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Some Circulation Data from a Research Library

This article contains the results of an analysis of the circulation for all monographs from a research library during a six-month period. The data have been tabulated and plotted to show the percentages of users accounting for the corresponding circulation.

R ECORDS WERE maintained during a six-month period of the names of the users and the number of books borrowed for all monographs circulating from the AF Cambridge research library. These data were then tabulated by user and ranked according to the number of monographs the user borrowed. The data were then grouped and tabulated as shown in Table 1.

The headings should be self-explanatory, but some comment will be made about the entries in order to avoid misinterpretation by the reader. Line 1 of Table 1 represents eight users who borrowed seventy or more books each, or a total of 827 monographs. These 827 monographs represented 9.2 per cent of the total circulation for the six-months study period, and the eight users represented .95 per cent of the users. Line 2 and the remaining lines of Table 1 represent cumulative data. For example, six people borrowed from sixty to sixty-nine monographs each. This resulted in

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a total of fourteen people (having the largest circulation needs) who borrowed sixty or more books each or a total of 1,217 monographs.

The cumulative data in columns 5 and 6 of Table 1 have been plotted in Figure 1 to give a "user characteristic curve." This curve is a plot of the percentage of monographs circulated versus the percentage of users accounting for the circulation.

Figure 1 shows that only 12.5 per cent of the number of active borrowers accounted for 50 per cent of the circulation. Similarly, 50 per cent of the active borrowers accounted for 90 per cent of the circulation.

The AF Cambridge research library contains approximately one hundred and twenty-five thousand volumes, primarily in the physical and environmental sciences area. It provides services to the approximately one thousand scientists, engineers, and staff members of the AF Cambridge research laboratory located at L. G. Hanscom Field in Bedford, Massachusetts. The laboratory is a part of the Air Force Office of Aerospace Research. It is interesting to note that 835 individuals out of a possible one thousand borrowed at least one monograph during the period of study.

CONCLUSIONS

The results are presented primarily for informational purposes. The salient point

TABLE 1

AFCRL Monographs

(Six months circulation)

Number of Monographs Borrowed Per User	Cumulative Number of Monographs Borrowed	Number of Users	Cumulative Number of Users	Cumulative Percentage of Total Number of Monographs Circulated	Cumulative Percentage of Total Number of Users
70 or more	827	8	8	9.2	.95
60-69	1,217	6	14	13.6	1.7
50-59	1,950	13	27	21.8	3.2
40-49	2,882	21	48	32.1	5.75
30-39	3,730	25	73	41.6	8.7
20-29	5,139	60	133	57.4	15.9
10-19	7,084	145	278	79.0	33.3
5- 9	8,167	165	443	91.1	53.0
4	8,399	58	501	93.6	60.0
3	8,576	59	560	95.5	67.0
2	8,806	115	675	98.2	80.3
1	8,966	160	835	100.0	100.0

e.g. 50% of the active borrowers accounted for 90% of the circulation.

e.g. 12 1/2% of the active borrowers accounted for 50% of the books borrowed.

Percentage of Total Number of Books Circulated
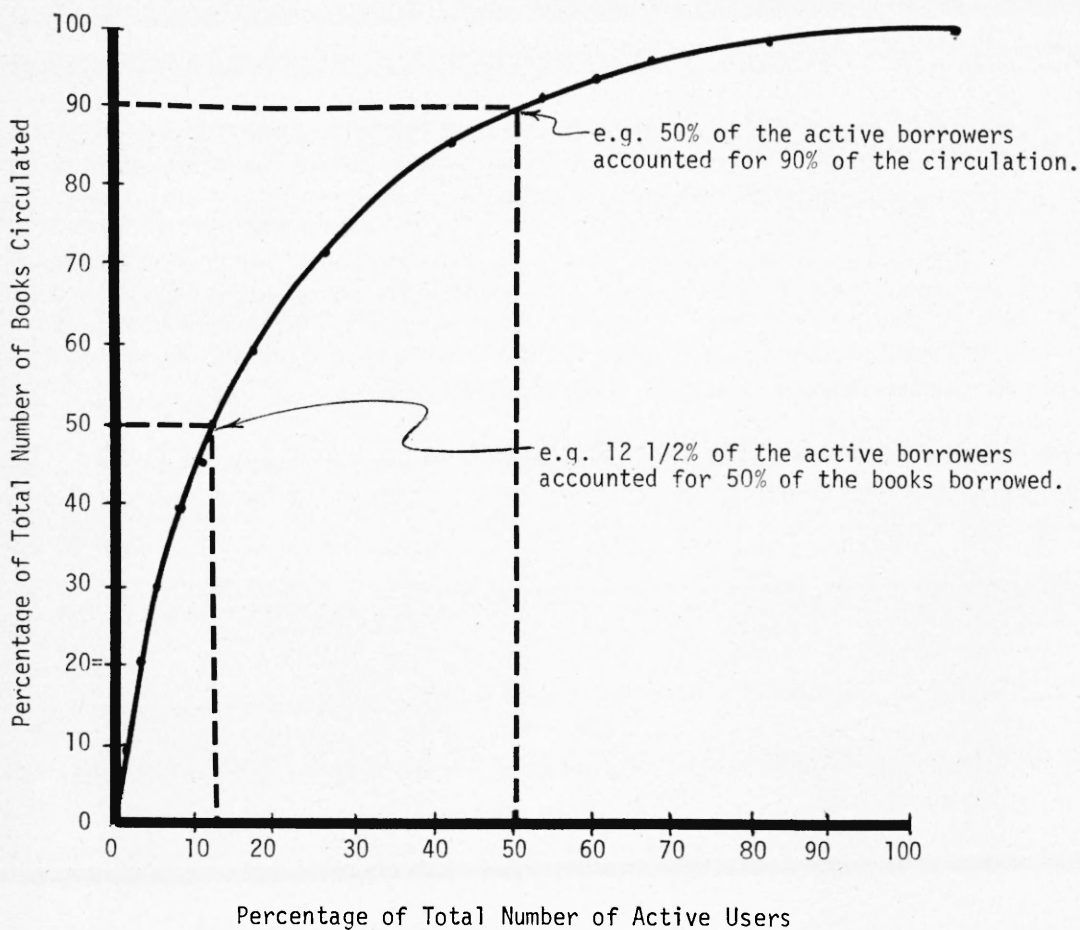
Percentage of Total Number of Active Users

(AFCRL Monographs)

Fig. 1.—User circulation curve

of the study is the fact that a very small proportion of the active borrowers accounted for a very large segment of the circulation. Librarians would expect a pattern something like this, but the data provide a quantitative picture. It is for a given library and may or may not be similar to the results from other libraries.

The study also provides some quantitative data that should be useful to library researchers for library systems model building and to librarians as an aid in developing operating policy. ■■