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ABSTRACT

To help determine whether a new journal of library research is needed, three estimates of available research are compared with an average-sized journal in the library field. The average number of pages and articles per year (285 and 36) in sixteen primarily American library journals that publish at least an occasional research article were determined by a straightforward count. Three sources of research were examined in order to estimate whether each had enough potential or available material each year to fill a new journal equivalent to the average-sized journal. The three sources were (1) Educational Resources Information Center/Clearinghouse on Library and Information Sciences (ERIC/CLIS), (2) rejected but publishable material, and (3) "LIST," "Library and Information Science Today." The first, ERIC/CLIS, suggests that almost enough material is available, the second rejected but published barely enough to fill a new journal, and the third, "LIST," that there is ample potential if the articles are written. (Related documents are LI 004 460 and LI 004 462.) (Author/SJ)

AN ESTIMATE OF THE AMOUNT OF RESEARCH REQUIRED TO FILL A NEW JOURNAL OF LIBRARY SCIENCE AND THREE ESTIMATES OF THE AMOUNT OF RESEARCH AVAILABLE

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Abstract

To help determine whether a new journal of library research is needed, three estimates of available research are compared with an average-sized journal in the library field. The average number of pages and articles per year (285 and 36) in sixteen primarily American library journals that publish at least an occasional research article were determined by a straightforward count. "Research article" was defined as fitting one of the broad categories of the "concerns of the philosophy of science," as listed by Scriven. Three sources of research were examined in order to estimate whether each had enough potential or available material each year to fill a new journal equivalent to the average-sized journal.

The three sources were (1) Educational Resources Information Center/Clearinghouse on Library and Information Sciences (ERIC/CLIS), (2) "rejected but publishable" material, and (3) LIST; Library and Information Science Today. A purposive or non-random sample of 89 ERIC/CLIS research documents with 1967-1969 imprints were searched in the open literature. These documents were judged to fit at least one of the "concerns of science." An average of 31 "unpublished but publishable" documents were estimated to be available each year. The number of papers rejected by editors is considered a measure of the demand for a new journal. Eleven of sixteen journal editors surveyed indicated that a minimum of 38 articles per year might be available for publication--but only

if it is assumed that these articles are editorially acceptable. Of 584 U.S. and Canadian research projects in LIST, at least 140 per year are estimated as potential journal articles not otherwise published. The first, ERIC/CLIS, suggests that almost enough material is available, the second "rejected but publishable" barely enough to fill a new journal, and the third, LIST, that there is ample potential if the articles are written.

I. Background and Statement of the Problem

The central question addressed in this paper is, "Do we need a new research journal in library science?" To answer that question, we need to know how much research exists in library science and how much is not currently being disseminated in existing journals.

The question, of course, raises a host of other questions including: What kind of journal? On what subjects? How big a journal? Cannot existing journals publish this research?

Perhaps the most difficult question of all is "What is research?" What is research to the library historian may not be research to the library behaviorist. There are many definitions and a huge literature on these subjects, and even in our relatively young discipline of library science there have been many--Jesse Shera's[1], for example. To include or exclude any body of work according to one definition or another is to invite disagreement. A procedure somewhat less susceptible to that hazard, perhaps, would be to list all the quantitative methods used and then to make a straightforward count of the number of papers in each of the categories. Something like this is being done in a systematic way by Pauline Atherton and Jeffrey Katzer (Syracuse University School of Library Science).[2]

Nevertheless, a working definition of research is needed. In this paper, I will use throughout, as a rough guideline, the "concerns of science" as listed and discussed by Scriven[3] in the International Encyclopedia of Social Sciences. These concerns, which have come to be known by some as "logical empiricism" are: observation, description, definition, classification, measurement, experimentation, generalization, explanation,

prediction, evaluation and control of the (library) environment. For me, then, "library research" is logical empiricism in the library environment. This working definition requires that any paper or project examined should fit at least one of Scriven's "concerns of science." A paper on use of business libraries would fit our definition if it "predicts the effect of the stock market fluctuations on use of stock reports" with either real data collected on fluctuations and usage to support the prediction, or an explanation of how the prediction could be demonstrated.

The strategy in this paper emerged from a seminar with Pauline Atherton and Jeffrey Katzer at the Syracuse School of Library Science, and was adopted because it was "do-able" within the given time constraints.

Briefly, the plan was to select a certain number of American library journals that publish at least an occasional article that fits the working definition of research, and then to determine the mean number of articles and pages per year per journal. These means would then be regarded as an average-sized journal, and would serve as a base to compare the amount of research available. (This estimate is explained in Part III.)

