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## Biz of Acq -- Predicting Serials Inflation Rates in the Era of Electronic Resources

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# Biz of Acq — Predicting Serials Inflation Rates in the Era of Electronic Resources

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**Column Editor's Note:** *Predicting serials inflation rates has been complicated by the advent of electronic products. Librarians can no longer rely on predictions based on external price surveys, since individualized contracts and the variety of pricing models make it difficult to gather reliable cost statistics. New methods of estimating inflation rates are needed. The example of the Colorado State University Libraries suggests basing cost estimates on local acquisitions data for electronic products and traditional serials vendor projections for print subscriptions. — AF*

Predicting serials inflation rates has long been a critical component in allocating annual funds for library materials budgets and in making budget requests to the parent institution. In the print world, librarians typically relied on the estimates provided by serials vendors such as **EBSCO**, **Swets Information Services** or the former **Faxon Company**. Serials vendors prepare inflation figures based on a selected sample of titles each year. By comparing a library's own proportion of foreign and domestic titles to vendor projections, an acquisitions librarian could often come within a percent or so of estimating the inflation rate for an individual library and, thereby, set aside enough additional money to keep serials renewals properly funded each year.

Acquisitions librarians monitor inflation by turning to other sources as well. Common sources include the *U.S. Periodicals Price Index (USPPI)* produced under the sponsorship of the **Library Materials Price Index Committee (LMPIC)** of the **American Library Association's Association for Library Collections and Technical Services (ALCTS)** and summarized in *The Bowker Annual* each year.<sup>1</sup> The *USPPI* includes a selected sampling of periodical titles published only in the United States. The **LMPIC** also sponsors publication of the *U.S. Serial Services Price Index (USSSPI)* which includes "periodical publication which revises, cumulates, abstracts or indexes information in a specific field on a regular basis...."<sup>2</sup> Another source which includes both foreign and domestic titles is the Periodical Price Survey that *Library Journal* began publishing in 1993 after the *USPPI* moved to *American Libraries*.<sup>3</sup>

The continuing value of the price indexes was discussed at the **2002 ALA Annual Conference** and reported on by **Pamela Bluh**.<sup>4</sup> All of these pricing surveys depend on a

sample of titles that may or may not mirror a library's subscriptions. Information about other institutions, as provided, for example, by the **Association of Research Libraries**, must also be used with care since libraries with comparable expenditures may have wide variations in the number and kind of active serials that each institution reports, making these sources questionable for determining local budget needs. Serials agents can supply reports based on a library's subscription list, but rarely are all subscriptions placed through a single subscription agent in today's market.

In the past, a library could usually rely on its experience over time using various external sources to predict inflation rates and its observation of how accurate these rates were in predicting the budget increases. The advent of electronic products, however, now raises new questions. Tempting as it may be to assume that inflation rates in electronic serials follow those for printed serials, the electronic world is proving too new and too different for easy conclusions. We are in a period of transition. Illustrative of the problem is the statement in the Forward to the *Criteria for Price Indexes for Printed Library Materials* (ANSI/NISO Z39.20-1999).

"It was the general sense of the committee that current pricing models in the area of electronic publishing are premature and too much in a state of flux for an index to be able to accurately measure price changes across, or even within, formats. With some publishers charging for electronic journals, and others putting forth products for a year or more at no cost, and still others linking the cost of electronic journals to concurrent purchase of the print versions, the committee believed that to endorse a comparison among such publications would serve neither the library nor the publishing community well."<sup>5</sup>

However, the committee encourages local researchers to explore price-index applications to electronic resources on the local level in hopes that this experience might inform future revisions of the standard. "Development of new price indexes based on needs specific to licenses for databases with varying levels of access and prices is encouraged. In anticipation

