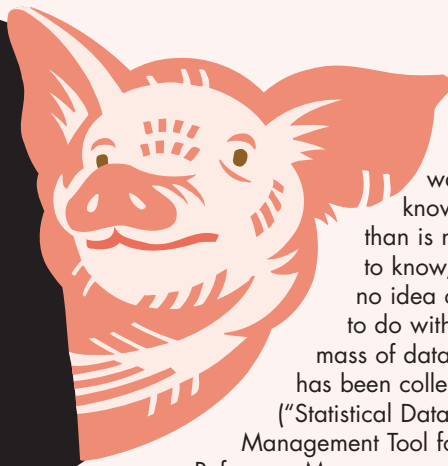


Weighing the Pig

The Mishandling of Reference Statistics

by Mary Rumsey



Weighing the pig doesn't fatten the pig.—Rural wisdom

Members of some occupations, like attorneys and doctors, sometimes feel they have to justify their high incomes. Others, like teachers and professors, may feel compelled to justify their summers "off." Librarians don't get summers off, and we sure aren't known for our high salaries. But since becoming a librarian three years ago, I've been struck by how much energy librarians spend justifying our existence.

Some library managers like to use statistics as part of that justification. Unfortunately, if a library approaches statistics foolishly, it can waste a lot of time and money. It can also tank employee morale faster than a round of salary cuts.

I'm not talking about statistics like "how many inter-library loan requests did we handle?" or "how many times did patrons search our online catalog?" These have a pre-existing purpose (like ILL budgeting) or can be tracked easily by computers (e.g., hours of WESTLAW or LEXIS usage).

Also, some libraries must provide statistics to accrediting institutions, like the Association of Research Libraries. That's unavoidable.

What libraries should avoid is the mishandling of statistics for more nebulous purposes: "to identify the main things we do at the reference desk" ... "to show how busy we are" ... "to get a better handle on what we're doing" ... "to see where we could make some improvements." Data collection for policy analysis and policy-making requires more thought.

Bruce Morton, in a useful article, cautioned against "statistical megalomania—[the] desire to collect every statistic possible, to

want to know more than is needed to know, and no idea of what to do with the mass of data that has been collected."

("Statistical Data as a Management Tool for Reference Managers, or Roulette by the Numbers," 19 *Reference Librarian* 87, 90 [1988])

With that caution in mind, let's look at how not to collect statistics.

Don't collect statistics just because "it's what managers do." Management must be willing to use the data before it's worth collecting. Peter Hernon, who wrote a fine book on library management and statistics, emphasizes that management must be committed to making changes as a result of research. (*Statistics for Library Decision-Making: A Handbook* [1989] 21)

Unfortunately, some managers embark on statistics collection without that willingness to change. For example, libraries often chart reference traffic "to see how many library personnel are needed" at various times. This makes sense only if the library can really add or subtract a person. In other words, don't survey your low

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periods unless you have the political will to cut back on reference hours. And don't survey your high periods unless you have the staff to add another person. Most law libraries aren't choosing between having four or five librarians on duty. They're choosing between zero or one.

In a similar pointless vein, one library required its reference librarians to mark down what source they used to answer questions: print materials, Internet, online catalogs, personal knowledge, or WESTLAW/LEXIS. The law school had no plan to discontinue any of these sources, and the information was too general for collection development use.

Hernon recommends asking "What are the findings good for? What decision in the real world do the findings impact? What insights will the study provide, and can the study be dismissed with the comment 'so what?'" (Hernon, p. 44) Asking these questions of your library's data collection plan can keep the focus on feeding the pig, not weighing it.

Get your stories straight

If your library decides to keep statistics, and if more than one person will have to record them, make sure everyone agrees on how to do it. Otherwise, you might as well just make up your data.

Don't assume that your interpretation of the data-collection form's categories matches others'. After a couple of years of hash-marking, one library's reference staff took a survey about how they would record 20 typical reference interactions. None of the five staff members responded the same, even on a seemingly clear division such as that between reference and directional questions. Worse, a couple of librarians volunteered that on another day, their answers might have differed. Some chose to record every question, such as a phone call to reserve the computer labs. Others didn't record that phone call or another one from a caller seeking a particular librarian. (I've heard of one librarian who protested against the absurdity of statistics-gathering by recording every question, even "How ya doin'?")