The amount of research available or potentially available was estimated in three ways. The first was an estimate of the number of unpublished research documents processed by ERIC/CLIS for Research in Education (RIE)[5], and explained in Part IV of this paper. The second was an estimate of the number of research papers rejected by the editors of the sixteen journals listed in Part III, and the third was an estimate of the

potential number of papers which would emerge from the projects in Paul Wasserman's LIST: Library and Information Science Today.[6] The three estimates should either support or contradict each other.

Certain assumptions were common to each of these estimates: (1) the papers of projects counted met the working definition of research; (2) we were counting only papers which would not otherwise be published in a journal; and (3) the number of papers or projects so defined and counted would be publishable if there were a new research journal.

On the other hand, no assumptions about what constitutes "quality" research are made in this paper.

II. Review of the Literature

This brief review is restricted to a search of the last five years, for references which discuss or bear directly on the need for a new research journal in library science. I will make no attempt to define "library science" agreeing with L. J. Taylor[4] that "...there is no body of literature that can be isolated as library science...." The search was confined to the usual indexes (Library Literature, Information Science Abstracts, and Library Information Science Abstracts) which in a sense themselves defined the subject and scope of the search.

I have assumed that we are concerned with the need for an American journal. There are several international and foreign journals (Libri, Journal of Librarianship, etc.) which could perhaps absorb much research, and I have found several interesting comments about journals and research by British writers.

I have restricted my search to the last five years, partly because in that time several new journals (Journal of Library Automation,

Journal of Librarianship, Learning Today) have been established, and partly because the literature about library literature was surveyed five years ago by Thompson Little.[7] His survey included a list of library periodicals most cited, data on the increase in number of library science publications from 1898-1966, and a summary of the criticism of library literature: (1) poor literary style; (2) superfluity and repetition; (3) belaboring the obvious; (4) paucity of significantly new ideas; (5) absence of scholarly approach; (6) lack of evidence of research.

Moon[8] has laid similar and harsh criticism against existing periodicals and "scissors and paste research," the cutting up of old articles and pasting them together to make new ones. "Perhaps the most constructive single thing that could be accomplished," says Moon, "would be to persuade at least one in three publishers of a library periodical to cease publication."

More recently Saracevic[9] has criticized the Annual Review of Information Science and Technology (ARIST) for its extensive coverage of non-journal literature. Saracevic regards report literature as uncitable because it is not subject to peer review. However, the report literature is regarded as legitimate by others, if we are to take the number of citations and reviews to ERIC documents as an indicator. Cuadra's[10, 11] reply is that ARIST's authors "use professional judgment of a work's value," which amounts to a kind of peer review. If there are a large number of citable reports, then the question seems to be whether they would be more citable if they were published in journals. Cuadra seems to believe that the only difference in reports and journal articles is length.

"Journals publish journal-size articles," he says.

In discussing the birth and death of several British journals, Edward Dudley[12] believes that, "...reporting new work is not yet a widely accepted professional obligation...," and Fenichel[13] found that journals cite journals more than reports and reports cite reports more than journals.

Katz[14], while surveying library school publications, concluded that desire to establish a new journal is not "that there is no outlet" for unpublished material--rather it is to create publicity for the school.

Lehnus[15] has made a study of the 540 articles appearing in Journal of Education for Librarianship in 1960-1970 to determine the "nature of contents", the sources on which the authors base their material, and if there is a research front among authors. His main findings were a list of authors with three or more articles in the Journal of Education for Librarianship, a list of the principal journals from which articles were cited, age of reference at time of citation, and authors who were cited at least three times.

Berg[16] states that pressure to start a new journal comes from "the gap between submitted and published research" and that the "number of research pages submitted by the researchers is affected by the existence of journals to publish the work." "Journal quality and demand are variables which more directly affect the demand for subscriptions." With data from four journals, he uses multiple regression to test the demand model $Q = f(P, X, N, J)$ where Q = demand (i.e., quantity, or circulation of the journal); P = price; X = number of pages published; N = number of researchers in the field, or the size of the audience; and J = the number

of journals in the field. He concludes for the Journal of Physical Chemistry, that it is "undersized, given the apparent valuation of the additional pages by nonmembers."

Berg's is the only paper found to address the question of journal size, but his paper was an "economic" analysis of demand, not an analysis of the research demand. Nevertheless, he offers an approach well worth careful study. His method is somewhat more applicable to the readership of single journals than to the readership of an entire discipline, however.

