

---

# Statistics That Matter

By Timothy D. Lincoln, Austin Presbyterian Theological Seminary

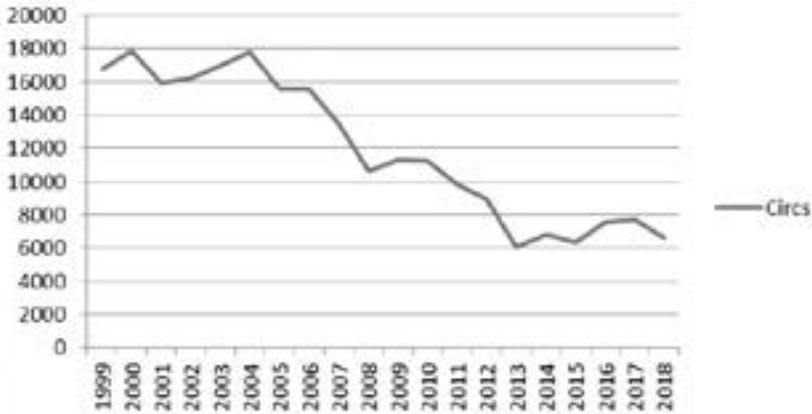
**ABSTRACT** By disaggregating count data and creating questions about the quality of library services, theological librarians can create statistics that are useful for management, improvement of services, and demonstrating the value of the library in the educational enterprise.

This workshop addresses the need for librarians to collect and use statistics that matter. The life experiences that qualify me to lead this workshop include being a seminary library director and veteran writer of assessment reports along with (negatively) the fact that I was not a math major in college. Using librarian expertise and Excel, you can create statistics to help you manage your library better and communicate its value to constituents. In our time together, I will address three main areas: [1] sifting aggregate data to compute more useful granular-level statistics, [2] how to create home-grown questions about library quality, and [3] a cautionary reminder that data require interpretation to matter.

## COMPUTING GRANULAR STATISTICS FROM AGGREGATE DATA

Librarians have a lot of data in hand that is counted more or less automatically. Sometimes these data need further analysis to be helpful. Consider book circulation data. In aggregate, the number of circulations for a given seminary library may be declining. A chart might look like this:

**My Library: Historical Data**

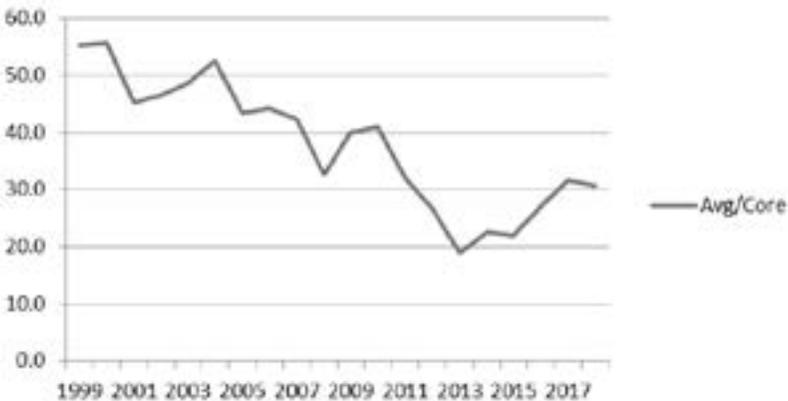


**SOURCE:** Author. Actual circulation counts.

By and large, the chart shows a story of declining book usage. On an annual basis, circulations have fallen from approximately 18,000 per year to fewer than 8,000.

These same data tell a different story when you make some assumptions and do simple math. By defining *core users* as the *total number of full-time faculty plus headcount total of enrolled students* and doing division, these data are transformed into a computed statistic: the average number of book circulations per core user per year. The chart for this statistic looks like this:

**Average Circulations/Core User**

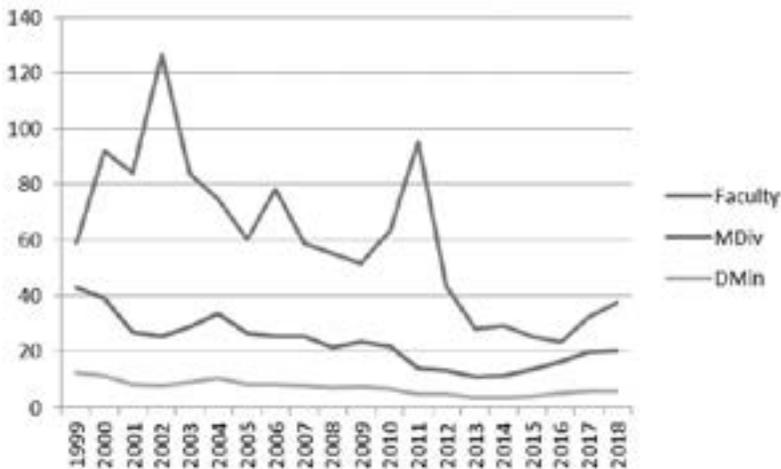


**SOURCE:** Author. Computed from circulation counts.

The second chart also shows a decline in book circulations, but notice that the average hits bottom in 2013 (just under 20 circulations per core user) and then goes up by ten circulations. Part of the reason that this second chart does not simply echo the first is that the number of students (the largest component of core users) has declined over time at my school rather dramatically. My point is this: that the computed statistic is more meaningful for you as a manager and for your faculty.

