

# Subscription Statistics for Collection and Budget Decisions

by

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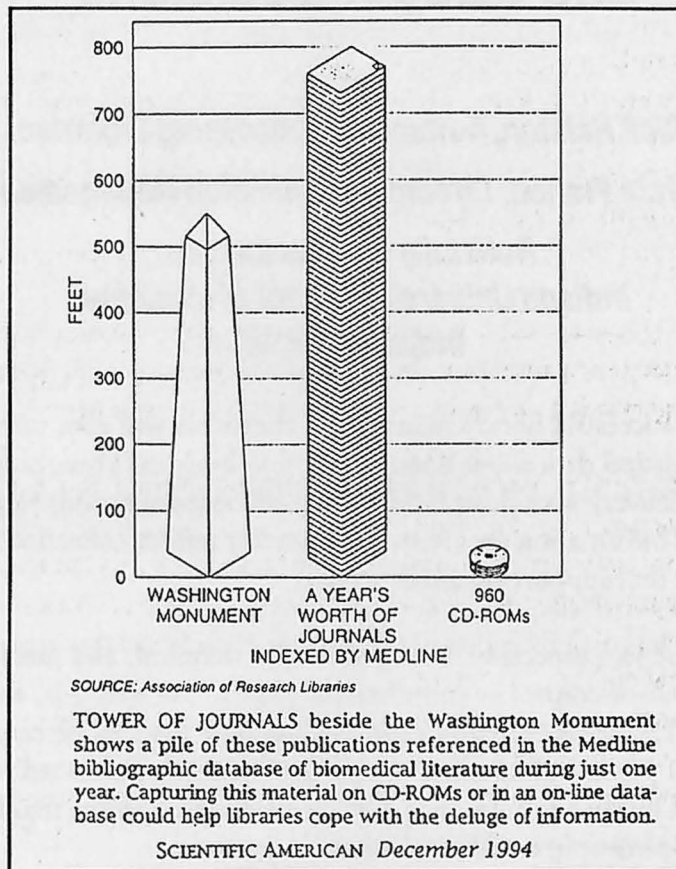
The most successful library managers in the future will plan using solid and consistent statistical data about library collection budgets. These planners will blend article delivery with print holdings for efficient collections in a competitive market of information providers and annually refresh collections with current topics that support customer service.

Library budgets, especially for the scientific, technical, and medical (STM) journals, are out-of-control in an inflationary spiral. For example, the Ruth Lilly Medical Library is currently experiencing more than 20 percent annual inflation in 40 percent of its titles, mainly from journals published in Europe. The Medical Library has more than 1,800 active subscriptions that have escalated 300 percent in cost over the last ten years.

Skyward costs are driven by the dollar's reduced buying power, demands for more information, publisher profit motives, publication of new journals, page increases per journal, paper and printing costs, and new subject areas. A new format, interactive digital media (IDM), has high growth rates predicted through 1999 for two of its big segments, consumer on-line and packaged multimedia software (i.e. CD-ROM.)

A cost-complexity for collection managers is electronic versions of familiar print titles such as *Science Citation Index (SCI)* and *Books in Print (BIP)*. To decide whether to take a print and/or electronic version of a title, the two formats should be compared using data included in the print and electronic packages, equipment and maintenance support, user needs and training, and value-added services of the electronic format such as simultaneous searching of several data elements and keyword searching. Libraries often select both formats, usually price-packaged together by the publisher. There can be a high

level of user satisfaction associated with electronic indexes accessible at multiple workstations that avoid people queuing at one computer.



Indexes to monumental amounts of data, as in *SCI*, *BIP*, and *Medline* (the major index to current medical literature), are well suited for electronic access. However, Marcia Tuttle, editor of *Newsletter on Serials Pricing Issues*, cautions librarians and publishers concerning another pricing complexity. Usually free for the first year, publishers offer CD-ROM annual cumulations of print journals. Tuttle warns about CD's of print volumes.

If the disc contained supplementary materials to the print issues, that disc would have added value. But most do not supplement print, they only make it available in a different format. Yes, CD's are very searchable, but how often does one search a single year of one title any more?<sup>1</sup>

Jean-Claude Guedon responded to a publisher who was basing journal costs

on the value of the information to the user. Guedon replies,

There is something very disturbing in the thought that the ability to diffuse information in several ways, some being faster than others, is used to justify various pricing policies that have nothing to do with production costs, but rather have to do with profit maximizing.<sup>2</sup>

On journal pricing tied to user demand, which a publisher termed, "psychology of demand," Guedon says,

In the case of research results produced from public money, it is clear that the "psychology of demand" is irrelevant and knowledge of what users want is very simple: they want access to all the published research available on their topic...There is no reason why customers should finance their [publishers] attempt to create new markets or new niches.<sup>3</sup>

There is nothing new about publishers creating "sister" journals of popular titles. For example, *Nature* is a heavily used journal at the Medical Library and in the 1994/95 fiscal year, there were 422 reshelvings of its last two years of publication. When *Nature* came out with *Nature Medicine*, the Medical Library subscribed immediately, and canceled other subscriptions of equal dollar amount based on their low usage/cost ratio. What is different, is that within two years the Medical Library can determine if both sister titles have acceptable use in relation to their cost. Cancellation might occur if the routine monitoring of the library's Usage/Cost Relational Index Report alerts the library's collection manager that this new venture by a publisher has not met customer needs.