III. Estimate of Volume in Library Science Journals that Publish Research.

Selection of journals for this study was based partly on whether each journal published at least an occasional article which fit the working definition of research mentioned above and partly on whether they were American library journals that have a national circulation. Two exceptions are: one international journal published domestically, Information Storage and Retrieval, and one foreign journal with some domestic circulation, Canadian Library Journal. (One could rightfully argue that such journals as Libri, Journal of Chemical Documentation, Journal of Documentation, Research in Librarianship, Aslib Proceedings, and Journal of Librarianship should be included, since they apparently contain more research.) Regional journals were excluded. No direct count of the number of research articles was made, although the number is estimated later in this paper. Volume of present journals, which will later be compared to the volume of potential research, will be in terms of total and average number of articles and the average number of pages per article for the last five years. The journals sampled and total counts with means for each year (research and non-research) appear in Table I.

Table 1

Number of Articles and Pages in Selected Library Science Journals

	1967		1968		1969		1970		1971	
	Articles	Pages	Articles	Pages	Articles	Pages	Articles	Pages	Articles	Pages
Canadian Lib. J.	38	150	46	176	(40)[1]	(184)[1]	36	221	42	180
College & Res. L.	56	307	59	419	54	391	42	257	30	263
Drexel Lib. Q.	47	347	(27)[1]	(316)[1]	32	210	39	296	34	346
Inf.Stor.Retr.	29	374	26	358	13	124	(47)[1]	(540)[1]	21	248
J. Amer. Soc.I.S.	36	223	56	388	44	337	69	384	54	373
J. Educ. Lib.	22	172	27	197	27	198	22	202	24	215
J. Lib. Autom.	--	--	18	265	18	252	21	301	18	191
J. Lib. Hist.	14	104	15	215	12	181	14	255	13	277
Lib. Col. J. (Learning Today)	--	--	18	120	14	125	21	167	22	156
Lib. Q.	18	295	29	366	21	292	39	376	17	260
Lib. Res. Tech.S.	59	467	56	353	50	458	49	506	59	440
Lib. Trends	64	864	46	425	42	467	(47)[1]	(563)[1]	53	699
Med. Lib. Ass. B.	43	301	34	288	28	215	46	413	52	392
School Lib.	13	356	21	93	7	40	8	30	22	108
Spec. Lib.	45	221	55	273	57	350	67	349	62	350
RQ	24	129	25	80	55	200	44	188	64	203
Total	518	4010	558	4332	514	4024	611	5048	587	4701
Mean[2]	37	286	37	271	32	256	38	316	37	294
Mean pp. per Art.	--	7.74	--	7.76	--	7.83	--	8.26	--	8.01

[1] These data, less than 4% of the total, were estimated.
[2] Mean number of articles and pages, bounded.

The counts in Table 1 should be fairly reliable; 4% of the data was extrapolated because a few periodical issues were not available for counting. Except for an occasional judgment as to what constituted an article--for instance, signed introductions to Library Trends (counted) regular features in Journal of Library History (not counted)--the source of bias should not be large. For the mean number of pages per article, the principal statistic in this count, the confidence interval (not computed) should be fairly narrow.

The overall means for the 5-year period, including the principal statistics--the mean number of pages per journal per year (285), the mean number of articles per journal per year (36), and the mean number of pages per article (80)--are in Table 2.

Table 2

Overall Means of Articles and Pages in Sixteen Journals for the 5-year Period, 1967-1971.

Articles per year	554
Pages per year	4,423
Pages per journal per year	285
Articles per journal per year	36
Pages per article	8.0

Summary of Part III.

Establishment of a journal should not, of course, be based on some mythical mean number of articles or pages, but on the amount of material needing to be published and the ability of the journal to sustain itself through subscriptions, as suggested by Berg. If the mean number of articles or pages is used, it should be on a comparative basis only, as in this paper, since there can be considerable variability in the size of journals.

The mean number of articles and pages, 36 and 285 respectively, in the sixteen journals surveyed is drawn in Figure 1, as an approximate goal to be reached by the other estimates in this paper.

IV. Estimate of the Amount of Existing Unpublished Research from ERIC/CLIS

One large source of "unpublished" material are ERIC reports. A large number of these are cited in ARIST and other places. Since these documents are relatively easy to identify and are listed all in one place, they presented a population which could be sampled in a fairly short time. The idea here was to estimate the number of ERIC/CLIS docu-

ments which were never subsequently published--the assumption being that this number presented a potential source of publishable material. The question of whether these documents should be published is not treated in this paper.

Titles and abstracts of documents with 1967-1969 imprints from the ERIC/CLIS input in the 1967 through 1970 volumes of Research in Education were rapidly scanned and 89 of those judged to fit at least one of Scriven's categories were chosen. Judgment was assisted when the titles or the abstracts indicated that an analysis had been made, or that there had been "findings". Studies sponsored by NSF, OE, and NLM, or any study with a contract or grant number seemed to fit the criteria more often than studies without such identification. Excluded were anonymous papers, proceedings and transactions of conferences, institutes, published documents from the Government Printing Office, many surveys of the type, "Survey of the libraries of the _____ region of the State of _____", proposals, development plans, pilot programs, annual reports, and dissertations (the latter could be studied separately). After all these exclusions we might expect few documents to meet the criteria, but at least 89 of 872 documents with 1967-1969 imprints qualified and were traceable.