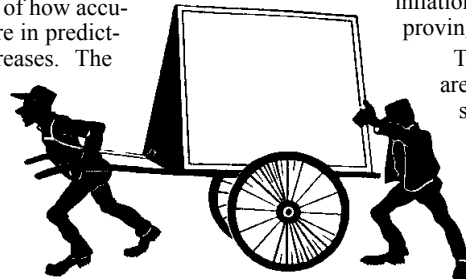
of creating price indexes for electronic products in the future, the results of such investigations would prove invaluable for this standard's next revision process."<sup>6</sup> The standard was scheduled to be reviewed in 2004; however, to date there has been no action toward a revision. Regarding Standards revisions, NISO states, "Standards that are not reaffirmed or revised within ten years of ANSI approval are automatically administratively withdrawn by ANSI." Whether this standard for producing price indexes will continue is unknown. The fact is that the price indexes currently being published do not include a significant portion of the materials libraries are collecting, thus the gathering of reliable figures for inflation of electronic products is proving to be a challenge.

The specific reasons for this are many, but two causes are sufficient to indicate the complexities librarians now face. First, the multitude of individualized contracts and pricing models which are cropping up in the electronic and associated print

world mean that libraries vary greatly in the purchasing arrangements they make for electronic products. Much has been written about publishers' "big deal" agreements which place limits on cancellations and prevent title-by-title selection.<sup>7</sup> Essentially, libraries, via consortia, agree to multi-year deals for access to all of a commercial publisher's journals for a price based on current payments to that publisher, in order to gain favorable inflation caps, while accepting cancellation limits. The "big deal" model has been the subject of debate in recent years and some libraries are beginning to move away from the collection-wide bundled pricing to a title-by-title selection process.<sup>8</sup> However, these agreements are often made directly with the publisher which bypasses the serials vendors and removes this part of the collection from the normal inflation analysis process.

Secondly, publishers, including professional societies, have different pricing models including price based on historical usage, number of simultaneous users, Full Time Equivalent (FTE) enrollment, and tiered pricing based on size and ranking of the institution. Subscriptions to online databases are particularly prone to FTE or usage based pricing. Obviously, pricing based on fluctuations in FTE or usage

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don't follow the normal inflation increases. In many cases, deals are negotiated through a consortium to employ economies of scale offered by group agreements, which further complicates the inflation analysis process. Changes to the local subscription base such as adding more simultaneous users, increasing years of coverage for a database, moving from a local site license to a consortia agreement, or dropping the print component of a bundled print-plus-online subscription, also impacts the ability to compare prices and analyze inflation across years.

There is no single vendor for electronic products that can provide universal inflation studies for these products in the same way that serials vendors could for print subscriptions. As the models for acquiring serials change, new ways of calculating inflation projections are needed.

### **CSU's Experience**

For years, **Colorado State University Libraries** was comfortable using the industry inflation rate as the maximum amount to estimate for serials inflation. Following this model, we were able to encumber our serials budget each year and cover inflation as long as the collection was largely print based. However, as we began to rely more on electronic versions, we were not certain that the print rates reflected the electronic products. When we did a quick check of selected electronic titles several years ago, we found a higher inflation rate for those titles. However, recent trends suggest that higher inflation rates are

not representative of all electronic products. Increasing pressure from libraries has resulted in some of the large publishers holding inflation increases below double digit figures. **Colorado State**, like many other libraries, has also begun to seek agreements with publishers to control inflation increases.

Furthermore, we began to wonder if our estimates of print inflation rates were as accurate as they could be. In the serials world, it is impossible to rely solely on what a library spends from year to year as a way to calculate inflation, since a library does not necessarily pay for the same titles each year. For example, cancellations and new orders for subscriptions occur, two invoices for the same title for two different years of coverage might be received and paid within the same fiscal year, or invoices for irregular serials might not be received every fiscal year. Some libraries also pay a subscription for multiple years in order to receive a more favorable price.

The economic downturn since September 11, 2001, as well as other budgetary restrictions peculiar to the State of Colorado, has caused significant reductions in higher education funding statewide. Although the library has always received support from the university, every program university-wide is now at risk as all campus departments compete for limited funding. In the summer of 2003, the Provost of the university asked the libraries for hard numbers based on the prior five years to support our request to cover inflation costs in serials. He wanted the report to be based on local data and wanted it in time for the first fall faculty meeting — only four weeks away.

