

# Where have all the "lost" books gone?

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## *Projecting overall rate of loss using a sample inventory*

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In 1994–95 the University of Wisconsin-Madison conducted an inventory of its largest library. The goal of the inventory was to determine a baseline loss rate and to respond to concerns expressed by library users—especially members of faculty library committees—that the loss of materials was inhibiting scholarly research. We sought to replace unsubstantiated perceptions with quantitative data to guide decisions about collection security.

The Madison campus is the largest in the University of Wisconsin system, home to 117 academic departments, 40,305 students, and 2,344 faculty. The General Library System (GLS) consists of Memorial Library (the central library for the humanities, social sciences, and area studies), College Library (the undergraduate library), Steenbock Library (the resource library for agricultural and life sciences), and a dozen branch or "member" libraries in a range of disciplines.

## **The charge of the Lost Book Working Group**

The Lost Book Working Group was charged to report on the data currently available for lost and missing items across the General Library System; analyze both objective and subjective data to determine the extent of the problem; and recommend actions to the director to alleviate the current problems and keep our collections intact.

The membership of the Working Group included staff from central technical services, pub-

lic services, collection development, and the member libraries.

## **Member libraries**

Eleven member libraries responded to a request for data regarding the number of known lost monographs as of 1992–93. Six were able to report figures:

Art	2,154
Biology	935
Chemistry	82
Geology	200 (approx.)
Physics	1,000 (approx. since 1985)
Engineering	1,190 (approx.)

These figures reflect a narrow range of 0.5 percent to 0.58 percent of each library's monograph collection.

Three of these libraries do an inventory every two to three years; one does an annual inventory; one had an inventory in process; and one had done a partial inventory in 1991.

## **Memorial Library's sample inventory**

Memorial Library is the largest library on the Madison campus with approximately 3.2 million volumes in its collections. Since no inventory had been done of the Memorial Library stacks within the collective memory of present staff, the Lost Book Working Group decided to simulate an inventory, based on a sample of the stack monograph collection to establish baseline information on unlocated books.

A search of the literature did not uncover any models for conducting a sample inventory of a large academic research collection. Advice regarding the methodology and focus of a sample inventory was sought from professor

## The second phase of searching by permanent staff located more than half of the volumes that student searchers could not find, suggesting a serious problem with inaccurate shelving.

Jun Shao, a sampling expert in the UW-Madison Statistics Department. Based on his input, the Working Group decided that a one percent sample of the stack collection (every 100th card in the shelf list) would provide an accurate indication of the overall scope of unlocated books.

With approximately \$2,000 in student funding approved by the director, the first phase of this sample inventory of monographs classed in the Library of Congress classification system was completed over the summer of 1994. Periodicals and monographs classed in Cutter were not included. Cutter classification was used before 1953, and approximately 300,000 volumes remain in the Cutter classification.

The one percent sample inventory searched for 22,663 titles representing 2,266,300 volumes. In the first phase, student assistants searched the NOTIS circulation records. Those titles determined not to be in circulation were then searched further by students. In this procedure students first checked the NOTIS circulation database to determine the existence of copy holdings and an item record. The item record indicated if the volume was charged out, lost, or formally withdrawn.<sup>1</sup>

Since retrospective conversion is not yet complete, titles which did not appear on NOTIS were searched in the shelflist to determine if they were withdrawn or discarded. The titles that were not charged out or withdrawn were then searched on the shelf in the stacks and in the adjacent shelving rooms. Students indicated whether the items had been located.

At the conclusion of phase one, 2,142 titles (or 9.4 percent) of the sample were not located on the shelf. Eight titles were charged to the "lost" category on NOTIS, and 42 shelflist cards were already marked as withdrawn.

The second phase, a more methodical, comprehensive check by permanent staff in user services, began in December 1994 and was completed in March 1995. Permanent staff are ex-

pert in searching the possible locations within the library. They took into account misshelving and searched the adjacent stack areas. They thoroughly understood oversized items which are shelved separately, and were knowledgeable about various reading room locations throughout the library.