The authors of the 89 documents were then thoroughly searched in the following indexes: Current Index to Journals in Education, Information Science Abstracts, Library Literature, Psychological Abstracts, Reader's Guide to Periodical Literature, Social Science and Humanities Index, for the overall period 1966-1971. An assumption substantially supported by the number of hits was that titles of the published articles would be similar if not identical to the original documents. Nevertheless, the

following indexes were searched by subject for most of the remaining titles not found by author: Applied Science and Technology Index, Biological and Agricultural Index, Business Periodical Index, Education Index, and P.A.I.S. Bulletin. Only one title was found by this method. Results of this author search are in Table 3.

Table 3

Number ERIC/CLIS Documents Searched and Published in Journals

Imprint Year of Document	Number Searched	Published Also in Journal
1967	31	9
1968	34	7
1969	24	5
Mean	29-30	7
Percent	100%	23%

A look at the titles of the journals in which many of these documents were published: American Libraries, Wilson Library Journal, for example, which do not strictly publish any research, suggests that either some of these titles were not research after all, or that non-technical aspects for the general reader were reported. (The editor of Wilson Library Bulletin states that he invites rewritten research. See the survey of journals below.)

To estimate the expected number of unpublished documents, with a given imprint year which will appear in ERIC/CLIS, we must determine what proportion of the expected number the sample represents. To obtain that proportion, I counted the number of documents by imprint

year which have appeared in each year of Research in Education (RIE). The numbers appear in Table 4. The table shows that the number of documents of a given imprint year are much higher in the second or third year of RIE than the first.

I then recast these numbers from Table 4 in Table 5 according to whether a document of a given imprint year appeared in RIE the same year, the year after and each subsequent year through the five years studied. These numbers were added across, and then divided by the number of years in which there is data, to determine the arithmetic means, which are then used to approximate the missign data--the numbers in parentheses. It is then possible to compute for each imprint year the percent of the five-year total, represented by the number of documents appearing in the first, second...fifth years, respectively. Here we are interested only in 1967, 1968, and 1969. For 1967, the proportion is the four-year total (because we sampled RIE 1967-1970), divided by the total of 1967 imprints, or 95%; for 1968, the three-year proportion (RIE 1968-1970) or 76%; for 1969, two-year proportion (RIE, 1969-70), or 52%.

The distribution of documents with a given imprint year over the five-year RIE sample for the number of documents appearing the first to fifth years seems to follow what is known about the utility distribution of documents in general: i.e., that circulation of documents rises rapidly the second year and diminishes somewhat more slowly thereafter.

The percentages 95%, 76% and 52% represent the proportion of documents with a given imprint year that can be expected to appear in the

Table 4

Number of ERIC/CLIS Documents by Their Imprint Year and by Publication Year of Research in Education

	Imprint Year of Documents					
Research in Education	1967	1968	1969	1970	1971	Totals
1967	1*					1
1968	105	26				131
1969	134	184	45			363
1970	11	35	138	62		246
1971	14	63	116	327	129	649
Totals	265	308	299	389	129	1390
Means	53	77	100	195	129	278

* ERIC/CLIS documents not listed separately in 1967 RIE.

Table 5

Distribution of Documents with a Given Imprint by Number of Documents Appearing in Same Year of RIE, and Each Subsequent Year.
From Table 4
Missing data has been replaced with means in Parentheses.

By Year of Appearance	Imprint Year						
in RIE	1967	1968	1969	1970	1971	Total	Mean
Same Year	1	26	45	62	129	263	52
Year After	105	184	138	327	(182)	754	182
Sum			183				
			52%*				
Third Year	134	35	116	(96)	(96)	289	96
Sum		245					
		76%*					
Fourth Year	11	63	(37)	(37)	(37)	74	37
Sum	251						
	95%*						
Fifth Year	14	(14)	(14)	(14)	(14)	14	14
Totals	265	322	350				

* I.e., sum ÷ total.

first four, first three and first two years respectively. These percentages are then interpolated in Table 6, to the smaller sample of documents that meet a research criterion.

The expected number of ERIC/CLIS documents that meet minimal research criteria (Table 6, Col. E) is estimated using the results of Table 5, that is that 95%, 76%, and 52% of documents with a given imprint year will have been picked up in RIE in the first four years (1967-70 for 1967), first three years (1968-70 for 1968) and first two years (1969-70 for 1969) respectively. The sample I searched (Col. C.) represents a mean of 68% of the expected number of research documents (Col. E). Of these, in turn, 77% are expected to be unpublished, since the author search (Table 3) showed that 23% were published.

