- [13] Simmons, G.F., Calculus Germs: Brief Lives and Memorable Mathematics, MAA, Washington, DC, 2007.
- [14] http://www.britannica.com/EBchecked/topic/65749/binomial-theorem.
- [15] http://en.wikipedia.org/wiki/Polar\_coordinate\_system.
- [16] http://en.wikipedia.org/wiki/Bernoulli\_number.

## **Biographical Sketch**

Lloyd Moyo received his B.Ed. (Science) in 1992 from the University of Malawi in Southern Africa. He received his M.Sc. in Mathematics from the University of Sussex, U.K. in 1996 and his Ph.D. in Mathematics from New Mexico State University in 2006. He joined Henderson State University in fall 2012. He is a member of the American Mathematical Society, the Mathematical Association of America, Arkansas Academy of Science, and the International Mathematical Union.

# Library Funding at Colleges and Universities in the United States

# David Sesser Collections Librarian

In an era of flat or reduced budgets, libraries at institutions of higher education across the country struggle to continue to offer a quality level of service to their patrons while the prices of materials continue to increase. To meet the needs of students, faculty, researchers, and other stakeholders, libraries are finding creative solutions to access the materials that are critical to colleges and universities. This paper examines the ways that libraries are trying to solve this funding problem and how they respond to budget cuts.

### Library Funding at Colleges and Universities in the United States

With increasing prices for electronic materials required by faculty and students, college and university libraries around the world are struggling to meet these growing demands. Using a critical eye on current holdings and exploring ways to save money when purchasing new materials, these libraries can continue to offer these necessary resources.

#### Literature Review

The study of budget cuts on libraries at an institution of higher education is limited. Often it is included as an aside in stories that focus on other cuts at institutions. Other publications focus on the impact of cuts at public libraries rather than academic institutions. One such article is Kelly (2011), where the author laments the status of library budgets, writing "examining *Library Journal*'s annual budget survey is like scanning a battlefield: there are bodies everywhere, the smoke and dust are blinding."

Some of the best resources on the status of library funding come from the American Library Association's *State of America's Libraries* (2011). Other publications include Lyall and Sell's (2006) impact of cuts to public higher education and in particular the impact it has had on libraries.

With such a wide variety of topics that are directly related to academic library finance, it is difficult for one publication to cover all aspects of the subject. Thus a single reference has not yet been published that does that.

#### Discussion

The impact of budgets on libraries and their collections is not a new topic in the field of higher education administration. In 1908, the American Library Association received a report at its annual conference from librarians across the country that claimed that "the question which seemed uppermost was that of the book fund—not only their size but apportionment." But while this question is important, current library faculty and university administrators seem to differ on the total amount of support that institutions should provide for library resources. The Association of College and Research Libraries (1986) calls for six percent of the overall budget of an institution to support library resources. This six percent rule can make it difficult for colleges that experience financially difficult periods. Stanford University suffered earthquake damage to its campus in 1989, which led to major structural problems at the library and other campus buildings. The library received cuts from 10 to 20 percent over a two-year period to pay for the necessary repairs and upgrades to the facilities.

Cuts to library budgets are only part of the problem when institutions are struggling to offer resources to their patrons. The prices charged by some publishers and databases can be difficult to pay. During the 1990s, more journals and other materials began to become available full-text through online databases. This was a shift from earlier electronic resources which typically only contained citation information. With this new wealth of knowledge at the fingertips of researchers, publishers began to raise the prices of their products. Librarians began to work together to obtain the best possible pricing on these materials.

But not all libraries have the ability to work together to obtain preferential pricing, and many have seen their budgets cut over the years while at the same time prices continue to rise. In 2009, South Carolina cut 90% of the funding for the statewide consortium of academic libraries, which in turn led to major cuts in electronic resources and book delivery. Many other cuts occurred in the aftermath of the recession that began in 2008. In 2009, major research universities across the country began to pass budget cuts on to their libraries, including \$2.6 million from the University of Florida Libraries, \$2.3 million at Cornell University, and \$837,000 at Emory University.