This request was a major incentive for the library to try to develop data based on local

figures. First, we asked our major serials vendors to help by sending us the costs of our subscriptions. Although both vendors were helpful, they were able to provide spreadsheets showing costs for only the last three years and not the prior five years. In addition, serials vendors could provide prices for only part of our title list, as many of our electronic subscriptions were no longer handled through the major serials vendors.

Using our automated acquisitions system, we separated the serials data by type of pricing model — i.e., aggregator databases, electronic journal subscriptions, print only subscriptions, print with electronic component subscriptions, and electronic journal packages. We assumed that these types of purchasing models also represented different types of inflation models. Trying to sample so many different types of subscriptions, however, turned out to be extremely labor intensive. Furthermore, we found that changes in platforms, switching titles from print to electronic, or moving to consortia arrangements to purchase publisher packages made tracking inflation rates for a single subscription nearly impossible, and in some cases, meaningless as a prediction instrument. Even trying to identify accurately and include appropriate added charges using our automated library system was not straightforward and involved many manual calculations. As a result, we abandoned the idea of calculating inflation rates based on an annual survey of local subscription costs.

We considered the idea of identifying annual inflation rates for the top 100 journals that had high use and high impact since we thought faculty might be most concerned with

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what was happening to the most important journals. However, this excluded too many journals and databases that also affected the overall budget each year.

Our most recent strategy for projecting inflation for our serials budget involves isolating the "big deal" contracts, which have guaranteed inflation caps resulting in known costs, from other subscriptions. Renewal costs for all subscriptions (e-journals and databases) with a multi-year contract and inflation cap are calculated based on these known costs. Inflation for individual or *a la carte* title subscriptions handled through serials vendors is calculated using the generic external pricing surveys. Inflation for databases which do not have an inflation cap in the contract is calculated based on local cost studies where changes in simultaneous users, coverage, FTE and other local factors can be taken into account. See **Table 1**.

**Colorado State University Libraries** may have arrived at the same conclusion as many other libraries. Estimating inflation for electronic products means a library can no longer rely on external price surveys but must consider local acquisitions data for these products. Compiling inflation data, however, is extremely labor intensive. Despite the fact that we can draw reports from our online acquisitions system and export payment data into spreadsheets, staff members still need to review each record to catch a variety of problems. Thus, compiling annual expenditures title-by-title is not viable for large collections. Furthermore, we are entering a phase where a greater percent of the budget is for electronic resources and where inflation for larger portions of the budget is controlled by long term contracts with predictable costs from year to year. If librarians can identify which parts of their budget represent print and use traditional serials vendor projections for those costs, and can also identify the known inflation rates for electronic products increasingly covered by contracts, they may have found a workable strategy for predicting budget needs each year. 🐼

**Table 1: CSU Serials Inflation Prediction Model**

FUNDS	Total serials FY05/06	Percent inflation	Inflation adjustment	Allocation FY06/07
Elec. Databases	\$438,967.32	6.00%	\$26,339.24	\$465,326.56
Elec. Maintenance	\$6,215.00	2.00%	\$124.30	\$6,339.30
Print Newspapers	\$45,213.23	9.00%	\$4,069.19	\$49,282.42
Elec. Newspapers	\$76.44	9.00%	\$6.88	\$83.32
Print Reference	\$49,515.56	9.00%	\$4,456.40	\$53,971.96
Print Serials	\$577,379.84	9.00%	\$51,964.19	\$629,344.03
Elec. Serials	\$3,138,684.87	*9.00%	\$215,412.37	\$3,354,097.24
Print Special Coll.	\$243.59	9.00%	\$21.92	\$265.51
<b>TOTALS</b>	<b>\$4,256,315.85</b>		<b>\$302,394.49</b>	<b>\$4,558,710.34</b>
Multi-year Contracts	FY06	FY07		
Contract #1	\$1,143,417.00	\$1,200,588.00		
Contract #2	\$310,019.00	\$325,614.00		
Contract #3	\$300,867.00	\$318,919.00		
Total	\$1,754,303.00	\$1,845,121.00		
Increase for FY06/07			\$90,818.00	
* 9% calculated on Total FY06 Electronic Serials expenditures, less FY06 contracts (\$1,754,303); after calculating inflation, contracts increase for FY07 (\$90,818) added to total.				