Summary of Part IV

The ERIC/CLIS potential is based on the assumption that the total number of ERIC/CLIS documents is not the total number of "publishable" documents. We must reduce that number somehow; e.g., as we have done here on the basis of some criterion of research. The number is further reduced by the assumption that some of those "publishable" will indeed be published in existing journals. The conclusion is that, based on current input rate, an average of approximately 31 ERIC/CLIS documents of any given imprint year will be available for a new journal. (This is roughly 10% to 11% of the total ERIC/CLIS documents of a given imprint year.) This number may be regarded as a minimum and is drawn as such in Figure 1.

Table 6

Estimated Number of Unpublished ERIC/CLIS Research Documents

A	B	C		D	E	F	G	H
Imprint Year	Total ERIC/CLIS Documents	Sample that Meet a Research Criterion			Expected Number of Research Documents[3]	Estimated No. of Unpublished Research Documents		G as a % Total ERIC/CLIS Documents
		Number[1]	%	[2]		Number[4]	%	
1967	265	31	95%		33	25		9.4%
1968	308	34	76%		45	35	77%	10.3%
1969	299	24	52%		46	35		11.7%
Mean	291	29-30	74%		41	31	77%	10-11%

1 From Table 3.
2 D_i is from Table 5. By extension, $C_i = D_i \cdot E_i$
3 $E_i = C_i/D_i$
4 77% of Col. E.
5 From Table 3. (100% - 23%)

V. Estimate of Volume from Rejected Papers

If Berg, cited above, is correct in his assumption that the number of rejected papers in a given subject is an indication of the need for a new journal in that subject and if we assume that those rejected papers are publishable, then we should make an effort to determine how many are currently being rejected.

A simple unpretested questionnaire (see Appendix II) deliberately short to elicit the fastest response, was sent in late March to editors of 24 major, primarily American, library journals, including the sixteen studied in Part III. The questionnaire was accompanied by a letter presenting Scriven's definition of scientific research. Eleven responses (plus three, not listed, stating that they did not accept scientific research) were received and summarized in Table 7.

Table 7

Number of Editors Reporting the Proportion of Research Papers Received and Rejected and Their Mean Percentages

Scale	Author's Arbitrary Transformation	Number of Editors Reporting Proportion of Research Papers Received	Number of Editors Reporting Proportion of Research Papers Rejected
None	0%	0	1
Very few	1-16%	3	3
A few	17-34%	2	2
Some	35-68%	4	3.5
Many	69-99%	1	1.5
All	100%	1	0
Total		11	10

The scales for these responses were arbitrarily transformed to approximate a normal distribution (the scale represents the normal distribution, not the responses). In a sense it forces the responses more nearly into a normal distribution.

These percentage transformations are then applied to the mean number of articles and pages of each journal (Table 8). For example, College and Research Libraries reported that "some" of the articles it received were research. The author's transformation (35%-68%) of "some" in Column D was multiplied by CRL's mean annual articles and pages (Column E and F), which in turn were multiplied by the author's transformation (Column G) of the proportion rejected. The resulting estimate of articles and pages rejected appear in Columns H and I. Columns E, F, H and I were then each separately summed down the column. The mean of each column for all eleven journals was derived and extrapolated to fifteen journals. I.e.,

$$\text{Total research articles received} = \frac{15}{11} \cdot E = 142\text{-}251,$$

$$\text{Total research pages received} = \frac{15}{11} \cdot F = 1324\text{-}2163,$$

$$\text{Total research articles rejected} = \frac{15}{11} \cdot H = 48\text{-}148,$$

$$\text{Total research pages rejected} = \frac{15}{11} \cdot I = 419\text{-}1230.$$