Cuts like these can lead to a variety of solutions at libraries. In 2000, The Washington State University Libraries absorbed a 3% budget cut while keeping all branches and subject libraries open. Originally, the Agricultural Sciences, Education, and Architecture Libraries were scheduled for closure but the outcry from the campus community led to readjusted priorities. These changes included "eliminating some positions, abolishing a vacant associate director position, some reduction in wages due to merging some units, and trimming operating expenses." These changes were welcomed by the campus community, but worries about a reduction in the quality of service persisted.

College and university libraries can respond in a variety of ways to meet the challenges of budget cuts. One of the first ways that libraries can begin to work with a smaller budget is through reallocation. Many libraries rely on librarians to either work with teaching faculty to select materials to support academic programs or for that librarian to work alone to select materials. In response to these purchasing systems, many libraries now also utilize patron driven acquisitions. By allowing students and faculty to determine what materials they want to see in the collection, the library can more effectively spend its limited resources. Faculty can also play an important role when libraries work to understand usage statistics for materials

already held by the institution. The purchase of electronic databases and journals is often not a one-time expenditure but rather an ongoing annual cost. Cuts must be made to these collections and librarians who work closely with teaching faculty to determine what cuts are best for the institution will be more successful when making budget adjustments. As Trail (2013) points out, "a strategic combination of hard data leavened with a measure of sympathy and patience on all sides will frequently lead to good outcomes in adjudicating limited resources."

Some libraries work to ensure that their budgets are not cut when their parent institutions enter a financial downturn. One of the best ways to do this is to sell the library and the resources it offers patrons. This can be done in several ways. The first is to increase the number of people entering and using the library. By working with other faculty members, librarians can share the training, research materials, and other resources that the library offers. This information can then be passed on to students, who could also be required to use the library as part of their classwork. Another option for libraries is to make their resources more easily assessable to researchers. This includes the implementation of a discovery service, making searches across multiple resources seamless, or it could include offering students 24-hour access to materials and help with projects.

If libraries are not able to keep all of the money that they formerly used for operations and materials purchases, they might work to establish new funding streams. Major universities now often have a library development team, either housed in the main development office or in the library itself. These fundraising professionals work to establish relationships with donors to obtain monetary gifts or grants to support the operations of the library. Annual fundraising campaigns are another tool used by development officers. This allows the library to reach small donors who can have a major impact on the mission of the library. Some of the most interesting ways that libraries can raise money include partnerships with athletic programs. While this typically is only an option for major universities with programs that make a profit each year, it can have a major impact on a library. Ohio State University Libraries receive 25% of the net revenues collected from licensing the university trademarked logos. These are used on clothing and other items and a marked increase in sales can be seen when major athletic teams are performing well. Other libraries sell food in their facilities to help cover costs, and many also offer library research courses for credit. Students learn how to navigate library resources effectively, and the library receives part or all of the tuition and fees generated by the class.

Another funding stream that libraries can use are charges made directly to patrons. Most of the time these charges fall directly on students, but some libraries also have charges for faculty and other users. Libraries have charged for some services for decades. Interlibrary Loan fees have been common for decades in academic libraries. But these fees typically only cover the costs associated with lending a book or sending an article to a borrowing institution. Other fees focus on new and emerging technologies to help libraries make resources more accessible for patrons. Public institutions in Florida receive funding from the state to purchase technology equipment, but with growing enrollments and changes in technology, libraries are struggling to keep up with the necessary purchases. The state approved the collection of a university technology fee that began in 2009. Libraries have the opportunity to apply for funding from this fee for technology projects, allowing them to both keep up with changes in technology and use their dedicated library budgets for other projects.

Other libraries use fines levied on patrons who keep materials past the due date, charging a rate based on the number and type of items and the number of days that the items

are overdue. But with multiple types of materials circulating in modern academic libraries, this option is being phased out at many institutions. Institutions in other countries have raised fees to utilize resources, most notably at public libraries. This has often been followed by a significant decrease in both circulation and fees.

