Federal agencies must begin to prioritize economic realities into library budgets. Economic factors would also be legitimate adjustments to indirect cost formulas. For instance, library collections are the major importers and disseminators of foreign research. Over sixty percent of all science and engineering articles are authored outside the United States. The library is the only major academic cost center to be continued on page 29
affected by devaluation of the U.S. dollar. (In 1987, the American Library Association resolved "to make a concerted effort to focus national attention on the impact of dollar devaluation on library collections ..." Why was this resolution ignored?) The cost of articles published, for instance, in Germany must be affected by changes in the exchange value of the DeutschMark. Between 1960 and 1995, the value of $1 fell from DM 4.17 to DM 1.40; thus the U.S. prices of German publications tripled. In England, a huge inflationary surge offset and contributed to the dropping value of the pound Sterling, inexorably forcing prices of UK products upward on the world market.

By the same token, the output of increased research would also be factored into budgets and Federal support for libraries. The main tangible asset produced by research is the journal article. An interest in conservation of Federal research investments should behoove political support for library collections. The production statistics of the discipline-oriented databases that cover academic research offer convincing evidence of this growth. Chemical Abstracts Service, for instance, recorded 100,000 items in 1957, 557,000 in 1982, and 776,000 in 1994. The National Library of Medicine recorded 105,000 in 1957 and 367,000 in 1994. As Derek de Solla Price had often pointed out, the output of science doubles every 15 years on average. One measure of the library crisis is the stunted growth of library collections. They matched the output of science until World War II. Since then, research output increased 8 times, while library collections increased only 4 times.

Loopholes in indirect cost regulations that weaken the effectiveness of the unique provision for collections should be closed.

They dilute support for library collections with allocations for labor and benefits, administrative and general expense, operation and maintenance, and depreciation and use allowances. Let other programs support costs external to collection development: The huge administrative portion of indirect costs should cover administrative and general expense of libraries. The Library Services and Construction Act provides for buildings which, by the way, are often assigned to non-library offices and other uses. The Higher Education Act Title II-A (library technology) provides grants for computer systems.

Finally, before indirect costs can be reformed, the science policy community must engage the topic of information resources as it did immediately following Sputnik. The Achilles' Heel of science policy is the naive and romantic notion that researchers can play the budget game against libraries and, having won the money, never fail in the laboratory. The 1994-96 statistics of the Association of Research Libraries show 17 universities cutting their libraries' money. For their own sake, researchers need to be formal advocates for excellence, willing to criticize the obvious bewilderment about library usage — or is it guile? — in the policy dealing with library overhead. The Federal government has no policy on information, a status confirmed again and again through Congressional documents asserting that information is a vital national asset. It is time for reform.  

Albert Henderson provides consulting services to publishers. He also edits Publishing Research Quarterly.

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