Table 8

Estimated Number of Rejected Research Articles and Pages Per Year

	A	B	C	D	E	F	G	H	I
				Author's Estimate of Amount of Research Received			Author's Estimate of Amount of Research Rejected		
Journal	Mean Articles per Year	Mean Pages Per Year	Mean Pages Per Published Article	Proportion[1]	Articles	Pages	Proportion[1]	Articles	Pages
Can. Lib. J.	40.4	182.2	4.5	1-16%	1- 6	4.5-27	1-16%	1<	0-4.5
Col. & Res. Libs.	48.2	327.4	6.9	35-68%	17-33	115-224	35-68%	6-22	41-150
Drex. Lib. Q.[2]	37.8	303.0	8.0	1-16%	0-.6	0-48	None[2]	0-6	0-48
Inf. Stor. Retr.	27.2	328.8	12.0	100%	27	329	35-68%	9-18	115-224
JASIS	51.8	341.0	6.6	NR[5]	(9-17)	(88-144)	NR[5]	(3-10)	(28-82)
J. Educ. Lib.	26.4	123.0	4.7	NR[5]	(9-17)	(88-144)	NR[5]	(3-10)	(28-82)
J. Lib. Auto.	18.7	252.2	13.5	35-68%	7-13	95-175	35-68%	2-9	27-120
J. Lib. Hist.	13.6	206.4	15.2	69-99%	9-13	136-198	33%	3-4	46-61
Lib. Col. J.	18.7	142.0	7.6	17-34%	10-19	76-144	17-34%	1-6	8-45
Lib. Q.	24.8	317.8	12.9	35-68%	8-17	104-220	17-34%	1-6	13-77
LRTS	54.6	444.8	8.1	NR[5]	(9-17)	(88-144)	NR[5]	(3-10)	(28-82)
Lib. Trends[4,2]	--	--	--	--	--	--	--	--	--
MLAB	40.6	321.8	7.9	NR[5]	(9-17)	(88-144)	NR[5]	(3-10)	(28-82)
RQ	42.4	160.0	3.8	35-68%	15-29	57-109	35-68%	5-20	19-76
School Lib.	14.2	65.4	4.6	1-16%	0-2	0-10	1-16%	0-<1	0-0
Spec. Lib.	57.2	308.6	5.4	17-34%	10-19	54-102	69-99%	7-18	38-97
Total (extrapolated)					142-251	1324-2163		48-143	419-1230[3]
Mean					9-17	88-144		3-10	(28-82)

1 Author's transformation of editors' estimates
2 All articles are solicited
3 Number of pages had they been published
4 Does not accept papers reporting research. N is therefore 15.
5 NR=No Response. Figures in parentheses are means.

Perhaps one more step in the final estimate of rejected material should be made. One editor estimates that, of the material his journal rejects, 20% turns up in other journals "as rejected." Thus, if we use this percentage, only 80% of rejected material is available. The final estimates are in Table 9.

Table 9

Estimated Number of Research Articles Received, Rejected and Available Rejected

	A Expected Number Received	B Expected Number Rejected	C Rejected Articles Available (80% of B)[1]
Articles	142-251	48-148	38-118
Pages	1324-2163	419-1230	335-984

[1]See text.

Summary of Part V

The expected range of "rejected but publishable" articles and pages are 48-148 and 419-1230, respectively. These estimates are based on the author's transformations of the editors' estimates, and on the necessary assumption that these rejected articles are publishable. These estimates are in turn reduced by another 20%, on the assumption suggested above that the percentage of rejected papers will turn up in other journals "as rejected". The minimums for these estimates, 38 and 335 respectively, are graphed in Figure 1.

