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AUTHOR   Pinzelik, Barbara P.; Tolliver, Don L.
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ABSTRACT
            While current information on the dynamics of a
library is essential, some concern has been expressed about the
efficiency of the statistical collecting procedures as well as the
usefulness of the statistical data collected at the Purdue University
Libraries. Task priorities based on objectives and the significant
cost factor of staff time, dictate that alternatives must be examined
for arriving at library utilization figures. The objective of this
report is to provide an initial step for simplifying the gathering of
statistics by determining if there is some relationship between the
various statistics collected. The primary focus is upon two of the
major time-consuming statistics collected: materials checked out for
home use, and materials used within the library. Results indicate
that library use statistics can be predicted based on data collected
about home use. It is recommended that the library use statistics
recording be dropped using instead a figure computed from the home
use count. (Author/SJ)

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STATISTICAL COLLECTION SIMPLIFIED WITHIN THE

PURDUE GENERAL LIBRARY. PART I.

By

Barbara P. Pinzelik

and

Don L. Tolliver

IMRU-05-72

INTRODUCTION

In recent weeks, much has been written and said about the practice of col-
lecting statistics within the Purdue University Libraries. While current infor-
mation on the dynamics of a library is essential, some concern has been expressed
about the efficiency of the statistical collecting procedures as well as the
usefulness of the statistical data collected. Task priorities based on
well founded objectives, accompanied by the significant cost factor of staff
time, clearly dictate that alternatives must be examined for arriving at
library utilization figures.

OBJECTIVES

The objective of this report is to provide a basic initial step for
simplifying the gathering of statistics within the General Library by deter-
mining if there is some relationship between the various statistics collected.
The primary focus is upon two of the major time-consuming statistics collected
in the General Library, namely:

Statistic	Annual hours	Annual cost
1. Materials checked out for Home Use	1413	$2945
2. Materials Used within the General Library	1671	4466

STUDY METHODS

The current technique used for the collection of Home Use of Materials
statistics is as follows: transaction cards are batched and counted each
morning and totals duly recorded under appropriate Dewey Classification

subdivisions. The Library Use of Materials statistics are collected by the book shelvers on a continuous basis as they remove books from tables for reshelving. This information is tabulated and totals duly recorded under the appropriate Dewey Classification subdivisions.

Careful records of these two statistics were available as far back as July 1934. Five current fiscal years, July 1966 through June 1971, were selected for examination. These data were taken to the Measurement and Research Center for correlational analysis. The Pearson r correlation technique was selected to examine the relationship between Home Use and Library Use statistics.

If the correlations consistently proved to be sufficiently high, and positive, then in all likelihood an accurate estimate of one figure could be made based on the true value of the other. In other words, a high positive correlation would mean that if Statistic A gets larger, then so will Statistic B; or conversely, if Statistic A gets smaller, then Statistic B would get smaller.

It was decided to punch one card for each day of the five fiscal years with the following information: (1) day of week, (2) daily home use, (3) daily library use, (4) month, (5) date, and (6) year. In this way, the statistics could be compared in any way necessary, day of week, month, year, etc.

FINDINGS

The initial results were presented on a yearly basis. These correlations between Home Use and Library Use statistics were all positive, and they proved to be sufficiently high so a decision was made to obtain a further breakdown by month.

As can be seen readily in Table 1, high positive correlations consistently were obtained for the monthly data. The overwhelming majority of the sixty months studied had high positive correlations. Thus, it appears that Library Use statistics can be predicted based on data collected about Home Use statistics.

Month	FY 1966 1967	FY 1967 1968	FY 1968 1969	FY 1969 1970	FY 1970 1971
July	.85	.84	.77	.85	.80
Aug.	.93	.91	.88	.87	.95
Sept.	.95	.85	.85	.89	.86
Oct.	.89	.71	.67	.61	.69
Nov.	.88	.74	.69	.60	.77
Dec.	.81	.78	.80	.89	.90
Jan.	.97	.88	.48	.78	.69
Feb.	.77	.71	.82	.80	.72
Mar.	.78	.81	.85	.77	.60
April	.83	.77	.45	.75	.75
May	.83	.65	.35	.69	.38
June	.93	.89	.37	.85	.59

RECOMMENDATIONS

In the past, the batch process for Home Use statistics has proven to
be more efficient than the continuous count taken for Library Use statistics.
Based on this fact as well as the large number of high correlations, and in
order to extend the usefulness of our personnel, it is recommended that the
Library Use statistics recording be dropped using instead a figure computed
from the Home Use count. According to the statistical study, this would
save the General Library $4466 annually. This savings of time would be
greatly utilized during times of high library use when it is impossible
for the shelving staff to keep the tables clear. During slack times, it
would be possible to maintain a program of shelf reading, and possibly
provide more frequent trips to the attic and warehouse.

3