#### **Conclusions**

Academic libraries will both continue to struggle with fluctuating budgets and try to meet the demands placed on them by all stakeholders with a multitude of solutions. As each case is unique, a one size fits all solution is not possible, but institutions should learn from one another to determine the best way to make difficult cuts. The best solution to pending budget cuts is to explore all possible solutions and determine which will have the appropriate result while impacting the fewest number of resources and ultimately, patrons.

#### References

- American Libraries. (2009). S.C. schools may lose shared databases. *American Libraries*, 40(3), 20.
- American Libraries. (1990). Stanford "repositions," library faces major cuts. *American Libraries*, 21(5), 391, 394.
- American Libraries. (2000). WSU trims budget without closing branches. *American Libraries*, 31(7), 17-18.
- American Library Association. (2011) The state of America's libraries. Retrieved April 1, 2016, from <a href="http://www.ala.org/news/files/mediapresscenter/americaslibraries/state\_of\_americas\_libraries\_report\_2011.pdf">http://www.ala.org/news/files/mediapresscenter/americaslibraries/state\_of\_americas\_libraries\_report\_2011.pdf</a>
- Association of College and Research Libraries. (1986). Standards for college libraries, 1986. *College & Research Libraries News 47* (March 1986), 199.
- Cuillier, C., & Stoffle, C. J. (2011). Finding alternative sources of revenue. *Journal of Library Administration*, 51(7/8), 777-809.
- Cunningham, N. (2011). Academic libraries move ahead with student tech fees. *Florida Libraries*, *54*(1), 4-7.
- Dewey, J. (2014). The price of patronage: the hidden cost of library fees. *American Libraries*, 45(12), 25.
- Goudy, F. Academic libraries and the six percent solution: a twenty-year financial overview. *The Journal of Academic Librarianship, 19*(4), 212-215.
- Guernsey, L. (1998). Library groups, decrying 'excessive pricing,' demand new policies on electronic journals. *The Chronicle of Higher Education*, 44(31), A33-34.
- Howard, J. (2010). Reader choice, not vendor influence, reshapes library collections. *The Chronicle of Higher Education*, November 7, 2010.
- James-Gilboe, L. (2010). Raising the library profile to fight budget challenges. *The Serials Librarian*, *59*, 360-369.
- Kelly, M. (2011). Bottoming out? *Library Journal*, 136(1), 28-31.

- Kniffel, L. (2009). Cuts, freezes widespread in academic libraries. *American Libraries*, 40(6/7), 28-29.
- Lyall, K.C., &Sell, K.R. (2006). The de facto privatization of American public higher education. *Change*, 38(1), 6-13.
- Trail, M. (2013). Evolving with the faculty to face library budget cuts. *The Serials Librarian*, 65, 213-220.
- Walsh, W., &Walsh, F. (2009). An examination of lending fees at 30 academic libraries in the southeast. *Journal of Interlibrary Loan, Document Delivery & Electronic Reserve, 19*, 195-204.
- Werking, R. H. (1988). Allocating the academic library's book budget: historical perspectives and current reflections. *The Journal of Academic Librarianship*, 14(3), 140-144.
- Wilson, D. (2014). Why can't they keep the book longer and do we really need to charge fines? Assessing circulation policies at the Harold B. Lee Library: a case study. *Journal of Access Services*, 11(3), 135-149.

### **Biographical Sketch**

David Sesser is the Collections Librarian at Huie Library, Henderson State University. He also serves as the Director of Museum Studies for HSU. His research focuses on the history of higher education in Arkansas, and he is the author of *The School with a Heart: Henderson State University at 125*. Sesser holds an undergraduate degree in history and a graduate degree in social science from Henderson, a graduate degree in public history from UALR, and a master of library and information science from the University of Southern Mississippi.