### **Libraries Need Their Own Reports**

Most libraries retain a subscription vendor that consolidates invoices and supplies crucial managerial reports on subscription costs and publisher trends. Subscription vendor information should be balanced with librarian-generated reports that are specific to their library.

While publisher products and pricing is being debated, librarians can prepare. Library planners can lay the structure to better measure and evaluate response to increased journal costs with reports on their own collections.

Librarians must be prepared to balance collections among 1) print volumes in the library, 2) electronic access with added services of table-of-contents and keyword searching, 3) article delivery, and 4) shared resources among consortia. Libraries are successfully seeking and trying new ways to broaden their collec-

tions using "purchase on demand," fax, and overnight delivery. In almost every case, print journals will need to be identified for cancellation — but which journals to cut?

Many librarians struggle with users and faculty over which subscriptions to chop from ongoing budgets and how much money to roll back into select subject areas. The Medical Library found that there are collection management tools easier to implement than dealing with users who are trying to out-guess the librarian. User comments are only one element to consider in making cancellation decisions when empowered with collection usage facts. What can be more convincing than journal usage/cost statistics, especially using two years or more of circulation or reshelving data?

### **Use Study Methodology**

The Ruth Lilly Medical Library has open stacks and does not circulate journals. There are signs asking users not to reshelve material. From 1991-1993, the library measured use by making colored pencil marks on journal issues and bound journal volumes each time they were shelved. At the end of each fiscal year, library staff went into the stacks and counted all the marks on all the current journals. Each year, a different color was used in order to determine the use for a particular year. In the beginning, the list of journals with tally marks was analyzed to aid in making cancellation decisions. Later, the use for each title was tallied and entered into a spreadsheet which contained all of the libraries current titles and their prices. This method provided very useful information, but it was also very labor intensive. With the availability of hand held barcode scanners and desktop database management tools, it seemed sensible to try and automate the study.

First, the library purchased two portable barcode scanners which could be taken to the shelves to record use as issues were reshelved. Several different vendors were contacted for scanner information, and two vendors came to the library and demonstrated their products. Circulation staff who would be using the scanners were invited to the demonstrations and were included in the decision-making process. The scanner selected was an Intermec model 9445 visible laser diode scanner. It can store up to 4,000 barcodes and runs on a re-chargeable NiCad battery pack. Within two weeks of implementation, the staff had adjusted to the new system and felt the new process was easier than the old marking process.

Although the library places barcodes in all of its bound journal volumes, for the purposes of the use study, the shelves themselves were barcoded rather



than the issues. Shelf labels for each title were laser printed on label stock using the title file from the electronic renewal invoice provided by the library's subscription vendor. Some titles had to be abbreviated to fit on the label. The same type of adhesive barcode used for circulating books was then applied to the right of the title label. Plastic shelf label holders were then used to attach the title/barcode labels to the shelves. Data was collected by having the shelver take the hand-held scanner to the shelf along with the items to be shelved. Title labels were scanned as volumes and issues for that title were shelved. Only the current year and two preceding years of a publication were scanned because the library was primarily concerned with the use of current titles.

Once the scanner was full, about once a week, the use data was entered into a desktop computer using communications software purchased from the scanner vendor. A comma delimited file was created and loaded into a database using *Paradox* software. The database was set up using the library's renewal invoices from its subscription vendors. Fields retained for the use study were ISSN, Title, and Price. Titles obtained through sources that do not provide electronic invoices were imported from the library's bibliographic file and the prices were added manually. The database also included a barcode for each title that corresponded to the barcode on the shelf label. Barcodes were scanned into the database from the labels at the time they were created.

The Usage/Cost Relational Index Report was generated from this database to aid in making cancellation decisions. It lists ISSN, title, price, number of uses, and a gross usage/cost index number. No attempt was made to link usage/cost to index periods, so the figures do not represent a true cost per use. Rather, the index number was used only as a standard basis of comparison for titles in the collection. All titles with high index numbers were checked before they were considered for cancellation to see if there were valid reasons for the low use, such as a recent title change or a temporary suspension of publication.

The use data was also used as a basis for decisions on how thick to bind volumes of a particular title and when to pull issues for binding. Heavily used titles are bound thinner to prevent damage during photocopying and are pulled for binding more often to prevent damage and loss. The library plans to begin collecting interlibrary loan data in the near future in order to track loan use as a way of making informed journal purchases decisions, as well as to provide workload data.

