

Purdue University
Purdue e-Pubs

Charleston Library Conference

Developing a Weighted Collection Development Allocation Formula

Jeff Bailey
Arkansas State University, Jonesboro, jbailey@astate.edu

Linda Creibaum
Arkansas State University, Jonesboro, lcreibaum@astate.edu

Star Holloway
Arkansas State University, Jonesboro, sholloway@astate.edu

Follow this and additional works at: <https://docs.lib.purdue.edu/charleston>



Part of the [Collection Development and Management Commons](#)

An indexed, print copy of the Proceedings is also available for purchase at:

<http://www.thepress.purdue.edu/series/charleston>.

You may also be interested in the new series, Charleston Insights in Library, Archival, and Information Sciences. Find out more at: <http://www.thepress.purdue.edu/series/charleston-insights-library-archival-and-information-sciences>.

Jeff Bailey, Linda Creibaum, and Star Holloway, "Developing a Weighted Collection Development Allocation Formula" (2017). *Proceedings of the Charleston Library Conference*.
<http://dx.doi.org/10.5703/1288284316658>

This document has been made available through Purdue e-Pubs, a service of the Purdue University Libraries. Please contact epubs@purdue.edu for additional information.

Developing a Weighted Collection Development Allocation Formula

Jeff Bailey, Arkansas State University, Jonesboro

Linda Creibaum, Arkansas State University, Jonesboro

Star Holloway, Arkansas State University, Jonesboro

Abstract

In this preconference workshop Bailey, Creibaum, and Holloway presented detailed instructions on how to create a spreadsheet-based library collection development allocation formula, one option to manage a library's collection development budget. The presenters demonstrated and led participants through the process of creating customizable Excel-based formulas that can easily be modified to utilize the criteria relevant to a specific library and institution. The primary element in the success of such a formula is the use of weights applied to each factor contained in the spreadsheet. Potential factors include the number of students graduating from each degree program, total faculty per department, departmental credit hour production, the number of courses offered, and the average costs of books and journals in a discipline. By carefully assigning weights to each factor, the output of the formula results in an equitable allocation of funds to each subject area.

Introduction

Jeff Bailey, Linda Creibaum, and Star Holloway began by briefly relaying the history, development, and use of a spreadsheet-based allocation formula on the main campus of Arkansas State University. This was followed by a short discussion of how the basic formula may be individualized in a variety of library settings and types.

Attendees were introduced to the resources and activities needed to enable each to build an allocation formula to help optimize the distribution of their library's financial resources. Discussion included the methods by which the formula can be modified as conditions warrant and campus circumstances change. During the session, attendees initiated a dynamic discussion concerning ways to communicate allocation information to constituents within the library and throughout campus.

During the workshop the presenters stressed the importance of maintaining comprehensive retrievable documentation for every decision and procedure in order to ensure the consistent use of data from one year to the next.

Developing a Library Allocation Formula

Background

In 1997 Arkansas State University was in the process of adding its first doctoral programs, and collection development funds needed to be allocated to support these new degree programs. At that time, the Dean B. Ellis Library used no formula of any kind to provide balanced allocations to the various academic departments for selection of library materials. Collection development budgets had been flat for several years, and departmental allocations had become unbalanced to the point that one department out of approximately 30 accounted for almost 20% of all library collection expenditures. Funds had not been reallocated or redistributed in many years, and allocations had grown only through inflation. This situation had been allowed to continue for a number of years, and as a result the library had no means to purchase materials in support of new programs, to make funds distributions more equitable, or to compensate for the inflationary increases in then-current subscription prices.

New library leadership organized a task force that started the process of looking for a more balanced

way to allocate funds and manage financial resources. Librarians searched professional literature for methods of making library fund allocations, including the use of a formula, and ultimately decided to develop a formula for the Arkansas State University Library that was based on one used in the 1970s by Colorado State University and described in SPEC Kit #36.

Gathering Data

Before selecting formula factors, it is necessary to gather the relevant data needed to make informed decisions. The presenters led a brainstorming session in which workshop participants suggested possible factors for inclusion in an allocation formula. Suggestions included:

- Cost of materials
- Circulation of materials by subject area
- Number of majors offered
- Credit hours per discipline
- Prices of books and journals
- Graduation numbers
- ILL requests
- External research funding
- New programs (retrospective)
- COUNTER-compliant data
- Program accreditation requirements
- Relation of program(s) to mission of college
- Number of students in each program
- Number of faculty/researchers per program
- Enrollment trends (increases/decreases)
- Level of program (undergraduate, graduate, doctoral)
- Responsiveness of faculty
- Some programs may be served by bigger packages—databases
- Maintenance of effort requirements for Collection Development grants

Bailey, Creibaum, and Holloway then led a brief exercise in evaluating and refining the list of suggestions from the brainstorming session to arrive at a list of the most viable factors for an individual campus.

It was noted that some factors might be viable at one institution but not at another, and that some brainstorming suggestions might not be appropriate to the formula at all. Duplicates, such as “cost of materials” and “prices of books and journals,” were consolidated and suggestions that were not viable for a formula, such as the presence of influential faculty, were eliminated. Workshop participants were reminded that some data may be obtainable at some institutions but not at others. When it is time to begin creating a formula, it is important to gather samples of available data.