An even more granular analysis of book circulation breaks down data by patron type. Librarians typically can get the gross numbers from the library management system. By using division, you might see a pattern of average circulations by user type that looks like this:

### Average Circulations per Year by Patron Type



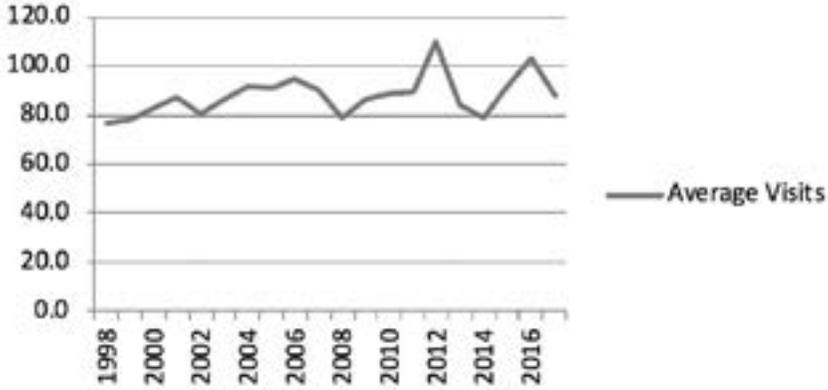
**SOURCE:** Author. Hypothetical data.

Once again, my point is that the computed statistic is more meaningful than the gross number is. In this case, it may lead to a lively discussion about why DMin students use so many fewer books than MDiv students do, or perhaps a discussion about why faculty usage of books has dropped dramatically since 2011.

A second set of data that is easily obtainable is simple counts of foot traffic (gate counts). It's one thing to know how many persons entered the library; it's something else to determine how this relates to the core users of a library. In the case of my own library, total gate count

has declined over time. By doing some division, however, a pattern is revealed about average visits per core user per year:

### Average Visits per Core User



**SOURCE:** Author. Computed from actual gate counts.

The computed statistic shows that the average number of visits per core user has not declined over time—despite the existence of the Internet and the advent of electronic reserves. So, in this case arithmetic helps demonstrate that “library as place” continues to matter.

### COLLECTING USEFUL DATA ABOUT LIBRARY QUALITY

Librarians often want to know about the quality of library services, not simply report activity counts or typical user behavior. The standard tool used in many theological schools, the Graduating Student Questionnaire, asks only two questions about library services:

- Access to library services
- Quality of library collections

Responses to these general questions don’t give you much to go on, especially if graduates are not satisfied. For instance, one would wonder which library services were not accessible, and why. Was the online catalog down? Were library hours inconvenient? To have more granular data about the adequacy of library collections, services, and spaces, you need to ask more detailed questions. As my library school professors used to say: This isn’t rocket science, it’s library science.

The table below suggests some questions suitable for faculty. Respondents indicate their opinions using a Likkert scale (1: strongly disagree or strongly dissatisfied; 3: neutral; 5: strongly agree or strongly satisfied). It is a good practice to ask the same set of questions over time.

#### Pertinent Questions to Ask Faculty

Does the library hold suitable books for use in the courses you teach?	Does the library hold suitable books for your research?
Does the library provide access to suitable full-text databases for use in the courses you teach?	Does the library provide access to suitable full-text databases for your research?
How satisfied are you with user training that the library provides to students?	How satisfied are you with the research assistance that staff provide you for your scholarship?
How satisfied are you with staff responsiveness to requests for book purchases?	How satisfied are you with support for the learning management system?

For several years, I have asked faculty questions like those above once a year at a faculty meeting. I distribute the questions on paper before a scheduled break. I literally stand in the doorway and collect completed questionnaires. In my context, this approach provides me with more data than other more sophisticated methods do (e.g., SurveyMonkey) and saves everyone's time. I discuss findings with my staff.

I routinely ask a different set of questions to students in a sampling of master's-level courses and from students in all Doctor of Ministry classes. When it is time to write reports to accreditation bodies, I have in hand years of data to make the case that our library is good because its users say so. Behold, I show you a mystery: Collecting data is helpful!

#### CONCLUSION: PROPER INTERPRETATION

I conclude by reminding everyone that data need interpretation.

**This is not a sentence.**

**SOURCE OF** highly unoriginal image: Author. With apologies to René Magritte.

In the science fiction classic *The Hitchhiker's Guide to the Galaxy* by Douglas Adams, the universe's most sophisticated computer concludes that the answer to the ultimate meaning of life, the universe, and everything is 42. One then needs to think long and hard about the meaning of 42.

Collecting data like the examples used in this workshop (e.g., average number of visits to the library per core user) provides what lawyers still quaintly call "facts." These facts need to be thought about in context. Given the way that professors at your school teach, it may be quite reasonable that typical book usage by students is low. In another context, low book usage would be a warning sign that the library isn't collecting the titles pertinent to the curriculum. By itself, one statistic, or even a ten-year-long set of data, is not self-explanatory.

Having said that, however, I would rather go to the next budget meeting, library committee meeting, and my annual review armed with as many pertinent statistics as possible.