## Conclusion

## Usage/Cost Relational Index

ISSN	TITLE	PRICE	USE	INDEX
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07328311	NUCLEOSIDES AND NUCLEOTIDES	\$795.00	5	159.00
00319155	PHYSICS IN MEDICINE AND BIOLOGY	\$960.00	7	137.14
1060913X	PROGRESS IN LIVER DISEASES	\$116.00	1	116.00
07300913	JOURNAL OF THE AMERICAN COLLEGE OF TOXICOLOGY	\$209.00	2	104.50
00063592	BIOTECHNOLOGY & BIOENGINEERING	\$1,680.00	18	93.33
09627936	PROGRESS IN OBESITY RESEARCH	\$90.00	1	90.00
10406328	BROWN UNIVERSITY DIGEST OF ADDICTION THEORY & APPLICATION	\$179.00	2	89.50
00426989	VISION RESEARCH	\$1,409.00	16	88.06
BGJ1831	GANN MONOGRAPHS ON CANCER RESEARCH	\$345.96	4	86.49
AFB7907	Q J M : MONTHLY JOURNAL OF THE ASSOCIATION OF PHYSICIANS	\$255.00	3	85.00
00063525	BIOPOLYMERS	\$2,196.00	26	84.46
00345687	RESPIRATION PHYSIOLOGY	\$987.00	12	82.25
09074449	ACTA CRYSTALLOGRAPHICA. SECTION D, BIOLOGICAL CRYSTALLOGRAPHY	\$384.11	5	76.82
01419846	JOURNAL OF DEVELOPMENTAL PHYSIOLOGY	\$457.80	6	76.30
02718057	JOURNAL OF TISSUE CULTURE METHODS	\$135.00	2	67.50
08950172	JOURNAL OF NEUROPSYCHIATRY AND CLINICAL NEUROSCIENCES	\$135.00	2	67.50
10799907	JOURNAL OF INTERFERON AND CYTOKINE RESEARCH	\$336.95	5	67.39
09514198	RAPID COMMUNICATIONS IN MASS SPECTROMETRY	\$1,195.00	19	62.89
10750297	RESEARCH COMMUNICATIONS IN MOLECULAR PATHOLOGY AND PHARMACOLOGY	\$240.00	4	60.00
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00039942	ARCHIVES OF NEUROLOGY	\$175.00	160	1.09
00287644	JOURNAL OF THE NEW YORK STATE NURSES ASSOCIATION	\$24.00	22	1.09
07368593	COMPUTERS IN NURSING	\$110.00	101	1.09
00223565	JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS	\$340.00	313	1.09
08898588	HEMATOLOGY AND ONCOLOGY CLINICS OF NORTH AMERICA	\$129.00	119	1.08
00032999	ANESTHESIA AND ANALGESIA	\$222.00	207	1.07
0148396X	NEUROSURGERY	\$200.00	187	1.07
08926638	F A S E B JOURNAL	\$295.00	276	1.07
01614754	JOURNAL OF MANIPULATIVE AND PHYSIOLOGICAL THERAPEUTIC	\$110.00	103	1.07
00904295	UROLOGY	\$135.00	127	1.06
00325473	POSTGRADUATE MEDICAL JOURNAL. WITH SUPPLEMENTS	\$237.58	224	1.06
00396060	SURGERY	\$211.00	199	1.06
00288446	NEW ZEALAND MEDICAL JOURNAL	\$135.00	128	1.05
00029432	AMERICAN JOURNAL OF ORTHOPSYCHIATRY	\$65.00	62	1.05
08915520	INFECTIOUS DISEASE CLINICS OF NORTH AMERICA	\$111.00	106	1.05
00029297	AMERICAN JOURNAL OF HUMAN GENETICS	\$275.00	266	1.03
03616878	JOURNAL OF HEALTH POLITICS, POLICY AND LAW	\$96.00	93	1.03
1073449X	AMERICAN JOURNAL OF RESPIRATORY AND CRITICAL CARE MEDICINE	\$220.00	215	1.02
00165107	GASTROINTESTINAL ENDOSCOPY	\$144.00	142	1.01
00223085	JOURNAL OF NEUROSURGERY	\$150.00	148	1.01
03622436	SPINE	\$439.00	435	1.01
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Sample of Usage/Cost Relational Index report used for  
identifying titles to be considered for cancellation.

Use and cost are only two factors in the cancellation decision process. The responsible collection manager will also consider such factors as: curricular needs, indexing, availability of similar sources of information, availability at other libraries locally, contributions to the journal by local people, language, and the reason the library originally subscribed to the title.<sup>4</sup>

Journal access is shared among interlibrary services, serials departments, stacks maintenance, collection managers, and acquisitions departments. Many areas in the library need to be involved during the development of an ongoing subscription management program. User involvement can be obtained from reshelving statistics, not face-to-face confrontations. Change subjective discussions on faculty and users' perceived needs, real or not, to an analysis of economic facts — and take control. What can be said about subscription cancellations when you have the facts?

### End Notes

1. Tuttle
2. Guedon
3. Guedon
4. Francq

### Bibliography

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