Factor Selection

Factor selection for a library’s formula should be finalized only after careful examination of each possibility for completeness of data and relevance to the institution’s collection development goals. Presenters emphasized that documentation should be retained for all factors considered for inclusion in the formula, including the specific reason(s) for those not selected. There is a strong possibility that at least some of this information will be needed in the future when considering changes to the formula.

Participants were advised that factors may need to be removed or modified in the future as circumstances change. To illustrate this point the presenters discussed a modification they made to their library’s allocation formula several years ago due to a new area of emphasis on their campus. However, they were forced to remove that factor from the formula two years later because they were no longer able to obtain that data, and because the factor had decreased in relevance to the campus administration in the intervening years.

Weights

Weighting is the assigning of values to indicate the desired importance or impact of each factor in the formula relative to the other factors. In making an allocation formula there are several considerations to keep in mind when determining the weights. These considerations are particular to each individual institution, and may include input from a Library Committee, Faculty Senate, advisory group, or other constituencies.

A library may choose to subdivide factors before assigning weights. An example of this would be subdividing degrees awarded into undergraduate and graduate, and assigning a different weighting

factor to each. Attendees were advised to do several test runs, as minor changes in weights or factors can sometimes yield unexpected (and unbalanced) results! When developing a formula one should be prepared to make changes throughout the process until planners have agreed upon the final version of the formula and have made the first allocations.

Attendee discussion arose regarding the level to which allocations had become outdated or inequitable at some institutions, and how difficult it may be in those libraries to restore balance and equity to their subject allotments. The presenters agreed that while drastically changing allocations can be very difficult, they and others have been successful in doing so on their campuses using the data within the formula and their results as justification.

Options

Formulas may be utilized to allocate funds separately for print books, e-books, journals, online resources, or any additional budgets a library may have, or as a pool for a combination of multiple formats. Some librarians have indicated they have had difficulty moving funds from one formula to another when more than one is used, for example, moving funds from a print journals fund into an online journals fund managed with a separate formula. Libraries may choose to allocate all of their available funds or keep a percentage or flat amount back for in-house use in accordance with local campus culture and practices. The Arkansas State University Library retains a sizable portion of its funding to pay for comprehensive resources, backfile purchases, and startup funds for new degrees. The presenters recommended that other libraries use a similar approach.

There are sometimes valid reasons for libraries to make adjustments to individual formula-indicated amounts, including not wanting to reduce departments' existing allocations, choosing to reduce or not increase a department's previously funded amount because it has a history of insufficiently spending previous allocations, or adding an amount to help fund the startup costs of a new program. Additionally, special entities or major campus initiatives might indicate a department or program should be funded at a level higher than the amount indicated by the formula.

Communicating Allocation Information

Several participants asked how departmental collection development allocation information is

communicated at Arkansas State University and elsewhere. A-State utilizes an individualized allocation letter that is emailed early in the fall semester to the appropriate chairs, deans, and faculty liaisons.

Each letter is customized with allocation data for that department, including the total allocation, the amount of the allocation already encumbered for ongoing subscriptions and standing orders, and the dollar amount of the allocation that is unencumbered and can be used for firm orders or additional subscriptions. Allocation letters also include deadlines for requesting journal subscription changes and for encumbering funds in accordance with the university's annual budget cycle. Links to library journal holdings for relevant department subject areas are also included.

Reminder e-mail notices are sent twice during each fiscal year, and additional information is sent to liaisons, chairs, and deans upon request.

Running the Formula

Attendees were then led through an interactive demonstration of a scaled-down version of the actual allocation formula used at Arkansas State University. During this part of the workshop, the presenters explained various aspects of the formula, demonstrated the relationship of the weights for each factor to the final output, and showed how relatively small changes to weights can make significant changes to departmental funding outcomes. This was accomplished by selectively changing data in the sample formula and engaging attendees in a discussion of how each change affected the output differently because of the weight assigned to that particular factor.

Attendees were provided means to access the session's PowerPoint presentation and a link to a working copy of the formula identical to the one used during the session demonstration, as well as a sample version of the letter used to communicate allocation information to departments at Arkansas State University.

Closing Comments

Bailey, Creibaum, and Holloway closed by restating that if a library makes the decision to develop and use a collection development allocation formula, it is vitally important to thoroughly document the entire process. This includes documenting why factors were

and were not used and how and where the formula data were gathered. This information will almost certainly be needed for future runs of the formula, whether a library is rerunning an unchanged formula with updated information or has decided to modify the factors or the assigned weights.

It is strongly recommended that all formula documentation be stored on a shared drive or other

shared location, so that consistent running of the formula can continue in the future, even when there is turnover in relevant personnel lines.

While changes to a formula should be kept to a minimum for the sake of consistency, it is important to think of the formula as a living document that will need to be modified from time to time as circumstances change at a library and/or institution.

Reference

Association of Research Libraries (ARL). (1977). *The allocation of materials funds in academic libraries*, SPEC Kit 36. Washington, DC: ARL.