**Endnotes**

1. The USPPi was published in each April 15 issue of *Library Journal* (except for 1985 when it appeared in the August issue) until 1993, when the study began appearing in the May issue of *American Libraries*. The study was published by *American Libraries* until 2003, when it appeared in the October 2003 issue of *Library Resources & Technical Services*. Beginning 2004 the study was published only on the ALA/ALCTS web site accessible at <http://www.ala.org/ala/alcts/alctspubs/pubsresources/resources.htm>.
2. **Nancy Chaffin** and **Ajaye Bloomstone**, "U.S. Serial Services Price Index for 2003/2004," published on the ALA/ALCTS Website accessible at <http://www.ala.org/ala/alcts/alctspubs/pubsresources/resources.htm>.
3. For the most recent article, see **Lee C. Van Orsdel** and **Kathleen Born**, "Serial Wars," *Library Journal*, 132, no. 7 (April 15, 2007): 43-48. <http://www.libraryjournal.com/article/CA6431958.html>.
4. **Pamela Bluh**, **James G. Neal** and **J. Randolph Call**, "Predicting publication prices: Are the old models still relevant?" *Library Resources & Technical Services*, 47, no. 4 (October, 2003): 188-191.
5. **National Information Standards Organization** (U.S.). *Criteria for price indexes for printed library materials: an American national standard/developed by the National Information Standards Organization*. ANSI Z39.20-1999, (Bethesda, MD, 1999): vi. [http://www.niso.org/standards/standard\\_detail.cfm?std\\_id=484](http://www.niso.org/standards/standard_detail.cfm?std_id=484).
6. *ibid.*
7. **Kenneth Frazier**, director of libraries at the **University of Wisconsin**, popularized the term the "Big Deal" in his 2001 article "The Librarians' Dilemma: Contemplating the costs of the 'Big Deal.'" *D-Lib Magazine*, 7, no. 3 (March 2001). <http://www.dlib.org/dlib/march01/frazier/03frazier.html>.
8. **Ellen Finnie Duranceau**, "Cornell and the Future of the Big Deal: An Interview with Ross Atkinson," *Serials Review*, 30, no. 2, 2004, p.127-130; and, **Jeffrey N. Gatten** and **Tom Sanville**, "An orderly retreat from the Big Deal: Is it possible for consortia?" *D-Lib Magazine*, 10, no.10 (October 2004). <http://www.dlib.org/dlib/october04/gatten/10gatten.html>.

**Rumors.**  
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year-old. Incredible. Hope we are so spry at that age!

Guess who else I spoke with on Memorial Day? **Corrie Marsh** <lbcmarsh@ust.hk> who is Associate University Librarian at **Hong Kong University of Science & Technology**! And **Corrie** is talking about coming to Charleston in November. Save up all your questions!

And here I am whining about my elbow and

**Cris Ferguson** <cris.ferguson@furman.edu> (who is starting to look very pregnant!) is taking her husband to the hospital for abdominal pain, fever and chills. Guess what? It's appendicitis! Ouch!

**Hot off the press! Project MUSE** now supports **OpenURL 1.0** which provides linking for search results to journals for which no subscription exists. Now, when a user tries to retrieve a **MUSE** journal not subscribed to by their institution, the institution-supplied link on the turnaway page will point the user to alternative resources for the articles. An institution must register with **MUSE** to enable the linking to

their OpenURL-compliant linking servers. All institutions are encouraged to provide **MUSE** with a customized icon and message to display for the link to the institution's linking server. Institutions that had previously registered with **MUSE** for OpenURL do not need to register again. To register and enable links to your OpenURL-compliant linking server for citations retrieved in **Project MUSE** searches go to the online form Enable OpenURL Links that is found on the For Librarians page, <http://muse.jhu.edu/about/librarians>.

**Wiley-Blackwell**, which is part of **John**

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