Part VI. Estimate of Potential Volume from LIST

Paul Wasserman's LIST provides a new source from which it may be

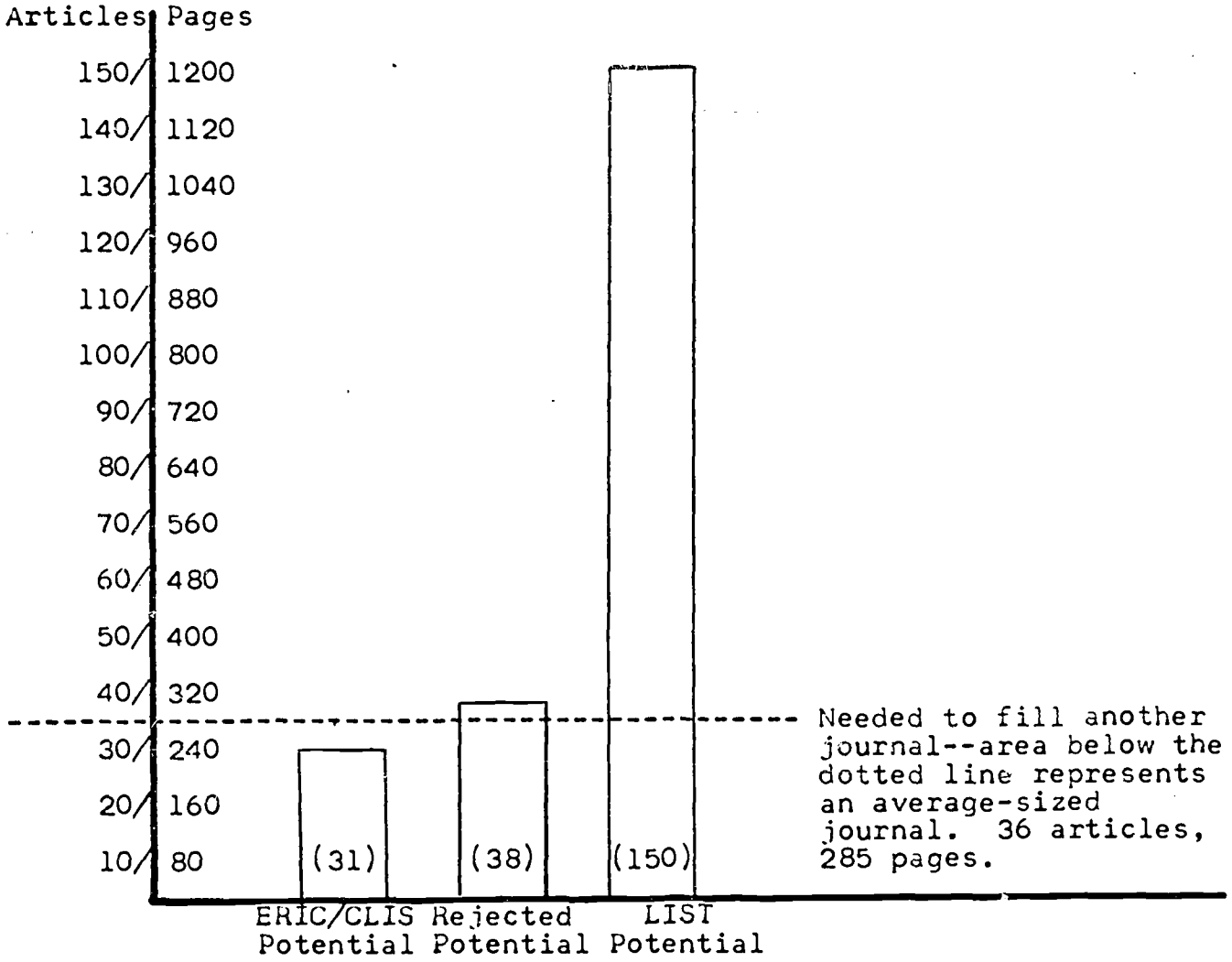

Fig. 1. Three independent estimates of additional material potentially available to fill a new journal--minimums expected.

possible to estimate the amount of research presently being done. LIST: Library and Information Science Today is a compendium containing descriptions of 820 world wide research projects defined by Wasserman[17] as studies concerned with "methodological, quantitative, or empirical work and oriented to laboratory or field work..." as well as "speculative or theoretical" studies, and reports of "innovation and experimentation"--dramatic departures "centering on method, scope, novel client response, unique and uncommon services, or any other new approaches to practice, teaching, or services in librarianship and information science." His definition is sufficiently broad to embrace mine and, judging from his statement that the "definition of innovation and experimentation was intentionally left hazy", he has probably, as have I, included projects that might otherwise not fit his definition.

Of the 820 projects listed, 538 are American and 46 Canadian. The American and Canadian totals will be used together in this estimate.

I have assumed that each of these projects will produce a minimum of one report (the mean is likely much higher) upon completion. But it is probably too generous to assume that all of these projects will be completed in one year. In the absence of any data to show how many will, I have assumed that no more than one-third will be completed and thus reported in any one year. And using the same percentages I have used earlier with ERIC/CLIS for those that will actually be published or unpublished (23% and 77%), I have summarized this argument in Table 10.

Table 10

Expected Number of LIST Projects Which Could Contribute to a New Journal

Potential Volume	Total U.S. and Canadian LIST Projects	Estimated Reportable in one Year (1/3)	Estimated Number that will be Published in Existing Journals (23%)[1]	Estimated Number Available for new Journal (77%)[2]
Number	584	194	45	150
Pages[3]	4672	1552	360	1200

1. From Table 3.
2. 100%-23%.
3. Assuming each article is 8 pages in length.

Summary of Part VI

There is a potential of at least 150 research articles per year which could be available if my assumptions about the LIST data are reasonable. The reader will have his own opinion as to whether this potential is more or less likely to be fulfilled.

VII. Summary and Conclusions

The estimates of average number of articles and pages and the three estimates of potentially available material are summarized in Table 11 and graphed in Figure 1. The graph shows that there should be almost enough material from ERIC/CLIS, barely enough from rejected articles and ample potential from LIST, to fill a journal the same size as the "average-sized" journal (dotted line, from Part III) in library science.

These three sources should be regarded as not independent. That is, the estimates could be of the same material and should, therefore,

not be added to each other. In other words, since we do not know to what extent they overlap, it is most conservative to assume 100% overlap. To put it another way, the bars in Figure 1 should not be placed end to end. Also, these estimates are all minimums. The actual number may be somewhat larger.