In this phase, permanent staff found many of the books not located by student assistants. The original list of 2,142 missing titles was reduced to 973. This represents 4.3 percent unaccounted for in the sample of 22,663. We consider this to be our net figure for unlocated materials.

### Highest areas of unaccounted for titles

A difference of means test was applied to the data to determine if certain areas had statistically significant higher rates of loss.

This analysis determined a rank order from high loss areas to low loss areas within the collection. A complete breakdown can be obtained from the author upon request.

As noted, the overall lost and or missing rate was 4.3 percent. The top four high loss areas were:

HD 1-4730	Economic History and Conditions	10.9%
KF	Federal Law	10.3%
PL 1-3316	East Asian Languages & Literature	9.8%
L	Education	9.7%

These subjects experienced more than twice the average rate of loss.

Using the results from the one percent sample inventory; we projected the following figures for the LC collection as a whole:

- 97,300 items would not be on the shelf or otherwise accounted for;
- 4,200 items would be formally withdrawn from the collection based on shelflist information; and
- 800 items would be charged to lost on NOTIS.

### Titles misshelved

As noted above, the second phase of searching by permanent staff located more than half of the volumes that student searchers

could not find, suggesting a serious problem with inaccurate shelving. Therefore, Memorial Library's permanent staff shelvers were asked to report items found to be misshelved in the course of their regular work. These items were then checked against the circulation system to determine if search requests had been placed on these titles by patrons. In a two-month period, 1,225 items were reported as misshelved. This indicates that a large number of items are misshelved, and although not entirely relevant to the sample inventory, data were used by the Working Group to form a recommendation.

### Complete inventory of an LC subclass

In response to concerns expressed by library users and librarians regarding unaccounted for titles in the Spanish literature portion of the PQ classification, a complete title-by-title inventory was undertaken. The first phase studied 19th- and 20th-century Mexican literature (PQ7297-PQ7298.36).

This classification was recommended by faculty and selectors alike. There are 4,600 titles in this subclass. The findings are shown below:

169	(3.7%) charged out to patrons
3	Charged to lost
2	Charged to bindery and preservation collection
27	Withdrawn per the shelflist
159	(3.4%) not located

The Lost Book Working Group concluded from this title-by-title inventory data that subclass PQ7297-PQ7298.36 was not, after all, a high loss area. In fact, it turned out to be lower than the average loss rate, contradicting user perceptions.

### Summary conclusions and recommendations to the director

The Lost Book Working Group recommended that the following steps be taken:

- 1) Another sample inventory should be done to determine an annual loss rate.
- 2) Shelf reading should be done at least annually in the LC classes.
- 3) Special collection budget allocations should be made to selectors who can document losses in their subject areas.
- 4) An automated inventory process should be developed.

5) The replacement fee for unreturned and lost materials should be increased.

6) Libraries should purchase up-to-date security detection systems.

### Conclusion

The Memorial Library inventory demonstrated the feasibility of using a one percent sample to gather data on loss of materials.

The costs in student wages and permanent staff time proved to be affordable and reasonable. The 1994-95 sample inventory provides baseline data only. Since materials may have disappeared over a period of decades, we cannot calculate a current loss rate until we undertake further inventories, as planned for 1997 and periodically thereafter.

A one percent sample provides sufficient data for decision-making on a broad scale; it does not, of course, identify all missing items at the title level. Where there is reason to suspect systematic losses in a subject area, a full inventory can be conducted to identify titles for replacement.

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### Note

1. "Missing" is a term used by circulation to indicate that an item cannot be located in the stacks. After searching, the item may or may not be located.

"Lost" is a term used when an item is searched for and not located after six months.

"Withdrawn" is a term to indicate that the item has been declared lost. Circulation notifies central technical services to update the record for unavailability of the item. It may eventually be located or returned.

"Discarded" indicates that the library has intentionally removed the item from the collection. For example, the item is removed for preservation reasons. ■