Another fundamental disagreement among the staff covered an entire category.

The data form included a "source" question to identify how the reference question was answered. Possibilities included paper [sources], personal knowledge, Internet, LEXIS/WESTLAW, and the online catalog. The responses to the sample questions showed that some librarians interpreted the question to mean "what source did the reference librarian use to answer the question?" while others thought it meant "in what source was the patron's answer found?" Thus, one reference librarian who knew of some good treatises on the U.C.C. marked that she had answered a request for treatise recommendations from her own

knowledge. A second librarian, who also knew the names of the U.C.C. treatises, marked “print” because the patron found the answer (to his substantive question) in a print source.

One librarian added new categories to the data form by hand—a sign that she had never bought into the original form. While no method of data collection will be perfect with humans involved, it makes sense to ensure that all the data collectors have the same understanding of their task.

Here’s a quick list of other ways not to collect statistics:

To infinity (“and beyond!” as Buzz Lightyear would say). Even if you need a long collection period for a baseline, set an end date and stick to it. This will make the collection policy much easier to defend—and easier for the reference staff to tolerate.

Continuously instead of randomly. Numerous studies have shown that random collection works as well as continuous collection, except for gathering a baseline. (See, e.g., Michael Halperin, “Reference Question Sampling,” *Reference Quarterly* 14 [Fall 1974]; John M. Maxstadt, “A New Approach to Reference Statistics,” *College and Research Libraries News* 49 [Feb. 1988]; Gwenn Lochsted and Donna H. Lehman, “A Correlation Method for Collecting Reference Statistics,” *College & Research Libraries* [Jan. 1999] 45, 50–51.) People who fear math and statistics sometimes struggle with the concept of sampling, but

there’s no reason to make others suffer for their fears.

Under false pretences or a misapprehension. One library director told her reference staff that the AALS and the ABA required constant reference statistics-keeping. Since one of the reference librarians worked part-time at a different law school library using random sampling, this rationale seemed—at best—flimsy.

In useless formats. For example, a library interested in the number of patrons using the reference desk between 9 and 10 p.m. should have made sure its database would allow queries that excluded usage between 9 and 10 a.m. When that library’s Access database couldn’t isolate the 9–10 p.m. usage, the staff had to tabulate the yearly totals by hand. If you don’t figure out how you’re going to process the data before you start collecting it, you’re bound to hit some snags. At best, you’ll waste time addressing the problems. At worst, you’ll wind up throwing away your data.

Without tracking variables that will affect results. Changing to a new online catalog, for example, will make questions spike as patrons first encounter the unfamiliar interface. Someone should note events (e.g., major network or ISP problems) that could skew statistics.

Without keeping data collection forms consistent over time. While it may be tempting to tinker

with an imperfect form (and no form is perfect), tinkering will prevent valid comparisons. A better approach is to test-drive a form for a few weeks, modify it based on experience, and then adopt it for the entire collection period.

When perceptions and informal counting would be sufficient.

If the reference staff works together at all, the staff members often address issues based on their own observations. For example, if they notice enough “How do I...?” questions, they write a handout or offer a training session. If they get a lot of “Where is...?” questions, they suggest a new sign or different shelving arrangement.

Though creative library managers can probably think of other ways to wreak havoc with statistics-keeping, avoiding the pitfalls above is a good start. For more help, managers can also turn to books and articles. In addition to Peter Herson’s book, another good guide on this topic is *Applying Research to Practice: How to Use Data Collection and Research to Improve Library Management Decision Making* (Leigh Stewart Estabrook, ed. 1992). There’s no need to reinvent the wheel—and no need to reinvent the whalebone corset, either.

Mary Rumsey (rumse006@tc.umn.edu) is Foreign, Comparative, & International Law Librarian at the University of Minnesota Law Library in Minneapolis.