Although many of the assumptions in these estimates need empirical support, they are for the most part self-consistent and tend to be conservative. These assumptions have led to two estimates which are fairly close to each other (ERIC/CLIS and "rejected"), and an estimate for potential research (LIST) which is much larger than the other two. Interestingly, the first two are of projects which have been written up in some fashion, while the third is for projects presumably not yet written up. The large difference tends to lend support to the suspicion of many persons that much work never gets written up and certainly supports Edward Dudley's opinion, quoted earlier, that the obligation to report is not widespread.

Important to remember is that the three estimates of potential material are minimums and fall within unknown confidence intervals. For the data here, they must be large. Although I speak of these estimates as minimums, even this assumption should be treated with caution. The one estimate which is more reliable is the mean number of articles and pages in the sixteen journals sampled.

One last contribution toward our understanding of the ERIC/CLIS phenomenon: Dan O'Connor telephoned nine authors of the unpublished ERIC/CLIS reports asking them why their reports were not published.

Table 11

Estimate of the Number of Research Articles and Pages Required to Fill a New Journal Compared to Three Estimates of the Minimum Amount of Research Available Each Year

	Needed to fill Another Journal	Minimum ERIC/CLIS Documents		Minimum Rejected Articles		Minimum LIST Projects	
		Published	Unpub-lished	Published Elsewhere	Unpub-lished	Published	Unpub-lished
Articles	36	10	31	10	38	45	150
Pages	285	80	246	84	335	1200	80

(The small sample of nine was not a random selection. They were deliberately chosen for their accessibility, and they were all we were able to reach, given our budget restraints.) We hoped to find out whether or not the authors themselves felt that no journal existed which would publish their research. Three reasons emerged. One person had intended to publish but had suffered an incapacitating injury. Three had made no attempt to publish because they knew of no journal which would publish their lengthy and statistics-laden documents. (This is one of the principal reasons for the establishment of ERIC/CLIS in the first place--raising the question, "Has the very existence of ERIC/CLIS prevented some good research from being published?") Five said that it had not occurred to them to publish. One of these replied that, now that we had mentioned it, he would consider publishing it--an interesting example of bias introduced by the investigator.

In conclusion, the results of this quick study lead me to suggest, very cautiously, that there is enough material in the American library research environment to fill another journal--perhaps a quarterly--or to fill an equivalent number of pages in an existing journal.

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wife, Cheryl, did much of the data collection for, and contributed several ideas to, the ERIC/CLIS part of the study. Corinne Volpe, graduate student at the Syracuse University School of Library Science, also spent many hours in data collection.

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APPENDIX I

Time constraints prevented a more empirical study. The following assumptions in this paper need additional empirical support:

Part II.

(1) that subject indexes such as Library Literature and Information Science Abstracts define the subject and scope of library science and information science;

Part III.

(2) that a new journal should have a number of articles and pages equal to the means of existing journals;

(3) that sources of bias in the article and page count and the confidence intervals are small;

Part IV.

(4) that ERIC/CLIS documents are representative of all unpublished reports in the library and information science field;

(5) that reports later published in journals would be published with their titles unchanged;

(6) that the distribution of documents with a given imprint year in each year of RIE follows a consistent pattern over a long period;

(7) that the total documents of a given imprint year can be predicted from that distribution;

Part V.

(8) that "rejected" papers are rejected because the journals to which they are submitted do not accept "that type" of research;

(9) that papers so rejected would be otherwise publishable, if the appropriate research journal were available;

(10) that proportions of research articles received and rejected (as reported by the editors) are distributed on a normal curve (as transformed by the author);

(11) that the number of rejected articles which turn up in other journals is 20% or any other percent;

Part VI.

(12) that one-third (or any other proportion) of LIST projects will be completed in any one year;

(13) that each of these projects will produce at least one report;

(14) that 77% (generalization from Part IV) of those completed and written up will not be published in a journal;

Part VII.

(15) that the three sources of available material do not overlap.

In addition to testing the above assumptions, a useful project would be to survey a random selection of unpublished ERIC/CLIS authors to determine the reasons why their reports were not published. If the number who respond that "no journal exists which accepts this type of work" is large enough, this would lend support to the need for a new journal.

APPENDIX II

LRRT QUESTIONNAIRE ON LIBRARY JOURNALS

1. Does your periodical accept papers reporting scientific library research?

   Yes _____ No _____

2. If answer to question 1 is yes, does your policy include peer (referee) review of papers?

   Yes _____ No _____

3. What proportion of all the papers you receive for review would you classify as research?

   None _____ Very Few _____ A Few _____ Some _____

   Many _____ All _____

4. Of the research papers you do receive (question #3), what proportion do you reject?

   None _____ Very Few _____ A Few _____ Some _____

   Many _____ All _____